Anas GRUPPO FS ITALIANE

Direzione Progettazione e Realizzazione Lavori

# Provincia di Cuneo
# S.S. 28 del Colle di Nava
# Lavori di realizzazione della Tangenziale di Mondovì con collegamento alla S.S. 28 Dir – 564 e al casello A6 "Torino–Savona" – III Lotto (Variante di Mondovì)

## PROGETTO DEFINITIVO

COD. TO08


PROGETTAZIONE:
RAGGRUPPAMENTO TEMPORANEO PROGETTISTI

MANDATARIA: TECHNITAL

MANDANTI: POLITECNICA BUILDING FOR HUMANS; MATILDI+PARTNERS

IL RESPONSABILE DELL'INTEGRAZIONE DELLE PRESTAZIONI SPECIALISTICHE:

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IL GEOLOGO:

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VISTO: IL RESP. DEL PROCEDIMENTO:

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PROTOCOLLO:

DATA:

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COORDINAMENTO PROGETTAZIONE E COORDINATORE STUDIO DI IMPATTO AMBIENTALE:
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*Ordine Ingegneri Provincia di Verona n. A3381*
OPERE D'ARTE MAGGIORI GALLERIA:
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GEOTECNICA:
*Ing. Alessandro Rizzo – TECHNITAL*
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IDROLOGIA ED IDRAULICA:
*Ing. Simone Venturini – TECHNITAL*
*Ordine Ingegneri Provincia di Verona n. A2515*


# 11 – OPERE MAGGIORI: GALLERIA
## 11.3 – Gallerie artificiali e opere di imbocco
## Relazione di calcolo uscite cunicolo di fuga

| CODICE PROGETTO | NOME FILE | PROGR. ELAB. | REV. | SCALA: |
|---|---|---|---|---|
| DPT00008D16 | 11.03_P00_GA00_STR_RE03_B | 11.03 | | |
| | CODICE ELAB. P00GA00STRRE03 | | B | – |

| REV. | DESCRIZIONE | DATA | SOCIETA' | REDATTO | VERIFICATO | APPROVATO |
|---|---|---|---|---|---|---|
| D | | | | | | |
| C | | | | | | |
| B | *Istruttoria ANAS* | *Mag. 2020* | *Technital* | *Pezzini* | *Piccoli* | *Pesce* |
| A | *EMISSIONE* | *Mar. 2020* | *Technital* | *Pezzini* | *Piccoli* | *Pesce* |

## SOMMARIO

# 1. INQUADRAMENTO GENERALE

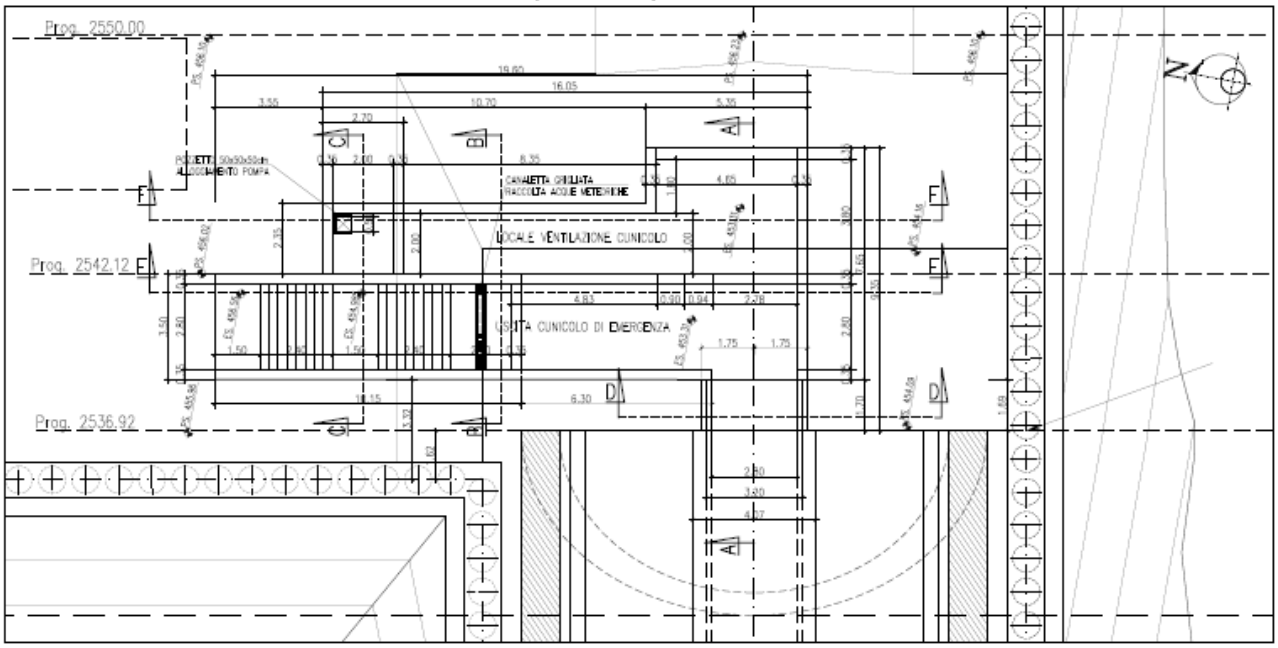
La presente relazione illustra, nell'ambito della redazione del Progetto Definitivo relativo alla realizzazione lungo la S.S. n.28 del Colle di Nava della Tangenziale di Mondovì con collegamento alla S.S. 28 Dir - 564 ed al casello A6 "Torino-Savona" - III Lotto (Variante di Mondovì) dal Km 1+125 al km 2+536.92, le scelte progettuali e le metodologie costruttive previste per la realizzazione dei locali di uscita cunicolo di fuga necessari agli imbocchi della Galleria S.Lorenzo, fornendo al contempo il dimensionamento delle strutture e la loro verifica.

## 1.1. Descrizione delle opere

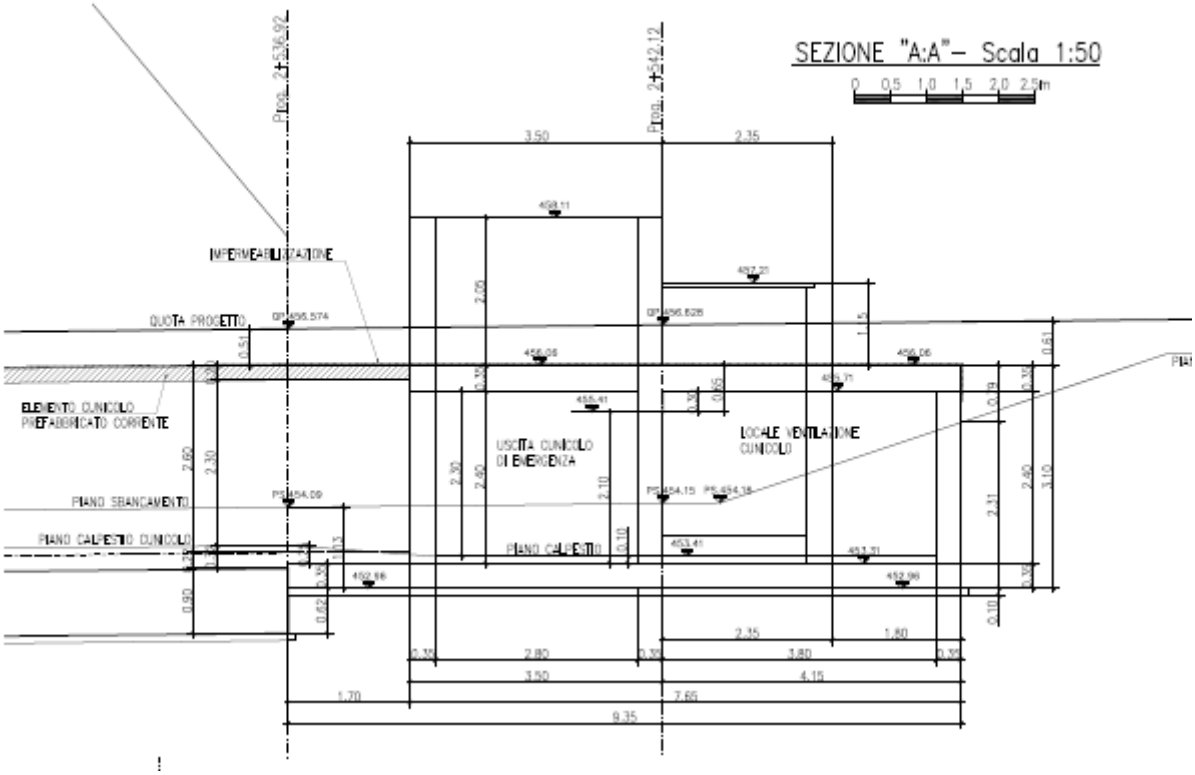
La galleria S. Lorenzo rappresenta nell'ambito del lotto di progetto l'opera di maggiore importanza, si sviluppa tra le progressive 1+125 ad ovest e 2+536.92 ad est per una lunghezza di 1411.92m, presenta una sezione tale da accogliere una piattaforma stradale tipo "C1" secondo il DM. 05.01.2001, mentre nella sezione è prevista la realizzazione di una via di fuga pedonale al di sotto della pavimentazione.
Agli imbocchi sono previsti dei locali di uscita della via di fuga, argomento della presente relazione.

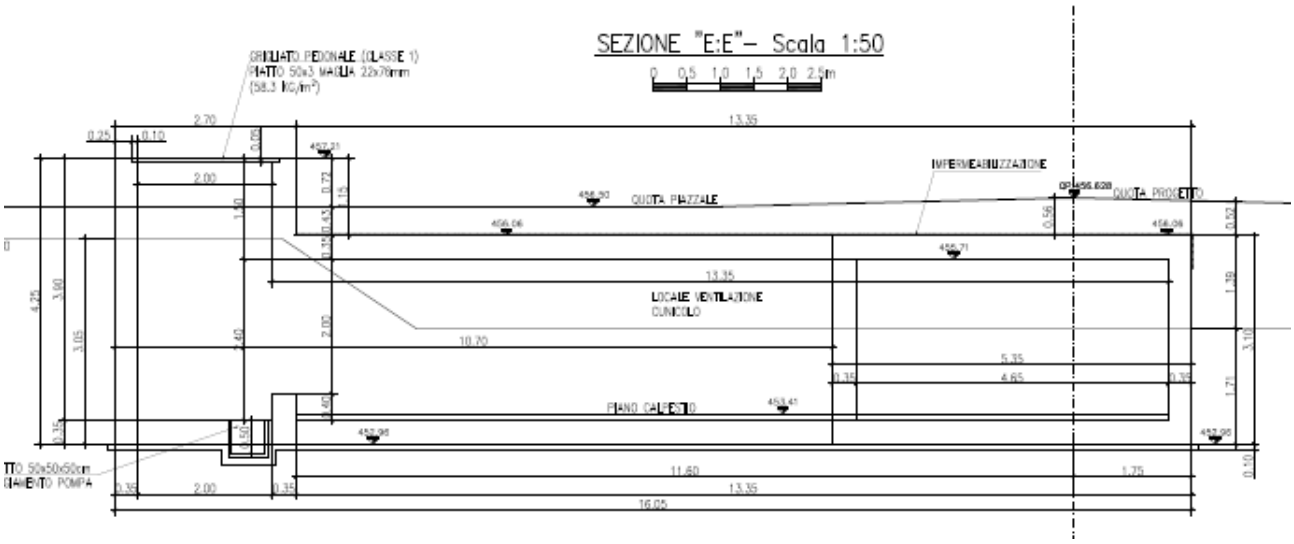
Geometricamente tali locali sono costituiti da un manufatto bicamera in c.a. , realizzato al di sotto della via di traffico, con soletta di fondazione da 35.0 cm di spessore , setti verticali controterra e di spina di 35.0 cm di spessore e soletta superiore di 35.0 cm di spessore. L'altezza netta interna delle camere è di 2.40 m e la quota di fondazione è mediamente a – 3.70 m dal piano viabile, -10.0 m dal piano campagna origine. Un maggior dettaglio dell'opera è ricavabile dai disegni seguenti, relativi all'imbocco Est, ma tipici per entrambi i manufatti:

USCITA CUNICOLO DI FUGA EST: PIANTA MURATURE
(Scala 1:100)




SEZIONE "A:A"– Scala 1:50






Per le analisi statiche seguenti si considererà la porzione di manufatto fino alla sezione di inserimento della scala, estendendo i risultati alla restante. L'opera sarà studiata nel suo complesso tridimensionale al fine di analizzare con completezza sia la geometria sia i carichi.

Le azioni considerate nel calcolo sono quelle tipiche di una struttura interrata in zona sismica con l'aggiunta dei carichi di tipo stradale, secondo quanto previsto nel D.M. 17.01.2018 "Aggiornamento delle Norme tecniche per le costruzioni".

## 1.2. Normativa di riferimento

*Opere in c.a.*

- Legge 5 novembre 1971 n. 1086 - Norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso ed a struttura metallica;
- Circ. Min. LL.PP.14 Febbraio 1974, n. 11951 – Applicazione della L. 5 novembre 1971, n. 1086";
- Legge 2 febbraio 1974 n. 64, recante provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche;
- D. M. Min. II. TT. del 14 gennaio 2008 – Norme tecniche per le costruzioni;
- D. M. Min. II. TT. del 17 gennaio 2018 – Aggiornamento delle Norme tecniche per le costruzioni;
- Circolare 2 febbraio 2009, n.617 Istruzioni per l'applicazione delle Nuove norme tecniche per le costruzioni di cui al D.M. del 14/01/2008 (G.U. n.47 del 26/02/2009);
- D.L. 30.12.2008 n. 207, conv. con modificazioni con L. 27/02/2009 n. 14;
- UNI EN 1990 (Eurocodice 0) – Aprile 2006: "Criteri generali di progettazione strutturale";
- UNI EN 1991-2-4 (Eurocodice 1) – Agosto 2004 – Azioni in generale: "Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici";

- UNI EN 1991-1-1 (Eurocodice 1) – Agosto 2004 – Azioni in generale- Parte 1-1: "Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici";
- UNI EN 1992-1-1 (Eurocodice 2) – Novembre 2005: "Progettazione delle strutture di calcestruzzo – Parte 1-1: "Regole generali e regole per gli edifici";
- UNI EN 1997-1 (Eurocodice 7) – Febbraio 2005: "Progettazione geotecnica – Parte 1: Regole generali";
- UNI EN 1998-1 (Eurocodice 8) – Marzo 2005: "Progettazione delle strutture per la resistenza sismica – Parte 1: Regole generali – Azioni sismiche e regole per gli edifici";
- UNI EN 1998-2 (Eurocodice 8) – Febbraio 2006: "Progettazione delle strutture per la resistenza sismica – Parte 2: Ponti";
- UNI ENV 1998-5 (Eurocodice 8) – Gennaio 2005: "Progettazione delle strutture per la resistenza sismica – Parte 2: Fondazioni, strutture di contenimento ed aspetti geotecnici".
- Linee guida sul calcestruzzo strutturale - Presidenza del Consiglio Superiore dei Lavori Pubblici - Servizio Tecnico Centrale;
- UNI EN 197-1 giugno 2001 – "Cemento: composizione, specificazioni e criteri di conformità per cementi comuni;
- UNI EN 11104 marzo 2004 – "Calcestruzzo: specificazione, prestazione, produzione e conformità", Istruzioni complementari per l'applicazione delle EN 206-1;
- UNI EN 206-1 ottobre 2006 – "Calcestruzzo: specificazione, prestazione, produzione e conformità".
- AFTES – "Considerations on the usual methods of tunnel lining design" – Working Group n° 7, 1993;
- AICAP "Ancoraggi nei terreni e nelle rocce" – Raccomandazioni, 1993
- Società Italiana Gallerie "Linee guida per la progettazione, l'appalto e la costruzione di opere in sotterraneo", 1996

*Strade*

- D.M. 5 novembre 2001 – Norme funzionali e geometriche per la costruzione delle strade;
- D.M. 22 aprile 2004 – Modifica del decreto 5 novembre 2001, n. 6792, recante "Norme funzionali e geometriche per la costruzione delle strade";
- Decreto Legislativo 30 aprile 1992 n. 285– Nuovo codice della strada;
- D.P.R. 16 dicembre 1992 n. 495 – Regolamento di esecuzione e di attuazione del nuovo codice della strada;
- D.Lgs. 15 gennaio 2002 n. 9 – disposizioni integrative e correttive del nuovo codice della strada, a norma dell'articolo 1, comma 1, della L. 22 marzo 2001, n. 85;
- D.L. 20 giugno 2002 n. 121 – disposizioni urgenti per garantire la sicurezza nella circolazione stradale;
- L. 1 agosto 2002 n. 168 – conversione in legge, con modificazioni, del D.L. 20 giugno 2002, n. 121, recante disposizioni urgenti per garantire la sicurezza nella circolazione stradale;
- D.L. 27 giugno 2003 n. 151 – modifiche ed integrazioni al codice della strada;
- L. 1 agosto 2003 n. 214 – conversione in legge, con modificazioni, del D.L. 27 giugno 2003, n. 151, recante modifiche ed integrazioni al codice della strada;
- D.M. 30 novembre 1999 n. 557 – Regolamento recante norme per la definizione delle caratteristiche tecniche delle piste ciclabili;

- Bollettino CNR n. 150 – Norme sull'arredo funzionale delle strade urbane.

*Altri documenti*

- CNR 10024/86 – Analisi mediante elaboratore: impostazione e redazione delle relazioni di calcolo.

## 1.3. Caratteristiche dei materiali

Si riportano i materiali costituenti le varie opere secondo quanto prescritto dalla vigente normativa:

### *Calcestruzzo per magrone*

Per il magrone di sottofondazione si prevede l'utilizzo di calcestruzzo di classe C 12/15.

### *Calcestruzzo per getti*

Per la realizzazione delle strutture delle uscite cunicolo di fuga si prevede l'utilizzo di calcestruzzo in classe C 30/37, che presenta le seguenti caratteristiche:

| | |
|---|---|
| Resistenza a compressione (cilindrica) | fck = 0.83 * Rck = 30.00 N/mm2 |
| Resistenza di calcolo a compressione | fcd = αcc* fck / gc = 0.85* fck / 1.5 = 17.00 N/mm2 |
| Resistenza di calcolo a compressione elastica | sc = 0.60 * fck = 18.00 N/mm2 |
| Resistenza a trazione media | fctm = 0.30 * fck2/3 = 2.90 N/mm2 |
| Resistenza a trazione | fctk = 0.7 * fctm = 2.03 N/mm2 |
| Resistenza a trazione di calcolo | fctd = fctk / gc = 1.35 N/mm2 |
| Modulo elastico | Ecm = 32836.57 N/mm2 |
| Classe di consistenza del calcestruzzo fresco | S4 (slump 0,16-0,21 m) |
| Classe di esposizione | XC2 , XD1 |
| Aggregati | Non gelivi - Dimensione massima 32 mm |
| Rapporto acqua/cemento | <0.45 |
| Contenuto minimo cemento | 360 kg/mc |

### *Acciaio per cemento armato*

Per le armature metalliche si adottano tondini in acciaio del tipo B450C controllato in stabilimento, che presentano le seguenti caratteristiche:

| | |
|---|---|
| Limite di snervamento $f_y$ | ≥ 450 MPa |
| Limite di rottura $f_t$ | ≥ 540 MPa |
| Allungamento totale al carico massimo $A_{gt}$ | ≥ 7% |
| Rapporto $f_t / f_y$ | $1,13 \leq R_m/R_e \leq 1,35$ |
| Rapporto $f_y$ misurato / $f_y$ nom | ≤ 1,25 |
| Tensione di snervamento caratteristica | $f_{yk} \geq 450$ N/mm$^2$ |
| Tensione caratteristica a rottura | $f_{tk} \geq 540$ N/mm$^2$ |
| Tensione di calcolo elastica | $\sigma_c = 0.80 * f_{yk} = 360.00$ N/mm$^2$ |
| Fattore di sicurezza acciaio | $\gamma_s = 1.15$ |
| Resistenza a trazione di calcolo | $f_{yd} = f_{yk} / \gamma_s = 391.30$ N/mm$^2$ |

In ottemperanza a quanto prescitto dalla Circolare applicativa e dalla Normativa il valore del copriferro è stato valutato in funzione della classe di esposizione e della vita nominale dell'opera. Per quanto riguarda la classe di esposizione si è fatto riferimento cautelativamente alla classe XD1 e quindi ad ambiente Aggressivo. La vita nominale dell'opera è di 50 anni. Pertanto il copriferro minimo risulta di 35+10 mm. Si utilizza un copriferro di 50 mm valido per tutte le parti della struttura.

# 2. CARATTERIZZAZIONE GEOTECNICA

Il materiale che verrà utilizzato per i ritombamenti sarà lo smarino della perforazione della galleria. Il piano di posa del manufatto è all'interno della Unità Marne di S.Agata. Cautelativamente si sono considerati per i calcoli i seguenti parametri geotecnici medi caratteristici dell'ammasso compattato :

| Profondità (da p.c.) | Descrizione stratigrafica | Peso specifico [kN/m³] | Angolo di attrito interno [°] | Coesione [kPa] |
|---|---|---|---|---|
| riempimento | Smarino di Marne di S. Agata compattato | 19.00 | 30 | 0.00 |
| terreno vergine | Marne di S. Agata | 20.00 | 30 | 25.00 |

Si considera cautelativamente la presenza di acqua all'intorno dell'uscita cunicolo di fuga vista la quota di falda posta a piano campagna.

Con riferimento ai parametri geotecnici per le costanti di Winkler sono stati assunti, in ottemperanza a quanto consigliato da Bowles, valori in funzione dell'approfondimento.

Per quanto riguarda la classificazione sismica dei terreni naturali ed interessati dall'opera sono ascrivibili alla categoria di suolo tipo B.

La categoria topografica scelta è la T1.

# 3. CRITERI DI CALCOLO

## 3.1. Combinazioni di carico

Le verifiche saranno condotte secondo l'approccio progettuale "Approccio 2", utilizzando i coefficienti parziali riportati nelle tabelle seguenti per i parametri geotecnici e le azioni.

- approccio 2 → (A1+M1+R3) → STR/GEO

Tab. 2.6.I – *Coefficienti parziali per le azioni o per l'effetto delle azioni nelle verifiche SLU*

| | | Coefficiente $\gamma_F$ | EQU | A1 | A2 |
|---|---|---|---|---|---|
| Carichi permanenti $G_1$ | Favorevoli | $\gamma_{G1}$ | 0,9 | 1,0 | 1,0 |
| | Sfavorevoli | | 1,1 | 1,3 | 1,0 |
| Carichi permanenti non strutturali $G_2$[1] | Favorevoli | $\gamma_{G2}$ | 0,8 | 0,8 | 0,8 |
| | Sfavorevoli | | 1,5 | 1,5 | 1,3 |
| Azioni variabili Q | Favorevoli | $\gamma_{Qi}$ | 0,0 | 0,0 | 0,0 |
| | Sfavorevoli | | 1,5 | 1,5 | 1,3 |

[1] Nel caso in cui l'intensità dei carichi permanenti non strutturali o di una parte di essi (ad es. carichi permanenti portati) sia ben definita in fase di progetto, per detti carichi o per la parte di essi nota si potranno adottare gli stessi coefficienti parziali validi per le azioni permanenti.

Tab. 6.2.II – *Coefficienti parziali per i parametri geotecnici del terreno*

| Parametro | Grandezza alla quale applicare il coefficiente parziale | Coefficiente parziale $\gamma_M$ | (M1) | (M2) |
|---|---|---|---|---|
| Tangente dell'angolo di resistenza al taglio | $\tan \varphi'_k$ | $\gamma_{\varphi'}$ | 1,0 | 1,25 |
| Coesione efficace | $c'_k$ | $\gamma_{c'}$ | 1,0 | 1,25 |
| Resistenza non drenata | $c_{uk}$ | $\gamma_{cu}$ | 1,0 | 1,4 |
| Peso dell'unità di volume | $\gamma_\gamma$ | $\gamma_\gamma$ | 1,0 | 1,0 |

Vista la particolarità della struttura si utilizzeranno per le verifiche geotecniche dei terreni di fondazione i coefficienti parziali delle opere di sostegno.

**Tab. 6.5.I** - *Coefficienti parziali $\gamma_R$ per le verifiche agli stati limite ultimi di muri di sostegno*

| Verifica | Coefficiente parziale (R3) |
|---|---|
| Capacità portante della fondazione | $\gamma_R = 1,4$ |
| Scorrimento | $\gamma_R = 1,1$ |
| Ribaltamento | $\gamma_R = 1,15$ |
| Resistenza del terreno a valle | $\gamma_R = 1,4$ |

Ai fini delle verifiche degli stati limite ultimi si definiscono le seguenti combinazioni:

STR e GEO) $\Rightarrow$ $\gamma_{G1} \cdot G_1 + \gamma_{G2} \cdot G_2 + \gamma_{Q1} \cdot Q_{k1} + \sum_i \psi_{0i} \cdot Q_{ki}$ $\Rightarrow (\Phi_d' = \Phi_k')$

Ai fini delle verifiche degli stati limite di esercizio (fessurazione) si definiscono le seguenti combinazioni:

Frequente) $\Rightarrow$ $G_1 + G_2 + \psi_{11} \cdot Q_{k1} + \sum_i \psi_{2i} \cdot Q_{ki}$

Quasi permanente) $\Rightarrow$ $G_1 + G_2 + \psi_{21} \cdot Q_{k1} + \sum_i \psi_{2i} \cdot Q_{ki}$

Per la condizione sismica, le combinazioni per gli stati limite ultimi da prendere in considerazione sono le seguenti:

STR e GEO) $\Rightarrow$ $E + G_1 + G_2 + \sum_i \psi_{2i} \cdot Q_{ki}$ $\Rightarrow (\Phi_d' = \Phi_k')$

Gli effetti dell'azione sismica saranno valutati tenendo conto delle masse associate ai seguenti carichi gravitazionali:

$G_1 + G_2 + \sum_i \psi_{2i} \cdot Q_{ki}$

con il valore di $\psi_{2i} = 0$.

### 3.2. Criteri e definizione dell'azione sismica

In ottemperanza al D.M. 17.01.2018 (Aggiornamento delle Norme tecniche per le costruzioni), le verifiche sono state condotte con il metodo semi-probabilistico.

L'effetto dell'azione sismica di progetto sull'opera nel suo complesso, includendo il volume significativo di terreno, la struttura di fondazione, gli elementi strutturali e non, nonché gli impianti, deve rispettare gli stati limite ultimi e di esercizio definiti al § 3.2.1, i cui requisiti di sicurezza sono indicati nel § 7.1 della norma.

Il rispetto degli stati limite si considera conseguito quando:

- nei confronti degli stati limite di esercizio siano rispettate le verifiche relative al solo Stato Limite di Danno;
- nei confronti degli stati limite ultimi siano rispettate le indicazioni progettuali e costruttive riportate nel § 7 della norma e siano soddisfatte le verifiche relative al solo Stato Limite di salvaguardia della Vita.

Per Stato Limite di Danno (SLD) s'intende che l'opera, nel suo complesso, a seguito del terremoto, includendo gli elementi strutturali, quelli non strutturali, le apparecchiature rilevanti alla sua funzione, subisce danni tali da non provocare rischi agli utenti e non compromette significativamente la capacità di resistenza e di rigidezza nei confronti delle azioni verticali e orizzontali. Lo stato limite di esercizio comporta la verifica delle tensioni di lavoro, come riportato al § 4.1.2.2.5 della norma.

Per Stato Limite di salvaguardia della Vita (SLV) si intende che l'opera a seguito del terremoto subisce rotture e crolli dei componenti non strutturali e impiantistici e significativi danni di componenti strutturali, cui si associa una perdita significativa di rigidezza nei confronti delle azioni orizzontali (creazione di cerniere plastiche secondo il criterio della gerarchia delle resistenze), mantenendo ancora un margine di sicurezza (resistenza e rigidezza) nei confronti delle azioni verticali.

Gli stati limite, sia di esercizio sia ultimi, sono individuati riferendosi alle prestazioni che l'opera da realizzarsi deve assolvere durante un evento sismico; nel caso di specie per la funzione che l'opera deve espletare nella sua vita utile, è significativo calcolare lo Stato Limite di Danno (SLD) per l'esercizio e lo Stato Limite di Salvaguardia della Vita (SLV) per lo stato limite ultimo.

In merito alle opere interrate di cui trattasi, nel rispetto del punto § 7.9.2., assimilando l'opera alla categoria delle spalle da ponte, rientrando tra le opere che si muovono con il terreno (§ 7.9.2.1), si può ritenere che la struttura

debba mantenere sotto l'azione sismica il comportamento elastico; queste categorie di opere che si muovono con il terreno non subiscono le amplificazioni dell'accelerazione del suolo.

Per la definizione dell'azione sismica, occorre definire il periodo di riferimento PVR in funzione dello stato limite considerato.

- La vita nominale (VN) dell'opera è stata assunta pari a 50 anni.
- La classe d'uso assunta è la III.

Il periodo di riferimento (VR) per l'azione sismica, data la vita nominale e la classe d'uso vale:

$VR = VN \cdot C_u = 75$ anni

I valori di probabilità di superamento del periodo di riferimento PVR, cui riferirsi per individuare l'azione sismica agente è:

PVR(SLV) = 10%

Il periodo di ritorno dell'azione sismica TR espresso in anni, vale:

$$TR(SLV) = \frac{VR}{\ln(1 - PVR)} = 712 \text{ anni}$$

Dato il valore del periodo di ritorno suddetto, tramite le tabelle riportate nell'Allegato B della norma, è possibile definire i valori di $a_g$, $F_0$, $T^*_c$:

$a_g \rightarrow$ accelerazione orizzontale massima del terreno, espressa come frazione dell'accelerazione di gravità;
$F_0 \rightarrow$ valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
$T^*_c \rightarrow$ periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;
$S \rightarrow$ coefficiente che comprende l'effetto dell'amplificazione stratigrafica ($S_s$) e dell'amplificazione topografica ($S_t$);

L'opera ricade in comune di Mondovì (Cn) .

I valori delle caratteristiche sismiche ($a_g$, $F_0$, $T^*_c$) sono statti ricavati per ogni Stato Limite utilizzando il sw *Spettri-NTVver.1.0.3.xls* rilasciato all'uopo dal Consiglio Superiore dei lavori Pubblici. Tali valori sono i seguenti:

**Valori dei parametri $a_g$, $F_o$, $T_C^*$ per i periodi di ritorno $T_R$ associati a ciascuno SL**

| SLATO LIMITE | $T_R$ [anni] | $a_g$ [g] | $F_o$ [-] | $T_C^*$ [s] |
|---|---|---|---|---|
| SLO | 45 | 0.033 | 2.559 | 0.202 |
| SLD | 75 | 0.040 | 2.592 | 0.224 |
| SLV | 712 | 0.088 | 2.646 | 0.309 |
| SLC | 1462 | 0.107 | 2.716 | 0.324 |

La verifica dell'idoneità del programma, l'utilizzo dei risultati da esso ottenuti sono onere e responsabilità esclusiva dell'utente. Il Consiglio Superiore dei Lavori Pubblici non potrà essere ritenuto responsabile dei danni risultanti dall'utilizzo dello stesso.

Per la determinazione dell'azione di progetto vengono definiti la Categoria del sottosuolo e la Categoria topografica, nonché il fattore di struttura:

- il sottosuolo su cui insiste l'opera è inserito nella categoria B;
- la zona topografica è ascrivibile alla categoria T1;
- il valore del fattore di struttura $q_0$ è fissato ad 1 in ottemperanza alla Tab.7.9.I della vigente Normativa. Al fattore q della componenete verticale è associato il valore 1.5 come previsto al § 7.3.1 .

In funzione di queste scelte i parametri ed i punti degli spettri di risposta orizzontale SLV e SLD sono i seguenti:

## Parametri e punti dello spettro di risposta orizzontale per lo stato limite: SLV

### Parametri indipendenti

| STATO LIMITE | SLV |
|---|---|
| $a_g$ | 0.088 g |
| $F_o$ | 2.646 |
| $T_C^*$ | 0.309 s |
| $S_S$ | 1.200 |
| $C_C$ | 1.392 |
| $S_T$ | 1.000 |
| q | 1.000 |

### Parametri dipendenti

| | |
|---|---|
| S | 1.200 |
| $\eta$ | 1.000 |
| $T_B$ | 0.143 s |
| $T_C$ | 0.429 s |
| $T_D$ | 1.952 s |

### Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0{,}55;\ \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4{,}0 \cdot a_g / g + 1{,}6$ (NTC-07 Eq. 3.2.9)

### Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$$0 \leq T < T_B \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o}\left(1 - \frac{T}{T_B}\right)\right]$$

$$T_B \leq T < T_C \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$$

$$T_C \leq T < T_D \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T}\right)$$

$$T_D \leq T \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2}\right)$$

Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo $\eta$ con 1/q, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

### Punti dello spettro di risposta

| | T [s] | Se [g] |
|---|---|---|
| | 0.000 | 0.106 |
| $T_B$ ← | 0.143 | 0.279 |
| $T_C$ ← | 0.429 | 0.279 |
| | 0.502 | 0.239 |
| | 0.574 | 0.209 |
| | 0.647 | 0.185 |
| | 0.719 | 0.167 |
| | 0.792 | 0.151 |
| | 0.864 | 0.139 |
| | 0.937 | 0.128 |
| | 1.009 | 0.119 |
| | 1.082 | 0.111 |
| | 1.154 | 0.104 |
| | 1.227 | 0.098 |
| | 1.299 | 0.092 |
| | 1.372 | 0.087 |
| | 1.444 | 0.083 |
| | 1.517 | 0.079 |
| | 1.589 | 0.075 |
| | 1.662 | 0.072 |
| | 1.734 | 0.069 |
| | 1.807 | 0.066 |
| | 1.879 | 0.064 |
| $T_D$ ← | 1.952 | 0.061 |
| | 2.049 | 0.056 |
| | 2.147 | 0.051 |
| | 2.244 | 0.046 |
| | 2.342 | 0.043 |
| | 2.440 | 0.039 |
| | 2.537 | 0.036 |
| | 2.635 | 0.034 |
| | 2.732 | 0.031 |
| | 2.830 | 0.029 |
| | 2.927 | 0.027 |
| | 3.025 | 0.026 |
| | 3.122 | 0.024 |
| | 3.220 | 0.023 |
| | 3.317 | 0.021 |
| | 3.415 | 0.020 |
| | 3.512 | 0.019 |
| | 3.610 | 0.018 |
| | 3.707 | 0.018 |
| | 3.805 | 0.018 |
| | 3.902 | 0.018 |
| | 4.000 | 0.018 |

## Parametri e punti dello spettro di risposta orizzontale per lo stato limite: SLD

### Parametri indipendenti

| STATO LIMITE | SLD |
|---|---|
| $a_g$ | 0.040 g |
| $F_o$ | 2.592 |
| $T_C^*$ | 0.224 s |
| $S_S$ | 1.200 |
| $C_C$ | 1.484 |
| $S_T$ | 1.000 |
| q | 1.000 |

### Parametri dipendenti

| | |
|---|---|
| S | 1.200 |
| $\eta$ | 1.000 |
| $T_B$ | 0.111 s |
| $T_C$ | 0.332 s |
| $T_D$ | 1.761 s |

### Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0{,}55;\ \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4{,}0 \cdot a_g / g + 1{,}6$ (NTC-07 Eq. 3.2.9)

### Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$0 \leq T < T_B$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o}\left(1 - \frac{T}{T_B}\right)\right]$

$T_B \leq T < T_C$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$

$T_C \leq T < T_D$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T}\right)$

$T_D \leq T$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2}\right)$

Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo $\eta$ con 1/q, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

### Punti dello spettro di risposta

| | T [s] | Se [g] |
|---|---|---|
| | 0.000 | 0.048 |
| $T_B$ ← | 0.111 | 0.126 |
| $T_C$ ← | 0.332 | 0.126 |
| | 0.400 | 0.104 |
| | 0.468 | 0.089 |
| | 0.536 | 0.078 |
| | 0.604 | 0.069 |
| | 0.672 | 0.062 |
| | 0.740 | 0.056 |
| | 0.808 | 0.052 |
| | 0.876 | 0.048 |
| | 0.945 | 0.044 |
| | 1.013 | 0.041 |
| | 1.081 | 0.039 |
| | 1.149 | 0.036 |
| | 1.217 | 0.034 |
| | 1.285 | 0.032 |
| | 1.353 | 0.031 |
| | 1.421 | 0.029 |
| | 1.489 | 0.028 |
| | 1.557 | 0.027 |
| | 1.625 | 0.026 |
| | 1.693 | 0.025 |
| $T_D$ ← | 1.761 | 0.024 |
| | 1.868 | 0.021 |
| | 1.975 | 0.019 |
| | 2.081 | 0.017 |
| | 2.188 | 0.015 |
| | 2.294 | 0.014 |
| | 2.401 | 0.013 |
| | 2.508 | 0.012 |
| | 2.614 | 0.011 |
| | 2.721 | 0.010 |
| | 2.827 | 0.009 |
| | 2.934 | 0.009 |
| | 3.041 | 0.008 |
| | 3.147 | 0.007 |
| | 3.254 | 0.007 |
| | 3.360 | 0.006 |
| | 3.467 | 0.006 |
| | 3.574 | 0.006 |
| | 3.680 | 0.005 |
| | 3.787 | 0.005 |
| | 3.893 | 0.005 |
| | 4.000 | 0.005 |

Il calcolo viene eseguito con il metodo pseudostatico. In queste condizioni l'azione sismica è rappresentata da una forza statica equivalente pari al prodotto delle forze di gravità per un opportuno coefficiente sismico.

Nelle verifiche allo Stato Limite Ultimo i valori dei coefficienti sismici orizzontali $k_h$ e verticale $k_v$ possono essere valutati mediante le espressioni:

$$k_h = \beta_m \cdot \frac{a_{\max}}{g}$$

$$k_v = \pm 0.5 \cdot k_h$$

dove

$a_{max}$ = accelerazione orizzontale massima attesa al sito;
g = accelerazione di gravità.

Il valore del coefficiente di amplificazione stratigrafico risulta: $S_S(SLV) = 1.20$
L'accelerazione massima è valutata con la relazione:

$$a_{\max}(SLV) = S_S \cdot \frac{a_g}{g} = 0.106 \text{ g}$$

Assumendo che la struttura in esame non ammetta spostamenti relativi rispetto al terreno, si ottiene $\beta_m = 1$.

I due coefficienti sismici valgono:

| | | | |
|---|---|---|---|
| (SLV) | $k_h = 0.106$ | e | $k_v = 0.053$ |
| (SLD) | $k_h = 0.048$ | e | $k_v = 0.024$ |

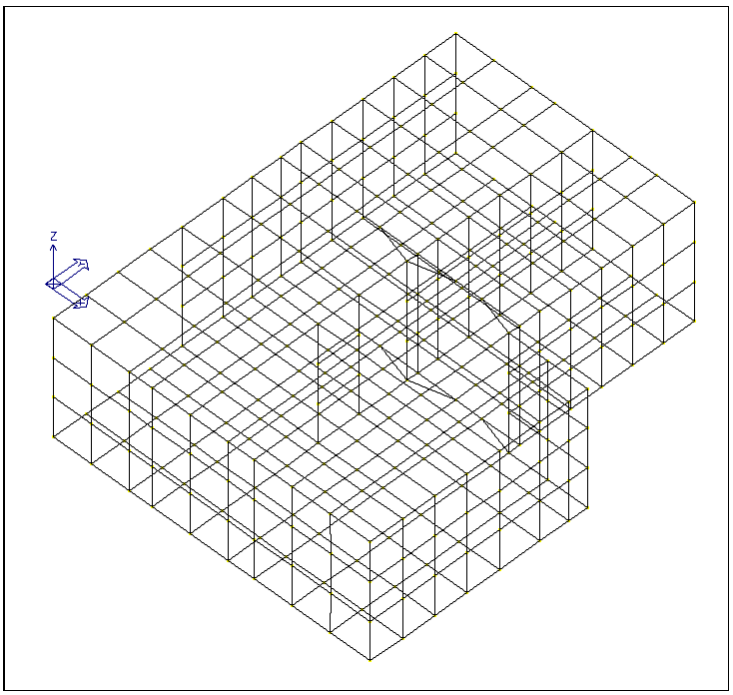
Per tener conto dell'incremento di spinta del terreno dovuta al sisma su strutture rigide si fa riferimento all'EC8, in cui l'incremento di spinta sismica $\Delta P$ per la condizione a riposo vale:

$$\Delta P_d = S \cdot \frac{a_g}{g} \cdot \gamma \cdot h_{tot}^{\ 2}$$

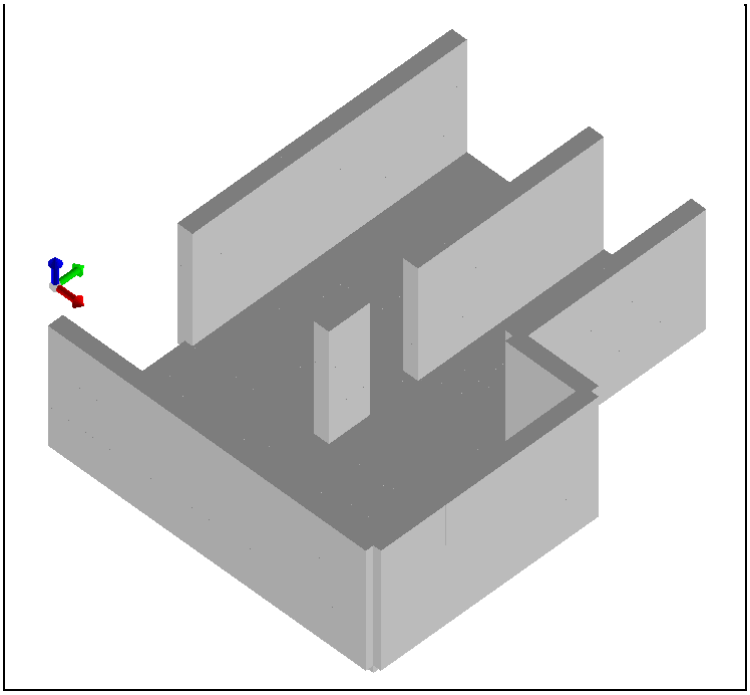
La risultante di tale incremento di spinta viene applicata ad metà del piedritto.

# 4. SCHEMI DI CALCOLO

Per il manufatto il modello di calcolo utilizzato è tridimensionale come illustrato nelle figure seguenti.




*Modello di calcolo*



*Vista solida senza soletta superiore*

Con riferimento alla geometria sono stati considerati i seguenti carichi:

- carico permanente da peso proprio degli elementi strutturali;
- carico permanente portato;
- carico variabile da traffico stradale;
- spinta a riposo del terreno;
- spinta della falda;
- sottospinta idraulica;
- spinta a riposo del sovraccarico stradale.

Il terreno di fondazione è stato schematizzato alla Winkler, adottando come coefficiente di sottofondo k = 3.7 kg/cm$^3$ relativo all'approfondimento originario di -10.0 m dal p.c. .

## VALUTAZIONE COSTANTE DI SOTTOFONDO SECONDO BOWLES

MONDOVI' - Uscite cunicolo

| | | | | |
|---|---|---|---|---|
| z= | 10.00 | (m) | | |
| γ | 20.00 | (kN/m3) | | |
| ϕ' | 30 | ° | | |
| c | 25.00 | (kN/m2) | | |
| n | 0.5 | | | |
| Nc | 30.14 | | | |
| Nγ | 18.40 | | | |
| Nq | 22.40 | | | |
| Φ | 0.5 | | | |
| **A=** | **937.502** | | | |
| **B=** | **448.0498** | | | |
| **C=** | 25 | (m^-1) | ced. Ultimo | 0.04 |

| | | | | |
|---|---|---|---|---|
| Kh= | 29.429 | (MN/m3) | 2999.949 | (t/m3) |

| | | |
|---|---|---|
| Kh | 3.0 | (kg/cm3) |
| Kv | 3.7 | (kg/cm3) |

Per le verifiche allo stato limite ultimo di tipo strutturale (STR) i valori di spinta del terreno e del sovraccarico sono stati calcolati sulla base dei coefficienti caratteristici del terreno e amplificati mediante i coefficienti A1. Le resistenze sono state divise per i coefficienti R1.

In condizioni sismiche, è stato considerato il sisma orizzontale e verticale. Nel primo caso sono state prese in considerazione entrambe le direzioni di (+x, -y). Gli effetti sulla struttura sono stati valutati in ottemperanza al paragrafo 7.3.5 della Normativa con le ricursive rotazioni dei coefficienti moltiplicativi dell'espressione 7.3.15:

$$E = 1{,}00 \times Ex + 0{,}30 \times Ey + 0{,}30 \times Ez$$

# 5. PROGRAMMA DI CALCOLO UTILIZZATO

## 5.1. Pro_Sap

Il calcolo delle uscite cunicolo di fuga viene condotto con il programma PRO_SAP RY2019b ver.19.5.0 (prodotto dalla 2S.I. Software e Servizi per l'Ingegneria S.r.l. via Garibaldi, 90 44121 Ferrara).

Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

- Elemento tipo PLATE;

Il codice di calcolo adottato è ALGOR SUPERSAP prodotto dalla ALGOR INTERACTIVE SYSTEMS, Inc. Pittsburgh, PA, USA.

Il programma SUPERSAP applica il metodo degli elementi finiti a strutture di forma qualunque, diversamente caricate e vincolate, nell'ambito del comportamento lineare delle stesse.

Si sottolinea che il solutore ALGOR SUPERSAP è stato sottoposto, con esito positivo e relativa certificazione, ai test NAFEMS (test di confronto della National Agency for Finite Element Methods and Standards in Inghilterra).

Si sottolinea, inoltre, che solutore ALGOR SUPERSAP è soggetto ad attività di controllo ai sensi della QA (quality assurance), condizione essenziale per l'utilizzo dei codici di calcolo nell' ambito della progettazione nucleare ed off-shore.

Le verifiche delle sezioni delle strutture modellate con elementi tipo beam sono condotte, in ottemperanza alla vigente normativa, con il programma PRO_VLIM (prodotto dalla 2S.I. Software e Servizi per l'Ingegneria S.r.l. via Garibaldi, 90 44121 Ferrara).

## 5.2. Modellazione adottata

Per la mesh di calcolo è stato assunto lo schema statico tridimensionale alle figure in capitolo 4, composto da nodi e plate elements.

L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici.

Le caratteristiche geometriche sono le più prossime a quelle reali e per una migliore visione si rimanda agli elaborati grafici.

# 6. ANALISI DEI CARICHI

Nel presente paragrafo si descrivono i carichi elementari da assumere per le verifiche di resistenza in esercizio ed in presenza dell'evento sismico.

Vengono prese in considerazione 16 Condizioni Elementari di carico (CDC1÷CDC16), di seguito descritte, le quali saranno opportunamente combinate secondo quanto previsto dalla normativa vigente.

I principali parametri geometrici risultano essere i seguenti:

- spessore totale medio della sovrastruttura stradale superiore: $H_s = 0.50$ m;
- spessore della soletta superiore: $S_s = 0.35$ m;
- spessore dei piedritti: $S_p = 0.35$ m;
- spessore della fondazione: $S_f = 0.35$ m.

Per i materiali si assumono i seguenti pesi specifici:

- calcestruzzo armato: 25.0 kN/m³;
- sovrastruttura stradale: 20.0 kN/m³;

Si considerano, in particolare, i seguenti carichi, tipologicamente differenziati per necessità del programma di calcolo.

## 6.1. Peso proprio e permanenti portati

Per il peso proprio il programma esegue autonomamente i calcoli in base alle geometrie segnalate. Tali carichi vengono considerati nella Condizione Elementare CDC1.

Per i permanenti portati si utilizzano i seguenti carichi che rappresentano il peso della sovrastruttura stradale superiore esclusi i carichi da traffico.

| Tipo | carico di pressione uniforme su piastra |
|---|---|

| Id | Tipo | pressione |
|---|---|---|
| | | kN/ m2 |
| 7 | ROAD STRUCTURE | 10.00 |

Tali carichi vengono considerati nelle Condizioni Elementari CDC2.

## 6.2. Spinta del terreno

Il reinterro a ridosso del locale uscite cunicolo di fuga è caratterizzato dai seguenti parametri geotecnici:

| Profondità (da p.c.) | Descrizione stratigrafica | Peso specifico [kN/m$^3$] | Angolo di attrito interno [°] | Coesione [kPa] |
|---|---|---|---|---|
| riempimento | Smarino di Marne di S. Agata compattato | 19.00 | 30 | 0.00 |

da cui risulta un coefficiente di spinta a riposo $k_0 = 0.50$.

Tali spinte vengono considerate nelle seguenti Condizioni Elementari:

- CDC3: spinta a riposo sulle pareti esterne;

| Tipo | carico di pressione variabile su piastra |
|---|---|

| Id | Tipo | pressione | quota | pressione | quota |
|---|---|---|---|---|---|
| | | kN/ m2 | m | kN/ m2 | m |
| 1 | EARTH LOAD AT REST | 0.0 | 0.0 | -190.00 | -20.00 |

## 6.3. Spinta del sovraccarico stradale sullo scatolare

Si considera come sovraccarico agente su tutte le pareti esterne quello in condizioni $k_0$ derivante dalla sovrastruttura stradale . Il valore di tale carico è:

| Tipo | carico di pressione uniforme su piastra |
|---|---|

| Id | Tipo | pressione |
|---|---|---|
| | | kN/ m2 |
| 2 | TRAFFIC LOAD AT K0 | -10.00 |

Tali spinte vengono considerate nelle seguenti Condizioni Elementari:

- carico orizzontale da sovraccarico stradale agente sule pareti esterne: CDC4;

## 6.4. Spinta dell'acqua

La falda di progetto a ridosso dello scatolare è stata cautelativamente valutata ad una profondità di piano campagna.

I contributi di carico che ne derivano sono:

| Tipo | carico di pressione variabile su piastra |
|---|---|

| Id | Tipo | pressione | quota | pressione | quota |
|---|---|---|---|---|---|
| | | kN/ m2 | m | kN/ m2 | m |
| 5 | WATER | 0.0 | 0.0 | -200.00 | -20.00 |

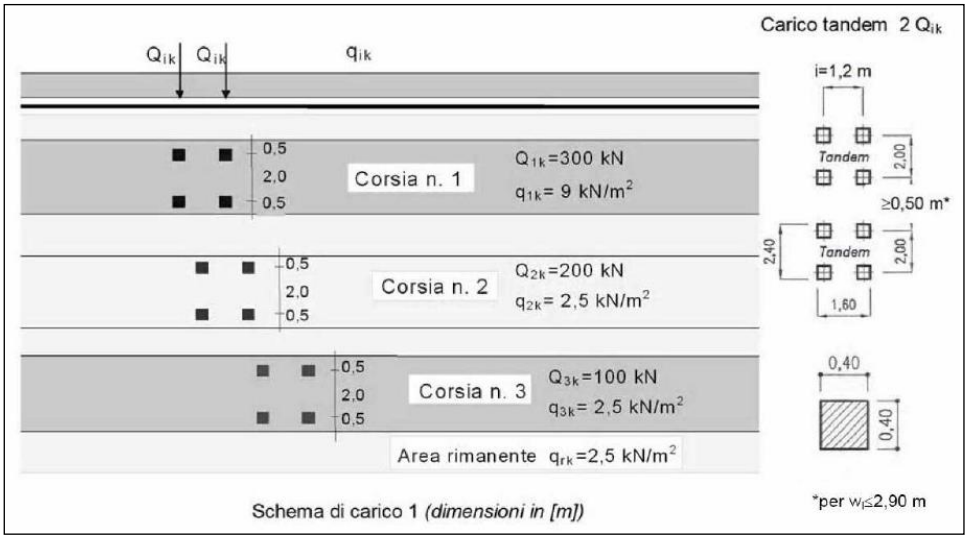
Tali spinte vengono considerate nelle seguenti Condizioni Elementari:

- spinta contro le pareti esterne e sottospinta sulla soletta di fondazione (CDC6);

## 6.5. Carichi mobili verticali sulla soletta superiore

I carichi mobili verticali agenti sulla soletta superiore sono di tipo stradale.

Per quanto riguarda il carico mobile stradale, il locale uscite cunicolo di fuga dovrà sostenere traffico veicolare che si potrà sviluppare su due carreggiate. Visto che la strada corrisponde ad una sezione C1 si è utilizzato come schema di carico lo Schema di carico 1 da Normativa utilizzando sia il carico di progetto $Q_{1.k}$, ossia il mezzo convenzionale da 600 kN a due assi da 300 kN ognuno (carico tandem), sia il carico $q_{1,k}$ secondo lo schema prescritto:




Schema di carico 1 *(dimensioni in [m])*

Tale carico viene posizionato parallelamente all'asse della strada e considerato ripartito, in direzione sia longitudinale che trasversale, con una angolo di diffusione di 45° sino al piano medio della soletta superiore. Vista la ridotta dimensione planimetrica del locale uscita cunicolo di fuga e la diffusione del carico fra sovrastruttura e soletta le aree caricate corrispondono alla quasi totalità della dimensione di ogni camera della soletta.

| Tipo | carico di pressione uniforme su piastra |
|---|---|

| Id | Tipo | pressione |
|---|---|---|
| | | kN/ m2 |
| 8 | TRAFFIC Q1 | 54.24 |
| 9 | TRAFFIC q1 | 9.00 |

Il carico Q1 viene considerato posizionato differentemente per cogliere il massimo di sollecitazione in tre condizioni differenti:

- disposizione che massimizza il taglio in soletta (CDC5);
- disposizione che massimizza il momento in soletta nella prima camera (CDC12);
- disposizione che massimizza il momento in soletta nella prima camera (CDC13).

## 6.6. Azione sismica

L'azione sismica si esplica in diverse Condizioni Elementari:

- CDC7 / CDC8: sisma SLV terreno;
- CDC9 / CDC10: sisma orizzontale SLV stuttura;
- CDC11: sisma verticale SLV struttura;
- CDC14 / CDC15: sisma orizzontale SLD stuttura;
- CDC16: sisma verticale SLD struttura;

Al programma viene lasciato il calcolo delle forze inerziali della massa della secondo la relazione riportata nei paragrafi precedenti.

Nel caso di sisma orizzontale sia in direzione x che y vi è da considerare la spinta derivante dall'oscillazione del cuneo di terreno spingente. Per strutture come quella in esame, in cui non sono ammessi spostamenti relativi opera/terreno, si fa riferimento all'EC8, in cui l'incremento di spinta sismica $\Delta P$ per la condizione a riposo:

$$\Delta P = S \cdot \frac{a_g}{g} \cdot \gamma \cdot h_{tot}^{\ 2}$$

applicabile a h/2 del piedritto.

Per il modello tale spinta viene sostituita dalla pressione equivalente applicata a tutto il piedritto:

| Tipo | carico di pressione uniforme su piastra |
|---|---|

| Id | Tipo | pressione |
|---|---|---|
| | | kN/ m2 |
| 15 | SEISMIC EARTH LOAD | -6.55 |

La Condizione Elementare di riferimento è la CDC7 / CDC8.

### 6.7. Azioni termiche

Visto che la struttura è interrata non si considera soggetta a variazioni termiche.

# 7. CALCOLO DELLE SOLLECITAZIONI

Per le verifiche agli Stati Limite Ultimi si adottano i valori dei coefficienti parziali delle azioni riportati in Tab. 5.2.V ed i coefficienti di combinazione di Tab. 5.2.VI.

Per le verifiche agli stati limite d'esercizio si adottano i valori dei coefficienti parziali in Tab. 5.2.VI.

Le condizioni elementari di carico considerate sono di seguito riassunte:

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 1 | Ggk | Ggk (SELF WEIGHT) | |
| 2 | Gk | G2k (DEAD LOAD) | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : ROAD STRUCTURE |
| | | | D3 :da 19 a 30 Azione : ROAD STRUCTURE |
| | | | D3 :da 121 a 165 Azione : ROAD STRUCTURE |
| | | | D3 :da 187 a 234 Azione : ROAD STRUCTURE |
| 3 | Gk | CDC=G1k (EARTH LOAD) ..... | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : EARTH LOAD AT REST |
| | | | D3 :da 31 a 51 Azione : EARTH LOAD AT REST |
| | | | D3 :da 55 a 72 Azione : EARTH LOAD AT REST |
| | | | D3 :da 91 a 111 Azione : EARTH LOAD AT REST |
| | | | D3 :da 115 a 120 Azione : EARTH LOAD AT REST |
| | | | D3 :da 340 a 342 Azione : EARTH LOAD AT REST |
| 4 | Gk | CDC=G1k (TRAFFIC LOAD ON THE WALL AT K0) ..... | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 31 a 51 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 55 a 72 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 91 a 111 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 115 a 120 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 340 a 342 Azione : TRAFFIC LOAD AT K0 |
| 5 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Vmax) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 134 Azione : TRAFFIC Q1 |
| | | | D3 :da 135 a 165 Azione : TRAFFIC q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 6 | Gk | G1k (WATER) | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : WATER |
| | | | D3 :da 31 a 51 Azione : WATER |
| | | | D3 :da 55 a 72 Azione : WATER |
| | | | D3 :da 88 a 111 Azione : WATER |
| | | | D3 :da 115 a 120 Azione : WATER |
| | | | D3 :da 235 a 342 Azione : WATER |
| 7 | Qk | Qk (SISMIC X EARTH LOAD) | Azioni applicate: |
| | | | D3 :da 46 a 51 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 91 a 108 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 340 a 342 Azione : SEISMIC EARTH LOAD |
| 8 | Qk | Qk (SISMIC Y EARTH LOAD) | Azioni applicate: |
| | | | D3 :da 13 a 18 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 31 a 45 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 70 a 72 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 109 a 111 Azione : SEISMIC EARTH LOAD |
| 9 | Esk | Es (EQUIVALENT STATIC ORIZONTAL SLU) CDC=Es (statico SLU) alfa=90.00 (ecc. 0) | partecipazione:1.00 per 1 Ggk (SELF WEIGHT) |
| | | | partecipazione:1.00 per 2 G2k (DEAD LOAD) |
| 10 | Esk | Es (STATIC EQUIVALENT ORIZONTAL SLU) alfa=0.0 (ecc. 0) | come precedente CDC sismico |
| 11 | Esk | Es (EQUIVALENT STATIC VERTICAL SLU) | come precedente CDC sismico |
| 12 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Mmax 1) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 134 Azione : TRAFFIC q1 |
| | | | D3 :da 135 a 150 Azione : TRAFFIC Q1 |
| | | | D3 :da 151 a 165 Azione : TRAFFIC q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 13 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Mmax 2) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 150 Azione : TRAFFIC q1 |
| | | | D3 :da 151 a 165 Azione : TRAFFIC Q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 14 | Esk | CDC=Es (statico SLD) alfa=90.00 (ecc. 0) | come precedente CDC sismico |
| 15 | Esk | CDC=Es (statico SLD) alfa=0.0 (ecc. 0) | come precedente CDC sismico |
| 16 | Esk | CDC=Es (statico SLD) verticale | come precedente CDC sismico |

I carichi caratteristici sopra elencati (CDC), al fine di ottenere le sollecitazioni di progetto per effettuare le successive verifiche, sono opportunamente combinati fra loro.

Al programma di calcolo devono essere definite le condizioni e le combinazioni elementari di calcolo; per quanto riguarda le prime sono quelle sopra esposte, mentre per le combinazioni (CMB) sono quelle riportate nella tabella seguente.

| Cmb | Tipo | Sigla Id | effetto P-delta |
|---|---|---|---|
| 1 | SLU | Comb. SLU A1 1 : NORMAL MAX CMB | |
| 2 | SLU | Comb. SLU A1 2 : REFILL LEFT WALL NO TRAFFIC | |
| 3 | SLU | Comb. SLU A1 3 : REFILL RIGHT WALL NO TRAFFIC | |
| 4 | SLU | Comb. SLU A1 4 : NORMAL MIN CMB | |
| 5 | SLU (Terr. A2) | Comb. SLU A2 5 : SOIL TEST | |
| 6 | SLU | Comb. SLU A1 (SLV sism.) 6 : SISMA X | |
| 7 | SLU | Comb. SLU A1 (SLV sism.) 7 : SISMA Y | |
| 8 | SLU | Comb. SLU A1 (SLV sism.) 8 : SISMA V | |
| 9 | SLU (Terr. A2) | Comb. SLU A2 (SLV sism.) 9 : SISMA X | |
| 10 | SLU (Terr. A2) | Comb. SLU A2 (SLV sism.) 10 : SISMA Y | |
| 11 | SLU (Terr. A2) | Comb. SLU A2 (SLV sism.) 11 : SISMA V | |
| 12 | SLE(p) | Comb. SLE (perm) 12 | |
| 13 | SLE(f) | Comb. SLE (freq) 13 | |
| 14 | SLE(f) | Comb. SLE(freq.) 14 | |
| 15 | SLE(f) | Comb. SLE(freq.) 15 | |
| 16 | SLU(acc.) | Comb. SLU(fire) | |
| 17 | SLU | Comb. SLU A1 17 | |
| 18 | SLU | Comb. SLU A1 18 | |
| 19 | SLD(sis) | Comb. SLE (SLD Danno sism) 8 | |
| 20 | SLD(sis) | Comb. SLE (SLD Danno sism) 10 | |
| 21 | SLD(sis) | Comb. SLE (SLD Danno sism) 12 | |

Nelle precedenti combinazioni di calcolo (CMB) le condizioni elementari di carico (CDE) sono combinate tra loro in modo da generare le massime sollecitazioni per lo SLU e SLE, come da seguente prospetto.

| Cmb | CDC 1/15... | CDC 2/16... | CDC 3/17... | CDC 4/18... | CDC 5/19... | CDC 6/20... | CDC 7/21... | CDC 8/22... | CDC 9/23... | CDC 10/24... | CDC 11/25... | CDC 12/26... | CDC 13/27... | CDC 14/28... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.35 | 1.50 | 1.35 | 1.35 | 1.35 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 2 | 1.00 | 1.00 | 1.00 | 1.00 | 1.35 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 3 | 1.35 | 1.50 | 1.35 | 1.35 | 0.0 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 4 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 5 | 1.35 | 1.50 | 1.35 | 1.35 | 0.0 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 6 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 7 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 8 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 9 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 10 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | -1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 11 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | -1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 12 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | -1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 13 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | -1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 14 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 15 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 16 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 17 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 18 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | -0.30 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 19 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | -0.30 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 20 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | -0.30 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 21 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | -0.30 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 22 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.30 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 23 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.30 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 24 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.30 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 25 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.30 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 26 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | -0.30 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 27 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | -0.30 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 28 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | -0.30 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 29 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | -0.30 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 30 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.30 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 31 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.30 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 32 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.30 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 33 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.30 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 |

| Cmb | CDC 1/15... | CDC 2/16... | CDC 3/17... | CDC 4/18... | CDC 5/19... | CDC 6/20... | CDC 7/21... | CDC 8/22... | CDC 9/23... | CDC 10/24... | CDC 11/25... | CDC 12/26... | CDC 13/27... | CDC 14/28... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 34 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | -0.30 | -0.30 | | | | | | | | | | | | |
| 35 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | -0.30 | 0.30 | | | | | | | | | | | | |
| 36 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | 0.30 | -0.30 | | | | | | | | | | | | |
| 37 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | 0.30 | 0.30 | | | | | | | | | | | | |
| 38 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | -0.30 | -0.30 | | | | | | | | | | | | |
| 39 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | -0.30 | 0.30 | | | | | | | | | | | | |
| 40 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | 0.30 | -0.30 | | | | | | | | | | | | |
| 41 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | 0.30 | 0.30 | | | | | | | | | | | | |
| 42 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -1.00 | -0.30 | | | | | | | | | | | | |
| 43 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -1.00 | 0.30 | | | | | | | | | | | | |
| 44 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 1.00 | -0.30 | | | | | | | | | | | | |
| 45 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 1.00 | 0.30 | | | | | | | | | | | | |
| 46 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -1.00 | -0.30 | | | | | | | | | | | | |
| 47 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -1.00 | 0.30 | | | | | | | | | | | | |
| 48 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 1.00 | -0.30 | | | | | | | | | | | | |
| 49 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 1.00 | 0.30 | | | | | | | | | | | | |
| 50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -0.30 | -1.00 | | | | | | | | | | | | |
| 51 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -0.30 | 1.00 | | | | | | | | | | | | |
| 52 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 0.30 | -1.00 | | | | | | | | | | | | |
| 53 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 0.30 | 1.00 | | | | | | | | | | | | |
| 54 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -0.30 | -1.00 | | | | | | | | | | | | |
| 55 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -0.30 | 1.00 | | | | | | | | | | | | |
| 56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 0.30 | -1.00 | | | | | | | | | | | | |
| 57 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 0.30 | 1.00 | | | | | | | | | | | | |
| 58 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 59 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 60 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 61 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 62 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 63 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 64 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 65 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |

I valori numerici riportati nelle colonne della tabella precedente indicano il coefficiente moltiplicativo con il quale la Combinazione Elementare è considerata.

# 8. VERIFICHE DI RESISTENZA ED A FESSURAZIONE

I calcoli di verifica sono effettuati con il metodo degli Stati Limite, applicando il combinato D.M. 17.01.2018 con l'UNI EN 1992 (Eurocodice 2).

Le verifiche a fessurazione sono state condotte per elemento strutturale distinto considerando:

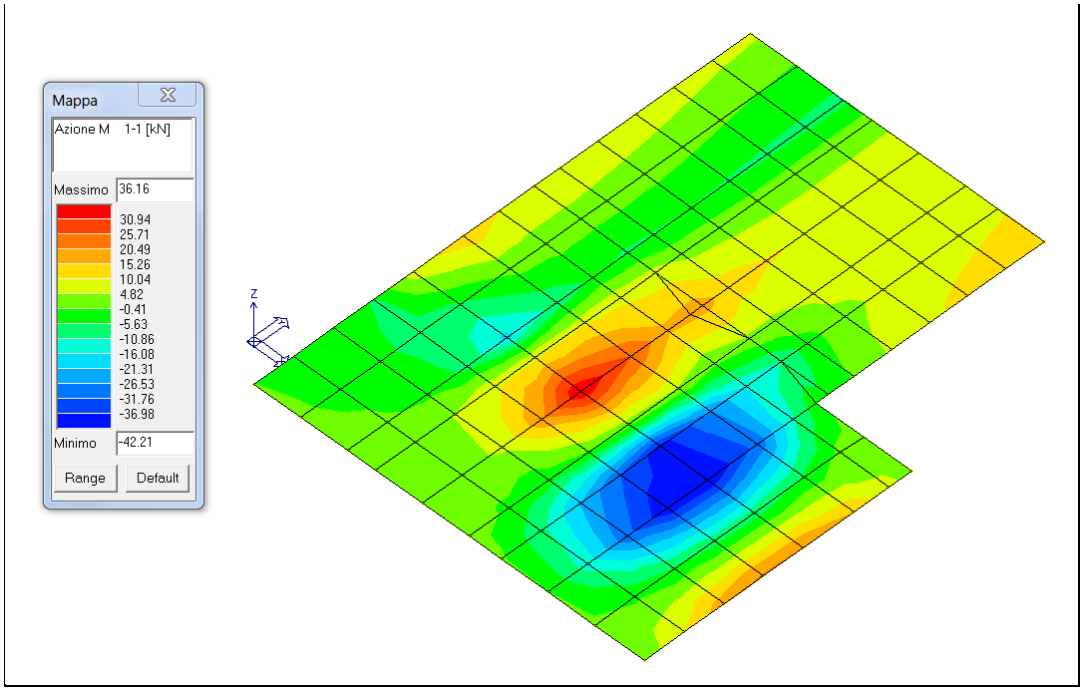
- verifica di formazione delle fessure: in sezione interamente reagente e per le sollecitazioni di esercizio si determina la massima trazione nel calcestruzzo $\sigma_{ct}$, confrontandola con la resistenza caratteristica a trazione per flessione $f_{cfk}$: se risulta $\sigma_{ct} < f_{cfk}$ la verifica è soddisfatta, altrimenti si procede alla verifica di apertura delle fessure;

- verifica di apertura delle fessure: l'apertura convenzionale delle fessure è calcolata con le modalità indicate nell'EC2, come richiesto dal D.M. 14.01.2008, e valutata con le sollecitazioni relative alle Combinazioni FR o QP della normativa vigente sui ponti stradali. La massima apertura ammissibile risulta:
  - combinazione di carico Frequente: $w_k \leq w_3 = 0.30$ mm;
  - combinazione di carico quasi permanente: $w_k \leq w_2 = 0.20$ mm.

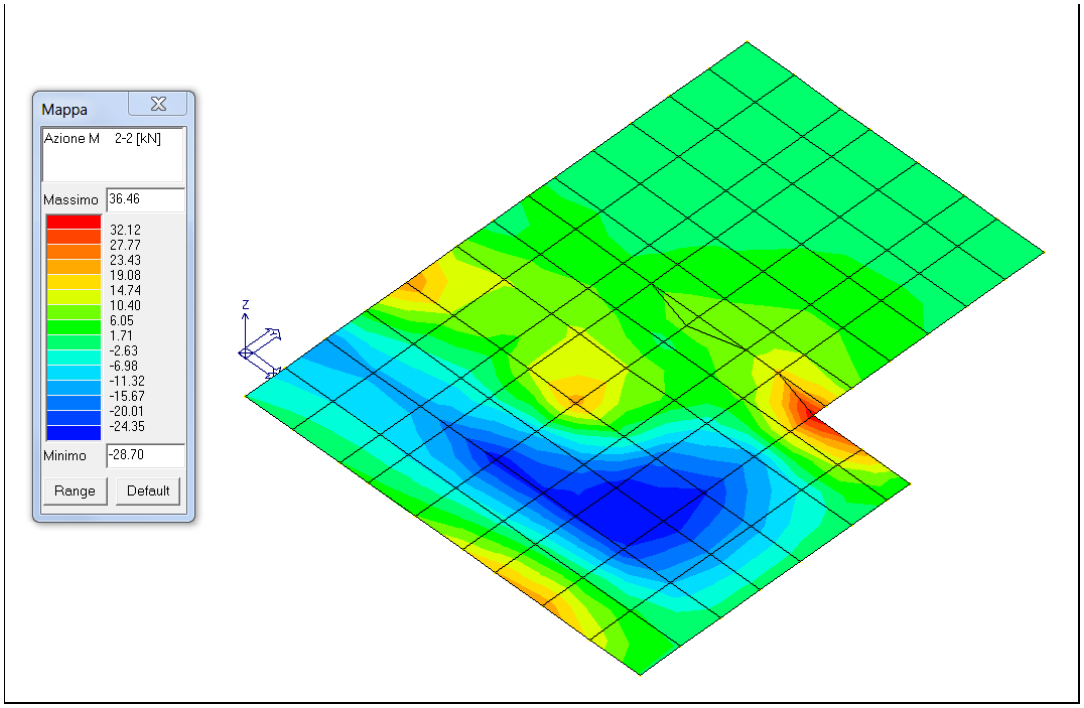
- verifica delle tensioni di esercizio: si eseguono per la condizione di carico Quasi Permanente e si verifica che le massime tensioni presenti nel calcestruzzo siano inferiori a $\sigma_c < 0.45\ f_{ck}$.

## 8.1. Soletta superiore

Le sollecitazioni massime di calcolo sono:



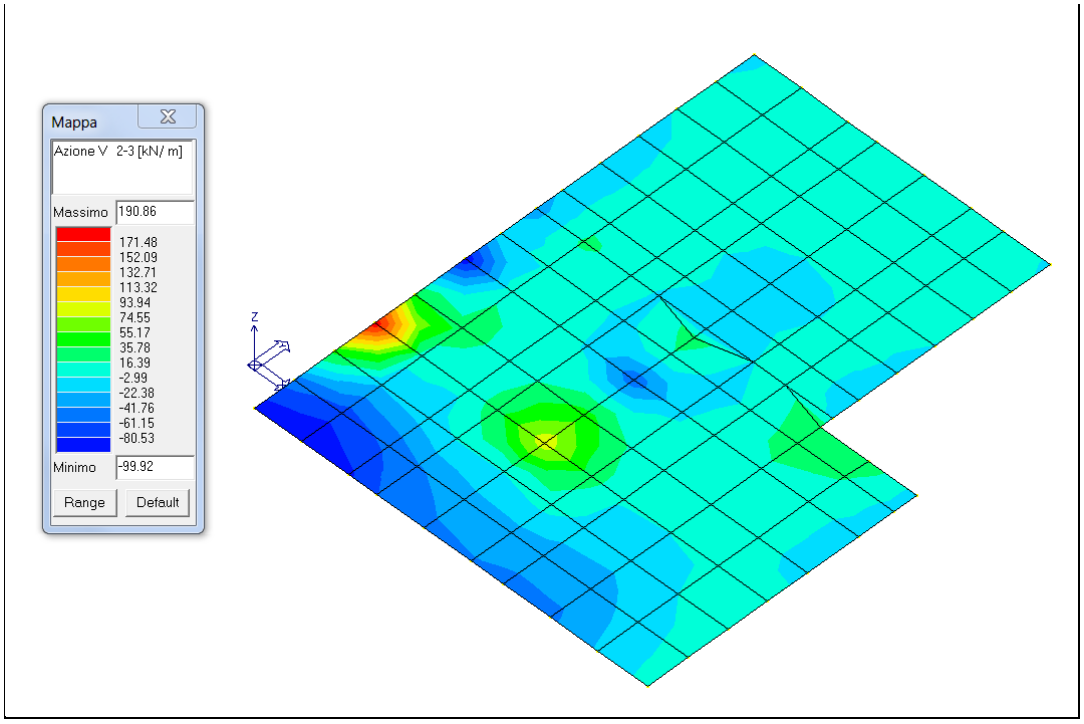

Soletta superiore: M 1-1 max in CMB5




Soletta superiore: M 2-2 max in CMB5

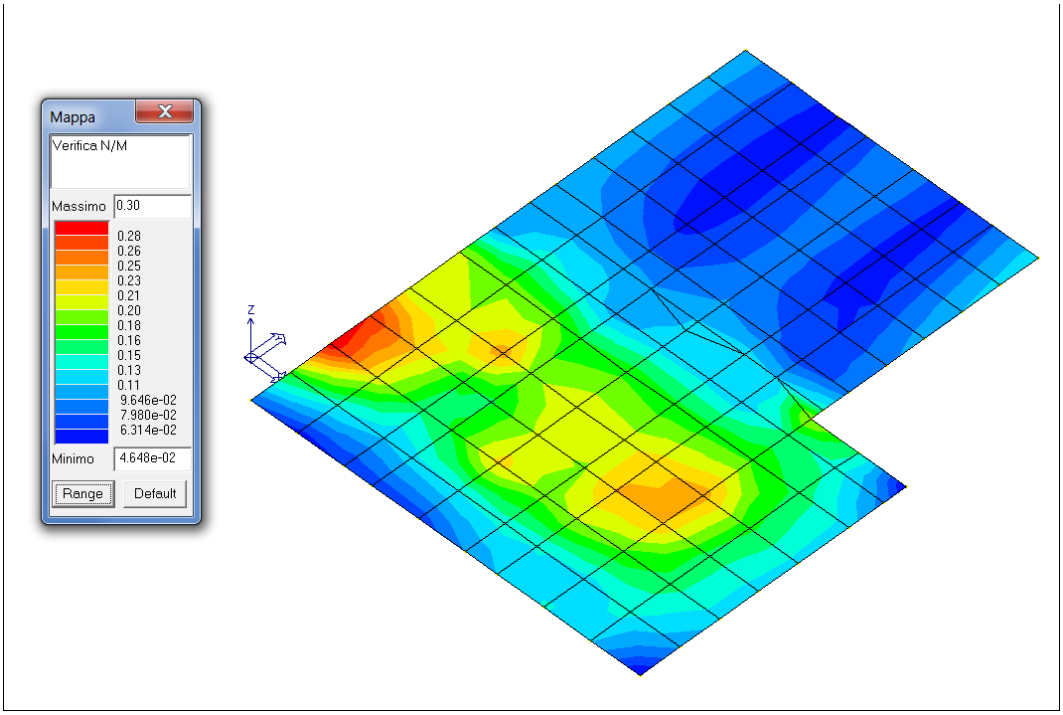
Il progetto prevede una armatura minima, sia all'estradosso che all'intradosso, di 16.96 $cm^2/m$ nelle due direzioni perpendicolari.

Per quanto riguarda le azioni di taglio esse sono le seguenti:

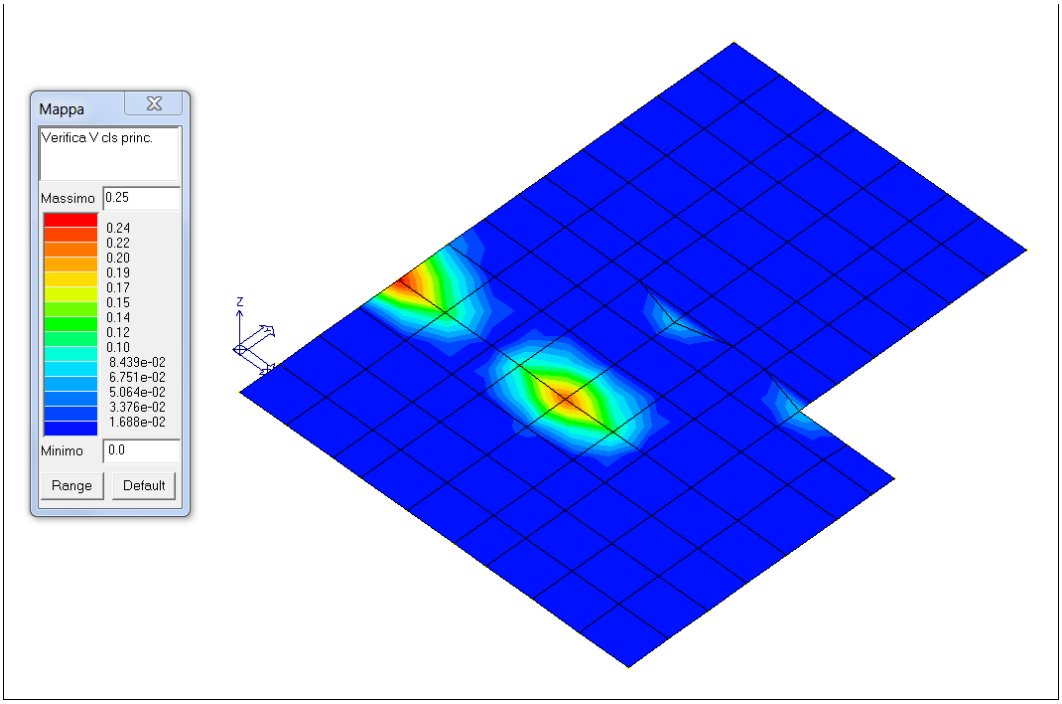



Soletta superiore: V 2-3 max in CMB1

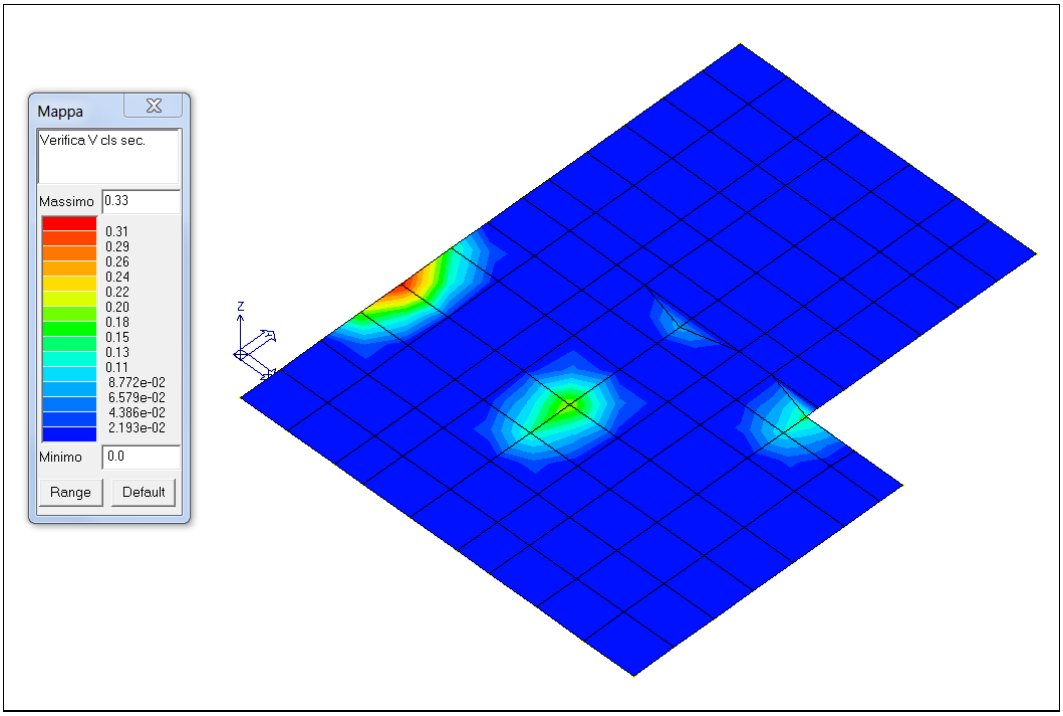
Le verifiche portano ai seguenti risultati:




Soletta superiore: Verifica N/M

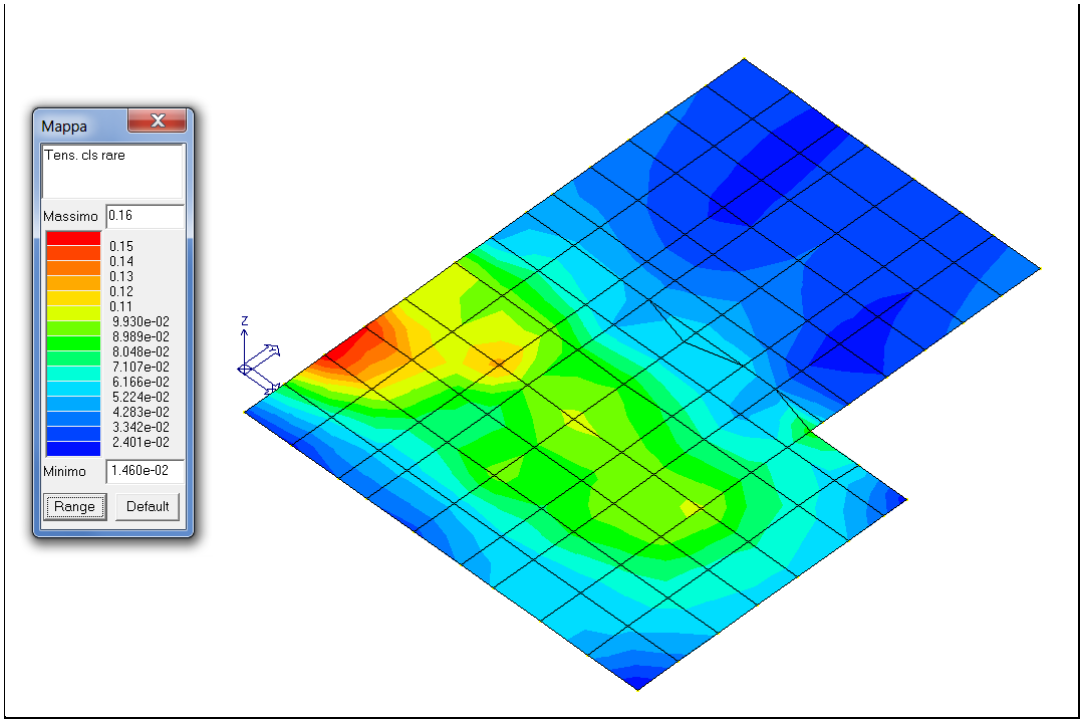



Soletta superiore: Verifica V cls principale

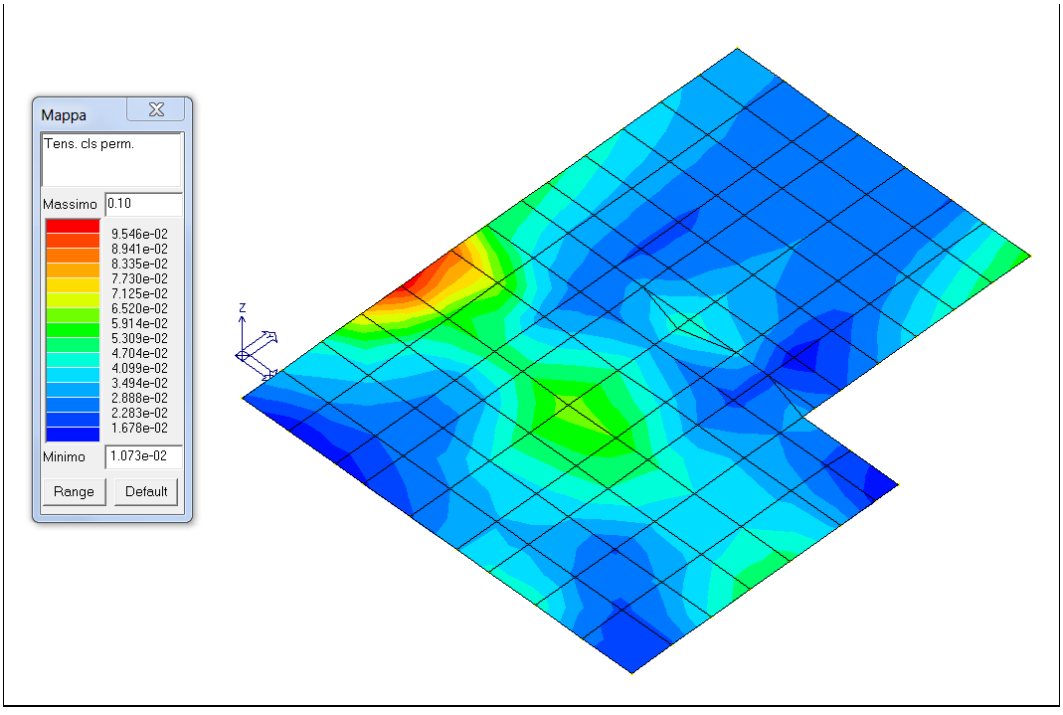



Soletta superiore: Verifica V cls secondario

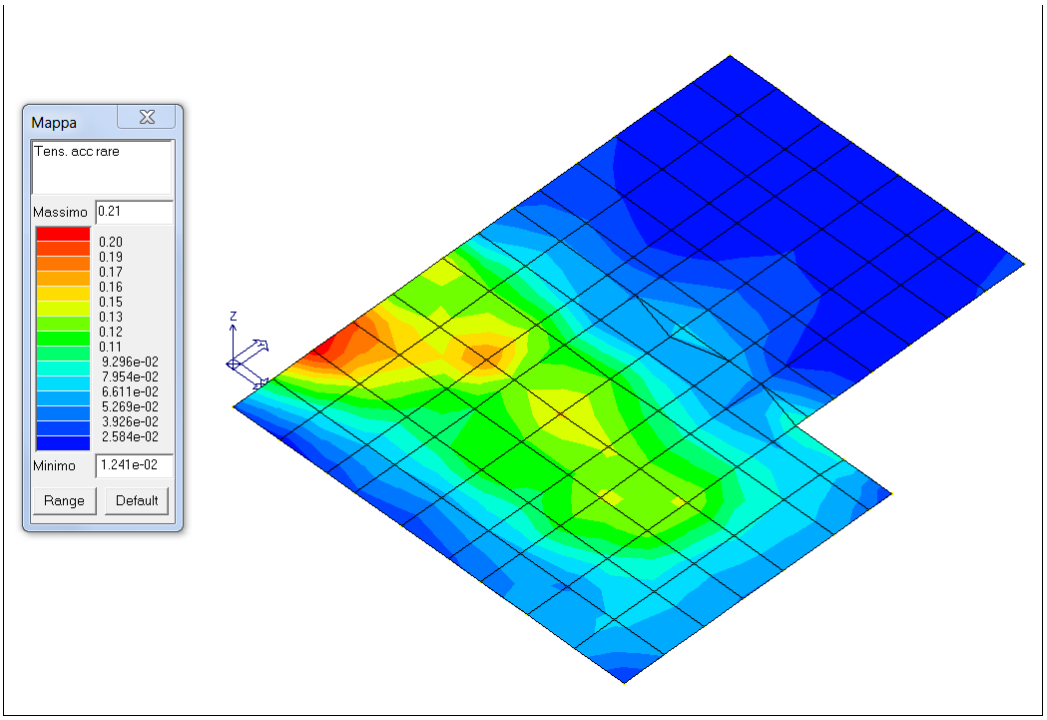
Per la verifica a fessurazione i risultati in termini di ampiezze calcolate riportano fessure nulle. Si riportano le verifiche di Stato limite di limitazione delle tensioni per la combinazione caratteristica e quasi permanente e di trazione nell'acciaio per la combinazione caratteristica in ottemperanza al paragrafo 4.1.2.2.5:




Tensione nel cls per combinazione caratteristica: verifica se $\sigma_{c,max} \leq 0.60 * f_{ck}$




Tensione nel cls per combinazione permanente: verifica se $\sigma_{c,max} \leq 0.45 * f_{ck}$



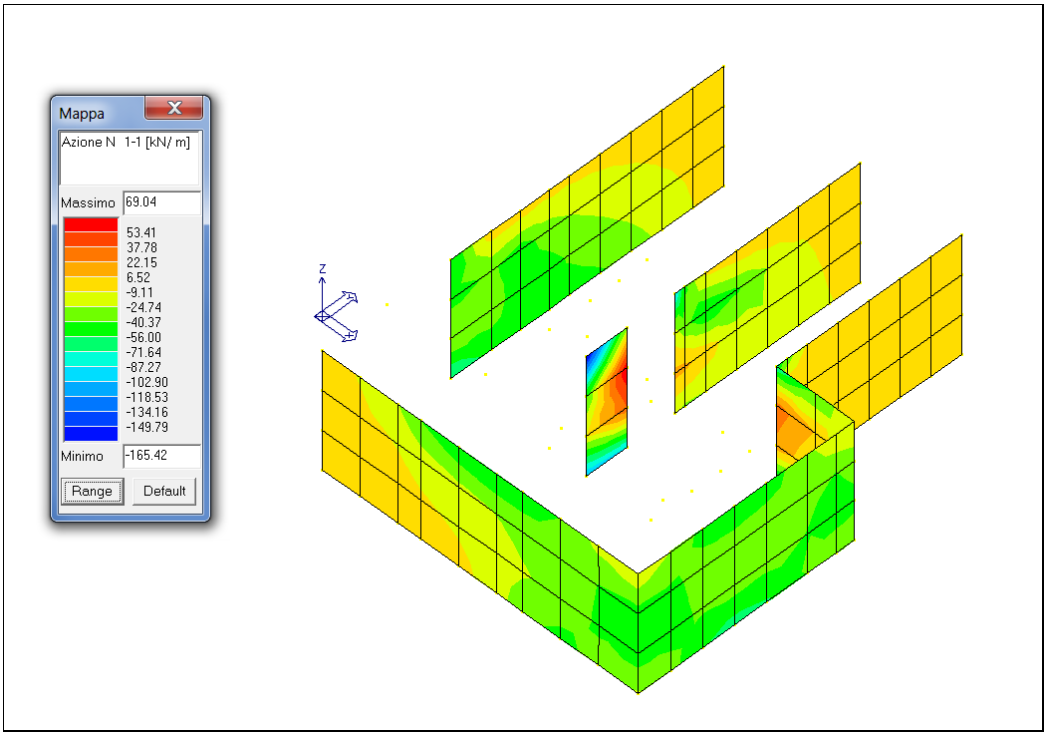

Tensione nel acciaio per combinazione caratteristica: verifica se $\sigma_{s,max} \leq 0.80 * f_{yk}$

Per quanto riguarda le verifiche sismiche SLU (SLV) rientrano nelle casistiche precedentemente esposte. Anche per le verifiche sismiche SLE (SLD) si fa riferimento alla verifiche strutturali in termini di resistenza, secondo quanto riportato al par. 7.3.7.1, che sono comprese nelle casistiche precedentemente esposte.

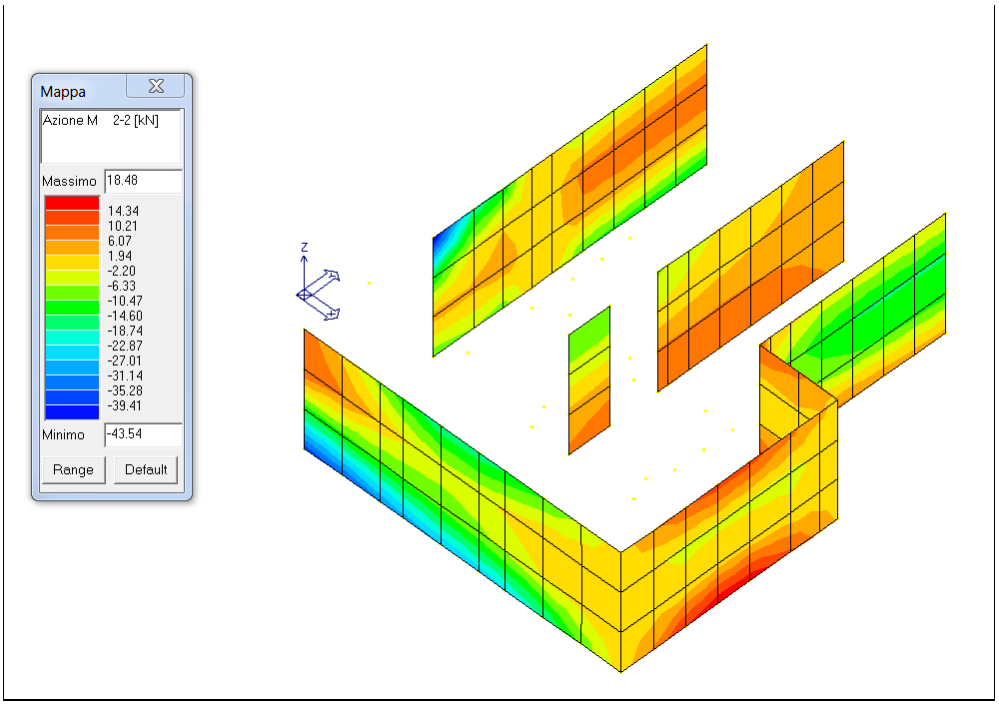
La verifica si ritiene soddisfatta.

## 8.2. Setti verticali

Le sollecitazioni massime di calcolo sono:



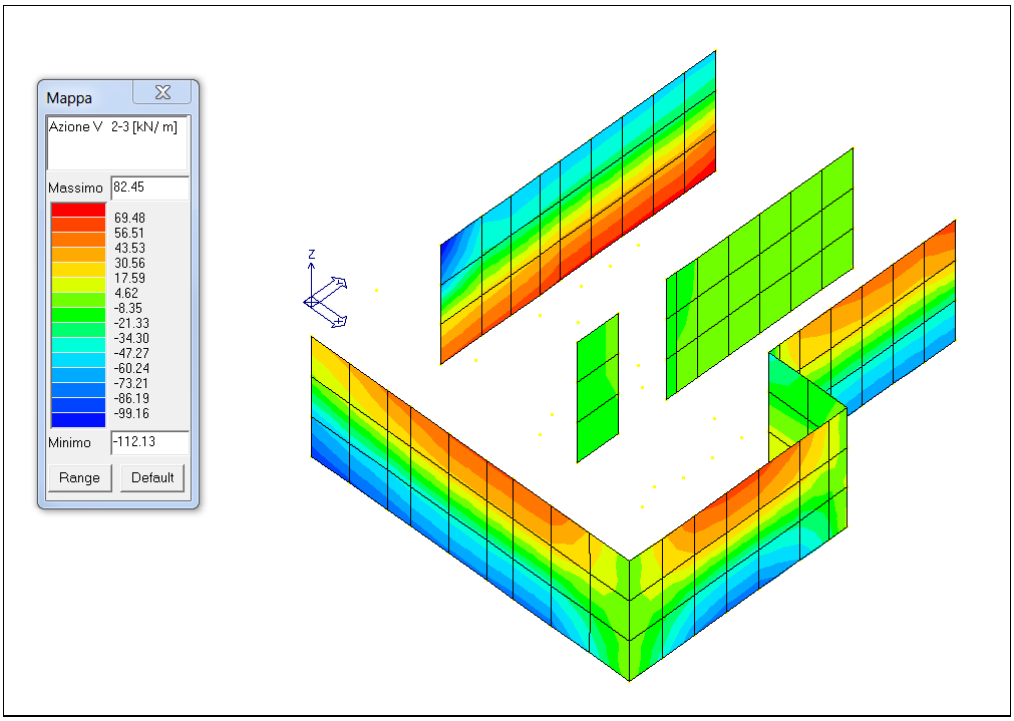

Setti verticali: N 1-1 max in CMB3




Setti verticali: M 2-2 max in CMB3

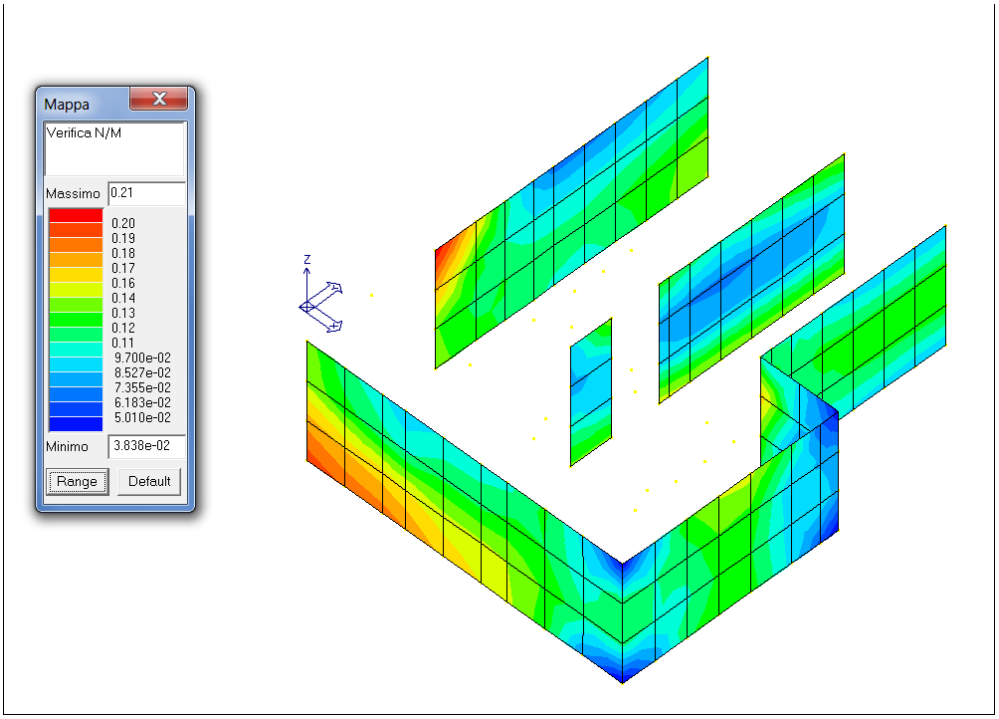
Il progetto prevede una armatura minima, sia all'estradosso che all'intradosso, di 16.96 $cm^2/m$ in direzione verticale e 5.65 $cm^2/m$ in direzione orizzontale.

Per quanto riguarda le azioni di taglio esse sono le seguenti:




Setti verticali: V 2-3 max in CMB3

Le verifiche portano ai seguenti risultati:

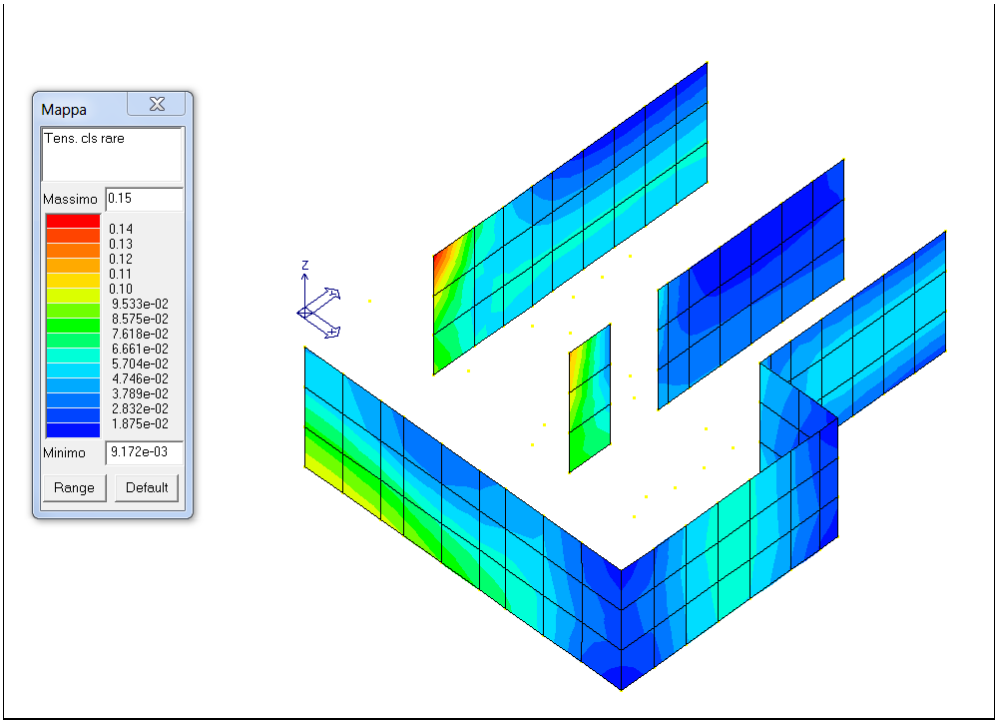



Setti verticali: Verifica N/M

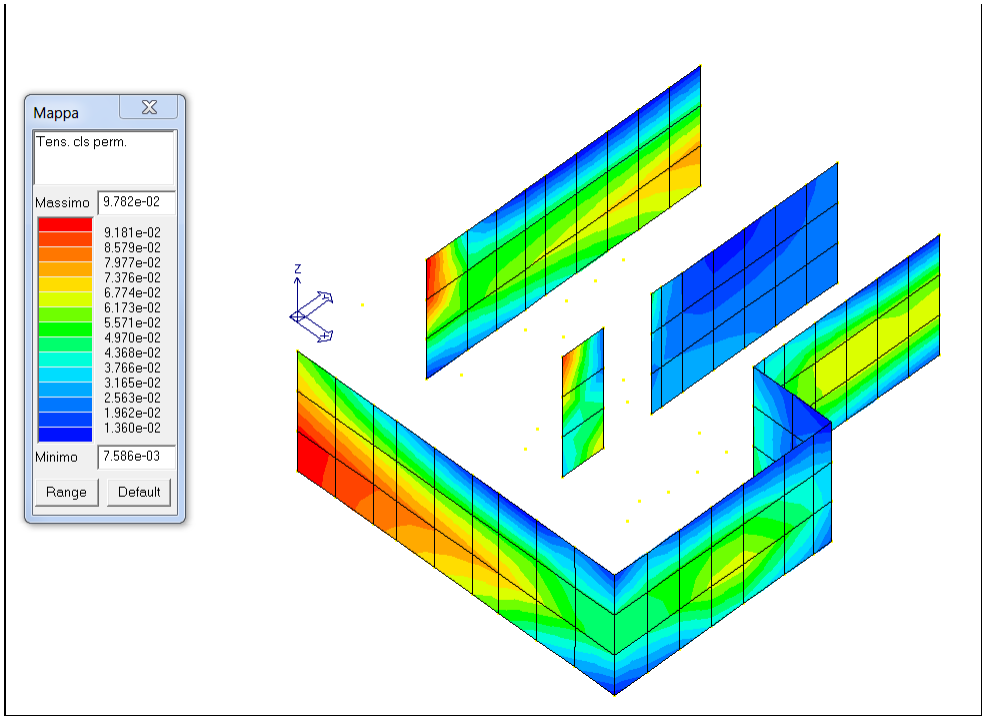
Per la verifica a taglio si ricorre alla valutazione numerica utilizzando i valori massimi di sollecitazione:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **VERIFICA A TAGLIO SECONDO NTC2018** | | | | | | | | | | |
| **sezioni generiche** | | | | | | | | | | |
| MONDOVI' - Setti cunicolo | | | | | | | | | | |
| Materiale | | | | | | | | | | |
| | cls | | | acciaio | | | | | | |
| Rck | 37.00 | N/mmq | f yd | 391.30 | N/mmq | | | | | |
| fck | 30.00 | N/mmq | $\alpha$ | 90.00 | | | | | | |
| fcd | 17.00 | N/mmq | $\Theta$ | 45.00 | | | | | | |
| Geometria sezione: | | | | | | | | | | |
| h | 0.35 | m | Circolare | n | | | | | | |
| cp | 5.00 | cm | d u | 0.30 | m | cotg $\Theta$ | 1.00 | | | |
| bw | 1.00 | m | z | 0.27 | m | | | | | |
| Ac | 3000.00 | cmq | | | | | | | | |
| Asl | 16.96 | cmq | $\rho$ 1 | 0.006 | ok | | | | | |
| Sollecitazioni | | | | | | | | | | |
| Ned | 0.00 | kN | $\alpha$ c | 1.000 | | | | | | |
| Ved | 112.13 | kN | | | | | | | | |
| Verifica senza armatura aggiuntiva | | | | | | Verifica con armatura aggiuntiva | | | | |
| k | 1.816 | | valore corretto | | | | ARM.TRASV | | | |
| vmin | 0.469 | N/mmq | | | | Asw | | cmq | | |
| $\rho$ 1 | 5.653E-03 | | valore corretto | | | s | | cm | | |
| $\sigma$ cp | 0.000 | N/mmq | valore corretto | | | | | | | |
| vmax | 0.560 | N/mmq | | | | | | | | |
| V' rd | 168.01 | kN | | | | V Rcd | | kN | lato cls | |
| V" rd | 140.80 | kN | | | | V Rsd | | kN | lato acciaio | |
| **V Rd** | **140.80** | **kN** | OK | | | **V Rd** | **0.00** | **kN** | non effettuata | |

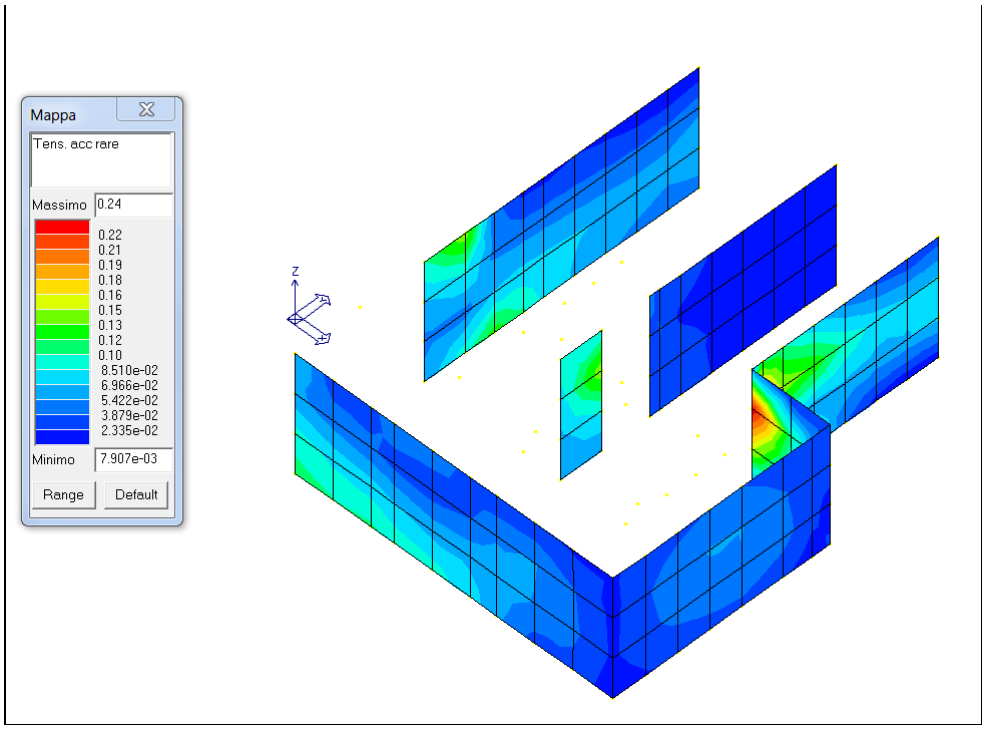
Per la verifica a fessurazione i risultati in termini di ampiezze calcolate riportano fessure nulle. Si riportano le verifiche di Stato limite di limitazione delle tensioni per la combinazione caratteristica e quasi permanente e di trazione nell'acciaio per la combinazione caratteristica in ottemperanza al paragrafo 4.1.2.2.5:




Tensione nel cls per combinazione caratteristica: verifica se $\sigma_{c,max} \leq 0.60 * f_{ck}$




Tensione nel cls per combinazione permanente: verifica se $\sigma_{c,max} \leq 0.45 * f_{ck}$




Tensione nel acciaio per combinazione caratteristica: verifica se $\sigma_{s,max} \leq 0.80 * f_{yk}$

Per quanto riguarda le verifiche sismiche SLU (SLV) rientrano nelle casistiche precedentemente esposte. Anche per le verifiche sismiche SLE (SLD) si fa riferimento alla verifiche strutturali in termini di resistenza, secondo quanto riportato al par. 7.3.7.1, che sono comprese nelle casistiche precedentemente esposte.

La verifica si ritiene soddisfatta.

## 8.3. Soletta di base

Le sollecitazioni massime di calcolo sono:

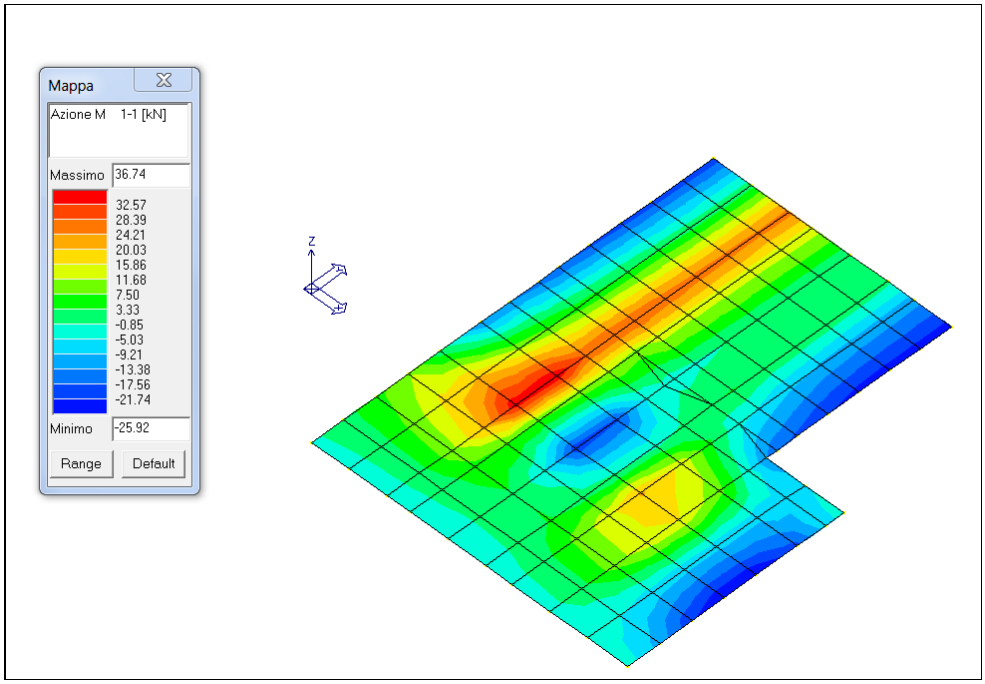



Figura 10.9 - Soletta inferiore: M 1-1 max in CMB1

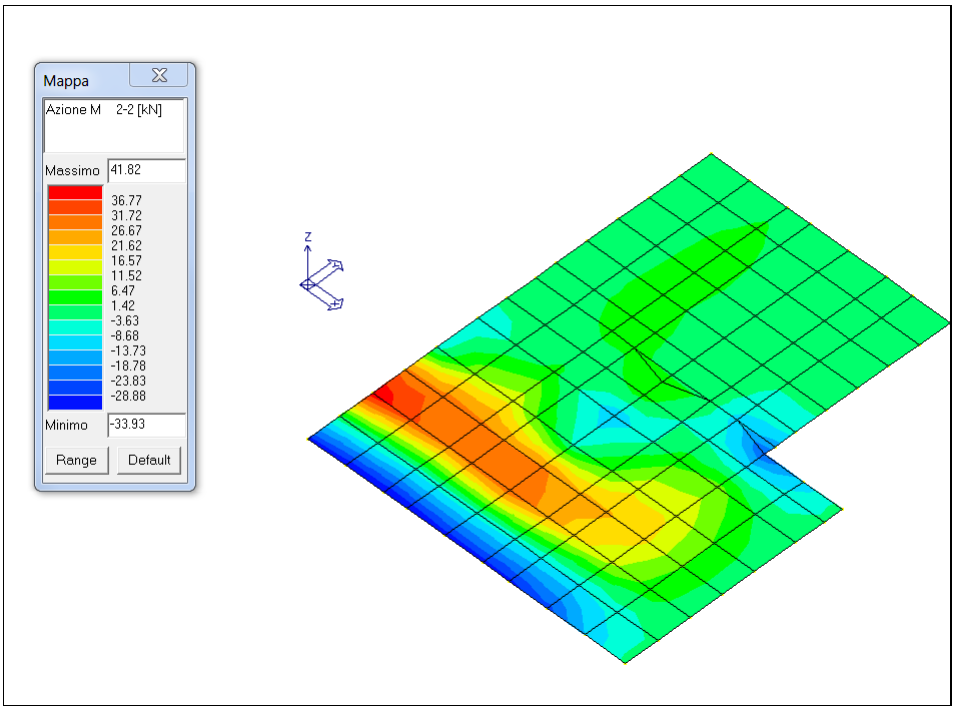



Figura 10.10 - Soletta inferiore: M 2-2 max in CMB1

Il progetto prevede una armatura minima, sia all'estradosso che all'intradosso, di 16.96 $cm^2/m$ nelle due direzioni perpendicolari. Per una migliore visione dei risultati si rimanda ai tabulati riportati in allegato.

Per quanto riguarda le tensioni di taglio indotte sono le seguenti:

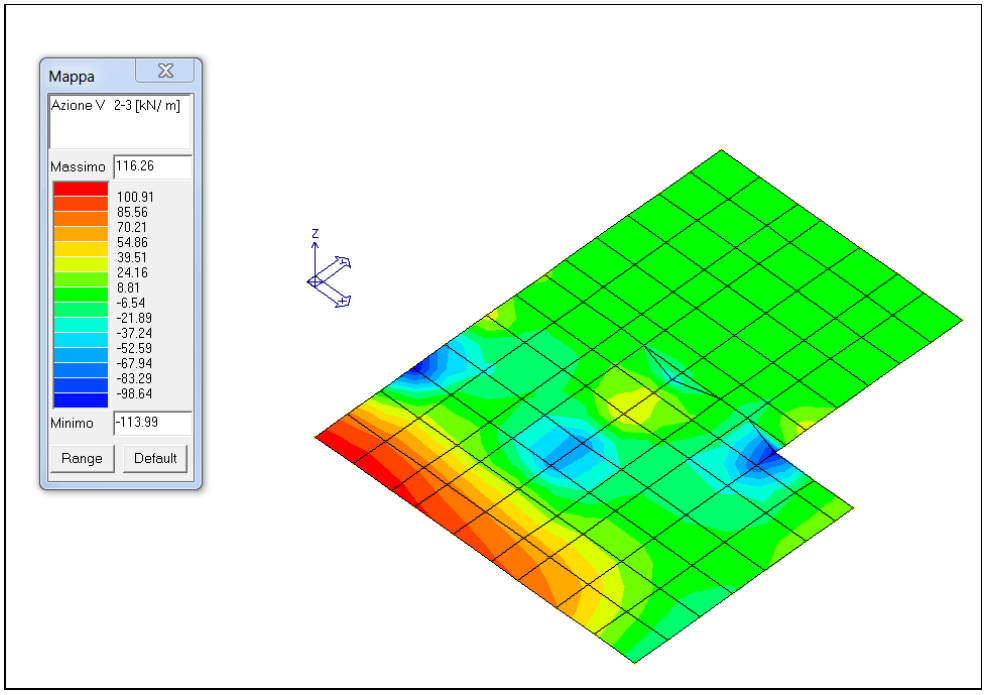
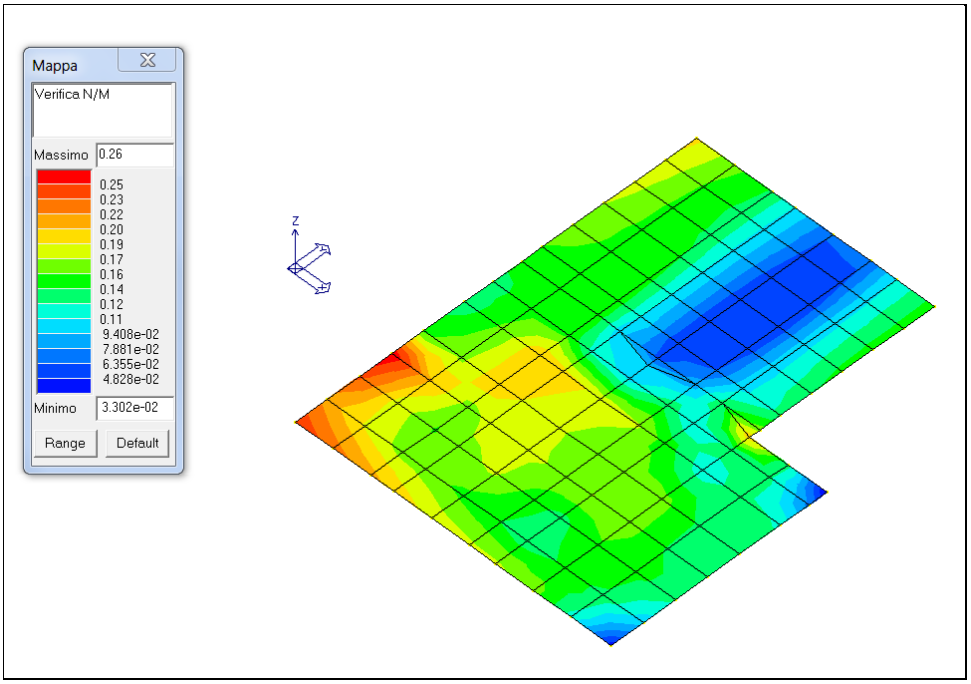
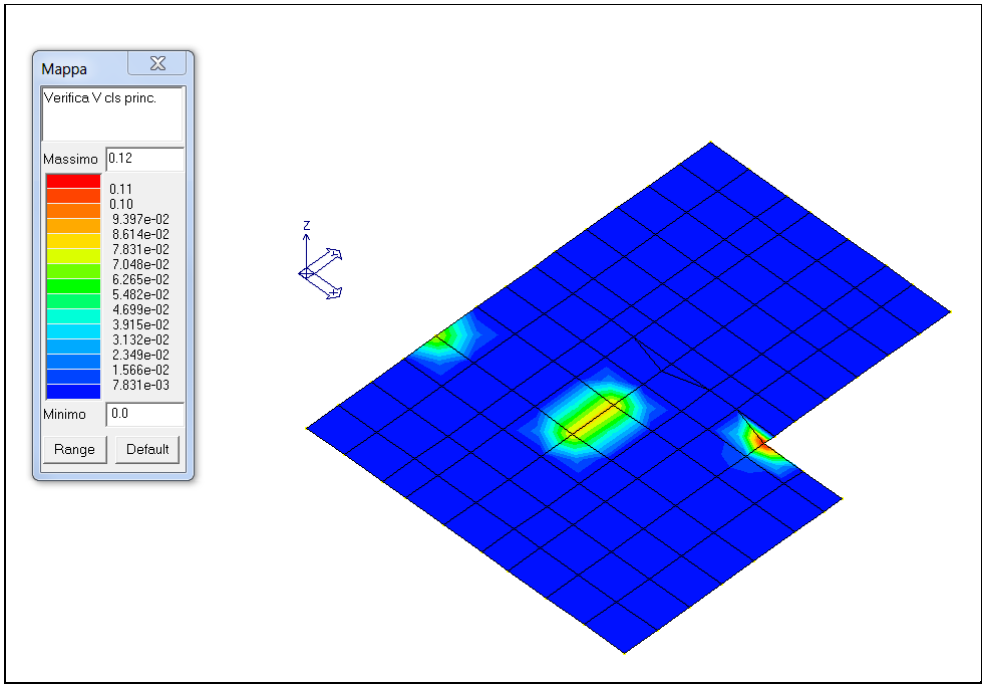



Figura 10.11 - Soletta inferiore: V 2-3 max in CMB1

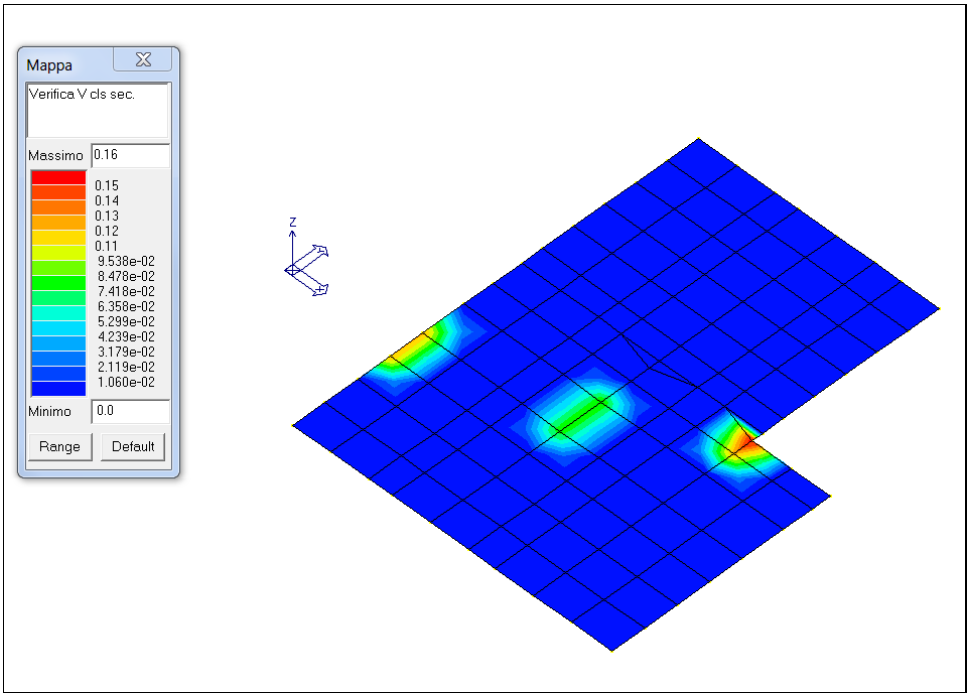
Le verifiche portano ai seguenti risultati:




Soletta di base: Verifica N/M

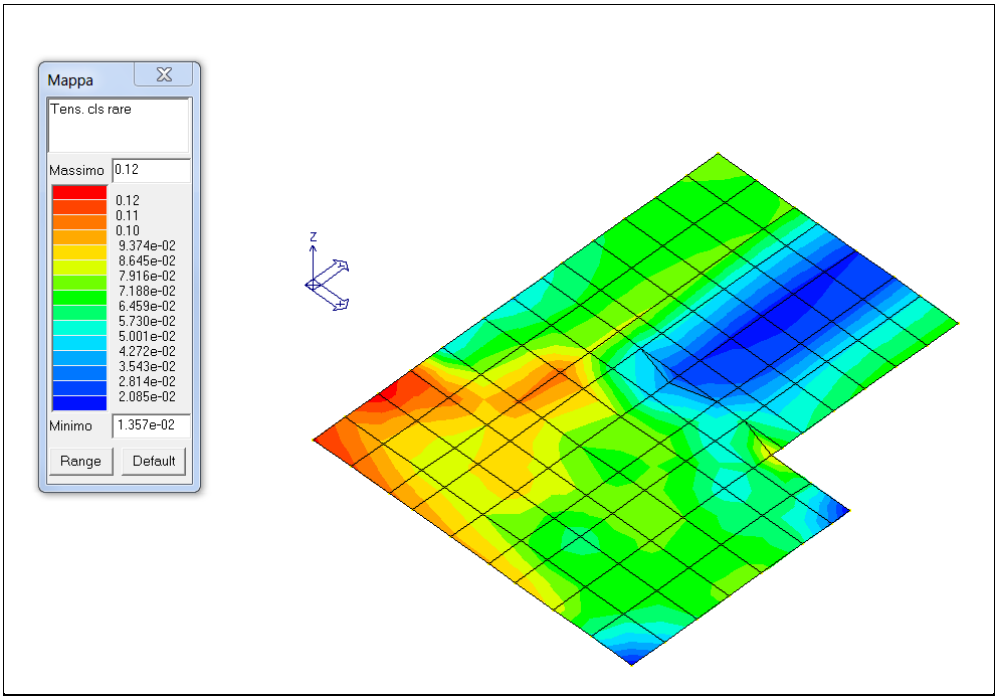



Soletta di base: Verifica V cls principale

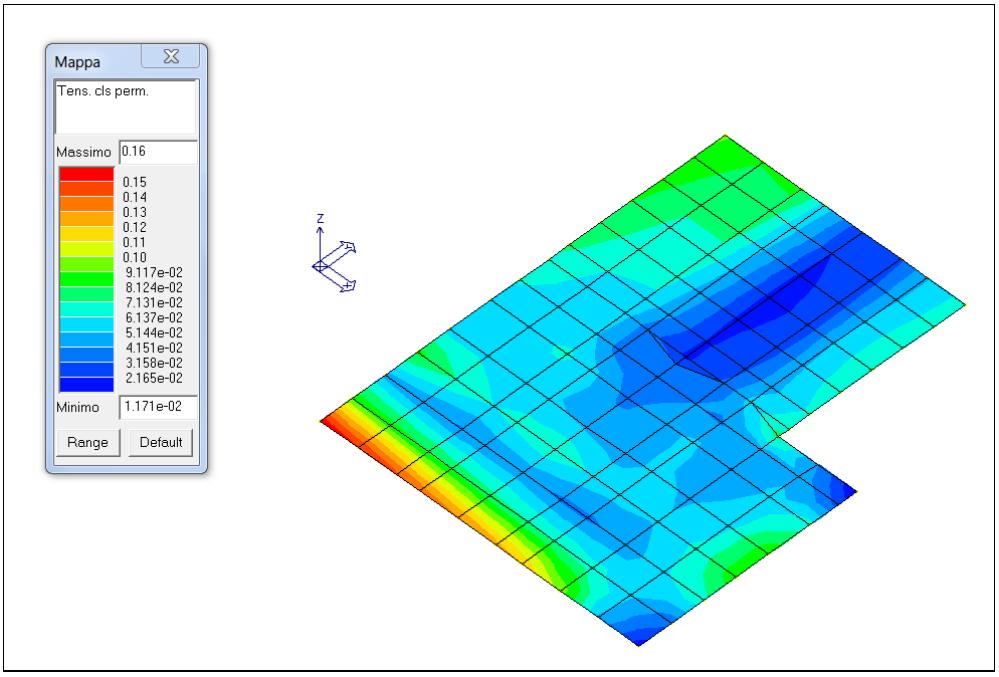



Soletta di base: Verifica V cls secondario

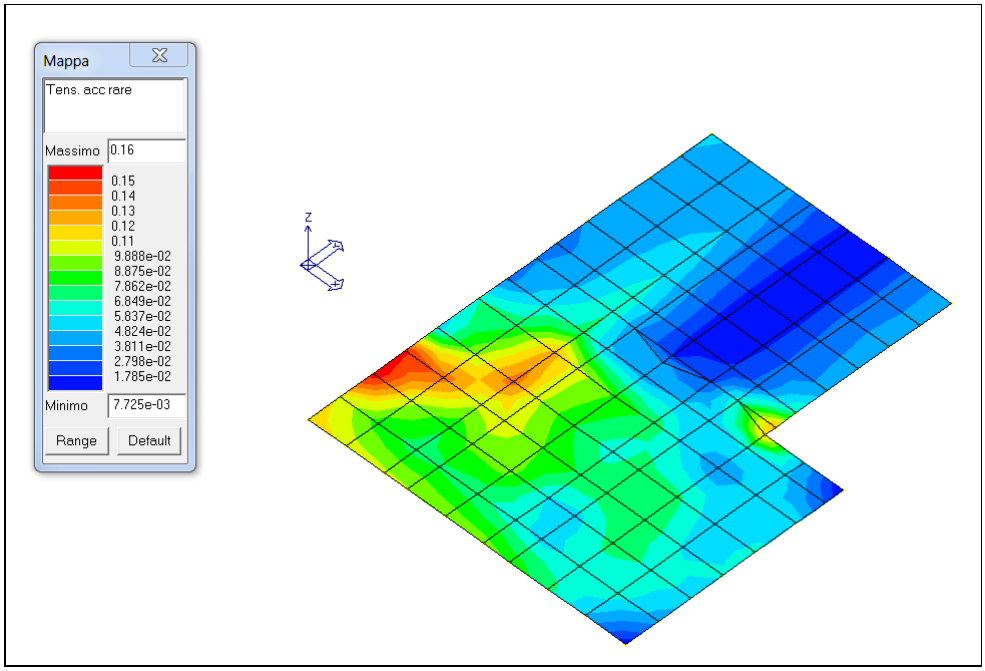
Per la verifica a fessurazione i risultati in termini di ampiezze calcolate riportano fessure nulle. Si riportano le verifiche di Stato limite di limitazione delle tensioni per la combinazione caratteristica e quasi permanente e di trazione nell'acciaio per la combinazione caratteristica in ottemperanza al paragrafo 4.1.2.2.5:




Tensione nel cls per combinazione caratteristica: verifica se $\sigma_{c,max} \leq 0.60 * f_{ck}$




Tensione nel cls per combinazione permanente: verifica se $\sigma_{c,max} \leq 0.45 * f_{ck}$




Tensione nel acciaio per combinazione caratteristica: verifica se $\sigma_{s,max} \leq 0.80 * f_{yk}$

Per quanto riguarda le verifiche sismiche SLU (SLV) rientrano nelle casistiche precedentemente esposte. Anche per le verifiche sismiche SLE (SLD) si fa riferimento alla verifiche strutturali in termini di resistenza, secondo quanto riportato al par. 7.3.7.1, che sono comprese nelle casistiche precedentemente esposte.

La verifica si ritiene soddisfatta.

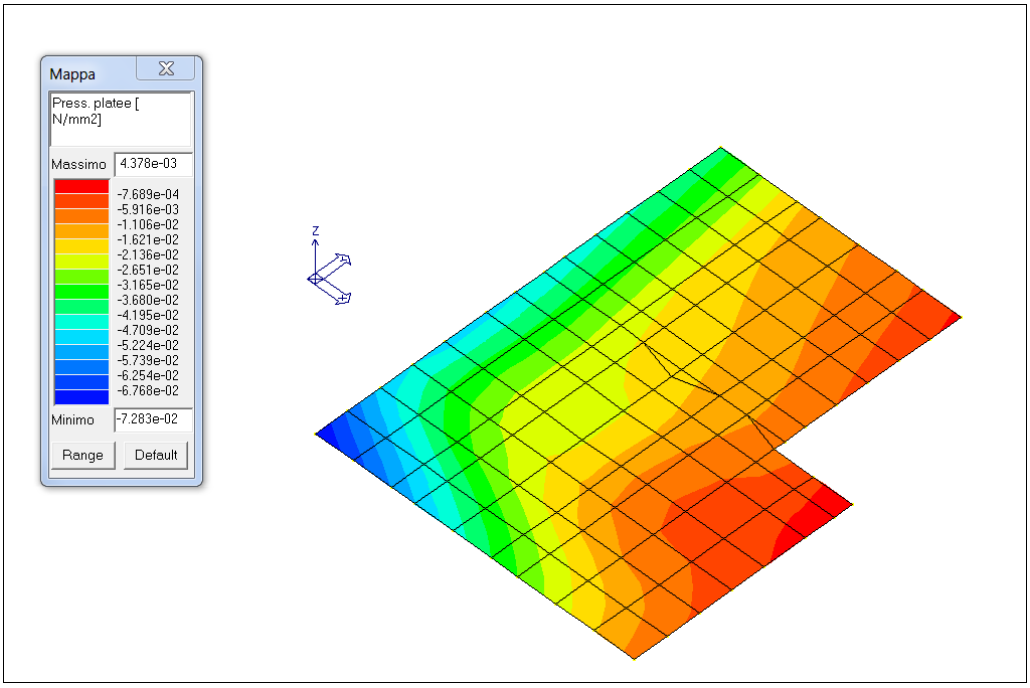
### *8.3.1.* Verifiche geotecniche

Le verifiche geotecniche agli stati limite ultimi sono eseguite con riferimento al seguente Approccio:

Approccio 2 → (A1+M1+R3) → GEO per le verifiche delle fondazione

in cui il significato ed i valori dei coefficienti parziali da utilizzare sono già stati precedentemente discussi.

Le massime pressioni di contatto sul terreno sono le seguenti:




Pressione di contatto in CMB1

Le resistenze di progetto del terreno di fondazione sono:

MONDOVI' - Uscite cunicolo portanza fondazione platea

| | NTC2018 | |
|---|---|---|
| | APPROCCIO 2 | SISMICA |
| | Rd [kPa] | Rd [kPa] |
| DRENATE | **1369.94** | **993.46** |
| NON DRENATE | **non det** | **non det** |

La verifica pertanto è soddisfatta.

Non si ritengono necessarie le verifiche allo scorrimento in quanto la struttura è interrata.

Non si ritengono necessarie le verifiche agli SLE/cedimenti in quanto la struttura ha fondazione compensata.

## 8.4. Verifica al galleggiamento.

La verifica al galleggiamento (UPL) si conduce considerando:

- stabilizzante il peso proprio della struttura, il peso della sovrastruttura stradale e gli effetti di attrito fra terreno di riempimento e setti verticali ($G_{stb,\,d}$);
- instabilizzante la pressione dell'acqua, considerata cautelativamente a p.c., agente sulla soletta inferiore ($G_{inst,\,d}$).

Per cui deve risultare:

$$V_{inst} < G_{stb} \text{ e cioè:}$$

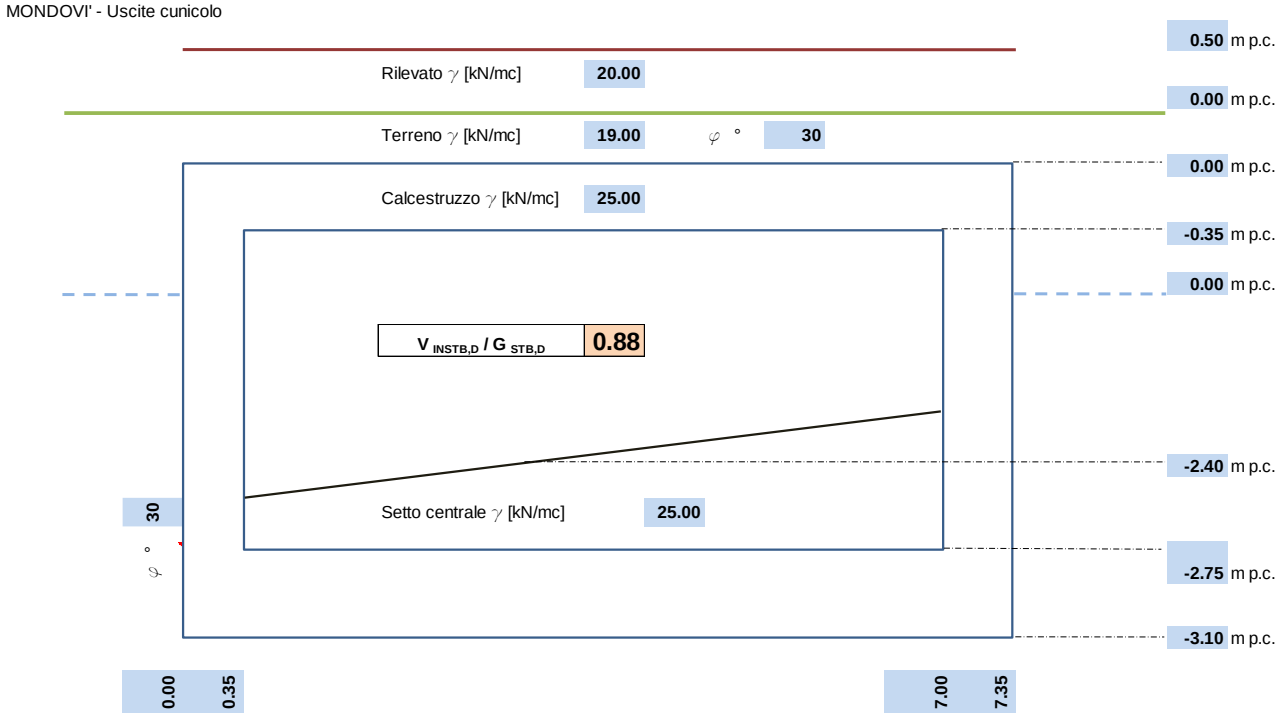
$$\gamma_{G1}\, G_{inst,\,d} < \gamma_{G1}\, G_{stb,\,d}$$

I risultati nella tabella seguente:

**VERIFICA A GALLEGGIAMENTO NTC2018**

Ipotesi di struttura infinitamente lunga - verifica per m lineare

MONDOVI' - Uscite cunicolo




| STABILIZZANTI | Netto [kN/m] | γ G | Di progetto [kN/m] |
|---|---|---|---|
| Peso manufatto | 170.63 | 0.90 | 153.56 |
| Peso terreno copertura | 0.00 | 0.90 | 0.00 |
| Peso rilevato | 73.50 | 0.90 | 66.15 |
| Peso setto centrale | 58.19 | 0.90 | 52.37 |
| Azione attrito su piedritti | 12.48 | 0.90 | 11.24 |
| $G_{STB,D}$ + RD | | | 283.32 |

| INSTABILIZZANTI | Netto [kN/m] | γ G | Di progetto [kN/m] |
|---|---|---|---|
| Pressione falda | 227.85 | 1.10 | 250.64 |
| $V_{INSTB,D}$ | | | 250.64 |

La verifica si ritiene soddisfatta.

PRO_SAP

PROfessional Structural Analysis Program

**Relazione di calcolo strutturale impostata e redatta secondo le modalità previste nel D.M. 14 Gennaio 2008 cap. 10 “Redazione dei progetti strutturali esecutivi e delle relazioni di calcolo”.**

2S.I. Software e Servizi per l'Ingegneria S.r.l.
Via Garibaldi, 90
44121 Ferrara FE ( Italy)

Tel. +39 0532 200091
Fax +39 0532 200086

www.2si.it
info@2si.it

D.M. 14/01/08 cap. 10.2 Affidabilità dei codici utilizzati
https://www.2si.it/it/prodotti/affidabilita/

# 1 INTESTAZIONE E CONTENUTI DELLA RELAZIONE

| *1.1.1 Progetto* |
| --- |
| |

Contenuti della relazione:

RELAZIONE DI CALCOLO STRUTTURALE

- *Origine e Caratteristiche dei Codici di Calcolo*
- *Affidabilità dei codici utilizzati*
- *Validazione dei codici*
- *Tipo di analisi svolta*
- *Modalità di presentazione dei risultati*
- *Informazioni generali sull'elaborazione*
- *Giudizio motivato di accettabilità dei risultati*

STAMPA DEI DATI DI INGRESSO

- *Normative prese a riferimento*
- *Criteri adottati per le misure di sicurezza*
- *Criteri seguiti nella schematizzazione della struttura, dei vincoli e delle sconessioni*

- *Interazione tra terreno e struttura*
- *Legami costitutivi adottati per la modellazione dei materiali e dei terreni*
- *Schematizzazione delle azioni, condizioni e combinazioni di carico*
- *Metodologie numeriche utilizzate per l' analisi strutturale*
-*Metodologie numeriche utilizzate per la progettazione e la verifica degli elementi strutturali*

STAMPA DEI RISULTATI

Il Progettista:

24 maggio 2020

# 2 RELAZIONE DI CALCOLO STRUTTURALE

## *2.1 PREMESSA*

La presente relazione di calcolo strutturale, in conformità al §10.1 del DM 14/01/08, è comprensiva di una descrizione generale dell'opera e dei criteri generali di analisi e verifica. Segue inoltre le indicazioni fornite al §10.2 del DM stesso per quanto concerne analisi e verifiche svolte con l'ausilio di codici di calcolo.

Nella presente parte sono riportati i principali elementi di inquadramento del progetto esecutivo riguardante le strutture, in relazione agli strumenti urbanistici, al progetto architettonico, al progetto delle componenti tecnologiche in generale ed alle prestazioni attese dalla struttura.
*Completare*

## *2.2 ANALISI STORICO-CRITICA ED ESITO DEL RILIEVO GEOMETRICO-STRUTTURALE*

Per edifici esistenti, in coerenza con il paragrafo 8.2 delle NTC-08, l'analisi storico-critica ed il rilievo geometrico-strutturale devono evidenziare i seguenti aspetti: (a) la costruzione riflette lo stato delle conoscenze al tempo della sua realizzazione; (b) possono essere insiti e non palesi difetti di impostazione e di realizzazione; (c) la costruzione può essere stata soggetta ad azioni, anche eccezionali, i cui effetti non siano completamente manifesti; (d) le strutture possono presentare degrado e/o modificazioni significative rispetto alla situazione originaria.

### *2.2.1 Analisi storico-critica*

Per edifici esistenti, viene indicata la documentazione reperita e vengono esplicitate le informazioni desunte da ciascuno dei documenti esaminati per le finalità indicate al paragrafo 8.5.1 delle NTC-08.
*Completare*

### *2.2.2 Esito del rilievo geometrico-strutturale*

Per edifici esistenti, vengono descritte le modalità con cui è stato effettuato il rilievo geometrico strutturale e gli esiti di quest'ultimo, anche con riferimenti espliciti e puntuali agli elaborati grafici che saranno riportati nella parte "4.1. Rilievo geometrico-strutturale". Il rilievo delle strutture deve essere eseguito e restituito secondo le
modalità e con le finalità riportate nei paragrafi 8.5.2 e 8.7 delle NTC-08.
*Completare*

## *2.3 DESCRIZIONE GENERALE DELL'OPERA*

*Completare*

| *2.3.1 Descrizione generale dell'opera* | |
|---|---|
| Fabbricato ad uso | |
| Ubicazione | Comune di MONDOVI' (CN) (Regione PIEMONTE) |
| | Località MONDOVI' (CN) |
| | Longitudine 7.811, Latitudine 44.366 |
| Numero di piani | Fuori terra |
| | Interrati |
| | le dimensioni dell'opera in pianta sono racchiuse in un rettangolo di |
| Numero vani scale | |
| Numero vani ascensore | |
| Tipo di fondazione | |

| *2.3.2 Principali caratteristiche della struttura* | |
|---|---|
| Struttura regolare in pianta | |
| Struttura regolare in altezza | |
| Classe di duttilità | |
| Travi: ricalate o in spessore | |
| Pilastri | |
| Pilastri in falso | |
| Tipo di fondazione | |
| Condizioni per cui è necessario considerare la componente verticale del sisma | |

| *2.3.3 Parametri della struttura* | | | |
|---|---|---|---|
| Classe d'uso | Vita Vn [anni] | Coeff. Uso | Periodo Vr [anni] |

| | | | |
|---|---|---|---|
| III | 50.0 | 1.5 | 75.0 |

| *2.3.4 Fattore di struttura* |
|---|
| *Completare* |

## *2.4 QUADRO NORMATIVO DI RIFERIMENTO ADOTTATO*

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito.

Nel capitolo "normativa di riferimento" è comunque presente l'elenco completo delle normative disponibili.

| *2.4.1 Progetto-verifica degli elementi* | |
|---|---|
| Progetto cemento armato | D.M. 14-01-2008 |
| Progetto acciaio | D.M. 14-01-2008 |
| Progetto legno | D.M. 14-01-2008 |
| Progetto muratura | D.M. 14-01-2008 |
| *2.4.2 Azione sismica* | |
| Norma applicata per l' azione sismica | D.M. 14-01-2008 |

## *2.5 LIVELLI DI CONOSCENZA E FATTORI DI CONFIDENZA*

Il livello di conoscenza, per edifici esistenti è *Completare*

Pertanto il fattore di confidenza è *Completare*

## *2.6 AZIONI DI PROGETTO SULLA COSTRUZIONE*

Nei capitoli "modellazione delle azioni" e "schematizzazione dei casi di carico" sono indicate le azioni sulla costruzioni.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico,dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame *sono risultate effettivamente esaustive per la progettazione-verifica.*

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

**K * u = F** dove **K** = matrice di rigidezza
**u** = vettore spostamenti nodali
**F** = vettore forze nodali

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.

Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento tipo ***TRUSS*** (biella-D2)
Elemento tipo ***BEAM*** (trave-D2)
Elemento tipo ***MEMBRANE*** (membrana-D3)
Elemento tipo ***PLATE*** (piastra-guscio-D3)

Elemento tipo ***BOUNDARY*** (molla)

Elemento tipo ***STIFFNESS*** (matrice di rigidezza)

Elemento tipo ***BRICK*** (elemento solido)

Elemento tipo ***SOLAIO*** (macro elemento composto da più membrane)

## *2.7 MODELLO NUMERICO*

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 delle NTC-08, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

*Completare*

| *2.7.1 Tipo di analisi strutturale* | |
|---|---|
| Carichi statici | SI |
| Sismica statica lineare | SI |
| Sismica dinamica lineare | NO |
| Sismica statica non lineare (prop. masse) | NO |
| Sismica statica non lineare (prop. modo) | NO |
| Sismica statica non lineare (triangolare) | NO |
| Non linearità geometriche (fattore P delta) | NO |

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

| *2.7.2 Informazioni sul codice di calcolo* | |
|---|---|
| Titolo: | PRO_SAP PROfessional Structural Analysis Program |
| Versione: | PROFESSIONAL (build 2020-03-188) |

| | |
|---|---|
| Produttore-Distributore: | 2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara |
| Dati utente finale: | ******* COMPLETARE ******* |
| Codice Utente: | ******* COMPLETARE ******* |
| Codice Licenza: | Licenza dsi3478 |

Un attento esame preliminare della documentazione a corredo del software ***ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico***. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

| *2.7.3 Affidabilità dei codici utilizzati* |
|---|
| 2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche.<br>E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: http://www.2si.it/Software/Affidabilità.htm |

| *2.7.4 Modellazione della geometria e proprietà meccaniche:* | |
|---|---|
| nodi | 352 |
| elementi D2 (per aste, travi, pilastri…) | 0 |
| elementi D3 (per pareti, platee, gusci…) | 342 |
| elementi solaio | 0 |
| elementi solidi | 0 |
| *2.7.5 Dimensione del modello strutturale [cm]:* | |
| X min = | -0.00 |

| | |
|---|---|
| Xmax = | 730.25 |
| Ymin = | -0.00 |
| Ymax = | 927.50 |
| Zmin = | -354.00 |
| Zmax = | -79.00 |
| *2.7.6 Strutture verticali:* | |
| Elementi di tipo asta | NO |
| Pilastri | NO |
| Pareti | SI |
| Setti (a comportamento membranale) | NO |
| *2.7.7 Strutture non verticali:* | |
| Elementi di tipo asta | NO |
| Travi | NO |
| Gusci | SI |
| Membrane | NO |
| *2.7.8 Orizzontamenti:* | |
| Solai con la proprietà piano rigido | NO |
| Solai senza la proprietà piano rigido | NO |
| *2.7.9 Tipo di vincoli:* | |
| Nodi vincolati rigidamente | NO |
| Nodi vincolati elasticamente | NO |
| Nodi con isolatori sismici | NO |
| Fondazioni puntuali (plinti/plinti su palo) | NO |
| Fondazioni di tipo trave | NO |
| Fondazioni di tipo platea | SI |
| Fondazioni con elementi solidi | NO |

## *2.8 MODELLAZIONE DELLE AZIONI*

Si veda il capitolo **"Schematizzazione dei casi di carico"** per le informazioni necessarie alla comprensione ed alla ricostruzione delle azioni applicate al modello numerico, coerentemente con quanto indicato nella parte "*2.6. Azioni di progetto sulla costruzione*".

## *2.9 COMBINAZIONI E/O PERCORSI DI CARICO*

Si veda il capitolo **"Definizione delle combinazioni"** in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

| *2.9.1 Combinazioni dei casi di carico* | |
|---|---|
| APPROCCIO PROGETTUALE | Approccio 2 |
| Tensioni ammissibili | NO |
| SLU | SI |
| SLV (SLU con sisma) | SI |
| SLC | NO |
| SLD | SI |
| SLO | NO |
| SLU GEO A2 (per approccio 1) | NO |
| SLU EQU | NO |
| Combinazione caratteristica (rara) | SI |
| Combinazione frequente | SI |
| Combinazione quasi permanente (SLE) | SI |
| SLA (accidentale quale incendio) | NO |

| *2.9.2 Principali risultati* |
|---|
| I risultati devono costituire una sintesi completa ed efficace, presentata in modo da riassumere il comportamento della struttura, per ogni tipo di analisi svolta. |

Nella presente relazione di calcolo sono riportati i seguenti risultati che il progettista ritiene di interesse per la descrizione e la compresione del/i modello/i e del comportamento della struttura:

per l'analisi modale:

- periodi dei modi di vibrare della struttura
- masse eccitate dai singoli modi
- massa eccitata totale

deformate e sollecitazioni:

- spostamenti e rotazioni dei singoli nodi della struttura
- reazioni vincolari (nel caso siano presenti nodi vincolati rigidamente)
- pressioni sul terreno (nel caso siano presenti elementi di fondazione)
- sollecitazioni sugli elementi d2 nelle combinazioni di calcolo più significative
- tensioni sugli elementi d3 nelle combinazioni di calcolo più significative
- sollecitazioni sui macroelementi da elementi d3 nelle combinazioni di calcolo più significative

altri risultati significativi:

- *Completare*

La presente relazione, oltre ad illustrare in modo esaustivo i dati in ingresso ed i risultati delle analisi in forma tabellare, riporta una serie di immagini:

per i dati in ingresso:

- modello solido della struttura
- numerazione di nodi e ed elementi
- configurazioni di carico statiche
- configurazioni di carico sismiche con baricentri delle masse e eccentricità

per le combinazioni più significative (statisticamente più gravose per la struttura):

- configurazioni deformate
- diagrammi e inviluppi delle azioni interne
- mappe delle tensioni
- reazioni vincolari
- mappe delle pressioni sul terreno

per il progetto-verifica degli elementi:

- diagrammi di armatura
- percentuali di sfruttamento

- mappe delle verifiche più significative per i vari stati limite

### *2.9.3 Informazioni generali sull'elaborazione e giudizio motivato di accettabilità dei risultati.*

Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione. Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni abnormi. Si può pertanto asserire che l' elaborazione sia corretta e completa. I risultati delle elaborazioni sono stati sottoposti a controlli che ne comprovano l'attendibilità. Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali e adottati, anche in fase di primo proporzionamento della struttura. Inoltre, sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni. Si allega al termine della presente relazione elenco sintetico dei controlli svolti (verifiche di equilibrio tra reazioni vincolari e carichi applicati, comparazioni tra i risultati delle analisi e quelli di valutazioni semplificate, etc.) .
*Completare*

## *2.10 VERIFICHE AGLI STATI LIMITE ULTIMI*

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di duttilità, di degrado.

## *2.11 VERIFICHE AGLI STATI LIMITE DI ESERCIZIO*

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.

## *2.12 RELAZIONE SUI MATERIALI*

Il capitolo Materiali riportata informazioni esaustive relative all'elenco dei materiali impiegati e loro modalità di posa in opera e ai valori di calcolo.

# 3 NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 14 Gennaio 2008 e allegate "Norme tecniche per le costruzioni".
2. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
3. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
4. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
6. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
7. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
8. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
9. Circolare 4 Gennaio 1989 n. 30787 “Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento”.
10. D.M. LL.PP. 11 Marzo 1988 “Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione”.
11. D.M. LL.PP. 3 Dicembre 1987 “Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate”.
12. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
13. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 “Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica” e successive modificazioni e integrazioni.
14. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
15. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.
16. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
17. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
18. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
19. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
20. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
21. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.
22. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
23. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.

24. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
25. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
26. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali – Regole comuni e regole per gli edifici.
27. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
28. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1: Regole generali per strutture di muratura armata e non armata.
29. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
30. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
31. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
32. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.

UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.

NOTA sul capitolo "normativa di riferimento": riporta l' elenco delle normative implementate nel software. Le norme utilizzate per la struttura oggetto della presente relazione sono indicate nel precedente capitolo "RELAZIONE DI CALCOLO STRUTTURALE" "ANALISI E VERIFICHE SVOLTE CON L'AUSILIO DI CODICI DI CALCOLO". Laddove nei capitoli successivi vengano richiamate norme antecedenti al DM 14.01.08 è dovuto o a progettazione simulata di edifico esistente o ad applicazione del punto 2.7 del DM 14.01.08

# 4 CARATTERISTICHE MATERIALI UTILIZZATI

## *4.1 LEGENDA TABELLA DATI MATERIALI*

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

| | |
|---|---|
| 1 | materiale tipo cemento armato |
| 2 | materiale tipo acciaio |
| 3 | materiale tipo muratura |
| 4 | materiale tipo legno |
| 5 | materiale tipo generico |

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

| | |
|---|---|
| Young | modulo di elasticità normale E |
| Poisson | coefficiente di contrazione trasversale ni |
| G | modulo di elasticità tangenziale |
| Gamma | peso specifico |
| Alfa | coefficiente di dilatazione termica |
| Fattore di confidenza FC m | Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura) |
| Fattore di confidenza FC a | Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura) |
| Elasto-plastico | Materiale elastico perfettamente plastico per aste non lineari |
| Massima compressione | Massima tensione di compressione per aste non lineari |
| Massima trazione | Massima tensione di trazione per aste non lineari |
| Fattore attrito | Coefficinete di attrito per aste non lineari |

| | |
|---|---|
| Rapporto HRDb | Rapporto di hardening a flessione |
| Rapporto HRDv | Rapporto di hardening a taglio |

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

| | | | |
|---|---|---|---|
| 1 | cemento armato | | |
| | | Resistenza Rc | resistenza a cmpressione cubica |
| | | Resistenza fctm | resistenza media a trazione semplice |
| | | Coefficiente ksb | Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block |
| 2 | acciaio | | |
| | | Tensione ft | Valore della tensione di rottura |
| | | Tensione fy | Valore della tensione di snervamento |
| | | Resistenza fd | Resistenza di calcolo per SL CNR-UNI 10011 |
| | | Resistenza fd (>40) | Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm |
| | | Tensione ammissibile | Tensione ammissibile CNR-UNI 10011 |
| | | Tensione ammissibile (>40) | Tensione ammissibile CNR-UNI 10011 per spessori > 40mm |
| 3 | muratura | | |
| | | Muratura consolidata | Muratura per la quale si prevedono interventi di rinforzo" |
| | | Incremento resistenza | Incremento conseguito in termini di resistenza |
| | | Incremento rigidezza | Incremento conseguito in termini di rigidezza |
| | | Resistenza f | Valore della resistenza a compressione |
| | | Resistenza fv0 | Valore della resistenza a taglio in assenza di tensioni normali |

| | | |
|---|---|---|
| | Resistenza fh | Valore della resistenza a compressione orizzontale |
| | Resistenza fb | Valore della resistenza a compressione dei blocchi |
| | Resistenza fbh | Valore della resistenza a compressione dei blocchi in direzione orizzontale |
| | Resistenza fv0h | Valore della resistenza a taglio in assenza di tensioni normali per le travi |
| | Resistenza ft | Valore della resistenza a trazione per fessurazione diagonale |
| | Resistenza fvlim | Valore della massima resistenza a taglio |
| | Resistenza fbt | Valore della resistenza a trazione dei blocchi |
| | Coefficiente mu | Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4) |
| | Coefficiente fi | Coefficiente d'ingranamento utilizzato per la resistenza a taglio |
| | Coefficiente ksb | Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block |
| 4 legno | | |
| | E0,05 | Modulo di elasticità corrispondente ad un frattile del 5% |
| | Resistenza fc0 | Valore della resistenza a compressione parallela |
| | Resistenza ft0 | Valore della resistenza a trazione parallela |
| | Resistenza fm | Valore della resistenza a flessione |
| | Resistenza fv | Valore della resistenza a taglio |
| | Resist. ft0k | Resistenza caratteristica (tensione amm. per REGLES) per trazione |
| | Resist. fmk | Resistenza caratteristica (tensione amm. per REGLES) per flessione |
| | Resist. fvk | Resistenza caratteristica (tensione amm. per REGLES) per taglio |
| | Modulo E0,05 | Modulo elastico parallelo caratteristico |
| | Lamellare | lamellare o massiccio |

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e

relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamiciatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST" - versione Maggio 2011, disponibile per il download sul sito **www.2si.it**, si segnalano i seguenti esempi applicativi:

Modellazione di strutture in c.a.

| Test N° | Titolo |
|---|---|
| 41 | GERARCHIA DELLE RESISTENZE PER TRAVI IN C.A. |
| 42 | GERARCHIA DELLE RESISTENZE PER PILASTRI IN C.A. |
| 43 | VERIFICA ALLE TA DI STRUTTURE IN C.A. |
| 44 | VERIFICA AGLI SLU DI STRUTTURE IN C.A. |
| 45 | VERIFICA A PUNZONAMENTO ALLO SLU DI PIASTRE IN C.A. |
| 46 | VERIFICA A PUNZONAMENTO ALLO SLU DI TRAVI IN C.A. |
| 47 | PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96 |
| 48 | PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008 |
| 49 | VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A. |
| 50 | VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A. |
| 51 | FATTORE DI STRUTTURA |
| 52 | SOVRARESISTENZE |
| 53 | DETTAGLI COSTRUTTIVI C.A.: LIMITI D'ARMATURA PILASTRI E NODI TRAVE-PILASTRO |
| 54 | PARETI IN C.A. SNELLE IN ZONA SISMICA |
| 80 | ANALISI PUSHOVER DI UN EDIFICIO IN C.A. |

| | |
|---|---|
| 120 | PROGETTO E VERIFICA DI TRAVI PREM |

Modellazione di strutture in acciaio

| Test N° | Titolo |
|---|---|
| 55 | VERIFICA DI STABILITA' DI ASTE COMPRESSE IN ACCIAIO – METODO OMEGA |
| 56 | LUCE LIBERA DI TRAVI E ASTE IN ACCIAIO |
| 57 | LUCE LIBERA DI COLONNE IN ACCIAIO |
| 58 | SVERGOLAMENTO DI TRAVI IN ACCIAIO |
| 59 | FATTORE DI STRUTTURA |
| 60 | ACCIAIO D.M.2008 |
| 61 | ACCIAIO EC3 |
| 62 | GERARCHIA RESISTENZE STRUTTURE IN ACCIAIO |
| 63 | STABILITA' DI ASTE COMPOSTE IN ACCIAIO |
| 73 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA IRRIGIDIMENTI TRASVERSALI |
| 74 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA<br>DI UN PIATTO DI RINFORZO SALDATO ALL'ANIMA DELLA COLONNA |
| 75 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA<br>DI DUE PIATTI DI RINFORZO SALDATI ALL'ANIMA DELLA COLONNA |
| 76 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO A DUE VIE SU ALI COLONNA |
| 77 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO A UNA VIA CON DUE COMBINAZIONI DI CARICO |
| 78 | COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO SU ANIMA SENZA RINFORZI A QUATTRO FILE DI BULLONI DI CUI UNA SU PIASTRA INFERIORE E UNA SU PIASTRA SUPERIORE |
| 79 | VERIFICA DELLA PIASTRA NODO TRAVE COLONNA |
| 85 | TELAIO ACCIAIO: CONTROVENTI CONCENTRICI |

Modellazione di strutture in muratura

| Test N° | Titolo |
|---|---|
| 81 | ANALISI PUSHOVER DI UNA STRUTTURA IN MURATURA |
| 84 | ANALISI ELASTO PLASTICA INCREMENTALE, PARETE IN MURATURA |
| 86 | VERIFICA NON SISMICA DELLE MURATURE (D.M. 87 TA) |
| 87 | VERIFICA NON SISMICA DELLE MURATURE (D.M. 2005 SL) |
| 88 | FATTORE DI STRUTTURA |

Modellazione di strutture in legno

| Test N° | Titolo |
|---|---|
| 17 | SOLAIO: MISTO LEGNO-CALCESTRUZZO |
| 89 | VERIFICA ALLO SLU DI STRUTTURE IN LEGNO SECONDO EC5 |
| 90 | VERIFICA ALLO SLE DI STRUTTURE IN LEGNO SECONDO EC5 |
| 91 | FATTORE DI STRUTTURA |
| 92 | VERIFICHE EC5 |
| 93 | SNELLEZZE EC5 |
| 94 | VERIFICA AL FUOCO DI STRUTTURE IN LEGNO SECONDO EC5 |
| 117 | PROGETTO E VERIFICA DI GUSCI IN MATERIALE XLAM |
| 118 | PROGETTO E VERIFICA DI PARETI IN MATERIALE XLAM E RELATIVI COLLEGAMENTI |
| 119 | PROGETTO E VERIFICA DI SOLAI IN MATERIALE XLAM |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | | kN/ m2 | kN/ m2 | kN/ m2 | | kN/ m2 | kN/ m3 | | |
| 1 | Calcestruzzo Classe C30/37 | | | 3.284e+07 | 0.12 | 1.466e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 3.700e+04 | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza fctm | | 2900.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 2 | c.a. class 30 LIGHTENED | | | 3.122e+07 | 0.12 | 1.394e+05 | 0.1 | 1.00e-05 | |
| | Resistenza Rc | 3.000e+04 | | | | | | | |
| | Resistenza fctm | | 2607.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 3 | c.a. classe 35 | | | 3.372e+07 | 0.12 | 1.505e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 3.500e+04 | | | | | | | |
| | Resistenza fctm | | 2889.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 4 | C32/40 | | | 3.605e+07 | 0.12 | 1.609e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 4.000e+04 | | | | | | | |
| | Resistenza fctm | | 3158.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 5 | c.a. classe 45 | | | 3.824e+07 | 0.12 | 1.707e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 4.500e+04 | | | | | | | |
| | Resistenza fctm | | 3416.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 6 | c.a. classe 50 | | | 4.030e+07 | 0.12 | 1.799e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 5.000e+04 | | | | | | | |
| | Resistenza fctm | | 3644.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 7 | C25/30 | | | 3.100e+07 | 0.12 | 1.384e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 3.000e+04 | | | | | | | |
| | Resistenza fctm | | 2600.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 8 | C32/40 | | | 3.605e+07 | 0.12 | 1.609e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 4.000e+04 | | | | | | | |
| | Resistenza fctm | | 3158.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 9 | C35/45 | | | 3.400e+07 | 0.12 | 1.518e+05 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 4.500e+04 | | | | | | | |
| | Resistenza fctm | | 3200.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 10 | acciaio Fe360 - S235 | | | 2.100e+08 | 0.30 | 8.077e+05 | 0.8 | 1.00e-05 | |
| | Tensione ft | 3.600e+05 | | | | | | | |
| | Resistenza fd | 2.350e+05 | | | | | | | |
| | Resistenza fd (>40) | 2.100e+05 | | | | | | | |
| | Tensione ammissibile | 1.600e+05 | | | | | | | |
| | Tensione ammissibile (>40) | 1.400e+05 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 11 | acciaio Fe430 - S275 | | | 2.100e+08 | 0.30 | 8.077e+05 | 0.8 | 1.00e-05 | |
| | Tensione ft | 4.300e+05 | | | | | | | |
| | Resistenza fd | 2.750e+05 | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza fd (>40) | 2.500e+05 | | | | | | | |
| | Tensione ammissibile | 1.900e+05 | | | | | | | |
| | Tensione ammissibile (>40) | 1.700e+05 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 12 | acciaio Fe510 - S355 | | | 2.100e+08 | 0.30 | 8.077e+05 | 0.8 | 1.00e-05 | |
| | Tensione ft | 5.100e+05 | | | | | | | |
| | Resistenza fd | 3.550e+05 | | | | | | | |
| | Resistenza fd (>40) | 3.150e+05 | | | | | | | |
| | Tensione ammissibile | 2.400e+05 | | | | | | | |
| | Tensione ammissibile (>40) | 2.100e+05 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 13 | muratura E = 4.500e+04 POROTHERM BIO PLAN 38 | | | 4.500e+06 | 0.0 | 1.800e+04 | 0.1 | 1.00e-05 | |
| | Resistenza f | 5900.0 | | | | | | | |
| | Resistenza fh | 2450.0 | | | | | | | |
| | Resistenza fv0 | 410.0 | | | | | | | |
| | Resistenza fv0h | 410.0 | | | | | | | |
| | Resistenza tau0 | 615.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 1.180e+04 | | | | | | | |
| | Resistenza fbh | 2360.0 | | | | | | | |
| | Resistenza fbt | 1180.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 14 | muratura E = 3.000e+04 mattoni pieni con malta M4 | | | 3.000e+06 | 0.0 | 1.200e+04 | 0.2 | 1.00e-05 | |
| | Resistenza f | 3000.0 | | | | | | | |
| | Resistenza fh | 1500.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 6000.0 | | | | | | | |
| | Resistenza fbh | 1200.0 | | | | | | | |
| | Resistenza fbt | 600.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 15 | muratura E = 3.400e+04 mattoni pieni con malta M2 | | | 3.400e+06 | 0.0 | 1.360e+04 | 0.2 | 1.00e-05 | |
| | Resistenza f | 3400.0 | | | | | | | |
| | Resistenza fh | 1700.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 6800.0 | | | | | | | |
| | Resistenza fbh | 1360.0 | | | | | | | |
| | Resistenza fbt | 680.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 16 | muratura E = 4.500e+04 mattoni semipieni tipo poroton 800 con malta M2 | | | 4.500e+06 | 0.0 | 1.800e+04 | 0.1 | 1.00e-05 | |
| | Resistenza f | 4500.0 | | | | | | | |
| | Resistenza fh | 2250.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 9000.0 | | | | | | | |
| | Resistenza fbh | 1800.0 | | | | | | | |
| | Resistenza fbt | 900.0 | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 17 | muratura E = 5.000e+04 mattoni semipieni tipo poroton 800 con malta M1 | | | 5.000e+06 | 0.0 | 2.000e+04 | 0.1 | 1.00e-05 | |
| | Resistenza f | 5000.0 | | | | | | | |
| | Resistenza fh | 2500.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 1.000e+04 | | | | | | | |
| | Resistenza fbh | 2000.0 | | | | | | | |
| | Resistenza fbt | 1000.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 18 | muratura E = 4.500e+04 mattoni semipieni tipo poroton incastro con malta M2 | | | 4.500e+06 | 0.0 | 1.800e+04 | 0.1 | 1.00e-05 | |
| | Resistenza f | 4500.0 | | | | | | | |
| | Resistenza fh | 2250.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 9000.0 | | | | | | | |
| | Resistenza fbh | 1800.0 | | | | | | | |
| | Resistenza fbt | 900.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 19 | muratura E = 5.000e+04 mattoni semipieni tipo poroton incastro con malta M1 | | | 5.000e+06 | 0.0 | 2.000e+04 | 0.1 | 1.00e-05 | |
| | Resistenza f | 5000.0 | | | | | | | |
| | Resistenza fh | 2500.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 1.000e+04 | | | | | | | |
| | Resistenza fbh | 2000.0 | | | | | | | |
| | Resistenza fbt | 1000.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 20 | muratura E = 2.300e+04 cls cellulare tipo Gasbeton della RDB con malta M4 | | | 2.300e+06 | 0.0 | 9200.0 | 8.00e-02 | 1.00e-05 | |
| | Resistenza f | 2300.0 | | | | | | | |
| | Resistenza fh | 1150.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 1288.0 | | | | | | | |
| | Resistenza fb | 4600.0 | | | | | | | |
| | Resistenza fbh | 920.0 | | | | | | | |
| | Resistenza fbt | 460.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 21 | muratura E = 2.600e+04 cls cellulare tipo Gasbeton della RDB con malta M2 | | | 2.600e+06 | 0.0 | 1.040e+04 | 8.00e-02 | 1.00e-05 | |
| | Resistenza f | 2600.0 | | | | | | | |
| | Resistenza fh | 1300.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1456.0 | | | | | | | |
| | Resistenza fb | 5200.0 | | | | | | | |
| | Resistenza fbh | 1040.0 | | | | | | | |
| | Resistenza fbt | 520.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 22 | muratura E = 2.000e+04 tufo con malta M4 | | | 2.000e+06 | 0.0 | 8000.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 2000.0 | | | | | | | |
| | Resistenza fh | 1000.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 1120.0 | | | | | | | |
| | Resistenza fb | 4000.0 | | | | | | | |
| | Resistenza fbh | 800.0 | | | | | | | |
| | Resistenza fbt | 400.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 23 | muratura E = 2.200e+04 tufo con malta M2 | | | 2.200e+06 | 0.0 | 8800.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 2200.0 | | | | | | | |
| | Resistenza fh | 1100.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 1232.0 | | | | | | | |
| | Resistenza fb | 4400.0 | | | | | | | |
| | Resistenza fbh | 880.0 | | | | | | | |
| | Resistenza fbt | 440.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 24 | muratura E = 2.600e+04 tufo con intervento di rete elettrosaldata e malta cementizia M1 | | | 2.600e+06 | 0.0 | 1.040e+04 | 0.2 | 1.00e-05 | |
| | Resistenza f | 2600.0 | | | | | | | |
| | Resistenza fh | 1300.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1456.0 | | | | | | | |
| | Resistenza fb | 5200.0 | | | | | | | |
| | Resistenza fbh | 1040.0 | | | | | | | |
| | Resistenza fbt | 520.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 25 | muratura E = 1.000e+04 pietrame a sacco con malta M4 | | | 1.000e+06 | 0.0 | 4000.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1000.0 | | | | | | | |
| | Resistenza fh | 500.0 | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 560.0 | | | | | | | |
| | Resistenza fb | 2000.0 | | | | | | | |
| | Resistenza fbh | 400.0 | | | | | | | |
| | Resistenza fbt | 200.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 26 | muratura E = 1.400e+04 pietrame a sacco con intervento di rete elettrosaldata e malta cementizia M1 | | | 1.400e+06 | 0.0 | 5600.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1400.0 | | | | | | | |
| | Resistenza fh | 700.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 784.0 | | | | | | | |
| | Resistenza fb | 2800.0 | | | | | | | |
| | Resistenza fbh | 560.0 | | | | | | | |
| | Resistenza fbt | 280.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 27 | muratura E = 1.600e+04 pietrame listato con malta M4 | | | 1.600e+06 | 0.0 | 6400.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1600.0 | | | | | | | |
| | Resistenza fh | 800.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 896.0 | | | | | | | |
| | Resistenza fb | 3200.0 | | | | | | | |
| | Resistenza fbh | 640.0 | | | | | | | |
| | Resistenza fbt | 320.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 28 | muratura E = 2.000e+04 pietrame listato con intervento di rete elettrosaldata e malta M1 | | | 2.000e+06 | 0.0 | 8000.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 2000.0 | | | | | | | |
| | Resistenza fh | 1000.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 1120.0 | | | | | | | |
| | Resistenza fb | 4000.0 | | | | | | | |
| | Resistenza fbh | 800.0 | | | | | | | |
| | Resistenza fbt | 400.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 29 | muratura E = 6900.00 Muratura in pietrame disordinata | | | 6.900e+05 | 0.0 | 1150.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 600.0 | | | | | | | |
| | Resistenza fh | 300.0 | | | | | | | |
| | Resistenza fv0 | 20.0 | | | | | | | |
| | Resistenza fv0h | 20.0 | | | | | | | |
| | Resistenza tau0 | 30.0 | | | | | | | |
| | Resistenza fvlim | 336.0 | | | | | | | |
| | Resistenza fb | 1200.0 | | | | | | | |
| | Resistenza fbh | 240.0 | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza fbt | 120.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 30 | muratura E = 1.020e+04 Muratura a conci sbozzati, con paramento di limitato spessore e nucleo interno | | | 1.020e+06 | 0.0 | 1700.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1100.0 | | | | | | | |
| | Resistenza fh | 550.0 | | | | | | | |
| | Resistenza fv0 | 35.0 | | | | | | | |
| | Resistenza fv0h | 35.0 | | | | | | | |
| | Resistenza tau0 | 52.5 | | | | | | | |
| | Resistenza fvlim | 616.0 | | | | | | | |
| | Resistenza fb | 2200.0 | | | | | | | |
| | Resistenza fbh | 440.0 | | | | | | | |
| | Resistenza fbt | 220.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 31 | muratura E = 1.500e+04 Muratura in pietre a spacco con buona tessitura | | | 1.500e+06 | 0.0 | 2500.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1500.0 | | | | | | | |
| | Resistenza fh | 750.0 | | | | | | | |
| | Resistenza fv0 | 56.0 | | | | | | | |
| | Resistenza fv0h | 56.0 | | | | | | | |
| | Resistenza tau0 | 84.0 | | | | | | | |
| | Resistenza fvlim | 840.0 | | | | | | | |
| | Resistenza fb | 3000.0 | | | | | | | |
| | Resistenza fbh | 600.0 | | | | | | | |
| | Resistenza fbt | 300.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 32 | muratura E = 9000.00 Muratura a conci di pietra tenera | | | 9.000e+05 | 0.0 | 1500.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 800.0 | | | | | | | |
| | Resistenza fh | 400.0 | | | | | | | |
| | Resistenza fv0 | 28.0 | | | | | | | |
| | Resistenza fv0h | 28.0 | | | | | | | |
| | Resistenza tau0 | 42.0 | | | | | | | |
| | Resistenza fvlim | 448.0 | | | | | | | |
| | Resistenza fb | 1600.0 | | | | | | | |
| | Resistenza fbh | 320.0 | | | | | | | |
| | Resistenza fbt | 160.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 33 | muratura E = 2.340e+04 Muratura a blocchi lapidei squadrati | | | 2.340e+06 | 0.0 | 3900.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 3000.0 | | | | | | | |
| | Resistenza fh | 1500.0 | | | | | | | |
| | Resistenza fv0 | 78.0 | | | | | | | |
| | Resistenza fv0h | 78.0 | | | | | | | |
| | Resistenza tau0 | 117.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 6000.0 | | | | | | | |
| | Resistenza fbh | 1200.0 | | | | | | | |
| | Resistenza fbt | 600.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 34 | muratura E = 1.800e+04 Muratura in mattoni pieni e malta di calce | | | 1.800e+06 | 0.0 | 3000.0 | 0.2 | 1.00e-05 | |
| | Resistenza f | 1800.0 | | | | | | | |
| | Resistenza fh | 900.0 | | | | | | | |
| | Resistenza fv0 | 60.0 | | | | | | | |
| | Resistenza fv0h | 60.0 | | | | | | | |
| | Resistenza tau0 | 90.0 | | | | | | | |
| | Resistenza fvlim | 1008.0 | | | | | | | |
| | Resistenza fb | 3600.0 | | | | | | | |
| | Resistenza fbh | 720.0 | | | | | | | |
| | Resistenza fbt | 360.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 35 | muratura E = 2.800e+04 Muratura in mattoni semipieni con malta cementizia | | | 2.800e+06 | 0.0 | 5600.0 | 0.1 | 1.00e-05 | |
| | Resistenza f | 3800.0 | | | | | | | |
| | Resistenza fh | 1900.0 | | | | | | | |
| | Resistenza fv0 | 240.0 | | | | | | | |
| | Resistenza fv0h | 240.0 | | | | | | | |
| | Resistenza tau0 | 360.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 7600.0 | | | | | | | |
| | Resistenza fbh | 1520.0 | | | | | | | |
| | Resistenza fbt | 760.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 36 | muratura E = 3.400e+04 Muratura in blocchi laterizi forati (perc. foratura < 45%) | | | 3.400e+06 | 0.0 | 6800.0 | 0.1 | 1.00e-05 | |
| | Resistenza f | 4600.0 | | | | | | | |
| | Resistenza fh | 2300.0 | | | | | | | |
| | Resistenza fv0 | 300.0 | | | | | | | |
| | Resistenza fv0h | 300.0 | | | | | | | |
| | Resistenza tau0 | 450.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 9200.0 | | | | | | | |
| | Resistenza fbh | 1840.0 | | | | | | | |
| | Resistenza fbt | 920.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 37 | muratura E = 2.580e+04 Muratura in laterizi forati, con giunti verticali a secco (perc. foratura < 45%) | | | 2.580e+06 | 0.0 | 4300.0 | 0.1 | 1.00e-05 | |
| | Resistenza f | 3000.0 | | | | | | | |
| | Resistenza fh | 1500.0 | | | | | | | |
| | Resistenza fv0 | 100.0 | | | | | | | |
| | Resistenza fv0h | 100.0 | | | | | | | |
| | Resistenza tau0 | 150.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 6000.0 | | | | | | | |
| | Resistenza fbh | 1200.0 | | | | | | | |
| | Resistenza fbt | 600.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 38 | muratura E = 2.200e+04 Muratura in blocchi di calcestruzzo (perc. foratura tra 45 % e 65%) | | | 2.200e+06 | 0.0 | 4400.0 | 0.1 | 1.00e-05 | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza f | 1500.0 | | | | | | | |
| | Resistenza fh | 750.0 | | | | | | | |
| | Resistenza fv0 | 95.0 | | | | | | | |
| | Resistenza fv0h | 95.0 | | | | | | | |
| | Resistenza tau0 | 142.5 | | | | | | | |
| | Resistenza fvlim | 840.0 | | | | | | | |
| | Resistenza fb | 3000.0 | | | | | | | |
| | Resistenza fbh | 600.0 | | | | | | | |
| | Resistenza fbt | 300.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 39 | muratura E = 2.700e+04 Muratura in blocchi di calcestruzzo semipieni | | | 2.700e+06 | 0.0 | 5400.0 | 0.1 | 1.00e-05 | |
| | Resistenza f | 3000.0 | | | | | | | |
| | Resistenza fh | 1500.0 | | | | | | | |
| | Resistenza fv0 | 180.0 | | | | | | | |
| | Resistenza fv0h | 180.0 | | | | | | | |
| | Resistenza tau0 | 270.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 6000.0 | | | | | | | |
| | Resistenza fbh | 1200.0 | | | | | | | |
| | Resistenza fbt | 600.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 40 | muratura E = 2.000e+04 mattoni in argilla espansa e cls con malta M2 | | | 2.000e+06 | 0.20 | 8300.0 | 0.1 | 1.00e-05 | |
| | Resistenza f | 6000.0 | | | | | | | |
| | Resistenza fh | 3000.0 | | | | | | | |
| | Resistenza fv0 | 200.0 | | | | | | | |
| | Resistenza fv0h | 200.0 | | | | | | | |
| | Resistenza tau0 | 300.0 | | | | | | | |
| | Resistenza fvlim | 1500.0 | | | | | | | |
| | Resistenza fb | 1.200e+04 | | | | | | | |
| | Resistenza fbh | 2400.0 | | | | | | | |
| | Resistenza fbt | 1200.0 | | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Coefficiente mu (tilda) | | | | | | | | 0.40 |
| | Coefficiente fi | | | | | | | | 0.50 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 41 | legno lamellare incollato combinato GL28c - UNI EN 1194 2000 Per EC5 | | | 1.260e+07 | 0.0 | 7200.0 | 4.00e-02 | 0.0 | |
| | Modulo E0,05 | | | 1.020e+07 | | | | | |
| | Lamellare : SI | | | | | | | | |
| | Resistenza fc0 | 2.400e+04 | | | | | | | |
| | Resistenza ft0 | 1.650e+04 | | | | | | | |
| | Resistenza fm | 2.800e+04 | | | | | | | |
| | Resistenza fv | 2700.0 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 42 | legno conifera C24 - UNI EN 338 1997 Per EC5 | | | 1.100e+07 | 0.0 | 6900.0 | 4.00e-02 | 0.0 | |
| | Modulo E0,05 | | | 7.400e+06 | | | | | |
| | Lamellare : NO | | | | | | | | |
| | Resistenza fc0 | 2.100e+04 | | | | | | | |
| | Resistenza ft0 | 1.400e+04 | | | | | | | |
| | Resistenza fm | 2.400e+04 | | | | | | | |
| | Resistenza fv | 2500.0 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 43 | legno lamellare incollato omogeneo GL28h - UNI EN 1194 2000 Per EC5 | | | 1.260e+07 | 0.0 | 7800.0 | 4.00e-02 | 0.0 | |
| | Modulo E0,05 | | | 1.020e+07 | | | | | |
| | Lamellare : SI | | | | | | | | |

| Id | Tipo / Note | V. caratt. | V. medio | Young | Poisson | G | Gamma | Alfa | Altri |
|---|---|---|---|---|---|---|---|---|---|
| | Resistenza fc0 | 2.650e+04 | | | | | | | |
| | Resistenza ft0 | 1.950e+04 | | | | | | | |
| | Resistenza fm | 2.800e+04 | | | | | | | |
| | Resistenza fv | 3200.0 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 44 | legno E = 1.160e+05 Cat II per Regles | | | 1.160e+07 | 0.0 | 4.060e+04 | 8.00e-02 | 1.00e-05 | |
| | Modulo E0,05 | | | 9.396e+06 | | | | | |
| | Lamellare : NO | | | | | | | | |
| | Resistenza fc0 | 1.020e+04 | | | | | | | |
| | Resistenza ft0 | 9200.0 | | | | | | | |
| | Resistenza fm | 1.170e+04 | | | | | | | |
| | Resistenza fv | 1500.0 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 45 | legno E = 1.300e+05 Cat I per Regles | | | 1.300e+07 | 0.0 | 4.560e+04 | 8.00e-02 | 1.00e-05 | |
| | Modulo E0,05 | | | 1.053e+07 | | | | | |
| | Lamellare : NO | | | | | | | | |
| | Resistenza fc0 | 1.280e+04 | | | | | | | |
| | Resistenza ft0 | 1.530e+04 | | | | | | | |
| | Resistenza fm | 1.380e+04 | | | | | | | |
| | Resistenza fv | 2000.0 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 46 | c.a. inf. rigi. | | | 3.122e+10 | 0.12 | 1.394e+08 | 0.3 | 1.00e-05 | |
| | Resistenza Rc | 3.000e+04 | | | | | | | |
| | Resistenza fctm | | 2607.0 | | | | | | |
| | Rapporto Rfessurata | | | | | | | | 1.00 |
| | Coefficiente ksb | | | | | | | | 0.85 |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 47 | acciaio inf. rigi. | | | 2.100e+11 | 0.30 | 8.077e+08 | 0.0 | 1.00e-05 | |
| | Tensione ft | 3.600e+05 | | | | | | | |
| | Resistenza fd | 2.350e+05 | | | | | | | |
| | Resistenza fd (>40) | 2.100e+05 | | | | | | | |
| | Tensione ammissibile | 1.600e+05 | | | | | | | |
| | Tensione ammissibile (>40) | 1.400e+05 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |
| 48 | acciaio NO rigi. | | | 2.100e+05 | 0.30 | 807.7 | 0.0 | 1.00e-05 | |
| | Tensione ft | 3.600e+05 | | | | | | | |
| | Resistenza fd | 2.350e+05 | | | | | | | |
| | Resistenza fd (>40) | 2.100e+05 | | | | | | | |
| | Tensione ammissibile | 1.600e+05 | | | | | | | |
| | Tensione ammissibile (>40) | 1.400e+05 | | | | | | | |
| | Rapporto HRDb | | | | | | | | 1.00e-05 |
| | Rapporto HRDv | | | | | | | | 1.00e-05 |

| Pareti c.a. | 1/7/.. | 2/8/.. | 3/9/.. | 4/10/.. | 5/11/.. | 6/12/.. |
|---|---|---|---|---|---|---|
| **Generalità** | | | | | | |
| Progetto armatura | Singolo elemento NON DISSIPATIVO | Singolo elemento | Singolo elemento | | | |
| **Armatura** | | | | | | |
| Inclinazione Av [ gradi ] | 90.00 | 90.00 | 90.00 | | | |
| Angolo Av-Ao [ gradi ] | 90.00 | 90.00 | 90.00 | | | |
| Minima tesa | 0.25 | 0.25 | 0.25 | | | |
| Massima tesa | 4.00 | 4.00 | 4.00 | | | |
| Maglia unica centrale | NO | NO | NO | | | |
| Unico strato verticale | NO | NO | NO | | | |
| Unico strato orizzontale | NO | NO | NO | | | |
| Copriferro [ cm ] | 5.00 | 5.00 | 5.00 | | | |
| **Maglia V** | | | | | | |
| diametro | 18 | 30 | 30 | | | |
| passo | 15 | 20 | 20 | | | |
| diametro aggiuntivi | 18 | 30 | 30 | | | |
| **Maglia O** | | | | | | |
| diametro | 12 | 20 | 20 | | | |
| passo | 20 | 20 | 20 | | | |
| diametro aggiuntivi | 12 | 20 | 20 | | | |
| **Stati limite ultimi** | | | | | | |

| Pareti c.a. | 1/7/.. | 2/8/.. | 3/9/.. | 4/10/.. | 5/11/.. | 6/12/.. |
|---|---|---|---|---|---|---|
| Tensione fy [kN/ m2 ] | 430000.00 | 430000.00 | 430000.00 | | | |
| Tipo acciaio | tipo C | tipo C | tipo C | | | |
| Coefficiente gamma s | 1.15 | 1.15 | 1.15 | | | |
| Coefficiente gamma c | 1.50 | 1.50 | 1.50 | | | |
| Verifiche con N costante | SI | SI | SI | | | |
| **Tensioni ammissibili** | | | | | | |
| Tensione amm. cls [kN/ m2 ] | 9750.00 | 9750.00 | 9750.00 | | | |
| Tensione amm. acciaio [kN/ m2 ] | 260000.00 | 260000.00 | 260000.00 | | | |
| Rapporto omogeneizzazione N | 15.00 | 15.00 | 15.00 | | | |
| Massimo rapporto area compressa/tesa | 1.00 | 1.00 | 1.00 | | | |
| **Parete estesa debolmente armata** | | | | | | |
| Fattore amplificazione taglio V | 1.50 | 1.50 | 1.50 | | | |
| Hcrit. par. 7.4.4.5.1 [ cm ] | 0.0 | 0.0 | 0.0 | | | |
| Hcrit. par. 7.4.6.1.4 [ cm ] | 0.0 | 0.0 | 0.0 | | | |
| Diagramma inviluppo taglio | NO | NO | NO | | | |
| Vincolo lati | nessun lato | nessun lato | nessun lato | | | |
| Verifica come fascia | NO | NO | NO | | | |
| Diametro di estremità | 0 | 0 | 0 | | | |
| **Zona confinata** | | | | | | |
| Minima tesa | 1.00 | 1.00 | 1.00 | | | |
| Massima tesa | 4.00 | 4.00 | 4.00 | | | |
| Distanza barre [ cm ] | 2.00 | 2.00 | 2.00 | | | |
| Interferro | 2 | 2 | 2 | | | |
| **Armatura inclinata** | | | | | | |
| Area barre [ cm2 ] | 0.0 | 0.0 | 0.0 | | | |
| Angolo orizzontale [ gradi ] | 0.0 | 0.0 | 0.0 | | | |
| Distanza di base [ cm ] | 0.0 | 0.0 | 0.0 | | | |
| **Resistenza al fuoco** | | | | | | |
| 3- intradosso | NO | NO | NO | | | |
| 3+ estradosso | NO | SI | SI | | | |
| Tempo di esposizione R | 120 | 120 | 120 | | | |

| Gusci c.a. | 1/7/.. | 2/8/.. | 3/9/.. | 4/10/.. | 5/11/.. | 6/12/.. |
|---|---|---|---|---|---|---|
| **Armatura** | | | | | | |
| Inclinazione Ax [ gradi ] | 0.0 | 0.0 | 0.0 | | | |
| Angolo Ax-Ay [ gradi ] | 90.00 | 90.00 | 90.00 | | | |
| Minima tesa | 0.20 | 0.33 | 0.33 | | | |
| Massima tesa | 3.00 | 0.81 | 0.81 | | | |
| Maglia unica centrale | NO | NO | NO | | | |
| Copriferro [ cm ] | 5.00 | 5.00 | 5.00 | | | |
| **Maglia x** | | | | | | |
| diametro | 30 | 18 | 18 | | | |
| passo | 12 | 15 | 15 | | | |
| diametro aggiuntivi | 30 | 18 | 18 | | | |
| **Maglia y** | | | | | | |
| diametro | 30 | 18 | 18 | | | |
| passo | 12 | 15 | 15 | | | |
| diametro aggiuntivi | 30 | 18 | 18 | | | |
| **Stati limite ultimi** | | | | | | |
| Tensione fy [kN/ m2 ] | 430000.00 | 430000.00 | 430000.00 | | | |
| Tipo acciaio | tipo C | tipo C | tipo C | | | |
| Coefficiente gamma s | 1.15 | 1.15 | 1.15 | | | |
| Coefficiente gamma c | 1.50 | 1.50 | 1.50 | | | |
| Verifiche con N costante | SI | SI | SI | | | |
| Applica SLU da DIN | NO | NO | NO | | | |
| **Tensioni ammissibili** | | | | | | |
| Tensione amm. cls [kN/ m2 ] | 9750.00 | 9750.00 | 9750.00 | | | |
| Tensione amm. acciaio [kN/ m2 ] | 260000.00 | 260000.00 | 260000.00 | | | |
| Rapporto omogeneizzazione N | 15.00 | 15.00 | 15.00 | | | |
| Massimo rapporto area compressa/tesa | 1.00 | 1.00 | 1.00 | | | |
| **Resistenza al fuoco** | | | | | | |
| 3- intradosso | NO | NO | NO | | | |
| 3+ estradosso | SI | NO | NO | | | |
| Tempo di esposizione R | 120 | 120 | 120 | | | |

# 5 MODELLAZIONE DELLE SEZIONI

## *5.1 LEGENDA TABELLA DATI SEZIONI*

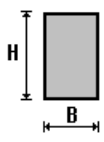
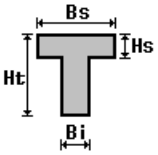
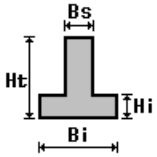
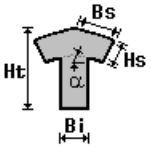
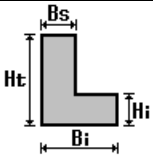
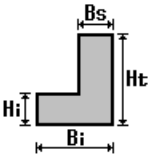
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

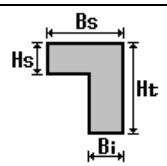
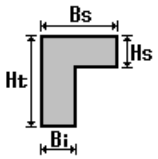
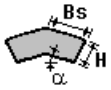
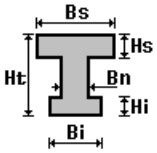
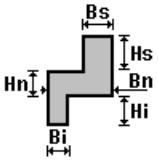
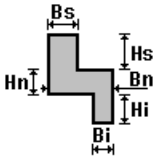
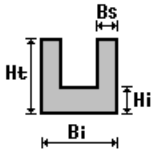
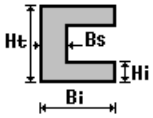
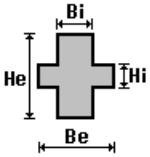
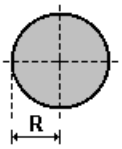
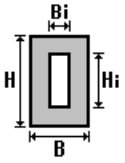
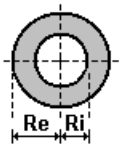
1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

| | |
|---|---|
| **Area** | area della sezione |
| **A V2** | area della sezione/fattore di taglio (per il taglio in direzione 2) |
| **A V3** | area della sezione/fattore di taglio (per il taglio in direzione 3) |
| **Jt** | fattore torsionale di rigidezza |
| **J2-2** | momento d'inerzia della sezione riferito all'asse 2 |
| **J3-3** | momento d'inerzia della sezione riferito all'asse 3 |
| **W2-2** | modulo di resistenza della sezione riferito all'asse 2 |
| **W3-3** | modulo di resistenza della sezione riferito all'asse 3 |
| **Wp2-2** | modulo di resistenza plastico della sezione riferito all'asse 2 |
| **Wp3-3** | modulo di resistenza plastico della sezione riferito all'asse 3 |

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| rettangolare | a T | a T rovescia | a T di colmo | a L | a L specchiata |

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| a L specchiata rovescia | a L rovescia | a L di colmo | a doppio T | a quattro specchiata | a quattro |
|  |  |  |  |  |  |
| a U | a C | a croce | circolare | rettangolare cava | circolare cava |

Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilatari.

Per quanto concerne le sezioni di tipo generico (tipo 1.):
i valori dimensionali con prefisso B sono riferiti all'asse 2
i valori dimensionali con prefisso H sono riferiti all'asse 3

Con riferimento al Documento di Affidabilità "Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST" - versione Settembre 2014, disponibile per il download sul sito www.2si.it, si segnalano i seguenti esempi applicativi:

| Test N° | Titolo |
|---|---|
| 1 | CARATTERISTICHE GEOMETRICHE E INERZIALI |
| 45 | VERIFICA AGLI SLU DI STRUTTURE IN C.A. |
| 48 | PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96 |
| 49 | PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008 |
| 50 | VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A. |
| 51 | VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A. |
| 104 | ANALISI DI RESISTENZA AL FUOCO |

| Id | Tipo | Area | A V2 | A V3 | Jt | J 2-2 | J 3-3 | W 2-2 | W 3-3 | Wp 2-2 | Wp 3-3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | cm2 | cm2 | cm2 | cm4 | cm4 | cm4 | cm3 | cm3 | cm3 | cm3 |

# 6 MODELLAZIONE STRUTTURA: NODI

## *6.1 LEGENDA TABELLA DATI NODI*

Il programma utilizza per la modellazione nodi strutturali.
Ogni nodo è individuato dalle coordinate cartesiane nel sistema di riferimento globale (X Y Z).
Ad ogni nodo è eventualmente associato un codice di vincolamento rigido, un codice di fondazione speciale, ed un set di sei molle (tre per le traslazioni, tre per le rotazioni). Le tabelle sottoriportate riflettono le succitate possibilità. In particolare per ogni nodo viene indicato in tabella:

| | |
|---|---|
| **Nodo** | numero del nodo. |
| **X** | valore della coordinata X |
| **Y** | valore della coordinata Y |
| **Z** | valore della coordinata Z |

Per i nodi ai quali sia associato un codice di vincolamento rigido, un codice di fondazione speciale o un set di molle viene indicato in tabella:

| | |
|---|---|
| **Nodo** | numero del nodo. |
| **X** | valore della coordinata X |
| **Y** | valore della coordinata Y |
| **Z** | valore della coordinata Z |
| **Note** | eventuale codice di vincolo (es. v=110010 sei valori relativi ai sei gradi di libertà previsti per il nodo TxTyTzRxRyRz, il valore 1 indica che lo spostamento o rotazione relativo è impedito, il valore 0 indica che lo spostamento o rotazione relativo è libero). |
| **Note** | (FS = 1, 2,…) eventuale codice del tipo di fondazione speciale (1, 2,… fanno riferimento alle tipologie: plinto, palo, plinto su pali,…) che è collegato al nodo.<br>(ISO = "id SIGLA") indice e sigla identificativa dell' eventuale isolatore sismico assegnato al nodo |
| **Rig. TX** | valore della rigidezza dei vincoli elastici eventualmente applicati al nodo, nello specifico TX (idem per TY, TZ, RX, RY, RZ). |

Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 14/01/08

### *6.1.1 TABELLA DATI NODI*

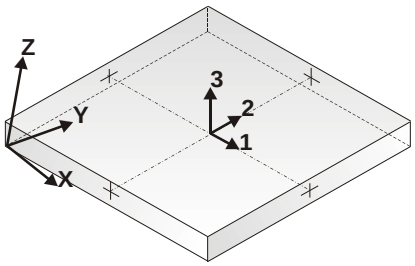
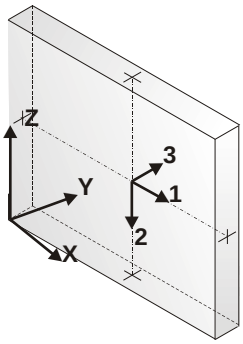
| Nodo | X | Y | Z | Nodo | X | Y | Z | Nodo | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | cm | cm | cm | | cm | cm | cm | | cm | cm | cm |
| 1 | 0.2 | 927.5 | -354.0 | 2 | 0.0 | 297.5 | -354.0 | 3 | 315.2 | 927.5 | -354.0 |
| 4 | -1.30e-04 | 523.8 | -79.0 | 5 | 315.2 | 389.7 | -354.0 | 6 | 315.2 | 295.5 | -354.0 |
| 7 | 550.2 | 927.5 | -354.0 | 8 | 550.2 | 500.2 | -354.0 | 9 | 730.2 | 500.2 | -354.0 |
| 10 | 730.2 | 0.0 | -354.0 | 11 | 315.2 | 0.0 | -354.0 | 12 | 0.0 | 0.0 | -354.0 |
| 13 | 315.2 | 295.5 | -262.3 | 14 | 315.2 | 389.7 | -262.3 | 15 | 315.2 | 295.5 | -170.7 |
| 16 | 315.2 | 389.7 | -170.7 | 17 | 315.2 | 295.5 | -79.0 | 18 | 315.2 | 389.7 | -79.0 |
| 19 | 315.2 | 223.1 | -79.0 | 20 | 315.2 | 148.8 | -79.0 | 21 | 402.7 | 223.1 | -79.0 |
| 22 | 227.7 | 74.4 | -79.0 | 23 | 315.2 | 74.4 | -79.0 | 24 | 402.7 | 74.4 | -79.0 |
| 25 | 730.2 | 500.2 | -262.3 | 26 | 640.2 | 500.2 | -262.3 | 27 | 640.2 | 500.2 | -354.0 |
| 28 | 730.2 | 500.2 | -170.7 | 29 | 640.2 | 500.2 | -170.7 | 30 | 730.2 | 500.2 | -79.0 |
| 31 | 640.2 | 500.2 | -79.0 | 32 | 550.2 | 500.2 | -262.3 | 33 | 550.2 | 500.2 | -170.7 |
| 34 | 550.2 | 500.2 | -79.0 | 35 | 730.2 | 4.03e-05 | -262.3 | 36 | 640.2 | 4.03e-05 | -262.3 |
| 37 | 637.7 | 0.0 | -354.0 | 38 | 730.2 | 4.03e-05 | -170.7 | 39 | 640.2 | 4.03e-05 | -170.7 |
| 40 | 730.2 | 4.03e-05 | -79.0 | 41 | 637.7 | 0.0 | -79.0 | 42 | 550.2 | 4.03e-05 | -262.3 |
| 43 | 550.2 | 4.03e-05 | -170.7 | 44 | 550.2 | 4.03e-05 | -79.0 | 45 | 462.7 | 391.7 | -79.0 |
| 46 | 462.7 | 297.5 | -79.0 | 47 | 550.2 | 4.03e-05 | -354.0 | 48 | 462.7 | 148.8 | -79.0 |
| 49 | 637.7 | 391.7 | -79.0 | 50 | 550.2 | 148.8 | -79.0 | 51 | 550.2 | 297.5 | -79.0 |
| 52 | 637.7 | 297.5 | -79.0 | 53 | 462.7 | 523.8 | -79.0 | 54 | 462.7 | 223.1 | -79.0 |
| 55 | 730.2 | 74.4 | -79.0 | 56 | 462.7 | 0.0 | -262.3 | 57 | 462.7 | 0.0 | -354.0 |
| 58 | 462.7 | 0.0 | -170.7 | 59 | 462.7 | 0.0 | -79.0 | 60 | 402.7 | 0.0 | -262.3 |
| 61 | 402.7 | 0.0 | -354.0 | 62 | 402.7 | 0.0 | -170.7 | 63 | 402.7 | 0.0 | -79.0 |
| 64 | 315.2 | 0.0 | -262.3 | 65 | 315.2 | 0.0 | -170.7 | 66 | 315.2 | 0.0 | -79.0 |
| 67 | 227.7 | 0.0 | -262.3 | 68 | 227.7 | 0.0 | -354.0 | 69 | 227.7 | 0.0 | -170.7 |
| 70 | 227.7 | 0.0 | -79.0 | 71 | 175.0 | 0.0 | -262.3 | 72 | 175.0 | 0.0 | -354.0 |
| 73 | 175.0 | 0.0 | -170.7 | 74 | 175.0 | 0.0 | -79.0 | 75 | -1.08e-04 | 457.7 | -262.3 |
| 76 | -1.08e-04 | 457.7 | -354.0 | 77 | -1.08e-04 | 457.7 | -170.7 | 78 | -1.08e-04 | 457.7 | -79.0 |
| 79 | 0.0 | 0.0 | -262.3 | 80 | 0.0 | 0.0 | -170.7 | 81 | 0.0 | 0.0 | -79.0 |
| 82 | 550.2 | 571.4 | -262.3 | 83 | 550.2 | 571.4 | -354.0 | 84 | 550.2 | 571.4 | -170.7 |
| 85 | 550.2 | 571.4 | -79.0 | 86 | 550.2 | 642.6 | -262.3 | 87 | 550.2 | 642.6 | -354.0 |
| 88 | 550.2 | 642.6 | -170.7 | 89 | 550.2 | 642.6 | -79.0 | 90 | 550.2 | 713.9 | -262.3 |
| 91 | 550.2 | 713.9 | -354.0 | 92 | 550.2 | 713.9 | -170.7 | 93 | 550.2 | 713.9 | -79.0 |
| 94 | 550.2 | 785.1 | -262.3 | 95 | 550.2 | 785.1 | -354.0 | 96 | 550.2 | 785.1 | -170.7 |
| 97 | 550.2 | 785.1 | -79.0 | 98 | 550.2 | 856.3 | -262.3 | 99 | 550.2 | 856.3 | -354.0 |
| 100 | 550.2 | 856.3 | -170.7 | 101 | 550.2 | 856.3 | -79.0 | 102 | 550.2 | 927.5 | -262.3 |
| 103 | 550.2 | 927.5 | -170.7 | 104 | 550.2 | 927.5 | -79.0 | 105 | 315.2 | 571.4 | -262.3 |
| 106 | 315.2 | 571.4 | -354.0 | 107 | 315.2 | 571.4 | -170.7 | 108 | 315.2 | 571.4 | -79.0 |
| 109 | 315.2 | 642.6 | -262.3 | 110 | 315.2 | 642.6 | -354.0 | 111 | 315.2 | 642.6 | -170.7 |
| 112 | 315.2 | 642.6 | -79.0 | 113 | 315.2 | 713.9 | -262.3 | 114 | 315.2 | 713.9 | -354.0 |
| 115 | 315.2 | 713.9 | -170.7 | 116 | 315.2 | 713.9 | -79.0 | 117 | 315.2 | 785.1 | -262.3 |
| 118 | 315.2 | 785.1 | -354.0 | 119 | 315.2 | 785.1 | -170.7 | 120 | 315.2 | 785.1 | -79.0 |
| 121 | 315.2 | 856.3 | -262.3 | 122 | 315.2 | 856.3 | -354.0 | 123 | 315.2 | 856.3 | -170.7 |
| 124 | 315.2 | 856.3 | -79.0 | 125 | 315.2 | 927.5 | -262.3 | 126 | 315.2 | 927.5 | -170.7 |
| 127 | 315.2 | 927.5 | -79.0 | 128 | 0.2 | 571.4 | -262.3 | 129 | 0.2 | 571.4 | -354.0 |
| 130 | 0.2 | 571.4 | -170.7 | 131 | 0.2 | 571.4 | -79.0 | 132 | 0.2 | 642.6 | -262.3 |
| 133 | 0.2 | 642.6 | -354.0 | 134 | 0.2 | 642.6 | -170.7 | 135 | 0.2 | 642.6 | -79.0 |
| 136 | 0.2 | 713.9 | -262.3 | 137 | 0.2 | 713.9 | -354.0 | 138 | 0.2 | 713.9 | -170.7 |
| 139 | 0.2 | 713.9 | -79.0 | 140 | 0.2 | 785.1 | -262.3 | 141 | 0.2 | 785.1 | -354.0 |
| 142 | 0.2 | 785.1 | -170.7 | 143 | 0.2 | 785.1 | -79.0 | 144 | 0.2 | 856.3 | -262.3 |
| 145 | 0.2 | 856.3 | -354.0 | 146 | 0.2 | 856.3 | -170.7 | 147 | 0.2 | 856.3 | -79.0 |
| 148 | 0.2 | 927.5 | -262.3 | 149 | 0.2 | 927.5 | -170.7 | 150 | 0.2 | 927.5 | -79.0 |
| 151 | -8.64e-05 | 391.7 | -354.0 | 152 | -8.64e-05 | 391.7 | -79.0 | 153 | -8.64e-05 | 297.5 | -262.3 |
| 154 | -8.64e-05 | 391.7 | -262.3 | 155 | -8.64e-05 | 297.5 | -170.7 | 156 | -8.64e-05 | 391.7 | -170.7 |
| 157 | -8.64e-05 | 297.5 | -79.0 | 158 | 315.2 | 500.2 | -354.0 | 159 | 315.2 | 500.2 | -262.3 |
| 160 | 315.2 | 500.2 | -170.7 | 161 | 315.2 | 500.2 | -79.0 | 162 | -1.30e-04 | 523.8 | -354.0 |
| 163 | -1.30e-04 | 523.8 | -262.3 | 164 | -1.30e-04 | 523.8 | -170.7 | 165 | -4.32e-05 | 148.8 | -79.0 |
| 166 | 637.7 | 223.1 | -79.0 | 167 | 175.0 | 523.8 | -79.0 | 168 | 175.0 | 148.8 | -79.0 |
| 169 | 637.7 | 148.8 | -79.0 | 170 | 87.5 | 0.0 | -262.3 | 171 | 87.5 | 0.0 | -354.0 |
| 172 | 87.5 | 0.0 | -170.7 | 173 | 87.5 | 0.0 | -79.0 | 174 | 315.2 | 523.8 | -79.0 |
| 175 | 87.5 | 523.8 | -79.0 | 176 | 315.2 | 523.8 | -354.0 | 177 | 315.2 | 523.8 | -262.3 |
| 178 | 315.2 | 523.8 | -170.7 | 179 | 550.2 | 523.8 | -79.0 | 180 | 550.2 | 523.8 | -354.0 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 181 | 550.2 | 523.8 | -262.3 | 182 | 550.2 | 523.8 | -170.7 | 183 | 87.5 | 457.7 | -79.0 |
| 184 | 175.0 | 457.7 | -79.0 | 185 | 87.5 | 391.7 | -79.0 | 186 | 175.0 | 391.7 | -79.0 |
| 187 | 87.5 | 297.5 | -79.0 | 188 | 175.0 | 297.5 | -79.0 | 189 | -4.32e-05 | 223.1 | -79.0 |
| 190 | 87.5 | 223.1 | -79.0 | 191 | 87.5 | 148.8 | -79.0 | 192 | 175.0 | 223.1 | -79.0 |
| 193 | 0.0 | 74.4 | -79.0 | 194 | 87.5 | 74.4 | -79.0 | 195 | 175.0 | 74.4 | -79.0 |
| 196 | 227.7 | 523.8 | -79.0 | 197 | 462.7 | 74.4 | -79.0 | 198 | 227.7 | 457.7 | -79.0 |
| 199 | 550.2 | 74.4 | -79.0 | 200 | 227.7 | 391.7 | -79.0 | 201 | 227.7 | 297.5 | -79.0 |
| 202 | 227.7 | 148.8 | -79.0 | 203 | 637.7 | 74.4 | -79.0 | 204 | 402.7 | 523.8 | -79.0 |
| 205 | 402.7 | 148.8 | -79.0 | 206 | 550.2 | 457.7 | -79.0 | 207 | 637.7 | 457.7 | -79.0 |
| 208 | 550.2 | 391.7 | -79.0 | 209 | 315.2 | 457.7 | -79.0 | 210 | 402.7 | 457.7 | -79.0 |
| 211 | 462.7 | 457.7 | -79.0 | 212 | 402.7 | 391.7 | -79.0 | 213 | 550.2 | 223.1 | -79.0 |
| 214 | 402.7 | 297.5 | -79.0 | 215 | 227.7 | 223.1 | -79.0 | 216 | 730.2 | 391.7 | -79.0 |
| 217 | 730.2 | 297.5 | -79.0 | 218 | 730.2 | 223.1 | -79.0 | 219 | 730.2 | 148.8 | -79.0 |
| 220 | 730.2 | 457.7 | -79.0 | 221 | 730.2 | 391.7 | -354.0 | 222 | 730.2 | 297.5 | -354.0 |
| 223 | 730.2 | 223.1 | -354.0 | 224 | 730.2 | 148.7 | -354.0 | 225 | 730.2 | 457.7 | -354.0 |
| 226 | 730.2 | 74.4 | -354.0 | 227 | 730.2 | 74.4 | -262.3 | 228 | 730.2 | 74.4 | -170.7 |
| 229 | 730.2 | 148.7 | -262.3 | 230 | 730.2 | 148.7 | -170.7 | 231 | 730.2 | 223.1 | -262.3 |
| 232 | 730.2 | 223.1 | -170.7 | 233 | 730.2 | 297.5 | -262.3 | 234 | 730.2 | 297.5 | -170.7 |
| 235 | 730.2 | 391.7 | -262.3 | 236 | 730.2 | 391.7 | -170.7 | 237 | 730.2 | 457.7 | -262.3 |
| 238 | 730.2 | 457.7 | -170.7 | 239 | 402.7 | 148.8 | -354.0 | 240 | 87.5 | 571.4 | -79.0 |
| 241 | 87.5 | 642.6 | -79.0 | 242 | 87.5 | 713.9 | -79.0 | 243 | 87.5 | 785.1 | -79.0 |
| 244 | 87.5 | 856.3 | -79.0 | 245 | 87.5 | 927.5 | -79.0 | 246 | 175.0 | 571.4 | -79.0 |
| 247 | 175.0 | 642.6 | -79.0 | 248 | 175.0 | 713.9 | -79.0 | 249 | 175.0 | 785.1 | -79.0 |
| 250 | 175.0 | 856.3 | -79.0 | 251 | 175.0 | 927.5 | -79.0 | 252 | 227.7 | 571.4 | -79.0 |
| 253 | 227.7 | 642.6 | -79.0 | 254 | 227.7 | 713.9 | -79.0 | 255 | 227.7 | 785.1 | -79.0 |
| 256 | 227.7 | 856.3 | -79.0 | 257 | 227.7 | 927.5 | -79.0 | 258 | 402.7 | 571.4 | -79.0 |
| 259 | 402.7 | 642.6 | -79.0 | 260 | 402.7 | 713.9 | -79.0 | 261 | 402.7 | 785.1 | -79.0 |
| 262 | 402.7 | 856.3 | -79.0 | 263 | 402.7 | 927.5 | -79.0 | 264 | 462.7 | 571.4 | -79.0 |
| 265 | 462.7 | 642.6 | -79.0 | 266 | 462.7 | 713.9 | -79.0 | 267 | 462.7 | 785.1 | -79.0 |
| 268 | 462.7 | 856.3 | -79.0 | 269 | 462.7 | 927.5 | -79.0 | 270 | 550.2 | 391.7 | -354.0 |
| 271 | 315.2 | 457.7 | -354.0 | 272 | 402.7 | 457.7 | -354.0 | 273 | 315.2 | 223.1 | -354.0 |
| 274 | 315.2 | 148.8 | -354.0 | 275 | 402.7 | 223.1 | -354.0 | 276 | 227.7 | 74.4 | -354.0 |
| 277 | 315.2 | 74.4 | -354.0 | 278 | 402.7 | 74.4 | -354.0 | 279 | 462.7 | 457.7 | -354.0 |
| 280 | 402.7 | 391.7 | -354.0 | 281 | 550.2 | 223.1 | -354.0 | 282 | 402.7 | 297.5 | -354.0 |
| 283 | 550.2 | 457.7 | -354.0 | 284 | 227.7 | 223.1 | -354.0 | 285 | 462.7 | 391.7 | -354.0 |
| 286 | 462.7 | 297.5 | -354.0 | 287 | 462.7 | 148.8 | -354.0 | 288 | 637.7 | 391.7 | -354.0 |
| 289 | 550.2 | 148.8 | -354.0 | 290 | 550.2 | 297.5 | -354.0 | 291 | 637.7 | 297.5 | -354.0 |
| 292 | 462.7 | 523.8 | -354.0 | 293 | 462.7 | 223.1 | -354.0 | 294 | 462.7 | 642.6 | -354.0 |
| 295 | 462.7 | 713.9 | -354.0 | 296 | 462.7 | 785.1 | -354.0 | 297 | 462.7 | 856.3 | -354.0 |
| 298 | 462.7 | 927.5 | -354.0 | 299 | 637.7 | 457.7 | -354.0 | 300 | 87.5 | 571.4 | -354.0 |
| 301 | 87.5 | 642.6 | -354.0 | 302 | 87.5 | 713.9 | -354.0 | 303 | 87.5 | 785.1 | -354.0 |
| 304 | 87.5 | 856.3 | -354.0 | 305 | 87.5 | 927.5 | -354.0 | 306 | 175.0 | 571.4 | -354.0 |
| 307 | 175.0 | 642.6 | -354.0 | 308 | 175.0 | 713.9 | -354.0 | 309 | 175.0 | 785.1 | -354.0 |
| 310 | 175.0 | 856.3 | -354.0 | 311 | 175.0 | 927.5 | -354.0 | 312 | 227.7 | 571.4 | -354.0 |
| 313 | 227.7 | 642.6 | -354.0 | 314 | 227.7 | 713.9 | -354.0 | 315 | 227.7 | 785.1 | -354.0 |
| 316 | 227.7 | 856.3 | -354.0 | 317 | 227.7 | 927.5 | -354.0 | 318 | 402.7 | 571.4 | -354.0 |
| 319 | 402.7 | 642.6 | -354.0 | 320 | 402.7 | 713.9 | -354.0 | 321 | 402.7 | 785.1 | -354.0 |
| 322 | -4.32e-05 | 148.8 | -354.0 | 323 | 637.7 | 223.1 | -354.0 | 324 | 175.0 | 523.8 | -354.0 |
| 325 | 175.0 | 148.8 | -354.0 | 326 | 637.7 | 148.8 | -354.0 | 327 | 402.7 | 856.3 | -354.0 |
| 328 | 402.7 | 927.5 | -354.0 | 329 | 87.5 | 523.8 | -354.0 | 330 | 462.7 | 571.4 | -354.0 |
| 331 | 87.5 | 457.7 | -354.0 | 332 | 175.0 | 457.7 | -354.0 | 333 | 87.5 | 391.7 | -354.0 |
| 334 | 175.0 | 391.7 | -354.0 | 335 | 87.5 | 297.5 | -354.0 | 336 | 175.0 | 297.5 | -354.0 |
| 337 | -4.32e-05 | 223.1 | -354.0 | 338 | 87.5 | 223.1 | -354.0 | 339 | 87.5 | 148.8 | -354.0 |
| 340 | 175.0 | 223.1 | -354.0 | 341 | 0.0 | 74.4 | -354.0 | 342 | 87.5 | 74.4 | -354.0 |
| 343 | 175.0 | 74.4 | -354.0 | 344 | 227.7 | 523.8 | -354.0 | 345 | 462.7 | 74.4 | -354.0 |
| 346 | 227.7 | 457.7 | -354.0 | 347 | 550.2 | 74.4 | -354.0 | 348 | 227.7 | 391.7 | -354.0 |
| 349 | 227.7 | 297.5 | -354.0 | 350 | 227.7 | 148.8 | -354.0 | 351 | 637.7 | 74.4 | -354.0 |
| 352 | 402.7 | 523.8 | -354.0 | | | | | | | | |

# 7 MODELLAZIONE STRUTTURA: ELEMENTI SHELL

## *7.1 LEGENDA TABELLA DATI SHELL*

Il programma utilizza per la modellazione elementi a tre o quattro nodi denominati in generale shell.
Ogni elemento shell è individuato dai nodi I, J, K, L (L=I per gli elementi a tre nodi).
Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.

| | |
|---|---|
|  |  |
| orientamento elementi 3D non verticali | orientamento elementi 3D verticali |

In particolare per ogni elemento viene indicato in tabella:

| | |
|---|---|
| **Elem.** | numero dell'elemento |
| **Note** | codice di comportamento:<br>*Guscio* (elemento guscio in elevazione non verticale)<br>*Guscio fond.* (elemento guscio su suolo elastico)<br>*Setto* (elemento guscio in elevazione verticale)<br>*Membrana* (elemento guscio con comportamento membranale) |
| **Nodo I (J, K, L)** | numero del nodo I (J, K, L) |
| **Mat.** | codice del materiale assegnato all'elemento |
| **Spessore** | spessore dell'elemento (costante) |
| **Svincolo** | codice di svincolo dell'elemento con riferimento ai nodi che definiscono il lato dell'elemento a cui è stato assegnato lo svincolo |
| **Wink V** | costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico verticale |

| | |
|---|---|
| **Wink O** | costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale |

Con riferimento al **Documento di Affidabilità** "*Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST*" - versione Maggio 2011, disponibile per il download sul sito **www.2si.it**, si segnalano i seguenti esempi applicativi:

| Test N° | Titolo |
|---|---|
| **8** | MENSOLE CON ELEMENTI PLATE E MATERIALE ORTOTROPO |
| **10** | PIASTRA CON ELEMENTI PLATE E MATERIALE ORTOTROPO |
| **21** | DRILLING |
| **25** | TENSIONI DI ELEMENTI PLATE |
| **31** | REALIZZAZIONE DI MESH PIANA SU GEOMETRIA CON PUNTI FISSI IMPORTATA DA FILE .DXF |
| **32** | REALIZZAZIONE DI MESH PIANA SU GEOMETRIA CON SEGMENTI E FORI INTERNI IMPORTATA DA FILE .DXF |
| **33** | REALIZZAZIONE DI MESH PIANE SU GEOMETRIE COSTRUITE IN PRO_SAP |
| **34** | ANALISI DI BUCKLING DI PIASTRA ISOTROPA |
| **35** | ANALISI DI BUCKLING DI UN CILINDRO COMPRESSO INCASTRATO ALLA BASE |
| **36** | ANALISI DI PARETI FORATE |
| **37** | BIMETALLIC STRIP (NAFEMS EXERCISE 6) |
| **38** | ANALISI ELASTICA DI PIASTRA CON INTAGLIO CIRCOLARE (FLAT BAR WITH EDGE NOTCHES-NAFEMS EXERCISE 9) |
| **39** | PLATEA NERVATA |
| **45** | VERIFICA A PUNZONAMENTO ALLO SLU DI PIASTRE IN C.A. |
| **117** | PROGETTO E VERIFICA DI GUSCI IN MATERIALE XLAM |
| **118** | PROGETTO E VERIFICA DI PARETI IN MATERIALE XLAM E RELATIVI COLLEGAMENTI |

| Elem. | Note | Nodo I | Nodo J | Nodo K | Nodo L | Mat. | Spessore cm | Svincolo | Wink V daN/cm3 | Wink O daN/cm3 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Setto | 6 | 5 | 14 | 13 | 1 | 35.0 | | | |
| 2 | Setto | 13 | 14 | 16 | 15 | 1 | 35.0 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | Setto | 15 | 16 | 18 | 17 | 1 | 35.0 |
| 4 | Guscio | 74 | 70 | 22 | 195 | 1 | 35.0 |
| 5 | Guscio | 195 | 22 | 202 | 168 | 1 | 35.0 |
| 6 | Guscio | 168 | 202 | 215 | 192 | 1 | 35.0 |
| 7 | Setto | 26 | 25 | 9 | 27 | 1 | 35.0 |
| 8 | Setto | 29 | 28 | 25 | 26 | 1 | 35.0 |
| 9 | Setto | 31 | 30 | 28 | 29 | 1 | 35.0 |
| 10 | Setto | 32 | 26 | 27 | 8 | 1 | 35.0 |
| 11 | Setto | 33 | 29 | 26 | 32 | 1 | 35.0 |
| 12 | Setto | 34 | 31 | 29 | 33 | 1 | 35.0 |
| 13 | Setto | 36 | 35 | 10 | 37 | 1 | 35.0 |
| 14 | Setto | 39 | 38 | 35 | 36 | 1 | 35.0 |
| 15 | Setto | 41 | 40 | 38 | 39 | 1 | 35.0 |
| 16 | Setto | 42 | 36 | 37 | 47 | 1 | 35.0 |
| 17 | Setto | 43 | 39 | 36 | 42 | 1 | 35.0 |
| 18 | Setto | 44 | 41 | 39 | 43 | 1 | 35.0 |
| 19 | Guscio | 192 | 215 | 201 | 188 | 1 | 35.0 |
| 20 | Guscio | 188 | 201 | 200 | 186 | 1 | 35.0 |
| 21 | Guscio | 186 | 200 | 198 | 184 | 1 | 35.0 |
| 22 | Guscio | 184 | 198 | 196 | 167 | 1 | 35.0 |
| 23 | Guscio | 210 | 211 | 53 | 204 | 1 | 35.0 |
| 24 | Guscio | 212 | 45 | 211 | 210 | 1 | 35.0 |
| 25 | Guscio | 214 | 46 | 45 | 212 | 1 | 35.0 |
| 26 | Guscio | 21 | 54 | 46 | 214 | 1 | 35.0 |
| 27 | Guscio | 205 | 48 | 54 | 21 | 1 | 35.0 |
| 28 | Guscio | 24 | 197 | 48 | 205 | 1 | 35.0 |
| 29 | Guscio | 63 | 59 | 197 | 24 | 1 | 35.0 |
| 30 | Guscio | 41 | 40 | 55 | 203 | 1 | 35.0 |
| 31 | Setto | 56 | 42 | 47 | 57 | 1 | 35.0 |
| 32 | Setto | 58 | 43 | 42 | 56 | 1 | 35.0 |
| 33 | Setto | 59 | 44 | 43 | 58 | 1 | 35.0 |
| 34 | Setto | 60 | 56 | 57 | 61 | 1 | 35.0 |
| 35 | Setto | 62 | 58 | 56 | 60 | 1 | 35.0 |
| 36 | Setto | 63 | 59 | 58 | 62 | 1 | 35.0 |
| 37 | Setto | 64 | 60 | 61 | 11 | 1 | 35.0 |
| 38 | Setto | 65 | 62 | 60 | 64 | 1 | 35.0 |
| 39 | Setto | 66 | 63 | 62 | 65 | 1 | 35.0 |
| 40 | Setto | 67 | 64 | 11 | 68 | 1 | 35.0 |
| 41 | Setto | 69 | 65 | 64 | 67 | 1 | 35.0 |
| 42 | Setto | 70 | 66 | 65 | 69 | 1 | 35.0 |
| 43 | Setto | 71 | 67 | 68 | 72 | 1 | 35.0 |
| 44 | Setto | 73 | 69 | 67 | 71 | 1 | 35.0 |
| 45 | Setto | 74 | 70 | 69 | 73 | 1 | 35.0 |
| 46 | Setto | 76 | 162 | 163 | 75 | 1 | 35.0 |
| 47 | Setto | 75 | 163 | 164 | 77 | 1 | 35.0 |
| 48 | Setto | 77 | 164 | 4 | 78 | 1 | 35.0 |
| 49 | Setto | 151 | 76 | 75 | 154 | 1 | 35.0 |
| 50 | Setto | 154 | 75 | 77 | 156 | 1 | 35.0 |
| 51 | Setto | 156 | 77 | 78 | 152 | 1 | 35.0 |
| 52 | Setto | 158 | 176 | 177 | 159 | 1 | 35.0 |
| 53 | Setto | 159 | 177 | 178 | 160 | 1 | 35.0 |
| 54 | Setto | 160 | 178 | 174 | 161 | 1 | 35.0 |
| 55 | Setto | 83 | 87 | 86 | 82 | 1 | 35.0 |
| 56 | Setto | 82 | 86 | 88 | 84 | 1 | 35.0 |
| 57 | Setto | 84 | 88 | 89 | 85 | 1 | 35.0 |
| 58 | Setto | 87 | 91 | 90 | 86 | 1 | 35.0 |
| 59 | Setto | 86 | 90 | 92 | 88 | 1 | 35.0 |
| 60 | Setto | 88 | 92 | 93 | 89 | 1 | 35.0 |
| 61 | Setto | 91 | 95 | 94 | 90 | 1 | 35.0 |
| 62 | Setto | 90 | 94 | 96 | 92 | 1 | 35.0 |
| 63 | Setto | 92 | 96 | 97 | 93 | 1 | 35.0 |
| 64 | Setto | 95 | 99 | 98 | 94 | 1 | 35.0 |
| 65 | Setto | 94 | 98 | 100 | 96 | 1 | 35.0 |
| 66 | Setto | 96 | 100 | 101 | 97 | 1 | 35.0 |
| 67 | Setto | 99 | 7 | 102 | 98 | 1 | 35.0 |
| 68 | Setto | 98 | 102 | 103 | 100 | 1 | 35.0 |
| 69 | Setto | 100 | 103 | 104 | 101 | 1 | 35.0 |
| 70 | Setto | 79 | 170 | 171 | 12 | 1 | 35.0 |
| 71 | Setto | 80 | 172 | 170 | 79 | 1 | 35.0 |
| 72 | Setto | 81 | 173 | 172 | 80 | 1 | 35.0 |
| 73 | Setto | 106 | 110 | 109 | 105 | 1 | 35.0 |
| 74 | Setto | 105 | 109 | 111 | 107 | 1 | 35.0 |
| 75 | Setto | 107 | 111 | 112 | 108 | 1 | 35.0 |
| 76 | Setto | 110 | 114 | 113 | 109 | 1 | 35.0 |
| 77 | Setto | 109 | 113 | 115 | 111 | 1 | 35.0 |

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|---|---|---|---|---|---|---|---|---|---|
| 78 | Setto | 111 | 115 | 116 | 112 | 1 | 35.0 | | |
| 79 | Setto | 114 | 118 | 117 | 113 | 1 | 35.0 | | |
| 80 | Setto | 113 | 117 | 119 | 115 | 1 | 35.0 | | |
| 81 | Setto | 115 | 119 | 120 | 116 | 1 | 35.0 | | |
| 82 | Setto | 118 | 122 | 121 | 117 | 1 | 35.0 | | |
| 83 | Setto | 117 | 121 | 123 | 119 | 1 | 35.0 | | |
| 84 | Setto | 119 | 123 | 124 | 120 | 1 | 35.0 | | |
| 85 | Setto | 122 | 3 | 125 | 121 | 1 | 35.0 | | |
| 86 | Setto | 121 | 125 | 126 | 123 | 1 | 35.0 | | |
| 87 | Setto | 123 | 126 | 127 | 124 | 1 | 35.0 | | |
| 88 | Guscio fond. | 295 | 91 | 95 | 296 | 1 | 35.0 | 3.70 | 3.00 |
| 89 | Guscio fond. | 296 | 95 | 99 | 297 | 1 | 35.0 | 3.70 | 3.00 |
| 90 | Guscio fond. | 297 | 99 | 7 | 298 | 1 | 35.0 | 3.70 | 3.00 |
| 91 | Setto | 129 | 133 | 132 | 128 | 1 | 35.0 | | |
| 92 | Setto | 128 | 132 | 134 | 130 | 1 | 35.0 | | |
| 93 | Setto | 130 | 134 | 135 | 131 | 1 | 35.0 | | |
| 94 | Setto | 133 | 137 | 136 | 132 | 1 | 35.0 | | |
| 95 | Setto | 132 | 136 | 138 | 134 | 1 | 35.0 | | |
| 96 | Setto | 134 | 138 | 139 | 135 | 1 | 35.0 | | |
| 97 | Setto | 137 | 141 | 140 | 136 | 1 | 35.0 | | |
| 98 | Setto | 136 | 140 | 142 | 138 | 1 | 35.0 | | |
| 99 | Setto | 138 | 142 | 143 | 139 | 1 | 35.0 | | |
| 100 | Setto | 141 | 145 | 144 | 140 | 1 | 35.0 | | |
| 101 | Setto | 140 | 144 | 146 | 142 | 1 | 35.0 | | |
| 102 | Setto | 142 | 146 | 147 | 143 | 1 | 35.0 | | |
| 103 | Setto | 145 | 1 | 148 | 144 | 1 | 35.0 | | |
| 104 | Setto | 144 | 148 | 149 | 146 | 1 | 35.0 | | |
| 105 | Setto | 146 | 149 | 150 | 147 | 1 | 35.0 | | |
| 106 | Setto | 2 | 151 | 154 | 153 | 1 | 35.0 | | |
| 107 | Setto | 153 | 154 | 156 | 155 | 1 | 35.0 | | |
| 108 | Setto | 155 | 156 | 152 | 157 | 1 | 35.0 | | |
| 109 | Setto | 170 | 71 | 72 | 171 | 1 | 35.0 | | |
| 110 | Setto | 172 | 73 | 71 | 170 | 1 | 35.0 | | |
| 111 | Setto | 173 | 74 | 73 | 172 | 1 | 35.0 | | |
| 112 | Setto | 176 | 106 | 105 | 177 | 1 | 35.0 | | |
| 113 | Setto | 177 | 105 | 107 | 178 | 1 | 35.0 | | |
| 114 | Setto | 178 | 107 | 108 | 174 | 1 | 35.0 | | |
| 115 | Setto | 8 | 180 | 181 | 32 | 1 | 35.0 | | |
| 116 | Setto | 32 | 181 | 182 | 33 | 1 | 35.0 | | |
| 117 | Setto | 33 | 182 | 179 | 34 | 1 | 35.0 | | |
| 118 | Setto | 180 | 83 | 82 | 181 | 1 | 35.0 | | |
| 119 | Setto | 181 | 82 | 84 | 182 | 1 | 35.0 | | |
| 120 | Setto | 182 | 84 | 85 | 179 | 1 | 35.0 | | |
| 121 | Guscio | 78 | 183 | 175 | 4 | 1 | 35.0 | | |
| 122 | Guscio | 183 | 184 | 167 | 175 | 1 | 35.0 | | |
| 123 | Guscio | 152 | 185 | 183 | 78 | 1 | 35.0 | | |
| 124 | Guscio | 185 | 186 | 184 | 183 | 1 | 35.0 | | |
| 125 | Guscio | 157 | 187 | 185 | 152 | 1 | 35.0 | | |
| 126 | Guscio | 187 | 188 | 186 | 185 | 1 | 35.0 | | |
| 127 | Guscio | 165 | 191 | 190 | 189 | 1 | 35.0 | | |
| 128 | Guscio | 189 | 190 | 187 | 157 | 1 | 35.0 | | |
| 129 | Guscio | 191 | 168 | 192 | 190 | 1 | 35.0 | | |
| 130 | Guscio | 190 | 192 | 188 | 187 | 1 | 35.0 | | |
| 131 | Guscio | 81 | 173 | 194 | 193 | 1 | 35.0 | | |
| 132 | Guscio | 193 | 194 | 191 | 165 | 1 | 35.0 | | |
| 133 | Guscio | 173 | 74 | 195 | 194 | 1 | 35.0 | | |
| 134 | Guscio | 194 | 195 | 168 | 191 | 1 | 35.0 | | |
| 135 | Guscio | 66 | 63 | 24 | 23 | 1 | 35.0 | | |
| 136 | Guscio | 23 | 24 | 205 | 20 | 1 | 35.0 | | |
| 137 | Guscio | 200 | 18 | 209 | 198 | 1 | 35.0 | | |
| 138 | Guscio | 18 | 212 | 210 | 209 | 1 | 35.0 | | |
| 139 | Guscio | 201 | 17 | 18 | 200 | 1 | 35.0 | | |
| 140 | Guscio | 17 | 214 | 212 | 18 | 1 | 35.0 | | |
| 141 | Guscio | 202 | 20 | 19 | 215 | 1 | 35.0 | | |
| 142 | Guscio | 215 | 19 | 17 | 201 | 1 | 35.0 | | |
| 143 | Guscio | 20 | 205 | 21 | 19 | 1 | 35.0 | | |
| 144 | Guscio | 19 | 21 | 214 | 17 | 1 | 35.0 | | |
| 145 | Guscio | 70 | 66 | 23 | 22 | 1 | 35.0 | | |
| 146 | Guscio | 22 | 23 | 20 | 202 | 1 | 35.0 | | |
| 147 | Guscio | 198 | 209 | 161 | 196 | 1 | 35.0 | | |
| 148 | Guscio | 196 | 161 | 174 | | 1 | 35.0 | | |
| 149 | Guscio | 174 | 161 | 204 | | 1 | 35.0 | | |
| 150 | Guscio | 209 | 210 | 204 | 161 | 1 | 35.0 | | |
| 151 | Guscio | 44 | 41 | 203 | 199 | 1 | 35.0 | | |
| 152 | Guscio | 199 | 203 | 169 | 50 | 1 | 35.0 | | |

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|---|---|---|---|---|---|---|---|
| 153 | Guscio | 45 | 208 | 206 | 211 | 1 | 35.0 |
| 154 | Guscio | 208 | 49 | 207 | 206 | 1 | 35.0 |
| 155 | Guscio | 46 | 51 | 208 | 45 | 1 | 35.0 |
| 156 | Guscio | 51 | 52 | 49 | 208 | 1 | 35.0 |
| 157 | Guscio | 48 | 50 | 213 | 54 | 1 | 35.0 |
| 158 | Guscio | 54 | 213 | 51 | 46 | 1 | 35.0 |
| 159 | Guscio | 50 | 169 | 166 | 213 | 1 | 35.0 |
| 160 | Guscio | 213 | 166 | 52 | 51 | 1 | 35.0 |
| 161 | Guscio | 59 | 44 | 199 | 197 | 1 | 35.0 |
| 162 | Guscio | 197 | 199 | 50 | 48 | 1 | 35.0 |
| 163 | Guscio | 211 | 206 | 34 | 53 | 1 | 35.0 |
| 164 | Guscio | 53 | 34 | 179 | | 1 | 35.0 |
| 165 | Guscio | 206 | 207 | 31 | 34 | 1 | 35.0 |
| 166 | Setto | 10 | 226 | 227 | 35 | 1 | 35.0 |
| 167 | Setto | 35 | 227 | 228 | 38 | 1 | 35.0 |
| 168 | Setto | 38 | 228 | 55 | 40 | 1 | 35.0 |
| 169 | Setto | 226 | 224 | 229 | 227 | 1 | 35.0 |
| 170 | Setto | 227 | 229 | 230 | 228 | 1 | 35.0 |
| 171 | Setto | 228 | 230 | 219 | 55 | 1 | 35.0 |
| 172 | Setto | 224 | 223 | 231 | 229 | 1 | 35.0 |
| 173 | Setto | 229 | 231 | 232 | 230 | 1 | 35.0 |
| 174 | Setto | 230 | 232 | 218 | 219 | 1 | 35.0 |
| 175 | Setto | 223 | 222 | 233 | 231 | 1 | 35.0 |
| 176 | Setto | 231 | 233 | 234 | 232 | 1 | 35.0 |
| 177 | Setto | 232 | 234 | 217 | 218 | 1 | 35.0 |
| 178 | Setto | 222 | 221 | 235 | 233 | 1 | 35.0 |
| 179 | Setto | 233 | 235 | 236 | 234 | 1 | 35.0 |
| 180 | Setto | 234 | 236 | 216 | 217 | 1 | 35.0 |
| 181 | Setto | 221 | 225 | 237 | 235 | 1 | 35.0 |
| 182 | Setto | 235 | 237 | 238 | 236 | 1 | 35.0 |
| 183 | Setto | 236 | 238 | 220 | 216 | 1 | 35.0 |
| 184 | Setto | 225 | 9 | 25 | 237 | 1 | 35.0 |
| 185 | Setto | 237 | 25 | 28 | 238 | 1 | 35.0 |
| 186 | Setto | 238 | 28 | 30 | 220 | 1 | 35.0 |
| 187 | Guscio | 203 | 55 | 219 | 169 | 1 | 35.0 |
| 188 | Guscio | 169 | 219 | 218 | 166 | 1 | 35.0 |
| 189 | Guscio | 166 | 218 | 217 | 52 | 1 | 35.0 |
| 190 | Guscio | 52 | 217 | 216 | 49 | 1 | 35.0 |
| 191 | Guscio | 49 | 216 | 220 | 207 | 1 | 35.0 |
| 192 | Guscio | 207 | 220 | 30 | 31 | 1 | 35.0 |
| 193 | Guscio | 4 | 175 | 240 | 131 | 1 | 35.0 |
| 194 | Guscio | 131 | 240 | 241 | 135 | 1 | 35.0 |
| 195 | Guscio | 135 | 241 | 242 | 139 | 1 | 35.0 |
| 196 | Guscio | 139 | 242 | 243 | 143 | 1 | 35.0 |
| 197 | Guscio | 143 | 243 | 244 | 147 | 1 | 35.0 |
| 198 | Guscio | 147 | 244 | 245 | 150 | 1 | 35.0 |
| 199 | Guscio | 175 | 167 | 246 | 240 | 1 | 35.0 |
| 200 | Guscio | 240 | 246 | 247 | 241 | 1 | 35.0 |
| 201 | Guscio | 241 | 247 | 248 | 242 | 1 | 35.0 |
| 202 | Guscio | 242 | 248 | 249 | 243 | 1 | 35.0 |
| 203 | Guscio | 243 | 249 | 250 | 244 | 1 | 35.0 |
| 204 | Guscio | 244 | 250 | 251 | 245 | 1 | 35.0 |
| 205 | Guscio | 167 | 196 | 252 | 246 | 1 | 35.0 |
| 206 | Guscio | 246 | 252 | 253 | 247 | 1 | 35.0 |
| 207 | Guscio | 247 | 253 | 254 | 248 | 1 | 35.0 |
| 208 | Guscio | 248 | 254 | 255 | 249 | 1 | 35.0 |
| 209 | Guscio | 249 | 255 | 256 | 250 | 1 | 35.0 |
| 210 | Guscio | 250 | 256 | 257 | 251 | 1 | 35.0 |
| 211 | Guscio | 196 | 174 | 108 | 252 | 1 | 35.0 |
| 212 | Guscio | 252 | 108 | 112 | 253 | 1 | 35.0 |
| 213 | Guscio | 253 | 112 | 116 | 254 | 1 | 35.0 |
| 214 | Guscio | 254 | 116 | 120 | 255 | 1 | 35.0 |
| 215 | Guscio | 255 | 120 | 124 | 256 | 1 | 35.0 |
| 216 | Guscio | 256 | 124 | 127 | 257 | 1 | 35.0 |
| 217 | Guscio | 174 | 204 | 258 | 108 | 1 | 35.0 |
| 218 | Guscio | 108 | 258 | 259 | 112 | 1 | 35.0 |
| 219 | Guscio | 112 | 259 | 260 | 116 | 1 | 35.0 |
| 220 | Guscio | 116 | 260 | 261 | 120 | 1 | 35.0 |
| 221 | Guscio | 120 | 261 | 262 | 124 | 1 | 35.0 |
| 222 | Guscio | 124 | 262 | 263 | 127 | 1 | 35.0 |
| 223 | Guscio | 204 | 53 | 264 | 258 | 1 | 35.0 |
| 224 | Guscio | 258 | 264 | 265 | 259 | 1 | 35.0 |
| 225 | Guscio | 259 | 265 | 266 | 260 | 1 | 35.0 |
| 226 | Guscio | 260 | 266 | 267 | 261 | 1 | 35.0 |
| 227 | Guscio | 261 | 267 | 268 | 262 | 1 | 35.0 |

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|---|---|---|---|---|---|---|---|---|---|
| 228 | Guscio | 262 | 268 | 269 | 263 | 1 | 35.0 | | |
| 229 | Guscio | 53 | 179 | 85 | 264 | 1 | 35.0 | | |
| 230 | Guscio | 264 | 85 | 89 | 265 | 1 | 35.0 | | |
| 231 | Guscio | 265 | 89 | 93 | 266 | 1 | 35.0 | | |
| 232 | Guscio | 266 | 93 | 97 | 267 | 1 | 35.0 | | |
| 233 | Guscio | 267 | 97 | 101 | 268 | 1 | 35.0 | | |
| 234 | Guscio | 268 | 101 | 104 | 269 | 1 | 35.0 | | |
| 235 | Guscio fond. | 72 | 68 | 276 | 343 | 1 | 35.0 | 3.70 | 3.00 |
| 236 | Guscio fond. | 343 | 276 | 350 | 325 | 1 | 35.0 | 3.70 | 3.00 |
| 237 | Guscio fond. | 325 | 350 | 284 | 340 | 1 | 35.0 | 3.70 | 3.00 |
| 238 | Guscio fond. | 340 | 284 | 349 | 336 | 1 | 35.0 | 3.70 | 3.00 |
| 239 | Guscio fond. | 336 | 349 | 348 | 334 | 1 | 35.0 | 3.70 | 3.00 |
| 240 | Guscio fond. | 334 | 348 | 346 | 332 | 1 | 35.0 | 3.70 | 3.00 |
| 241 | Guscio fond. | 332 | 346 | 344 | 324 | 1 | 35.0 | 3.70 | 3.00 |
| 242 | Guscio fond. | 272 | 279 | 292 | 352 | 1 | 35.0 | 3.70 | 3.00 |
| 243 | Guscio fond. | 280 | 285 | 279 | 272 | 1 | 35.0 | 3.70 | 3.00 |
| 244 | Guscio fond. | 282 | 286 | 285 | 280 | 1 | 35.0 | 3.70 | 3.00 |
| 245 | Guscio fond. | 275 | 293 | 286 | 282 | 1 | 35.0 | 3.70 | 3.00 |
| 246 | Guscio fond. | 239 | 287 | 293 | 275 | 1 | 35.0 | 3.70 | 3.00 |
| 247 | Guscio fond. | 278 | 345 | 287 | 239 | 1 | 35.0 | 3.70 | 3.00 |
| 248 | Guscio fond. | 61 | 57 | 345 | 278 | 1 | 35.0 | 3.70 | 3.00 |
| 249 | Guscio fond. | 37 | 10 | 226 | 351 | 1 | 35.0 | 3.70 | 3.00 |
| 250 | Guscio fond. | 76 | 331 | 329 | 162 | 1 | 35.0 | 3.70 | 3.00 |
| 251 | Guscio fond. | 331 | 332 | 324 | 329 | 1 | 35.0 | 3.70 | 3.00 |
| 252 | Guscio fond. | 151 | 333 | 331 | 76 | 1 | 35.0 | 3.70 | 3.00 |
| 253 | Guscio fond. | 333 | 334 | 332 | 331 | 1 | 35.0 | 3.70 | 3.00 |
| 254 | Guscio fond. | 2 | 335 | 333 | 151 | 1 | 35.0 | 3.70 | 3.00 |
| 255 | Guscio fond. | 335 | 336 | 334 | 333 | 1 | 35.0 | 3.70 | 3.00 |
| 256 | Guscio fond. | 322 | 339 | 338 | 337 | 1 | 35.0 | 3.70 | 3.00 |
| 257 | Guscio fond. | 337 | 338 | 335 | 2 | 1 | 35.0 | 3.70 | 3.00 |
| 258 | Guscio fond. | 339 | 325 | 340 | 338 | 1 | 35.0 | 3.70 | 3.00 |
| 259 | Guscio fond. | 338 | 340 | 336 | 335 | 1 | 35.0 | 3.70 | 3.00 |
| 260 | Guscio fond. | 12 | 171 | 342 | 341 | 1 | 35.0 | 3.70 | 3.00 |
| 261 | Guscio fond. | 341 | 342 | 339 | 322 | 1 | 35.0 | 3.70 | 3.00 |
| 262 | Guscio fond. | 171 | 72 | 343 | 342 | 1 | 35.0 | 3.70 | 3.00 |
| 263 | Guscio fond. | 342 | 343 | 325 | 339 | 1 | 35.0 | 3.70 | 3.00 |
| 264 | Guscio fond. | 11 | 61 | 278 | 277 | 1 | 35.0 | 3.70 | 3.00 |
| 265 | Guscio fond. | 277 | 278 | 239 | 274 | 1 | 35.0 | 3.70 | 3.00 |
| 266 | Guscio fond. | 348 | 5 | 271 | 346 | 1 | 35.0 | 3.70 | 3.00 |
| 267 | Guscio fond. | 5 | 280 | 272 | 271 | 1 | 35.0 | 3.70 | 3.00 |
| 268 | Guscio fond. | 349 | 6 | 5 | 348 | 1 | 35.0 | 3.70 | 3.00 |
| 269 | Guscio fond. | 6 | 282 | 280 | 5 | 1 | 35.0 | 3.70 | 3.00 |
| 270 | Guscio fond. | 350 | 274 | 273 | 284 | 1 | 35.0 | 3.70 | 3.00 |
| 271 | Guscio fond. | 284 | 273 | 6 | 349 | 1 | 35.0 | 3.70 | 3.00 |
| 272 | Guscio fond. | 274 | 239 | 275 | 273 | 1 | 35.0 | 3.70 | 3.00 |
| 273 | Guscio fond. | 273 | 275 | 282 | 6 | 1 | 35.0 | 3.70 | 3.00 |
| 274 | Guscio fond. | 68 | 11 | 277 | 276 | 1 | 35.0 | 3.70 | 3.00 |
| 275 | Guscio fond. | 276 | 277 | 274 | 350 | 1 | 35.0 | 3.70 | 3.00 |
| 276 | Guscio fond. | 346 | 271 | 158 | 344 | 1 | 35.0 | 3.70 | 3.00 |
| 277 | Guscio fond. | 344 | 158 | 176 | | 1 | 35.0 | 3.70 | 3.00 |
| 278 | Guscio fond. | 176 | 158 | 352 | | 1 | 35.0 | 3.70 | 3.00 |
| 279 | Guscio fond. | 271 | 272 | 352 | 158 | 1 | 35.0 | 3.70 | 3.00 |
| 280 | Guscio fond. | 47 | 37 | 351 | 347 | 1 | 35.0 | 3.70 | 3.00 |
| 281 | Guscio fond. | 347 | 351 | 326 | 289 | 1 | 35.0 | 3.70 | 3.00 |
| 282 | Guscio fond. | 285 | 270 | 283 | 279 | 1 | 35.0 | 3.70 | 3.00 |
| 283 | Guscio fond. | 270 | 288 | 299 | 283 | 1 | 35.0 | 3.70 | 3.00 |
| 284 | Guscio fond. | 286 | 290 | 270 | 285 | 1 | 35.0 | 3.70 | 3.00 |
| 285 | Guscio fond. | 290 | 291 | 288 | 270 | 1 | 35.0 | 3.70 | 3.00 |
| 286 | Guscio fond. | 287 | 289 | 281 | 293 | 1 | 35.0 | 3.70 | 3.00 |
| 287 | Guscio fond. | 293 | 281 | 290 | 286 | 1 | 35.0 | 3.70 | 3.00 |
| 288 | Guscio fond. | 289 | 326 | 323 | 281 | 1 | 35.0 | 3.70 | 3.00 |
| 289 | Guscio fond. | 281 | 323 | 291 | 290 | 1 | 35.0 | 3.70 | 3.00 |
| 290 | Guscio fond. | 57 | 47 | 347 | 345 | 1 | 35.0 | 3.70 | 3.00 |
| 291 | Guscio fond. | 345 | 347 | 289 | 287 | 1 | 35.0 | 3.70 | 3.00 |
| 292 | Guscio fond. | 279 | 283 | 8 | 292 | 1 | 35.0 | 3.70 | 3.00 |
| 293 | Guscio fond. | 292 | 8 | 180 | | 1 | 35.0 | 3.70 | 3.00 |
| 294 | Guscio fond. | 283 | 299 | 27 | 8 | 1 | 35.0 | 3.70 | 3.00 |
| 295 | Guscio fond. | 351 | 226 | 224 | 326 | 1 | 35.0 | 3.70 | 3.00 |
| 296 | Guscio fond. | 326 | 224 | 223 | 323 | 1 | 35.0 | 3.70 | 3.00 |
| 297 | Guscio fond. | 323 | 223 | 222 | 291 | 1 | 35.0 | 3.70 | 3.00 |
| 298 | Guscio fond. | 291 | 222 | 221 | 288 | 1 | 35.0 | 3.70 | 3.00 |
| 299 | Guscio fond. | 288 | 221 | 225 | 299 | 1 | 35.0 | 3.70 | 3.00 |
| 300 | Guscio fond. | 299 | 225 | 9 | 27 | 1 | 35.0 | 3.70 | 3.00 |
| 301 | Guscio fond. | 162 | 329 | 300 | 129 | 1 | 35.0 | 3.70 | 3.00 |
| 302 | Guscio fond. | 129 | 300 | 301 | 133 | 1 | 35.0 | 3.70 | 3.00 |

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|---|---|---|---|---|---|---|---|---|---|
| 303 | Guscio fond. | 133 | 301 | 302 | 137 | 1 | 35.0 | 3.70 | 3.00 |
| 304 | Guscio fond. | 137 | 302 | 303 | 141 | 1 | 35.0 | 3.70 | 3.00 |
| 305 | Guscio fond. | 141 | 303 | 304 | 145 | 1 | 35.0 | 3.70 | 3.00 |
| 306 | Guscio fond. | 145 | 304 | 305 | 1 | 1 | 35.0 | 3.70 | 3.00 |
| 307 | Guscio fond. | 329 | 324 | 306 | 300 | 1 | 35.0 | 3.70 | 3.00 |
| 308 | Guscio fond. | 300 | 306 | 307 | 301 | 1 | 35.0 | 3.70 | 3.00 |
| 309 | Guscio fond. | 301 | 307 | 308 | 302 | 1 | 35.0 | 3.70 | 3.00 |
| 310 | Guscio fond. | 302 | 308 | 309 | 303 | 1 | 35.0 | 3.70 | 3.00 |
| 311 | Guscio fond. | 303 | 309 | 310 | 304 | 1 | 35.0 | 3.70 | 3.00 |
| 312 | Guscio fond. | 304 | 310 | 311 | 305 | 1 | 35.0 | 3.70 | 3.00 |
| 313 | Guscio fond. | 324 | 344 | 312 | 306 | 1 | 35.0 | 3.70 | 3.00 |
| 314 | Guscio fond. | 306 | 312 | 313 | 307 | 1 | 35.0 | 3.70 | 3.00 |
| 315 | Guscio fond. | 307 | 313 | 314 | 308 | 1 | 35.0 | 3.70 | 3.00 |
| 316 | Guscio fond. | 308 | 314 | 315 | 309 | 1 | 35.0 | 3.70 | 3.00 |
| 317 | Guscio fond. | 309 | 315 | 316 | 310 | 1 | 35.0 | 3.70 | 3.00 |
| 318 | Guscio fond. | 310 | 316 | 317 | 311 | 1 | 35.0 | 3.70 | 3.00 |
| 319 | Guscio fond. | 344 | 176 | 106 | 312 | 1 | 35.0 | 3.70 | 3.00 |
| 320 | Guscio fond. | 312 | 106 | 110 | 313 | 1 | 35.0 | 3.70 | 3.00 |
| 321 | Guscio fond. | 313 | 110 | 114 | 314 | 1 | 35.0 | 3.70 | 3.00 |
| 322 | Guscio fond. | 314 | 114 | 118 | 315 | 1 | 35.0 | 3.70 | 3.00 |
| 323 | Guscio fond. | 315 | 118 | 122 | 316 | 1 | 35.0 | 3.70 | 3.00 |
| 324 | Guscio fond. | 316 | 122 | 3 | 317 | 1 | 35.0 | 3.70 | 3.00 |
| 325 | Guscio fond. | 176 | 352 | 318 | 106 | 1 | 35.0 | 3.70 | 3.00 |
| 326 | Guscio fond. | 106 | 318 | 319 | 110 | 1 | 35.0 | 3.70 | 3.00 |
| 327 | Guscio fond. | 110 | 319 | 320 | 114 | 1 | 35.0 | 3.70 | 3.00 |
| 328 | Guscio fond. | 114 | 320 | 321 | 118 | 1 | 35.0 | 3.70 | 3.00 |
| 329 | Guscio fond. | 118 | 321 | 327 | 122 | 1 | 35.0 | 3.70 | 3.00 |
| 330 | Guscio fond. | 122 | 327 | 328 | 3 | 1 | 35.0 | 3.70 | 3.00 |
| 331 | Guscio fond. | 352 | 292 | 330 | 318 | 1 | 35.0 | 3.70 | 3.00 |
| 332 | Guscio fond. | 318 | 330 | 294 | 319 | 1 | 35.0 | 3.70 | 3.00 |
| 333 | Guscio fond. | 319 | 294 | 295 | 320 | 1 | 35.0 | 3.70 | 3.00 |
| 334 | Guscio fond. | 320 | 295 | 296 | 321 | 1 | 35.0 | 3.70 | 3.00 |
| 335 | Guscio fond. | 321 | 296 | 297 | 327 | 1 | 35.0 | 3.70 | 3.00 |
| 336 | Guscio fond. | 327 | 297 | 298 | 328 | 1 | 35.0 | 3.70 | 3.00 |
| 337 | Guscio fond. | 292 | 180 | 83 | 330 | 1 | 35.0 | 3.70 | 3.00 |
| 338 | Guscio fond. | 330 | 83 | 87 | 294 | 1 | 35.0 | 3.70 | 3.00 |
| 339 | Guscio fond. | 294 | 87 | 91 | 295 | 1 | 35.0 | 3.70 | 3.00 |
| 340 | Setto | 163 | 128 | 129 | 162 | 1 | 35.0 | | |
| 341 | Setto | 164 | 130 | 128 | 163 | 1 | 35.0 | | |
| 342 | Setto | 4 | 131 | 130 | 164 | 1 | 35.0 | | |

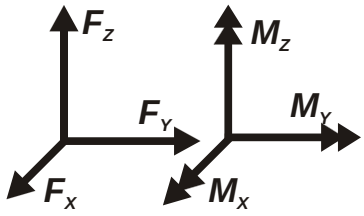
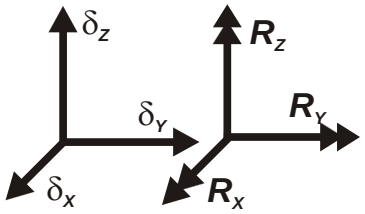
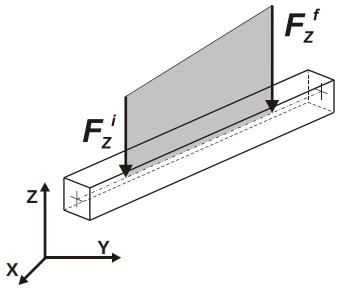
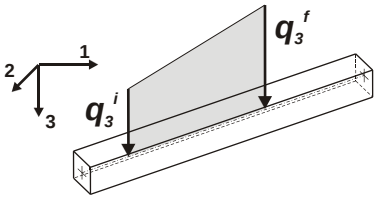
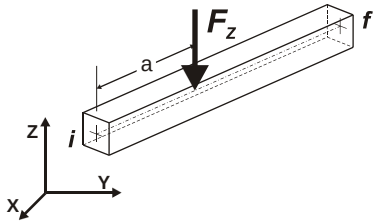
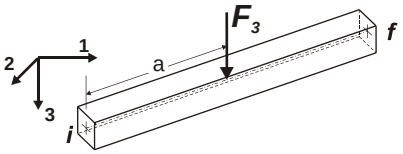
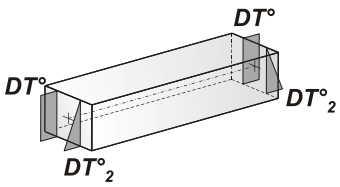
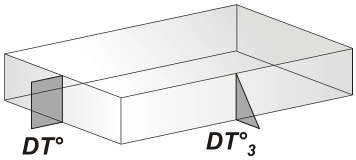
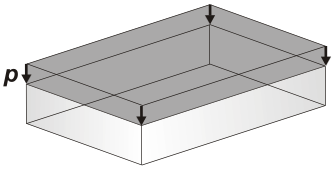
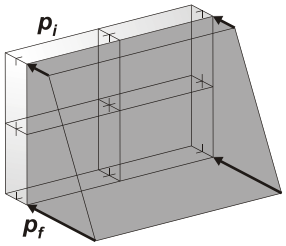
# 8 MODELLAZIONE DELLE AZIONI

## *8.1 LEGENDA TABELLA DATI AZIONI*

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

| | |
|---|---|
| **1** | **carico concentrato nodale**<br>6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz) |
| **2** | **spostamento nodale impresso**<br>6 dati (spostamento Tx,Ty,Tz, rotazione Rx,Ry,Rz) |
| **3** | **carico distribuito globale su elemento tipo trave**<br>7 dati (fx,fy,fz,mx,my,mz,ascissa di inizio carico)<br>7 dati (fx,fy,fz,mx,my,mz,ascissa di fine carico) |
| **4** | **carico distribuito locale su elemento tipo trave**<br>7 dati (f1,f2,f3,m1,m2,m3,ascissa di inizio carico)<br>7 dati (f1,f2,f3,m1,m2,m3,ascissa di fine carico) |
| **5** | **carico concentrato globale su elemento tipo trave**<br>7 dati (Fx,Fy,Fz,Mx,My,Mz,ascissa di carico) |
| **6** | **carico concentrato locale su elemento tipo trave**<br>7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico) |
| **7** | **variazione termica applicata ad elemento tipo trave**<br>7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale) |
| **8** | **carico di pressione uniforme su elemento tipo piastra**<br>1 dato (pressione) |
| **9** | **carico di pressione variabile su elemento tipo piastra**<br>4 dati (pressione, quota, pressione, quota) |
| **10** | **variazione termica applicata ad elemento tipo piastra**<br>2 dati (variazioni termiche: media e differenza nello spessore) |

| | |
|---|---|
| **11** | **carico variabile generale su elementi tipo trave e piastra**<br>1 dato descrizione della tipologia<br>4 dati per segmento (posizione, valore, posizione, valore)<br>la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave |
| **12** | **gruppo di carichi con impronta su piastra**<br>9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell' impronta, interasse tra i carichi |

| | |
|---|---|
|  Carico concentrato nodale |  Spostamento impresso |
|  Carico distribuito globale |  Carico distribuito locale |
|  Carico concentrato globale |  Carico concentrato locale |
|  Carico termico 2D |  Carico termico 3D |
|  Carico pressione uniforme |  Carico pressione variabile |

| Tipo | carico di pressione uniforme su piastra |
|---|---|

| Id | Tipo | pressione |
|---|---|---|
| | | kN/ m2 |
| 2 | TRAFFIC LOAD AT K0 | -10.00 |
| 8 | TRAFFIC Q1 | 54.24 |
| 9 | TRAFFIC q1 | 9.00 |
| 15 | SEISMIC EARTH LOAD | -6.55 |

| Tipo | carico di pressione variabile su piastra |
|---|---|

| Id | Tipo | pressione | quota | pressione | quota |
|---|---|---|---|---|---|
| | | kN/ m2 | m | kN/ m2 | m |
| 1 | EARTH LOAD AT REST | 0.0 | 0.0 | -190.00 | -20.00 |
| 5 | WATER | 0.0 | 0.0 | -200.00 | -20.00 |

| Tipo | carico variabile generale |
|---|---|

| Id | Tipo | ascissa | valore | ascissa | valore |
|---|---|---|---|---|---|
| | | m | kN/ m2 | m | kN/ m2 |
| 7 | ROAD STRUCTURE | | | | |
| | X - X Qz Area L2=0.0 | 0.0 | -10.00 | 20.00 | 0.0 |

# 9 SCHEMATIZZAZIONE DEI CASI DI CARICO

## *9.1 LEGENDA TABELLA CASI DI CARICO*

Il programma consente l'applicazione di diverse tipologie di casi di carico.
Sono previsti i seguenti 11 tipi di casi di carico:

| | ***Sigla*** | ***Tipo*** | ***Descrizione*** |
|---|---|---|---|
| **1** | **Ggk** | A | caso di carico comprensivo del peso proprio struttura |
| **2** | **Gk** | NA | caso di carico con azioni permanenti |
| **3** | **Qk** | NA | caso di carico con azioni variabili |
| **4** | **Gsk** | A | caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture |
| **5** | **Qsk** | A | caso di carico comprensivo dei carichi variabili sui solai |
| **6** | **Qnk** | A | caso di carico comprensivo dei carichi di neve sulle coperture |
| **7** | **Qtk** | SA | caso di carico comprensivo di una variazione termica agente sulla struttura |
| **8** | **Qvk** | NA | caso di carico comprensivo di azioni da vento sulla struttura |
| **9** | **Esk** | SA | caso di carico sismico con analisi statica equivalente |
| **10** | **Edk** | SA | caso di carico sismico con analisi dinamica |
| **11** | **Etk** | NA | caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica |
| **12** | **Pk** | NA | caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni |

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:
7-Qtk, in quanto richiede solo il valore della variazione termica;
9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:
*Numero Tipo* e *Sigla identificativa*, *Valore di riferimento* del caso di carico (se previsto).

In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 1 | Ggk | Ggk (SELF WEIGHT) | |
| 2 | Gk | G2k (DEAD LOAD) | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : ROAD STRUCTURE |
| | | | D3 :da 19 a 30 Azione : ROAD STRUCTURE |
| | | | D3 :da 121 a 165 Azione : ROAD STRUCTURE |
| | | | D3 :da 187 a 234 Azione : ROAD STRUCTURE |
| 3 | Gk | CDC=G1k (EARTH LOAD) ..... | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : EARTH LOAD AT REST |
| | | | D3 :da 31 a 51 Azione : EARTH LOAD AT REST |
| | | | D3 :da 55 a 72 Azione : EARTH LOAD AT REST |
| | | | D3 :da 91 a 111 Azione : EARTH LOAD AT REST |
| | | | D3 :da 115 a 120 Azione : EARTH LOAD AT REST |
| | | | D3 :da 166 a 186 Azione : EARTH LOAD AT REST |
| | | | D3 :da 340 a 342 Azione : EARTH LOAD AT REST |
| 4 | Gk | CDC=G1k (TRAFFIC LOAD ON THE WALL AT K0) ..... | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 31 a 51 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 55 a 72 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 91 a 111 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 115 a 120 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 166 a 186 Azione : TRAFFIC LOAD AT K0 |
| | | | D3 :da 340 a 342 Azione : TRAFFIC LOAD AT K0 |
| 5 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Vmax) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 134 Azione : TRAFFIC Q1 |
| | | | D3 :da 135 a 165 Azione : TRAFFIC q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 6 | Gk | G1k (WATER) | Azioni applicate: |
| | | | D3 :da 7 a 18 Azione : WATER |
| | | | D3 :da 31 a 51 Azione : WATER |
| | | | D3 :da 55 a 72 Azione : WATER |
| | | | D3 :da 88 a 111 Azione : WATER |
| | | | D3 :da 115 a 120 Azione : WATER |
| | | | D3 :da 166 a 186 Azione : WATER |
| | | | D3 :da 235 a 342 Azione : WATER |
| 7 | Qk | Qk (SISMIC X EARTH LOAD) | Azioni applicate: |
| | | | D3 :da 46 a 51 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 91 a 108 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 340 a 342 Azione : SEISMIC EARTH LOAD |
| 8 | Qk | Qk (SISMIC Y EARTH LOAD) | Azioni applicate: |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| | | | D3 :da 13 a 18 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 31 a 45 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 70 a 72 Azione : SEISMIC EARTH LOAD |
| | | | D3 :da 109 a 111 Azione : SEISMIC EARTH LOAD |
| 9 | Esk | Es (EQUIVALENT STATIC ORIZONTAL SLU) CDC=Es (statico SLU) alfa=90.00 (ecc. 0) | partecipazione:1.00 per 1 Ggk (SELF WEIGHT) |
| | | | partecipazione:1.00 per 2 G2k (DEAD LOAD) |
| 10 | Esk | Es (STATIC EQUIVALENT ORIZONTAL SLU) alfa=0.0 (ecc. 0) | come precedente CDC sismico |
| 11 | Esk | Es (EQUIVALENT STATIC VERTICAL SLU) | come precedente CDC sismico |
| 12 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Mmax 1) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 134 Azione : TRAFFIC q1 |
| | | | D3 :da 135 a 150 Azione : TRAFFIC Q1 |
| | | | D3 :da 151 a 165 Azione : TRAFFIC q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 13 | Qk | CDC=Qk (TRAFFIC LOAD ON THE UPPER SLAB Mmax 2) ..... | Azioni applicate: |
| | | | D3 :da 4 a 6 Azione : TRAFFIC q1 |
| | | | D3 :da 19 a 30 Azione : TRAFFIC q1 |
| | | | D3 :da 121 a 150 Azione : TRAFFIC q1 |
| | | | D3 :da 151 a 165 Azione : TRAFFIC Q1 |
| | | | D3 :da 187 a 192 Azione : TRAFFIC q1 |
| 14 | Esk | CDC=Es (statico SLD) alfa=90.00 (ecc. 0) | come precedente CDC sismico |
| 15 | Esk | CDC=Es (statico SLD) alfa=0.0 (ecc. 0) | come precedente CDC sismico |
| 16 | Esk | CDC=Es (statico SLD) verticale | come precedente CDC sismico |

# 10 DEFINIZIONE DELLE COMBINAZIONI

## *10.1 LEGENDA TABELLA COMBINAZIONI DI CARICO*

*Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente.*
*Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.*

*La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.*

*Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:*

***Combinazione fondamentale*** *SLU*

$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi 02 \cdot Qk2 + \gamma Q3 \cdot \psi 03 \cdot Qk3 + ...$

***Combinazione caratteristica*** *(rara) SLE*

$G1 + G2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + ...$

***Combinazione frequente*** *SLE*

$G1 + G2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + ...$

***Combinazione quasi permanente*** *SLE*

$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + ...$

***Combinazione sismica****, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E*

$E + G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + ...$

***Combinazione eccezionale****, impiegata per gli stati limite connessi alle azioni eccezionali*

$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + ...$

*Dove:*

*NTC 2008 Tabella 2.5.I*

| ***Destinazione d'uso/azione*** | ***ψ0*** | ***ψ1*** | ***ψ2*** |
|---|---|---|---|
| *Categoria A residenziali* | *0,70* | *0,50* | *0,30* |
| *Categoria B uffici* | *0,70* | *0,50* | *0,30* |
| *Categoria C ambienti suscettibili di affollamento* | *0,70* | *0,70* | *0,60* |

| | | | |
|---|---|---|---|
| *Categoria D ambienti ad uso commerciale* | *0,70* | *0,70* | *0,60* |
| *Categoria E biblioteche, archivi, magazzini,…* | *1,00* | *0,90* | *0,80* |
| *Categoria F Rimesse e parcheggi (autoveicoli <= 30kN)* | *0,70* | *0,70* | *0,60* |
| *Categoria G Rimesse e parcheggi (autoveicoli > 30kN)* | *0,70* | *0,50* | *0,30* |
| *Categoria H Coperture* | *0,00* | *0,00* | *0,00* |
| *Vento* | *0,60* | *0,20* | *0,00* |
| *Neve a quota <= 1000 m* | *0,50* | *0,20* | *0,00* |
| *Neve a quota > 1000 m* | *0,70* | *0,50* | *0,20* |
| *Variazioni Termiche* | *0,60* | *0,50* | *0,00* |

*Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:*

*- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),*

*- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).*

*NTC 2008 Tabella 2.6.I*

| | | *Coefficiente* $\gamma f$ | ***EQU*** | ***A1*** | ***A2*** |
|---|---|---|---|---|---|
| *Carichi permanenti* | *Favorevoli* | $\gamma G1$ | *0,9* | *1,0* | *1,0* |
| | *Sfavorevoli* | | *1,1* | *1,3* | *1,0* |
| *Carichi permanenti non strutturali (Non compiutamente definiti)* | *Favorevoli* | $\gamma G2$ | *0,0* | *0,0* | *0,0* |
| | *Sfavorevoli* | | *1,5* | *1,5* | *1,3* |
| *Carichi variabili* | *Favorevoli* | $\gamma Qi$ | *0,0* | *0,0* | *0,0* |
| | *Sfavorevoli* | | *1,5* | *1,5* | *1,3* |

| Cmb | Tipo | Sigla Id | effetto P-delta |
|---|---|---|---|
| 1 | SLU | Comb. SLU A1 1 | |
| 2 | SLU | Comb. SLU A1 2 | |
| 3 | SLU | Comb. SLU A1 3 | |
| 4 | SLU | Comb. SLU A1 4 | |
| 5 | SLU | Comb. SLU A1 5 | |

| Cmb | Tipo | Sigla Id | effetto P-delta |
|---|---|---|---|
| 6 | SLU | Comb. SLU A1 6 | |
| 7 | SLU | Comb. SLU A1 7 | |
| 8 | SLU | Comb. SLU A1 8 | |
| 9 | SLU | Comb. SLU A1 9 | |
| 10 | SLU | Comb. SLU A1 (SLV sism.) 21 | |
| 11 | SLU | Comb. SLU A1 (SLV sism.) 22 | |
| 12 | SLU | Comb. SLU A1 (SLV sism.) 23 | |
| 13 | SLU | Comb. SLU A1 (SLV sism.) 24 | |
| 14 | SLU | Comb. SLU A1 (SLV sism.) 25 | |
| 15 | SLU | Comb. SLU A1 (SLV sism.) 26 | |
| 16 | SLU | Comb. SLU A1 (SLV sism.) 27 | |
| 17 | SLU | Comb. SLU A1 (SLV sism.) 28 | |
| 18 | SLU | Comb. SLU A1 (SLV sism.) 29 | |
| 19 | SLU | Comb. SLU A1 (SLV sism.) 30 | |
| 20 | SLU | Comb. SLU A1 (SLV sism.) 31 | |
| 21 | SLU | Comb. SLU A1 (SLV sism.) 32 | |
| 22 | SLU | Comb. SLU A1 (SLV sism.) 33 | |
| 23 | SLU | Comb. SLU A1 (SLV sism.) 34 | |
| 24 | SLU | Comb. SLU A1 (SLV sism.) 35 | |
| 25 | SLU | Comb. SLU A1 (SLV sism.) 36 | |
| 26 | SLU | Comb. SLU A1 (SLV sism.) 37 | |
| 27 | SLU | Comb. SLU A1 (SLV sism.) 38 | |
| 28 | SLU | Comb. SLU A1 (SLV sism.) 39 | |
| 29 | SLU | Comb. SLU A1 (SLV sism.) 40 | |
| 30 | SLU | Comb. SLU A1 (SLV sism.) 41 | |
| 31 | SLU | Comb. SLU A1 (SLV sism.) 42 | |
| 32 | SLU | Comb. SLU A1 (SLV sism.) 43 | |
| 33 | SLU | Comb. SLU A1 (SLV sism.) 44 | |
| 34 | SLD(sis) | Comb. SLE (SLD Danno sism.) 45 | |
| 35 | SLD(sis) | Comb. SLE (SLD Danno sism.) 46 | |
| 36 | SLD(sis) | Comb. SLE (SLD Danno sism.) 47 | |
| 37 | SLD(sis) | Comb. SLE (SLD Danno sism.) 48 | |
| 38 | SLD(sis) | Comb. SLE (SLD Danno sism.) 49 | |
| 39 | SLD(sis) | Comb. SLE (SLD Danno sism.) 50 | |
| 40 | SLD(sis) | Comb. SLE (SLD Danno sism.) 51 | |
| 41 | SLD(sis) | Comb. SLE (SLD Danno sism.) 52 | |
| 42 | SLD(sis) | Comb. SLE (SLD Danno sism.) 53 | |
| 43 | SLD(sis) | Comb. SLE (SLD Danno sism.) 54 | |
| 44 | SLD(sis) | Comb. SLE (SLD Danno sism.) 55 | |
| 45 | SLD(sis) | Comb. SLE (SLD Danno sism.) 56 | |
| 46 | SLD(sis) | Comb. SLE (SLD Danno sism.) 57 | |
| 47 | SLD(sis) | Comb. SLE (SLD Danno sism.) 58 | |
| 48 | SLD(sis) | Comb. SLE (SLD Danno sism.) 59 | |
| 49 | SLD(sis) | Comb. SLE (SLD Danno sism.) 60 | |
| 50 | SLD(sis) | Comb. SLE (SLD Danno sism.) 61 | |
| 51 | SLD(sis) | Comb. SLE (SLD Danno sism.) 62 | |
| 52 | SLD(sis) | Comb. SLE (SLD Danno sism.) 63 | |
| 53 | SLD(sis) | Comb. SLE (SLD Danno sism.) 64 | |
| 54 | SLD(sis) | Comb. SLE (SLD Danno sism.) 65 | |
| 55 | SLD(sis) | Comb. SLE (SLD Danno sism.) 66 | |
| 56 | SLD(sis) | Comb. SLE (SLD Danno sism.) 67 | |
| 57 | SLD(sis) | Comb. SLE (SLD Danno sism.) 68 | |
| 58 | SLE(r) | Comb. SLE(rara) 69 | |
| 59 | SLE(r) | Comb. SLE(rara) 70 | |
| 60 | SLE(r) | Comb. SLE(rara) 71 | |
| 61 | SLE(r) | Comb. SLE(rara) 72 | |
| 62 | SLE(f) | Comb. SLE(freq.) 74 | |
| 63 | SLE(f) | Comb. SLE(freq.) 76 | |
| 64 | SLE(f) | Comb. SLE(freq.) 77 | |
| 65 | SLE(p) | Comb. SLE(perm.) 78 | |

| Cmb | CDC 1/15... | CDC 2/16... | CDC 3/17... | CDC 4/18... | CDC 5/19... | CDC 6/20... | CDC 7/21... | CDC 8/22... | CDC 9/23... | CDC 10/24... | CDC 11/25... | CDC 12/26... | CDC 13/27... | CDC 14/28... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.35 | 1.50 | 1.35 | 1.35 | 1.35 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 2 | 1.00 | 1.00 | 1.00 | 1.00 | 1.35 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 3 | 1.35 | 1.50 | 1.35 | 1.35 | 0.0 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |

| Cmb | CDC 1/15... | CDC 2/16... | CDC 3/17... | CDC 4/18... | CDC 5/19... | CDC 6/20... | CDC 7/21... | CDC 8/22... | CDC 9/23... | CDC 10/24... | CDC 11/25... | CDC 12/26... | CDC 13/27... | CDC 14/28... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 5 | 1.35 | 1.50 | 1.35 | 1.35 | 0.0 | 1.35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 6 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.35 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 7 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 8 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 9 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 10 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | -1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 11 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | -1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 12 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | -1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 13 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | -1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 14 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 15 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 16 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 17 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 18 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | -0.30 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 19 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | -0.30 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 20 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | -0.30 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 21 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | -0.30 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 22 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.30 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 23 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.30 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 24 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.30 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 25 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.30 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 26 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | -0.30 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 27 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | -0.30 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 28 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | -0.30 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 29 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | -0.30 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 30 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.30 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 31 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.30 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 32 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.30 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 33 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.30 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 34 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | -0.30 | -0.30 | | | | | | | | | | | | |
| 35 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | -0.30 | 0.30 | | | | | | | | | | | | |
| 36 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | 0.30 | -0.30 | | | | | | | | | | | | |
| 37 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.00 |
| | 0.30 | 0.30 | | | | | | | | | | | | |
| 38 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | -0.30 | -0.30 | | | | | | | | | | | | |
| 39 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |

| Cmb | CDC 1/15... | CDC 2/16... | CDC 3/17... | CDC 4/18... | CDC 5/19... | CDC 6/20... | CDC 7/21... | CDC 8/22... | CDC 9/23... | CDC 10/24... | CDC 11/25... | CDC 12/26... | CDC 13/27... | CDC 14/28... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -0.30 | 0.30 | | | | | | | | | | | | |
| 40 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | 0.30 | -0.30 | | | | | | | | | | | | |
| 41 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 |
| | 0.30 | 0.30 | | | | | | | | | | | | |
| 42 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -1.00 | -0.30 | | | | | | | | | | | | |
| 43 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -1.00 | 0.30 | | | | | | | | | | | | |
| 44 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 1.00 | -0.30 | | | | | | | | | | | | |
| 45 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 1.00 | 0.30 | | | | | | | | | | | | |
| 46 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -1.00 | -0.30 | | | | | | | | | | | | |
| 47 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -1.00 | 0.30 | | | | | | | | | | | | |
| 48 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 1.00 | -0.30 | | | | | | | | | | | | |
| 49 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 1.00 | 0.30 | | | | | | | | | | | | |
| 50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -0.30 | -1.00 | | | | | | | | | | | | |
| 51 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | -0.30 | 1.00 | | | | | | | | | | | | |
| 52 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 0.30 | -1.00 | | | | | | | | | | | | |
| 53 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | -0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.30 |
| | 0.30 | 1.00 | | | | | | | | | | | | |
| 54 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -0.30 | -1.00 | | | | | | | | | | | | |
| 55 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | -0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | -0.30 | 1.00 | | | | | | | | | | | | |
| 56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 0.30 | -1.00 | | | | | | | | | | | | |
| 57 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.30 | 0.30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.30 |
| | 0.30 | 1.00 | | | | | | | | | | | | |
| 58 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 59 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 60 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 61 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 62 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 63 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 64 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.75 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |
| 65 | 1.00 | 1.00 | 1.00 | 1.00 | 0.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | | | | | | | | | | | | |

# 11 AZIONE SISMICA

## *11.1 VALUTAZIONE DELL' AZIONE SISMICA*

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.
Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito http://esse1.mi.ingv.it/. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento Vr che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento Vr e la probabilità di superamento Pver associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno Tr e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;
Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

*11.1.1 Parametri della struttura*

| Classe d'uso | Vita Vn [anni] | Coeff. Uso | Periodo Vr [anni] | Tipo di suolo | Categoria topografica |
|---|---|---|---|---|---|
| III | 50.0 | 1.5 | 75.0 | B | T1 |

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:
S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente S = Ss*St (3.2.5)
Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale
Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale
Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

| Id nodo | Longitudine | Latitudine | Distanza |
|---|---|---|---|
| | | | Km |
| Loc. | 7.811 | 44.366 | |
| 16901 | 7.756 | 44.346 | 4.892 |
| 16902 | 7.826 | 44.350 | 2.101 |
| 16680 | 7.821 | 44.400 | 3.875 |
| 16679 | 7.751 | 44.396 | 5.831 |

| SL | Pver | Tr | ag | Fo | T*c |
|---|---|---|---|---|---|
| | | Anni | g | | sec |
| SLO | 81.0 | 45.0 | 0.033 | 2.560 | 0.200 |
| SLD | 63.0 | 75.0 | 0.040 | 2.590 | 0.220 |
| SLV | 10.0 | 712.0 | 0.088 | 2.650 | 0.310 |
| SLC | 5.0 | 1462.0 | 0.107 | 2.720 | 0.320 |

| SL | ag | S | Fo | Fv | Tb | Tc | Td |
|---|---|---|---|---|---|---|---|
| | g | | | | sec | sec | sec |
| SLO | 0.033 | 1.200 | 2.560 | 0.626 | 0.101 | 0.304 | 1.731 |
| SLD | 0.040 | 1.200 | 2.590 | 0.702 | 0.109 | 0.328 | 1.761 |
| SLV | 0.088 | 1.200 | 2.650 | 1.061 | 0.144 | 0.431 | 1.952 |
| SLC | 0.107 | 1.200 | 2.720 | 1.204 | 0.147 | 0.442 | 2.030 |

# 12 RISULTATI ANALISI SISMICHE

## *12.1 LEGENDA TABELLA ANALISI SISMICHE*

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

**9. Esk** caso di carico sismico con analisi statica equivalente

**10. Edk** caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l' azione sismica: in particolare possono essere presenti i seguenti valori:

| | |
|---|---|
| **Angolo di ingresso** | Angolo di ingresso dell'azione sismica orizzontale |
| **Fattore di importanza** | Fattore di importanza dell'edificio, in base alla categoria di appartenenza |
| **Zona sismica** | Zona sismica |
| **Accelerazione ag** | Accelerazione orizzontale massima sul suolo |
| **Categoria suolo** | Categoria di profilo stratigrafico del suolo di fondazione |
| **Fattore di struttura q** | Fattore dipendente dalla tipologia strutturale |
| **Fattore di sito S** | Fattore dipendente dalla stratigrafia e dal profilo topografico |
| **Classe di duttilità CD** | Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa |

| | |
|---|---|
| **Fattore riduz. SLD** | Fattore di riduzione dello spettro elastico per lo stato limite di danno |
| **Periodo proprio T1** | Periodo proprio di vibrazione della struttura |
| **Coefficiente Lambda** | Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura |
| **Ordinata spettro Sd(T1)** | Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd) |
| **Ordinata spettro Se(T1)** | Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve) |
| **Ordinata spettro S (Tb-Tc)** | Valore dell' ordinata dello spettro in uso nel tratto costante |
| **numero di modi considerati** | Numero di modi di vibrare della struttura considerati nell'analisi dinamica |

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

a) **analisi sismica statica equivalente**:
   - quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
   - azione sismica complessiva

b) **analisi sismica dinamica con spettro di risposta**:
   - quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo) **,** indici di regolarità e/r secondo EC8 4.2.3.2
   - frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
   - massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione etaT (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità 1000*etaT/h da confrontare direttamente con i valori forniti nella norma ( es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione etaT, etaP e etaD degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità 1000*etaT/h da confrontare direttamente con il valore 2 o 4 per la verifica.

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo l' allegato 10.A dell'Ordinanza 3274 e smi. In particolare la tabella, per ogni combinazione SLU (SLC per il DM 14-01-2008) sismica riporta il codice di verifica e i valori utilizzati per la verifica: spostamento dE, area ridotta e dimensione A2, azione verticale, deformazioni di taglio dell' elastomero e tensioni nell' acciaio.

| | |
|---|---|
| **Nodo** | Nodo di appoggio dell' isolatore |
| **Cmb** | Combinazione oggetto della verifica |
| **Verif.** | Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata |
| **dE** | Spostamento relativo tra le due facce (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30% |
| **Ang fi** | Angolo utilizzato per il calcolo dell' area ridotta Ar (per dispositivi circolari) |
| **V** | Azione verticale agente |
| **Ar** | Area ridotta efficace |
| **Dim A2** | Dimensione utile per il calcolo della deformazione per rotazione |
| **Sig s** | Tensione nell' inserto in acciaio |
| **Gam c(a,s,t)** | Deformazioni di taglio dell' elestomero |
| **Vcr** | Carico critico per instabilità |

Affinché la verifica sia positiva deve essere:

1) V > 0
2) Sig s < fyk
3) Gam t < 5
4) Gam s < Gam * (caratteristica dell' elastomero)
5) Gam s < 2

6) V < 0.5 Vcr

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST" - versione Maggio 2011, disponibile per il download sul sito **www.2si.it**, si segnalano i seguenti esempi applicativi:

| Test N° | Titolo |
|---|---|
| **23** | DM 2008: SPETTRO |
| **29** | SISMICA 1000/H, SOMMA V, EFFETTO P-δ |
| **30** | ANALISI DI UN EDIFICIO CON ISOLATORI SISMICI |
| **70** | MASSE SISMICHE |
| **75** | PROGETTO DI ISOLATORI ELASTOMERICI |
| **76** | VERIFICA DI ISOLATORI ELASTOMERICI |
| **77** | VERIFICA DI ISOLATORI FRICTION PENDULUM |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 9 | Esk | Es (EQUIVALENT STATIC ORIZONTAL SLU) CDC=Es (statico SLU) alfa=90.00 (ecc. 0) | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.200 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.280 g |
| | | | angolo di ingresso:90.00 |
| | | | eccentricità aggiuntiva: nulla |
| | | | periodo proprio T1: 0.170 sec. |
| | | | fattore q: 1.000 |
| | | | fattore per spost. mu d: 1.000 |
| | | | classe di duttilità CD: B |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Sd(T1): 0.280 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 376.89 | 376.89 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 50.92 | 427.81 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 21.63 | 449.44 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 449.44 | | 1606.06 | | | | | | | | | |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 10 | Esk | Es (STATIC EQUIVALENT ORIZONTAL SLU) alfa=0.0 (ecc. 0) | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.200 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.280 g |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| | | | angolo di ingresso:0.0 |
| | | | eccentricità aggiuntiva: nulla |
| | | | periodo proprio T1: 0.170 sec. |
| | | | fattore q: 1.000 |
| | | | fattore per spost. mu d: 1.000 |
| | | | classe di duttilità CD: B |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Sd(T1): 0.280 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 376.89 | 376.89 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 50.92 | 427.81 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 21.63 | 449.44 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 449.44 | | 1606.06 | | | | | | | | | |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 11 | Esk | Es (EQUIVALENT STATIC VERTICAL SLU) | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.000 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.093 g |
| | | | fattore q: 1.000 |
| | | | classe di duttilità CD: B |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Svd(T1): 0.082 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 92.83 | 92.83 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 19.76 | 112.59 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 19.76 | 132.34 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 132.34 | | 1606.06 | | | | | | | | | |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 14 | Esk | CDC=Es (statico SLD) alfa=90.00 (ecc. 0) | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.200 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.125 g |
| | | | angolo di ingresso:90.00 |
| | | | eccentricità aggiuntiva: nulla |
| | | | periodo proprio T1: 0.170 sec. |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Se(T1): 0.125 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 168.69 | 168.69 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 22.79 | 191.48 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 9.68 | 201.16 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 201.16 | | 1606.06 | | | | | | | | | |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 15 | Esk | CDC=Es (statico SLD) alfa=0.0 (ecc. 0) | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.200 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.125 g |
| | | | angolo di ingresso:0.0 |
| | | | eccentricità aggiuntiva: nulla |
| | | | periodo proprio T1: 0.170 sec. |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Se(T1): 0.125 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 168.69 | 168.69 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 22.79 | 191.48 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 9.68 | 201.16 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 201.16 | | 1606.06 | | | | | | | | | |

| CDC | Tipo | Sigla Id | Note |
|---|---|---|---|
| 16 | Esk | CDC=Es (statico SLD) verticale | |
| | | | categoria suolo: B |
| | | | fattore di sito S = 1.000 |
| | | | ordinata spettro (tratto Tb-Tc) = 0.028 g |
| | | | coefficiente Lambda: 1.000 |
| | | | ordinata spettro Sve(T1): 0.025 |

| Quota | Forza Sismica | Tot. parziale | M Sismica x g | Pos. GX | Pos. GY | E agg. X-X | E agg. Y-Y | Pos. KX | Pos. KY | rapp. r/Ls | rapp. ex/rx | rapp. ey/ry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | kN | kN | kN | m | m | m | m | m | m | | | |
| -0.79 | 28.12 | 28.12 | 1126.53 | 3.31 | 4.35 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.099 | 1.162 |
| -1.71 | 5.98 | 34.10 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| -2.62 | 5.98 | 40.09 | 239.77 | 3.84 | 4.16 | 0.0 | 0.0 | 2.99 | 0.11 | 0.924 | 0.267 | 1.111 |
| Risulta | 40.09 | | 1606.06 | | | | | | | | | |

# 13 RISULTATI NODALI

## *13.1 LEGENDA RISULTATI NODALI*

Il controllo dei risultati delle analisi condotte, per quanto concerne i nodi strutturali, è possibile in relazione alle tabelle sottoriportate.

Una prima tabella riporta infatti per ogni nodo e per ogni combinazione (o caso di carico) gli spostamenti nodali.

Una seconda tabella riporta per ogni nodo a cui sia associato un vincolo rigido e/o elastico o una fondazione speciale e per ogni combinazione (o caso di carico) i valori delle azioni esercitate dalla struttura sui vincoli (reazioni vincolari cambiate di segno).

Una terza tabella, infine riassume per ogni nodo le sei combinazioni in cui si attingono i valori minimi e massimi della reazione Fz, della reazione Mx e della reazione My.

| Nodo | Cmb | Traslazione X | Traslazione Y | Traslazione Z | Rotazione X | Rotazione Y | Rotazione Z |
|---|---|---|---|---|---|---|---|
| | | cm | cm | cm | | | |
| 1 | 1 | 0.03 | 0.10 | -0.11 | 3.68e-05 | -2.59e-04 | -1.11e-04 |
| 1 | 14 | 7.43e-03 | 0.10 | -0.11 | -2.27e-04 | -1.13e-04 | -7.45e-05 |
| 1 | 16 | 0.03 | 0.10 | -0.09 | -2.53e-04 | 3.48e-05 | -8.06e-05 |
| 1 | 20 | 0.06 | 0.06 | -8.44e-03 | -1.07e-04 | 2.31e-04 | -9.12e-05 |
| 1 | 38 | 0.01 | 0.09 | -0.08 | -1.68e-04 | -7.01e-05 | -7.50e-05 |
| 1 | 40 | 0.03 | 0.09 | -0.07 | -1.82e-04 | 1.12e-05 | -8.11e-05 |
| 1 | 44 | 0.04 | 0.07 | -0.03 | -1.07e-04 | 1.18e-04 | -9.11e-05 |
| 1 | 58 | 0.02 | 0.07 | -0.08 | 2.74e-05 | -1.87e-04 | -8.23e-05 |
| 1 | 62 | 0.02 | 0.07 | -0.07 | -5.49e-06 | -1.45e-04 | -8.18e-05 |
| 1 | 65 | 0.02 | 0.07 | -0.05 | -1.04e-04 | -1.95e-05 | -8.03e-05 |
| 2 | 1 | -0.05 | 0.10 | -0.13 | -6.58e-05 | -4.38e-04 | -1.33e-04 |
| 2 | 5 | -0.04 | 0.10 | -0.01 | -2.48e-05 | 7.07e-05 | -1.29e-04 |
| 2 | 17 | -0.02 | 0.10 | 0.06 | -1.20e-04 | 1.84e-04 | -8.81e-05 |
| 2 | 19 | -0.06 | 0.06 | -0.05 | -2.13e-05 | -2.82e-04 | -8.20e-05 |
| 2 | 25 | -3.69e-03 | 0.08 | 0.08 | -9.77e-05 | 2.94e-04 | -1.03e-04 |
| 2 | 41 | -0.03 | 0.09 | 0.04 | -9.11e-05 | 9.98e-05 | -9.10e-05 |
| 2 | 42 | -0.05 | 0.06 | -0.03 | -4.24e-05 | -1.52e-04 | -8.21e-05 |
| 2 | 48 | -0.02 | 0.08 | 0.04 | -8.02e-05 | 1.59e-04 | -1.03e-04 |
| 2 | 58 | -0.03 | 0.07 | -0.10 | -4.65e-05 | -3.20e-04 | -9.81e-05 |
| 2 | 61 | -0.03 | 0.07 | -3.24e-03 | -2.73e-05 | 4.41e-05 | -9.50e-05 |
| 2 | 62 | -0.03 | 0.07 | -0.07 | -5.01e-05 | -2.39e-04 | -9.68e-05 |
| 2 | 64 | -0.03 | 0.07 | -3.24e-03 | -2.73e-05 | 4.41e-05 | -9.50e-05 |
| 2 | 65 | -0.03 | 0.07 | 9.08e-03 | -6.09e-05 | 3.81e-06 | -9.27e-05 |
| 3 | 1 | 0.02 | 0.06 | -0.03 | 4.83e-05 | -1.02e-04 | -1.15e-04 |
| 3 | 3 | 0.02 | 0.06 | -0.04 | 1.99e-05 | 3.05e-05 | -1.11e-04 |
| 3 | 5 | 0.02 | 0.06 | -0.05 | -1.05e-06 | 1.72e-04 | -1.07e-04 |
| 3 | 16 | 0.03 | 0.08 | -0.09 | -2.18e-04 | 1.22e-04 | -8.14e-05 |
| 3 | 20 | 0.05 | 0.03 | -0.03 | -7.01e-05 | 1.79e-04 | -9.03e-05 |
| 3 | 40 | 0.02 | 0.06 | -0.06 | -1.54e-04 | 8.14e-05 | -8.24e-05 |
| 3 | 44 | 0.04 | 0.04 | -0.03 | -7.61e-05 | 1.10e-04 | -9.15e-05 |
| 3 | 58 | 0.02 | 0.04 | -0.02 | 3.59e-05 | -7.62e-05 | -8.48e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | 60 | 0.02 | 0.04 | -0.03 | -9.53e-06 | 2.65e-05 | -8.22e-05 |
| 3 | 61 | 0.02 | 0.04 | -0.03 | -2.12e-05 | 1.05e-04 | -8.03e-05 |
| 3 | 62 | 0.02 | 0.04 | -0.02 | 6.26e-06 | -4.73e-05 | -8.42e-05 |
| 3 | 63 | 0.02 | 0.04 | -0.03 | -9.53e-06 | 2.65e-05 | -8.22e-05 |
| 3 | 64 | 0.02 | 0.04 | -0.03 | -2.12e-05 | 1.05e-04 | -8.03e-05 |
| 3 | 65 | 0.02 | 0.04 | -0.04 | -8.28e-05 | 3.93e-05 | -8.24e-05 |
| 4 | 1 | -0.08 | 0.08 | -0.13 | 6.23e-05 | -1.86e-04 | -1.25e-04 |
| 4 | 5 | 0.01 | 0.10 | -0.02 | -2.15e-05 | 5.38e-05 | -1.34e-04 |
| 4 | 16 | 0.02 | 0.17 | 2.50e-03 | -2.42e-04 | 1.07e-05 | -1.11e-04 |
| 4 | 18 | -0.13 | 0.06 | -0.06 | -1.74e-05 | -2.58e-04 | -7.16e-05 |
| 4 | 19 | -0.13 | 0.06 | -0.06 | -1.72e-05 | -2.62e-04 | -7.14e-05 |
| 4 | 40 | 1.85e-03 | 0.14 | -4.55e-03 | -1.73e-04 | -3.03e-05 | -1.05e-04 |
| 4 | 42 | -0.08 | 0.08 | -0.04 | -5.47e-05 | -1.60e-04 | -7.90e-05 |
| 4 | 58 | -0.06 | 0.06 | -0.09 | 4.64e-05 | -1.41e-04 | -9.27e-05 |
| 4 | 61 | 3.17e-03 | 0.08 | -0.01 | -3.60e-05 | 1.03e-05 | -9.87e-05 |
| 4 | 62 | -0.05 | 0.07 | -0.07 | 1.06e-05 | -1.23e-04 | -9.40e-05 |
| 4 | 64 | 3.17e-03 | 0.08 | -0.01 | -3.60e-05 | 1.03e-05 | -9.87e-05 |
| 4 | 65 | -0.02 | 0.10 | -0.01 | -9.69e-05 | -6.91e-05 | -9.81e-05 |
| 5 | 1 | -0.04 | 0.06 | -0.06 | 8.07e-05 | -1.29e-04 | -1.15e-04 |
| 5 | 3 | -0.04 | 0.06 | -0.07 | 9.62e-05 | -1.71e-05 | -1.17e-04 |
| 5 | 17 | -0.02 | 0.08 | 0.01 | -1.43e-04 | 6.54e-05 | -8.01e-05 |
| 5 | 22 | -0.06 | 0.05 | -1.83e-03 | -6.47e-05 | -1.11e-04 | -8.54e-05 |
| 5 | 41 | -0.02 | 0.06 | 8.61e-03 | -1.01e-04 | 3.54e-05 | -8.31e-05 |
| 5 | 46 | -0.04 | 0.05 | 8.44e-04 | -6.01e-05 | -5.48e-05 | -8.00e-05 |
| 5 | 58 | -0.03 | 0.04 | -0.04 | 5.93e-05 | -9.51e-05 | -8.54e-05 |
| 5 | 60 | -0.03 | 0.04 | -0.03 | 3.93e-05 | -8.48e-06 | -8.61e-05 |
| 5 | 62 | -0.03 | 0.04 | -0.03 | 3.07e-05 | -7.05e-05 | -8.54e-05 |
| 5 | 63 | -0.03 | 0.04 | -0.03 | 3.93e-05 | -8.48e-06 | -8.61e-05 |
| 5 | 65 | -0.03 | 0.04 | 3.05e-03 | -5.49e-05 | 3.07e-06 | -8.52e-05 |
| 6 | 1 | -0.05 | 0.06 | -0.06 | -6.63e-05 | -1.44e-04 | -1.05e-04 |
| 6 | 4 | -0.03 | 0.04 | -0.07 | -8.77e-05 | -3.42e-05 | -7.93e-05 |
| 6 | 5 | -0.05 | 0.06 | -0.05 | -9.92e-05 | 6.41e-05 | -1.11e-04 |
| 6 | 17 | -0.03 | 0.08 | 0.03 | -1.42e-04 | 5.17e-05 | -8.12e-05 |
| 6 | 18 | -0.06 | 0.04 | -3.75e-03 | -4.06e-05 | -1.42e-04 | -6.01e-05 |
| 6 | 41 | -0.03 | 0.06 | 0.02 | -1.09e-04 | 2.23e-05 | -8.12e-05 |
| 6 | 42 | -0.05 | 0.04 | 3.06e-03 | -5.79e-05 | -7.71e-05 | -6.50e-05 |
| 6 | 58 | -0.03 | 0.04 | -0.04 | -4.58e-05 | -1.06e-04 | -7.79e-05 |
| 6 | 61 | -0.03 | 0.04 | -0.02 | -7.15e-05 | 3.38e-05 | -8.17e-05 |
| 6 | 62 | -0.03 | 0.04 | -0.03 | -5.32e-05 | -8.20e-05 | -7.84e-05 |
| 6 | 63 | -0.03 | 0.04 | -0.03 | -8.23e-05 | -2.31e-05 | -7.96e-05 |
| 6 | 64 | -0.03 | 0.04 | -0.02 | -7.15e-05 | 3.38e-05 | -8.17e-05 |
| 6 | 65 | -0.03 | 0.04 | 9.89e-03 | -7.56e-05 | -9.27e-06 | -8.00e-05 |
| 7 | 1 | 0.02 | 0.03 | 1.12e-03 | 5.10e-05 | -2.72e-04 | -1.13e-04 |
| 7 | 5 | 0.02 | 0.03 | -0.08 | 1.53e-05 | 9.25e-05 | -1.08e-04 |
| 7 | 14 | 2.06e-03 | 0.06 | -0.09 | -1.90e-04 | -5.49e-05 | -7.72e-05 |
| 7 | 16 | 0.02 | 0.06 | -0.11 | -2.00e-04 | 8.01e-05 | -8.36e-05 |
| 7 | 20 | 0.05 | 0.01 | -0.06 | -5.25e-05 | 1.60e-04 | -9.43e-05 |
| 7 | 38 | 6.70e-03 | 0.04 | -0.07 | -1.35e-04 | -5.20e-05 | -7.75e-05 |
| 7 | 40 | 0.02 | 0.04 | -0.08 | -1.40e-04 | 1.80e-05 | -8.37e-05 |
| 7 | 44 | 0.04 | 0.02 | -0.05 | -6.22e-05 | 5.93e-05 | -9.40e-05 |
| 7 | 59 | 0.01 | 0.02 | -8.00e-03 | 9.86e-06 | -1.63e-04 | -8.34e-05 |
| 7 | 61 | 0.01 | 0.03 | -0.06 | -1.00e-05 | 3.93e-05 | -8.09e-05 |
| 7 | 62 | 0.01 | 0.02 | -8.00e-03 | 9.86e-06 | -1.63e-04 | -8.34e-05 |
| 7 | 64 | 0.01 | 0.03 | -0.06 | -1.00e-05 | 3.93e-05 | -8.09e-05 |
| 7 | 65 | 0.01 | 0.03 | -0.04 | -7.38e-05 | -4.86e-05 | -8.29e-05 |
| 8 | 1 | -0.03 | 0.03 | -0.02 | -8.87e-06 | -1.50e-04 | -1.10e-04 |
| 8 | 5 | -0.03 | 0.03 | -0.09 | -9.47e-05 | 2.16e-04 | -1.15e-04 |
| 8 | 15 | -0.03 | 0.06 | -9.76e-03 | -2.00e-04 | -9.88e-06 | -7.52e-05 |
| 8 | 22 | -0.05 | 0.04 | 0.01 | -1.17e-04 | -1.88e-04 | -7.19e-05 |
| 8 | 24 | 0.01 | 0.03 | -0.05 | -1.52e-04 | 2.63e-04 | -8.91e-05 |
| 8 | 39 | -0.03 | 0.04 | -0.01 | -1.54e-04 | 7.37e-06 | -7.57e-05 |
| 8 | 46 | -0.04 | 0.03 | 4.63e-04 | -1.10e-04 | -8.60e-05 | -7.13e-05 |
| 8 | 48 | -2.46e-03 | 0.03 | -0.03 | -1.28e-04 | 1.47e-04 | -9.01e-05 |
| 8 | 58 | -0.02 | 0.02 | -0.02 | -5.10e-06 | -1.11e-04 | -8.17e-05 |
| 8 | 61 | -0.02 | 0.03 | -0.05 | -7.70e-05 | 1.26e-04 | -8.42e-05 |
| 8 | 62 | -0.02 | 0.03 | -0.01 | -2.94e-05 | -7.69e-05 | -8.16e-05 |
| 8 | 64 | -0.02 | 0.03 | -0.05 | -7.70e-05 | 1.26e-04 | -8.42e-05 |
| 8 | 65 | -0.02 | 0.03 | -0.01 | -1.02e-04 | 2.46e-05 | -8.16e-05 |
| 9 | 1 | -0.03 | 0.02 | 0.01 | 7.52e-05 | -2.09e-04 | -1.00e-04 |
| 9 | 5 | -0.03 | 0.02 | -0.12 | 2.52e-05 | 1.49e-04 | -1.03e-04 |
| 9 | 14 | -0.03 | 0.05 | -7.06e-03 | -1.48e-04 | -4.96e-05 | -5.89e-05 |
| 9 | 22 | -0.05 | 0.03 | 0.06 | -6.85e-05 | -2.60e-04 | -5.61e-05 |
| 9 | 24 | 0.01 | 0.02 | -0.09 | -9.42e-05 | 2.62e-04 | -8.81e-05 |
| 9 | 38 | -0.03 | 0.03 | -8.94e-03 | -1.02e-04 | -3.14e-05 | -6.43e-05 |
| 9 | 46 | -0.04 | 0.02 | 0.02 | -6.07e-05 | -1.40e-04 | -6.01e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9 | 48 | -3.43e-03 | 0.01 | -0.05 | -7.34e-05 | 1.29e-04 | -8.69e-05 |
| 9 | 58 | -0.02 | 0.01 | 0.01 | 5.59e-05 | -1.55e-04 | -7.41e-05 |
| 9 | 59 | -0.02 | 0.01 | 5.36e-03 | 2.92e-05 | -1.19e-04 | -7.45e-05 |
| 9 | 61 | -0.02 | 0.01 | -0.07 | 1.39e-06 | 7.98e-05 | -7.60e-05 |
| 9 | 62 | -0.02 | 0.01 | 5.36e-03 | 2.92e-05 | -1.19e-04 | -7.45e-05 |
| 9 | 64 | -0.02 | 0.01 | -0.07 | 1.39e-06 | 7.98e-05 | -7.60e-05 |
| 9 | 65 | -0.02 | 0.01 | -0.01 | -5.11e-05 | -1.20e-05 | -7.57e-05 |
| 10 | 3 | -0.08 | 0.02 | -0.07 | 5.67e-05 | -8.45e-05 | -1.10e-04 |
| 10 | 5 | -0.08 | 0.02 | -0.14 | 4.35e-05 | 1.05e-04 | -1.14e-04 |
| 10 | 6 | -0.06 | 0.01 | -0.14 | 6.45e-05 | 1.22e-04 | -8.48e-05 |
| 10 | 14 | -0.07 | 0.05 | 0.07 | -1.72e-04 | -1.17e-04 | -7.16e-05 |
| 10 | 18 | -0.09 | 5.18e-03 | 0.08 | -4.04e-05 | -2.72e-04 | -8.02e-05 |
| 10 | 23 | -0.09 | 0.03 | 0.10 | -1.06e-04 | -2.76e-04 | -7.46e-05 |
| 10 | 38 | -0.06 | 0.03 | 0.04 | -1.21e-04 | -8.30e-05 | -7.48e-05 |
| 10 | 42 | -0.07 | 0.01 | 0.05 | -5.05e-05 | -1.62e-04 | -7.63e-05 |
| 10 | 46 | -0.07 | 0.02 | 0.06 | -8.48e-05 | -1.63e-04 | -7.31e-05 |
| 10 | 60 | -0.06 | 0.01 | -0.04 | 1.57e-05 | -5.80e-05 | -8.17e-05 |
| 10 | 61 | -0.06 | 0.01 | -0.07 | 8.41e-06 | 4.71e-05 | -8.37e-05 |
| 10 | 63 | -0.06 | 0.01 | -0.04 | 1.57e-05 | -5.80e-05 | -8.17e-05 |
| 10 | 64 | -0.06 | 0.01 | -0.07 | 8.41e-06 | 4.71e-05 | -8.37e-05 |
| 10 | 65 | -0.06 | 0.01 | 0.02 | -6.17e-05 | -4.60e-05 | -8.24e-05 |
| 11 | 1 | -0.08 | 0.06 | -0.12 | 2.21e-04 | -2.34e-04 | -1.07e-04 |
| 11 | 5 | -0.08 | 0.06 | -0.10 | 1.55e-04 | 9.18e-05 | -1.13e-04 |
| 11 | 10 | -0.07 | 0.01 | -0.04 | 1.05e-04 | -1.06e-04 | -8.31e-05 |
| 11 | 16 | -0.05 | 0.08 | 0.04 | -2.24e-04 | 3.13e-05 | -8.07e-05 |
| 11 | 19 | -0.09 | 0.04 | -0.02 | 2.04e-05 | -2.50e-04 | -7.29e-05 |
| 11 | 34 | -0.07 | 0.03 | -0.02 | 3.21e-05 | -7.32e-05 | -8.20e-05 |
| 11 | 40 | -0.05 | 0.07 | 0.02 | -1.56e-04 | -2.24e-06 | -8.17e-05 |
| 11 | 42 | -0.07 | 0.04 | -0.01 | -1.45e-05 | -1.46e-04 | -7.26e-05 |
| 11 | 58 | -0.06 | 0.05 | -0.09 | 1.59e-04 | -1.72e-04 | -7.93e-05 |
| 11 | 59 | -0.06 | 0.05 | -0.06 | 1.04e-04 | -1.39e-04 | -8.00e-05 |
| 11 | 61 | -0.06 | 0.05 | -0.05 | 6.71e-05 | 4.23e-05 | -8.35e-05 |
| 11 | 62 | -0.06 | 0.05 | -0.06 | 1.04e-04 | -1.39e-04 | -8.00e-05 |
| 11 | 64 | -0.06 | 0.05 | -0.05 | 6.71e-05 | 4.23e-05 | -8.35e-05 |
| 11 | 65 | -0.06 | 0.05 | -5.01e-04 | -6.28e-05 | -3.79e-05 | -8.19e-05 |
| 12 | 1 | -0.08 | 0.10 | -0.20 | 2.96e-04 | -2.54e-04 | -1.02e-04 |
| 12 | 3 | -0.08 | 0.10 | -0.13 | 2.02e-04 | -9.34e-05 | -1.11e-04 |
| 12 | 17 | -0.05 | 0.10 | 0.05 | -2.41e-04 | 2.44e-05 | -7.93e-05 |
| 12 | 18 | -0.09 | 0.06 | -0.11 | 1.30e-04 | -2.70e-04 | -7.48e-05 |
| 12 | 19 | -0.09 | 0.06 | -0.11 | 1.25e-04 | -2.71e-04 | -7.50e-05 |
| 12 | 41 | -0.05 | 0.09 | 0.02 | -1.59e-04 | -1.08e-05 | -8.14e-05 |
| 12 | 42 | -0.07 | 0.07 | -0.06 | 4.30e-05 | -1.62e-04 | -7.37e-05 |
| 12 | 58 | -0.06 | 0.07 | -0.14 | 2.15e-04 | -1.87e-04 | -7.54e-05 |
| 12 | 60 | -0.06 | 0.07 | -0.08 | 9.54e-05 | -6.32e-05 | -8.24e-05 |
| 12 | 62 | -0.06 | 0.07 | -0.11 | 1.48e-04 | -1.52e-04 | -7.72e-05 |
| 12 | 63 | -0.06 | 0.07 | -0.08 | 9.54e-05 | -6.32e-05 | -8.24e-05 |
| 12 | 65 | -0.06 | 0.07 | -0.01 | -5.37e-05 | -4.84e-05 | -8.23e-05 |
| 13 | 1 | -0.06 | 0.06 | -0.07 | 0.0 | -2.14e-04 | -1.11e-04 |
| 13 | 3 | -0.05 | 0.06 | -0.07 | 0.0 | -9.32e-05 | -1.18e-04 |
| 13 | 5 | -0.04 | 0.06 | -0.05 | 0.0 | 5.81e-05 | -1.25e-04 |
| 13 | 16 | -0.02 | 0.10 | 0.03 | 0.0 | 6.57e-05 | -9.28e-05 |
| 13 | 17 | -0.02 | 0.10 | 0.03 | 0.0 | 6.38e-05 | -9.26e-05 |
| 13 | 19 | -0.09 | 0.04 | -2.20e-03 | 0.0 | -3.32e-04 | -6.62e-05 |
| 13 | 40 | -0.03 | 0.08 | 0.02 | 0.0 | 1.44e-05 | -9.07e-05 |
| 13 | 41 | -0.03 | 0.08 | 0.02 | 0.0 | 1.38e-05 | -9.07e-05 |
| 13 | 42 | -0.06 | 0.04 | 1.62e-03 | 0.0 | -1.89e-04 | -7.17e-05 |
| 13 | 58 | -0.05 | 0.04 | -0.05 | 0.0 | -1.58e-04 | -8.21e-05 |
| 13 | 61 | -0.03 | 0.05 | -0.03 | 0.0 | 2.28e-05 | -9.11e-05 |
| 13 | 62 | -0.04 | 0.05 | -0.03 | 0.0 | -1.28e-04 | -8.34e-05 |
| 13 | 63 | -0.04 | 0.05 | -0.04 | 0.0 | -6.12e-05 | -8.73e-05 |
| 13 | 64 | -0.03 | 0.05 | -0.03 | 0.0 | 2.28e-05 | -9.11e-05 |
| 13 | 65 | -0.04 | 0.05 | 9.12e-03 | 0.0 | -3.99e-05 | -8.74e-05 |
| 14 | 1 | -0.05 | 0.06 | -0.06 | 0.0 | -2.15e-04 | -1.19e-04 |
| 14 | 3 | -0.04 | 0.06 | -0.07 | 0.0 | -9.41e-05 | -1.22e-04 |
| 14 | 5 | -0.03 | 0.06 | -0.06 | 0.0 | 5.56e-05 | -1.23e-04 |
| 14 | 16 | -0.01 | 0.10 | 6.48e-03 | 0.0 | 7.23e-05 | -9.16e-05 |
| 14 | 19 | -0.08 | 0.04 | -4.45e-03 | 0.0 | -3.40e-04 | -8.10e-05 |
| 14 | 33 | -0.01 | 0.07 | 0.01 | 0.0 | 5.28e-05 | -9.20e-05 |
| 14 | 40 | -0.02 | 0.08 | 4.25e-03 | 0.0 | 1.84e-05 | -9.13e-05 |
| 14 | 41 | -0.02 | 0.08 | 5.34e-03 | 0.0 | 1.79e-05 | -9.12e-05 |
| 14 | 42 | -0.06 | 0.04 | -3.57e-03 | 0.0 | -1.93e-04 | -8.05e-05 |
| 14 | 58 | -0.04 | 0.04 | -0.04 | 0.0 | -1.58e-04 | -8.80e-05 |
| 14 | 61 | -0.02 | 0.05 | -0.03 | 0.0 | 2.18e-05 | -9.09e-05 |
| 14 | 62 | -0.04 | 0.05 | -0.03 | 0.0 | -1.29e-04 | -8.84e-05 |
| 14 | 63 | -0.03 | 0.05 | -0.04 | 0.0 | -6.14e-05 | -9.03e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14 | 64 | -0.02 | 0.05 | -0.03 | 0.0 | 2.18e-05 | -9.09e-05 |
| 14 | 65 | -0.03 | 0.05 | 7.23e-04 | 0.0 | -3.88e-05 | -8.98e-05 |
| 15 | 1 | -0.09 | 0.06 | -0.07 | 0.0 | -2.60e-04 | -1.14e-04 |
| 15 | 3 | -0.06 | 0.06 | -0.08 | 0.0 | -9.27e-05 | -1.28e-04 |
| 15 | 5 | -0.03 | 0.07 | -0.06 | 0.0 | 1.06e-04 | -1.38e-04 |
| 15 | 16 | -0.01 | 0.12 | 0.03 | 0.0 | 7.41e-05 | -1.05e-04 |
| 15 | 17 | -0.01 | 0.12 | 0.03 | 0.0 | 7.23e-05 | -1.05e-04 |
| 15 | 19 | -0.12 | 0.04 | -4.52e-03 | 0.0 | -3.46e-04 | -7.30e-05 |
| 15 | 40 | -0.03 | 0.09 | 0.02 | 0.0 | 2.00e-05 | -1.01e-04 |
| 15 | 41 | -0.03 | 0.09 | 0.02 | 0.0 | 1.94e-05 | -1.01e-04 |
| 15 | 42 | -0.08 | 0.05 | -6.49e-04 | 0.0 | -1.96e-04 | -7.85e-05 |
| 15 | 58 | -0.06 | 0.04 | -0.05 | 0.0 | -1.92e-04 | -8.45e-05 |
| 15 | 61 | -0.03 | 0.05 | -0.03 | 0.0 | 5.00e-05 | -1.00e-04 |
| 15 | 62 | -0.06 | 0.05 | -0.04 | 0.0 | -1.53e-04 | -8.70e-05 |
| 15 | 63 | -0.04 | 0.05 | -0.04 | 0.0 | -6.02e-05 | -9.46e-05 |
| 15 | 64 | -0.03 | 0.05 | -0.03 | 0.0 | 5.00e-05 | -1.00e-04 |
| 15 | 65 | -0.04 | 0.06 | 7.07e-03 | 0.0 | -3.80e-05 | -9.47e-05 |
| 16 | 1 | -0.07 | 0.06 | -0.06 | 0.0 | -2.62e-04 | -1.18e-04 |
| 16 | 3 | -0.05 | 0.06 | -0.07 | 0.0 | -8.65e-05 | -1.22e-04 |
| 16 | 5 | -0.02 | 0.07 | -0.06 | 0.0 | 1.20e-04 | -1.26e-04 |
| 16 | 16 | -4.14e-03 | 0.12 | 5.49e-03 | 0.0 | 8.51e-05 | -1.03e-04 |
| 16 | 19 | -0.11 | 0.04 | -5.46e-03 | 0.0 | -3.53e-04 | -6.20e-05 |
| 16 | 26 | -0.06 | 0.04 | -9.73e-03 | 0.0 | -1.31e-04 | -8.24e-05 |
| 16 | 34 | -0.05 | 0.03 | -4.88e-03 | 0.0 | -9.48e-05 | -8.48e-05 |
| 16 | 40 | -0.02 | 0.09 | 3.25e-03 | 0.0 | 2.77e-05 | -9.82e-05 |
| 16 | 42 | -0.07 | 0.05 | -4.59e-03 | 0.0 | -1.98e-04 | -7.13e-05 |
| 16 | 58 | -0.05 | 0.04 | -0.05 | 0.0 | -1.93e-04 | -8.71e-05 |
| 16 | 61 | -0.02 | 0.05 | -0.03 | 0.0 | 5.90e-05 | -9.25e-05 |
| 16 | 62 | -0.05 | 0.05 | -0.03 | 0.0 | -1.53e-04 | -8.82e-05 |
| 16 | 63 | -0.04 | 0.05 | -0.04 | 0.0 | -5.58e-05 | -9.07e-05 |
| 16 | 64 | -0.02 | 0.05 | -0.03 | 0.0 | 5.90e-05 | -9.25e-05 |
| 16 | 65 | -0.03 | 0.06 | -2.60e-04 | 0.0 | -3.39e-05 | -9.15e-05 |
| 17 | 1 | -0.11 | 0.05 | -0.08 | 2.64e-04 | -2.86e-04 | -1.21e-04 |
| 17 | 3 | -0.07 | 0.05 | -0.09 | 2.69e-04 | -1.47e-05 | -1.34e-04 |
| 17 | 5 | -0.02 | 0.06 | -0.07 | 2.20e-04 | 2.59e-04 | -1.41e-04 |
| 17 | 17 | -6.91e-03 | 0.14 | 0.03 | -1.02e-04 | 9.25e-05 | -1.14e-04 |
| 17 | 19 | -0.14 | 0.04 | -7.25e-03 | 6.80e-05 | -1.92e-04 | -7.89e-05 |
| 17 | 41 | -0.02 | 0.11 | 0.02 | -4.96e-05 | 5.14e-05 | -1.08e-04 |
| 17 | 42 | -0.09 | 0.05 | -3.70e-03 | 4.31e-05 | -9.69e-05 | -8.39e-05 |
| 17 | 58 | -0.08 | 0.03 | -0.06 | 1.92e-04 | -2.11e-04 | -8.92e-05 |
| 17 | 61 | -0.02 | 0.05 | -0.03 | 1.22e-04 | 1.46e-04 | -1.03e-04 |
| 17 | 62 | -0.07 | 0.04 | -0.04 | 1.47e-04 | -1.57e-04 | -9.20e-05 |
| 17 | 63 | -0.05 | 0.05 | -0.05 | 1.50e-04 | -5.86e-06 | -9.94e-05 |
| 17 | 64 | -0.02 | 0.05 | -0.03 | 1.22e-04 | 1.46e-04 | -1.03e-04 |
| 17 | 65 | -0.04 | 0.07 | 3.81e-03 | 1.14e-05 | 5.93e-06 | -1.00e-04 |
| 18 | 1 | -0.10 | 0.05 | -0.07 | 6.38e-05 | -2.68e-04 | -1.22e-04 |
| 18 | 3 | -0.05 | 0.05 | -0.08 | 7.32e-05 | -1.64e-05 | -1.23e-04 |
| 18 | 5 | -5.50e-03 | 0.06 | -0.06 | 3.28e-05 | 2.34e-04 | -1.23e-04 |
| 18 | 17 | 3.78e-03 | 0.14 | 0.01 | -1.58e-04 | 9.29e-05 | -1.12e-04 |
| 18 | 19 | -0.14 | 0.04 | -5.90e-03 | -2.71e-05 | -1.77e-04 | -5.53e-05 |
| 18 | 41 | -0.01 | 0.11 | 5.70e-03 | -1.15e-04 | 5.29e-05 | -1.04e-04 |
| 18 | 42 | -0.09 | 0.05 | -4.66e-03 | -4.65e-05 | -8.82e-05 | -6.90e-05 |
| 18 | 58 | -0.07 | 0.03 | -0.05 | 4.73e-05 | -1.97e-04 | -9.02e-05 |
| 18 | 61 | -0.01 | 0.05 | -0.03 | 1.50e-06 | 1.33e-04 | -9.18e-05 |
| 18 | 62 | -0.06 | 0.04 | -0.03 | 1.87e-05 | -1.46e-04 | -9.12e-05 |
| 18 | 63 | -0.04 | 0.05 | -0.04 | 2.40e-05 | -5.90e-06 | -9.21e-05 |
| 18 | 64 | -0.01 | 0.05 | -0.03 | 1.50e-06 | 1.33e-04 | -9.18e-05 |
| 18 | 65 | -0.03 | 0.07 | 1.44e-04 | -6.70e-05 | 8.55e-06 | -9.41e-05 |
| 19 | 1 | -0.12 | 0.05 | -0.10 | 3.22e-04 | -2.99e-04 | 0.0 |
| 19 | 3 | -0.08 | 0.05 | -0.11 | 3.22e-04 | -1.74e-05 | 0.0 |
| 19 | 5 | -0.03 | 0.06 | -0.09 | 2.84e-04 | 2.69e-04 | 0.0 |
| 19 | 10 | -0.08 | -2.58e-03 | -0.03 | 1.33e-04 | -8.04e-05 | 0.0 |
| 19 | 17 | -0.02 | 0.14 | 0.03 | 3.41e-06 | 8.39e-05 | 0.0 |
| 19 | 19 | -0.15 | 0.04 | -0.01 | 1.10e-04 | -1.92e-04 | 0.0 |
| 19 | 34 | -0.07 | 0.03 | -0.01 | 1.05e-04 | -4.14e-05 | 0.0 |
| 19 | 41 | -0.03 | 0.11 | 0.01 | 3.21e-05 | 4.49e-05 | 0.0 |
| 19 | 42 | -0.10 | 0.05 | -9.67e-03 | 9.22e-05 | -9.84e-05 | 0.0 |
| 19 | 58 | -0.09 | 0.03 | -0.07 | 2.35e-04 | -2.21e-04 | 0.0 |
| 19 | 61 | -0.03 | 0.05 | -0.05 | 1.72e-04 | 1.51e-04 | 0.0 |
| 19 | 62 | -0.08 | 0.04 | -0.06 | 1.93e-04 | -1.65e-04 | 0.0 |
| 19 | 63 | -0.05 | 0.05 | -0.06 | 1.93e-04 | -8.53e-06 | 0.0 |
| 19 | 64 | -0.03 | 0.05 | -0.05 | 1.72e-04 | 1.51e-04 | 0.0 |
| 19 | 65 | -0.05 | 0.07 | -2.09e-04 | 6.83e-05 | 1.75e-06 | 0.0 |
| 20 | 1 | -0.13 | 0.05 | -0.12 | 1.16e-04 | -2.97e-04 | 0.0 |
| 20 | 3 | -0.09 | 0.06 | -0.13 | 3.96e-05 | -4.23e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20 | 5 | -0.04 | 0.06 | -0.10 | 7.47e-05 | 2.24e-04 | 0.0 |
| 20 | 10 | -0.09 | -2.43e-03 | -0.04 | 6.94e-05 | -9.21e-05 | 0.0 |
| 20 | 17 | -0.02 | 0.14 | 0.03 | -4.67e-05 | 6.42e-05 | 0.0 |
| 20 | 19 | -0.15 | 0.04 | -0.02 | 5.61e-05 | -2.18e-04 | 0.0 |
| 20 | 34 | -0.07 | 0.03 | -0.02 | 4.28e-05 | -5.49e-05 | 0.0 |
| 20 | 41 | -0.04 | 0.11 | 0.01 | -2.00e-05 | 2.70e-05 | 0.0 |
| 20 | 42 | -0.11 | 0.05 | -0.01 | 3.42e-05 | -1.19e-04 | 0.0 |
| 20 | 58 | -0.09 | 0.03 | -0.09 | 8.70e-05 | -2.19e-04 | 0.0 |
| 20 | 61 | -0.03 | 0.05 | -0.06 | 4.52e-05 | 1.21e-04 | 0.0 |
| 20 | 62 | -0.09 | 0.04 | -0.06 | 6.81e-05 | -1.68e-04 | 0.0 |
| 20 | 63 | -0.06 | 0.05 | -0.07 | 2.57e-05 | -2.63e-05 | 0.0 |
| 20 | 64 | -0.03 | 0.05 | -0.06 | 4.52e-05 | 1.21e-04 | 0.0 |
| 20 | 65 | -0.06 | 0.07 | -3.27e-03 | 1.14e-05 | -1.40e-05 | 0.0 |
| 21 | 1 | -0.12 | 0.04 | -0.09 | 2.16e-04 | -1.28e-04 | 0.0 |
| 21 | 5 | -0.03 | 0.05 | -0.12 | 1.56e-04 | 4.09e-04 | 0.0 |
| 21 | 12 | -0.03 | -6.60e-03 | -0.03 | 8.25e-05 | 7.18e-05 | 0.0 |
| 21 | 17 | -0.02 | 0.13 | 0.02 | -6.26e-05 | 1.31e-04 | 0.0 |
| 21 | 19 | -0.15 | 0.03 | 5.15e-04 | 5.06e-05 | -1.56e-04 | 0.0 |
| 21 | 36 | -0.04 | 0.02 | -0.02 | 5.27e-05 | 5.83e-05 | 0.0 |
| 21 | 41 | -0.03 | 0.10 | 8.25e-03 | -2.77e-05 | 8.98e-05 | 0.0 |
| 21 | 42 | -0.10 | 0.05 | -2.97e-03 | 3.52e-05 | -5.76e-05 | 0.0 |
| 21 | 58 | -0.09 | 0.03 | -0.06 | 1.58e-04 | -9.61e-05 | 0.0 |
| 21 | 61 | -0.03 | 0.04 | -0.06 | 8.91e-05 | 2.38e-04 | 0.0 |
| 21 | 62 | -0.08 | 0.03 | -0.05 | 1.22e-04 | -6.09e-05 | 0.0 |
| 21 | 64 | -0.03 | 0.04 | -0.06 | 8.91e-05 | 2.38e-04 | 0.0 |
| 21 | 65 | -0.05 | 0.06 | -2.41e-03 | 1.49e-05 | 4.47e-05 | 0.0 |
| 22 | 1 | -0.14 | 0.06 | -0.15 | -7.39e-05 | -3.01e-04 | 0.0 |
| 22 | 5 | -0.05 | 0.07 | -0.09 | -1.74e-06 | 1.25e-04 | 0.0 |
| 22 | 17 | -0.03 | 0.15 | 0.04 | -6.55e-05 | 4.36e-05 | 0.0 |
| 22 | 18 | -0.16 | 0.05 | -0.05 | 4.41e-05 | -2.42e-04 | 0.0 |
| 22 | 19 | -0.16 | 0.05 | -0.04 | 4.70e-05 | -2.44e-04 | 0.0 |
| 22 | 34 | -0.08 | 0.04 | -0.03 | 1.54e-05 | -7.06e-05 | 0.0 |
| 22 | 41 | -0.05 | 0.12 | 0.02 | -3.74e-05 | 7.61e-06 | 0.0 |
| 22 | 42 | -0.11 | 0.06 | -0.03 | 1.56e-05 | -1.40e-04 | 0.0 |
| 22 | 58 | -0.10 | 0.04 | -0.11 | -4.99e-05 | -2.22e-04 | 0.0 |
| 22 | 61 | -0.04 | 0.06 | -0.05 | 0.0 | 6.25e-05 | 0.0 |
| 22 | 62 | -0.09 | 0.05 | -0.08 | -4.02e-05 | -1.74e-04 | 0.0 |
| 22 | 64 | -0.04 | 0.06 | -0.05 | 0.0 | 6.25e-05 | 0.0 |
| 22 | 65 | -0.06 | 0.08 | -5.37e-03 | -1.10e-05 | -3.15e-05 | 0.0 |
| 23 | 1 | -0.14 | 0.05 | -0.12 | -2.02e-05 | -2.73e-04 | 0.0 |
| 23 | 5 | -0.05 | 0.06 | -0.10 | -6.25e-05 | 1.57e-04 | 0.0 |
| 23 | 10 | -0.10 | -2.25e-03 | -0.04 | 3.52e-05 | -1.02e-04 | 0.0 |
| 23 | 17 | -0.03 | 0.14 | 0.03 | -8.55e-05 | 4.38e-05 | 0.0 |
| 23 | 19 | -0.16 | 0.04 | -0.02 | 2.15e-05 | -2.42e-04 | 0.0 |
| 23 | 34 | -0.08 | 0.03 | -0.02 | 4.52e-06 | -6.74e-05 | 0.0 |
| 23 | 41 | -0.05 | 0.11 | 0.02 | -5.48e-05 | 8.81e-06 | 0.0 |
| 23 | 42 | -0.11 | 0.05 | -0.02 | -3.71e-06 | -1.39e-04 | 0.0 |
| 23 | 58 | -0.10 | 0.04 | -0.09 | -1.01e-05 | -2.01e-04 | 0.0 |
| 23 | 61 | -0.04 | 0.05 | -0.06 | -3.74e-05 | 8.04e-05 | 0.0 |
| 23 | 62 | -0.09 | 0.04 | -0.07 | -1.39e-05 | -1.58e-04 | 0.0 |
| 23 | 64 | -0.04 | 0.05 | -0.06 | -3.74e-05 | 8.04e-05 | 0.0 |
| 23 | 65 | -0.06 | 0.07 | -2.66e-03 | -2.51e-05 | -2.93e-05 | 0.0 |
| 24 | 1 | -0.14 | 0.04 | -0.10 | -6.06e-06 | -2.41e-04 | 0.0 |
| 24 | 5 | -0.05 | 0.05 | -0.12 | -1.63e-04 | 1.78e-04 | 0.0 |
| 24 | 12 | -0.04 | -6.24e-03 | -0.03 | 1.12e-05 | 2.78e-05 | 0.0 |
| 24 | 17 | -0.03 | 0.13 | 0.03 | -1.12e-04 | 4.52e-05 | 0.0 |
| 24 | 19 | -0.16 | 0.03 | -2.54e-03 | -6.17e-06 | -2.41e-04 | 0.0 |
| 24 | 36 | -0.05 | 0.02 | -0.02 | -1.67e-05 | 0.0 | 0.0 |
| 24 | 41 | -0.05 | 0.10 | 0.02 | -7.80e-05 | 1.10e-05 | 0.0 |
| 24 | 42 | -0.11 | 0.05 | -3.47e-03 | -2.71e-05 | -1.36e-04 | 0.0 |
| 24 | 58 | -0.10 | 0.03 | -0.07 | 0.0 | -1.78e-04 | 0.0 |
| 24 | 61 | -0.04 | 0.04 | -0.06 | -9.79e-05 | 9.29e-05 | 0.0 |
| 24 | 62 | -0.09 | 0.04 | -0.05 | -1.09e-05 | -1.40e-04 | 0.0 |
| 24 | 64 | -0.04 | 0.04 | -0.06 | -9.79e-05 | 9.29e-05 | 0.0 |
| 24 | 65 | -0.06 | 0.06 | -2.07e-04 | -4.47e-05 | -2.66e-05 | 0.0 |
| 25 | 1 | -0.05 | 9.30e-03 | 0.01 | 7.37e-05 | -2.26e-04 | -1.17e-04 |
| 25 | 5 | -0.02 | 0.01 | -0.12 | 3.19e-05 | 1.23e-04 | -1.15e-04 |
| 25 | 15 | -0.04 | 0.06 | -2.62e-03 | -1.58e-04 | -6.70e-05 | -8.22e-05 |
| 25 | 19 | -0.08 | 7.18e-03 | 0.07 | -1.84e-05 | -2.96e-04 | -7.92e-05 |
| 25 | 24 | 0.03 | 0.03 | -0.09 | -8.85e-05 | 2.51e-04 | -1.04e-04 |
| 25 | 39 | -0.03 | 0.04 | -7.71e-03 | -1.09e-04 | -4.50e-05 | -8.39e-05 |
| 25 | 42 | -0.05 | 0.01 | 0.03 | -3.52e-05 | -1.63e-04 | -8.04e-05 |
| 25 | 48 | 8.30e-03 | 0.02 | -0.05 | -7.16e-05 | 1.19e-04 | -1.03e-04 |
| 25 | 58 | -0.04 | 6.89e-03 | 0.01 | 5.46e-05 | -1.67e-04 | -8.71e-05 |
| 25 | 61 | -0.01 | 0.01 | -0.07 | 4.38e-06 | 6.31e-05 | -8.67e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 25 | 62 | -0.03 | 9.37e-03 | 5.25e-03 | 2.76e-05 | -1.31e-04 | -8.82e-05 |
| 25 | 64 | -0.01 | 0.01 | -0.07 | 4.38e-06 | 6.31e-05 | -8.67e-05 |
| 25 | 65 | -0.02 | 0.02 | -0.01 | -5.34e-05 | -2.25e-05 | -9.18e-05 |
| 26 | 1 | -0.05 | 0.02 | -6.62e-03 | 8.08e-05 | 0.0 | -9.97e-05 |
| 26 | 5 | -0.02 | 0.02 | -0.11 | 4.60e-05 | 0.0 | -1.16e-04 |
| 26 | 14 | -0.04 | 0.07 | -0.01 | -1.69e-04 | 0.0 | -6.18e-05 |
| 26 | 19 | -0.08 | 0.01 | 0.04 | -1.46e-05 | 0.0 | -5.84e-05 |
| 26 | 24 | 0.03 | 0.03 | -0.07 | -9.22e-05 | 0.0 | -9.10e-05 |
| 26 | 38 | -0.03 | 0.05 | -0.01 | -1.14e-04 | 0.0 | -6.48e-05 |
| 26 | 42 | -0.05 | 0.02 | 0.02 | -3.31e-05 | 0.0 | -6.17e-05 |
| 26 | 48 | 8.50e-03 | 0.03 | -0.04 | -7.35e-05 | 0.0 | -8.77e-05 |
| 26 | 58 | -0.04 | 0.01 | -2.55e-03 | 5.96e-05 | 0.0 | -7.36e-05 |
| 26 | 61 | -0.01 | 0.02 | -0.06 | 1.20e-05 | 0.0 | -8.27e-05 |
| 26 | 62 | -0.03 | 0.02 | -4.99e-03 | 3.13e-05 | 0.0 | -7.39e-05 |
| 26 | 64 | -0.01 | 0.02 | -0.06 | 1.20e-05 | 0.0 | -8.27e-05 |
| 26 | 65 | -0.02 | 0.02 | -0.01 | -5.34e-05 | 0.0 | -7.47e-05 |
| 27 | 1 | -0.03 | 0.02 | -6.61e-03 | 4.85e-05 | -1.92e-04 | -9.25e-05 |
| 27 | 5 | -0.03 | 0.02 | -0.11 | -2.61e-05 | 1.60e-04 | -1.01e-04 |
| 27 | 15 | -0.03 | 0.05 | -6.41e-03 | -1.59e-04 | -3.74e-05 | -5.00e-05 |
| 27 | 22 | -0.05 | 0.03 | 0.03 | -7.41e-05 | -2.49e-04 | -5.33e-05 |
| 27 | 24 | 0.01 | 0.03 | -0.07 | -1.18e-04 | 2.81e-04 | -7.48e-05 |
| 27 | 39 | -0.03 | 0.04 | -9.82e-03 | -1.15e-04 | -1.78e-05 | -5.60e-05 |
| 27 | 46 | -0.04 | 0.03 | 0.01 | -7.01e-05 | -1.28e-04 | -5.52e-05 |
| 27 | 48 | -3.22e-03 | 0.02 | -0.04 | -9.24e-05 | 1.46e-04 | -7.66e-05 |
| 27 | 58 | -0.02 | 0.02 | -2.55e-03 | 3.69e-05 | -1.42e-04 | -6.84e-05 |
| 27 | 59 | -0.02 | 0.02 | -4.99e-03 | 1.14e-05 | -1.06e-04 | -6.85e-05 |
| 27 | 61 | -0.02 | 0.02 | -0.06 | -3.00e-05 | 8.95e-05 | -7.32e-05 |
| 27 | 62 | -0.02 | 0.02 | -4.99e-03 | 1.14e-05 | -1.06e-04 | -6.85e-05 |
| 27 | 64 | -0.02 | 0.02 | -0.06 | -3.00e-05 | 8.95e-05 | -7.32e-05 |
| 27 | 65 | -0.02 | 0.02 | -0.01 | -6.51e-05 | 1.93e-06 | -6.88e-05 |
| 28 | 1 | -0.07 | 2.74e-03 | 0.01 | 6.72e-05 | -2.01e-04 | -1.26e-04 |
| 28 | 5 | -3.76e-03 | 9.70e-03 | -0.12 | 3.15e-05 | 1.31e-04 | -1.29e-04 |
| 28 | 15 | -0.04 | 0.08 | -2.96e-03 | -1.64e-04 | -4.28e-05 | -1.04e-04 |
| 28 | 19 | -0.11 | 9.16e-03 | 0.07 | -2.60e-05 | -2.70e-04 | -8.14e-05 |
| 28 | 24 | 0.06 | 0.03 | -0.09 | -9.31e-05 | 2.69e-04 | -1.22e-04 |
| 28 | 39 | -0.03 | 0.05 | -8.03e-03 | -1.15e-04 | -2.17e-05 | -1.00e-04 |
| 28 | 42 | -0.07 | 0.02 | 0.03 | -4.20e-05 | -1.39e-04 | -8.63e-05 |
| 28 | 48 | 0.02 | 0.03 | -0.05 | -7.69e-05 | 1.39e-04 | -1.17e-04 |
| 28 | 58 | -0.05 | 2.04e-03 | 0.01 | 4.96e-05 | -1.48e-04 | -9.36e-05 |
| 28 | 61 | -7.87e-03 | 0.01 | -0.07 | 2.54e-06 | 7.38e-05 | -9.73e-05 |
| 28 | 62 | -0.04 | 7.00e-03 | 4.99e-03 | 2.23e-05 | -1.11e-04 | -9.57e-05 |
| 28 | 64 | -7.87e-03 | 0.01 | -0.07 | 2.54e-06 | 7.38e-05 | -9.73e-05 |
| 28 | 65 | -0.02 | 0.02 | -0.01 | -5.95e-05 | 0.0 | -1.02e-04 |
| 29 | 1 | -0.07 | 0.01 | -7.11e-03 | 4.57e-05 | 0.0 | -1.12e-04 |
| 29 | 5 | -3.71e-03 | 0.02 | -0.11 | -7.66e-06 | 0.0 | -1.29e-04 |
| 29 | 15 | -0.04 | 0.09 | -6.58e-03 | -1.89e-04 | 0.0 | -8.45e-05 |
| 29 | 19 | -0.11 | 0.02 | 0.04 | -3.17e-05 | 0.0 | -6.29e-05 |
| 29 | 24 | 0.06 | 0.04 | -0.07 | -1.19e-04 | 0.0 | -1.09e-04 |
| 29 | 39 | -0.03 | 0.06 | -0.01 | -1.35e-04 | 0.0 | -8.21e-05 |
| 29 | 42 | -0.07 | 0.02 | 0.02 | -5.25e-05 | 0.0 | -6.95e-05 |
| 29 | 48 | 0.02 | 0.04 | -0.04 | -9.76e-05 | 0.0 | -1.02e-04 |
| 29 | 58 | -0.05 | 9.54e-03 | -2.91e-03 | 3.41e-05 | 0.0 | -8.28e-05 |
| 29 | 61 | -7.81e-03 | 0.02 | -0.06 | -2.29e-05 | 0.0 | -9.28e-05 |
| 29 | 62 | -0.04 | 0.01 | -5.33e-03 | 6.77e-06 | 0.0 | -8.35e-05 |
| 29 | 64 | -7.81e-03 | 0.02 | -0.06 | -2.29e-05 | 0.0 | -9.28e-05 |
| 29 | 65 | -0.02 | 0.03 | -0.01 | -7.51e-05 | 0.0 | -8.57e-05 |
| 30 | 1 | -0.09 | -3.75e-03 | 0.01 | 7.57e-05 | -2.02e-04 | -1.25e-04 |
| 30 | 2 | -0.08 | -0.01 | 0.02 | 9.49e-05 | -2.01e-04 | -8.99e-05 |
| 30 | 5 | 7.46e-03 | 5.92e-03 | -0.12 | 5.30e-05 | 1.12e-04 | -1.33e-04 |
| 30 | 15 | -0.05 | 0.09 | -3.15e-03 | -1.55e-04 | -3.54e-05 | -1.07e-04 |
| 30 | 19 | -0.13 | 0.01 | 0.07 | -1.97e-05 | -2.63e-04 | -7.53e-05 |
| 30 | 24 | 0.08 | 0.04 | -0.09 | -9.26e-05 | 2.65e-04 | -1.25e-04 |
| 30 | 39 | -0.04 | 0.06 | -8.21e-03 | -1.08e-04 | -1.72e-05 | -1.01e-04 |
| 30 | 42 | -0.08 | 0.02 | 0.03 | -3.69e-05 | -1.35e-04 | -8.25e-05 |
| 30 | 48 | 0.03 | 0.03 | -0.05 | -7.52e-05 | 1.37e-04 | -1.18e-04 |
| 30 | 58 | -0.06 | -2.75e-03 | 0.01 | 5.57e-05 | -1.49e-04 | -9.26e-05 |
| 30 | 61 | -1.61e-03 | 0.01 | -0.07 | 1.51e-05 | 6.36e-05 | -9.88e-05 |
| 30 | 62 | -0.05 | 4.74e-03 | 4.84e-03 | 2.77e-05 | -1.11e-04 | -9.45e-05 |
| 30 | 64 | -1.61e-03 | 0.01 | -0.07 | 1.51e-05 | 6.36e-05 | -9.88e-05 |
| 30 | 65 | -0.02 | 0.03 | -0.01 | -5.62e-05 | 1.08e-06 | -1.00e-04 |
| 31 | 1 | -0.09 | 7.15e-03 | -7.52e-03 | 8.58e-05 | -2.26e-04 | -1.14e-04 |
| 31 | 5 | 7.56e-03 | 0.02 | -0.11 | 1.07e-04 | 9.31e-05 | -1.23e-04 |
| 31 | 15 | -0.05 | 0.10 | -6.80e-03 | -1.60e-04 | -4.96e-05 | -9.92e-05 |
| 31 | 19 | -0.13 | 0.02 | 0.04 | -2.26e-05 | -2.88e-04 | -6.09e-05 |
| 31 | 24 | 0.08 | 0.05 | -0.07 | -9.18e-05 | 2.61e-04 | -1.24e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 31 | 39 | -0.04 | 0.07 | -0.01 | -1.12e-04 | -3.15e-05 | -9.31e-05 |
| 31 | 42 | -0.08 | 0.03 | 0.01 | -3.85e-05 | -1.54e-04 | -7.17e-05 |
| 31 | 48 | 0.03 | 0.04 | -0.04 | -7.54e-05 | 1.28e-04 | -1.13e-04 |
| 31 | 58 | -0.06 | 5.33e-03 | -3.21e-03 | 6.24e-05 | -1.66e-04 | -8.45e-05 |
| 31 | 61 | -1.55e-03 | 0.02 | -0.06 | 4.45e-05 | 4.93e-05 | -9.15e-05 |
| 31 | 62 | -0.05 | 0.01 | -5.59e-03 | 3.25e-05 | -1.28e-04 | -8.65e-05 |
| 31 | 64 | -1.55e-03 | 0.02 | -0.06 | 4.45e-05 | 4.93e-05 | -9.15e-05 |
| 31 | 65 | -0.02 | 0.04 | -0.01 | -5.72e-05 | -1.34e-05 | -9.24e-05 |
| 32 | 1 | -0.05 | 0.03 | -0.03 | 1.03e-04 | -2.74e-04 | -9.71e-05 |
| 32 | 5 | -0.02 | 0.03 | -0.10 | 7.96e-05 | 6.65e-05 | -1.02e-04 |
| 32 | 14 | -0.04 | 0.08 | -0.01 | -1.64e-04 | -9.94e-05 | -7.53e-05 |
| 32 | 19 | -0.08 | 0.02 | 0.02 | 6.69e-06 | -3.41e-04 | -6.74e-05 |
| 32 | 24 | 0.03 | 0.04 | -0.05 | -9.38e-05 | 2.38e-04 | -8.35e-05 |
| 32 | 38 | -0.03 | 0.06 | -0.01 | -1.07e-04 | -7.62e-05 | -7.27e-05 |
| 32 | 42 | -0.05 | 0.03 | 2.21e-03 | -1.71e-05 | -2.00e-04 | -6.66e-05 |
| 32 | 48 | 8.33e-03 | 0.04 | -0.03 | -6.96e-05 | 9.78e-05 | -8.44e-05 |
| 32 | 58 | -0.04 | 0.02 | -0.02 | 7.56e-05 | -2.02e-04 | -7.19e-05 |
| 32 | 61 | -0.01 | 0.03 | -0.05 | 3.29e-05 | 2.48e-05 | -7.53e-05 |
| 32 | 62 | -0.03 | 0.02 | -0.02 | 4.58e-05 | -1.65e-04 | -7.28e-05 |
| 32 | 64 | -0.01 | 0.03 | -0.05 | 3.29e-05 | 2.48e-05 | -7.53e-05 |
| 32 | 65 | -0.02 | 0.03 | -0.01 | -4.36e-05 | -5.14e-05 | -7.54e-05 |
| 33 | 1 | -0.07 | 0.02 | -0.03 | 2.77e-05 | -1.89e-04 | -8.20e-05 |
| 33 | 5 | -4.19e-03 | 0.03 | -0.10 | -4.60e-05 | 1.65e-04 | -8.81e-05 |
| 33 | 17 | 5.41e-03 | 0.09 | -0.03 | -2.19e-04 | 1.30e-04 | -8.03e-05 |
| 33 | 19 | -0.11 | 0.02 | 0.02 | -3.05e-05 | -2.77e-04 | -3.80e-05 |
| 33 | 24 | 0.06 | 0.05 | -0.05 | -1.48e-04 | 3.02e-04 | -1.03e-04 |
| 33 | 39 | -0.03 | 0.07 | -0.01 | -1.51e-04 | -1.27e-05 | -6.26e-05 |
| 33 | 42 | -0.07 | 0.03 | 2.36e-03 | -5.90e-05 | -1.37e-04 | -4.85e-05 |
| 33 | 48 | 0.02 | 0.05 | -0.03 | -1.20e-04 | 1.62e-04 | -9.21e-05 |
| 33 | 58 | -0.05 | 0.02 | -0.02 | 2.11e-05 | -1.39e-04 | -6.07e-05 |
| 33 | 61 | -8.15e-03 | 0.03 | -0.06 | -4.75e-05 | 9.51e-05 | -6.64e-05 |
| 33 | 62 | -0.04 | 0.02 | -0.02 | -6.55e-06 | -1.01e-04 | -6.31e-05 |
| 33 | 64 | -8.15e-03 | 0.03 | -0.06 | -4.75e-05 | 9.51e-05 | -6.64e-05 |
| 33 | 65 | -0.02 | 0.04 | -0.01 | -8.95e-05 | 1.24e-05 | -7.03e-05 |
| 34 | 1 | -0.09 | 0.02 | -0.03 | 8.98e-05 | -1.70e-04 | -1.17e-04 |
| 34 | 5 | 7.87e-03 | 0.03 | -0.10 | 1.53e-04 | 1.09e-04 | -1.29e-04 |
| 34 | 17 | 0.02 | 0.11 | -0.03 | -1.62e-04 | 1.06e-04 | -1.08e-04 |
| 34 | 19 | -0.13 | 0.02 | 0.02 | -3.10e-05 | -2.10e-04 | -6.25e-05 |
| 34 | 24 | 0.08 | 0.07 | -0.05 | -7.95e-05 | 2.31e-04 | -1.25e-04 |
| 34 | 39 | -0.04 | 0.08 | -0.01 | -1.14e-04 | -4.69e-06 | -8.89e-05 |
| 34 | 42 | -0.08 | 0.03 | 2.59e-03 | -4.19e-05 | -1.03e-04 | -7.25e-05 |
| 34 | 48 | 0.03 | 0.05 | -0.03 | -6.81e-05 | 1.24e-04 | -1.15e-04 |
| 34 | 58 | -0.06 | 0.01 | -0.02 | 6.48e-05 | -1.24e-04 | -8.67e-05 |
| 34 | 61 | -1.30e-03 | 0.03 | -0.06 | 6.99e-05 | 6.45e-05 | -9.48e-05 |
| 34 | 62 | -0.05 | 0.02 | -0.02 | 3.48e-05 | -9.07e-05 | -8.85e-05 |
| 34 | 64 | -1.30e-03 | 0.03 | -0.06 | 6.99e-05 | 6.45e-05 | -9.48e-05 |
| 34 | 65 | -0.02 | 0.04 | -0.01 | -5.53e-05 | 1.01e-05 | -9.38e-05 |
| 35 | 1 | -0.10 | 0.01 | -0.02 | 6.23e-05 | -2.44e-04 | -1.12e-04 |
| 35 | 5 | -0.07 | 0.01 | -0.14 | 2.96e-05 | 8.99e-05 | -1.18e-04 |
| 35 | 6 | -0.05 | 6.99e-03 | -0.14 | 5.15e-05 | 1.08e-04 | -8.77e-05 |
| 35 | 15 | -0.08 | 0.06 | 0.07 | -1.72e-04 | -1.15e-04 | -8.36e-05 |
| 35 | 19 | -0.11 | 8.55e-03 | 0.08 | -3.51e-05 | -2.75e-04 | -7.16e-05 |
| 35 | 23 | -0.11 | 0.04 | 0.10 | -9.96e-05 | -2.74e-04 | -7.27e-05 |
| 35 | 39 | -0.07 | 0.05 | 0.05 | -1.21e-04 | -8.18e-05 | -8.45e-05 |
| 35 | 42 | -0.09 | 0.01 | 0.05 | -4.83e-05 | -1.64e-04 | -7.31e-05 |
| 35 | 46 | -0.09 | 0.03 | 0.06 | -8.26e-05 | -1.63e-04 | -7.44e-05 |
| 35 | 58 | -0.08 | 8.09e-03 | -0.02 | 4.60e-05 | -1.80e-04 | -8.27e-05 |
| 35 | 61 | -0.06 | 0.01 | -0.07 | 0.0 | 3.87e-05 | -8.69e-05 |
| 35 | 62 | -0.07 | 0.01 | -7.93e-03 | 1.86e-05 | -1.47e-04 | -8.35e-05 |
| 35 | 64 | -0.06 | 0.01 | -0.07 | 0.0 | 3.87e-05 | -8.69e-05 |
| 35 | 65 | -0.06 | 0.02 | 0.02 | -6.34e-05 | -4.76e-05 | -8.60e-05 |
| 36 | 1 | -0.10 | 0.02 | -0.05 | 2.53e-05 | 7.35e-06 | -1.48e-04 |
| 36 | 5 | -0.07 | 0.02 | -0.13 | -3.28e-06 | 5.54e-06 | -1.16e-04 |
| 36 | 6 | -0.05 | 0.01 | -0.13 | 3.02e-05 | 3.15e-06 | -7.23e-05 |
| 36 | 15 | -0.08 | 0.08 | 0.06 | -2.18e-04 | 9.48e-06 | -1.40e-04 |
| 36 | 19 | -0.11 | 0.02 | 0.06 | -5.31e-05 | 5.11e-06 | -1.22e-04 |
| 36 | 23 | -0.11 | 0.05 | 0.08 | -1.27e-04 | 6.72e-06 | -1.28e-04 |
| 36 | 39 | -0.07 | 0.06 | 0.04 | -1.63e-04 | 8.85e-06 | -1.36e-04 |
| 36 | 42 | -0.09 | 0.02 | 0.03 | -7.32e-05 | 5.91e-06 | -1.19e-04 |
| 36 | 46 | -0.09 | 0.04 | 0.04 | -1.14e-04 | 7.05e-06 | -1.24e-04 |
| 36 | 58 | -0.08 | 0.02 | -0.03 | 1.84e-05 | 5.52e-06 | -1.11e-04 |
| 36 | 61 | -0.06 | 0.02 | -0.07 | -2.64e-05 | 4.92e-06 | -9.80e-05 |
| 36 | 62 | -0.07 | 0.02 | -0.02 | -1.05e-05 | 5.93e-06 | -1.16e-04 |
| 36 | 64 | -0.06 | 0.02 | -0.07 | -2.64e-05 | 4.92e-06 | -9.80e-05 |
| 36 | 65 | -0.06 | 0.03 | 0.01 | -9.71e-05 | 7.14e-06 | -1.30e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 37 | 1 | -0.08 | 0.03 | -0.05 | 7.91e-05 | -2.16e-04 | -1.18e-04 |
| 37 | 5 | -0.08 | 0.03 | -0.13 | 8.88e-05 | 1.20e-04 | -1.15e-04 |
| 37 | 6 | -0.06 | 0.02 | -0.13 | 1.13e-04 | 1.32e-04 | -8.39e-05 |
| 37 | 14 | -0.07 | 0.06 | 0.06 | -2.06e-04 | -1.05e-04 | -7.82e-05 |
| 37 | 19 | -0.09 | 0.01 | 0.06 | -6.27e-05 | -2.55e-04 | -8.49e-05 |
| 37 | 23 | -0.09 | 0.03 | 0.08 | -1.37e-04 | -2.59e-04 | -7.99e-05 |
| 37 | 38 | -0.06 | 0.04 | 0.04 | -1.48e-04 | -7.03e-05 | -8.13e-05 |
| 37 | 42 | -0.07 | 0.02 | 0.03 | -6.68e-05 | -1.47e-04 | -8.16e-05 |
| 37 | 46 | -0.07 | 0.03 | 0.04 | -1.08e-04 | -1.48e-04 | -7.88e-05 |
| 37 | 59 | -0.06 | 0.02 | -0.02 | 2.35e-05 | -1.28e-04 | -8.76e-05 |
| 37 | 61 | -0.06 | 0.02 | -0.07 | 2.89e-05 | 5.88e-05 | -8.60e-05 |
| 37 | 62 | -0.06 | 0.02 | -0.02 | 2.35e-05 | -1.28e-04 | -8.76e-05 |
| 37 | 64 | -0.06 | 0.02 | -0.07 | 2.89e-05 | 5.88e-05 | -8.60e-05 |
| 37 | 65 | -0.06 | 0.02 | 0.01 | -7.64e-05 | -3.32e-05 | -8.86e-05 |
| 38 | 1 | -0.12 | 4.51e-03 | -0.02 | 7.55e-05 | -2.30e-04 | -1.13e-04 |
| 38 | 5 | -0.06 | 0.01 | -0.14 | 3.41e-05 | 9.40e-05 | -1.24e-04 |
| 38 | 6 | -0.04 | 2.22e-03 | -0.14 | 5.17e-05 | 1.07e-04 | -9.16e-05 |
| 38 | 15 | -0.09 | 0.08 | 0.07 | -1.54e-04 | -9.98e-05 | -9.60e-05 |
| 38 | 19 | -0.14 | 0.01 | 0.08 | -2.12e-05 | -2.59e-04 | -6.19e-05 |
| 38 | 23 | -0.14 | 0.04 | 0.10 | -8.29e-05 | -2.58e-04 | -6.93e-05 |
| 38 | 39 | -0.08 | 0.06 | 0.05 | -1.04e-04 | -6.76e-05 | -9.36e-05 |
| 38 | 42 | -0.10 | 0.02 | 0.05 | -3.52e-05 | -1.49e-04 | -7.08e-05 |
| 38 | 46 | -0.10 | 0.04 | 0.06 | -6.73e-05 | -1.48e-04 | -7.53e-05 |
| 38 | 58 | -0.09 | 3.38e-03 | -0.02 | 5.60e-05 | -1.69e-04 | -8.40e-05 |
| 38 | 61 | -0.05 | 0.01 | -0.07 | 6.43e-06 | 4.45e-05 | -9.16e-05 |
| 38 | 62 | -0.09 | 8.39e-03 | -8.06e-03 | 2.95e-05 | -1.35e-04 | -8.59e-05 |
| 38 | 64 | -0.05 | 0.01 | -0.07 | 6.43e-06 | 4.45e-05 | -9.16e-05 |
| 38 | 65 | -0.07 | 0.02 | 0.01 | -5.01e-05 | -3.42e-05 | -9.15e-05 |
| 39 | 1 | -0.12 | 0.02 | -0.05 | 1.02e-04 | -5.53e-06 | -1.56e-04 |
| 39 | 5 | -0.06 | 0.02 | -0.13 | 5.85e-05 | 0.0 | -1.21e-04 |
| 39 | 6 | -0.04 | 9.61e-03 | -0.13 | 6.94e-05 | 0.0 | -7.39e-05 |
| 39 | 15 | -0.09 | 0.09 | 0.06 | -1.32e-04 | -7.06e-06 | -1.54e-04 |
| 39 | 19 | -0.14 | 0.02 | 0.06 | 1.03e-05 | -7.21e-06 | -1.16e-04 |
| 39 | 23 | -0.14 | 0.05 | 0.08 | -5.24e-05 | -7.71e-06 | -1.28e-04 |
| 39 | 39 | -0.08 | 0.07 | 0.04 | -8.10e-05 | -6.84e-06 | -1.48e-04 |
| 39 | 42 | -0.10 | 0.03 | 0.03 | -1.02e-05 | -6.23e-06 | -1.20e-04 |
| 39 | 46 | -0.10 | 0.05 | 0.04 | -4.14e-05 | -6.78e-06 | -1.28e-04 |
| 39 | 58 | -0.09 | 0.01 | -0.03 | 7.56e-05 | -4.24e-06 | -1.16e-04 |
| 39 | 61 | -0.05 | 0.02 | -0.07 | 2.51e-05 | -2.06e-06 | -1.03e-04 |
| 39 | 62 | -0.09 | 0.02 | -0.02 | 4.92e-05 | -4.58e-06 | -1.22e-04 |
| 39 | 64 | -0.05 | 0.02 | -0.07 | 2.51e-05 | -2.06e-06 | -1.03e-04 |
| 39 | 65 | -0.07 | 0.03 | 0.01 | -3.02e-05 | -5.62e-06 | -1.39e-04 |
| 40 | 1 | -0.15 | -1.97e-03 | -0.02 | 6.88e-05 | -2.32e-04 | -1.15e-04 |
| 40 | 2 | -0.12 | -0.01 | -0.03 | 8.70e-05 | -2.18e-04 | -8.20e-05 |
| 40 | 6 | -0.03 | -1.84e-03 | -0.14 | 3.45e-05 | 8.96e-05 | -9.42e-05 |
| 40 | 15 | -0.10 | 0.09 | 0.07 | -1.52e-04 | -1.00e-04 | -9.91e-05 |
| 40 | 19 | -0.16 | 0.01 | 0.08 | -2.61e-05 | -2.55e-04 | -5.83e-05 |
| 40 | 23 | -0.16 | 0.05 | 0.10 | -8.60e-05 | -2.55e-04 | -6.68e-05 |
| 40 | 39 | -0.08 | 0.07 | 0.05 | -1.04e-04 | -6.76e-05 | -9.51e-05 |
| 40 | 42 | -0.12 | 0.02 | 0.05 | -3.82e-05 | -1.47e-04 | -7.09e-05 |
| 40 | 46 | -0.12 | 0.04 | 0.06 | -6.93e-05 | -1.47e-04 | -7.51e-05 |
| 40 | 58 | -0.11 | -1.44e-03 | -0.02 | 5.12e-05 | -1.71e-04 | -8.53e-05 |
| 40 | 61 | -0.05 | 0.01 | -0.07 | -3.53e-06 | 3.47e-05 | -9.44e-05 |
| 40 | 62 | -0.10 | 5.97e-03 | -8.15e-03 | 2.57e-05 | -1.36e-04 | -8.76e-05 |
| 40 | 64 | -0.05 | 0.01 | -0.07 | -3.53e-06 | 3.47e-05 | -9.44e-05 |
| 40 | 65 | -0.07 | 0.03 | 0.01 | -5.10e-05 | -3.39e-05 | -9.47e-05 |
| 41 | 1 | -0.15 | 8.98e-03 | -0.05 | 7.54e-05 | -2.40e-04 | -1.25e-04 |
| 41 | 5 | -0.06 | 0.02 | -0.13 | -4.02e-05 | 6.47e-05 | -1.32e-04 |
| 41 | 6 | -0.03 | 7.12e-03 | -0.13 | -2.74e-05 | 8.08e-05 | -9.54e-05 |
| 41 | 15 | -0.10 | 0.10 | 0.06 | -1.21e-04 | -1.07e-04 | -1.10e-04 |
| 41 | 19 | -0.16 | 0.02 | 0.06 | 0.0 | -2.59e-04 | -7.09e-05 |
| 41 | 23 | -0.16 | 0.06 | 0.08 | -5.50e-05 | -2.59e-04 | -7.95e-05 |
| 41 | 39 | -0.08 | 0.07 | 0.04 | -7.47e-05 | -7.40e-05 | -1.05e-04 |
| 41 | 42 | -0.12 | 0.03 | 0.03 | -1.57e-05 | -1.52e-04 | -8.17e-05 |
| 41 | 46 | -0.12 | 0.05 | 0.04 | -4.29e-05 | -1.52e-04 | -8.60e-05 |
| 41 | 58 | -0.11 | 6.67e-03 | -0.03 | 5.76e-05 | -1.76e-04 | -9.30e-05 |
| 41 | 61 | -0.05 | 0.02 | -0.07 | -2.85e-05 | 2.69e-05 | -9.92e-05 |
| 41 | 62 | -0.10 | 0.01 | -0.02 | 3.57e-05 | -1.42e-04 | -9.58e-05 |
| 41 | 64 | -0.05 | 0.02 | -0.07 | -2.85e-05 | 2.69e-05 | -9.92e-05 |
| 41 | 65 | -0.07 | 0.04 | 0.01 | -2.99e-05 | -4.04e-05 | -1.04e-04 |
| 42 | 1 | -0.10 | 0.03 | -0.07 | -1.22e-05 | 6.76e-06 | -1.04e-04 |
| 42 | 5 | -0.07 | 0.03 | -0.12 | -2.79e-05 | 8.01e-06 | -9.59e-05 |
| 42 | 15 | -0.08 | 0.09 | 0.06 | -2.71e-04 | 2.97e-06 | -9.66e-05 |
| 42 | 19 | -0.11 | 0.03 | 0.03 | -8.10e-05 | 3.45e-06 | -8.12e-05 |
| 42 | 23 | -0.11 | 0.06 | 0.06 | -1.64e-04 | 3.18e-06 | -8.40e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42 | 39 | -0.07 | 0.07 | 0.03 | -2.12e-04 | 3.42e-06 | -9.51e-05 |
| 42 | 42 | -0.09 | 0.03 | 0.02 | -1.06e-04 | 3.49e-06 | -8.24e-05 |
| 42 | 58 | -0.08 | 0.03 | -0.05 | -9.98e-06 | 4.93e-06 | -7.77e-05 |
| 42 | 59 | -0.07 | 0.03 | -0.03 | -4.16e-05 | 4.58e-06 | -8.22e-05 |
| 42 | 61 | -0.06 | 0.03 | -0.06 | -5.03e-05 | 5.28e-06 | -7.78e-05 |
| 42 | 62 | -0.07 | 0.03 | -0.03 | -4.16e-05 | 4.58e-06 | -8.22e-05 |
| 42 | 64 | -0.06 | 0.03 | -0.06 | -5.03e-05 | 5.28e-06 | -7.78e-05 |
| 42 | 65 | -0.06 | 0.04 | 8.08e-03 | -1.36e-04 | 3.52e-06 | -9.56e-05 |
| 43 | 1 | -0.12 | 0.03 | -0.07 | 1.18e-04 | -5.44e-06 | -1.15e-04 |
| 43 | 5 | -0.06 | 0.03 | -0.12 | 6.55e-05 | -8.48e-06 | -1.08e-04 |
| 43 | 15 | -0.09 | 0.10 | 0.05 | -1.11e-04 | -3.65e-06 | -1.14e-04 |
| 43 | 19 | -0.14 | 0.03 | 0.03 | 4.05e-05 | -2.30e-06 | -8.29e-05 |
| 43 | 23 | -0.14 | 0.06 | 0.06 | -2.30e-05 | -2.73e-06 | -9.05e-05 |
| 43 | 39 | -0.08 | 0.08 | 0.03 | -5.95e-05 | -3.58e-06 | -1.09e-04 |
| 43 | 42 | -0.10 | 0.04 | 0.02 | 1.35e-05 | -2.69e-06 | -8.85e-05 |
| 43 | 58 | -0.09 | 0.02 | -0.05 | 8.81e-05 | -3.95e-06 | -8.61e-05 |
| 43 | 61 | -0.05 | 0.03 | -0.06 | 3.41e-05 | -5.44e-06 | -8.75e-05 |
| 43 | 62 | -0.09 | 0.03 | -0.03 | 6.31e-05 | -3.75e-06 | -9.12e-05 |
| 43 | 64 | -0.05 | 0.03 | -0.06 | 3.41e-05 | -5.44e-06 | -8.75e-05 |
| 43 | 65 | -0.07 | 0.05 | 7.87e-03 | -1.19e-05 | -3.15e-06 | -1.06e-04 |
| 44 | 1 | -0.15 | 0.02 | -0.07 | 7.35e-05 | -2.38e-04 | -1.21e-04 |
| 44 | 5 | -0.06 | 0.03 | -0.12 | -1.01e-04 | 8.59e-05 | -1.30e-04 |
| 44 | 17 | -0.04 | 0.11 | 0.03 | -9.76e-05 | 2.55e-05 | -1.20e-04 |
| 44 | 19 | -0.16 | 0.03 | 0.03 | 2.58e-05 | -2.59e-04 | -6.95e-05 |
| 44 | 23 | -0.16 | 0.06 | 0.06 | -2.45e-05 | -2.58e-04 | -7.64e-05 |
| 44 | 39 | -0.08 | 0.08 | 0.03 | -4.81e-05 | -7.30e-05 | -9.97e-05 |
| 44 | 42 | -0.12 | 0.04 | 0.02 | 4.54e-06 | -1.52e-04 | -7.93e-05 |
| 44 | 58 | -0.11 | 0.01 | -0.05 | 5.79e-05 | -1.75e-04 | -8.99e-05 |
| 44 | 61 | -0.05 | 0.03 | -0.06 | -5.64e-05 | 3.86e-05 | -9.71e-05 |
| 44 | 62 | -0.10 | 0.02 | -0.03 | 4.04e-05 | -1.41e-04 | -9.25e-05 |
| 44 | 64 | -0.05 | 0.03 | -0.06 | -5.64e-05 | 3.86e-05 | -9.71e-05 |
| 44 | 65 | -0.07 | 0.05 | 7.68e-03 | -1.20e-05 | -4.01e-05 | -1.00e-04 |
| 45 | 1 | -0.10 | 0.03 | -0.05 | 1.51e-04 | -6.09e-05 | 0.0 |
| 45 | 5 | -5.94e-03 | 0.04 | -0.11 | 2.53e-04 | 3.36e-04 | 0.0 |
| 45 | 17 | 3.65e-03 | 0.12 | -5.66e-03 | -1.01e-04 | 1.28e-04 | 0.0 |
| 45 | 19 | -0.14 | 0.03 | 9.88e-03 | -1.53e-05 | -1.15e-04 | 0.0 |
| 45 | 20 | 0.07 | 0.04 | -0.03 | 2.34e-05 | 2.06e-04 | 0.0 |
| 45 | 41 | -0.01 | 0.09 | -6.93e-03 | -6.37e-05 | 9.29e-05 | 0.0 |
| 45 | 42 | -0.09 | 0.04 | -4.95e-04 | -1.67e-05 | -3.09e-05 | 0.0 |
| 45 | 44 | 0.02 | 0.04 | -0.02 | 2.32e-06 | 1.32e-04 | 0.0 |
| 45 | 58 | -0.07 | 0.02 | -0.03 | 1.09e-04 | -4.57e-05 | 0.0 |
| 45 | 61 | -0.01 | 0.04 | -0.06 | 1.33e-04 | 2.00e-04 | 0.0 |
| 45 | 62 | -0.06 | 0.03 | -0.03 | 7.63e-05 | -2.07e-05 | 0.0 |
| 45 | 64 | -0.01 | 0.04 | -0.06 | 1.33e-04 | 2.00e-04 | 0.0 |
| 45 | 65 | -0.03 | 0.05 | -7.65e-03 | -2.11e-05 | 5.42e-05 | 0.0 |
| 46 | 1 | -0.11 | 0.03 | -0.07 | 1.68e-04 | -8.07e-05 | 0.0 |
| 46 | 5 | -0.02 | 0.04 | -0.13 | 1.87e-04 | 3.72e-04 | 0.0 |
| 46 | 17 | -7.08e-03 | 0.12 | 3.34e-03 | -9.48e-05 | 1.24e-04 | 0.0 |
| 46 | 19 | -0.14 | 0.03 | 0.01 | 3.86e-06 | -1.37e-04 | 0.0 |
| 46 | 20 | 0.05 | 0.04 | -0.03 | 1.75e-05 | 2.17e-04 | 0.0 |
| 46 | 41 | -0.02 | 0.09 | -1.40e-03 | -5.76e-05 | 8.74e-05 | 0.0 |
| 46 | 42 | -0.10 | 0.04 | 3.45e-04 | -2.85e-06 | -4.59e-05 | 0.0 |
| 46 | 44 | 7.76e-03 | 0.04 | -0.02 | 3.16e-06 | 1.35e-04 | 0.0 |
| 46 | 58 | -0.08 | 0.02 | -0.05 | 1.22e-04 | -6.07e-05 | 0.0 |
| 46 | 61 | -0.02 | 0.04 | -0.07 | 9.87e-05 | 2.18e-04 | 0.0 |
| 46 | 62 | -0.07 | 0.03 | -0.04 | 8.82e-05 | -3.36e-05 | 0.0 |
| 46 | 64 | -0.02 | 0.04 | -0.07 | 9.87e-05 | 2.18e-04 | 0.0 |
| 46 | 65 | -0.04 | 0.05 | -6.15e-03 | -1.36e-05 | 4.77e-05 | 0.0 |
| 47 | 1 | -0.08 | 0.04 | -0.07 | 1.14e-04 | -2.20e-04 | -1.11e-04 |
| 47 | 5 | -0.08 | 0.04 | -0.12 | 1.48e-04 | 1.08e-04 | -1.10e-04 |
| 47 | 14 | -0.07 | 0.06 | 0.05 | -2.26e-04 | -9.81e-05 | -7.45e-05 |
| 47 | 19 | -0.09 | 0.02 | 0.03 | -6.45e-05 | -2.50e-04 | -7.80e-05 |
| 47 | 23 | -0.09 | 0.04 | 0.06 | -1.49e-04 | -2.51e-04 | -7.38e-05 |
| 47 | 38 | -0.06 | 0.05 | 0.03 | -1.63e-04 | -6.65e-05 | -7.70e-05 |
| 47 | 39 | -0.06 | 0.05 | 0.03 | -1.65e-04 | -6.70e-05 | -7.70e-05 |
| 47 | 42 | -0.07 | 0.02 | 0.02 | -6.77e-05 | -1.44e-04 | -7.61e-05 |
| 47 | 59 | -0.06 | 0.03 | -0.03 | 4.08e-05 | -1.30e-04 | -8.29e-05 |
| 47 | 61 | -0.06 | 0.03 | -0.06 | 5.98e-05 | 5.23e-05 | -8.22e-05 |
| 47 | 62 | -0.06 | 0.03 | -0.03 | 4.08e-05 | -1.30e-04 | -8.29e-05 |
| 47 | 64 | -0.06 | 0.03 | -0.06 | 5.98e-05 | 5.23e-05 | -8.22e-05 |
| 47 | 65 | -0.06 | 0.03 | 8.36e-03 | -7.99e-05 | -3.28e-05 | -8.42e-05 |
| 48 | 1 | -0.13 | 0.03 | -0.09 | 5.76e-05 | -2.00e-04 | 0.0 |
| 48 | 5 | -0.04 | 0.04 | -0.14 | -1.03e-04 | 2.37e-04 | 0.0 |
| 48 | 12 | -0.03 | -0.01 | -0.03 | 2.37e-05 | 3.71e-05 | 0.0 |
| 48 | 17 | -0.02 | 0.12 | 0.02 | -1.14e-04 | 7.33e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 48 | 19 | -0.15 | 0.03 | 0.01 | -1.30e-05 | -2.14e-04 | 0.0 |
| 48 | 36 | -0.05 | 0.02 | -0.02 | -6.41e-06 | 1.56e-05 | 0.0 |
| 48 | 41 | -0.04 | 0.09 | 8.57e-03 | -8.08e-05 | 3.62e-05 | 0.0 |
| 48 | 42 | -0.11 | 0.04 | 2.00e-03 | -2.74e-05 | -1.12e-04 | 0.0 |
| 48 | 58 | -0.09 | 0.02 | -0.06 | 4.50e-05 | -1.47e-04 | 0.0 |
| 48 | 61 | -0.03 | 0.04 | -0.08 | -6.61e-05 | 1.31e-04 | 0.0 |
| 48 | 62 | -0.09 | 0.03 | -0.05 | 2.31e-05 | -1.12e-04 | 0.0 |
| 48 | 64 | -0.03 | 0.04 | -0.08 | -6.61e-05 | 1.31e-04 | 0.0 |
| 48 | 65 | -0.06 | 0.05 | -2.44e-03 | -4.25e-05 | -5.25e-06 | 0.0 |
| 49 | 1 | -0.10 | 7.69e-03 | -0.02 | 1.15e-04 | -2.75e-04 | 0.0 |
| 49 | 5 | -6.65e-03 | 0.02 | -0.13 | 1.93e-04 | -8.93e-05 | 0.0 |
| 49 | 15 | -0.06 | 0.10 | 8.55e-03 | -1.37e-04 | -6.82e-05 | 0.0 |
| 49 | 19 | -0.14 | 0.02 | 0.05 | -2.63e-05 | -2.83e-04 | 0.0 |
| 49 | 24 | 0.07 | 0.05 | -0.06 | -5.29e-05 | 2.09e-04 | 0.0 |
| 49 | 39 | -0.05 | 0.07 | 6.86e-05 | -9.11e-05 | -5.23e-05 | 0.0 |
| 49 | 42 | -0.09 | 0.03 | 0.02 | -3.15e-05 | -1.64e-04 | 0.0 |
| 49 | 48 | 0.02 | 0.04 | -0.04 | -4.69e-05 | 9.03e-05 | 0.0 |
| 49 | 58 | -0.07 | 5.72e-03 | -0.01 | 8.27e-05 | -2.00e-04 | 0.0 |
| 49 | 61 | -0.01 | 0.02 | -0.07 | 9.55e-05 | -5.61e-05 | 0.0 |
| 49 | 62 | -0.06 | 0.01 | -0.01 | 5.21e-05 | -1.60e-04 | 0.0 |
| 49 | 64 | -0.01 | 0.02 | -0.07 | 9.55e-05 | -5.61e-05 | 0.0 |
| 49 | 65 | -0.03 | 0.04 | -8.05e-03 | -3.96e-05 | -3.69e-05 | 0.0 |
| 50 | 1 | -0.13 | 0.02 | -0.07 | 2.31e-05 | -2.53e-04 | 0.0 |
| 50 | 5 | -0.04 | 0.03 | -0.15 | -1.47e-04 | 2.18e-05 | 0.0 |
| 50 | 17 | -0.02 | 0.11 | 0.01 | -1.42e-04 | 4.15e-05 | 0.0 |
| 50 | 19 | -0.15 | 0.02 | 0.03 | -3.90e-05 | -2.46e-04 | 0.0 |
| 50 | 20 | 0.04 | 0.03 | -0.05 | -3.77e-05 | 1.64e-04 | 0.0 |
| 50 | 39 | -0.07 | 0.08 | 0.02 | -1.05e-04 | -5.76e-05 | 0.0 |
| 50 | 42 | -0.11 | 0.03 | 0.01 | -5.08e-05 | -1.44e-04 | 0.0 |
| 50 | 44 | -9.69e-03 | 0.03 | -0.02 | -4.87e-05 | 6.67e-05 | 0.0 |
| 50 | 58 | -0.10 | 0.01 | -0.05 | 1.96e-05 | -1.84e-04 | 0.0 |
| 50 | 61 | -0.04 | 0.03 | -0.08 | -9.52e-05 | 5.26e-06 | 0.0 |
| 50 | 62 | -0.09 | 0.02 | -0.03 | 0.0 | -1.47e-04 | 0.0 |
| 50 | 64 | -0.04 | 0.03 | -0.08 | -9.52e-05 | 5.26e-06 | 0.0 |
| 50 | 65 | -0.06 | 0.05 | -6.63e-04 | -6.24e-05 | -3.58e-05 | 0.0 |
| 51 | 1 | -0.11 | 0.02 | -0.05 | 1.26e-04 | -2.14e-04 | 0.0 |
| 51 | 5 | -0.02 | 0.03 | -0.15 | 1.55e-04 | 4.45e-05 | 0.0 |
| 51 | 17 | -7.35e-03 | 0.11 | -5.18e-03 | -1.11e-04 | 6.99e-05 | 0.0 |
| 51 | 19 | -0.14 | 0.02 | 0.03 | -2.12e-05 | -2.24e-04 | 0.0 |
| 51 | 20 | 0.05 | 0.03 | -0.05 | 1.02e-05 | 1.71e-04 | 0.0 |
| 51 | 39 | -0.06 | 0.08 | 4.04e-03 | -7.82e-05 | -3.23e-05 | 0.0 |
| 51 | 42 | -0.10 | 0.03 | 7.68e-03 | -2.44e-05 | -1.23e-04 | 0.0 |
| 51 | 44 | 7.48e-03 | 0.03 | -0.03 | -8.83e-06 | 7.91e-05 | 0.0 |
| 51 | 58 | -0.08 | 0.01 | -0.04 | 9.11e-05 | -1.56e-04 | 0.0 |
| 51 | 61 | -0.02 | 0.03 | -0.08 | 7.71e-05 | 2.22e-05 | 0.0 |
| 51 | 62 | -0.07 | 0.02 | -0.03 | 6.07e-05 | -1.21e-04 | 0.0 |
| 51 | 64 | -0.02 | 0.03 | -0.08 | 7.71e-05 | 2.22e-05 | 0.0 |
| 51 | 65 | -0.04 | 0.04 | -7.51e-03 | -3.05e-05 | -1.76e-05 | 0.0 |
| 52 | 1 | -0.11 | 7.97e-03 | -0.03 | 9.32e-05 | -3.19e-04 | 0.0 |
| 52 | 5 | -0.02 | 0.02 | -0.14 | 9.96e-05 | -2.13e-04 | 0.0 |
| 52 | 15 | -0.07 | 0.10 | 0.02 | -1.40e-04 | -9.13e-05 | 0.0 |
| 52 | 19 | -0.14 | 0.02 | 0.05 | -2.87e-05 | -2.84e-04 | 0.0 |
| 52 | 20 | 0.05 | 0.02 | -0.06 | -6.65e-06 | 1.51e-04 | 0.0 |
| 52 | 39 | -0.06 | 0.07 | 8.88e-03 | -9.54e-05 | -7.38e-05 | 0.0 |
| 52 | 42 | -0.10 | 0.03 | 0.02 | -3.58e-05 | -1.75e-04 | 0.0 |
| 52 | 44 | 7.15e-03 | 0.02 | -0.03 | -2.46e-05 | 4.99e-05 | 0.0 |
| 52 | 58 | -0.08 | 5.93e-03 | -0.02 | 6.80e-05 | -2.31e-04 | 0.0 |
| 52 | 61 | -0.02 | 0.02 | -0.08 | 4.33e-05 | -1.29e-04 | 0.0 |
| 52 | 62 | -0.07 | 0.01 | -0.02 | 3.98e-05 | -1.88e-04 | 0.0 |
| 52 | 64 | -0.02 | 0.02 | -0.08 | 4.33e-05 | -1.29e-04 | 0.0 |
| 52 | 65 | -0.04 | 0.04 | -4.04e-03 | -4.50e-05 | -5.72e-05 | 0.0 |
| 53 | 1 | -0.08 | 0.03 | -0.04 | 9.70e-05 | -9.46e-05 | 0.0 |
| 53 | 5 | 0.01 | 0.04 | -0.08 | 1.41e-04 | 1.86e-04 | 0.0 |
| 53 | 17 | 0.02 | 0.12 | -0.02 | -1.51e-04 | 1.16e-04 | 0.0 |
| 53 | 19 | -0.13 | 0.03 | 7.51e-03 | -9.12e-06 | -9.47e-05 | 0.0 |
| 53 | 24 | 0.09 | 0.08 | -0.03 | -8.28e-05 | 1.75e-04 | 0.0 |
| 53 | 41 | 5.38e-05 | 0.09 | -0.02 | -1.01e-04 | 7.99e-05 | 0.0 |
| 53 | 42 | -0.08 | 0.04 | -3.75e-03 | -2.65e-05 | -2.80e-05 | 0.0 |
| 53 | 48 | 0.04 | 0.07 | -0.02 | -6.52e-05 | 1.09e-04 | 0.0 |
| 53 | 58 | -0.06 | 0.02 | -0.02 | 7.08e-05 | -6.85e-05 | 0.0 |
| 53 | 61 | 1.40e-03 | 0.04 | -0.05 | 6.58e-05 | 1.15e-04 | 0.0 |
| 53 | 62 | -0.05 | 0.03 | -0.02 | 4.16e-05 | -4.13e-05 | 0.0 |
| 53 | 64 | 1.40e-03 | 0.04 | -0.05 | 6.58e-05 | 1.15e-04 | 0.0 |
| 53 | 65 | -0.02 | 0.05 | -0.01 | -4.59e-05 | 4.03e-05 | 0.0 |
| 54 | 1 | -0.12 | 0.03 | -0.08 | 1.37e-04 | -1.32e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 54 | 5 | -0.03 | 0.04 | -0.14 | 6.41e-05 | 3.28e-04 | 0.0 |
| 54 | 12 | -0.03 | -0.01 | -0.03 | 5.51e-05 | 5.90e-05 | 0.0 |
| 54 | 17 | -0.02 | 0.12 | 0.01 | -9.93e-05 | 1.09e-04 | 0.0 |
| 54 | 19 | -0.15 | 0.03 | 0.01 | 5.44e-06 | -1.72e-04 | 0.0 |
| 54 | 36 | -0.04 | 0.02 | -0.02 | 2.09e-05 | 4.30e-05 | 0.0 |
| 54 | 41 | -0.03 | 0.09 | 3.16e-03 | -6.37e-05 | 7.06e-05 | 0.0 |
| 54 | 42 | -0.10 | 0.04 | 7.25e-04 | -6.02e-06 | -7.38e-05 | 0.0 |
| 54 | 58 | -0.09 | 0.02 | -0.05 | 1.01e-04 | -9.83e-05 | 0.0 |
| 54 | 61 | -0.03 | 0.04 | -0.08 | 2.99e-05 | 1.89e-04 | 0.0 |
| 54 | 62 | -0.08 | 0.03 | -0.04 | 7.03e-05 | -6.68e-05 | 0.0 |
| 54 | 64 | -0.03 | 0.04 | -0.08 | 2.99e-05 | 1.89e-04 | 0.0 |
| 54 | 65 | -0.05 | 0.05 | -4.82e-03 | -2.08e-05 | 2.75e-05 | 0.0 |
| 55 | 1 | -0.14 | -2.06e-03 | -0.02 | 6.07e-05 | -2.25e-04 | -1.07e-04 |
| 55 | 2 | -0.11 | -0.01 | -0.02 | 8.09e-05 | -2.16e-04 | -7.63e-05 |
| 55 | 6 | -0.02 | -1.97e-03 | -0.14 | 2.77e-05 | 4.24e-05 | -9.17e-05 |
| 55 | 15 | -0.09 | 0.09 | 0.06 | -1.58e-04 | -7.55e-05 | -8.81e-05 |
| 55 | 19 | -0.16 | 0.01 | 0.08 | -3.30e-05 | -2.37e-04 | -5.04e-05 |
| 55 | 23 | -0.16 | 0.05 | 0.10 | -9.26e-05 | -2.33e-04 | -5.72e-05 |
| 55 | 39 | -0.08 | 0.07 | 0.04 | -1.10e-04 | -4.56e-05 | -8.51e-05 |
| 55 | 42 | -0.11 | 0.02 | 0.04 | -4.43e-05 | -1.30e-04 | -6.31e-05 |
| 55 | 46 | -0.11 | 0.04 | 0.05 | -7.55e-05 | -1.27e-04 | -6.61e-05 |
| 55 | 58 | -0.10 | -1.50e-03 | -0.01 | 4.53e-05 | -1.64e-04 | -7.90e-05 |
| 55 | 61 | -0.04 | 0.01 | -0.07 | -9.74e-06 | 1.67e-05 | -8.95e-05 |
| 55 | 62 | -0.09 | 5.92e-03 | -6.44e-03 | 1.98e-05 | -1.27e-04 | -8.10e-05 |
| 55 | 64 | -0.04 | 0.01 | -0.07 | -9.74e-06 | 1.67e-05 | -8.95e-05 |
| 55 | 65 | -0.06 | 0.03 | 0.01 | -5.65e-05 | -1.54e-05 | -8.68e-05 |
| 56 | 1 | -0.10 | 0.04 | -0.09 | -2.11e-05 | 0.0 | -8.87e-05 |
| 56 | 5 | -0.07 | 0.04 | -0.11 | -3.86e-05 | 0.0 | -1.11e-04 |
| 56 | 15 | -0.08 | 0.09 | 0.05 | -2.98e-04 | 1.09e-06 | -7.69e-05 |
| 56 | 19 | -0.11 | 0.03 | 0.01 | -9.08e-05 | 0.0 | -6.14e-05 |
| 56 | 39 | -0.07 | 0.07 | 0.03 | -2.35e-04 | 0.0 | -7.75e-05 |
| 56 | 42 | -0.09 | 0.04 | 6.81e-03 | -1.19e-04 | 0.0 | -6.65e-05 |
| 56 | 58 | -0.08 | 0.03 | -0.06 | -1.69e-05 | 0.0 | -6.61e-05 |
| 56 | 59 | -0.07 | 0.04 | -0.04 | -5.12e-05 | 0.0 | -7.02e-05 |
| 56 | 62 | -0.07 | 0.04 | -0.04 | -5.12e-05 | 0.0 | -7.02e-05 |
| 56 | 64 | -0.06 | 0.04 | -0.06 | -6.09e-05 | 0.0 | -8.26e-05 |
| 56 | 65 | -0.06 | 0.05 | 4.78e-03 | -1.54e-04 | 0.0 | -8.23e-05 |
| 57 | 1 | -0.08 | 0.05 | -0.09 | 1.57e-04 | -2.28e-04 | -1.06e-04 |
| 57 | 5 | -0.08 | 0.05 | -0.11 | 1.77e-04 | 9.69e-05 | -1.09e-04 |
| 57 | 14 | -0.07 | 0.07 | 0.04 | -2.21e-04 | -9.68e-05 | -7.14e-05 |
| 57 | 15 | -0.07 | 0.07 | 0.05 | -2.28e-04 | -9.82e-05 | -7.15e-05 |
| 57 | 19 | -0.09 | 0.03 | 0.01 | -3.97e-05 | -2.49e-04 | -7.28e-05 |
| 57 | 38 | -0.06 | 0.05 | 0.03 | -1.58e-04 | -6.72e-05 | -7.34e-05 |
| 57 | 39 | -0.06 | 0.05 | 0.03 | -1.60e-04 | -6.76e-05 | -7.34e-05 |
| 57 | 42 | -0.07 | 0.03 | 7.14e-03 | -5.04e-05 | -1.45e-04 | -7.19e-05 |
| 57 | 58 | -0.06 | 0.03 | -0.06 | 1.12e-04 | -1.68e-04 | -7.88e-05 |
| 57 | 61 | -0.06 | 0.03 | -0.06 | 7.70e-05 | 4.56e-05 | -8.09e-05 |
| 57 | 62 | -0.06 | 0.03 | -0.04 | 6.62e-05 | -1.35e-04 | -7.93e-05 |
| 57 | 64 | -0.06 | 0.03 | -0.06 | 7.70e-05 | 4.56e-05 | -8.09e-05 |
| 57 | 65 | -0.06 | 0.03 | 5.14e-03 | -7.23e-05 | -3.60e-05 | -8.06e-05 |
| 58 | 1 | -0.12 | 0.04 | -0.09 | 1.05e-04 | 1.44e-06 | -9.84e-05 |
| 58 | 5 | -0.06 | 0.04 | -0.11 | 4.76e-05 | 1.00e-06 | -1.27e-04 |
| 58 | 15 | -0.09 | 0.11 | 0.05 | -1.16e-04 | 0.0 | -9.29e-05 |
| 58 | 17 | -0.04 | 0.11 | 0.04 | -1.31e-04 | 1.16e-06 | -1.08e-04 |
| 58 | 19 | -0.14 | 0.04 | 0.01 | 4.34e-05 | 0.0 | -6.48e-05 |
| 58 | 39 | -0.08 | 0.09 | 0.03 | -6.29e-05 | 0.0 | -9.05e-05 |
| 58 | 41 | -0.06 | 0.09 | 0.02 | -7.05e-05 | 0.0 | -1.01e-04 |
| 58 | 42 | -0.10 | 0.04 | 6.53e-03 | 1.32e-05 | 0.0 | -7.28e-05 |
| 58 | 58 | -0.09 | 0.03 | -0.06 | 7.88e-05 | 1.05e-06 | -7.33e-05 |
| 58 | 61 | -0.05 | 0.04 | -0.06 | 2.37e-05 | 0.0 | -9.37e-05 |
| 58 | 62 | -0.09 | 0.04 | -0.05 | 5.54e-05 | 0.0 | -7.80e-05 |
| 58 | 64 | -0.05 | 0.04 | -0.06 | 2.37e-05 | 0.0 | -9.37e-05 |
| 58 | 65 | -0.07 | 0.05 | 4.47e-03 | -1.48e-05 | 0.0 | -9.21e-05 |
| 59 | 1 | -0.15 | 0.03 | -0.09 | 6.16e-05 | -2.36e-04 | -1.17e-04 |
| 59 | 5 | -0.06 | 0.04 | -0.11 | -1.03e-04 | 1.10e-04 | -1.29e-04 |
| 59 | 15 | -0.09 | 0.12 | 0.05 | -7.71e-05 | -1.00e-04 | -9.70e-05 |
| 59 | 17 | -0.04 | 0.12 | 0.04 | -8.78e-05 | 2.95e-05 | -1.14e-04 |
| 59 | 19 | -0.16 | 0.03 | 0.01 | 3.77e-05 | -2.55e-04 | -6.57e-05 |
| 59 | 39 | -0.08 | 0.09 | 0.03 | -3.67e-05 | -6.92e-05 | -9.41e-05 |
| 59 | 41 | -0.06 | 0.09 | 0.02 | -4.22e-05 | -2.56e-06 | -1.06e-04 |
| 59 | 42 | -0.12 | 0.04 | 6.28e-03 | 1.30e-05 | -1.49e-04 | -7.54e-05 |
| 59 | 58 | -0.11 | 0.02 | -0.06 | 5.00e-05 | -1.73e-04 | -8.63e-05 |
| 59 | 61 | -0.05 | 0.04 | -0.06 | -5.54e-05 | 5.24e-05 | -9.55e-05 |
| 59 | 62 | -0.10 | 0.03 | -0.05 | 3.60e-05 | -1.39e-04 | -8.88e-05 |
| 59 | 64 | -0.05 | 0.04 | -0.06 | -5.54e-05 | 5.24e-05 | -9.55e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 59 | 65 | -0.07 | 0.05 | 4.23e-03 | -5.75e-06 | -3.74e-05 | -9.62e-05 |
| 60 | 1 | -0.10 | 0.05 | -0.10 | -1.83e-05 | 0.0 | -8.79e-05 |
| 60 | 5 | -0.07 | 0.05 | -0.11 | -4.73e-05 | 0.0 | -1.25e-04 |
| 60 | 15 | -0.08 | 0.10 | 0.04 | -3.09e-04 | 0.0 | -7.46e-05 |
| 60 | 17 | -0.05 | 0.10 | 0.04 | -3.22e-04 | 0.0 | -8.91e-05 |
| 60 | 19 | -0.11 | 0.04 | -2.99e-03 | -9.13e-05 | 0.0 | -5.81e-05 |
| 60 | 39 | -0.07 | 0.08 | 0.02 | -2.43e-04 | 0.0 | -7.60e-05 |
| 60 | 41 | -0.05 | 0.08 | 0.02 | -2.50e-04 | 0.0 | -8.65e-05 |
| 60 | 42 | -0.09 | 0.04 | -2.16e-03 | -1.21e-04 | 0.0 | -6.49e-05 |
| 60 | 58 | -0.08 | 0.04 | -0.07 | -1.50e-05 | 0.0 | -6.53e-05 |
| 60 | 61 | -0.06 | 0.04 | -0.06 | -6.73e-05 | 0.0 | -9.03e-05 |
| 60 | 62 | -0.07 | 0.04 | -0.05 | -5.11e-05 | 0.0 | -6.95e-05 |
| 60 | 64 | -0.06 | 0.04 | -0.06 | -6.73e-05 | 0.0 | -9.03e-05 |
| 60 | 65 | -0.06 | 0.05 | 2.48e-03 | -1.60e-04 | 0.0 | -8.22e-05 |
| 61 | 1 | -0.08 | 0.05 | -0.10 | 1.84e-04 | -2.31e-04 | -1.06e-04 |
| 61 | 5 | -0.08 | 0.05 | -0.11 | 1.75e-04 | 9.39e-05 | -1.11e-04 |
| 61 | 14 | -0.07 | 0.07 | 0.04 | -2.12e-04 | -9.57e-05 | -7.26e-05 |
| 61 | 15 | -0.07 | 0.07 | 0.04 | -2.19e-04 | -9.70e-05 | -7.27e-05 |
| 61 | 19 | -0.09 | 0.03 | -2.64e-03 | -1.62e-05 | -2.50e-04 | -7.25e-05 |
| 61 | 38 | -0.06 | 0.06 | 0.02 | -1.52e-04 | -6.71e-05 | -7.42e-05 |
| 61 | 39 | -0.06 | 0.06 | 0.02 | -1.54e-04 | -6.75e-05 | -7.42e-05 |
| 61 | 42 | -0.07 | 0.03 | -1.79e-03 | -3.57e-05 | -1.46e-04 | -7.19e-05 |
| 61 | 58 | -0.06 | 0.04 | -0.07 | 1.32e-04 | -1.70e-04 | -7.89e-05 |
| 61 | 59 | -0.06 | 0.04 | -0.05 | 8.22e-05 | -1.37e-04 | -7.94e-05 |
| 61 | 61 | -0.06 | 0.04 | -0.06 | 7.70e-05 | 4.37e-05 | -8.19e-05 |
| 61 | 62 | -0.06 | 0.04 | -0.05 | 8.22e-05 | -1.37e-04 | -7.94e-05 |
| 61 | 64 | -0.06 | 0.04 | -0.06 | 7.70e-05 | 4.37e-05 | -8.19e-05 |
| 61 | 65 | -0.06 | 0.04 | 2.86e-03 | -6.74e-05 | -3.70e-05 | -8.09e-05 |
| 62 | 1 | -0.12 | 0.04 | -0.10 | 8.93e-05 | 0.0 | -9.58e-05 |
| 62 | 5 | -0.06 | 0.05 | -0.11 | 3.33e-05 | 0.0 | -1.41e-04 |
| 62 | 15 | -0.09 | 0.12 | 0.04 | -1.27e-04 | 0.0 | -8.97e-05 |
| 62 | 17 | -0.04 | 0.12 | 0.04 | -1.42e-04 | 0.0 | -1.06e-04 |
| 62 | 19 | -0.14 | 0.04 | -3.29e-03 | 3.73e-05 | 0.0 | -6.21e-05 |
| 62 | 39 | -0.08 | 0.09 | 0.02 | -7.20e-05 | 0.0 | -8.81e-05 |
| 62 | 41 | -0.06 | 0.09 | 0.02 | -7.97e-05 | 0.0 | -9.98e-05 |
| 62 | 42 | -0.10 | 0.05 | -2.47e-03 | 6.41e-06 | 0.0 | -7.12e-05 |
| 62 | 58 | -0.09 | 0.03 | -0.07 | 6.75e-05 | 0.0 | -7.11e-05 |
| 62 | 61 | -0.05 | 0.04 | -0.06 | 1.40e-05 | 0.0 | -1.01e-04 |
| 62 | 62 | -0.09 | 0.04 | -0.05 | 4.51e-05 | 0.0 | -7.62e-05 |
| 62 | 64 | -0.05 | 0.04 | -0.06 | 1.40e-05 | 0.0 | -1.01e-04 |
| 62 | 65 | -0.07 | 0.06 | 2.17e-03 | -2.22e-05 | 0.0 | -9.14e-05 |
| 63 | 1 | -0.15 | 0.04 | -0.10 | 5.02e-05 | -2.38e-04 | -1.17e-04 |
| 63 | 5 | -0.06 | 0.05 | -0.11 | -7.31e-05 | 1.12e-04 | -1.30e-04 |
| 63 | 15 | -0.09 | 0.13 | 0.04 | -7.06e-05 | -9.80e-05 | -9.55e-05 |
| 63 | 17 | -0.04 | 0.13 | 0.04 | -8.33e-05 | 3.14e-05 | -1.12e-04 |
| 63 | 19 | -0.16 | 0.03 | -3.53e-03 | 4.30e-05 | -2.55e-04 | -6.55e-05 |
| 63 | 39 | -0.08 | 0.10 | 0.02 | -3.18e-05 | -6.79e-05 | -9.31e-05 |
| 63 | 41 | -0.06 | 0.10 | 0.02 | -3.82e-05 | -1.36e-06 | -1.05e-04 |
| 63 | 42 | -0.12 | 0.05 | -2.72e-03 | 1.69e-05 | -1.48e-04 | -7.52e-05 |
| 63 | 58 | -0.11 | 0.03 | -0.07 | 4.18e-05 | -1.75e-04 | -8.64e-05 |
| 63 | 61 | -0.05 | 0.04 | -0.06 | -3.79e-05 | 5.40e-05 | -9.62e-05 |
| 63 | 62 | -0.10 | 0.04 | -0.05 | 3.06e-05 | -1.41e-04 | -8.88e-05 |
| 63 | 64 | -0.05 | 0.04 | -0.06 | -3.79e-05 | 5.40e-05 | -9.62e-05 |
| 63 | 65 | -0.07 | 0.06 | 1.93e-03 | -2.97e-06 | -3.69e-05 | -9.59e-05 |
| 64 | 1 | -0.10 | 0.06 | -0.12 | -1.17e-05 | 0.0 | -8.87e-05 |
| 64 | 5 | -0.07 | 0.06 | -0.10 | -6.66e-05 | 0.0 | -1.35e-04 |
| 64 | 10 | -0.08 | 0.01 | -0.04 | 4.39e-06 | 0.0 | -7.76e-05 |
| 64 | 17 | -0.05 | 0.11 | 0.04 | -3.38e-04 | 0.0 | -9.17e-05 |
| 64 | 19 | -0.11 | 0.04 | -0.03 | -9.15e-05 | 0.0 | -5.88e-05 |
| 64 | 34 | -0.07 | 0.03 | -0.02 | -7.14e-05 | 0.0 | -8.04e-05 |
| 64 | 41 | -0.05 | 0.09 | 0.02 | -2.62e-04 | 0.0 | -8.89e-05 |
| 64 | 42 | -0.09 | 0.05 | -0.02 | -1.25e-04 | 0.0 | -6.65e-05 |
| 64 | 58 | -0.08 | 0.04 | -0.09 | -1.02e-05 | 0.0 | -6.57e-05 |
| 64 | 61 | -0.06 | 0.05 | -0.05 | -7.99e-05 | 0.0 | -9.65e-05 |
| 64 | 62 | -0.07 | 0.05 | -0.07 | -4.94e-05 | 0.0 | -7.05e-05 |
| 64 | 64 | -0.06 | 0.05 | -0.05 | -7.99e-05 | 0.0 | -9.65e-05 |
| 64 | 65 | -0.06 | 0.06 | -8.88e-04 | -1.67e-04 | 0.0 | -8.47e-05 |
| 65 | 1 | -0.12 | 0.05 | -0.12 | 7.00e-05 | 0.0 | -9.32e-05 |
| 65 | 5 | -0.06 | 0.06 | -0.10 | 2.26e-05 | 0.0 | -1.49e-04 |
| 65 | 10 | -0.09 | 6.50e-03 | -0.04 | 9.24e-05 | 0.0 | -7.92e-05 |
| 65 | 17 | -0.04 | 0.13 | 0.04 | -1.57e-04 | 0.0 | -1.07e-04 |
| 65 | 19 | -0.14 | 0.04 | -0.03 | 2.71e-05 | 0.0 | -6.27e-05 |
| 65 | 34 | -0.08 | 0.03 | -0.02 | 2.77e-05 | 0.0 | -8.51e-05 |
| 65 | 41 | -0.05 | 0.10 | 0.02 | -9.19e-05 | 0.0 | -1.01e-04 |
| 65 | 42 | -0.10 | 0.05 | -0.02 | -3.42e-06 | 0.0 | -7.23e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 65 | 58 | -0.09 | 0.04 | -0.09 | 5.34e-05 | 0.0 | -6.90e-05 |
| 65 | 61 | -0.05 | 0.05 | -0.05 | 5.64e-06 | 0.0 | -1.06e-04 |
| 65 | 62 | -0.09 | 0.05 | -0.07 | 3.20e-05 | 0.0 | -7.50e-05 |
| 65 | 64 | -0.05 | 0.05 | -0.05 | 5.64e-06 | 0.0 | -1.06e-04 |
| 65 | 65 | -0.07 | 0.07 | -1.20e-03 | -3.21e-05 | 0.0 | -9.29e-05 |
| 66 | 1 | -0.15 | 0.05 | -0.12 | 2.17e-05 | -2.46e-04 | -1.17e-04 |
| 66 | 5 | -0.06 | 0.06 | -0.10 | -2.17e-05 | 1.06e-04 | -1.32e-04 |
| 66 | 10 | -0.10 | -2.02e-03 | -0.04 | 7.94e-05 | -1.08e-04 | -8.09e-05 |
| 66 | 17 | -0.04 | 0.14 | 0.04 | -7.76e-05 | 3.26e-05 | -1.11e-04 |
| 66 | 19 | -0.16 | 0.04 | -0.03 | 5.00e-05 | -2.56e-04 | -6.57e-05 |
| 66 | 34 | -0.09 | 0.03 | -0.02 | 3.49e-05 | -7.40e-05 | -8.76e-05 |
| 66 | 41 | -0.06 | 0.11 | 0.02 | -3.31e-05 | -1.07e-06 | -1.05e-04 |
| 66 | 42 | -0.12 | 0.05 | -0.02 | 2.22e-05 | -1.49e-04 | -7.53e-05 |
| 66 | 58 | -0.11 | 0.04 | -0.09 | 2.08e-05 | -1.82e-04 | -8.67e-05 |
| 66 | 61 | -0.05 | 0.05 | -0.05 | -8.27e-06 | 5.05e-05 | -9.74e-05 |
| 66 | 62 | -0.10 | 0.04 | -0.07 | 1.58e-05 | -1.46e-04 | -8.91e-05 |
| 66 | 64 | -0.05 | 0.05 | -0.05 | -8.27e-06 | 5.05e-05 | -9.74e-05 |
| 66 | 65 | -0.07 | 0.07 | -1.43e-03 | 0.0 | -3.75e-05 | -9.62e-05 |
| 67 | 1 | -0.10 | 0.06 | -0.14 | -4.02e-06 | 0.0 | -9.23e-05 |
| 67 | 5 | -0.07 | 0.07 | -0.09 | -8.78e-05 | 0.0 | -1.35e-04 |
| 67 | 10 | -0.08 | 0.02 | -0.05 | 4.06e-06 | 0.0 | -8.05e-05 |
| 67 | 17 | -0.05 | 0.11 | 0.04 | -3.54e-04 | 0.0 | -9.30e-05 |
| 67 | 19 | -0.11 | 0.05 | -0.05 | -9.24e-05 | 0.0 | -6.21e-05 |
| 67 | 34 | -0.07 | 0.04 | -0.03 | -7.53e-05 | 0.0 | -8.30e-05 |
| 67 | 41 | -0.05 | 0.09 | 0.02 | -2.74e-04 | 0.0 | -9.06e-05 |
| 67 | 42 | -0.09 | 0.05 | -0.03 | -1.29e-04 | 0.0 | -6.93e-05 |
| 67 | 58 | -0.08 | 0.05 | -0.10 | -4.44e-06 | 0.0 | -6.83e-05 |
| 67 | 61 | -0.06 | 0.06 | -0.05 | -9.36e-05 | 0.0 | -9.67e-05 |
| 67 | 62 | -0.07 | 0.05 | -0.08 | -4.70e-05 | 0.0 | -7.29e-05 |
| 67 | 64 | -0.06 | 0.06 | -0.05 | -9.36e-05 | 0.0 | -9.67e-05 |
| 67 | 65 | -0.06 | 0.07 | -4.29e-03 | -1.75e-04 | 0.0 | -8.68e-05 |
| 68 | 1 | -0.08 | 0.07 | -0.14 | 2.54e-04 | -2.37e-04 | -1.09e-04 |
| 68 | 5 | -0.08 | 0.07 | -0.09 | 1.31e-04 | 9.20e-05 | -1.15e-04 |
| 68 | 10 | -0.07 | 0.02 | -0.05 | 1.17e-04 | -1.08e-04 | -8.45e-05 |
| 68 | 16 | -0.05 | 0.09 | 0.04 | -2.31e-04 | 3.33e-05 | -8.28e-05 |
| 68 | 19 | -0.09 | 0.04 | -0.05 | 5.59e-05 | -2.52e-04 | -7.50e-05 |
| 68 | 34 | -0.07 | 0.04 | -0.03 | 3.99e-05 | -7.45e-05 | -8.35e-05 |
| 68 | 40 | -0.05 | 0.07 | 0.02 | -1.58e-04 | -1.28e-06 | -8.37e-05 |
| 68 | 42 | -0.07 | 0.05 | -0.03 | 5.09e-06 | -1.48e-04 | -7.45e-05 |
| 68 | 58 | -0.06 | 0.05 | -0.10 | 1.83e-04 | -1.75e-04 | -8.08e-05 |
| 68 | 61 | -0.06 | 0.05 | -0.05 | 5.46e-05 | 4.23e-05 | -8.50e-05 |
| 68 | 62 | -0.06 | 0.05 | -0.08 | 1.23e-04 | -1.40e-04 | -8.15e-05 |
| 68 | 64 | -0.06 | 0.05 | -0.05 | 5.46e-05 | 4.23e-05 | -8.50e-05 |
| 68 | 65 | -0.06 | 0.05 | -3.89e-03 | -5.99e-05 | -3.81e-05 | -8.36e-05 |
| 69 | 1 | -0.12 | 0.06 | -0.14 | 5.74e-05 | 0.0 | -9.40e-05 |
| 69 | 5 | -0.06 | 0.08 | -0.09 | 2.03e-05 | 0.0 | -1.46e-04 |
| 69 | 10 | -0.09 | 0.01 | -0.05 | 8.91e-05 | 0.0 | -8.19e-05 |
| 69 | 17 | -0.04 | 0.14 | 0.04 | -1.69e-04 | 0.0 | -1.08e-04 |
| 69 | 19 | -0.14 | 0.05 | -0.05 | 1.84e-05 | 0.0 | -6.57e-05 |
| 69 | 34 | -0.08 | 0.04 | -0.03 | 2.22e-05 | 0.0 | -8.75e-05 |
| 69 | 41 | -0.05 | 0.11 | 0.02 | -1.02e-04 | 0.0 | -1.02e-04 |
| 69 | 42 | -0.10 | 0.06 | -0.03 | -1.15e-05 | 0.0 | -7.48e-05 |
| 69 | 58 | -0.09 | 0.05 | -0.10 | 4.41e-05 | 0.0 | -6.95e-05 |
| 69 | 61 | -0.05 | 0.06 | -0.05 | 2.41e-06 | 0.0 | -1.05e-04 |
| 69 | 62 | -0.09 | 0.05 | -0.08 | 2.30e-05 | 0.0 | -7.58e-05 |
| 69 | 64 | -0.05 | 0.06 | -0.05 | 2.41e-06 | 0.0 | -1.05e-04 |
| 69 | 65 | -0.07 | 0.08 | -4.61e-03 | -4.01e-05 | 0.0 | -9.48e-05 |
| 70 | 1 | -0.15 | 0.06 | -0.14 | -2.32e-05 | -2.55e-04 | -1.19e-04 |
| 70 | 5 | -0.06 | 0.07 | -0.09 | 1.78e-05 | 9.87e-05 | -1.33e-04 |
| 70 | 10 | -0.10 | 5.11e-03 | -0.05 | 8.19e-05 | -1.10e-04 | -8.20e-05 |
| 70 | 17 | -0.04 | 0.15 | 0.04 | -7.18e-05 | 3.36e-05 | -1.12e-04 |
| 70 | 19 | -0.16 | 0.05 | -0.05 | 5.85e-05 | -2.57e-04 | -6.61e-05 |
| 70 | 34 | -0.09 | 0.04 | -0.03 | 3.81e-05 | -7.57e-05 | -8.85e-05 |
| 70 | 41 | -0.06 | 0.12 | 0.02 | -2.80e-05 | 0.0 | -1.05e-04 |
| 70 | 42 | -0.12 | 0.06 | -0.03 | 2.84e-05 | -1.50e-04 | -7.58e-05 |
| 70 | 58 | -0.11 | 0.04 | -0.10 | -1.24e-05 | -1.88e-04 | -8.81e-05 |
| 70 | 61 | -0.05 | 0.06 | -0.05 | 1.47e-05 | 4.60e-05 | -9.79e-05 |
| 70 | 62 | -0.10 | 0.05 | -0.08 | -8.08e-06 | -1.51e-04 | -9.03e-05 |
| 70 | 64 | -0.05 | 0.06 | -0.05 | 1.47e-05 | 4.60e-05 | -9.79e-05 |
| 70 | 65 | -0.07 | 0.08 | -4.84e-03 | 5.04e-06 | -3.84e-05 | -9.68e-05 |
| 71 | 1 | -0.10 | 0.07 | -0.16 | 0.0 | 0.0 | -9.73e-05 |
| 71 | 5 | -0.07 | 0.08 | -0.08 | -9.92e-05 | 0.0 | -1.33e-04 |
| 71 | 17 | -0.05 | 0.12 | 0.05 | -3.63e-04 | 0.0 | -9.31e-05 |
| 71 | 18 | -0.11 | 0.05 | -0.07 | -9.20e-05 | 0.0 | -6.56e-05 |
| 71 | 19 | -0.11 | 0.05 | -0.06 | -9.32e-05 | 0.0 | -6.54e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 71 | 41 | -0.05 | 0.10 | 0.02 | -2.81e-04 | 0.0 | -9.12e-05 |
| 71 | 42 | -0.09 | 0.06 | -0.04 | -1.31e-04 | 0.0 | -7.16e-05 |
| 71 | 58 | -0.08 | 0.05 | -0.11 | -1.38e-06 | 0.0 | -7.20e-05 |
| 71 | 61 | -0.06 | 0.06 | -0.05 | -1.01e-04 | 0.0 | -9.59e-05 |
| 71 | 62 | -0.07 | 0.06 | -0.09 | -4.60e-05 | 0.0 | -7.60e-05 |
| 71 | 64 | -0.06 | 0.06 | -0.05 | -1.01e-04 | 0.0 | -9.59e-05 |
| 71 | 65 | -0.06 | 0.07 | -6.36e-03 | -1.80e-04 | 0.0 | -8.80e-05 |
| 72 | 1 | -0.08 | 0.08 | -0.15 | 2.70e-04 | -2.40e-04 | -1.09e-04 |
| 72 | 3 | -0.08 | 0.08 | -0.12 | 1.91e-04 | -7.89e-05 | -1.15e-04 |
| 72 | 5 | -0.08 | 0.08 | -0.08 | 1.20e-04 | 9.02e-05 | -1.15e-04 |
| 72 | 16 | -0.05 | 0.09 | 0.04 | -2.33e-04 | 3.34e-05 | -8.29e-05 |
| 72 | 18 | -0.09 | 0.05 | -0.07 | 8.16e-05 | -2.54e-04 | -7.54e-05 |
| 72 | 19 | -0.09 | 0.05 | -0.06 | 7.53e-05 | -2.55e-04 | -7.54e-05 |
| 72 | 40 | -0.05 | 0.08 | 0.02 | -1.58e-04 | -1.81e-06 | -8.39e-05 |
| 72 | 42 | -0.07 | 0.05 | -0.04 | 1.58e-05 | -1.50e-04 | -7.48e-05 |
| 72 | 58 | -0.06 | 0.06 | -0.11 | 1.96e-04 | -1.77e-04 | -8.08e-05 |
| 72 | 60 | -0.06 | 0.06 | -0.07 | 8.81e-05 | -5.29e-05 | -8.48e-05 |
| 72 | 61 | -0.06 | 0.06 | -0.05 | 4.85e-05 | 4.10e-05 | -8.50e-05 |
| 72 | 62 | -0.06 | 0.06 | -0.08 | 1.32e-04 | -1.43e-04 | -8.16e-05 |
| 72 | 63 | -0.06 | 0.06 | -0.07 | 8.81e-05 | -5.29e-05 | -8.48e-05 |
| 72 | 64 | -0.06 | 0.06 | -0.05 | 4.85e-05 | 4.10e-05 | -8.50e-05 |
| 72 | 65 | -0.06 | 0.06 | -5.96e-03 | -5.82e-05 | -3.92e-05 | -8.39e-05 |
| 73 | 1 | -0.12 | 0.07 | -0.16 | 5.31e-05 | 0.0 | -9.85e-05 |
| 73 | 5 | -0.06 | 0.08 | -0.09 | 2.04e-05 | 0.0 | -1.42e-04 |
| 73 | 17 | -0.04 | 0.14 | 0.05 | -1.77e-04 | 0.0 | -1.08e-04 |
| 73 | 18 | -0.14 | 0.05 | -0.07 | 1.22e-05 | 0.0 | -6.84e-05 |
| 73 | 19 | -0.14 | 0.05 | -0.06 | 1.43e-05 | 0.0 | -6.81e-05 |
| 73 | 41 | -0.05 | 0.12 | 0.02 | -1.08e-04 | 0.0 | -1.03e-04 |
| 73 | 42 | -0.10 | 0.07 | -0.04 | -1.55e-05 | 0.0 | -7.66e-05 |
| 73 | 58 | -0.09 | 0.05 | -0.11 | 4.09e-05 | 0.0 | -7.28e-05 |
| 73 | 61 | -0.05 | 0.07 | -0.05 | 1.38e-06 | 0.0 | -1.03e-04 |
| 73 | 62 | -0.09 | 0.06 | -0.09 | 1.96e-05 | 0.0 | -7.86e-05 |
| 73 | 64 | -0.05 | 0.07 | -0.05 | 1.38e-06 | 0.0 | -1.03e-04 |
| 73 | 65 | -0.07 | 0.08 | -6.68e-03 | -4.43e-05 | 0.0 | -9.60e-05 |
| 74 | 1 | -0.15 | 0.06 | -0.16 | -5.39e-05 | -2.56e-04 | -1.19e-04 |
| 74 | 5 | -0.06 | 0.08 | -0.09 | 3.37e-05 | 9.65e-05 | -1.33e-04 |
| 74 | 17 | -0.04 | 0.15 | 0.05 | -6.79e-05 | 3.44e-05 | -1.12e-04 |
| 74 | 18 | -0.16 | 0.05 | -0.07 | 6.11e-05 | -2.57e-04 | -6.66e-05 |
| 74 | 19 | -0.16 | 0.05 | -0.06 | 6.52e-05 | -2.58e-04 | -6.64e-05 |
| 74 | 41 | -0.06 | 0.12 | 0.02 | -2.46e-05 | 0.0 | -1.06e-04 |
| 74 | 42 | -0.12 | 0.06 | -0.04 | 3.32e-05 | -1.51e-04 | -7.62e-05 |
| 74 | 58 | -0.11 | 0.05 | -0.11 | -3.53e-05 | -1.89e-04 | -8.84e-05 |
| 74 | 61 | -0.05 | 0.07 | -0.05 | 2.42e-05 | 4.47e-05 | -9.81e-05 |
| 74 | 62 | -0.10 | 0.06 | -0.09 | -2.45e-05 | -1.51e-04 | -9.06e-05 |
| 74 | 64 | -0.05 | 0.07 | -0.05 | 2.42e-05 | 4.47e-05 | -9.81e-05 |
| 74 | 65 | -0.07 | 0.08 | -6.92e-03 | 8.02e-06 | -3.84e-05 | -9.73e-05 |
| 75 | 1 | -0.05 | 0.09 | -0.13 | 0.0 | -1.86e-04 | -1.49e-04 |
| 75 | 5 | -9.68e-03 | 0.10 | -0.02 | 0.0 | 1.99e-04 | -1.33e-04 |
| 75 | 16 | 3.89e-03 | 0.13 | 0.02 | 0.0 | 1.65e-04 | -8.97e-05 |
| 75 | 18 | -0.07 | 0.06 | -0.06 | 0.0 | -2.62e-04 | -8.17e-05 |
| 75 | 40 | -4.99e-03 | 0.11 | 7.28e-03 | 0.0 | 1.09e-04 | -9.16e-05 |
| 75 | 42 | -0.05 | 0.07 | -0.03 | 0.0 | -1.20e-04 | -8.17e-05 |
| 75 | 58 | -0.04 | 0.07 | -0.09 | 0.0 | -1.35e-04 | -1.10e-04 |
| 75 | 61 | -9.11e-03 | 0.07 | -9.55e-03 | 0.0 | 1.24e-04 | -9.68e-05 |
| 75 | 62 | -0.03 | 0.07 | -0.07 | 0.0 | -9.02e-05 | -1.06e-04 |
| 75 | 64 | -9.11e-03 | 0.07 | -9.55e-03 | 0.0 | 1.24e-04 | -9.68e-05 |
| 75 | 65 | -0.02 | 0.08 | -6.33e-03 | 0.0 | 4.50e-05 | -9.26e-05 |
| 76 | 1 | -0.03 | 0.10 | -0.13 | 4.39e-05 | -3.30e-04 | -1.19e-04 |
| 76 | 17 | -0.01 | 0.10 | 0.02 | -2.30e-04 | 1.15e-04 | -8.47e-05 |
| 76 | 18 | -0.05 | 0.06 | -0.06 | -1.63e-05 | -2.71e-04 | -7.48e-05 |
| 76 | 23 | -0.05 | 0.08 | -0.05 | -9.13e-05 | -2.48e-04 | -7.24e-05 |
| 76 | 41 | -0.01 | 0.09 | 8.70e-03 | -1.65e-04 | 6.30e-05 | -8.54e-05 |
| 76 | 42 | -0.04 | 0.06 | -0.03 | -5.23e-05 | -1.46e-04 | -7.50e-05 |
| 76 | 46 | -0.04 | 0.07 | -0.03 | -9.17e-05 | -1.35e-04 | -7.32e-05 |
| 76 | 58 | -0.02 | 0.07 | -0.09 | 3.28e-05 | -2.40e-04 | -8.78e-05 |
| 76 | 62 | -0.02 | 0.07 | -0.07 | 1.36e-06 | -1.80e-04 | -8.71e-05 |
| 76 | 65 | -0.02 | 0.07 | -5.97e-03 | -9.30e-05 | 2.46e-06 | -8.51e-05 |
| 77 | 1 | -0.07 | 0.09 | -0.13 | 0.0 | -2.66e-04 | -1.60e-04 |
| 77 | 5 | 1.27e-03 | 0.10 | -0.02 | 0.0 | 4.11e-05 | -1.45e-04 |
| 77 | 16 | 0.01 | 0.15 | 0.02 | 0.0 | 1.99e-05 | -1.09e-04 |
| 77 | 18 | -0.10 | 0.06 | -0.06 | 0.0 | -3.46e-04 | -8.06e-05 |
| 77 | 19 | -0.10 | 0.06 | -0.06 | 0.0 | -3.50e-04 | -8.03e-05 |
| 77 | 40 | -1.56e-03 | 0.12 | 6.97e-03 | 0.0 | -3.24e-05 | -1.06e-04 |
| 77 | 42 | -0.06 | 0.07 | -0.03 | 0.0 | -2.14e-04 | -8.51e-05 |
| 77 | 58 | -0.05 | 0.07 | -0.09 | 0.0 | -1.97e-04 | -1.18e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 77 | 61 | -3.43e-03 | 0.08 | -9.86e-03 | 0.0 | 1.52e-06 | -1.06e-04 |
| 77 | 62 | -0.04 | 0.07 | -0.07 | 0.0 | -1.69e-04 | -1.14e-04 |
| 77 | 64 | -3.43e-03 | 0.08 | -9.86e-03 | 0.0 | 1.52e-06 | -1.06e-04 |
| 77 | 65 | -0.02 | 0.09 | -6.64e-03 | 0.0 | -8.43e-05 | -1.02e-04 |
| 78 | 1 | -0.09 | 0.08 | -0.13 | 8.04e-05 | -1.40e-04 | -1.28e-04 |
| 78 | 5 | 5.12e-03 | 0.10 | -0.02 | -8.44e-06 | 6.77e-05 | -1.35e-04 |
| 78 | 16 | 0.01 | 0.17 | 0.02 | -2.31e-04 | 1.51e-05 | -1.12e-04 |
| 78 | 18 | -0.13 | 0.06 | -0.06 | -7.23e-06 | -2.53e-04 | -7.24e-05 |
| 78 | 19 | -0.13 | 0.06 | -0.06 | -7.19e-06 | -2.58e-04 | -7.22e-05 |
| 78 | 40 | -5.14e-03 | 0.14 | 6.71e-03 | -1.63e-04 | -2.59e-05 | -1.07e-04 |
| 78 | 42 | -0.08 | 0.08 | -0.03 | -4.55e-05 | -1.56e-04 | -8.00e-05 |
| 78 | 58 | -0.07 | 0.06 | -0.09 | 5.95e-05 | -1.07e-04 | -9.48e-05 |
| 78 | 61 | -3.34e-03 | 0.08 | -0.01 | -2.68e-05 | 1.90e-05 | -9.99e-05 |
| 78 | 62 | -0.06 | 0.07 | -0.07 | 2.25e-05 | -9.61e-05 | -9.59e-05 |
| 78 | 64 | -3.34e-03 | 0.08 | -0.01 | -2.68e-05 | 1.90e-05 | -9.99e-05 |
| 78 | 65 | -0.03 | 0.10 | -6.91e-03 | -8.86e-05 | -6.47e-05 | -9.93e-05 |
| 79 | 1 | -0.10 | 0.09 | -0.20 | 1.22e-05 | 0.0 | -9.92e-05 |
| 79 | 5 | -0.07 | 0.10 | -0.07 | -1.25e-04 | 0.0 | -1.27e-04 |
| 79 | 17 | -0.05 | 0.14 | 0.05 | -3.98e-04 | 0.0 | -9.84e-05 |
| 79 | 18 | -0.11 | 0.06 | -0.11 | -9.30e-05 | 0.0 | -7.10e-05 |
| 79 | 19 | -0.11 | 0.06 | -0.11 | -9.42e-05 | 0.0 | -7.11e-05 |
| 79 | 41 | -0.05 | 0.12 | 0.02 | -3.08e-04 | 0.0 | -9.67e-05 |
| 79 | 42 | -0.09 | 0.07 | -0.06 | -1.40e-04 | 0.0 | -7.63e-05 |
| 79 | 58 | -0.08 | 0.06 | -0.14 | 7.83e-06 | 0.0 | -7.36e-05 |
| 79 | 61 | -0.06 | 0.08 | -0.04 | -1.19e-04 | 0.0 | -9.39e-05 |
| 79 | 62 | -0.07 | 0.07 | -0.11 | -4.33e-05 | 0.0 | -7.83e-05 |
| 79 | 64 | -0.06 | 0.08 | -0.04 | -1.19e-04 | 0.0 | -9.39e-05 |
| 79 | 65 | -0.06 | 0.09 | -0.01 | -1.97e-04 | 0.0 | -9.24e-05 |
| 80 | 1 | -0.12 | 0.08 | -0.20 | 3.03e-05 | 0.0 | -1.08e-04 |
| 80 | 5 | -0.06 | 0.11 | -0.07 | 1.32e-05 | 0.0 | -1.41e-04 |
| 80 | 17 | -0.04 | 0.16 | 0.05 | -2.03e-04 | 0.0 | -1.21e-04 |
| 80 | 18 | -0.14 | 0.07 | -0.11 | 3.80e-06 | 0.0 | -7.71e-05 |
| 80 | 19 | -0.14 | 0.07 | -0.11 | 6.05e-06 | 0.0 | -7.71e-05 |
| 80 | 41 | -0.05 | 0.14 | 0.02 | -1.28e-04 | 0.0 | -1.15e-04 |
| 80 | 42 | -0.10 | 0.08 | -0.06 | -2.59e-05 | 0.0 | -8.51e-05 |
| 80 | 58 | -0.09 | 0.06 | -0.14 | 2.43e-05 | 0.0 | -7.96e-05 |
| 80 | 61 | -0.05 | 0.08 | -0.04 | -5.76e-06 | 0.0 | -1.05e-04 |
| 80 | 62 | -0.09 | 0.07 | -0.11 | 3.74e-06 | 0.0 | -8.59e-05 |
| 80 | 64 | -0.05 | 0.08 | -0.04 | -5.76e-06 | 0.0 | -1.05e-04 |
| 80 | 65 | -0.07 | 0.10 | -0.01 | -5.79e-05 | 0.0 | -1.05e-04 |
| 81 | 1 | -0.15 | 0.09 | -0.20 | -1.01e-04 | -2.40e-04 | -1.18e-04 |
| 81 | 5 | -0.06 | 0.10 | -0.07 | 7.46e-05 | 9.61e-05 | -1.33e-04 |
| 81 | 16 | -0.04 | 0.17 | 0.05 | -4.45e-05 | 3.82e-05 | -1.19e-04 |
| 81 | 18 | -0.16 | 0.06 | -0.11 | 1.01e-04 | -2.60e-04 | -6.71e-05 |
| 81 | 19 | -0.16 | 0.06 | -0.11 | 1.05e-04 | -2.61e-04 | -6.70e-05 |
| 81 | 40 | -0.05 | 0.14 | 0.02 | 0.0 | 1.91e-06 | -1.10e-04 |
| 81 | 42 | -0.12 | 0.08 | -0.06 | 6.41e-05 | -1.51e-04 | -7.76e-05 |
| 81 | 58 | -0.11 | 0.06 | -0.15 | -7.12e-05 | -1.77e-04 | -8.71e-05 |
| 81 | 61 | -0.05 | 0.08 | -0.04 | 5.17e-05 | 4.47e-05 | -9.90e-05 |
| 81 | 62 | -0.10 | 0.07 | -0.11 | -4.59e-05 | -1.42e-04 | -9.03e-05 |
| 81 | 64 | -0.05 | 0.08 | -0.04 | 5.17e-05 | 4.47e-05 | -9.90e-05 |
| 81 | 65 | -0.07 | 0.10 | -0.01 | 2.99e-05 | -3.71e-05 | -1.00e-04 |
| 82 | 1 | -0.04 | 0.03 | -0.02 | -9.65e-06 | -2.97e-04 | -6.70e-05 |
| 82 | 5 | -0.01 | 0.03 | -0.09 | -7.42e-06 | 5.56e-05 | -7.07e-05 |
| 82 | 14 | -0.03 | 0.08 | -0.03 | -6.59e-06 | -1.19e-04 | -5.48e-05 |
| 82 | 19 | -0.08 | 0.02 | 0.02 | -8.97e-06 | -3.65e-04 | -3.79e-05 |
| 82 | 24 | 0.04 | 0.04 | -0.05 | -2.17e-06 | 2.35e-04 | -6.97e-05 |
| 82 | 38 | -0.03 | 0.06 | -0.02 | -6.17e-06 | -9.30e-05 | -5.19e-05 |
| 82 | 42 | -0.05 | 0.03 | -2.54e-04 | -7.45e-06 | -2.19e-04 | -4.08e-05 |
| 82 | 48 | 0.01 | 0.04 | -0.04 | -3.69e-06 | 8.98e-05 | -6.69e-05 |
| 82 | 58 | -0.03 | 0.02 | -0.01 | -7.19e-06 | -2.19e-04 | -4.95e-05 |
| 82 | 61 | -0.01 | 0.03 | -0.05 | -5.54e-06 | 1.51e-05 | -5.26e-05 |
| 82 | 62 | -0.03 | 0.02 | -0.01 | -6.78e-06 | -1.81e-04 | -5.05e-05 |
| 82 | 64 | -0.01 | 0.03 | -0.05 | -5.54e-06 | 1.51e-05 | -5.26e-05 |
| 82 | 65 | -0.02 | 0.03 | -0.02 | -5.57e-06 | -6.50e-05 | -5.38e-05 |
| 83 | 1 | -0.02 | 0.03 | -0.02 | 6.02e-05 | -2.02e-04 | -1.11e-04 |
| 83 | 5 | -0.02 | 0.03 | -0.09 | 1.84e-05 | 1.60e-04 | -1.08e-04 |
| 83 | 15 | -0.02 | 0.06 | -0.02 | -1.77e-04 | -3.63e-05 | -8.09e-05 |
| 83 | 22 | -0.05 | 0.04 | 5.79e-03 | -8.07e-05 | -2.18e-04 | -7.24e-05 |
| 83 | 24 | 0.02 | 0.03 | -0.05 | -1.25e-04 | 2.27e-04 | -9.36e-05 |
| 83 | 39 | -0.02 | 0.04 | -0.02 | -1.25e-04 | -2.32e-05 | -7.94e-05 |
| 83 | 46 | -0.03 | 0.03 | -5.08e-03 | -7.50e-05 | -1.18e-04 | -7.21e-05 |
| 83 | 48 | 4.64e-03 | 0.03 | -0.04 | -9.74e-05 | 1.12e-04 | -9.28e-05 |
| 83 | 58 | -0.01 | 0.02 | -0.01 | 4.46e-05 | -1.50e-04 | -8.21e-05 |
| 83 | 61 | -0.01 | 0.03 | -0.05 | -6.72e-06 | 8.66e-05 | -8.08e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 83 | 62 | -0.01 | 0.02 | -0.01 | 1.65e-05 | -1.15e-04 | -8.22e-05 |
| 83 | 64 | -0.01 | 0.03 | -0.05 | -6.72e-06 | 8.66e-05 | -8.08e-05 |
| 83 | 65 | -0.01 | 0.03 | -0.02 | -6.80e-05 | -1.02e-05 | -8.24e-05 |
| 84 | 1 | -0.06 | 0.02 | -0.02 | 8.77e-06 | -1.73e-04 | -6.15e-05 |
| 84 | 5 | 2.90e-04 | 0.03 | -0.09 | 9.87e-06 | 1.71e-04 | -7.12e-05 |
| 84 | 17 | 9.65e-03 | 0.09 | -0.04 | 7.24e-06 | 1.43e-04 | -6.44e-05 |
| 84 | 19 | -0.10 | 0.02 | 0.02 | 4.81e-06 | -2.69e-04 | -2.55e-05 |
| 84 | 24 | 0.06 | 0.05 | -0.06 | 9.33e-06 | 3.21e-04 | -8.31e-05 |
| 84 | 39 | -0.03 | 0.07 | -0.02 | 6.32e-06 | -1.53e-06 | -4.81e-05 |
| 84 | 42 | -0.07 | 0.03 | -5.10e-04 | 5.78e-06 | -1.26e-04 | -3.41e-05 |
| 84 | 48 | 0.03 | 0.05 | -0.04 | 8.35e-06 | 1.79e-04 | -7.46e-05 |
| 84 | 58 | -0.05 | 0.02 | -0.01 | 6.51e-06 | -1.27e-04 | -4.54e-05 |
| 84 | 61 | -4.81e-03 | 0.03 | -0.06 | 7.26e-06 | 1.02e-04 | -5.30e-05 |
| 84 | 62 | -0.04 | 0.02 | -0.01 | 6.65e-06 | -8.89e-05 | -4.76e-05 |
| 84 | 64 | -4.81e-03 | 0.03 | -0.06 | 7.26e-06 | 1.02e-04 | -5.30e-05 |
| 84 | 65 | -0.02 | 0.04 | -0.02 | 7.07e-06 | 2.61e-05 | -5.43e-05 |
| 85 | 1 | -0.08 | 0.02 | -0.02 | 6.36e-05 | -1.14e-04 | -1.14e-04 |
| 85 | 5 | 0.02 | 0.03 | -0.10 | 4.00e-05 | 1.90e-04 | -1.26e-04 |
| 85 | 17 | 0.02 | 0.11 | -0.04 | -1.90e-04 | 1.47e-04 | -1.02e-04 |
| 85 | 19 | -0.12 | 0.02 | 0.02 | -1.36e-05 | -1.70e-04 | -6.43e-05 |
| 85 | 24 | 0.09 | 0.07 | -0.06 | -1.22e-04 | 2.66e-04 | -1.19e-04 |
| 85 | 39 | -0.03 | 0.08 | -0.02 | -1.26e-04 | 3.58e-05 | -8.58e-05 |
| 85 | 42 | -0.07 | 0.03 | -6.41e-04 | -3.95e-05 | -6.41e-05 | -7.21e-05 |
| 85 | 48 | 0.04 | 0.05 | -0.04 | -9.59e-05 | 1.61e-04 | -1.12e-04 |
| 85 | 58 | -0.06 | 0.01 | -0.01 | 4.69e-05 | -8.27e-05 | -8.43e-05 |
| 85 | 61 | 5.85e-03 | 0.03 | -0.06 | 5.17e-06 | 1.19e-04 | -9.26e-05 |
| 85 | 62 | -0.05 | 0.02 | -0.01 | 1.83e-05 | -5.00e-05 | -8.62e-05 |
| 85 | 64 | 5.85e-03 | 0.03 | -0.06 | 5.17e-06 | 1.19e-04 | -9.26e-05 |
| 85 | 65 | -0.02 | 0.04 | -0.02 | -6.78e-05 | 4.81e-05 | -9.19e-05 |
| 86 | 1 | -0.04 | 0.03 | -0.02 | 0.0 | -3.23e-04 | -8.06e-05 |
| 86 | 5 | -4.83e-03 | 0.03 | -0.09 | 0.0 | 3.70e-05 | -8.17e-05 |
| 86 | 15 | -0.03 | 0.08 | -0.04 | 0.0 | -1.38e-04 | -6.12e-05 |
| 86 | 19 | -0.07 | 0.02 | 0.02 | 0.0 | -3.89e-04 | -4.53e-05 |
| 86 | 24 | 0.04 | 0.04 | -0.06 | 0.0 | 2.27e-04 | -8.23e-05 |
| 86 | 39 | -0.02 | 0.06 | -0.03 | 0.0 | -1.11e-04 | -6.01e-05 |
| 86 | 42 | -0.05 | 0.03 | -3.01e-03 | 0.0 | -2.40e-04 | -4.93e-05 |
| 86 | 48 | 0.02 | 0.04 | -0.04 | 0.0 | 7.88e-05 | -7.83e-05 |
| 86 | 58 | -0.03 | 0.02 | -9.61e-03 | 0.0 | -2.39e-04 | -5.96e-05 |
| 86 | 61 | -6.25e-03 | 0.03 | -0.06 | 0.0 | 0.0 | -6.13e-05 |
| 86 | 62 | -0.02 | 0.02 | -0.01 | 0.0 | -1.99e-04 | -6.07e-05 |
| 86 | 64 | -6.25e-03 | 0.03 | -0.06 | 0.0 | 0.0 | -6.13e-05 |
| 86 | 65 | -0.01 | 0.03 | -0.02 | 0.0 | -8.07e-05 | -6.38e-05 |
| 87 | 1 | -0.01 | 0.03 | -0.02 | 5.92e-05 | -2.36e-04 | -1.06e-04 |
| 87 | 5 | -0.01 | 0.03 | -0.09 | 2.31e-05 | 1.26e-04 | -1.03e-04 |
| 87 | 14 | -0.02 | 0.06 | -0.04 | -1.80e-04 | -4.75e-05 | -7.39e-05 |
| 87 | 22 | -0.04 | 0.04 | 5.70e-05 | -8.29e-05 | -2.36e-04 | -6.54e-05 |
| 87 | 24 | 0.02 | 0.03 | -0.06 | -1.26e-04 | 2.06e-04 | -9.14e-05 |
| 87 | 38 | -0.01 | 0.04 | -0.03 | -1.28e-04 | -4.00e-05 | -7.39e-05 |
| 87 | 46 | -0.03 | 0.03 | -0.01 | -7.68e-05 | -1.38e-04 | -6.66e-05 |
| 87 | 48 | 0.01 | 0.03 | -0.04 | -9.87e-05 | 9.13e-05 | -8.99e-05 |
| 87 | 58 | -8.27e-03 | 0.02 | -9.27e-03 | 4.38e-05 | -1.74e-04 | -7.84e-05 |
| 87 | 61 | -8.02e-03 | 0.03 | -0.05 | -4.49e-06 | 6.24e-05 | -7.70e-05 |
| 87 | 62 | -8.23e-03 | 0.02 | -0.01 | 1.56e-05 | -1.39e-04 | -7.84e-05 |
| 87 | 64 | -8.02e-03 | 0.03 | -0.05 | -4.49e-06 | 6.24e-05 | -7.70e-05 |
| 87 | 65 | -8.11e-03 | 0.03 | -0.02 | -6.92e-05 | -3.15e-05 | -7.86e-05 |
| 88 | 1 | -0.06 | 0.02 | -0.02 | 0.0 | -1.44e-04 | -8.63e-05 |
| 88 | 5 | 5.89e-03 | 0.03 | -0.09 | 0.0 | 1.99e-04 | -9.21e-05 |
| 88 | 17 | 0.01 | 0.09 | -0.05 | 0.0 | 1.65e-04 | -8.13e-05 |
| 88 | 19 | -0.10 | 0.02 | 0.02 | 0.0 | -2.50e-04 | -4.71e-05 |
| 88 | 24 | 0.07 | 0.05 | -0.06 | 0.0 | 3.48e-04 | -9.43e-05 |
| 88 | 39 | -0.03 | 0.07 | -0.03 | 0.0 | 1.92e-05 | -6.67e-05 |
| 88 | 42 | -0.06 | 0.03 | -3.31e-03 | 0.0 | -1.06e-04 | -5.33e-05 |
| 88 | 48 | 0.03 | 0.05 | -0.04 | 0.0 | 2.04e-04 | -8.82e-05 |
| 88 | 58 | -0.04 | 0.02 | -9.88e-03 | 0.0 | -1.06e-04 | -6.38e-05 |
| 88 | 61 | -6.21e-04 | 0.03 | -0.06 | 0.0 | 1.24e-04 | -6.87e-05 |
| 88 | 62 | -0.04 | 0.02 | -0.01 | 0.0 | -6.73e-05 | -6.55e-05 |
| 88 | 64 | -6.21e-04 | 0.03 | -0.06 | 0.0 | 1.24e-04 | -6.87e-05 |
| 88 | 65 | -0.02 | 0.04 | -0.02 | 0.0 | 4.87e-05 | -7.07e-05 |
| 89 | 1 | -0.07 | 0.02 | -0.02 | 6.33e-05 | -7.62e-05 | -1.16e-04 |
| 89 | 5 | 0.03 | 0.03 | -0.09 | 2.96e-05 | 2.39e-04 | -1.26e-04 |
| 89 | 17 | 0.03 | 0.11 | -0.06 | -1.92e-04 | 1.75e-04 | -1.04e-04 |
| 89 | 19 | -0.12 | 0.02 | 0.02 | -1.00e-05 | -1.41e-04 | -6.75e-05 |
| 89 | 24 | 0.10 | 0.07 | -0.06 | -1.24e-04 | 2.90e-04 | -1.18e-04 |
| 89 | 39 | -0.02 | 0.08 | -0.03 | -1.26e-04 | 6.38e-05 | -8.86e-05 |
| 89 | 42 | -0.07 | 0.03 | -3.49e-03 | -3.73e-05 | -3.66e-05 | -7.44e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 89 | 48 | 0.05 | 0.05 | -0.04 | -9.65e-05 | 1.86e-04 | -1.11e-04 |
| 89 | 58 | -0.05 | 0.01 | -0.01 | 4.68e-05 | -5.48e-05 | -8.55e-05 |
| 89 | 61 | 0.01 | 0.03 | -0.06 | 0.0 | 1.53e-04 | -9.31e-05 |
| 89 | 62 | -0.04 | 0.02 | -0.01 | 1.84e-05 | -2.25e-05 | -8.73e-05 |
| 89 | 64 | 0.01 | 0.03 | -0.06 | 0.0 | 1.53e-04 | -9.31e-05 |
| 89 | 65 | -9.51e-03 | 0.04 | -0.02 | -6.69e-05 | 7.45e-05 | -9.29e-05 |
| 90 | 1 | -0.03 | 0.03 | -0.01 | 0.0 | -3.34e-04 | -9.90e-05 |
| 90 | 5 | 1.50e-03 | 0.03 | -0.09 | 0.0 | 3.05e-05 | -9.85e-05 |
| 90 | 15 | -0.02 | 0.08 | -0.05 | 0.0 | -1.42e-04 | -7.30e-05 |
| 90 | 16 | 0.01 | 0.08 | -0.07 | 0.0 | 4.09e-05 | -8.29e-05 |
| 90 | 19 | -0.07 | 0.02 | 0.02 | 0.0 | -3.99e-04 | -5.95e-05 |
| 90 | 39 | -0.02 | 0.06 | -0.04 | 0.0 | -1.15e-04 | -7.22e-05 |
| 90 | 40 | 1.70e-03 | 0.06 | -0.05 | 0.0 | -2.02e-05 | -8.04e-05 |
| 90 | 42 | -0.04 | 0.03 | -5.79e-03 | 0.0 | -2.48e-04 | -6.29e-05 |
| 90 | 58 | -0.02 | 0.02 | -6.41e-03 | 0.0 | -2.47e-04 | -7.33e-05 |
| 90 | 61 | -1.50e-03 | 0.03 | -0.06 | 0.0 | -4.14e-06 | -7.38e-05 |
| 90 | 62 | -0.02 | 0.02 | -0.01 | 0.0 | -2.07e-04 | -7.41e-05 |
| 90 | 64 | -1.50e-03 | 0.03 | -0.06 | 0.0 | -4.14e-06 | -7.38e-05 |
| 90 | 65 | -9.41e-03 | 0.03 | -0.03 | 0.0 | -8.57e-05 | -7.64e-05 |
| 91 | 1 | -3.37e-03 | 0.03 | -0.01 | 5.95e-05 | -2.53e-04 | -1.08e-04 |
| 91 | 5 | -3.23e-03 | 0.03 | -0.09 | 2.46e-05 | 1.09e-04 | -1.05e-04 |
| 91 | 14 | -0.01 | 0.06 | -0.05 | -1.81e-04 | -5.55e-05 | -7.48e-05 |
| 91 | 22 | -0.04 | 0.04 | -5.81e-03 | -8.36e-05 | -2.47e-04 | -6.66e-05 |
| 91 | 24 | 0.03 | 0.03 | -0.07 | -1.25e-04 | 1.97e-04 | -9.30e-05 |
| 91 | 38 | -9.37e-03 | 0.04 | -0.04 | -1.28e-04 | -4.92e-05 | -7.51e-05 |
| 91 | 40 | 2.89e-03 | 0.04 | -0.05 | -1.35e-04 | 1.99e-05 | -8.21e-05 |
| 91 | 46 | -0.02 | 0.03 | -0.02 | -7.71e-05 | -1.49e-04 | -6.80e-05 |
| 91 | 58 | -2.50e-03 | 0.02 | -6.06e-03 | 4.40e-05 | -1.88e-04 | -8.03e-05 |
| 91 | 61 | -2.39e-03 | 0.03 | -0.05 | -3.65e-06 | 4.99e-05 | -7.84e-05 |
| 91 | 62 | -2.46e-03 | 0.02 | -0.01 | 1.57e-05 | -1.51e-04 | -8.03e-05 |
| 91 | 64 | -2.39e-03 | 0.03 | -0.05 | -3.65e-06 | 4.99e-05 | -7.84e-05 |
| 91 | 65 | -2.36e-03 | 0.03 | -0.03 | -6.90e-05 | -4.21e-05 | -8.02e-05 |
| 92 | 1 | -0.05 | 0.02 | -0.01 | 0.0 | -1.26e-04 | -1.04e-04 |
| 92 | 5 | 0.01 | 0.03 | -0.09 | 0.0 | 2.23e-04 | -1.10e-04 |
| 92 | 16 | 0.02 | 0.09 | -0.07 | 0.0 | 1.84e-04 | -9.43e-05 |
| 92 | 17 | 0.02 | 0.09 | -0.07 | 0.0 | 1.82e-04 | -9.42e-05 |
| 92 | 19 | -0.10 | 0.02 | 0.02 | 0.0 | -2.39e-04 | -6.05e-05 |
| 92 | 39 | -0.02 | 0.07 | -0.04 | 0.0 | 3.42e-05 | -7.97e-05 |
| 92 | 40 | 6.56e-03 | 0.07 | -0.05 | 0.0 | 1.26e-04 | -8.98e-05 |
| 92 | 42 | -0.06 | 0.03 | -6.09e-03 | 0.0 | -9.29e-05 | -6.65e-05 |
| 92 | 58 | -0.04 | 0.02 | -6.68e-03 | 0.0 | -9.20e-05 | -7.72e-05 |
| 92 | 61 | 4.71e-03 | 0.03 | -0.06 | 0.0 | 1.40e-04 | -8.20e-05 |
| 92 | 62 | -0.03 | 0.02 | -0.01 | 0.0 | -5.30e-05 | -7.88e-05 |
| 92 | 64 | 4.71e-03 | 0.03 | -0.06 | 0.0 | 1.40e-04 | -8.20e-05 |
| 92 | 65 | -0.01 | 0.04 | -0.03 | 0.0 | 6.40e-05 | -8.35e-05 |
| 93 | 1 | -0.06 | 0.02 | -0.01 | 6.06e-05 | -5.89e-05 | -1.19e-04 |
| 93 | 5 | 0.04 | 0.03 | -0.09 | 2.40e-05 | 2.59e-04 | -1.29e-04 |
| 93 | 16 | 0.04 | 0.11 | -0.07 | -1.94e-04 | 1.88e-04 | -1.07e-04 |
| 93 | 17 | 0.04 | 0.11 | -0.07 | -1.94e-04 | 1.86e-04 | -1.07e-04 |
| 93 | 19 | -0.11 | 0.02 | 0.02 | -1.11e-05 | -1.27e-04 | -7.04e-05 |
| 93 | 39 | -0.02 | 0.08 | -0.04 | -1.28e-04 | 7.63e-05 | -9.11e-05 |
| 93 | 40 | 0.02 | 0.08 | -0.05 | -1.34e-04 | 1.39e-04 | -1.02e-04 |
| 93 | 42 | -0.06 | 0.03 | -6.27e-03 | -3.86e-05 | -2.29e-05 | -7.71e-05 |
| 93 | 58 | -0.04 | 0.01 | -6.85e-03 | 4.49e-05 | -4.19e-05 | -8.77e-05 |
| 93 | 61 | 0.02 | 0.03 | -0.06 | -3.76e-06 | 1.67e-04 | -9.52e-05 |
| 93 | 62 | -0.03 | 0.02 | -0.01 | 1.66e-05 | -9.63e-06 | -8.96e-05 |
| 93 | 64 | 0.02 | 0.03 | -0.06 | -3.76e-06 | 1.67e-04 | -9.52e-05 |
| 93 | 65 | -2.67e-03 | 0.04 | -0.03 | -6.83e-05 | 8.73e-05 | -9.52e-05 |
| 94 | 1 | -0.02 | 0.03 | -7.65e-03 | 0.0 | -3.35e-04 | -1.08e-04 |
| 94 | 5 | 8.81e-03 | 0.03 | -0.09 | 0.0 | 3.36e-05 | -1.08e-04 |
| 94 | 15 | -0.02 | 0.08 | -0.06 | 0.0 | -1.39e-04 | -7.86e-05 |
| 94 | 16 | 0.02 | 0.08 | -0.09 | 0.0 | 4.67e-05 | -8.85e-05 |
| 94 | 19 | -0.06 | 0.02 | 0.02 | 0.0 | -4.03e-04 | -6.60e-05 |
| 94 | 39 | -0.01 | 0.06 | -0.05 | 0.0 | -1.13e-04 | -7.81e-05 |
| 94 | 40 | 7.63e-03 | 0.06 | -0.06 | 0.0 | -1.63e-05 | -8.62e-05 |
| 94 | 42 | -0.04 | 0.03 | -8.61e-03 | 0.0 | -2.49e-04 | -6.92e-05 |
| 94 | 58 | -0.02 | 0.02 | -3.25e-03 | 0.0 | -2.48e-04 | -7.99e-05 |
| 94 | 61 | 3.98e-03 | 0.03 | -0.06 | 0.0 | -1.99e-06 | -8.04e-05 |
| 94 | 62 | -0.01 | 0.02 | -0.01 | 0.0 | -2.07e-04 | -8.06e-05 |
| 94 | 64 | 3.98e-03 | 0.03 | -0.06 | 0.0 | -1.99e-06 | -8.04e-05 |
| 94 | 65 | -3.75e-03 | 0.03 | -0.03 | 0.0 | -8.39e-05 | -8.26e-05 |
| 95 | 3 | 4.49e-03 | 0.03 | -0.04 | 3.76e-05 | -1.05e-04 | -1.08e-04 |
| 95 | 5 | 4.34e-03 | 0.03 | -0.09 | 2.26e-05 | 1.00e-04 | -1.06e-04 |
| 95 | 14 | -8.51e-03 | 0.06 | -0.07 | -1.83e-04 | -5.73e-05 | -7.53e-05 |
| 95 | 16 | 0.01 | 0.06 | -0.09 | -1.95e-04 | 7.64e-05 | -8.31e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 95 | 20 | 0.04 | 0.01 | -0.06 | -5.36e-05 | 1.63e-04 | -9.48e-05 |
| 95 | 38 | -4.00e-03 | 0.04 | -0.05 | -1.29e-04 | -5.20e-05 | -7.57e-05 |
| 95 | 40 | 8.76e-03 | 0.04 | -0.06 | -1.35e-04 | 1.74e-05 | -8.27e-05 |
| 95 | 44 | 0.02 | 0.02 | -0.04 | -6.08e-05 | 6.19e-05 | -9.33e-05 |
| 95 | 60 | 3.35e-03 | 0.03 | -0.03 | 3.46e-06 | -6.98e-05 | -8.05e-05 |
| 95 | 61 | 3.26e-03 | 0.03 | -0.06 | -4.87e-06 | 4.42e-05 | -7.94e-05 |
| 95 | 63 | 3.35e-03 | 0.03 | -0.03 | 3.46e-06 | -6.98e-05 | -8.05e-05 |
| 95 | 64 | 3.26e-03 | 0.03 | -0.06 | -4.87e-06 | 4.42e-05 | -7.94e-05 |
| 95 | 65 | 3.40e-03 | 0.03 | -0.03 | -6.96e-05 | -4.59e-05 | -8.11e-05 |
| 96 | 1 | -0.05 | 0.02 | -8.02e-03 | 0.0 | -1.16e-04 | -1.13e-04 |
| 96 | 5 | 0.02 | 0.03 | -0.09 | 0.0 | 2.38e-04 | -1.20e-04 |
| 96 | 16 | 0.03 | 0.09 | -0.09 | 0.0 | 1.95e-04 | -1.00e-04 |
| 96 | 17 | 0.03 | 0.09 | -0.08 | 0.0 | 1.94e-04 | -1.00e-04 |
| 96 | 19 | -0.09 | 0.02 | 0.02 | 0.0 | -2.33e-04 | -6.78e-05 |
| 96 | 39 | -0.02 | 0.07 | -0.05 | 0.0 | 4.36e-05 | -8.60e-05 |
| 96 | 40 | 0.01 | 0.07 | -0.06 | 0.0 | 1.37e-04 | -9.58e-05 |
| 96 | 42 | -0.05 | 0.03 | -8.91e-03 | 0.0 | -8.59e-05 | -7.34e-05 |
| 96 | 58 | -0.03 | 0.02 | -3.52e-03 | 0.0 | -8.47e-05 | -8.40e-05 |
| 96 | 61 | 0.01 | 0.03 | -0.06 | 0.0 | 1.51e-04 | -8.90e-05 |
| 96 | 62 | -0.03 | 0.02 | -0.01 | 0.0 | -4.52e-05 | -8.54e-05 |
| 96 | 64 | 0.01 | 0.03 | -0.06 | 0.0 | 1.51e-04 | -8.90e-05 |
| 96 | 65 | -4.24e-03 | 0.04 | -0.03 | 0.0 | 7.32e-05 | -8.98e-05 |
| 97 | 2 | -0.05 | 1.98e-03 | 6.46e-03 | 8.38e-05 | -8.23e-05 | -8.61e-05 |
| 97 | 5 | 0.05 | 0.03 | -0.09 | 2.28e-05 | 2.66e-04 | -1.30e-04 |
| 97 | 16 | 0.05 | 0.11 | -0.09 | -1.95e-04 | 1.91e-04 | -1.08e-04 |
| 97 | 17 | 0.05 | 0.11 | -0.08 | -1.96e-04 | 1.90e-04 | -1.08e-04 |
| 97 | 24 | 0.12 | 0.07 | -0.08 | -1.25e-04 | 3.06e-04 | -1.21e-04 |
| 97 | 39 | -9.57e-03 | 0.08 | -0.05 | -1.29e-04 | 8.10e-05 | -9.23e-05 |
| 97 | 40 | 0.03 | 0.08 | -0.06 | -1.35e-04 | 1.44e-04 | -1.03e-04 |
| 97 | 48 | 0.07 | 0.06 | -0.06 | -9.82e-05 | 2.03e-04 | -1.14e-04 |
| 97 | 58 | -0.04 | 0.01 | -3.70e-03 | 4.42e-05 | -3.69e-05 | -8.87e-05 |
| 97 | 61 | 0.03 | 0.03 | -0.06 | -4.56e-06 | 1.72e-04 | -9.64e-05 |
| 97 | 62 | -0.03 | 0.02 | -0.01 | 1.59e-05 | -4.54e-06 | -9.06e-05 |
| 97 | 64 | 0.03 | 0.03 | -0.06 | -4.56e-06 | 1.72e-04 | -9.64e-05 |
| 97 | 65 | 4.22e-03 | 0.04 | -0.03 | -6.89e-05 | 9.26e-05 | -9.62e-05 |
| 98 | 2 | -0.02 | 0.02 | 0.01 | 0.0 | -3.05e-04 | -7.98e-05 |
| 98 | 5 | 0.02 | 0.03 | -0.09 | 0.0 | 4.04e-05 | -1.10e-04 |
| 98 | 15 | -0.01 | 0.08 | -0.07 | 0.0 | -1.34e-04 | -7.91e-05 |
| 98 | 16 | 0.02 | 0.08 | -0.10 | 0.0 | 5.46e-05 | -8.92e-05 |
| 98 | 24 | 0.06 | 0.04 | -0.09 | 0.0 | 2.43e-04 | -1.00e-04 |
| 98 | 39 | -7.27e-03 | 0.06 | -0.06 | 0.0 | -1.08e-04 | -7.88e-05 |
| 98 | 40 | 0.01 | 0.06 | -0.07 | 0.0 | -1.03e-05 | -8.71e-05 |
| 98 | 48 | 0.04 | 0.04 | -0.06 | 0.0 | 8.82e-05 | -9.71e-05 |
| 98 | 58 | -0.01 | 0.02 | -1.37e-04 | 0.0 | -2.47e-04 | -8.08e-05 |
| 98 | 61 | 9.74e-03 | 0.03 | -0.06 | 0.0 | 2.72e-06 | -8.18e-05 |
| 98 | 64 | 9.74e-03 | 0.03 | -0.06 | 0.0 | 2.72e-06 | -8.18e-05 |
| 98 | 65 | 2.16e-03 | 0.03 | -0.04 | 0.0 | -8.01e-05 | -8.36e-05 |
| 99 | 1 | 0.01 | 0.03 | -2.96e-03 | 5.94e-05 | -2.67e-04 | -1.09e-04 |
| 99 | 5 | 0.01 | 0.03 | -0.09 | 2.23e-05 | 9.57e-05 | -1.05e-04 |
| 99 | 14 | -3.22e-03 | 0.06 | -0.08 | -1.84e-04 | -5.60e-05 | -7.35e-05 |
| 99 | 16 | 0.02 | 0.06 | -0.10 | -1.96e-04 | 7.84e-05 | -8.20e-05 |
| 99 | 20 | 0.05 | 0.01 | -0.06 | -5.26e-05 | 1.62e-04 | -9.56e-05 |
| 99 | 38 | 1.35e-03 | 0.04 | -0.06 | -1.29e-04 | -5.19e-05 | -7.44e-05 |
| 99 | 40 | 0.01 | 0.04 | -0.07 | -1.35e-04 | 1.79e-05 | -8.18e-05 |
| 99 | 44 | 0.03 | 0.02 | -0.05 | -5.99e-05 | 6.09e-05 | -9.35e-05 |
| 99 | 59 | 9.11e-03 | 0.02 | -9.01e-03 | 1.58e-05 | -1.60e-04 | -8.05e-05 |
| 99 | 61 | 8.90e-03 | 0.03 | -0.06 | -4.86e-06 | 4.15e-05 | -7.85e-05 |
| 99 | 62 | 9.11e-03 | 0.02 | -9.01e-03 | 1.58e-05 | -1.60e-04 | -8.05e-05 |
| 99 | 64 | 8.90e-03 | 0.03 | -0.06 | -4.86e-06 | 4.15e-05 | -7.85e-05 |
| 99 | 65 | 9.16e-03 | 0.03 | -0.04 | -6.89e-05 | -4.71e-05 | -8.05e-05 |
| 100 | 2 | -0.04 | 9.63e-03 | 0.01 | 0.0 | -1.36e-04 | -8.26e-05 |
| 100 | 5 | 0.03 | 0.03 | -0.09 | 0.0 | 2.51e-04 | -1.21e-04 |
| 100 | 16 | 0.04 | 0.09 | -0.10 | 0.0 | 2.06e-04 | -1.00e-04 |
| 100 | 17 | 0.04 | 0.09 | -0.10 | 0.0 | 2.04e-04 | -1.00e-04 |
| 100 | 24 | 0.09 | 0.05 | -0.09 | 0.0 | 3.91e-04 | -1.12e-04 |
| 100 | 39 | -9.91e-03 | 0.07 | -0.06 | 0.0 | 5.14e-05 | -8.66e-05 |
| 100 | 40 | 0.02 | 0.07 | -0.07 | 0.0 | 1.46e-04 | -9.62e-05 |
| 100 | 48 | 0.05 | 0.05 | -0.06 | 0.0 | 2.43e-04 | -1.07e-04 |
| 100 | 58 | -0.03 | 0.02 | -3.94e-04 | 0.0 | -7.95e-05 | -8.47e-05 |
| 100 | 61 | 0.02 | 0.03 | -0.06 | 0.0 | 1.60e-04 | -8.99e-05 |
| 100 | 62 | -0.02 | 0.02 | -9.65e-03 | 0.0 | -3.95e-05 | -8.61e-05 |
| 100 | 64 | 0.02 | 0.03 | -0.06 | 0.0 | 1.60e-04 | -8.99e-05 |
| 100 | 65 | 2.20e-03 | 0.04 | -0.04 | 0.0 | 8.07e-05 | -9.05e-05 |
| 101 | 5 | 0.05 | 0.03 | -0.09 | 2.08e-05 | 2.70e-04 | -1.30e-04 |
| 101 | 16 | 0.05 | 0.11 | -0.10 | -1.98e-04 | 1.94e-04 | -1.08e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 101 | 17 | 0.05 | 0.11 | -0.10 | -1.98e-04 | 1.93e-04 | -1.07e-04 |
| 101 | 24 | 0.13 | 0.07 | -0.09 | -1.27e-04 | 3.09e-04 | -1.19e-04 |
| 101 | 39 | -2.95e-03 | 0.08 | -0.06 | -1.31e-04 | 8.38e-05 | -9.24e-05 |
| 101 | 40 | 0.03 | 0.08 | -0.07 | -1.37e-04 | 1.47e-04 | -1.03e-04 |
| 101 | 48 | 0.07 | 0.06 | -0.06 | -9.98e-05 | 2.06e-04 | -1.13e-04 |
| 101 | 61 | 0.03 | 0.03 | -0.06 | -6.05e-06 | 1.75e-04 | -9.62e-05 |
| 101 | 64 | 0.03 | 0.03 | -0.06 | -6.05e-06 | 1.75e-04 | -9.62e-05 |
| 101 | 65 | 0.01 | 0.04 | -0.04 | -7.04e-05 | 9.57e-05 | -9.60e-05 |
| 102 | 5 | 0.02 | 0.03 | -0.09 | 0.0 | 4.48e-05 | -1.04e-04 |
| 102 | 15 | -7.86e-03 | 0.08 | -0.09 | 0.0 | -1.30e-04 | -7.57e-05 |
| 102 | 16 | 0.03 | 0.08 | -0.11 | 0.0 | 6.00e-05 | -8.46e-05 |
| 102 | 24 | 0.07 | 0.04 | -0.10 | 0.0 | 2.49e-04 | -9.39e-05 |
| 102 | 39 | -1.79e-03 | 0.06 | -0.07 | 0.0 | -1.05e-04 | -7.48e-05 |
| 102 | 40 | 0.02 | 0.06 | -0.08 | 0.0 | -6.44e-06 | -8.24e-05 |
| 102 | 48 | 0.04 | 0.04 | -0.07 | 0.0 | 9.27e-05 | -9.15e-05 |
| 102 | 61 | 0.02 | 0.03 | -0.06 | 0.0 | 5.65e-06 | -7.76e-05 |
| 102 | 64 | 0.02 | 0.03 | -0.06 | 0.0 | 5.65e-06 | -7.76e-05 |
| 102 | 65 | 7.96e-03 | 0.03 | -0.04 | 0.0 | -7.79e-05 | -7.90e-05 |
| 103 | 5 | 0.04 | 0.03 | -0.09 | 0.0 | 2.61e-04 | -1.13e-04 |
| 103 | 16 | 0.04 | 0.09 | -0.11 | 0.0 | 2.14e-04 | -9.51e-05 |
| 103 | 17 | 0.04 | 0.09 | -0.11 | 0.0 | 2.13e-04 | -9.49e-05 |
| 103 | 24 | 0.10 | 0.05 | -0.10 | 0.0 | 4.01e-04 | -1.09e-04 |
| 103 | 39 | -3.97e-03 | 0.07 | -0.07 | 0.0 | 5.78e-05 | -7.98e-05 |
| 103 | 40 | 0.03 | 0.07 | -0.08 | 0.0 | 1.53e-04 | -9.04e-05 |
| 103 | 48 | 0.06 | 0.05 | -0.07 | 0.0 | 2.51e-04 | -1.02e-04 |
| 103 | 61 | 0.02 | 0.03 | -0.06 | 0.0 | 1.67e-04 | -8.38e-05 |
| 103 | 64 | 0.02 | 0.03 | -0.06 | 0.0 | 1.67e-04 | -8.38e-05 |
| 103 | 65 | 8.44e-03 | 0.04 | -0.04 | 0.0 | 8.69e-05 | -8.42e-05 |
| 104 | 5 | 0.06 | 0.03 | -0.09 | 2.52e-05 | 2.75e-04 | -1.31e-04 |
| 104 | 16 | 0.06 | 0.11 | -0.11 | -1.94e-04 | 1.98e-04 | -1.10e-04 |
| 104 | 17 | 0.06 | 0.11 | -0.11 | -1.94e-04 | 1.96e-04 | -1.09e-04 |
| 104 | 24 | 0.14 | 0.07 | -0.10 | -1.20e-04 | 3.12e-04 | -1.24e-04 |
| 104 | 39 | 3.69e-03 | 0.08 | -0.07 | -1.29e-04 | 8.76e-05 | -9.25e-05 |
| 104 | 40 | 0.04 | 0.08 | -0.08 | -1.34e-04 | 1.50e-04 | -1.04e-04 |
| 104 | 48 | 0.08 | 0.06 | -0.07 | -9.44e-05 | 2.09e-04 | -1.16e-04 |
| 104 | 61 | 0.04 | 0.03 | -0.06 | -2.86e-06 | 1.79e-04 | -9.68e-05 |
| 104 | 64 | 0.04 | 0.03 | -0.06 | -2.86e-06 | 1.79e-04 | -9.68e-05 |
| 104 | 65 | 0.02 | 0.04 | -0.04 | -6.72e-05 | 9.94e-05 | -9.66e-05 |
| 105 | 1 | -0.03 | 0.06 | -0.05 | 0.0 | -2.14e-04 | -1.13e-04 |
| 105 | 3 | -0.02 | 0.06 | -0.05 | 3.31e-06 | -5.79e-05 | -1.19e-04 |
| 105 | 5 | -3.46e-03 | 0.06 | -0.05 | 4.69e-06 | 1.21e-04 | -1.24e-04 |
| 105 | 14 | -0.03 | 0.09 | -0.02 | 3.33e-06 | -7.17e-05 | -8.46e-05 |
| 105 | 17 | 6.43e-03 | 0.10 | -0.01 | 4.05e-06 | 1.11e-04 | -9.54e-05 |
| 105 | 19 | -0.07 | 0.04 | -7.94e-03 | 1.03e-06 | -3.34e-04 | -7.11e-05 |
| 105 | 38 | -0.02 | 0.08 | -0.01 | 2.93e-06 | -4.39e-05 | -8.45e-05 |
| 105 | 41 | -1.84e-03 | 0.08 | -0.01 | 3.37e-06 | 5.11e-05 | -9.31e-05 |
| 105 | 42 | -0.04 | 0.04 | -9.83e-03 | 1.71e-06 | -1.78e-04 | -7.52e-05 |
| 105 | 58 | -0.02 | 0.04 | -0.03 | 0.0 | -1.58e-04 | -8.38e-05 |
| 105 | 61 | -4.84e-03 | 0.05 | -0.03 | 3.24e-06 | 6.42e-05 | -9.13e-05 |
| 105 | 62 | -0.02 | 0.04 | -0.03 | 1.14e-06 | -1.22e-04 | -8.53e-05 |
| 105 | 63 | -0.01 | 0.05 | -0.03 | 2.48e-06 | -3.54e-05 | -8.85e-05 |
| 105 | 64 | -4.84e-03 | 0.05 | -0.03 | 3.24e-06 | 6.42e-05 | -9.13e-05 |
| 105 | 65 | -0.01 | 0.05 | -8.49e-03 | 2.61e-06 | -1.40e-05 | -8.95e-05 |
| 106 | 1 | -0.02 | 0.06 | -0.05 | 4.43e-05 | -1.09e-04 | -1.11e-04 |
| 106 | 3 | -0.02 | 0.06 | -0.05 | 2.50e-05 | 1.98e-05 | -1.10e-04 |
| 106 | 14 | -0.02 | 0.08 | -0.02 | -1.94e-04 | 1.32e-05 | -7.64e-05 |
| 106 | 17 | -3.19e-03 | 0.08 | -0.01 | -2.08e-04 | 9.66e-05 | -8.41e-05 |
| 106 | 23 | -0.04 | 0.05 | -0.01 | -9.46e-05 | -1.10e-04 | -6.88e-05 |
| 106 | 38 | -0.02 | 0.06 | -0.01 | -1.41e-04 | 1.95e-05 | -7.69e-05 |
| 106 | 41 | -7.05e-03 | 0.06 | -1.00e-02 | -1.48e-04 | 6.24e-05 | -8.39e-05 |
| 106 | 46 | -0.03 | 0.05 | -0.01 | -8.89e-05 | -4.22e-05 | -7.02e-05 |
| 106 | 58 | -0.01 | 0.04 | -0.03 | 3.29e-05 | -8.09e-05 | -8.22e-05 |
| 106 | 60 | -0.01 | 0.04 | -0.03 | -6.64e-06 | 1.72e-05 | -8.20e-05 |
| 106 | 62 | -0.01 | 0.04 | -0.03 | 4.06e-06 | -5.43e-05 | -8.23e-05 |
| 106 | 63 | -0.01 | 0.04 | -0.03 | -6.64e-06 | 1.72e-05 | -8.20e-05 |
| 106 | 65 | -0.01 | 0.04 | -7.88e-03 | -8.26e-05 | 2.56e-05 | -8.25e-05 |
| 107 | 1 | -0.05 | 0.05 | -0.05 | 1.47e-06 | -2.59e-04 | -1.16e-04 |
| 107 | 3 | -0.02 | 0.06 | -0.05 | 2.10e-06 | -8.28e-05 | -1.29e-04 |
| 107 | 5 | 7.22e-03 | 0.06 | -0.05 | 1.85e-06 | 1.14e-04 | -1.37e-04 |
| 107 | 14 | -0.03 | 0.11 | -0.02 | 2.06e-06 | -8.81e-05 | -9.48e-05 |
| 107 | 17 | 0.02 | 0.12 | -0.01 | 2.56e-06 | 1.00e-04 | -1.07e-04 |
| 107 | 19 | -0.10 | 0.04 | -8.57e-03 | 0.0 | -3.55e-04 | -7.46e-05 |
| 107 | 38 | -0.02 | 0.09 | -0.01 | 1.75e-06 | -5.91e-05 | -9.33e-05 |
| 107 | 41 | 2.29e-03 | 0.09 | -0.01 | 2.07e-06 | 3.90e-05 | -1.03e-04 |
| 107 | 42 | -0.06 | 0.05 | -0.01 | 0.0 | -1.97e-04 | -8.05e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 107 | 58 | -0.04 | 0.04 | -0.03 | 1.08e-06 | -1.90e-04 | -8.61e-05 |
| 107 | 61 | 6.47e-04 | 0.05 | -0.03 | 1.40e-06 | 5.71e-05 | -1.01e-04 |
| 107 | 62 | -0.03 | 0.04 | -0.03 | 1.19e-06 | -1.50e-04 | -8.89e-05 |
| 107 | 63 | -0.02 | 0.05 | -0.03 | 1.54e-06 | -5.20e-05 | -9.61e-05 |
| 107 | 64 | 6.47e-04 | 0.05 | -0.03 | 1.40e-06 | 5.71e-05 | -1.01e-04 |
| 107 | 65 | -0.01 | 0.06 | -9.11e-03 | 1.51e-06 | -2.75e-05 | -9.72e-05 |
| 108 | 1 | -0.08 | 0.05 | -0.05 | 6.62e-05 | -2.44e-04 | -1.21e-04 |
| 108 | 3 | -0.03 | 0.05 | -0.05 | 5.27e-05 | -5.30e-05 | -1.30e-04 |
| 108 | 5 | 0.02 | 0.06 | -0.05 | 1.68e-05 | 1.37e-04 | -1.33e-04 |
| 108 | 14 | -0.04 | 0.13 | -0.02 | -1.88e-04 | -3.37e-05 | -9.53e-05 |
| 108 | 17 | 0.02 | 0.14 | -0.01 | -2.03e-04 | 7.02e-05 | -1.10e-04 |
| 108 | 19 | -0.12 | 0.04 | -9.08e-03 | -1.56e-05 | -1.94e-04 | -7.16e-05 |
| 108 | 38 | -0.03 | 0.10 | -0.01 | -1.35e-04 | -2.32e-05 | -9.36e-05 |
| 108 | 41 | 5.50e-03 | 0.11 | -0.01 | -1.43e-04 | 3.15e-05 | -1.05e-04 |
| 108 | 42 | -0.07 | 0.05 | -0.01 | -4.41e-05 | -1.07e-04 | -7.89e-05 |
| 108 | 58 | -0.06 | 0.03 | -0.03 | 4.89e-05 | -1.78e-04 | -8.97e-05 |
| 108 | 61 | 6.61e-03 | 0.05 | -0.03 | -9.72e-06 | 7.48e-05 | -9.83e-05 |
| 108 | 62 | -0.05 | 0.04 | -0.03 | 1.77e-05 | -1.36e-04 | -9.17e-05 |
| 108 | 63 | -0.02 | 0.05 | -0.03 | 1.02e-05 | -3.06e-05 | -9.65e-05 |
| 108 | 64 | 6.61e-03 | 0.05 | -0.03 | -9.72e-06 | 7.48e-05 | -9.83e-05 |
| 108 | 65 | -0.02 | 0.07 | -9.56e-03 | -7.57e-05 | -1.13e-05 | -9.75e-05 |
| 109 | 1 | -0.02 | 0.06 | -0.04 | 0.0 | -2.12e-04 | -1.14e-04 |
| 109 | 3 | -9.76e-03 | 0.06 | -0.05 | 0.0 | -4.92e-05 | -1.19e-04 |
| 109 | 5 | 5.32e-03 | 0.06 | -0.05 | 0.0 | 1.34e-04 | -1.22e-04 |
| 109 | 14 | -0.02 | 0.10 | -0.03 | 0.0 | -6.28e-05 | -8.53e-05 |
| 109 | 17 | 0.01 | 0.10 | -0.03 | 0.0 | 1.22e-04 | -9.53e-05 |
| 109 | 19 | -0.06 | 0.04 | -9.34e-03 | 0.0 | -3.31e-04 | -7.23e-05 |
| 109 | 38 | -0.01 | 0.08 | -0.02 | 0.0 | -3.61e-05 | -8.48e-05 |
| 109 | 41 | 4.80e-03 | 0.08 | -0.02 | 0.0 | 6.00e-05 | -9.31e-05 |
| 109 | 42 | -0.04 | 0.04 | -0.01 | 0.0 | -1.74e-04 | -7.59e-05 |
| 109 | 58 | -0.02 | 0.04 | -0.03 | 0.0 | -1.57e-04 | -8.43e-05 |
| 109 | 61 | 1.63e-03 | 0.05 | -0.03 | 0.0 | 7.28e-05 | -9.02e-05 |
| 109 | 62 | -0.01 | 0.04 | -0.03 | 0.0 | -1.19e-04 | -8.56e-05 |
| 109 | 63 | -6.75e-03 | 0.05 | -0.03 | 0.0 | -2.88e-05 | -8.82e-05 |
| 109 | 64 | 1.63e-03 | 0.05 | -0.03 | 0.0 | 7.28e-05 | -9.02e-05 |
| 109 | 65 | -5.31e-03 | 0.05 | -0.01 | 0.0 | -7.05e-06 | -8.95e-05 |
| 110 | 1 | -8.72e-03 | 0.06 | -0.04 | 4.88e-05 | -1.05e-04 | -1.11e-04 |
| 110 | 3 | -8.53e-03 | 0.06 | -0.05 | 2.63e-05 | 2.61e-05 | -1.10e-04 |
| 110 | 14 | -0.02 | 0.08 | -0.03 | -1.96e-04 | 1.85e-05 | -7.67e-05 |
| 110 | 17 | 2.74e-03 | 0.08 | -0.03 | -2.11e-04 | 1.05e-04 | -8.44e-05 |
| 110 | 23 | -0.04 | 0.05 | -0.02 | -9.29e-05 | -1.10e-04 | -6.89e-05 |
| 110 | 38 | -0.01 | 0.06 | -0.02 | -1.41e-04 | 2.48e-05 | -7.71e-05 |
| 110 | 41 | -1.13e-03 | 0.06 | -0.02 | -1.49e-04 | 6.92e-05 | -8.40e-05 |
| 110 | 46 | -0.03 | 0.05 | -0.02 | -8.72e-05 | -3.93e-05 | -7.03e-05 |
| 110 | 58 | -6.46e-03 | 0.04 | -0.03 | 3.62e-05 | -7.84e-05 | -8.24e-05 |
| 110 | 60 | -6.32e-03 | 0.04 | -0.03 | -5.63e-06 | 2.20e-05 | -8.17e-05 |
| 110 | 62 | -6.42e-03 | 0.04 | -0.03 | 6.87e-06 | -5.11e-05 | -8.24e-05 |
| 110 | 63 | -6.32e-03 | 0.04 | -0.03 | -5.63e-06 | 2.20e-05 | -8.17e-05 |
| 110 | 65 | -6.32e-03 | 0.04 | -0.01 | -8.10e-05 | 3.08e-05 | -8.24e-05 |
| 111 | 1 | -0.05 | 0.05 | -0.05 | 0.0 | -2.56e-04 | -1.17e-04 |
| 111 | 3 | -0.02 | 0.06 | -0.05 | 0.0 | -7.54e-05 | -1.29e-04 |
| 111 | 5 | 0.02 | 0.06 | -0.05 | 0.0 | 1.23e-04 | -1.35e-04 |
| 111 | 14 | -0.03 | 0.11 | -0.03 | 0.0 | -8.12e-05 | -9.49e-05 |
| 111 | 17 | 0.02 | 0.12 | -0.03 | 0.0 | 1.08e-04 | -1.08e-04 |
| 111 | 19 | -0.09 | 0.04 | -9.83e-03 | 0.0 | -3.53e-04 | -7.45e-05 |
| 111 | 38 | -0.02 | 0.09 | -0.02 | 0.0 | -5.31e-05 | -9.34e-05 |
| 111 | 41 | 9.68e-03 | 0.09 | -0.02 | 0.0 | 4.60e-05 | -1.03e-04 |
| 111 | 42 | -0.05 | 0.05 | -0.01 | 0.0 | -1.93e-04 | -8.04e-05 |
| 111 | 58 | -0.03 | 0.04 | -0.03 | 0.0 | -1.88e-04 | -8.68e-05 |
| 111 | 61 | 7.83e-03 | 0.05 | -0.03 | 0.0 | 6.35e-05 | -9.94e-05 |
| 111 | 62 | -0.03 | 0.04 | -0.03 | 0.0 | -1.47e-04 | -8.94e-05 |
| 111 | 63 | -0.01 | 0.05 | -0.03 | 0.0 | -4.66e-05 | -9.58e-05 |
| 111 | 64 | 7.83e-03 | 0.05 | -0.03 | 0.0 | 6.35e-05 | -9.94e-05 |
| 111 | 65 | -6.71e-03 | 0.06 | -0.01 | 0.0 | -2.21e-05 | -9.73e-05 |
| 112 | 1 | -0.07 | 0.05 | -0.05 | 5.66e-05 | -2.38e-04 | -1.21e-04 |
| 112 | 3 | -0.02 | 0.05 | -0.05 | 3.44e-05 | -6.14e-05 | -1.30e-04 |
| 112 | 5 | 0.03 | 0.06 | -0.05 | 5.61e-06 | 1.17e-04 | -1.33e-04 |
| 112 | 14 | -0.03 | 0.13 | -0.03 | -1.96e-04 | -4.24e-05 | -9.49e-05 |
| 112 | 17 | 0.03 | 0.14 | -0.03 | -2.12e-04 | 6.27e-05 | -1.09e-04 |
| 112 | 19 | -0.12 | 0.04 | -0.01 | -1.71e-05 | -2.03e-04 | -7.19e-05 |
| 112 | 38 | -0.02 | 0.10 | -0.02 | -1.41e-04 | -3.10e-05 | -9.34e-05 |
| 112 | 41 | 0.01 | 0.11 | -0.02 | -1.49e-04 | 2.42e-05 | -1.04e-04 |
| 112 | 42 | -0.07 | 0.05 | -0.01 | -4.68e-05 | -1.15e-04 | -7.89e-05 |
| 112 | 58 | -0.05 | 0.03 | -0.03 | 4.19e-05 | -1.74e-04 | -8.95e-05 |
| 112 | 61 | 0.01 | 0.05 | -0.03 | -1.69e-05 | 6.20e-05 | -9.81e-05 |

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|---|---|---|---|---|---|---|---|
| 112 | 62 | -0.04 | 0.04 | -0.03 | 1.15e-05 | -1.35e-04 | -9.15e-05 |
| 112 | 63 | -0.01 | 0.05 | -0.03 | 0.0 | -3.70e-05 | -9.64e-05 |
| 112 | 64 | 0.01 | 0.05 | -0.03 | -1.69e-05 | 6.20e-05 | -9.81e-05 |
| 112 | 65 | -8.61e-03 | 0.07 | -0.02 | -7.98e-05 | -1.83e-05 | -9.74e-05 |
| 113 | 2 | -0.02 | 0.04 | -0.03 | 0.0 | -2.09e-04 | -8.24e-05 |
| 113 | 3 | -1.38e-03 | 0.06 | -0.05 | 0.0 | -3.93e-05 | -1.17e-04 |
| 113 | 5 | 0.01 | 0.06 | -0.05 | 0.0 | 1.48e-04 | -1.18e-04 |
| 113 | 16 | 0.02 | 0.10 | -0.05 | 0.0 | 1.36e-04 | -9.42e-05 |
| 113 | 17 | 0.02 | 0.10 | -0.04 | 0.0 | 1.34e-04 | -9.41e-05 |
| 113 | 24 | 0.06 | 0.07 | -0.03 | 0.0 | 3.30e-04 | -1.05e-04 |
| 113 | 40 | 0.01 | 0.08 | -0.03 | 0.0 | 7.05e-05 | -9.20e-05 |
| 113 | 41 | 0.01 | 0.08 | -0.03 | 0.0 | 6.98e-05 | -9.20e-05 |
| 113 | 48 | 0.03 | 0.06 | -0.02 | 0.0 | 1.71e-04 | -1.02e-04 |
| 113 | 58 | -0.01 | 0.04 | -0.03 | 0.0 | -1.55e-04 | -8.40e-05 |
| 113 | 60 | -5.12e-04 | 0.05 | -0.03 | 0.0 | -2.15e-05 | -8.69e-05 |
| 113 | 61 | 7.97e-03 | 0.05 | -0.03 | 0.0 | 8.24e-05 | -8.79e-05 |
| 113 | 62 | -8.30e-03 | 0.04 | -0.03 | 0.0 | -1.16e-04 | -8.51e-05 |
| 113 | 63 | -5.12e-04 | 0.05 | -0.03 | 0.0 | -2.15e-05 | -8.69e-05 |
| 113 | 64 | 7.97e-03 | 0.05 | -0.03 | 0.0 | 8.24e-05 | -8.79e-05 |
| 113 | 65 | 1.03e-03 | 0.05 | -0.02 | 0.0 | 0.0 | -8.85e-05 |
| 114 | 1 | -8.14e-04 | 0.06 | -0.04 | 5.03e-05 | -1.05e-04 | -1.11e-04 |
| 114 | 3 | -7.68e-04 | 0.06 | -0.05 | 2.71e-05 | 2.86e-05 | -1.09e-04 |
| 114 | 16 | 8.68e-03 | 0.08 | -0.04 | -2.11e-04 | 1.13e-04 | -8.43e-05 |
| 114 | 17 | 8.68e-03 | 0.08 | -0.04 | -2.11e-04 | 1.10e-04 | -8.43e-05 |
| 114 | 23 | -0.04 | 0.05 | -0.02 | -9.19e-05 | -1.08e-04 | -6.84e-05 |
| 114 | 40 | 4.79e-03 | 0.06 | -0.03 | -1.49e-04 | 7.45e-05 | -8.38e-05 |
| 114 | 41 | 4.79e-03 | 0.06 | -0.03 | -1.49e-04 | 7.37e-05 | -8.38e-05 |
| 114 | 46 | -0.02 | 0.05 | -0.02 | -8.63e-05 | -3.68e-05 | -6.99e-05 |
| 114 | 58 | -6.04e-04 | 0.04 | -0.03 | 3.73e-05 | -7.78e-05 | -8.23e-05 |
| 114 | 60 | -5.54e-04 | 0.04 | -0.03 | -4.97e-06 | 2.41e-05 | -8.13e-05 |
| 114 | 62 | -5.80e-04 | 0.04 | -0.02 | 7.93e-06 | -4.99e-05 | -8.22e-05 |
| 114 | 63 | -5.54e-04 | 0.04 | -0.03 | -4.97e-06 | 2.41e-05 | -8.13e-05 |
| 114 | 65 | -5.08e-04 | 0.04 | -0.02 | -8.02e-05 | 3.41e-05 | -8.21e-05 |
| 115 | 1 | -0.04 | 0.05 | -0.04 | 0.0 | -2.53e-04 | -1.18e-04 |
| 115 | 3 | -6.45e-03 | 0.06 | -0.05 | 0.0 | -6.90e-05 | -1.27e-04 |
| 115 | 5 | 0.03 | 0.06 | -0.05 | 0.0 | 1.30e-04 | -1.32e-04 |
| 115 | 16 | 0.03 | 0.12 | -0.05 | 0.0 | 1.18e-04 | -1.07e-04 |
| 115 | 17 | 0.03 | 0.12 | -0.04 | 0.0 | 1.16e-04 | -1.07e-04 |
| 115 | 24 | 0.09 | 0.08 | -0.03 | 0.0 | 3.17e-04 | -1.19e-04 |
| 115 | 40 | 0.02 | 0.09 | -0.03 | 0.0 | 5.29e-05 | -1.02e-04 |
| 115 | 41 | 0.02 | 0.09 | -0.03 | 0.0 | 5.24e-05 | -1.02e-04 |
| 115 | 48 | 0.05 | 0.07 | -0.02 | 0.0 | 1.57e-04 | -1.13e-04 |
| 115 | 58 | -0.03 | 0.04 | -0.03 | 0.0 | -1.86e-04 | -8.70e-05 |
| 115 | 60 | -3.48e-03 | 0.05 | -0.03 | 0.0 | -4.18e-05 | -9.47e-05 |
| 115 | 61 | 0.01 | 0.05 | -0.03 | 0.0 | 6.85e-05 | -9.71e-05 |
| 115 | 62 | -0.02 | 0.04 | -0.03 | 0.0 | -1.44e-04 | -8.94e-05 |
| 115 | 63 | -3.48e-03 | 0.05 | -0.03 | 0.0 | -4.18e-05 | -9.47e-05 |
| 115 | 64 | 0.01 | 0.05 | -0.03 | 0.0 | 6.85e-05 | -9.71e-05 |
| 115 | 65 | 2.27e-04 | 0.06 | -0.02 | 0.0 | -1.73e-05 | -9.64e-05 |
| 116 | 1 | -0.06 | 0.05 | -0.04 | 5.29e-05 | -2.36e-04 | -1.21e-04 |
| 116 | 3 | -0.01 | 0.05 | -0.05 | 2.85e-05 | -6.64e-05 | -1.29e-04 |
| 116 | 5 | 0.04 | 0.06 | -0.05 | 1.98e-06 | 1.06e-04 | -1.32e-04 |
| 116 | 16 | 0.04 | 0.14 | -0.05 | -2.14e-04 | 5.65e-05 | -1.09e-04 |
| 116 | 17 | 0.04 | 0.14 | -0.04 | -2.14e-04 | 5.62e-05 | -1.09e-04 |
| 116 | 19 | -0.11 | 0.04 | -0.01 | -1.76e-05 | -2.09e-04 | -7.22e-05 |
| 116 | 40 | 0.02 | 0.11 | -0.03 | -1.51e-04 | 1.83e-05 | -1.04e-04 |
| 116 | 41 | 0.02 | 0.11 | -0.03 | -1.51e-04 | 1.82e-05 | -1.04e-04 |
| 116 | 42 | -0.06 | 0.05 | -0.02 | -4.77e-05 | -1.21e-04 | -7.90e-05 |
| 116 | 58 | -0.04 | 0.03 | -0.03 | 3.92e-05 | -1.72e-04 | -8.93e-05 |
| 116 | 60 | -7.35e-03 | 0.05 | -0.03 | -4.38e-06 | -4.11e-05 | -9.61e-05 |
| 116 | 61 | 0.02 | 0.05 | -0.03 | -1.91e-05 | 5.46e-05 | -9.77e-05 |
| 116 | 62 | -0.03 | 0.04 | -0.03 | 9.17e-06 | -1.35e-04 | -9.12e-05 |
| 116 | 63 | -7.35e-03 | 0.05 | -0.03 | -4.38e-06 | -4.11e-05 | -9.61e-05 |
| 116 | 64 | 0.02 | 0.05 | -0.03 | -1.91e-05 | 5.46e-05 | -9.77e-05 |
| 116 | 65 | -1.70e-03 | 0.07 | -0.02 | -8.10e-05 | -2.39e-05 | -9.71e-05 |
| 117 | 3 | 6.86e-03 | 0.06 | -0.05 | 0.0 | -2.98e-05 | -1.15e-04 |
| 117 | 5 | 0.02 | 0.06 | -0.05 | 0.0 | 1.60e-04 | -1.16e-04 |
| 117 | 16 | 0.03 | 0.10 | -0.06 | 0.0 | 1.48e-04 | -9.29e-05 |
| 117 | 17 | 0.03 | 0.10 | -0.06 | 0.0 | 1.45e-04 | -9.28e-05 |
| 117 | 24 | 0.07 | 0.07 | -0.04 | 0.0 | 3.42e-04 | -1.04e-04 |
| 117 | 40 | 0.02 | 0.08 | -0.04 | 0.0 | 8.02e-05 | -9.08e-05 |
| 117 | 41 | 0.02 | 0.08 | -0.04 | 0.0 | 7.94e-05 | -9.08e-05 |
| 117 | 48 | 0.04 | 0.06 | -0.03 | 0.0 | 1.81e-04 | -1.01e-04 |
| 117 | 60 | 5.63e-03 | 0.05 | -0.03 | 0.0 | -1.43e-05 | -8.59e-05 |
| 117 | 61 | 0.01 | 0.05 | -0.03 | 0.0 | 9.12e-05 | -8.61e-05 |

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|---|---|---|---|---|---|---|---|
| 117 | 63 | 5.63e-03 | 0.05 | -0.03 | 0.0 | -1.43e-05 | -8.59e-05 |
| 117 | 64 | 0.01 | 0.05 | -0.03 | 0.0 | 9.12e-05 | -8.61e-05 |
| 117 | 65 | 7.29e-03 | 0.05 | -0.03 | 0.0 | 8.18e-06 | -8.74e-05 |
| 118 | 1 | 7.09e-03 | 0.06 | -0.04 | 5.01e-05 | -1.05e-04 | -1.11e-04 |
| 118 | 3 | 6.98e-03 | 0.06 | -0.05 | 2.56e-05 | 2.90e-05 | -1.09e-04 |
| 118 | 16 | 0.01 | 0.08 | -0.06 | -2.12e-04 | 1.17e-04 | -8.38e-05 |
| 118 | 20 | 0.04 | 0.03 | -0.02 | -6.89e-05 | 1.78e-04 | -9.51e-05 |
| 118 | 40 | 0.01 | 0.06 | -0.04 | -1.50e-04 | 7.72e-05 | -8.34e-05 |
| 118 | 44 | 0.03 | 0.04 | -0.02 | -7.45e-05 | 1.08e-04 | -9.39e-05 |
| 118 | 59 | 5.26e-03 | 0.04 | -0.02 | 7.68e-06 | -4.97e-05 | -8.23e-05 |
| 118 | 60 | 5.20e-03 | 0.04 | -0.03 | -5.90e-06 | 2.48e-05 | -8.12e-05 |
| 118 | 62 | 5.26e-03 | 0.04 | -0.02 | 7.68e-06 | -4.97e-05 | -8.23e-05 |
| 118 | 63 | 5.20e-03 | 0.04 | -0.03 | -5.90e-06 | 2.48e-05 | -8.12e-05 |
| 118 | 65 | 5.29e-03 | 0.04 | -0.03 | -8.06e-05 | 3.59e-05 | -8.19e-05 |
| 119 | 3 | 2.58e-03 | 0.06 | -0.05 | 0.0 | -6.21e-05 | -1.26e-04 |
| 119 | 5 | 0.04 | 0.06 | -0.05 | 0.0 | 1.37e-04 | -1.29e-04 |
| 119 | 16 | 0.04 | 0.12 | -0.06 | 0.0 | 1.26e-04 | -1.06e-04 |
| 119 | 17 | 0.04 | 0.12 | -0.06 | 0.0 | 1.24e-04 | -1.05e-04 |
| 119 | 24 | 0.10 | 0.08 | -0.04 | 0.0 | 3.26e-04 | -1.17e-04 |
| 119 | 40 | 0.02 | 0.09 | -0.04 | 0.0 | 5.95e-05 | -1.01e-04 |
| 119 | 41 | 0.02 | 0.09 | -0.04 | 0.0 | 5.90e-05 | -1.01e-04 |
| 119 | 48 | 0.06 | 0.07 | -0.03 | 0.0 | 1.64e-04 | -1.12e-04 |
| 119 | 60 | 3.25e-03 | 0.05 | -0.03 | 0.0 | -3.68e-05 | -9.38e-05 |
| 119 | 61 | 0.02 | 0.05 | -0.03 | 0.0 | 7.41e-05 | -9.53e-05 |
| 119 | 63 | 3.25e-03 | 0.05 | -0.03 | 0.0 | -3.68e-05 | -9.38e-05 |
| 119 | 64 | 0.02 | 0.05 | -0.03 | 0.0 | 7.41e-05 | -9.53e-05 |
| 119 | 65 | 7.09e-03 | 0.06 | -0.03 | 0.0 | -1.23e-05 | -9.54e-05 |
| 120 | 2 | -0.05 | 0.02 | -0.03 | 7.98e-05 | -2.22e-04 | -8.63e-05 |
| 120 | 3 | -3.54e-03 | 0.05 | -0.05 | 2.58e-05 | -6.98e-05 | -1.29e-04 |
| 120 | 5 | 0.05 | 0.06 | -0.05 | 0.0 | 9.96e-05 | -1.32e-04 |
| 120 | 16 | 0.05 | 0.14 | -0.06 | -2.16e-04 | 5.11e-05 | -1.09e-04 |
| 120 | 17 | 0.05 | 0.14 | -0.06 | -2.16e-04 | 5.09e-05 | -1.09e-04 |
| 120 | 24 | 0.12 | 0.09 | -0.04 | -1.46e-04 | 1.56e-04 | -1.22e-04 |
| 120 | 40 | 0.03 | 0.11 | -0.04 | -1.52e-04 | 1.34e-05 | -1.04e-04 |
| 120 | 41 | 0.03 | 0.11 | -0.04 | -1.52e-04 | 1.34e-05 | -1.04e-04 |
| 120 | 48 | 0.07 | 0.08 | -0.03 | -1.15e-04 | 6.85e-05 | -1.15e-04 |
| 120 | 58 | -0.04 | 0.03 | -0.03 | 3.80e-05 | -1.72e-04 | -8.91e-05 |
| 120 | 60 | -5.06e-04 | 0.05 | -0.03 | -6.05e-06 | -4.41e-05 | -9.60e-05 |
| 120 | 61 | 0.03 | 0.05 | -0.03 | -2.00e-05 | 5.00e-05 | -9.75e-05 |
| 120 | 63 | -5.06e-04 | 0.05 | -0.03 | -6.05e-06 | -4.41e-05 | -9.60e-05 |
| 120 | 64 | 0.03 | 0.05 | -0.03 | -2.00e-05 | 5.00e-05 | -9.75e-05 |
| 120 | 65 | 5.22e-03 | 0.07 | -0.03 | -8.17e-05 | -2.82e-05 | -9.71e-05 |
| 121 | 5 | 0.03 | 0.06 | -0.05 | 0.0 | 1.72e-04 | -1.15e-04 |
| 121 | 16 | 0.03 | 0.10 | -0.08 | 0.0 | 1.59e-04 | -9.27e-05 |
| 121 | 17 | 0.03 | 0.10 | -0.07 | 0.0 | 1.57e-04 | -9.26e-05 |
| 121 | 24 | 0.07 | 0.07 | -0.05 | 0.0 | 3.55e-04 | -1.04e-04 |
| 121 | 40 | 0.02 | 0.08 | -0.05 | 0.0 | 8.98e-05 | -9.07e-05 |
| 121 | 41 | 0.02 | 0.08 | -0.05 | 0.0 | 8.90e-05 | -9.07e-05 |
| 121 | 48 | 0.05 | 0.06 | -0.04 | 0.0 | 1.92e-04 | -1.01e-04 |
| 121 | 61 | 0.02 | 0.05 | -0.03 | 0.0 | 9.96e-05 | -8.60e-05 |
| 121 | 64 | 0.02 | 0.05 | -0.03 | 0.0 | 9.96e-05 | -8.60e-05 |
| 121 | 65 | 0.01 | 0.05 | -0.03 | 0.0 | 1.56e-05 | -8.75e-05 |
| 122 | 1 | 0.01 | 0.06 | -0.03 | 4.95e-05 | -1.05e-04 | -1.11e-04 |
| 122 | 3 | 0.01 | 0.06 | -0.04 | 2.36e-05 | 2.94e-05 | -1.09e-04 |
| 122 | 5 | 0.01 | 0.06 | -0.05 | 0.0 | 1.71e-04 | -1.08e-04 |
| 122 | 16 | 0.02 | 0.08 | -0.08 | -2.15e-04 | 1.19e-04 | -8.38e-05 |
| 122 | 20 | 0.05 | 0.03 | -0.02 | -6.95e-05 | 1.79e-04 | -9.68e-05 |
| 122 | 40 | 0.02 | 0.06 | -0.05 | -1.51e-04 | 7.94e-05 | -8.34e-05 |
| 122 | 44 | 0.03 | 0.04 | -0.03 | -7.52e-05 | 1.09e-04 | -9.47e-05 |
| 122 | 58 | 0.01 | 0.04 | -0.02 | 3.66e-05 | -7.78e-05 | -8.20e-05 |
| 122 | 60 | 0.01 | 0.04 | -0.03 | -7.19e-06 | 2.55e-05 | -8.11e-05 |
| 122 | 61 | 0.01 | 0.04 | -0.03 | -2.03e-05 | 1.04e-04 | -8.04e-05 |
| 122 | 62 | 0.01 | 0.04 | -0.02 | 7.17e-06 | -4.89e-05 | -8.19e-05 |
| 122 | 63 | 0.01 | 0.04 | -0.03 | -7.19e-06 | 2.55e-05 | -8.11e-05 |
| 122 | 64 | 0.01 | 0.04 | -0.03 | -2.03e-05 | 1.04e-04 | -8.04e-05 |
| 122 | 65 | 0.01 | 0.04 | -0.03 | -8.13e-05 | 3.76e-05 | -8.17e-05 |
| 123 | 5 | 0.05 | 0.06 | -0.05 | 0.0 | 1.47e-04 | -1.28e-04 |
| 123 | 16 | 0.05 | 0.12 | -0.08 | 0.0 | 1.35e-04 | -1.05e-04 |
| 123 | 17 | 0.05 | 0.12 | -0.07 | 0.0 | 1.33e-04 | -1.05e-04 |
| 123 | 24 | 0.10 | 0.08 | -0.05 | 0.0 | 3.37e-04 | -1.16e-04 |
| 123 | 40 | 0.03 | 0.09 | -0.06 | 0.0 | 6.70e-05 | -1.01e-04 |
| 123 | 41 | 0.03 | 0.09 | -0.05 | 0.0 | 6.64e-05 | -1.01e-04 |
| 123 | 48 | 0.06 | 0.07 | -0.04 | 0.0 | 1.73e-04 | -1.11e-04 |
| 123 | 61 | 0.03 | 0.05 | -0.03 | 0.0 | 8.06e-05 | -9.46e-05 |
| 123 | 64 | 0.03 | 0.05 | -0.03 | 0.0 | 8.06e-05 | -9.46e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 123 | 65 | 0.01 | 0.06 | -0.03 | 0.0 | -6.84e-06 | -9.50e-05 |
| 124 | 5 | 0.06 | 0.06 | -0.05 | 0.0 | 9.45e-05 | -1.31e-04 |
| 124 | 16 | 0.06 | 0.14 | -0.08 | -2.18e-04 | 4.61e-05 | -1.08e-04 |
| 124 | 17 | 0.06 | 0.14 | -0.07 | -2.18e-04 | 4.59e-05 | -1.08e-04 |
| 124 | 24 | 0.13 | 0.09 | -0.05 | -1.47e-04 | 1.52e-04 | -1.20e-04 |
| 124 | 40 | 0.04 | 0.11 | -0.06 | -1.54e-04 | 9.11e-06 | -1.03e-04 |
| 124 | 41 | 0.04 | 0.11 | -0.05 | -1.54e-04 | 9.05e-06 | -1.03e-04 |
| 124 | 48 | 0.08 | 0.08 | -0.04 | -1.17e-04 | 6.43e-05 | -1.14e-04 |
| 124 | 61 | 0.03 | 0.05 | -0.03 | -2.07e-05 | 4.63e-05 | -9.72e-05 |
| 124 | 64 | 0.03 | 0.05 | -0.03 | -2.07e-05 | 4.63e-05 | -9.72e-05 |
| 124 | 65 | 0.01 | 0.07 | -0.03 | -8.26e-05 | -3.18e-05 | -9.69e-05 |
| 125 | 5 | 0.04 | 0.06 | -0.05 | 0.0 | 1.81e-04 | -1.16e-04 |
| 125 | 16 | 0.04 | 0.10 | -0.09 | 0.0 | 1.69e-04 | -9.21e-05 |
| 125 | 24 | 0.08 | 0.07 | -0.06 | 0.0 | 3.66e-04 | -9.94e-05 |
| 125 | 40 | 0.03 | 0.08 | -0.07 | 0.0 | 9.77e-05 | -9.11e-05 |
| 125 | 48 | 0.05 | 0.06 | -0.05 | 0.0 | 2.00e-04 | -9.89e-05 |
| 125 | 61 | 0.03 | 0.05 | -0.03 | 0.0 | 1.06e-04 | -8.68e-05 |
| 125 | 64 | 0.03 | 0.05 | -0.03 | 0.0 | 1.06e-04 | -8.68e-05 |
| 125 | 65 | 0.02 | 0.05 | -0.04 | 0.0 | 2.14e-05 | -8.89e-05 |
| 126 | 5 | 0.05 | 0.06 | -0.05 | 0.0 | 1.54e-04 | -1.30e-04 |
| 126 | 16 | 0.05 | 0.12 | -0.09 | 0.0 | 1.43e-04 | -1.08e-04 |
| 126 | 17 | 0.05 | 0.12 | -0.09 | 0.0 | 1.41e-04 | -1.08e-04 |
| 126 | 24 | 0.11 | 0.08 | -0.06 | 0.0 | 3.46e-04 | -1.22e-04 |
| 126 | 40 | 0.04 | 0.09 | -0.07 | 0.0 | 7.28e-05 | -1.03e-04 |
| 126 | 41 | 0.04 | 0.09 | -0.07 | 0.0 | 7.23e-05 | -1.03e-04 |
| 126 | 48 | 0.07 | 0.07 | -0.05 | 0.0 | 1.80e-04 | -1.15e-04 |
| 126 | 61 | 0.04 | 0.05 | -0.03 | 0.0 | 8.57e-05 | -9.60e-05 |
| 126 | 64 | 0.04 | 0.05 | -0.03 | 0.0 | 8.57e-05 | -9.60e-05 |
| 126 | 65 | 0.02 | 0.06 | -0.04 | 0.0 | -2.79e-06 | -9.62e-05 |
| 127 | 5 | 0.07 | 0.06 | -0.05 | 3.35e-06 | 9.05e-05 | -1.34e-04 |
| 127 | 16 | 0.06 | 0.14 | -0.09 | -2.16e-04 | 4.22e-05 | -1.13e-04 |
| 127 | 17 | 0.06 | 0.14 | -0.09 | -2.17e-04 | 4.20e-05 | -1.13e-04 |
| 127 | 24 | 0.14 | 0.10 | -0.06 | -1.46e-04 | 1.47e-04 | -1.29e-04 |
| 127 | 40 | 0.04 | 0.11 | -0.07 | -1.52e-04 | 5.74e-06 | -1.06e-04 |
| 127 | 41 | 0.04 | 0.11 | -0.07 | -1.52e-04 | 5.69e-06 | -1.06e-04 |
| 127 | 48 | 0.08 | 0.08 | -0.05 | -1.15e-04 | 6.09e-05 | -1.19e-04 |
| 127 | 61 | 0.04 | 0.05 | -0.03 | -1.84e-05 | 4.34e-05 | -9.89e-05 |
| 127 | 64 | 0.04 | 0.05 | -0.03 | -1.84e-05 | 4.34e-05 | -9.89e-05 |
| 127 | 65 | 0.02 | 0.07 | -0.04 | -8.08e-05 | -3.46e-05 | -9.82e-05 |
| 128 | 1 | -0.03 | 0.09 | -0.12 | -1.83e-03 | -1.50e-04 | -1.35e-04 |
| 128 | 5 | 4.66e-03 | 0.10 | -0.02 | -9.55e-04 | 2.23e-04 | -1.20e-04 |
| 128 | 16 | 0.01 | 0.13 | -8.45e-03 | -6.96e-04 | 1.86e-04 | -8.38e-05 |
| 128 | 18 | -0.07 | 0.06 | -0.06 | -1.51e-04 | -2.59e-04 | -7.37e-05 |
| 128 | 22 | -0.06 | 0.09 | -0.06 | -2.20e-04 | -2.38e-04 | -7.04e-05 |
| 128 | 40 | 4.96e-03 | 0.11 | -0.01 | -5.96e-04 | 1.26e-04 | -8.51e-05 |
| 128 | 42 | -0.04 | 0.07 | -0.04 | -2.87e-04 | -1.12e-04 | -7.45e-05 |
| 128 | 46 | -0.04 | 0.08 | -0.04 | -3.19e-04 | -1.01e-04 | -7.21e-05 |
| 128 | 58 | -0.02 | 0.07 | -0.09 | -1.35e-03 | -1.09e-04 | -1.00e-04 |
| 128 | 61 | 1.36e-03 | 0.07 | -0.01 | -6.47e-04 | 1.40e-04 | -8.81e-05 |
| 128 | 62 | -0.02 | 0.07 | -0.07 | -1.13e-03 | -6.70e-05 | -9.65e-05 |
| 128 | 64 | 1.36e-03 | 0.07 | -0.01 | -6.47e-04 | 1.40e-04 | -8.81e-05 |
| 128 | 65 | -5.78e-03 | 0.08 | -0.02 | -4.86e-04 | 5.82e-05 | -8.54e-05 |
| 129 | 1 | -0.01 | 0.10 | -0.12 | 5.31e-05 | -2.94e-04 | -1.15e-04 |
| 129 | 17 | -4.77e-04 | 0.10 | -4.45e-03 | -2.36e-04 | 9.65e-05 | -8.34e-05 |
| 129 | 22 | -0.04 | 0.08 | -0.06 | -9.49e-05 | -2.51e-04 | -6.98e-05 |
| 129 | 23 | -0.04 | 0.08 | -0.06 | -9.47e-05 | -2.48e-04 | -6.97e-05 |
| 129 | 41 | -4.43e-03 | 0.09 | -0.01 | -1.69e-04 | 5.26e-05 | -8.37e-05 |
| 129 | 46 | -0.03 | 0.07 | -0.04 | -9.41e-05 | -1.36e-04 | -7.08e-05 |
| 129 | 58 | -9.78e-03 | 0.07 | -0.09 | 3.95e-05 | -2.14e-04 | -8.50e-05 |
| 129 | 62 | -9.75e-03 | 0.07 | -0.07 | 5.96e-06 | -1.60e-04 | -8.44e-05 |
| 129 | 65 | -9.67e-03 | 0.07 | -0.02 | -9.46e-05 | 1.42e-06 | -8.27e-05 |
| 130 | 1 | -0.05 | 0.09 | -0.12 | 1.16e-03 | -2.74e-04 | -1.44e-04 |
| 130 | 5 | 0.02 | 0.10 | -0.02 | -3.17e-04 | 4.77e-05 | -1.32e-04 |
| 130 | 16 | 0.02 | 0.15 | -8.78e-03 | -1.36e-03 | 4.32e-05 | -9.93e-05 |
| 130 | 19 | -0.09 | 0.06 | -0.06 | 1.73e-04 | -3.56e-04 | -7.28e-05 |
| 130 | 22 | -0.09 | 0.09 | -0.06 | -2.26e-04 | -3.30e-04 | -7.29e-05 |
| 130 | 40 | 9.93e-03 | 0.12 | -0.01 | -9.70e-04 | -1.64e-05 | -9.69e-05 |
| 130 | 42 | -0.05 | 0.07 | -0.04 | -1.60e-04 | -2.14e-04 | -7.75e-05 |
| 130 | 46 | -0.05 | 0.09 | -0.04 | -3.66e-04 | -2.03e-04 | -7.68e-05 |
| 130 | 58 | -0.04 | 0.07 | -0.09 | 8.62e-04 | -2.03e-04 | -1.07e-04 |
| 130 | 61 | 8.05e-03 | 0.08 | -0.01 | -3.12e-04 | 7.17e-06 | -9.63e-05 |
| 130 | 62 | -0.03 | 0.07 | -0.07 | 5.11e-04 | -1.72e-04 | -1.03e-04 |
| 130 | 64 | 8.05e-03 | 0.08 | -0.01 | -3.12e-04 | 7.17e-06 | -9.63e-05 |
| 130 | 65 | -6.70e-03 | 0.09 | -0.02 | -5.42e-04 | -7.63e-05 | -9.32e-05 |
| 131 | 1 | -0.07 | 0.08 | -0.12 | 6.25e-05 | -2.15e-04 | -1.24e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 131 | 5 | 0.02 | 0.10 | -0.02 | -2.15e-05 | 4.85e-05 | -1.33e-04 |
| 131 | 16 | 0.03 | 0.17 | -9.00e-03 | -2.40e-04 | 1.08e-05 | -1.10e-04 |
| 131 | 19 | -0.12 | 0.06 | -0.06 | -1.73e-05 | -2.62e-04 | -7.14e-05 |
| 131 | 22 | -0.12 | 0.10 | -0.06 | -9.68e-05 | -2.44e-04 | -7.45e-05 |
| 131 | 40 | 6.87e-03 | 0.14 | -0.01 | -1.72e-04 | -3.03e-05 | -1.05e-04 |
| 131 | 42 | -0.07 | 0.08 | -0.04 | -5.45e-05 | -1.60e-04 | -7.88e-05 |
| 131 | 46 | -0.07 | 0.10 | -0.04 | -9.59e-05 | -1.53e-04 | -7.97e-05 |
| 131 | 58 | -0.06 | 0.06 | -0.09 | 4.65e-05 | -1.62e-04 | -9.18e-05 |
| 131 | 61 | 7.86e-03 | 0.08 | -0.01 | -3.59e-05 | 7.36e-06 | -9.82e-05 |
| 131 | 62 | -0.05 | 0.07 | -0.07 | 1.08e-05 | -1.39e-04 | -9.33e-05 |
| 131 | 64 | 7.86e-03 | 0.08 | -0.01 | -3.59e-05 | 7.36e-06 | -9.82e-05 |
| 131 | 65 | -0.01 | 0.10 | -0.02 | -9.65e-05 | -6.93e-05 | -9.75e-05 |
| 132 | 1 | -0.02 | 0.09 | -0.12 | 0.0 | -1.40e-04 | -1.27e-04 |
| 132 | 5 | 0.01 | 0.10 | -0.02 | 0.0 | 2.32e-04 | -1.16e-04 |
| 132 | 16 | 0.02 | 0.13 | -0.03 | 0.0 | 1.94e-04 | -8.26e-05 |
| 132 | 22 | -0.06 | 0.09 | -0.07 | 0.0 | -2.37e-04 | -6.80e-05 |
| 132 | 25 | 0.06 | 0.10 | 0.02 | 0.0 | 3.85e-04 | -9.57e-05 |
| 132 | 40 | 0.01 | 0.11 | -0.02 | 0.0 | 1.33e-04 | -8.35e-05 |
| 132 | 46 | -0.03 | 0.08 | -0.05 | 0.0 | -9.84e-05 | -7.00e-05 |
| 132 | 48 | 0.03 | 0.09 | -5.15e-03 | 0.0 | 2.36e-04 | -9.45e-05 |
| 132 | 58 | -0.02 | 0.07 | -0.09 | 0.0 | -1.01e-04 | -9.42e-05 |
| 132 | 61 | 7.51e-03 | 0.07 | -0.02 | 0.0 | 1.46e-04 | -8.52e-05 |
| 132 | 62 | -0.01 | 0.07 | -0.07 | 0.0 | -6.02e-05 | -9.15e-05 |
| 132 | 64 | 7.51e-03 | 0.07 | -0.02 | 0.0 | 1.46e-04 | -8.52e-05 |
| 132 | 65 | 1.94e-04 | 0.08 | -0.02 | 0.0 | 6.30e-05 | -8.33e-05 |
| 133 | 1 | -5.18e-03 | 0.10 | -0.12 | 5.17e-05 | -2.80e-04 | -1.14e-04 |
| 133 | 3 | -5.23e-03 | 0.09 | -0.06 | 4.41e-06 | -5.25e-05 | -1.11e-04 |
| 133 | 16 | 5.50e-03 | 0.10 | -0.03 | -2.38e-04 | 8.03e-05 | -8.33e-05 |
| 133 | 22 | -0.04 | 0.08 | -0.07 | -9.62e-05 | -2.54e-04 | -6.88e-05 |
| 133 | 23 | -0.04 | 0.08 | -0.07 | -9.60e-05 | -2.51e-04 | -6.87e-05 |
| 133 | 40 | 1.53e-03 | 0.09 | -0.02 | -1.70e-04 | 4.30e-05 | -8.33e-05 |
| 133 | 46 | -0.02 | 0.07 | -0.05 | -9.50e-05 | -1.40e-04 | -7.00e-05 |
| 133 | 58 | -3.83e-03 | 0.07 | -0.09 | 3.85e-05 | -2.03e-04 | -8.42e-05 |
| 133 | 60 | -3.86e-03 | 0.07 | -0.04 | -2.12e-05 | -2.66e-05 | -8.21e-05 |
| 133 | 62 | -3.83e-03 | 0.07 | -0.07 | 5.06e-06 | -1.53e-04 | -8.37e-05 |
| 133 | 63 | -3.86e-03 | 0.07 | -0.04 | -2.12e-05 | -2.66e-05 | -8.21e-05 |
| 133 | 65 | -3.80e-03 | 0.07 | -0.02 | -9.52e-05 | -2.43e-06 | -8.21e-05 |
| 134 | 1 | -0.04 | 0.09 | -0.12 | 0.0 | -2.73e-04 | -1.34e-04 |
| 134 | 5 | 0.03 | 0.10 | -0.02 | 0.0 | 5.41e-05 | -1.27e-04 |
| 134 | 16 | 0.03 | 0.15 | -0.03 | 0.0 | 5.47e-05 | -9.69e-05 |
| 134 | 19 | -0.09 | 0.06 | -0.06 | 0.0 | -3.57e-04 | -7.08e-05 |
| 134 | 22 | -0.09 | 0.09 | -0.07 | 0.0 | -3.28e-04 | -7.09e-05 |
| 134 | 40 | 0.02 | 0.12 | -0.02 | 0.0 | -7.80e-06 | -9.46e-05 |
| 134 | 42 | -0.05 | 0.07 | -0.04 | 0.0 | -2.12e-04 | -7.55e-05 |
| 134 | 46 | -0.05 | 0.09 | -0.05 | 0.0 | -1.99e-04 | -7.48e-05 |
| 134 | 58 | -0.03 | 0.07 | -0.09 | 0.0 | -2.02e-04 | -9.90e-05 |
| 134 | 61 | 0.01 | 0.08 | -0.02 | 0.0 | 1.21e-05 | -9.31e-05 |
| 134 | 62 | -0.02 | 0.07 | -0.07 | 0.0 | -1.70e-04 | -9.70e-05 |
| 134 | 64 | 0.01 | 0.08 | -0.02 | 0.0 | 1.21e-05 | -9.31e-05 |
| 134 | 65 | -1.45e-04 | 0.09 | -0.02 | 0.0 | -7.10e-05 | -9.09e-05 |
| 135 | 1 | -0.07 | 0.08 | -0.12 | 5.60e-05 | -2.44e-04 | -1.23e-04 |
| 135 | 5 | 0.03 | 0.10 | -0.02 | -2.34e-05 | 4.59e-05 | -1.32e-04 |
| 135 | 16 | 0.03 | 0.17 | -0.03 | -2.41e-04 | 1.43e-05 | -1.09e-04 |
| 135 | 19 | -0.12 | 0.06 | -0.06 | -1.84e-05 | -2.61e-04 | -7.16e-05 |
| 135 | 22 | -0.11 | 0.10 | -0.07 | -9.81e-05 | -2.42e-04 | -7.44e-05 |
| 135 | 40 | 0.01 | 0.14 | -0.03 | -1.73e-04 | -2.77e-05 | -1.04e-04 |
| 135 | 42 | -0.07 | 0.08 | -0.04 | -5.53e-05 | -1.59e-04 | -7.86e-05 |
| 135 | 46 | -0.06 | 0.10 | -0.05 | -9.69e-05 | -1.51e-04 | -7.93e-05 |
| 135 | 58 | -0.05 | 0.06 | -0.09 | 4.17e-05 | -1.84e-04 | -9.09e-05 |
| 135 | 61 | 0.01 | 0.08 | -0.02 | -3.71e-05 | 6.45e-06 | -9.75e-05 |
| 135 | 62 | -0.04 | 0.07 | -0.07 | 6.99e-06 | -1.55e-04 | -9.24e-05 |
| 135 | 64 | 0.01 | 0.08 | -0.02 | -3.71e-05 | 6.45e-06 | -9.75e-05 |
| 135 | 65 | -7.32e-03 | 0.10 | -0.02 | -9.71e-05 | -6.74e-05 | -9.68e-05 |
| 136 | 1 | -0.01 | 0.09 | -0.12 | 0.0 | -1.29e-04 | -1.22e-04 |
| 136 | 5 | 0.02 | 0.10 | -0.02 | 0.0 | 2.41e-04 | -1.14e-04 |
| 136 | 16 | 0.03 | 0.13 | -0.04 | 0.0 | 2.03e-04 | -8.25e-05 |
| 136 | 22 | -0.05 | 0.09 | -0.08 | 0.0 | -2.35e-04 | -6.72e-05 |
| 136 | 25 | 0.07 | 0.10 | 2.75e-03 | 0.0 | 3.95e-04 | -9.54e-05 |
| 136 | 40 | 0.02 | 0.11 | -0.04 | 0.0 | 1.40e-04 | -8.31e-05 |
| 136 | 46 | -0.03 | 0.08 | -0.05 | 0.0 | -9.55e-05 | -6.93e-05 |
| 136 | 48 | 0.04 | 0.09 | -0.02 | 0.0 | 2.45e-04 | -9.40e-05 |
| 136 | 58 | -9.96e-03 | 0.07 | -0.08 | 0.0 | -9.38e-05 | -9.02e-05 |
| 136 | 61 | 0.01 | 0.07 | -0.02 | 0.0 | 1.52e-04 | -8.40e-05 |
| 136 | 62 | -5.95e-03 | 0.07 | -0.07 | 0.0 | -5.33e-05 | -8.83e-05 |
| 136 | 64 | 0.01 | 0.07 | -0.02 | 0.0 | 1.52e-04 | -8.40e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 136 | 65 | 6.07e-03 | 0.08 | -0.03 | 0.0 | 6.82e-05 | -8.26e-05 |
| 137 | 1 | 2.81e-03 | 0.10 | -0.12 | 4.94e-05 | -2.70e-04 | -1.13e-04 |
| 137 | 16 | 0.01 | 0.10 | -0.04 | -2.39e-04 | 6.72e-05 | -8.36e-05 |
| 137 | 20 | 0.04 | 0.06 | 0.01 | -9.48e-05 | 2.41e-04 | -9.54e-05 |
| 137 | 22 | -0.03 | 0.08 | -0.08 | -9.74e-05 | -2.58e-04 | -6.85e-05 |
| 137 | 40 | 7.48e-03 | 0.09 | -0.04 | -1.71e-04 | 3.39e-05 | -8.34e-05 |
| 137 | 44 | 0.02 | 0.07 | -7.90e-03 | -9.61e-05 | 1.29e-04 | -9.40e-05 |
| 137 | 46 | -0.02 | 0.07 | -0.05 | -9.60e-05 | -1.44e-04 | -6.99e-05 |
| 137 | 58 | 2.08e-03 | 0.07 | -0.08 | 3.68e-05 | -1.96e-04 | -8.38e-05 |
| 137 | 62 | 2.07e-03 | 0.07 | -0.07 | 3.59e-06 | -1.49e-04 | -8.33e-05 |
| 137 | 65 | 2.04e-03 | 0.07 | -0.03 | -9.60e-05 | -7.08e-06 | -8.20e-05 |
| 138 | 1 | -0.03 | 0.09 | -0.12 | 0.0 | -2.74e-04 | -1.26e-04 |
| 138 | 5 | 0.04 | 0.10 | -0.02 | 0.0 | 6.26e-05 | -1.25e-04 |
| 138 | 16 | 0.04 | 0.15 | -0.04 | 0.0 | 6.90e-05 | -9.65e-05 |
| 138 | 22 | -0.08 | 0.09 | -0.08 | 0.0 | -3.25e-04 | -7.03e-05 |
| 138 | 24 | 0.10 | 0.12 | -1.22e-03 | 0.0 | 2.30e-04 | -1.10e-04 |
| 138 | 40 | 0.02 | 0.12 | -0.04 | 0.0 | 3.20e-06 | -9.41e-05 |
| 138 | 46 | -0.04 | 0.09 | -0.06 | 0.0 | -1.94e-04 | -7.43e-05 |
| 138 | 48 | 0.06 | 0.11 | -0.02 | 0.0 | 8.27e-05 | -1.06e-04 |
| 138 | 58 | -0.02 | 0.07 | -0.08 | 0.0 | -2.03e-04 | -9.35e-05 |
| 138 | 61 | 0.02 | 0.08 | -0.02 | 0.0 | 1.86e-05 | -9.20e-05 |
| 138 | 62 | -0.02 | 0.07 | -0.07 | 0.0 | -1.68e-04 | -9.27e-05 |
| 138 | 64 | 0.02 | 0.08 | -0.02 | 0.0 | 1.86e-05 | -9.20e-05 |
| 138 | 65 | 6.30e-03 | 0.09 | -0.03 | 0.0 | -6.37e-05 | -9.03e-05 |
| 139 | 1 | -0.06 | 0.08 | -0.12 | 5.13e-05 | -2.59e-04 | -1.22e-04 |
| 139 | 5 | 0.04 | 0.10 | -0.02 | -2.48e-05 | 4.70e-05 | -1.32e-04 |
| 139 | 16 | 0.04 | 0.17 | -0.04 | -2.43e-04 | 1.91e-05 | -1.08e-04 |
| 139 | 19 | -0.11 | 0.06 | -0.06 | -1.89e-05 | -2.59e-04 | -7.17e-05 |
| 139 | 22 | -0.11 | 0.10 | -0.08 | -9.92e-05 | -2.39e-04 | -7.44e-05 |
| 139 | 40 | 0.02 | 0.14 | -0.04 | -1.74e-04 | -2.38e-05 | -1.03e-04 |
| 139 | 42 | -0.06 | 0.08 | -0.05 | -5.59e-05 | -1.56e-04 | -7.85e-05 |
| 139 | 46 | -0.06 | 0.10 | -0.06 | -9.78e-05 | -1.48e-04 | -7.92e-05 |
| 139 | 58 | -0.04 | 0.06 | -0.08 | 3.82e-05 | -1.95e-04 | -9.00e-05 |
| 139 | 61 | 0.02 | 0.08 | -0.02 | -3.81e-05 | 7.72e-06 | -9.72e-05 |
| 139 | 62 | -0.03 | 0.07 | -0.07 | 4.17e-06 | -1.62e-04 | -9.17e-05 |
| 139 | 64 | 0.02 | 0.08 | -0.02 | -3.81e-05 | 7.72e-06 | -9.72e-05 |
| 139 | 65 | -3.99e-04 | 0.10 | -0.03 | -9.78e-05 | -6.46e-05 | -9.66e-05 |
| 140 | 1 | -5.25e-03 | 0.09 | -0.11 | 0.0 | -1.24e-04 | -1.19e-04 |
| 140 | 5 | 0.03 | 0.10 | -0.03 | 0.0 | 2.48e-04 | -1.14e-04 |
| 140 | 16 | 0.03 | 0.13 | -0.06 | 0.0 | 2.11e-04 | -8.42e-05 |
| 140 | 22 | -0.05 | 0.08 | -0.08 | 0.0 | -2.34e-04 | -6.75e-05 |
| 140 | 25 | 0.07 | 0.10 | -9.85e-03 | 0.0 | 4.05e-04 | -9.70e-05 |
| 140 | 40 | 0.02 | 0.11 | -0.05 | 0.0 | 1.46e-04 | -8.44e-05 |
| 140 | 46 | -0.02 | 0.08 | -0.06 | 0.0 | -9.27e-05 | -6.98e-05 |
| 140 | 48 | 0.05 | 0.09 | -0.03 | 0.0 | 2.52e-04 | -9.51e-05 |
| 140 | 58 | -3.60e-03 | 0.07 | -0.08 | 0.0 | -8.97e-05 | -8.82e-05 |
| 140 | 61 | 0.02 | 0.07 | -0.02 | 0.0 | 1.58e-04 | -8.43e-05 |
| 140 | 62 | 2.82e-04 | 0.07 | -0.07 | 0.0 | -4.91e-05 | -8.69e-05 |
| 140 | 64 | 0.02 | 0.07 | -0.02 | 0.0 | 1.58e-04 | -8.43e-05 |
| 140 | 65 | 0.01 | 0.08 | -0.04 | 0.0 | 7.29e-05 | -8.33e-05 |
| 141 | 1 | 0.01 | 0.10 | -0.11 | 4.68e-05 | -2.63e-04 | -1.13e-04 |
| 141 | 16 | 0.02 | 0.10 | -0.06 | -2.42e-04 | 5.52e-05 | -8.37e-05 |
| 141 | 20 | 0.04 | 0.06 | 5.57e-03 | -9.60e-05 | 2.36e-04 | -9.52e-05 |
| 141 | 22 | -0.03 | 0.08 | -0.08 | -9.85e-05 | -2.63e-04 | -6.86e-05 |
| 141 | 40 | 0.01 | 0.09 | -0.05 | -1.73e-04 | 2.55e-05 | -8.34e-05 |
| 141 | 44 | 0.03 | 0.07 | -0.01 | -9.73e-05 | 1.24e-04 | -9.39e-05 |
| 141 | 46 | -0.01 | 0.07 | -0.06 | -9.71e-05 | -1.49e-04 | -6.99e-05 |
| 141 | 58 | 7.99e-03 | 0.07 | -0.08 | 3.48e-05 | -1.91e-04 | -8.35e-05 |
| 141 | 62 | 7.97e-03 | 0.07 | -0.07 | 1.84e-06 | -1.46e-04 | -8.31e-05 |
| 141 | 65 | 7.88e-03 | 0.07 | -0.04 | -9.72e-05 | -1.17e-05 | -8.19e-05 |
| 142 | 1 | -0.02 | 0.09 | -0.11 | 0.0 | -2.74e-04 | -1.22e-04 |
| 142 | 5 | 0.04 | 0.10 | -0.03 | 0.0 | 7.13e-05 | -1.25e-04 |
| 142 | 16 | 0.04 | 0.15 | -0.06 | 0.0 | 8.20e-05 | -9.70e-05 |
| 142 | 22 | -0.08 | 0.09 | -0.09 | 0.0 | -3.21e-04 | -7.08e-05 |
| 142 | 24 | 0.10 | 0.12 | -0.01 | 0.0 | 2.43e-04 | -1.11e-04 |
| 142 | 40 | 0.03 | 0.12 | -0.05 | 0.0 | 1.33e-05 | -9.45e-05 |
| 142 | 46 | -0.04 | 0.09 | -0.06 | 0.0 | -1.89e-04 | -7.47e-05 |
| 142 | 48 | 0.06 | 0.11 | -0.03 | 0.0 | 9.32e-05 | -1.06e-04 |
| 142 | 58 | -0.02 | 0.07 | -0.08 | 0.0 | -2.03e-04 | -9.04e-05 |
| 142 | 61 | 0.03 | 0.08 | -0.02 | 0.0 | 2.52e-05 | -9.19e-05 |
| 142 | 62 | -9.54e-03 | 0.07 | -0.07 | 0.0 | -1.67e-04 | -9.04e-05 |
| 142 | 64 | 0.03 | 0.08 | -0.02 | 0.0 | 2.52e-05 | -9.19e-05 |
| 142 | 65 | 0.01 | 0.09 | -0.04 | 0.0 | -5.67e-05 | -9.06e-05 |
| 143 | 1 | -0.05 | 0.08 | -0.11 | 4.82e-05 | -2.65e-04 | -1.21e-04 |
| 143 | 2 | -0.05 | 0.05 | -0.10 | 8.29e-05 | -2.47e-04 | -8.67e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 143 | 5 | 0.05 | 0.10 | -0.03 | -2.56e-05 | 4.91e-05 | -1.31e-04 |
| 143 | 16 | 0.05 | 0.17 | -0.06 | -2.45e-04 | 2.40e-05 | -1.08e-04 |
| 143 | 22 | -0.10 | 0.10 | -0.09 | -9.98e-05 | -2.36e-04 | -7.42e-05 |
| 143 | 24 | 0.12 | 0.13 | -0.01 | -1.78e-04 | 1.34e-04 | -1.21e-04 |
| 143 | 40 | 0.03 | 0.14 | -0.05 | -1.75e-04 | -2.00e-05 | -1.03e-04 |
| 143 | 46 | -0.05 | 0.10 | -0.06 | -9.83e-05 | -1.45e-04 | -7.90e-05 |
| 143 | 48 | 0.07 | 0.12 | -0.03 | -1.41e-04 | 3.18e-05 | -1.14e-04 |
| 143 | 58 | -0.04 | 0.06 | -0.08 | 3.59e-05 | -1.99e-04 | -8.92e-05 |
| 143 | 61 | 0.03 | 0.08 | -0.02 | -3.87e-05 | 9.57e-06 | -9.70e-05 |
| 143 | 62 | -0.03 | 0.07 | -0.07 | 2.34e-06 | -1.65e-04 | -9.10e-05 |
| 143 | 64 | 0.03 | 0.08 | -0.02 | -3.87e-05 | 9.57e-06 | -9.70e-05 |
| 143 | 65 | 6.51e-03 | 0.10 | -0.04 | -9.83e-05 | -6.18e-05 | -9.64e-05 |
| 144 | 1 | 3.21e-03 | 0.09 | -0.11 | 0.0 | -1.20e-04 | -1.18e-04 |
| 144 | 5 | 0.04 | 0.10 | -0.03 | 0.0 | 2.57e-04 | -1.16e-04 |
| 144 | 14 | -4.92e-04 | 0.12 | -0.10 | 0.0 | 2.55e-05 | -7.77e-05 |
| 144 | 16 | 0.04 | 0.13 | -0.08 | 0.0 | 2.20e-04 | -8.73e-05 |
| 144 | 25 | 0.08 | 0.10 | -0.02 | 0.0 | 4.15e-04 | -1.00e-04 |
| 144 | 38 | 6.74e-03 | 0.10 | -0.07 | 0.0 | 4.87e-05 | -7.89e-05 |
| 144 | 40 | 0.03 | 0.11 | -0.06 | 0.0 | 1.53e-04 | -8.69e-05 |
| 144 | 44 | 0.05 | 0.08 | -0.02 | 0.0 | 2.46e-04 | -9.93e-05 |
| 144 | 58 | 2.66e-03 | 0.07 | -0.08 | 0.0 | -8.67e-05 | -8.76e-05 |
| 144 | 61 | 0.03 | 0.07 | -0.02 | 0.0 | 1.64e-04 | -8.59e-05 |
| 144 | 62 | 6.48e-03 | 0.07 | -0.07 | 0.0 | -4.54e-05 | -8.70e-05 |
| 144 | 64 | 0.03 | 0.07 | -0.02 | 0.0 | 1.64e-04 | -8.59e-05 |
| 144 | 65 | 0.02 | 0.08 | -0.04 | 0.0 | 7.83e-05 | -8.52e-05 |
| 145 | 1 | 0.02 | 0.10 | -0.11 | 4.63e-05 | -2.59e-04 | -1.17e-04 |
| 145 | 14 | 1.80e-03 | 0.10 | -0.10 | -2.19e-04 | -1.04e-04 | -7.99e-05 |
| 145 | 16 | 0.02 | 0.10 | -0.08 | -2.42e-04 | 4.39e-05 | -8.82e-05 |
| 145 | 20 | 0.05 | 0.06 | -1.34e-03 | -9.48e-05 | 2.32e-04 | -9.87e-05 |
| 145 | 38 | 6.16e-03 | 0.09 | -0.07 | -1.60e-04 | -6.36e-05 | -7.99e-05 |
| 145 | 40 | 0.02 | 0.09 | -0.06 | -1.73e-04 | 1.74e-05 | -8.71e-05 |
| 145 | 44 | 0.04 | 0.07 | -0.02 | -9.64e-05 | 1.20e-04 | -9.71e-05 |
| 145 | 58 | 0.01 | 0.07 | -0.08 | 3.45e-05 | -1.88e-04 | -8.65e-05 |
| 145 | 62 | 0.01 | 0.07 | -0.07 | 1.70e-06 | -1.45e-04 | -8.60e-05 |
| 145 | 65 | 0.01 | 0.07 | -0.04 | -9.67e-05 | -1.62e-05 | -8.47e-05 |
| 146 | 1 | -0.01 | 0.09 | -0.11 | 0.0 | -2.74e-04 | -1.20e-04 |
| 146 | 5 | 0.05 | 0.10 | -0.03 | 0.0 | 7.94e-05 | -1.26e-04 |
| 146 | 14 | -2.82e-03 | 0.14 | -0.10 | 0.0 | -7.79e-05 | -8.59e-05 |
| 146 | 16 | 0.05 | 0.15 | -0.08 | 0.0 | 9.38e-05 | -9.81e-05 |
| 146 | 24 | 0.11 | 0.12 | -0.03 | 0.0 | 2.55e-04 | -1.12e-04 |
| 146 | 38 | 6.11e-03 | 0.12 | -0.07 | 0.0 | -6.36e-05 | -8.60e-05 |
| 146 | 40 | 0.04 | 0.12 | -0.06 | 0.0 | 2.25e-05 | -9.56e-05 |
| 146 | 48 | 0.07 | 0.11 | -0.04 | 0.0 | 1.03e-04 | -1.07e-04 |
| 146 | 58 | -0.01 | 0.07 | -0.08 | 0.0 | -2.03e-04 | -8.91e-05 |
| 146 | 61 | 0.03 | 0.08 | -0.02 | 0.0 | 3.12e-05 | -9.27e-05 |
| 146 | 62 | -3.12e-03 | 0.07 | -0.07 | 0.0 | -1.65e-04 | -8.97e-05 |
| 146 | 64 | 0.03 | 0.08 | -0.02 | 0.0 | 3.12e-05 | -9.27e-05 |
| 146 | 65 | 0.02 | 0.09 | -0.05 | 0.0 | -5.03e-05 | -9.16e-05 |
| 147 | 1 | -0.04 | 0.08 | -0.11 | 4.54e-05 | -2.67e-04 | -1.21e-04 |
| 147 | 5 | 0.06 | 0.10 | -0.03 | -2.66e-05 | 5.06e-05 | -1.32e-04 |
| 147 | 14 | -0.01 | 0.16 | -0.10 | -2.23e-04 | -8.37e-05 | -9.34e-05 |
| 147 | 16 | 0.06 | 0.17 | -0.08 | -2.47e-04 | 2.76e-05 | -1.07e-04 |
| 147 | 24 | 0.13 | 0.13 | -0.03 | -1.79e-04 | 1.37e-04 | -1.20e-04 |
| 147 | 38 | -7.41e-04 | 0.13 | -0.07 | -1.64e-04 | -7.04e-05 | -9.23e-05 |
| 147 | 40 | 0.04 | 0.14 | -0.06 | -1.77e-04 | -1.72e-05 | -1.03e-04 |
| 147 | 48 | 0.08 | 0.12 | -0.04 | -1.42e-04 | 3.40e-05 | -1.14e-04 |
| 147 | 58 | -0.03 | 0.06 | -0.08 | 3.38e-05 | -2.01e-04 | -8.92e-05 |
| 147 | 61 | 0.04 | 0.08 | -0.02 | -3.95e-05 | 1.09e-05 | -9.73e-05 |
| 147 | 62 | -0.02 | 0.07 | -0.07 | 0.0 | -1.66e-04 | -9.11e-05 |
| 147 | 64 | 0.04 | 0.08 | -0.02 | -3.95e-05 | 1.09e-05 | -9.73e-05 |
| 147 | 65 | 0.01 | 0.10 | -0.05 | -9.94e-05 | -6.00e-05 | -9.66e-05 |
| 148 | 1 | 0.01 | 0.09 | -0.11 | 0.0 | -1.16e-04 | -1.19e-04 |
| 148 | 5 | 0.05 | 0.10 | -0.03 | 0.0 | 2.65e-04 | -1.19e-04 |
| 148 | 14 | 5.04e-03 | 0.12 | -0.11 | 0.0 | 3.11e-05 | -7.86e-05 |
| 148 | 16 | 0.04 | 0.13 | -0.10 | 0.0 | 2.28e-04 | -8.78e-05 |
| 148 | 25 | 0.09 | 0.10 | -0.04 | 0.0 | 4.25e-04 | -1.02e-04 |
| 148 | 38 | 0.01 | 0.10 | -0.08 | 0.0 | 5.39e-05 | -8.04e-05 |
| 148 | 40 | 0.03 | 0.11 | -0.07 | 0.0 | 1.60e-04 | -8.85e-05 |
| 148 | 44 | 0.06 | 0.08 | -0.03 | 0.0 | 2.54e-04 | -1.02e-04 |
| 148 | 58 | 8.93e-03 | 0.07 | -0.08 | 0.0 | -8.41e-05 | -8.87e-05 |
| 148 | 61 | 0.03 | 0.07 | -0.03 | 0.0 | 1.69e-04 | -8.84e-05 |
| 148 | 62 | 0.01 | 0.07 | -0.07 | 0.0 | -4.22e-05 | -8.84e-05 |
| 148 | 64 | 0.03 | 0.07 | -0.03 | 0.0 | 1.69e-04 | -8.84e-05 |
| 148 | 65 | 0.02 | 0.08 | -0.05 | 0.0 | 8.35e-05 | -8.77e-05 |
| 149 | 1 | -6.04e-03 | 0.09 | -0.11 | 0.0 | -2.73e-04 | -1.25e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 149 | 5 | 0.06 | 0.10 | -0.03 | 0.0 | 8.52e-05 | -1.33e-04 |
| 149 | 14 | 3.44e-03 | 0.14 | -0.11 | 0.0 | -7.13e-05 | -9.03e-05 |
| 149 | 16 | 0.06 | 0.15 | -0.10 | 0.0 | 1.02e-04 | -1.05e-04 |
| 149 | 24 | 0.12 | 0.12 | -0.04 | 0.0 | 2.63e-04 | -1.22e-04 |
| 149 | 38 | 0.01 | 0.12 | -0.08 | 0.0 | -5.82e-05 | -9.07e-05 |
| 149 | 40 | 0.04 | 0.12 | -0.07 | 0.0 | 2.90e-05 | -1.02e-04 |
| 149 | 48 | 0.08 | 0.11 | -0.05 | 0.0 | 1.09e-04 | -1.16e-04 |
| 149 | 58 | -4.11e-03 | 0.07 | -0.08 | 0.0 | -2.03e-04 | -9.30e-05 |
| 149 | 61 | 0.04 | 0.08 | -0.03 | 0.0 | 3.54e-05 | -9.84e-05 |
| 149 | 62 | 3.40e-03 | 0.07 | -0.07 | 0.0 | -1.64e-04 | -9.39e-05 |
| 149 | 64 | 0.04 | 0.08 | -0.03 | 0.0 | 3.54e-05 | -9.84e-05 |
| 149 | 65 | 0.03 | 0.09 | -0.05 | 0.0 | -4.61e-05 | -9.69e-05 |
| 150 | 1 | -0.03 | 0.08 | -0.11 | 4.85e-05 | -2.70e-04 | -1.19e-04 |
| 150 | 5 | 0.07 | 0.10 | -0.03 | -2.42e-05 | 4.99e-05 | -1.32e-04 |
| 150 | 14 | -4.26e-03 | 0.16 | -0.11 | -2.22e-04 | -8.31e-05 | -9.25e-05 |
| 150 | 16 | 0.06 | 0.17 | -0.10 | -2.48e-04 | 2.80e-05 | -1.09e-04 |
| 150 | 24 | 0.14 | 0.13 | -0.04 | -1.82e-04 | 1.36e-04 | -1.24e-04 |
| 150 | 38 | 5.83e-03 | 0.13 | -0.08 | -1.63e-04 | -7.02e-05 | -9.15e-05 |
| 150 | 40 | 0.04 | 0.14 | -0.07 | -1.76e-04 | -1.72e-05 | -1.03e-04 |
| 150 | 48 | 0.09 | 0.12 | -0.05 | -1.42e-04 | 3.35e-05 | -1.16e-04 |
| 150 | 58 | -0.02 | 0.06 | -0.08 | 3.61e-05 | -2.03e-04 | -8.80e-05 |
| 150 | 61 | 0.04 | 0.08 | -0.03 | -3.76e-05 | 1.03e-05 | -9.74e-05 |
| 150 | 62 | -0.01 | 0.07 | -0.07 | 2.79e-06 | -1.67e-04 | -9.00e-05 |
| 150 | 64 | 0.04 | 0.08 | -0.03 | -3.76e-05 | 1.03e-05 | -9.74e-05 |
| 150 | 65 | 0.02 | 0.10 | -0.05 | -9.73e-05 | -6.03e-05 | -9.61e-05 |
| 151 | 1 | -0.03 | 0.10 | -0.13 | 5.86e-05 | -3.58e-04 | -1.18e-04 |
| 151 | 17 | -0.02 | 0.10 | 0.04 | -2.71e-04 | 1.32e-04 | -8.76e-05 |
| 151 | 23 | -0.06 | 0.08 | -0.04 | -1.05e-04 | -2.46e-04 | -7.56e-05 |
| 151 | 25 | 5.76e-03 | 0.08 | 0.06 | -1.98e-04 | 2.85e-04 | -9.73e-05 |
| 151 | 41 | -0.02 | 0.09 | 0.02 | -1.93e-04 | 7.25e-05 | -8.81e-05 |
| 151 | 42 | -0.04 | 0.06 | -0.03 | -5.70e-05 | -1.48e-04 | -7.73e-05 |
| 151 | 46 | -0.04 | 0.07 | -0.02 | -1.04e-04 | -1.33e-04 | -7.58e-05 |
| 151 | 58 | -0.02 | 0.07 | -0.10 | 4.33e-05 | -2.61e-04 | -8.73e-05 |
| 151 | 62 | -0.02 | 0.07 | -0.07 | 5.95e-06 | -1.95e-04 | -8.73e-05 |
| 151 | 65 | -0.02 | 0.07 | 4.66e-04 | -1.06e-04 | 3.82e-06 | -8.73e-05 |
| 152 | 1 | -0.10 | 0.08 | -0.14 | 1.15e-05 | -8.67e-05 | -1.24e-04 |
| 152 | 5 | -3.65e-03 | 0.10 | -0.02 | -4.38e-05 | 9.10e-05 | -1.34e-04 |
| 152 | 16 | 5.62e-03 | 0.17 | 0.03 | -2.72e-04 | 2.87e-05 | -1.12e-04 |
| 152 | 18 | -0.14 | 0.06 | -0.06 | -2.96e-05 | -2.41e-04 | -6.97e-05 |
| 152 | 19 | -0.14 | 0.06 | -0.06 | -2.90e-05 | -2.46e-04 | -6.95e-05 |
| 152 | 40 | -0.01 | 0.14 | 0.02 | -1.96e-04 | -1.39e-05 | -1.06e-04 |
| 152 | 42 | -0.09 | 0.08 | -0.03 | -6.83e-05 | -1.45e-04 | -7.82e-05 |
| 152 | 58 | -0.07 | 0.06 | -0.10 | 9.02e-06 | -6.78e-05 | -9.21e-05 |
| 152 | 61 | -9.83e-03 | 0.08 | -7.75e-03 | -5.21e-05 | 3.44e-05 | -9.89e-05 |
| 152 | 62 | -0.06 | 0.07 | -0.07 | -2.14e-05 | -6.43e-05 | -9.38e-05 |
| 152 | 64 | -9.83e-03 | 0.08 | -7.75e-03 | -5.21e-05 | 3.44e-05 | -9.89e-05 |
| 152 | 65 | -0.03 | 0.10 | -4.80e-04 | -1.13e-04 | -5.41e-05 | -9.86e-05 |
| 153 | 1 | -0.07 | 0.09 | -0.14 | -4.25e-05 | -2.23e-04 | -1.65e-04 |
| 153 | 5 | -0.03 | 0.10 | -0.01 | -3.87e-05 | 1.71e-04 | -1.42e-04 |
| 153 | 16 | -0.01 | 0.13 | 0.06 | -1.99e-05 | 1.14e-04 | -8.50e-05 |
| 153 | 18 | -0.09 | 0.06 | -0.06 | -2.02e-05 | -2.72e-04 | -8.50e-05 |
| 153 | 25 | 0.03 | 0.10 | 0.08 | -2.94e-05 | 3.16e-04 | -1.04e-04 |
| 153 | 40 | -0.02 | 0.11 | 0.03 | -2.26e-05 | 7.17e-05 | -9.00e-05 |
| 153 | 42 | -0.06 | 0.07 | -0.03 | -2.10e-05 | -1.35e-04 | -8.46e-05 |
| 153 | 48 | -5.96e-04 | 0.09 | 0.04 | -2.87e-05 | 1.80e-04 | -1.05e-04 |
| 153 | 58 | -0.05 | 0.07 | -0.10 | -3.14e-05 | -1.63e-04 | -1.22e-04 |
| 153 | 61 | -0.03 | 0.07 | -3.89e-03 | -2.77e-05 | 1.03e-04 | -1.02e-04 |
| 153 | 62 | -0.05 | 0.07 | -0.07 | -2.98e-05 | -1.16e-04 | -1.15e-04 |
| 153 | 64 | -0.03 | 0.07 | -3.89e-03 | -2.77e-05 | 1.03e-04 | -1.02e-04 |
| 153 | 65 | -0.03 | 0.08 | 8.90e-03 | -2.48e-05 | 2.24e-05 | -9.47e-05 |
| 154 | 1 | -0.06 | 0.09 | -0.13 | -1.71e-05 | -2.15e-04 | -1.57e-04 |
| 154 | 5 | -0.02 | 0.10 | -0.02 | -1.62e-05 | 1.78e-04 | -1.41e-04 |
| 154 | 16 | -2.03e-03 | 0.13 | 0.03 | -1.19e-05 | 1.44e-04 | -9.22e-05 |
| 154 | 18 | -0.08 | 0.06 | -0.06 | -8.41e-06 | -2.69e-04 | -8.62e-05 |
| 154 | 40 | -0.01 | 0.11 | 0.02 | -1.17e-05 | 9.12e-05 | -9.51e-05 |
| 154 | 42 | -0.05 | 0.07 | -0.03 | -9.19e-06 | -1.29e-04 | -8.60e-05 |
| 154 | 58 | -0.04 | 0.07 | -0.10 | -1.26e-05 | -1.57e-04 | -1.16e-04 |
| 154 | 61 | -0.02 | 0.07 | -7.24e-03 | -1.18e-05 | 1.09e-04 | -1.02e-04 |
| 154 | 62 | -0.04 | 0.07 | -0.07 | -1.23e-05 | -1.10e-04 | -1.11e-04 |
| 154 | 64 | -0.02 | 0.07 | -7.24e-03 | -1.18e-05 | 1.09e-04 | -1.02e-04 |
| 154 | 65 | -0.02 | 0.08 | -8.49e-05 | -1.12e-05 | 3.14e-05 | -9.71e-05 |
| 155 | 1 | -0.10 | 0.09 | -0.14 | 0.0 | -2.85e-04 | -1.85e-04 |
| 155 | 5 | -0.02 | 0.10 | -0.02 | 0.0 | 6.38e-06 | -1.63e-04 |
| 155 | 16 | -7.28e-03 | 0.15 | 0.06 | 0.0 | -4.43e-05 | -1.25e-04 |
| 155 | 19 | -0.12 | 0.06 | -0.06 | 0.0 | -3.63e-04 | -9.69e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 155 | 25 | 0.05 | 0.12 | 0.08 | 0.0 | 1.27e-04 | -1.31e-04 |
| 155 | 40 | -0.02 | 0.12 | 0.03 | 0.0 | -8.12e-05 | -1.20e-04 |
| 155 | 42 | -0.08 | 0.07 | -0.03 | 0.0 | -2.35e-04 | -9.99e-05 |
| 155 | 48 | 7.65e-03 | 0.11 | 0.04 | 0.0 | 4.46e-06 | -1.29e-04 |
| 155 | 58 | -0.07 | 0.07 | -0.10 | 0.0 | -2.12e-04 | -1.36e-04 |
| 155 | 61 | -0.02 | 0.08 | -4.66e-03 | 0.0 | -2.56e-05 | -1.18e-04 |
| 155 | 62 | -0.06 | 0.07 | -0.07 | 0.0 | -1.88e-04 | -1.31e-04 |
| 155 | 64 | -0.02 | 0.08 | -4.66e-03 | 0.0 | -2.56e-05 | -1.18e-04 |
| 155 | 65 | -0.04 | 0.09 | 8.40e-03 | 0.0 | -1.16e-04 | -1.14e-04 |
| 156 | 1 | -0.08 | 0.09 | -0.13 | 1.03e-06 | -2.55e-04 | -1.70e-04 |
| 156 | 5 | -8.79e-03 | 0.10 | -0.02 | 0.0 | 4.18e-05 | -1.56e-04 |
| 156 | 16 | 4.68e-03 | 0.15 | 0.03 | -1.30e-06 | 5.95e-06 | -1.19e-04 |
| 156 | 18 | -0.11 | 0.06 | -0.06 | 0.0 | -3.39e-04 | -8.88e-05 |
| 156 | 19 | -0.11 | 0.06 | -0.06 | 0.0 | -3.43e-04 | -8.83e-05 |
| 156 | 40 | -8.93e-03 | 0.12 | 0.02 | 0.0 | -4.09e-05 | -1.15e-04 |
| 156 | 42 | -0.07 | 0.07 | -0.03 | 0.0 | -2.12e-04 | -9.30e-05 |
| 156 | 58 | -0.06 | 0.07 | -0.10 | 0.0 | -1.89e-04 | -1.25e-04 |
| 156 | 61 | -0.01 | 0.08 | -7.76e-03 | 0.0 | 1.23e-06 | -1.14e-04 |
| 156 | 62 | -0.05 | 0.07 | -0.07 | 0.0 | -1.63e-04 | -1.21e-04 |
| 156 | 64 | -0.01 | 0.08 | -7.76e-03 | 0.0 | 1.23e-06 | -1.14e-04 |
| 156 | 65 | -0.02 | 0.09 | -5.28e-04 | 0.0 | -8.68e-05 | -1.10e-04 |
| 157 | 1 | -0.11 | 0.08 | -0.15 | 3.11e-04 | 8.30e-05 | -1.46e-04 |
| 157 | 5 | -0.02 | 0.10 | -0.02 | 1.21e-04 | 2.07e-04 | -1.48e-04 |
| 157 | 16 | -5.25e-03 | 0.17 | 0.06 | -1.18e-04 | 1.33e-04 | -1.26e-04 |
| 157 | 19 | -0.14 | 0.06 | -0.06 | 8.70e-05 | -1.60e-04 | -8.16e-05 |
| 157 | 25 | 0.06 | 0.14 | 0.08 | -1.06e-04 | 2.01e-04 | -1.36e-04 |
| 157 | 40 | -0.02 | 0.14 | 0.03 | -6.73e-05 | 7.70e-05 | -1.18e-04 |
| 157 | 42 | -0.09 | 0.08 | -0.03 | 4.22e-05 | -6.49e-05 | -8.91e-05 |
| 157 | 48 | 0.01 | 0.12 | 0.04 | -5.79e-05 | 1.13e-04 | -1.29e-04 |
| 157 | 58 | -0.08 | 0.06 | -0.11 | 2.28e-04 | 5.65e-05 | -1.08e-04 |
| 157 | 61 | -0.02 | 0.08 | -6.31e-03 | 6.35e-05 | 1.17e-04 | -1.09e-04 |
| 157 | 62 | -0.07 | 0.07 | -0.08 | 1.69e-04 | 4.82e-05 | -1.08e-04 |
| 157 | 64 | -0.02 | 0.08 | -6.31e-03 | 6.35e-05 | 1.17e-04 | -1.09e-04 |
| 157 | 65 | -0.04 | 0.10 | 7.03e-03 | -8.22e-06 | 2.32e-05 | -1.09e-04 |
| 158 | 1 | -0.02 | 0.06 | -0.05 | 4.37e-05 | -1.11e-04 | -1.08e-04 |
| 158 | 3 | -0.02 | 0.06 | -0.05 | 5.51e-05 | 1.33e-05 | -1.08e-04 |
| 158 | 17 | -9.07e-03 | 0.08 | 2.68e-03 | -1.62e-04 | 8.67e-05 | -8.39e-05 |
| 158 | 22 | -0.05 | 0.05 | -7.96e-03 | -8.66e-05 | -9.94e-05 | -6.13e-05 |
| 158 | 26 | -0.03 | 0.03 | -9.89e-03 | -4.68e-05 | -2.29e-05 | -7.63e-05 |
| 158 | 41 | -0.01 | 0.06 | 9.99e-05 | -1.21e-04 | 5.50e-05 | -8.31e-05 |
| 158 | 42 | -0.04 | 0.04 | -5.37e-03 | -5.45e-05 | -4.92e-05 | -6.70e-05 |
| 158 | 46 | -0.04 | 0.05 | -4.84e-03 | -8.11e-05 | -4.03e-05 | -6.56e-05 |
| 158 | 58 | -0.02 | 0.04 | -0.03 | 3.27e-05 | -8.26e-05 | -7.97e-05 |
| 158 | 60 | -0.02 | 0.04 | -0.03 | 1.22e-05 | 1.25e-05 | -8.03e-05 |
| 158 | 62 | -0.02 | 0.04 | -0.03 | 5.83e-06 | -5.68e-05 | -8.00e-05 |
| 158 | 63 | -0.02 | 0.04 | -0.03 | 1.22e-05 | 1.25e-05 | -8.03e-05 |
| 158 | 65 | -0.02 | 0.04 | -2.06e-03 | -7.47e-05 | 2.07e-05 | -8.10e-05 |
| 159 | 1 | -0.04 | 0.06 | -0.05 | 0.0 | -2.15e-04 | -1.08e-04 |
| 159 | 3 | -0.03 | 0.06 | -0.05 | 0.0 | -6.22e-05 | -1.15e-04 |
| 159 | 5 | -0.01 | 0.06 | -0.05 | 0.0 | 1.17e-04 | -1.23e-04 |
| 159 | 17 | -3.80e-04 | 0.10 | 3.52e-03 | 0.0 | 1.05e-04 | -9.55e-05 |
| 159 | 19 | -0.07 | 0.04 | -6.62e-03 | 0.0 | -3.39e-04 | -6.22e-05 |
| 159 | 26 | -0.03 | 0.04 | -0.01 | 0.0 | -1.16e-04 | -8.00e-05 |
| 159 | 41 | -8.45e-03 | 0.08 | 2.68e-04 | 0.0 | 4.62e-05 | -9.23e-05 |
| 159 | 42 | -0.05 | 0.04 | -6.35e-03 | 0.0 | -1.82e-04 | -6.95e-05 |
| 159 | 58 | -0.03 | 0.04 | -0.04 | 0.0 | -1.59e-04 | -7.98e-05 |
| 159 | 61 | -0.01 | 0.05 | -0.02 | 0.0 | 6.06e-05 | -9.01e-05 |
| 159 | 62 | -0.03 | 0.04 | -0.03 | 0.0 | -1.23e-04 | -8.17e-05 |
| 159 | 63 | -0.02 | 0.05 | -0.03 | 0.0 | -3.88e-05 | -8.60e-05 |
| 159 | 64 | -0.01 | 0.05 | -0.02 | 0.0 | 6.06e-05 | -9.01e-05 |
| 159 | 65 | -0.02 | 0.05 | -2.61e-03 | 0.0 | -1.79e-05 | -8.75e-05 |
| 160 | 1 | -0.06 | 0.05 | -0.05 | 0.0 | -2.62e-04 | -1.15e-04 |
| 160 | 3 | -0.03 | 0.06 | -0.06 | 0.0 | -9.21e-05 | -1.29e-04 |
| 160 | 5 | -2.65e-03 | 0.06 | -0.05 | 0.0 | 1.00e-04 | -1.38e-04 |
| 160 | 17 | 8.58e-03 | 0.12 | 2.89e-03 | 0.0 | 9.20e-05 | -1.05e-04 |
| 160 | 19 | -0.10 | 0.04 | -7.32e-03 | 0.0 | -3.60e-04 | -7.99e-05 |
| 160 | 26 | -0.05 | 0.04 | -0.01 | 0.0 | -1.35e-04 | -9.13e-05 |
| 160 | 41 | -5.04e-03 | 0.09 | -3.72e-04 | 0.0 | 3.19e-05 | -1.02e-04 |
| 160 | 42 | -0.07 | 0.05 | -7.05e-03 | 0.0 | -2.03e-04 | -8.30e-05 |
| 160 | 58 | -0.05 | 0.04 | -0.04 | 0.0 | -1.92e-04 | -8.55e-05 |
| 160 | 61 | -6.56e-03 | 0.05 | -0.03 | 0.0 | 4.82e-05 | -1.01e-04 |
| 160 | 62 | -0.04 | 0.04 | -0.03 | 0.0 | -1.53e-04 | -8.83e-05 |
| 160 | 63 | -0.02 | 0.05 | -0.03 | 0.0 | -5.86e-05 | -9.60e-05 |
| 160 | 64 | -6.56e-03 | 0.05 | -0.03 | 0.0 | 4.82e-05 | -1.01e-04 |
| 160 | 65 | -0.02 | 0.06 | -3.27e-03 | 0.0 | -3.36e-05 | -9.70e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 161 | 1 | -0.09 | 0.05 | -0.06 | 1.01e-04 | -2.49e-04 | -1.22e-04 |
| 161 | 3 | -0.04 | 0.05 | -0.06 | 1.28e-04 | -3.87e-05 | -1.32e-04 |
| 161 | 5 | 9.14e-03 | 0.06 | -0.05 | 6.35e-05 | 1.68e-04 | -1.36e-04 |
| 161 | 17 | 0.02 | 0.14 | 6.43e-05 | -1.40e-04 | 7.86e-05 | -1.10e-04 |
| 161 | 19 | -0.13 | 0.04 | -8.16e-03 | -1.09e-05 | -1.78e-04 | -7.77e-05 |
| 161 | 26 | -0.06 | 0.04 | -0.01 | -2.07e-05 | -6.00e-05 | -9.17e-05 |
| 161 | 41 | -1.97e-03 | 0.11 | -2.57e-03 | -9.79e-05 | 4.04e-05 | -1.06e-04 |
| 161 | 42 | -0.08 | 0.05 | -8.23e-03 | -2.99e-05 | -9.41e-05 | -8.27e-05 |
| 161 | 58 | -0.06 | 0.03 | -0.04 | 7.39e-05 | -1.82e-04 | -9.05e-05 |
| 161 | 61 | -3.70e-04 | 0.05 | -0.03 | 2.20e-05 | 9.42e-05 | -1.00e-04 |
| 161 | 62 | -0.05 | 0.04 | -0.03 | 4.27e-05 | -1.37e-04 | -9.27e-05 |
| 161 | 63 | -0.03 | 0.05 | -0.03 | 5.77e-05 | -2.05e-05 | -9.82e-05 |
| 161 | 64 | -3.70e-04 | 0.05 | -0.03 | 2.20e-05 | 9.42e-05 | -1.00e-04 |
| 161 | 65 | -0.02 | 0.07 | -4.77e-03 | -5.11e-05 | -1.85e-06 | -9.90e-05 |
| 162 | 1 | -0.02 | 0.10 | -0.13 | 5.37e-05 | -3.06e-04 | -1.16e-04 |
| 162 | 17 | -4.48e-03 | 0.10 | 7.00e-03 | -2.38e-04 | 1.05e-04 | -8.38e-05 |
| 162 | 18 | -0.05 | 0.06 | -0.06 | -1.61e-05 | -2.64e-04 | -7.28e-05 |
| 162 | 23 | -0.05 | 0.08 | -0.06 | -9.48e-05 | -2.47e-04 | -7.08e-05 |
| 162 | 41 | -8.43e-03 | 0.09 | -2.55e-03 | -1.70e-04 | 5.79e-05 | -8.42e-05 |
| 162 | 42 | -0.03 | 0.06 | -0.04 | -5.31e-05 | -1.42e-04 | -7.32e-05 |
| 162 | 46 | -0.03 | 0.07 | -0.04 | -9.44e-05 | -1.35e-04 | -7.17e-05 |
| 162 | 58 | -0.01 | 0.07 | -0.09 | 3.99e-05 | -2.23e-04 | -8.58e-05 |
| 162 | 62 | -0.01 | 0.07 | -0.07 | 6.15e-06 | -1.66e-04 | -8.53e-05 |
| 162 | 65 | -0.01 | 0.07 | -0.01 | -9.52e-05 | 3.08e-06 | -8.35e-05 |
| 163 | 1 | -0.04 | 0.09 | -0.13 | 2.24e-03 | -1.71e-04 | -1.41e-04 |
| 163 | 5 | -1.17e-03 | 0.10 | -0.02 | 1.11e-03 | 2.11e-04 | -1.25e-04 |
| 163 | 16 | 9.63e-03 | 0.13 | 3.02e-03 | 3.61e-04 | 1.76e-04 | -8.60e-05 |
| 163 | 18 | -0.07 | 0.06 | -0.06 | 2.16e-04 | -2.61e-04 | -7.67e-05 |
| 163 | 40 | 8.86e-04 | 0.11 | -4.02e-03 | 3.84e-04 | 1.18e-04 | -8.75e-05 |
| 163 | 42 | -0.04 | 0.07 | -0.04 | 2.83e-04 | -1.16e-04 | -7.71e-05 |
| 163 | 58 | -0.03 | 0.07 | -0.09 | 1.65e-03 | -1.24e-04 | -1.05e-04 |
| 163 | 61 | -2.90e-03 | 0.07 | -0.01 | 7.12e-04 | 1.32e-04 | -9.13e-05 |
| 163 | 62 | -0.02 | 0.07 | -0.07 | 1.34e-03 | -8.01e-05 | -1.00e-04 |
| 163 | 64 | -2.90e-03 | 0.07 | -0.01 | 7.12e-04 | 1.32e-04 | -9.13e-05 |
| 163 | 65 | -9.90e-03 | 0.08 | -0.01 | 4.13e-04 | 5.18e-05 | -8.80e-05 |
| 164 | 1 | -0.06 | 0.09 | -0.13 | -1.35e-03 | -2.67e-04 | -1.51e-04 |
| 164 | 5 | 0.01 | 0.10 | -0.02 | 8.63e-05 | 4.33e-05 | -1.36e-04 |
| 164 | 16 | 0.02 | 0.15 | 2.69e-03 | 8.52e-04 | 2.94e-05 | -1.02e-04 |
| 164 | 18 | -0.10 | 0.06 | -0.06 | -3.30e-04 | -3.50e-04 | -7.53e-05 |
| 164 | 19 | -0.10 | 0.06 | -0.06 | -3.28e-04 | -3.53e-04 | -7.50e-05 |
| 164 | 40 | 5.24e-03 | 0.12 | -4.35e-03 | 5.75e-04 | -2.61e-05 | -9.95e-05 |
| 164 | 42 | -0.06 | 0.07 | -0.04 | -4.78e-05 | -2.15e-04 | -7.98e-05 |
| 164 | 58 | -0.04 | 0.07 | -0.09 | -1.00e-03 | -1.98e-04 | -1.12e-04 |
| 164 | 61 | 3.37e-03 | 0.08 | -0.01 | 1.17e-04 | 3.47e-06 | -9.94e-05 |
| 164 | 62 | -0.04 | 0.07 | -0.07 | -6.83e-04 | -1.69e-04 | -1.08e-04 |
| 164 | 64 | 3.37e-03 | 0.08 | -0.01 | 1.17e-04 | 3.47e-06 | -9.94e-05 |
| 164 | 65 | -0.01 | 0.09 | -0.01 | 2.69e-04 | -8.16e-05 | -9.57e-05 |
| 165 | 1 | -0.13 | 0.09 | -0.21 | 1.73e-04 | -1.73e-04 | 0.0 |
| 165 | 5 | -0.04 | 0.10 | -0.05 | 1.89e-04 | 1.64e-04 | 0.0 |
| 165 | 16 | -0.02 | 0.17 | 0.05 | 6.68e-05 | 1.11e-04 | 0.0 |
| 165 | 18 | -0.15 | 0.06 | -0.09 | 1.95e-04 | -1.81e-04 | 0.0 |
| 165 | 19 | -0.15 | 0.06 | -0.09 | 1.94e-04 | -1.83e-04 | 0.0 |
| 165 | 40 | -0.04 | 0.14 | 0.02 | 7.57e-05 | 6.42e-05 | 0.0 |
| 165 | 42 | -0.11 | 0.08 | -0.05 | 1.40e-04 | -8.61e-05 | 0.0 |
| 165 | 58 | -0.09 | 0.06 | -0.15 | 1.28e-04 | -1.30e-04 | 0.0 |
| 165 | 61 | -0.03 | 0.08 | -0.03 | 1.26e-04 | 9.36e-05 | 0.0 |
| 165 | 62 | -0.09 | 0.07 | -0.11 | 1.18e-04 | -9.36e-05 | 0.0 |
| 165 | 64 | -0.03 | 0.08 | -0.03 | 1.26e-04 | 9.36e-05 | 0.0 |
| 165 | 65 | -0.06 | 0.10 | -5.54e-03 | 8.80e-05 | 1.46e-05 | 0.0 |
| 166 | 1 | -0.12 | 8.21e-03 | -0.04 | 6.92e-05 | -3.30e-04 | 0.0 |
| 166 | 5 | -0.03 | 0.02 | -0.15 | 1.15e-05 | -2.32e-04 | 0.0 |
| 166 | 15 | -0.07 | 0.10 | 0.03 | -1.44e-04 | -1.03e-04 | 0.0 |
| 166 | 19 | -0.15 | 0.02 | 0.05 | -3.11e-05 | -2.81e-04 | 0.0 |
| 166 | 20 | 0.04 | 0.02 | -0.06 | -1.71e-05 | 1.41e-04 | 0.0 |
| 166 | 39 | -0.06 | 0.07 | 0.02 | -1.01e-04 | -8.21e-05 | 0.0 |
| 166 | 42 | -0.10 | 0.03 | 0.02 | -4.05e-05 | -1.77e-04 | 0.0 |
| 166 | 44 | -1.41e-03 | 0.02 | -0.03 | -3.29e-05 | 4.20e-05 | 0.0 |
| 166 | 58 | -0.09 | 6.10e-03 | -0.02 | 5.15e-05 | -2.39e-04 | 0.0 |
| 166 | 61 | -0.03 | 0.02 | -0.08 | -6.25e-06 | -1.40e-04 | 0.0 |
| 166 | 62 | -0.08 | 0.01 | -0.02 | 2.58e-05 | -1.95e-04 | 0.0 |
| 166 | 64 | -0.03 | 0.02 | -0.08 | -6.25e-06 | -1.40e-04 | 0.0 |
| 166 | 65 | -0.05 | 0.04 | -4.55e-04 | -5.12e-05 | -6.30e-05 | 0.0 |
| 167 | 1 | -0.08 | 0.06 | -0.10 | 1.26e-04 | -2.76e-04 | 0.0 |
| 167 | 5 | 0.01 | 0.08 | -0.04 | 4.85e-06 | 8.13e-05 | 0.0 |
| 167 | 16 | 0.02 | 0.15 | -4.55e-03 | -2.02e-04 | 2.80e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 167 | 18 | -0.13 | 0.05 | -0.03 | -2.40e-05 | -1.31e-04 | 0.0 |
| 167 | 19 | -0.13 | 0.05 | -0.03 | -2.37e-05 | -1.30e-04 | 0.0 |
| 167 | 40 | 1.15e-03 | 0.12 | -6.71e-03 | -1.45e-04 | 7.17e-06 | 0.0 |
| 167 | 42 | -0.08 | 0.06 | -0.02 | -5.16e-05 | -7.81e-05 | 0.0 |
| 167 | 58 | -0.06 | 0.05 | -0.07 | 9.36e-05 | -2.03e-04 | 0.0 |
| 167 | 61 | 2.46e-03 | 0.06 | -0.02 | -1.79e-05 | 4.22e-05 | 0.0 |
| 167 | 62 | -0.05 | 0.06 | -0.05 | 4.96e-05 | -1.56e-04 | 0.0 |
| 167 | 64 | 2.46e-03 | 0.06 | -0.02 | -1.79e-05 | 4.22e-05 | 0.0 |
| 167 | 65 | -0.02 | 0.08 | -0.01 | -8.24e-05 | -1.71e-05 | 0.0 |
| 168 | 1 | -0.13 | 0.06 | -0.17 | 5.86e-05 | -3.31e-04 | 0.0 |
| 168 | 5 | -0.04 | 0.08 | -0.08 | 1.18e-04 | 1.29e-04 | 0.0 |
| 168 | 17 | -0.02 | 0.15 | 0.04 | -1.71e-05 | 6.58e-05 | 0.0 |
| 168 | 18 | -0.15 | 0.05 | -0.06 | 1.02e-04 | -2.14e-04 | 0.0 |
| 168 | 19 | -0.15 | 0.05 | -0.05 | 1.01e-04 | -2.14e-04 | 0.0 |
| 168 | 41 | -0.04 | 0.12 | 0.02 | 5.08e-06 | 2.57e-05 | 0.0 |
| 168 | 42 | -0.11 | 0.06 | -0.03 | 6.52e-05 | -1.19e-04 | 0.0 |
| 168 | 58 | -0.09 | 0.05 | -0.12 | 4.50e-05 | -2.45e-04 | 0.0 |
| 168 | 61 | -0.03 | 0.06 | -0.04 | 7.46e-05 | 6.76e-05 | 0.0 |
| 168 | 62 | -0.09 | 0.06 | -0.09 | 4.14e-05 | -1.88e-04 | 0.0 |
| 168 | 64 | -0.03 | 0.06 | -0.04 | 7.46e-05 | 6.76e-05 | 0.0 |
| 168 | 65 | -0.06 | 0.08 | -5.97e-03 | 3.08e-05 | -1.79e-05 | 0.0 |
| 169 | 1 | -0.13 | 8.46e-03 | -0.04 | 4.12e-05 | -3.12e-04 | 0.0 |
| 169 | 5 | -0.04 | 0.02 | -0.15 | -7.56e-05 | -1.72e-04 | 0.0 |
| 169 | 15 | -0.08 | 0.10 | 0.04 | -1.49e-04 | -1.06e-04 | 0.0 |
| 169 | 19 | -0.15 | 0.02 | 0.05 | -3.58e-05 | -2.72e-04 | 0.0 |
| 169 | 23 | -0.15 | 0.06 | 0.07 | -8.99e-05 | -2.63e-04 | 0.0 |
| 169 | 39 | -0.07 | 0.07 | 0.02 | -1.07e-04 | -8.04e-05 | 0.0 |
| 169 | 42 | -0.11 | 0.03 | 0.03 | -4.68e-05 | -1.69e-04 | 0.0 |
| 169 | 46 | -0.10 | 0.05 | 0.03 | -7.55e-05 | -1.64e-04 | 0.0 |
| 169 | 58 | -0.10 | 6.28e-03 | -0.03 | 3.20e-05 | -2.26e-04 | 0.0 |
| 169 | 61 | -0.04 | 0.02 | -0.08 | -5.54e-05 | -1.07e-04 | 0.0 |
| 169 | 62 | -0.09 | 0.01 | -0.02 | 9.45e-06 | -1.84e-04 | 0.0 |
| 169 | 64 | -0.04 | 0.02 | -0.08 | -5.54e-05 | -1.07e-04 | 0.0 |
| 169 | 65 | -0.06 | 0.04 | 3.59e-03 | -5.81e-05 | -5.76e-05 | 0.0 |
| 170 | 1 | -0.10 | 0.08 | -0.18 | 6.37e-06 | 0.0 | -1.04e-04 |
| 170 | 5 | -0.07 | 0.09 | -0.08 | -1.14e-04 | 0.0 | -1.30e-04 |
| 170 | 17 | -0.05 | 0.13 | 0.05 | -3.80e-04 | 0.0 | -9.51e-05 |
| 170 | 18 | -0.11 | 0.06 | -0.09 | -9.26e-05 | 0.0 | -7.16e-05 |
| 170 | 19 | -0.11 | 0.06 | -0.08 | -9.37e-05 | 0.0 | -7.14e-05 |
| 170 | 41 | -0.05 | 0.11 | 0.02 | -2.95e-04 | 0.0 | -9.35e-05 |
| 170 | 42 | -0.09 | 0.06 | -0.05 | -1.36e-04 | 0.0 | -7.59e-05 |
| 170 | 58 | -0.08 | 0.06 | -0.13 | 3.48e-06 | 0.0 | -7.70e-05 |
| 170 | 61 | -0.06 | 0.07 | -0.04 | -1.11e-04 | 0.0 | -9.50e-05 |
| 170 | 62 | -0.07 | 0.06 | -0.10 | -4.45e-05 | 0.0 | -8.04e-05 |
| 170 | 64 | -0.06 | 0.07 | -0.04 | -1.11e-04 | 0.0 | -9.50e-05 |
| 170 | 65 | -0.06 | 0.08 | -9.85e-03 | -1.88e-04 | 0.0 | -9.06e-05 |
| 171 | 1 | -0.08 | 0.09 | -0.18 | 2.88e-04 | -2.40e-04 | -1.15e-04 |
| 171 | 3 | -0.08 | 0.09 | -0.13 | 1.96e-04 | -7.64e-05 | -1.23e-04 |
| 171 | 5 | -0.08 | 0.09 | -0.08 | 1.04e-04 | 9.21e-05 | -1.21e-04 |
| 171 | 17 | -0.05 | 0.10 | 0.05 | -2.40e-04 | 3.82e-05 | -8.72e-05 |
| 171 | 18 | -0.09 | 0.05 | -0.09 | 1.09e-04 | -2.55e-04 | -8.30e-05 |
| 171 | 19 | -0.09 | 0.05 | -0.08 | 1.03e-04 | -2.56e-04 | -8.30e-05 |
| 171 | 41 | -0.05 | 0.08 | 0.02 | -1.59e-04 | 2.19e-06 | -8.84e-05 |
| 171 | 42 | -0.07 | 0.06 | -0.05 | 3.15e-05 | -1.49e-04 | -8.09e-05 |
| 171 | 58 | -0.06 | 0.07 | -0.13 | 2.09e-04 | -1.77e-04 | -8.50e-05 |
| 171 | 60 | -0.06 | 0.07 | -0.07 | 9.19e-05 | -5.09e-05 | -9.04e-05 |
| 171 | 61 | -0.06 | 0.07 | -0.04 | 4.08e-05 | 4.26e-05 | -8.95e-05 |
| 171 | 62 | -0.06 | 0.07 | -0.10 | 1.43e-04 | -1.42e-04 | -8.59e-05 |
| 171 | 63 | -0.06 | 0.07 | -0.07 | 9.19e-05 | -5.09e-05 | -9.04e-05 |
| 171 | 64 | -0.06 | 0.07 | -0.04 | 4.08e-05 | 4.26e-05 | -8.95e-05 |
| 171 | 65 | -0.06 | 0.07 | -9.41e-03 | -5.52e-05 | -3.69e-05 | -8.85e-05 |
| 172 | 1 | -0.12 | 0.07 | -0.18 | 4.38e-05 | 0.0 | -1.06e-04 |
| 172 | 5 | -0.06 | 0.10 | -0.08 | 1.81e-05 | 0.0 | -1.37e-04 |
| 172 | 17 | -0.04 | 0.15 | 0.05 | -1.91e-04 | 0.0 | -1.09e-04 |
| 172 | 18 | -0.14 | 0.06 | -0.09 | 7.33e-06 | 0.0 | -7.00e-05 |
| 172 | 19 | -0.14 | 0.06 | -0.08 | 9.44e-06 | 0.0 | -6.98e-05 |
| 172 | 41 | -0.05 | 0.13 | 0.02 | -1.19e-04 | 0.0 | -1.04e-04 |
| 172 | 42 | -0.10 | 0.07 | -0.05 | -2.12e-05 | 0.0 | -7.78e-05 |
| 172 | 58 | -0.09 | 0.06 | -0.13 | 3.40e-05 | 0.0 | -7.85e-05 |
| 172 | 61 | -0.05 | 0.08 | -0.04 | -1.65e-06 | 0.0 | -1.00e-04 |
| 172 | 62 | -0.09 | 0.06 | -0.10 | 1.26e-05 | 0.0 | -8.31e-05 |
| 172 | 64 | -0.05 | 0.08 | -0.04 | -1.65e-06 | 0.0 | -1.00e-04 |
| 172 | 65 | -0.07 | 0.09 | -0.01 | -5.16e-05 | 0.0 | -9.68e-05 |
| 173 | 1 | -0.15 | 0.08 | -0.18 | -8.87e-05 | -2.48e-04 | -1.23e-04 |
| 173 | 5 | -0.06 | 0.09 | -0.08 | 5.59e-05 | 9.56e-05 | -1.32e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 173 | 16 | -0.04 | 0.16 | 0.04 | -6.00e-05 | 3.96e-05 | -1.12e-04 |
| 173 | 18 | -0.16 | 0.06 | -0.09 | 7.91e-05 | -2.57e-04 | -6.46e-05 |
| 173 | 19 | -0.16 | 0.06 | -0.09 | 8.31e-05 | -2.59e-04 | -6.44e-05 |
| 173 | 40 | -0.05 | 0.13 | 0.02 | -1.50e-05 | 2.41e-06 | -1.05e-04 |
| 173 | 42 | -0.12 | 0.07 | -0.05 | 4.69e-05 | -1.50e-04 | -7.50e-05 |
| 173 | 58 | -0.11 | 0.06 | -0.13 | -6.15e-05 | -1.83e-04 | -9.13e-05 |
| 173 | 61 | -0.05 | 0.07 | -0.04 | 3.86e-05 | 4.44e-05 | -9.75e-05 |
| 173 | 62 | -0.10 | 0.06 | -0.10 | -4.18e-05 | -1.47e-04 | -9.27e-05 |
| 173 | 64 | -0.05 | 0.07 | -0.04 | 3.86e-05 | 4.44e-05 | -9.75e-05 |
| 173 | 65 | -0.07 | 0.09 | -0.01 | 1.74e-05 | -3.70e-05 | -9.69e-05 |
| 174 | 1 | -0.08 | 0.05 | -0.05 | 8.79e-05 | -2.47e-04 | -1.22e-04 |
| 174 | 3 | -0.04 | 0.05 | -0.06 | 9.73e-05 | -4.48e-05 | -1.31e-04 |
| 174 | 5 | 0.01 | 0.06 | -0.05 | 4.39e-05 | 1.55e-04 | -1.34e-04 |
| 174 | 17 | 0.02 | 0.14 | -3.75e-03 | -1.69e-04 | 7.48e-05 | -1.10e-04 |
| 174 | 19 | -0.13 | 0.04 | -8.41e-03 | -1.17e-05 | -1.83e-04 | -7.34e-05 |
| 174 | 26 | -0.05 | 0.04 | -0.01 | -2.47e-05 | -6.43e-05 | -8.98e-05 |
| 174 | 41 | 5.13e-04 | 0.11 | -5.23e-03 | -1.18e-04 | 3.66e-05 | -1.05e-04 |
| 174 | 42 | -0.08 | 0.05 | -9.01e-03 | -3.53e-05 | -9.88e-05 | -8.00e-05 |
| 174 | 46 | -0.07 | 0.07 | -9.24e-03 | -6.73e-05 | -8.93e-05 | -8.11e-05 |
| 174 | 58 | -0.06 | 0.03 | -0.04 | 6.46e-05 | -1.81e-04 | -9.01e-05 |
| 174 | 61 | 1.95e-03 | 0.05 | -0.03 | 8.58e-06 | 8.60e-05 | -9.90e-05 |
| 174 | 62 | -0.05 | 0.04 | -0.03 | 3.30e-05 | -1.37e-04 | -9.21e-05 |
| 174 | 63 | -0.03 | 0.05 | -0.03 | 3.82e-05 | -2.47e-05 | -9.71e-05 |
| 174 | 64 | 1.95e-03 | 0.05 | -0.03 | 8.58e-06 | 8.60e-05 | -9.90e-05 |
| 174 | 65 | -0.02 | 0.07 | -6.14e-03 | -6.16e-05 | -5.60e-06 | -9.81e-05 |
| 175 | 1 | -0.08 | 0.07 | -0.12 | 1.17e-04 | -1.27e-04 | 0.0 |
| 175 | 5 | 0.01 | 0.09 | -0.03 | -5.69e-06 | 1.28e-04 | 0.0 |
| 175 | 16 | 0.02 | 0.16 | -8.25e-04 | -2.28e-04 | 5.62e-05 | 0.0 |
| 175 | 18 | -0.13 | 0.06 | -0.05 | -1.70e-05 | -1.26e-04 | 0.0 |
| 175 | 19 | -0.13 | 0.06 | -0.04 | -1.68e-05 | -1.28e-04 | 0.0 |
| 175 | 40 | 1.48e-03 | 0.13 | -4.99e-03 | -1.63e-04 | 3.03e-05 | 0.0 |
| 175 | 42 | -0.08 | 0.07 | -0.03 | -5.17e-05 | -6.27e-05 | 0.0 |
| 175 | 58 | -0.06 | 0.05 | -0.08 | 8.69e-05 | -9.64e-05 | 0.0 |
| 175 | 61 | 2.80e-03 | 0.07 | -0.02 | -2.58e-05 | 7.01e-05 | 0.0 |
| 175 | 62 | -0.05 | 0.06 | -0.06 | 4.25e-05 | -7.14e-05 | 0.0 |
| 175 | 64 | 2.80e-03 | 0.07 | -0.02 | -2.58e-05 | 7.01e-05 | 0.0 |
| 175 | 65 | -0.02 | 0.09 | -0.01 | -9.08e-05 | 3.42e-06 | 0.0 |
| 176 | 1 | -0.02 | 0.06 | -0.05 | 4.03e-05 | -1.10e-04 | -1.10e-04 |
| 176 | 3 | -0.02 | 0.06 | -0.05 | 3.67e-05 | 1.61e-05 | -1.10e-04 |
| 176 | 17 | -7.13e-03 | 0.08 | -1.61e-03 | -1.86e-04 | 8.99e-05 | -8.37e-05 |
| 176 | 22 | -0.05 | 0.05 | -0.01 | -9.27e-05 | -1.02e-04 | -6.64e-05 |
| 176 | 26 | -0.03 | 0.03 | -0.01 | -4.56e-05 | -2.23e-05 | -7.84e-05 |
| 176 | 41 | -0.01 | 0.06 | -3.06e-03 | -1.36e-04 | 5.75e-05 | -8.34e-05 |
| 176 | 46 | -0.03 | 0.05 | -6.89e-03 | -8.69e-05 | -4.09e-05 | -6.87e-05 |
| 176 | 58 | -0.02 | 0.04 | -0.03 | 3.02e-05 | -8.16e-05 | -8.13e-05 |
| 176 | 60 | -0.02 | 0.04 | -0.03 | 0.0 | 1.45e-05 | -8.15e-05 |
| 176 | 62 | -0.02 | 0.04 | -0.03 | 2.58e-06 | -5.55e-05 | -8.15e-05 |
| 176 | 63 | -0.02 | 0.04 | -0.03 | 0.0 | 1.45e-05 | -8.15e-05 |
| 176 | 65 | -0.02 | 0.04 | -3.96e-03 | -8.03e-05 | 2.25e-05 | -8.19e-05 |
| 177 | 1 | -0.04 | 0.06 | -0.05 | -1.48e-06 | -2.15e-04 | -1.10e-04 |
| 177 | 3 | -0.02 | 0.06 | -0.05 | -5.01e-06 | -6.30e-05 | -1.17e-04 |
| 177 | 5 | -9.38e-03 | 0.06 | -0.05 | -6.80e-06 | 1.15e-04 | -1.24e-04 |
| 177 | 17 | 1.87e-03 | 0.10 | -1.76e-03 | -5.84e-06 | 1.05e-04 | -9.54e-05 |
| 177 | 19 | -0.07 | 0.04 | -6.99e-03 | -2.74e-06 | -3.38e-04 | -6.63e-05 |
| 177 | 26 | -0.03 | 0.04 | -0.01 | -3.25e-06 | -1.17e-04 | -8.19e-05 |
| 177 | 41 | -6.27e-03 | 0.08 | -3.43e-03 | -4.95e-06 | 4.59e-05 | -9.26e-05 |
| 177 | 42 | -0.05 | 0.04 | -7.47e-03 | -3.17e-06 | -1.82e-04 | -7.21e-05 |
| 177 | 46 | -0.04 | 0.06 | -7.55e-03 | -3.69e-06 | -1.72e-04 | -7.17e-05 |
| 177 | 58 | -0.03 | 0.04 | -0.03 | -1.08e-06 | -1.59e-04 | -8.16e-05 |
| 177 | 61 | -9.19e-03 | 0.05 | -0.03 | -4.75e-06 | 5.95e-05 | -9.08e-05 |
| 177 | 62 | -0.02 | 0.04 | -0.03 | -1.79e-06 | -1.24e-04 | -8.33e-05 |
| 177 | 63 | -0.02 | 0.05 | -0.03 | -3.75e-06 | -3.93e-05 | -8.72e-05 |
| 177 | 64 | -9.19e-03 | 0.05 | -0.03 | -4.75e-06 | 5.95e-05 | -9.08e-05 |
| 177 | 65 | -0.02 | 0.05 | -4.57e-03 | -3.93e-06 | -1.82e-05 | -8.84e-05 |
| 178 | 1 | -0.06 | 0.05 | -0.05 | -3.08e-06 | -2.62e-04 | -1.16e-04 |
| 178 | 3 | -0.03 | 0.06 | -0.06 | -4.10e-06 | -8.94e-05 | -1.29e-04 |
| 178 | 5 | 6.07e-04 | 0.06 | -0.05 | -3.69e-06 | 1.05e-04 | -1.37e-04 |
| 178 | 17 | 0.01 | 0.12 | -2.48e-03 | -4.23e-06 | 9.40e-05 | -1.06e-04 |
| 178 | 19 | -0.10 | 0.04 | -7.76e-03 | -2.34e-06 | -3.59e-04 | -7.71e-05 |
| 178 | 26 | -0.04 | 0.04 | -0.01 | -2.44e-06 | -1.34e-04 | -9.04e-05 |
| 178 | 41 | -2.63e-03 | 0.09 | -4.16e-03 | -3.58e-06 | 3.37e-05 | -1.02e-04 |
| 178 | 42 | -0.06 | 0.05 | -8.25e-03 | -2.47e-06 | -2.01e-04 | -8.15e-05 |
| 178 | 46 | -0.06 | 0.07 | -8.34e-03 | -2.88e-06 | -1.91e-04 | -8.21e-05 |
| 178 | 58 | -0.04 | 0.04 | -0.04 | -2.26e-06 | -1.93e-04 | -8.56e-05 |
| 178 | 61 | -4.18e-03 | 0.05 | -0.03 | -2.75e-06 | 5.14e-05 | -1.00e-04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 178 | 62 | -0.04 | 0.04 | -0.03 | -2.41e-06 | -1.52e-04 | -8.84e-05 |
| 178 | 63 | -0.02 | 0.05 | -0.03 | -2.97e-06 | -5.68e-05 | -9.58e-05 |
| 178 | 64 | -4.18e-03 | 0.05 | -0.03 | -2.75e-06 | 5.14e-05 | -1.00e-04 |
| 178 | 65 | -0.02 | 0.06 | -5.30e-03 | -2.85e-06 | -3.19e-05 | -9.69e-05 |
| 179 | 1 | -0.08 | 0.02 | -0.02 | 7.48e-05 | -1.53e-04 | -1.19e-04 |
| 179 | 5 | 0.01 | 0.03 | -0.10 | 9.42e-05 | 1.45e-04 | -1.30e-04 |
| 179 | 17 | 0.02 | 0.11 | -0.03 | -1.78e-04 | 1.22e-04 | -1.05e-04 |
| 179 | 19 | -0.13 | 0.02 | 0.02 | -2.36e-05 | -2.02e-04 | -6.68e-05 |
| 179 | 24 | 0.09 | 0.07 | -0.05 | -1.03e-04 | 2.47e-04 | -1.24e-04 |
| 179 | 39 | -0.03 | 0.08 | -0.02 | -1.22e-04 | 8.16e-06 | -8.87e-05 |
| 179 | 42 | -0.08 | 0.03 | 1.45e-03 | -4.21e-05 | -9.32e-05 | -7.51e-05 |
| 179 | 48 | 0.04 | 0.05 | -0.03 | -8.37e-05 | 1.38e-04 | -1.16e-04 |
| 179 | 58 | -0.06 | 0.01 | -0.02 | 5.44e-05 | -1.11e-04 | -8.82e-05 |
| 179 | 61 | 1.12e-03 | 0.03 | -0.06 | 3.58e-05 | 8.73e-05 | -9.60e-05 |
| 179 | 62 | -0.05 | 0.02 | -0.02 | 2.51e-05 | -7.79e-05 | -9.00e-05 |
| 179 | 64 | 1.12e-03 | 0.03 | -0.06 | 3.58e-05 | 8.73e-05 | -9.60e-05 |
| 179 | 65 | -0.02 | 0.04 | -0.01 | -6.30e-05 | 2.24e-05 | -9.53e-05 |
| 180 | 1 | -0.02 | 0.03 | -0.02 | 2.84e-05 | -1.77e-04 | -1.17e-04 |
| 180 | 5 | -0.02 | 0.03 | -0.09 | -3.61e-05 | 1.84e-04 | -1.16e-04 |
| 180 | 15 | -0.03 | 0.06 | -0.01 | -1.87e-04 | -2.36e-05 | -8.56e-05 |
| 180 | 22 | -0.05 | 0.04 | 9.68e-03 | -9.76e-05 | -2.06e-04 | -7.79e-05 |
| 180 | 24 | 0.01 | 0.03 | -0.05 | -1.37e-04 | 2.48e-04 | -9.66e-05 |
| 180 | 39 | -0.02 | 0.04 | -0.01 | -1.38e-04 | -8.05e-06 | -8.38e-05 |
| 180 | 46 | -0.04 | 0.03 | -1.48e-03 | -9.11e-05 | -1.03e-04 | -7.70e-05 |
| 180 | 48 | -5.59e-05 | 0.03 | -0.03 | -1.11e-04 | 1.31e-04 | -9.64e-05 |
| 180 | 58 | -0.02 | 0.02 | -0.01 | 2.18e-05 | -1.31e-04 | -8.64e-05 |
| 180 | 61 | -0.02 | 0.03 | -0.05 | -4.04e-05 | 1.04e-04 | -8.60e-05 |
| 180 | 62 | -0.02 | 0.02 | -0.01 | -4.56e-06 | -9.64e-05 | -8.65e-05 |
| 180 | 64 | -0.02 | 0.03 | -0.05 | -4.04e-05 | 1.04e-04 | -8.60e-05 |
| 180 | 65 | -0.02 | 0.03 | -0.01 | -8.36e-05 | 7.50e-06 | -8.67e-05 |
| 181 | 1 | -0.05 | 0.03 | -0.02 | 1.49e-05 | -2.71e-04 | -7.99e-05 |
| 181 | 5 | -0.01 | 0.03 | -0.10 | 1.11e-05 | 7.43e-05 | -8.42e-05 |
| 181 | 14 | -0.04 | 0.08 | -0.02 | 1.10e-05 | -9.96e-05 | -6.49e-05 |
| 181 | 19 | -0.08 | 0.02 | 0.02 | 1.53e-05 | -3.40e-04 | -5.41e-05 |
| 181 | 24 | 0.04 | 0.04 | -0.05 | 1.49e-06 | 2.40e-04 | -7.02e-05 |
| 181 | 38 | -0.03 | 0.06 | -0.02 | 9.86e-06 | -7.56e-05 | -6.10e-05 |
| 181 | 42 | -0.05 | 0.03 | 1.51e-03 | 1.22e-05 | -1.99e-04 | -5.33e-05 |
| 181 | 48 | 9.98e-03 | 0.04 | -0.03 | 4.67e-06 | 9.99e-05 | -7.11e-05 |
| 181 | 58 | -0.03 | 0.02 | -0.02 | 1.11e-05 | -2.00e-04 | -5.91e-05 |
| 181 | 61 | -0.01 | 0.03 | -0.05 | 8.34e-06 | 2.94e-05 | -6.22e-05 |
| 181 | 62 | -0.03 | 0.02 | -0.01 | 1.05e-05 | -1.63e-04 | -5.98e-05 |
| 181 | 64 | -0.01 | 0.03 | -0.05 | 8.34e-06 | 2.94e-05 | -6.22e-05 |
| 181 | 65 | -0.02 | 0.03 | -0.01 | 8.42e-06 | -4.99e-05 | -6.22e-05 |
| 182 | 1 | -0.07 | 0.02 | -0.02 | -1.05e-05 | -1.91e-04 | -5.86e-05 |
| 182 | 5 | -2.71e-03 | 0.03 | -0.10 | -1.10e-05 | 1.56e-04 | -7.02e-05 |
| 182 | 17 | 6.85e-03 | 0.09 | -0.03 | -9.69e-06 | 1.28e-04 | -6.48e-05 |
| 182 | 19 | -0.11 | 0.02 | 0.02 | -3.65e-06 | -2.77e-04 | -1.83e-05 |
| 182 | 24 | 0.06 | 0.05 | -0.05 | -1.41e-05 | 3.00e-04 | -8.97e-05 |
| 182 | 39 | -0.03 | 0.07 | -0.02 | -7.49e-06 | -1.40e-05 | -4.58e-05 |
| 182 | 42 | -0.07 | 0.03 | 1.39e-03 | -5.97e-06 | -1.38e-04 | -3.03e-05 |
| 182 | 48 | 0.02 | 0.05 | -0.03 | -1.18e-05 | 1.61e-04 | -7.77e-05 |
| 182 | 58 | -0.05 | 0.02 | -0.02 | -7.81e-06 | -1.41e-04 | -4.32e-05 |
| 182 | 61 | -7.05e-03 | 0.03 | -0.06 | -8.37e-06 | 9.00e-05 | -5.23e-05 |
| 182 | 62 | -0.04 | 0.02 | -0.02 | -8.08e-06 | -1.03e-04 | -4.59e-05 |
| 182 | 64 | -7.05e-03 | 0.03 | -0.06 | -8.37e-06 | 9.00e-05 | -5.23e-05 |
| 182 | 65 | -0.02 | 0.04 | -0.01 | -8.89e-06 | 1.15e-05 | -5.40e-05 |
| 183 | 1 | -0.09 | 0.07 | -0.12 | 1.17e-04 | -8.46e-05 | 0.0 |
| 183 | 5 | 4.64e-03 | 0.09 | -0.03 | 3.91e-06 | 1.45e-04 | 0.0 |
| 183 | 16 | 0.01 | 0.16 | 0.01 | -2.22e-04 | 7.64e-05 | 0.0 |
| 183 | 18 | -0.13 | 0.06 | -0.05 | -9.93e-06 | -1.26e-04 | 0.0 |
| 183 | 19 | -0.13 | 0.06 | -0.04 | -9.86e-06 | -1.29e-04 | 0.0 |
| 183 | 40 | -5.50e-03 | 0.13 | 5.56e-03 | -1.57e-04 | 4.50e-05 | 0.0 |
| 183 | 42 | -0.08 | 0.07 | -0.03 | -4.55e-05 | -5.90e-05 | 0.0 |
| 183 | 58 | -0.07 | 0.05 | -0.09 | 8.64e-05 | -6.53e-05 | 0.0 |
| 183 | 61 | -3.70e-03 | 0.07 | -0.01 | -1.92e-05 | 8.16e-05 | 0.0 |
| 183 | 62 | -0.06 | 0.06 | -0.07 | 4.35e-05 | -4.59e-05 | 0.0 |
| 183 | 64 | -3.70e-03 | 0.07 | -0.01 | -1.92e-05 | 8.16e-05 | 0.0 |
| 183 | 65 | -0.03 | 0.09 | -4.97e-03 | -8.52e-05 | 1.20e-05 | 0.0 |
| 184 | 1 | -0.09 | 0.06 | -0.11 | 1.45e-04 | -2.95e-04 | 0.0 |
| 184 | 5 | 4.19e-03 | 0.08 | -0.04 | 2.69e-05 | 8.63e-05 | 0.0 |
| 184 | 16 | 0.01 | 0.15 | 8.21e-03 | -1.81e-04 | 5.61e-05 | 0.0 |
| 184 | 18 | -0.13 | 0.05 | -0.03 | -9.25e-06 | -1.37e-04 | 0.0 |
| 184 | 19 | -0.13 | 0.05 | -0.03 | -9.20e-06 | -1.35e-04 | 0.0 |
| 184 | 40 | -5.83e-03 | 0.12 | 2.38e-03 | -1.28e-04 | 2.60e-05 | 0.0 |
| 184 | 42 | -0.08 | 0.06 | -0.02 | -3.76e-05 | -7.70e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 184 | 58 | -0.07 | 0.05 | -0.08 | 1.07e-04 | -2.17e-04 | 0.0 |
| 184 | 61 | -4.03e-03 | 0.06 | -0.02 | -2.38e-06 | 4.72e-05 | 0.0 |
| 184 | 62 | -0.06 | 0.06 | -0.06 | 6.34e-05 | -1.65e-04 | 0.0 |
| 184 | 64 | -4.03e-03 | 0.06 | -0.02 | -2.38e-06 | 4.72e-05 | 0.0 |
| 184 | 65 | -0.03 | 0.08 | -5.23e-03 | -6.85e-05 | -8.43e-06 | 0.0 |
| 185 | 1 | -0.10 | 0.07 | -0.13 | 1.59e-04 | -2.04e-05 | 0.0 |
| 185 | 5 | -4.17e-03 | 0.09 | -0.03 | 4.36e-05 | 1.85e-04 | 0.0 |
| 185 | 16 | 5.24e-03 | 0.16 | 0.03 | -1.91e-04 | 1.18e-04 | 0.0 |
| 185 | 18 | -0.14 | 0.06 | -0.05 | 2.03e-05 | -1.12e-04 | 0.0 |
| 185 | 19 | -0.14 | 0.06 | -0.04 | 1.96e-05 | -1.15e-04 | 0.0 |
| 185 | 40 | -0.01 | 0.13 | 0.02 | -1.29e-04 | 7.75e-05 | 0.0 |
| 185 | 42 | -0.09 | 0.07 | -0.02 | -1.83e-05 | -4.07e-05 | 0.0 |
| 185 | 58 | -0.07 | 0.05 | -0.09 | 1.17e-04 | -1.82e-05 | 0.0 |
| 185 | 61 | -0.01 | 0.07 | -0.01 | 8.62e-06 | 1.09e-04 | 0.0 |
| 185 | 62 | -0.06 | 0.06 | -0.07 | 7.25e-05 | -4.84e-06 | 0.0 |
| 185 | 64 | -0.01 | 0.07 | -0.01 | 8.62e-06 | 1.09e-04 | 0.0 |
| 185 | 65 | -0.03 | 0.09 | -1.52e-05 | -6.01e-05 | 3.54e-05 | 0.0 |
| 186 | 1 | -0.10 | 0.06 | -0.12 | 1.98e-04 | -3.09e-04 | 0.0 |
| 186 | 5 | -4.59e-03 | 0.08 | -0.04 | 8.48e-05 | 9.26e-05 | 0.0 |
| 186 | 16 | 4.92e-03 | 0.15 | 0.02 | -1.39e-04 | 8.21e-05 | 0.0 |
| 186 | 18 | -0.14 | 0.05 | -0.03 | 2.99e-05 | -1.45e-04 | 0.0 |
| 186 | 19 | -0.14 | 0.05 | -0.03 | 2.89e-05 | -1.44e-04 | 0.0 |
| 186 | 40 | -0.01 | 0.12 | 9.62e-03 | -9.04e-05 | 4.28e-05 | 0.0 |
| 186 | 42 | -0.09 | 0.06 | -0.02 | -1.81e-06 | -7.83e-05 | 0.0 |
| 186 | 58 | -0.07 | 0.05 | -0.08 | 1.45e-04 | -2.27e-04 | 0.0 |
| 186 | 61 | -0.01 | 0.06 | -0.02 | 3.74e-05 | 5.23e-05 | 0.0 |
| 186 | 62 | -0.06 | 0.06 | -0.06 | 1.00e-04 | -1.71e-04 | 0.0 |
| 186 | 64 | -0.01 | 0.06 | -0.02 | 3.74e-05 | 5.23e-05 | 0.0 |
| 186 | 65 | -0.03 | 0.08 | -1.78e-03 | -3.52e-05 | -1.82e-06 | 0.0 |
| 187 | 1 | -0.11 | 0.07 | -0.15 | 2.96e-04 | 2.73e-05 | 0.0 |
| 187 | 5 | -0.02 | 0.09 | -0.04 | 1.58e-04 | 2.45e-04 | 0.0 |
| 187 | 16 | -5.54e-03 | 0.16 | 0.04 | -7.27e-05 | 1.84e-04 | 0.0 |
| 187 | 19 | -0.14 | 0.06 | -0.05 | 1.09e-04 | -9.46e-05 | 0.0 |
| 187 | 25 | 0.06 | 0.12 | 0.05 | -7.12e-05 | 2.33e-04 | 0.0 |
| 187 | 40 | -0.02 | 0.13 | 0.02 | -3.03e-05 | 1.29e-04 | 0.0 |
| 187 | 42 | -0.09 | 0.07 | -0.03 | 6.56e-05 | -1.37e-05 | 0.0 |
| 187 | 48 | 0.01 | 0.11 | 0.03 | -2.50e-05 | 1.57e-04 | 0.0 |
| 187 | 58 | -0.08 | 0.05 | -0.11 | 2.17e-04 | 1.66e-05 | 0.0 |
| 187 | 61 | -0.02 | 0.07 | -0.02 | 9.13e-05 | 1.51e-04 | 0.0 |
| 187 | 62 | -0.07 | 0.06 | -0.08 | 1.68e-04 | 3.03e-05 | 0.0 |
| 187 | 64 | -0.02 | 0.07 | -0.02 | 9.13e-05 | 1.51e-04 | 0.0 |
| 187 | 65 | -0.04 | 0.09 | 1.61e-03 | 1.99e-05 | 7.12e-05 | 0.0 |
| 188 | 1 | -0.11 | 0.06 | -0.14 | 2.54e-04 | -3.52e-04 | 0.0 |
| 188 | 5 | -0.02 | 0.08 | -0.06 | 1.69e-04 | 9.57e-05 | 0.0 |
| 188 | 16 | -5.84e-03 | 0.15 | 0.03 | -6.87e-05 | 8.39e-05 | 0.0 |
| 188 | 18 | -0.14 | 0.05 | -0.04 | 9.20e-05 | -1.73e-04 | 0.0 |
| 188 | 19 | -0.14 | 0.05 | -0.04 | 8.93e-05 | -1.71e-04 | 0.0 |
| 188 | 40 | -0.02 | 0.12 | 0.02 | -2.94e-05 | 4.02e-05 | 0.0 |
| 188 | 42 | -0.09 | 0.06 | -0.02 | 5.50e-05 | -9.54e-05 | 0.0 |
| 188 | 58 | -0.08 | 0.05 | -0.10 | 1.86e-04 | -2.59e-04 | 0.0 |
| 188 | 61 | -0.02 | 0.06 | -0.03 | 9.70e-05 | 5.22e-05 | 0.0 |
| 188 | 62 | -0.07 | 0.06 | -0.08 | 1.44e-04 | -1.97e-04 | 0.0 |
| 188 | 64 | -0.02 | 0.06 | -0.03 | 9.70e-05 | 5.22e-05 | 0.0 |
| 188 | 65 | -0.04 | 0.08 | -1.09e-03 | 1.79e-05 | -9.08e-06 | 0.0 |
| 189 | 1 | -0.12 | 0.08 | -0.18 | 5.04e-04 | 9.30e-06 | 0.0 |
| 189 | 5 | -0.03 | 0.10 | -0.04 | 2.76e-04 | 2.42e-04 | 0.0 |
| 189 | 16 | -0.01 | 0.17 | 0.06 | 7.45e-05 | 1.78e-04 | 0.0 |
| 189 | 19 | -0.15 | 0.06 | -0.07 | 2.15e-04 | -1.21e-04 | 0.0 |
| 189 | 25 | 0.05 | 0.14 | 0.08 | 0.0 | 2.41e-04 | 0.0 |
| 189 | 40 | -0.03 | 0.14 | 0.03 | 8.78e-05 | 1.21e-04 | 0.0 |
| 189 | 42 | -0.10 | 0.08 | -0.04 | 1.64e-04 | -3.03e-05 | 0.0 |
| 189 | 48 | 1.92e-03 | 0.12 | 0.04 | 5.59e-05 | 1.56e-04 | 0.0 |
| 189 | 58 | -0.09 | 0.06 | -0.13 | 3.70e-04 | 2.89e-06 | 0.0 |
| 189 | 61 | -0.03 | 0.08 | -0.02 | 1.78e-04 | 1.47e-04 | 0.0 |
| 189 | 62 | -0.08 | 0.07 | -0.10 | 3.04e-04 | 1.77e-05 | 0.0 |
| 189 | 64 | -0.03 | 0.08 | -0.02 | 1.78e-04 | 1.47e-04 | 0.0 |
| 189 | 65 | -0.05 | 0.10 | 2.28e-03 | 1.09e-04 | 6.22e-05 | 0.0 |
| 190 | 1 | -0.12 | 0.07 | -0.18 | 2.94e-04 | -1.14e-04 | 0.0 |
| 190 | 5 | -0.03 | 0.09 | -0.05 | 2.04e-04 | 1.93e-04 | 0.0 |
| 190 | 16 | -0.01 | 0.16 | 0.04 | 1.31e-05 | 1.40e-04 | 0.0 |
| 190 | 18 | -0.15 | 0.06 | -0.06 | 1.62e-04 | -1.45e-04 | 0.0 |
| 190 | 19 | -0.15 | 0.06 | -0.06 | 1.59e-04 | -1.48e-04 | 0.0 |
| 190 | 40 | -0.03 | 0.13 | 0.02 | 3.65e-05 | 8.81e-05 | 0.0 |
| 190 | 42 | -0.10 | 0.07 | -0.03 | 1.13e-04 | -5.86e-05 | 0.0 |
| 190 | 58 | -0.09 | 0.05 | -0.13 | 2.16e-04 | -8.70e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 190 | 61 | -0.03 | 0.07 | -0.03 | 1.29e-04 | 1.14e-04 | 0.0 |
| 190 | 62 | -0.08 | 0.06 | -0.10 | 1.79e-04 | -5.67e-05 | 0.0 |
| 190 | 64 | -0.03 | 0.07 | -0.03 | 1.29e-04 | 1.14e-04 | 0.0 |
| 190 | 65 | -0.05 | 0.09 | -1.89e-03 | 6.67e-05 | 3.41e-05 | 0.0 |
| 191 | 1 | -0.13 | 0.07 | -0.19 | 9.40e-05 | -2.12e-04 | 0.0 |
| 191 | 5 | -0.04 | 0.09 | -0.07 | 1.45e-04 | 1.54e-04 | 0.0 |
| 191 | 16 | -0.02 | 0.16 | 0.04 | 2.08e-05 | 9.94e-05 | 0.0 |
| 191 | 18 | -0.15 | 0.06 | -0.07 | 1.47e-04 | -1.88e-04 | 0.0 |
| 191 | 19 | -0.15 | 0.06 | -0.07 | 1.47e-04 | -1.90e-04 | 0.0 |
| 191 | 40 | -0.04 | 0.13 | 0.02 | 3.69e-05 | 5.41e-05 | 0.0 |
| 191 | 42 | -0.11 | 0.07 | -0.04 | 1.00e-04 | -9.42e-05 | 0.0 |
| 191 | 58 | -0.09 | 0.06 | -0.14 | 7.05e-05 | -1.58e-04 | 0.0 |
| 191 | 61 | -0.03 | 0.07 | -0.04 | 9.50e-05 | 8.63e-05 | 0.0 |
| 191 | 62 | -0.09 | 0.06 | -0.11 | 6.69e-05 | -1.17e-04 | 0.0 |
| 191 | 64 | -0.03 | 0.07 | -0.04 | 9.50e-05 | 8.63e-05 | 0.0 |
| 191 | 65 | -0.06 | 0.09 | -6.54e-03 | 5.60e-05 | 6.15e-06 | 0.0 |
| 192 | 1 | -0.12 | 0.06 | -0.16 | 2.09e-04 | -3.42e-04 | 0.0 |
| 192 | 5 | -0.03 | 0.08 | -0.07 | 1.83e-04 | 1.19e-04 | 0.0 |
| 192 | 17 | -0.01 | 0.15 | 0.04 | -2.68e-05 | 8.13e-05 | 0.0 |
| 192 | 18 | -0.15 | 0.05 | -0.05 | 1.16e-04 | -1.87e-04 | 0.0 |
| 192 | 19 | -0.15 | 0.05 | -0.04 | 1.14e-04 | -1.87e-04 | 0.0 |
| 192 | 41 | -0.03 | 0.12 | 0.02 | 3.97e-06 | 3.82e-05 | 0.0 |
| 192 | 42 | -0.10 | 0.06 | -0.03 | 7.82e-05 | -1.03e-04 | 0.0 |
| 192 | 58 | -0.09 | 0.05 | -0.11 | 1.53e-04 | -2.52e-04 | 0.0 |
| 192 | 61 | -0.03 | 0.06 | -0.04 | 1.11e-04 | 6.47e-05 | 0.0 |
| 192 | 62 | -0.08 | 0.06 | -0.09 | 1.25e-04 | -1.92e-04 | 0.0 |
| 192 | 64 | -0.03 | 0.06 | -0.04 | 1.11e-04 | 6.47e-05 | 0.0 |
| 192 | 65 | -0.05 | 0.08 | -3.20e-03 | 4.11e-05 | -9.33e-06 | 0.0 |
| 193 | 1 | -0.14 | 0.09 | -0.21 | -1.16e-04 | -2.30e-04 | 0.0 |
| 193 | 5 | -0.05 | 0.10 | -0.06 | 8.98e-05 | 1.21e-04 | 0.0 |
| 193 | 16 | -0.03 | 0.17 | 0.05 | 1.54e-05 | 6.55e-05 | 0.0 |
| 193 | 18 | -0.16 | 0.06 | -0.10 | 1.44e-04 | -2.28e-04 | 0.0 |
| 193 | 19 | -0.16 | 0.06 | -0.10 | 1.46e-04 | -2.30e-04 | 0.0 |
| 193 | 40 | -0.05 | 0.14 | 0.02 | 3.38e-05 | 2.58e-05 | 0.0 |
| 193 | 42 | -0.11 | 0.08 | -0.06 | 9.45e-05 | -1.26e-04 | 0.0 |
| 193 | 58 | -0.10 | 0.06 | -0.15 | -8.36e-05 | -1.70e-04 | 0.0 |
| 193 | 61 | -0.04 | 0.08 | -0.04 | 6.39e-05 | 6.29e-05 | 0.0 |
| 193 | 62 | -0.09 | 0.07 | -0.12 | -5.06e-05 | -1.32e-04 | 0.0 |
| 193 | 64 | -0.04 | 0.08 | -0.04 | 6.39e-05 | 6.29e-05 | 0.0 |
| 193 | 65 | -0.06 | 0.10 | -0.01 | 4.83e-05 | -1.71e-05 | 0.0 |
| 194 | 1 | -0.14 | 0.08 | -0.19 | -1.36e-04 | -2.51e-04 | 0.0 |
| 194 | 5 | -0.05 | 0.09 | -0.07 | 5.35e-05 | 1.18e-04 | 0.0 |
| 194 | 16 | -0.03 | 0.16 | 0.04 | -2.31e-05 | 6.09e-05 | 0.0 |
| 194 | 18 | -0.16 | 0.06 | -0.08 | 1.00e-04 | -2.31e-04 | 0.0 |
| 194 | 19 | -0.16 | 0.06 | -0.08 | 1.03e-04 | -2.33e-04 | 0.0 |
| 194 | 40 | -0.05 | 0.13 | 0.02 | 0.0 | 2.10e-05 | 0.0 |
| 194 | 42 | -0.11 | 0.07 | -0.05 | 5.90e-05 | -1.29e-04 | 0.0 |
| 194 | 58 | -0.10 | 0.06 | -0.14 | -9.69e-05 | -1.86e-04 | 0.0 |
| 194 | 61 | -0.04 | 0.07 | -0.04 | 3.78e-05 | 6.02e-05 | 0.0 |
| 194 | 62 | -0.09 | 0.06 | -0.10 | -6.75e-05 | -1.45e-04 | 0.0 |
| 194 | 64 | -0.04 | 0.07 | -0.04 | 3.78e-05 | 6.02e-05 | 0.0 |
| 194 | 65 | -0.06 | 0.09 | -9.26e-03 | 2.05e-05 | -2.13e-05 | 0.0 |
| 195 | 1 | -0.14 | 0.06 | -0.16 | -1.09e-04 | -2.96e-04 | 0.0 |
| 195 | 5 | -0.05 | 0.08 | -0.08 | 2.07e-05 | 1.15e-04 | 0.0 |
| 195 | 17 | -0.03 | 0.15 | 0.04 | -5.19e-05 | 4.71e-05 | 0.0 |
| 195 | 18 | -0.16 | 0.05 | -0.06 | 6.14e-05 | -2.40e-04 | 0.0 |
| 195 | 19 | -0.16 | 0.05 | -0.06 | 6.43e-05 | -2.41e-04 | 0.0 |
| 195 | 41 | -0.05 | 0.12 | 0.02 | -2.59e-05 | 1.02e-05 | 0.0 |
| 195 | 42 | -0.11 | 0.06 | -0.04 | 2.86e-05 | -1.38e-04 | 0.0 |
| 195 | 58 | -0.10 | 0.05 | -0.12 | -7.64e-05 | -2.19e-04 | 0.0 |
| 195 | 61 | -0.04 | 0.06 | -0.05 | 1.46e-05 | 5.72e-05 | 0.0 |
| 195 | 62 | -0.09 | 0.06 | -0.09 | -5.77e-05 | -1.72e-04 | 0.0 |
| 195 | 64 | -0.04 | 0.06 | -0.05 | 1.46e-05 | 5.72e-05 | 0.0 |
| 195 | 65 | -0.06 | 0.08 | -7.00e-03 | -1.84e-06 | -2.98e-05 | 0.0 |
| 196 | 1 | -0.08 | 0.06 | -0.08 | 1.11e-04 | -3.55e-04 | 0.0 |
| 196 | 5 | 0.01 | 0.07 | -0.04 | 1.47e-05 | 5.09e-05 | 0.0 |
| 196 | 17 | 0.02 | 0.15 | -1.34e-03 | -1.80e-04 | 0.0 | 0.0 |
| 196 | 18 | -0.13 | 0.05 | -0.03 | -2.56e-05 | -1.60e-04 | 0.0 |
| 196 | 19 | -0.13 | 0.05 | -0.02 | -2.54e-05 | -1.57e-04 | 0.0 |
| 196 | 41 | 8.03e-04 | 0.11 | -5.17e-03 | -1.29e-04 | -1.99e-05 | 0.0 |
| 196 | 42 | -0.08 | 0.06 | -0.02 | -4.82e-05 | -1.05e-04 | 0.0 |
| 196 | 58 | -0.06 | 0.04 | -0.06 | 8.19e-05 | -2.59e-04 | 0.0 |
| 196 | 61 | 2.26e-03 | 0.06 | -0.02 | -1.02e-05 | 2.07e-05 | 0.0 |
| 196 | 62 | -0.05 | 0.05 | -0.04 | 4.31e-05 | -2.05e-04 | 0.0 |
| 196 | 64 | 2.26e-03 | 0.06 | -0.02 | -1.02e-05 | 2.07e-05 | 0.0 |

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|---|---|---|---|---|---|---|---|
| 196 | 65 | -0.02 | 0.08 | -8.71e-03 | -7.33e-05 | -4.22e-05 | 0.0 |
| 197 | 1 | -0.14 | 0.03 | -0.09 | -1.19e-05 | -2.33e-04 | 0.0 |
| 197 | 5 | -0.05 | 0.04 | -0.13 | -2.29e-04 | 1.57e-04 | 0.0 |
| 197 | 15 | -0.09 | 0.12 | 0.04 | -1.23e-04 | -8.35e-05 | 0.0 |
| 197 | 17 | -0.03 | 0.12 | 0.03 | -1.30e-04 | 4.30e-05 | 0.0 |
| 197 | 19 | -0.16 | 0.03 | 0.01 | -2.39e-05 | -2.42e-04 | 0.0 |
| 197 | 39 | -0.08 | 0.09 | 0.02 | -9.08e-05 | -5.58e-05 | 0.0 |
| 197 | 41 | -0.05 | 0.09 | 0.02 | -9.40e-05 | 9.19e-06 | 0.0 |
| 197 | 42 | -0.11 | 0.04 | 4.77e-03 | -4.25e-05 | -1.38e-04 | 0.0 |
| 197 | 58 | -0.10 | 0.02 | -0.06 | -3.92e-06 | -1.71e-04 | 0.0 |
| 197 | 61 | -0.04 | 0.04 | -0.07 | -1.38e-04 | 8.10e-05 | 0.0 |
| 197 | 62 | -0.09 | 0.03 | -0.05 | -1.74e-05 | -1.36e-04 | 0.0 |
| 197 | 64 | -0.04 | 0.04 | -0.07 | -1.38e-04 | 8.10e-05 | 0.0 |
| 197 | 65 | -0.06 | 0.05 | 1.45e-03 | -5.80e-05 | -2.83e-05 | 0.0 |
| 198 | 1 | -0.09 | 0.06 | -0.09 | 1.28e-04 | -3.70e-04 | 0.0 |
| 198 | 5 | 3.92e-03 | 0.07 | -0.04 | 3.51e-05 | 7.17e-05 | 0.0 |
| 198 | 17 | 0.01 | 0.15 | 9.46e-03 | -1.47e-04 | 4.59e-05 | 0.0 |
| 198 | 18 | -0.13 | 0.05 | -0.03 | -1.55e-05 | -1.69e-04 | 0.0 |
| 198 | 19 | -0.13 | 0.05 | -0.02 | -1.53e-05 | -1.67e-04 | 0.0 |
| 198 | 41 | -6.17e-03 | 0.11 | 2.61e-03 | -1.05e-04 | 1.21e-05 | 0.0 |
| 198 | 42 | -0.08 | 0.06 | -0.02 | -3.64e-05 | -1.02e-04 | 0.0 |
| 198 | 58 | -0.07 | 0.04 | -0.06 | 9.42e-05 | -2.71e-04 | 0.0 |
| 198 | 61 | -4.23e-03 | 0.06 | -0.02 | 4.52e-06 | 3.60e-05 | 0.0 |
| 198 | 62 | -0.06 | 0.05 | -0.05 | 5.59e-05 | -2.09e-04 | 0.0 |
| 198 | 64 | -4.23e-03 | 0.06 | -0.02 | 4.52e-06 | 3.60e-05 | 0.0 |
| 198 | 65 | -0.03 | 0.08 | -4.26e-03 | -5.90e-05 | -2.57e-05 | 0.0 |
| 199 | 1 | -0.14 | 0.02 | -0.07 | -1.19e-05 | -2.47e-04 | 0.0 |
| 199 | 5 | -0.05 | 0.03 | -0.14 | -2.47e-04 | 5.28e-05 | 0.0 |
| 199 | 17 | -0.03 | 0.11 | 0.02 | -1.47e-04 | 3.27e-05 | 0.0 |
| 199 | 19 | -0.16 | 0.02 | 0.03 | -3.85e-05 | -2.52e-04 | 0.0 |
| 199 | 23 | -0.16 | 0.06 | 0.05 | -8.69e-05 | -2.48e-04 | 0.0 |
| 199 | 39 | -0.08 | 0.08 | 0.03 | -1.07e-04 | -6.55e-05 | 0.0 |
| 199 | 42 | -0.11 | 0.04 | 0.02 | -5.41e-05 | -1.48e-04 | 0.0 |
| 199 | 46 | -0.11 | 0.06 | 0.03 | -7.88e-05 | -1.45e-04 | 0.0 |
| 199 | 58 | -0.10 | 0.01 | -0.05 | -4.59e-06 | -1.81e-04 | 0.0 |
| 199 | 61 | -0.04 | 0.03 | -0.07 | -1.51e-04 | 2.15e-05 | 0.0 |
| 199 | 62 | -0.09 | 0.02 | -0.03 | -2.02e-05 | -1.45e-04 | 0.0 |
| 199 | 64 | -0.04 | 0.03 | -0.07 | -1.51e-04 | 2.15e-05 | 0.0 |
| 199 | 65 | -0.06 | 0.05 | 4.34e-03 | -6.71e-05 | -3.78e-05 | 0.0 |
| 200 | 1 | -0.10 | 0.06 | -0.10 | 1.55e-04 | -4.35e-04 | 0.0 |
| 200 | 5 | -4.82e-03 | 0.07 | -0.05 | 6.97e-05 | 5.78e-05 | 0.0 |
| 200 | 17 | 4.29e-03 | 0.15 | 0.02 | -1.38e-04 | 7.44e-05 | 0.0 |
| 200 | 18 | -0.14 | 0.05 | -0.03 | 1.29e-05 | -1.83e-04 | 0.0 |
| 200 | 19 | -0.14 | 0.05 | -0.02 | 1.23e-05 | -1.80e-04 | 0.0 |
| 200 | 41 | -0.01 | 0.11 | 9.20e-03 | -9.31e-05 | 2.69e-05 | 0.0 |
| 200 | 42 | -0.09 | 0.06 | -0.01 | -1.40e-05 | -1.10e-04 | 0.0 |
| 200 | 58 | -0.07 | 0.04 | -0.07 | 1.14e-04 | -3.18e-04 | 0.0 |
| 200 | 61 | -0.01 | 0.06 | -0.02 | 2.75e-05 | 2.87e-05 | 0.0 |
| 200 | 62 | -0.06 | 0.05 | -0.05 | 7.48e-05 | -2.45e-04 | 0.0 |
| 200 | 64 | -0.01 | 0.06 | -0.02 | 2.75e-05 | 2.87e-05 | 0.0 |
| 200 | 65 | -0.03 | 0.08 | -8.52e-04 | -4.25e-05 | -2.62e-05 | 0.0 |
| 201 | 1 | -0.11 | 0.06 | -0.12 | 2.50e-04 | -5.03e-04 | 0.0 |
| 201 | 5 | -0.02 | 0.07 | -0.06 | 1.83e-04 | 2.61e-05 | 0.0 |
| 201 | 17 | -6.46e-03 | 0.15 | 0.03 | -8.29e-05 | 3.01e-05 | 0.0 |
| 201 | 19 | -0.14 | 0.05 | -0.03 | 7.60e-05 | -2.17e-04 | 0.0 |
| 201 | 25 | 0.06 | 0.11 | 0.03 | -5.26e-05 | 1.12e-04 | 0.0 |
| 201 | 41 | -0.02 | 0.12 | 0.02 | -3.84e-05 | -9.50e-06 | 0.0 |
| 201 | 42 | -0.09 | 0.06 | -0.02 | 4.69e-05 | -1.42e-04 | 0.0 |
| 201 | 58 | -0.08 | 0.04 | -0.08 | 1.83e-04 | -3.68e-04 | 0.0 |
| 201 | 61 | -0.02 | 0.06 | -0.03 | 1.03e-04 | 4.22e-06 | 0.0 |
| 201 | 62 | -0.07 | 0.05 | -0.06 | 1.41e-04 | -2.90e-04 | 0.0 |
| 201 | 64 | -0.02 | 0.06 | -0.03 | 1.03e-04 | 4.22e-06 | 0.0 |
| 201 | 65 | -0.04 | 0.08 | 5.65e-04 | 1.34e-05 | -5.43e-05 | 0.0 |
| 202 | 1 | -0.13 | 0.06 | -0.15 | 8.51e-05 | -3.53e-04 | 0.0 |
| 202 | 5 | -0.04 | 0.07 | -0.09 | 1.19e-04 | 1.46e-04 | 0.0 |
| 202 | 17 | -0.02 | 0.15 | 0.03 | -2.43e-05 | 5.70e-05 | 0.0 |
| 202 | 18 | -0.15 | 0.05 | -0.04 | 8.66e-05 | -2.21e-04 | 0.0 |
| 202 | 19 | -0.15 | 0.05 | -0.04 | 8.57e-05 | -2.22e-04 | 0.0 |
| 202 | 34 | -0.07 | 0.04 | -0.03 | 5.44e-05 | -6.51e-05 | 0.0 |
| 202 | 41 | -0.04 | 0.12 | 0.02 | 0.0 | 1.88e-05 | 0.0 |
| 202 | 42 | -0.11 | 0.06 | -0.03 | 5.60e-05 | -1.26e-04 | 0.0 |
| 202 | 58 | -0.09 | 0.04 | -0.11 | 6.43e-05 | -2.61e-04 | 0.0 |
| 202 | 61 | -0.03 | 0.06 | -0.05 | 7.39e-05 | 7.65e-05 | 0.0 |
| 202 | 62 | -0.09 | 0.05 | -0.08 | 5.50e-05 | -2.01e-04 | 0.0 |
| 202 | 64 | -0.03 | 0.06 | -0.05 | 7.39e-05 | 7.65e-05 | 0.0 |

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|---|---|---|---|---|---|---|---|
| 202 | 65 | -0.06 | 0.08 | -4.87e-03 | 2.68e-05 | -2.31e-05 | 0.0 |
| 203 | 1 | -0.14 | 8.72e-03 | -0.04 | 2.63e-05 | -2.69e-04 | 0.0 |
| 203 | 5 | -0.05 | 0.02 | -0.14 | -1.29e-04 | -4.30e-05 | 0.0 |
| 203 | 15 | -0.09 | 0.10 | 0.05 | -1.49e-04 | -1.02e-04 | 0.0 |
| 203 | 19 | -0.16 | 0.02 | 0.06 | -3.36e-05 | -2.59e-04 | 0.0 |
| 203 | 23 | -0.16 | 0.06 | 0.07 | -8.79e-05 | -2.55e-04 | 0.0 |
| 203 | 39 | -0.08 | 0.07 | 0.03 | -1.05e-04 | -7.20e-05 | 0.0 |
| 203 | 42 | -0.11 | 0.03 | 0.03 | -4.63e-05 | -1.55e-04 | 0.0 |
| 203 | 46 | -0.11 | 0.05 | 0.04 | -7.45e-05 | -1.52e-04 | 0.0 |
| 203 | 58 | -0.10 | 6.47e-03 | -0.03 | 2.19e-05 | -1.96e-04 | 0.0 |
| 203 | 61 | -0.04 | 0.02 | -0.07 | -8.42e-05 | -3.26e-05 | 0.0 |
| 203 | 62 | -0.09 | 0.01 | -0.02 | 1.89e-06 | -1.58e-04 | 0.0 |
| 203 | 64 | -0.04 | 0.02 | -0.07 | -8.42e-05 | -3.26e-05 | 0.0 |
| 203 | 65 | -0.06 | 0.04 | 7.89e-03 | -5.80e-05 | -4.41e-05 | 0.0 |
| 204 | 1 | -0.08 | 0.04 | -0.04 | 9.17e-05 | -7.87e-05 | 0.0 |
| 204 | 5 | 0.01 | 0.05 | -0.07 | 1.10e-04 | 2.80e-04 | 0.0 |
| 204 | 17 | 0.02 | 0.13 | -0.01 | -1.48e-04 | 1.47e-04 | 0.0 |
| 204 | 19 | -0.13 | 0.03 | 2.37e-03 | -4.68e-06 | -8.04e-05 | 0.0 |
| 204 | 24 | 0.09 | 0.08 | -0.02 | -9.04e-05 | 2.00e-04 | 0.0 |
| 204 | 41 | 2.28e-04 | 0.10 | -0.01 | -1.00e-04 | 1.05e-04 | 0.0 |
| 204 | 42 | -0.08 | 0.05 | -4.86e-03 | -2.50e-05 | -1.14e-05 | 0.0 |
| 204 | 48 | 0.04 | 0.07 | -0.01 | -6.99e-05 | 1.32e-04 | 0.0 |
| 204 | 58 | -0.06 | 0.03 | -0.03 | 6.71e-05 | -5.83e-05 | 0.0 |
| 204 | 61 | 1.61e-03 | 0.04 | -0.04 | 4.83e-05 | 1.70e-04 | 0.0 |
| 204 | 62 | -0.05 | 0.03 | -0.02 | 3.85e-05 | -2.88e-05 | 0.0 |
| 204 | 64 | 1.61e-03 | 0.04 | -0.04 | 4.83e-05 | 1.70e-04 | 0.0 |
| 204 | 65 | -0.02 | 0.06 | -9.09e-03 | -4.76e-05 | 5.97e-05 | 0.0 |
| 205 | 1 | -0.13 | 0.04 | -0.10 | 1.02e-04 | -2.16e-04 | 0.0 |
| 205 | 5 | -0.04 | 0.05 | -0.13 | -1.98e-05 | 2.82e-04 | 0.0 |
| 205 | 12 | -0.03 | -6.44e-03 | -0.03 | 3.88e-05 | 4.09e-05 | 0.0 |
| 205 | 17 | -0.02 | 0.13 | 0.02 | -7.97e-05 | 7.79e-05 | 0.0 |
| 205 | 19 | -0.15 | 0.03 | -2.23e-03 | 1.88e-05 | -2.08e-04 | 0.0 |
| 205 | 36 | -0.05 | 0.02 | -0.02 | 1.46e-05 | 2.01e-05 | 0.0 |
| 205 | 41 | -0.04 | 0.10 | 0.01 | -5.01e-05 | 4.06e-05 | 0.0 |
| 205 | 42 | -0.11 | 0.05 | -4.55e-03 | 2.29e-06 | -1.07e-04 | 0.0 |
| 205 | 58 | -0.09 | 0.03 | -0.07 | 7.68e-05 | -1.60e-04 | 0.0 |
| 205 | 61 | -0.03 | 0.04 | -0.07 | -1.37e-05 | 1.57e-04 | 0.0 |
| 205 | 62 | -0.09 | 0.04 | -0.05 | 5.38e-05 | -1.20e-04 | 0.0 |
| 205 | 64 | -0.03 | 0.04 | -0.07 | -1.37e-05 | 1.57e-04 | 0.0 |
| 205 | 65 | -0.06 | 0.06 | -2.59e-03 | -1.54e-05 | 0.0 | 0.0 |
| 206 | 1 | -0.09 | 0.02 | -0.03 | 1.37e-04 | -1.76e-04 | 0.0 |
| 206 | 5 | 2.34e-03 | 0.03 | -0.11 | 2.98e-04 | 9.54e-05 | 0.0 |
| 206 | 17 | 0.01 | 0.11 | -0.02 | -1.17e-04 | 9.85e-05 | 0.0 |
| 206 | 19 | -0.13 | 0.02 | 0.02 | -3.05e-05 | -2.11e-04 | 0.0 |
| 206 | 24 | 0.08 | 0.07 | -0.05 | -2.74e-05 | 2.16e-04 | 0.0 |
| 206 | 39 | -0.04 | 0.08 | -8.11e-03 | -8.46e-05 | -9.75e-06 | 0.0 |
| 206 | 42 | -0.08 | 0.03 | 4.05e-03 | -2.84e-05 | -1.07e-04 | 0.0 |
| 206 | 48 | 0.03 | 0.06 | -0.03 | -2.86e-05 | 1.13e-04 | 0.0 |
| 206 | 58 | -0.07 | 0.01 | -0.02 | 9.83e-05 | -1.29e-04 | 0.0 |
| 206 | 61 | -5.39e-03 | 0.03 | -0.06 | 1.56e-04 | 5.51e-05 | 0.0 |
| 206 | 62 | -0.06 | 0.02 | -0.02 | 6.65e-05 | -9.58e-05 | 0.0 |
| 206 | 64 | -5.39e-03 | 0.03 | -0.06 | 1.56e-04 | 5.51e-05 | 0.0 |
| 206 | 65 | -0.03 | 0.04 | -0.01 | -2.90e-05 | 2.92e-06 | 0.0 |
| 207 | 1 | -0.09 | 7.52e-03 | -0.01 | 1.15e-04 | -2.36e-04 | 0.0 |
| 207 | 5 | 2.08e-03 | 0.02 | -0.12 | 1.91e-04 | 4.35e-05 | 0.0 |
| 207 | 15 | -0.05 | 0.10 | -6.57e-04 | -1.42e-04 | -5.24e-05 | 0.0 |
| 207 | 19 | -0.13 | 0.02 | 0.04 | -1.77e-05 | -2.84e-04 | 0.0 |
| 207 | 24 | 0.08 | 0.05 | -0.07 | -6.83e-05 | 2.48e-04 | 0.0 |
| 207 | 39 | -0.04 | 0.07 | -6.06e-03 | -9.53e-05 | -3.50e-05 | 0.0 |
| 207 | 42 | -0.08 | 0.03 | 0.02 | -2.87e-05 | -1.55e-04 | 0.0 |
| 207 | 48 | 0.03 | 0.04 | -0.04 | -5.65e-05 | 1.19e-04 | 0.0 |
| 207 | 58 | -0.07 | 5.59e-03 | -6.92e-03 | 8.28e-05 | -1.73e-04 | 0.0 |
| 207 | 61 | -5.59e-03 | 0.02 | -0.07 | 9.36e-05 | 2.12e-05 | 0.0 |
| 207 | 62 | -0.06 | 0.01 | -7.88e-03 | 5.14e-05 | -1.34e-04 | 0.0 |
| 207 | 64 | -5.59e-03 | 0.02 | -0.07 | 9.36e-05 | 2.12e-05 | 0.0 |
| 207 | 65 | -0.03 | 0.04 | -0.01 | -4.30e-05 | -1.79e-05 | 0.0 |
| 208 | 1 | -0.10 | 0.02 | -0.04 | 1.51e-04 | -1.84e-04 | 0.0 |
| 208 | 5 | -6.30e-03 | 0.03 | -0.13 | 2.89e-04 | 8.19e-05 | 0.0 |
| 208 | 17 | 3.45e-03 | 0.11 | -0.02 | -1.04e-04 | 8.92e-05 | 0.0 |
| 208 | 19 | -0.14 | 0.02 | 0.02 | -2.23e-05 | -2.11e-04 | 0.0 |
| 208 | 20 | 0.07 | 0.03 | -0.05 | 3.08e-05 | 1.85e-04 | 0.0 |
| 208 | 39 | -0.05 | 0.08 | -3.05e-03 | -7.33e-05 | -1.58e-05 | 0.0 |
| 208 | 42 | -0.09 | 0.03 | 5.59e-03 | -2.06e-05 | -1.10e-04 | 0.0 |
| 208 | 44 | 0.02 | 0.03 | -0.03 | 5.66e-06 | 9.33e-05 | 0.0 |
| 208 | 58 | -0.07 | 0.01 | -0.03 | 1.08e-04 | -1.34e-04 | 0.0 |

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|---|---|---|---|---|---|---|---|
| 208 | 61 | -0.01 | 0.03 | -0.07 | 1.52e-04 | 4.62e-05 | 0.0 |
| 208 | 62 | -0.06 | 0.02 | -0.02 | 7.56e-05 | -1.01e-04 | 0.0 |
| 208 | 64 | -0.01 | 0.03 | -0.07 | 1.52e-04 | 4.62e-05 | 0.0 |
| 208 | 65 | -0.03 | 0.04 | -9.94e-03 | -2.20e-05 | -3.05e-06 | 0.0 |
| 209 | 1 | -0.09 | 0.05 | -0.06 | 1.02e-04 | -2.54e-04 | 0.0 |
| 209 | 3 | -0.05 | 0.05 | -0.07 | 1.52e-04 | -1.95e-05 | 0.0 |
| 209 | 5 | 3.50e-03 | 0.06 | -0.05 | 8.01e-05 | 2.08e-04 | 0.0 |
| 209 | 17 | 0.01 | 0.14 | 3.94e-03 | -8.39e-05 | 8.48e-05 | 0.0 |
| 209 | 19 | -0.13 | 0.04 | -7.72e-03 | -1.85e-05 | -1.49e-04 | 0.0 |
| 209 | 26 | -0.06 | 0.04 | -0.01 | -2.25e-05 | -4.39e-05 | 0.0 |
| 209 | 41 | -6.45e-03 | 0.11 | 1.47e-04 | -6.16e-05 | 4.88e-05 | 0.0 |
| 209 | 42 | -0.08 | 0.05 | -7.31e-03 | -2.77e-05 | -7.40e-05 | 0.0 |
| 209 | 58 | -0.07 | 0.03 | -0.04 | 7.50e-05 | -1.87e-04 | 0.0 |
| 209 | 61 | -4.54e-03 | 0.05 | -0.03 | 3.50e-05 | 1.19e-04 | 0.0 |
| 209 | 62 | -0.06 | 0.04 | -0.03 | 4.70e-05 | -1.38e-04 | 0.0 |
| 209 | 63 | -0.03 | 0.05 | -0.04 | 7.49e-05 | -7.24e-06 | 0.0 |
| 209 | 64 | -4.54e-03 | 0.05 | -0.03 | 3.50e-05 | 1.19e-04 | 0.0 |
| 209 | 65 | -0.03 | 0.07 | -3.32e-03 | -3.70e-05 | 8.80e-06 | 0.0 |
| 210 | 1 | -0.09 | 0.04 | -0.05 | 1.01e-04 | -7.85e-05 | 0.0 |
| 210 | 5 | 3.07e-03 | 0.05 | -0.08 | 1.46e-04 | 3.20e-04 | 0.0 |
| 210 | 17 | 0.01 | 0.13 | -5.56e-03 | -1.16e-04 | 1.28e-04 | 0.0 |
| 210 | 19 | -0.13 | 0.03 | 2.98e-03 | -1.73e-05 | -9.54e-05 | 0.0 |
| 210 | 20 | 0.07 | 0.04 | -0.02 | -1.49e-05 | 1.86e-04 | 0.0 |
| 210 | 41 | -6.71e-03 | 0.10 | -6.23e-03 | -7.93e-05 | 9.35e-05 | 0.0 |
| 210 | 42 | -0.08 | 0.05 | -3.20e-03 | -2.74e-05 | -2.11e-05 | 0.0 |
| 210 | 44 | 0.03 | 0.05 | -0.01 | -2.63e-05 | 1.23e-04 | 0.0 |
| 210 | 58 | -0.07 | 0.03 | -0.03 | 7.34e-05 | -5.85e-05 | 0.0 |
| 210 | 61 | -4.86e-03 | 0.04 | -0.04 | 7.04e-05 | 1.91e-04 | 0.0 |
| 210 | 62 | -0.06 | 0.03 | -0.03 | 4.52e-05 | -3.01e-05 | 0.0 |
| 210 | 64 | -4.86e-03 | 0.04 | -0.04 | 7.04e-05 | 1.91e-04 | 0.0 |
| 210 | 65 | -0.03 | 0.06 | -6.24e-03 | -3.91e-05 | 5.53e-05 | 0.0 |
| 211 | 1 | -0.09 | 0.03 | -0.04 | 1.19e-04 | -8.04e-05 | 0.0 |
| 211 | 5 | 2.72e-03 | 0.04 | -0.10 | 2.22e-04 | 2.50e-04 | 0.0 |
| 211 | 17 | 0.01 | 0.12 | -0.01 | -1.23e-04 | 1.18e-04 | 0.0 |
| 211 | 19 | -0.13 | 0.03 | 8.61e-03 | -2.25e-05 | -1.05e-04 | 0.0 |
| 211 | 24 | 0.08 | 0.08 | -0.03 | -4.61e-05 | 1.96e-04 | 0.0 |
| 211 | 41 | -6.90e-03 | 0.09 | -0.01 | -8.08e-05 | 8.32e-05 | 0.0 |
| 211 | 42 | -0.08 | 0.04 | -1.93e-03 | -2.73e-05 | -3.08e-05 | 0.0 |
| 211 | 48 | 0.03 | 0.07 | -0.02 | -4.07e-05 | 1.23e-04 | 0.0 |
| 211 | 58 | -0.07 | 0.02 | -0.03 | 8.60e-05 | -5.90e-05 | 0.0 |
| 211 | 61 | -5.11e-03 | 0.04 | -0.05 | 1.13e-04 | 1.50e-04 | 0.0 |
| 211 | 62 | -0.06 | 0.03 | -0.02 | 5.59e-05 | -3.29e-05 | 0.0 |
| 211 | 64 | -5.11e-03 | 0.04 | -0.05 | 1.13e-04 | 1.50e-04 | 0.0 |
| 211 | 65 | -0.03 | 0.05 | -9.42e-03 | -3.43e-05 | 4.55e-05 | 0.0 |
| 212 | 1 | -0.10 | 0.04 | -0.05 | 1.20e-04 | -3.53e-05 | 0.0 |
| 212 | 5 | -5.66e-03 | 0.05 | -0.09 | 1.65e-04 | 4.27e-04 | 0.0 |
| 212 | 17 | 3.78e-03 | 0.13 | 2.15e-03 | -1.18e-04 | 1.22e-04 | 0.0 |
| 212 | 19 | -0.14 | 0.03 | 4.38e-03 | -1.86e-05 | -7.73e-05 | 0.0 |
| 212 | 20 | 0.07 | 0.04 | -0.02 | -4.17e-06 | 2.11e-04 | 0.0 |
| 212 | 41 | -0.01 | 0.10 | -9.46e-04 | -7.94e-05 | 9.75e-05 | 0.0 |
| 212 | 42 | -0.09 | 0.05 | -1.27e-03 | -2.61e-05 | -3.58e-06 | 0.0 |
| 212 | 44 | 0.02 | 0.05 | -9.27e-03 | -1.93e-05 | 1.42e-04 | 0.0 |
| 212 | 58 | -0.07 | 0.03 | -0.04 | 8.74e-05 | -2.80e-05 | 0.0 |
| 212 | 61 | -0.01 | 0.04 | -0.05 | 8.10e-05 | 2.53e-04 | 0.0 |
| 212 | 62 | -0.06 | 0.03 | -0.03 | 5.65e-05 | -3.41e-06 | 0.0 |
| 212 | 64 | -0.01 | 0.04 | -0.05 | 8.10e-05 | 2.53e-04 | 0.0 |
| 212 | 65 | -0.03 | 0.06 | -3.67e-03 | -3.62e-05 | 7.04e-05 | 0.0 |
| 213 | 1 | -0.12 | 0.02 | -0.06 | 8.12e-05 | -2.41e-04 | 0.0 |
| 213 | 5 | -0.03 | 0.03 | -0.16 | 8.08e-06 | 1.85e-05 | 0.0 |
| 213 | 17 | -0.02 | 0.11 | 3.54e-03 | -1.25e-04 | 5.24e-05 | 0.0 |
| 213 | 19 | -0.15 | 0.02 | 0.03 | -2.74e-05 | -2.37e-04 | 0.0 |
| 213 | 20 | 0.04 | 0.03 | -0.05 | -1.33e-05 | 1.63e-04 | 0.0 |
| 213 | 39 | -0.06 | 0.08 | 0.01 | -9.03e-05 | -4.79e-05 | 0.0 |
| 213 | 42 | -0.10 | 0.03 | 9.90e-03 | -3.52e-05 | -1.37e-04 | 0.0 |
| 213 | 44 | -1.11e-03 | 0.03 | -0.03 | -2.77e-05 | 6.89e-05 | 0.0 |
| 213 | 58 | -0.09 | 0.01 | -0.04 | 6.04e-05 | -1.76e-04 | 0.0 |
| 213 | 61 | -0.03 | 0.03 | -0.09 | -6.56e-06 | 4.95e-06 | 0.0 |
| 213 | 62 | -0.08 | 0.02 | -0.03 | 3.41e-05 | -1.39e-04 | 0.0 |
| 213 | 64 | -0.03 | 0.03 | -0.09 | -6.56e-06 | 4.95e-06 | 0.0 |
| 213 | 65 | -0.05 | 0.05 | -4.73e-03 | -4.48e-05 | -3.00e-05 | 0.0 |
| 214 | 1 | -0.11 | 0.04 | -0.07 | 2.07e-04 | -1.18e-05 | 0.0 |
| 214 | 5 | -0.02 | 0.05 | -0.11 | 2.03e-04 | 5.27e-04 | 0.0 |
| 214 | 12 | -0.02 | -6.73e-03 | -0.02 | 8.50e-05 | 1.13e-04 | 0.0 |
| 214 | 17 | -6.91e-03 | 0.13 | 0.01 | -9.56e-05 | 1.74e-04 | 0.0 |
| 214 | 19 | -0.14 | 0.03 | 3.81e-03 | 3.12e-05 | -8.78e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 214 | 36 | -0.03 | 0.02 | -0.01 | 4.50e-05 | 1.03e-04 | 0.0 |
| 214 | 41 | -0.02 | 0.10 | 5.32e-03 | -5.28e-05 | 1.35e-04 | 0.0 |
| 214 | 42 | -0.09 | 0.05 | -8.21e-04 | 1.70e-05 | 2.31e-06 | 0.0 |
| 214 | 58 | -0.08 | 0.03 | -0.05 | 1.50e-04 | -1.17e-05 | 0.0 |
| 214 | 61 | -0.02 | 0.04 | -0.06 | 1.10e-04 | 3.14e-04 | 0.0 |
| 214 | 62 | -0.07 | 0.03 | -0.04 | 1.12e-04 | 1.46e-05 | 0.0 |
| 214 | 64 | -0.02 | 0.04 | -0.06 | 1.10e-04 | 3.14e-04 | 0.0 |
| 214 | 65 | -0.04 | 0.06 | -1.83e-03 | -2.55e-06 | 9.33e-05 | 0.0 |
| 215 | 1 | -0.12 | 0.06 | -0.14 | 2.46e-04 | -4.25e-04 | 0.0 |
| 215 | 5 | -0.03 | 0.07 | -0.07 | 2.20e-04 | 1.03e-04 | 0.0 |
| 215 | 17 | -0.02 | 0.15 | 0.03 | -2.16e-05 | 4.65e-05 | 0.0 |
| 215 | 18 | -0.15 | 0.05 | -0.04 | 1.12e-04 | -2.18e-04 | 0.0 |
| 215 | 19 | -0.15 | 0.05 | -0.03 | 1.08e-04 | -2.17e-04 | 0.0 |
| 215 | 34 | -0.07 | 0.04 | -0.02 | 8.69e-05 | -7.73e-05 | 0.0 |
| 215 | 41 | -0.03 | 0.12 | 0.02 | 9.94e-06 | 8.18e-06 | 0.0 |
| 215 | 42 | -0.10 | 0.06 | -0.02 | 8.00e-05 | -1.31e-04 | 0.0 |
| 215 | 58 | -0.09 | 0.04 | -0.10 | 1.80e-04 | -3.12e-04 | 0.0 |
| 215 | 61 | -0.03 | 0.06 | -0.04 | 1.33e-04 | 5.06e-05 | 0.0 |
| 215 | 62 | -0.08 | 0.05 | -0.07 | 1.47e-04 | -2.43e-04 | 0.0 |
| 215 | 64 | -0.03 | 0.06 | -0.04 | 1.33e-04 | 5.06e-05 | 0.0 |
| 215 | 65 | -0.05 | 0.08 | -1.85e-03 | 4.84e-05 | -3.46e-05 | 0.0 |
| 216 | 1 | -0.10 | -3.59e-03 | 2.80e-03 | 8.22e-05 | -2.08e-04 | -1.27e-04 |
| 216 | 2 | -0.09 | -0.01 | 8.20e-03 | 9.92e-05 | -2.09e-04 | -9.12e-05 |
| 216 | 5 | -7.11e-03 | 6.15e-03 | -0.13 | 6.27e-05 | 2.84e-05 | -1.32e-04 |
| 216 | 15 | -0.06 | 0.09 | 0.01 | -1.48e-04 | -2.42e-05 | -1.06e-04 |
| 216 | 19 | -0.14 | 0.01 | 0.07 | -1.67e-05 | -2.43e-04 | -7.50e-05 |
| 216 | 24 | 0.07 | 0.04 | -0.08 | -8.35e-05 | 2.70e-04 | -1.29e-04 |
| 216 | 39 | -0.05 | 0.06 | 3.11e-03 | -1.02e-04 | -5.21e-06 | -1.01e-04 |
| 216 | 42 | -0.09 | 0.02 | 0.03 | -3.24e-05 | -1.19e-04 | -8.30e-05 |
| 216 | 48 | 0.02 | 0.03 | -0.05 | -6.75e-05 | 1.46e-04 | -1.21e-04 |
| 216 | 58 | -0.07 | -2.63e-03 | 4.37e-03 | 6.05e-05 | -1.51e-04 | -9.40e-05 |
| 216 | 61 | -0.01 | 0.01 | -0.07 | 2.20e-05 | 2.15e-05 | -9.86e-05 |
| 216 | 62 | -0.06 | 4.84e-03 | 1.63e-03 | 3.28e-05 | -1.10e-04 | -9.60e-05 |
| 216 | 64 | -0.01 | 0.01 | -0.07 | 2.20e-05 | 2.15e-05 | -9.86e-05 |
| 216 | 65 | -0.03 | 0.03 | -6.59e-03 | -5.01e-05 | 1.38e-05 | -1.02e-04 |
| 217 | 1 | -0.11 | -3.18e-03 | -4.40e-03 | 7.52e-05 | -2.16e-04 | -1.21e-04 |
| 217 | 2 | -0.10 | -0.01 | -6.85e-04 | 9.32e-05 | -2.16e-04 | -8.70e-05 |
| 217 | 5 | -0.02 | 6.62e-03 | -0.13 | 4.40e-05 | -4.61e-05 | -1.29e-04 |
| 217 | 15 | -0.07 | 0.09 | 0.03 | -1.51e-04 | -2.10e-05 | -9.90e-05 |
| 217 | 19 | -0.14 | 0.01 | 0.07 | -2.24e-05 | -2.20e-04 | -6.78e-05 |
| 217 | 20 | 0.05 | 4.56e-03 | -0.08 | -2.29e-05 | 2.40e-04 | -1.21e-04 |
| 217 | 39 | -0.06 | 0.06 | 0.01 | -1.04e-04 | -1.10e-06 | -9.55e-05 |
| 217 | 42 | -0.10 | 0.02 | 0.03 | -3.65e-05 | -1.06e-04 | -7.70e-05 |
| 217 | 44 | 6.76e-03 | 0.01 | -0.04 | -3.66e-05 | 1.33e-04 | -1.15e-04 |
| 217 | 58 | -0.08 | -2.33e-03 | -9.50e-04 | 5.55e-05 | -1.55e-04 | -8.96e-05 |
| 217 | 61 | -0.02 | 0.01 | -0.07 | 1.13e-05 | -1.77e-05 | -9.58e-05 |
| 217 | 62 | -0.07 | 5.13e-03 | -1.14e-03 | 2.86e-05 | -1.12e-04 | -9.16e-05 |
| 217 | 64 | -0.02 | 0.01 | -0.07 | 1.13e-05 | -1.77e-05 | -9.58e-05 |
| 217 | 65 | -0.04 | 0.03 | -1.70e-03 | -5.22e-05 | 1.85e-05 | -9.73e-05 |
| 218 | 1 | -0.12 | -2.76e-03 | -9.75e-03 | 6.98e-05 | -2.20e-04 | -1.17e-04 |
| 218 | 2 | -0.10 | -0.01 | -7.43e-03 | 8.88e-05 | -2.19e-04 | -8.44e-05 |
| 218 | 5 | -0.03 | 7.10e-03 | -0.13 | 3.06e-05 | -5.87e-05 | -1.28e-04 |
| 218 | 15 | -0.07 | 0.09 | 0.04 | -1.54e-04 | -2.83e-05 | -9.49e-05 |
| 218 | 19 | -0.15 | 0.01 | 0.07 | -2.71e-05 | -2.13e-04 | -6.23e-05 |
| 218 | 23 | -0.15 | 0.05 | 0.08 | -8.65e-05 | -2.00e-04 | -6.80e-05 |
| 218 | 39 | -0.06 | 0.06 | 0.02 | -1.07e-04 | -6.31e-06 | -9.19e-05 |
| 218 | 42 | -0.10 | 0.02 | 0.04 | -4.00e-05 | -1.04e-04 | -7.27e-05 |
| 218 | 46 | -0.10 | 0.04 | 0.04 | -7.14e-05 | -9.63e-05 | -7.50e-05 |
| 218 | 58 | -0.09 | -2.02e-03 | -4.91e-03 | 5.16e-05 | -1.58e-04 | -8.69e-05 |
| 218 | 61 | -0.03 | 0.01 | -0.07 | 3.36e-06 | -2.54e-05 | -9.45e-05 |
| 218 | 62 | -0.08 | 5.43e-03 | -3.11e-03 | 2.51e-05 | -1.15e-04 | -8.87e-05 |
| 218 | 64 | -0.03 | 0.01 | -0.07 | 3.36e-06 | -2.54e-05 | -9.45e-05 |
| 218 | 65 | -0.05 | 0.03 | 2.29e-03 | -5.45e-05 | 1.51e-05 | -9.42e-05 |
| 219 | 1 | -0.13 | -2.35e-03 | -0.01 | 6.33e-05 | -2.21e-04 | -1.12e-04 |
| 219 | 2 | -0.11 | -0.01 | -0.01 | 8.34e-05 | -2.17e-04 | -8.01e-05 |
| 219 | 5 | -0.04 | 7.54e-03 | -0.13 | 1.53e-05 | -2.61e-05 | -1.26e-04 |
| 219 | 15 | -0.08 | 0.09 | 0.05 | -1.58e-04 | -4.57e-05 | -8.94e-05 |
| 219 | 19 | -0.15 | 0.01 | 0.08 | -3.19e-05 | -2.18e-04 | -5.50e-05 |
| 219 | 23 | -0.15 | 0.05 | 0.09 | -9.17e-05 | -2.10e-04 | -6.08e-05 |
| 219 | 39 | -0.07 | 0.06 | 0.03 | -1.10e-04 | -2.02e-05 | -8.67e-05 |
| 219 | 42 | -0.11 | 0.02 | 0.04 | -4.38e-05 | -1.11e-04 | -6.67e-05 |
| 219 | 46 | -0.11 | 0.04 | 0.05 | -7.53e-05 | -1.06e-04 | -6.91e-05 |
| 219 | 58 | -0.10 | -1.71e-03 | -8.63e-03 | 4.70e-05 | -1.60e-04 | -8.25e-05 |
| 219 | 61 | -0.04 | 0.01 | -0.07 | -5.66e-06 | -1.04e-05 | -9.21e-05 |
| 219 | 62 | -0.09 | 5.72e-03 | -4.86e-03 | 2.10e-05 | -1.19e-04 | -8.42e-05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 219 | 64 | -0.04 | 0.01 | -0.07 | -5.66e-06 | -1.04e-05 | -9.21e-05 |
| 219 | 65 | -0.06 | 0.03 | 6.46e-03 | -5.70e-05 | 4.95e-06 | -8.93e-05 |
| 220 | 1 | -0.09 | -3.73e-03 | 8.00e-03 | 8.03e-05 | -2.05e-04 | -1.26e-04 |
| 220 | 2 | -0.08 | -0.01 | 0.01 | 9.82e-05 | -2.04e-04 | -9.08e-05 |
| 220 | 5 | 1.79e-03 | 5.96e-03 | -0.12 | 5.98e-05 | 9.19e-05 | -1.33e-04 |
| 220 | 15 | -0.05 | 0.09 | 3.34e-03 | -1.50e-04 | -3.28e-05 | -1.08e-04 |
| 220 | 19 | -0.13 | 0.01 | 0.07 | -1.65e-05 | -2.60e-04 | -7.50e-05 |
| 220 | 24 | 0.08 | 0.04 | -0.09 | -8.93e-05 | 2.69e-04 | -1.28e-04 |
| 220 | 39 | -0.04 | 0.06 | -3.69e-03 | -1.04e-04 | -1.43e-05 | -1.02e-04 |
| 220 | 42 | -0.08 | 0.02 | 0.03 | -3.37e-05 | -1.32e-04 | -8.28e-05 |
| 220 | 48 | 0.03 | 0.03 | -0.05 | -7.19e-05 | 1.41e-04 | -1.20e-04 |
| 220 | 58 | -0.07 | -2.73e-03 | 8.20e-03 | 5.90e-05 | -1.50e-04 | -9.35e-05 |
| 220 | 61 | -5.79e-03 | 0.01 | -0.07 | 1.96e-05 | 5.34e-05 | -9.93e-05 |
| 220 | 62 | -0.06 | 4.75e-03 | 3.65e-03 | 3.10e-05 | -1.11e-04 | -9.55e-05 |
| 220 | 64 | -5.79e-03 | 0.01 | -0.07 | 1.96e-05 | 5.34e-05 | -9.93e-05 |
| 220 | 65 | -0.03 | 0.03 | -0.01 | -5.29e-05 | 4.30e-06 | -1.01e-04 |
| 221 | 1 | -0.04 | 0.02 | 3.81e-03 | 6.29e-05 | -2.10e-04 | -1.07e-04 |
| 221 | 5 | -0.04 | 0.02 | -0.12 | 1.58e-05 | 1.98e-04 | -1.07e-04 |
| 221 | 14 | -0.04 | 0.05 | 9.06e-03 | -1.52e-04 | -8.38e-05 | -6.90e-05 |
| 221 | 22 | -0.06 | 0.03 | 0.06 | -7.71e-05 | -3.00e-04 | -6.66e-05 |
| 221 | 24 | 7.93e-04 | 0.02 | -0.08 | -9.64e-05 | 2.64e-04 | -9.08e-05 |
| 221 | 38 | -0.03 | 0.03 | 2.25e-03 | -1.07e-04 | -5.78e-05 | -7.24e-05 |
| 221 | 46 | -0.05 | 0.02 | 0.03 | -6.82e-05 | -1.69e-04 | -6.83e-05 |
| 221 | 48 | -0.01 | 0.01 | -0.05 | -7.77e-05 | 1.21e-04 | -9.10e-05 |
| 221 | 58 | -0.03 | 0.01 | 5.10e-03 | 4.68e-05 | -1.57e-04 | -7.91e-05 |
| 221 | 59 | -0.03 | 0.01 | 2.33e-03 | 2.07e-05 | -1.25e-04 | -7.97e-05 |
| 221 | 61 | -0.03 | 0.01 | -0.07 | -5.46e-06 | 1.02e-04 | -7.99e-05 |
| 221 | 62 | -0.03 | 0.01 | 2.33e-03 | 2.07e-05 | -1.25e-04 | -7.97e-05 |
| 221 | 64 | -0.03 | 0.01 | -0.07 | -5.46e-06 | 1.02e-04 | -7.99e-05 |
| 221 | 65 | -0.03 | 0.01 | -5.99e-03 | -5.77e-05 | -2.90e-05 | -8.13e-05 |
| 222 | 1 | -0.05 | 0.02 | -2.76e-03 | 6.83e-05 | -1.94e-04 | -1.06e-04 |
| 222 | 5 | -0.05 | 0.02 | -0.13 | 3.00e-05 | 2.49e-04 | -1.07e-04 |
| 222 | 14 | -0.05 | 0.05 | 0.02 | -1.50e-04 | -1.09e-04 | -6.94e-05 |
| 222 | 18 | -0.07 | 5.64e-03 | 0.07 | -2.26e-05 | -3.23e-04 | -7.20e-05 |
| 222 | 20 | -7.64e-03 | -2.23e-03 | -0.08 | -2.65e-05 | 2.51e-04 | -9.17e-05 |
| 222 | 38 | -0.04 | 0.03 | 0.01 | -1.04e-04 | -7.51e-05 | -7.18e-05 |
| 222 | 42 | -0.05 | 0.01 | 0.04 | -3.76e-05 | -1.85e-04 | -7.10e-05 |
| 222 | 44 | -0.02 | 2.13e-03 | -0.04 | -3.92e-05 | 1.11e-04 | -9.12e-05 |
| 222 | 58 | -0.04 | 0.01 | 2.31e-04 | 5.06e-05 | -1.46e-04 | -7.83e-05 |
| 222 | 59 | -0.04 | 0.01 | -3.34e-05 | 2.45e-05 | -1.19e-04 | -7.86e-05 |
| 222 | 61 | -0.04 | 0.01 | -0.07 | 3.25e-06 | 1.27e-04 | -7.93e-05 |
| 222 | 62 | -0.04 | 0.01 | -3.34e-05 | 2.45e-05 | -1.19e-04 | -7.86e-05 |
| 222 | 64 | -0.04 | 0.01 | -0.07 | 3.25e-06 | 1.27e-04 | -7.93e-05 |
| 222 | 65 | -0.04 | 0.01 | -8.28e-04 | -5.37e-05 | -3.68e-05 | -7.97e-05 |
| 223 | 1 | -0.06 | 0.02 | -8.04e-03 | 7.41e-05 | -1.95e-04 | -1.06e-04 |
| 223 | 5 | -0.06 | 0.02 | -0.13 | 3.93e-05 | 2.48e-04 | -1.09e-04 |
| 223 | 14 | -0.05 | 0.05 | 0.03 | -1.49e-04 | -1.28e-04 | -6.87e-05 |
| 223 | 18 | -0.07 | 5.48e-03 | 0.07 | -2.36e-05 | -3.23e-04 | -7.28e-05 |
| 223 | 23 | -0.07 | 0.03 | 0.08 | -8.28e-05 | -3.31e-04 | -6.82e-05 |
| 223 | 38 | -0.05 | 0.03 | 0.02 | -1.02e-04 | -8.96e-05 | -7.10e-05 |
| 223 | 42 | -0.06 | 0.01 | 0.04 | -3.66e-05 | -1.89e-04 | -7.10e-05 |
| 223 | 46 | -0.06 | 0.02 | 0.04 | -6.74e-05 | -1.90e-04 | -6.80e-05 |
| 223 | 59 | -0.04 | 0.01 | -1.97e-03 | 2.85e-05 | -1.22e-04 | -7.84e-05 |
| 223 | 61 | -0.04 | 0.01 | -0.07 | 9.14e-06 | 1.24e-04 | -8.05e-05 |
| 223 | 62 | -0.04 | 0.01 | -1.97e-03 | 2.85e-05 | -1.22e-04 | -7.84e-05 |
| 223 | 64 | -0.04 | 0.01 | -0.07 | 9.14e-06 | 1.24e-04 | -8.05e-05 |
| 223 | 65 | -0.04 | 0.01 | 3.14e-03 | -5.05e-05 | -4.60e-05 | -7.87e-05 |
| 224 | 1 | -0.07 | 0.02 | -0.01 | 8.06e-05 | -2.12e-04 | -1.04e-04 |
| 224 | 5 | -0.07 | 0.02 | -0.13 | 5.03e-05 | 2.06e-04 | -1.10e-04 |
| 224 | 14 | -0.06 | 0.05 | 0.05 | -1.50e-04 | -1.40e-04 | -6.52e-05 |
| 224 | 18 | -0.08 | 5.34e-03 | 0.07 | -2.56e-05 | -3.17e-04 | -7.12e-05 |
| 224 | 23 | -0.08 | 0.03 | 0.09 | -8.62e-05 | -3.28e-04 | -6.60e-05 |
| 224 | 38 | -0.05 | 0.03 | 0.03 | -1.02e-04 | -1.00e-04 | -6.77e-05 |
| 224 | 42 | -0.06 | 0.01 | 0.04 | -3.65e-05 | -1.90e-04 | -6.87e-05 |
| 224 | 46 | -0.06 | 0.02 | 0.05 | -6.79e-05 | -1.93e-04 | -6.54e-05 |
| 224 | 59 | -0.05 | 0.01 | -4.02e-03 | 3.25e-05 | -1.33e-04 | -7.64e-05 |
| 224 | 61 | -0.05 | 0.01 | -0.07 | 1.57e-05 | 9.93e-05 | -8.00e-05 |
| 224 | 62 | -0.05 | 0.01 | -4.02e-03 | 3.25e-05 | -1.33e-04 | -7.64e-05 |
| 224 | 64 | -0.05 | 0.01 | -0.07 | 1.57e-05 | 9.93e-05 | -8.00e-05 |
| 224 | 65 | -0.05 | 0.01 | 7.02e-03 | -4.81e-05 | -5.53e-05 | -7.58e-05 |
| 225 | 1 | -0.03 | 0.02 | 8.59e-03 | 7.09e-05 | -2.13e-04 | -1.03e-04 |
| 225 | 5 | -0.03 | 0.02 | -0.12 | 1.92e-05 | 1.58e-04 | -1.07e-04 |
| 225 | 14 | -0.04 | 0.05 | -7.99e-04 | -1.48e-04 | -6.01e-05 | -6.23e-05 |
| 225 | 22 | -0.06 | 0.03 | 0.06 | -6.92e-05 | -2.74e-04 | -5.99e-05 |
| 225 | 24 | 6.56e-03 | 0.02 | -0.09 | -9.73e-05 | 2.63e-04 | -8.95e-05 |

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|---|---|---|---|---|---|---|---|
| 225 | 38 | -0.03 | 0.03 | -4.62e-03 | -1.03e-04 | -3.98e-05 | -6.72e-05 |
| 225 | 46 | -0.04 | 0.02 | 0.03 | -6.21e-05 | -1.50e-04 | -6.32e-05 |
| 225 | 48 | -7.01e-03 | 0.01 | -0.05 | -7.62e-05 | 1.27e-04 | -8.88e-05 |
| 225 | 58 | -0.02 | 0.01 | 8.64e-03 | 5.28e-05 | -1.58e-04 | -7.62e-05 |
| 225 | 59 | -0.02 | 0.01 | 4.10e-03 | 2.62e-05 | -1.23e-04 | -7.67e-05 |
| 225 | 61 | -0.02 | 0.01 | -0.07 | -2.50e-06 | 8.30e-05 | -7.89e-05 |
| 225 | 62 | -0.02 | 0.01 | 4.10e-03 | 2.62e-05 | -1.23e-04 | -7.67e-05 |
| 225 | 64 | -0.02 | 0.01 | -0.07 | -2.50e-06 | 8.30e-05 | -7.89e-05 |
| 225 | 65 | -0.02 | 0.01 | -9.53e-03 | -5.36e-05 | -1.80e-05 | -7.82e-05 |
| 226 | 1 | -0.07 | 0.02 | -0.02 | 7.96e-05 | -2.29e-04 | -1.03e-04 |
| 226 | 5 | -0.07 | 0.02 | -0.14 | 5.50e-05 | 1.44e-04 | -1.08e-04 |
| 226 | 6 | -0.05 | 0.01 | -0.14 | 7.26e-05 | 1.63e-04 | -8.18e-05 |
| 226 | 14 | -0.06 | 0.05 | 0.06 | -1.58e-04 | -1.34e-04 | -6.42e-05 |
| 226 | 18 | -0.08 | 5.22e-03 | 0.07 | -3.28e-05 | -2.96e-04 | -7.24e-05 |
| 226 | 23 | -0.08 | 0.03 | 0.09 | -9.57e-05 | -3.04e-04 | -6.67e-05 |
| 226 | 38 | -0.06 | 0.03 | 0.04 | -1.08e-04 | -9.63e-05 | -6.69e-05 |
| 226 | 42 | -0.07 | 0.01 | 0.04 | -4.19e-05 | -1.79e-04 | -6.87e-05 |
| 226 | 46 | -0.07 | 0.02 | 0.05 | -7.45e-05 | -1.81e-04 | -6.53e-05 |
| 226 | 59 | -0.05 | 0.01 | -6.10e-03 | 3.09e-05 | -1.41e-04 | -7.58e-05 |
| 226 | 61 | -0.05 | 0.01 | -0.07 | 1.73e-05 | 6.60e-05 | -7.87e-05 |
| 226 | 62 | -0.05 | 0.01 | -6.10e-03 | 3.09e-05 | -1.41e-04 | -7.58e-05 |
| 226 | 64 | -0.05 | 0.01 | -0.07 | 1.73e-05 | 6.60e-05 | -7.87e-05 |
| 226 | 65 | -0.05 | 0.01 | 0.01 | -5.18e-05 | -5.48e-05 | -7.49e-05 |
| 227 | 1 | -0.10 | 0.01 | -0.02 | 4.71e-06 | -2.73e-04 | -7.11e-05 |
| 227 | 5 | -0.06 | 0.01 | -0.14 | -1.96e-06 | 7.31e-05 | -1.16e-04 |
| 227 | 6 | -0.04 | 6.88e-03 | -0.14 | -3.09e-06 | 9.74e-05 | -1.00e-04 |
| 227 | 15 | -0.07 | 0.06 | 0.06 | 2.72e-06 | -1.29e-04 | -2.59e-05 |
| 227 | 19 | -0.11 | 8.21e-03 | 0.08 | 8.79e-06 | -3.04e-04 | -1.98e-05 |
| 227 | 23 | -0.11 | 0.04 | 0.10 | 7.37e-06 | -2.99e-04 | -1.51e-05 |
| 227 | 39 | -0.07 | 0.04 | 0.04 | 3.15e-06 | -9.77e-05 | -3.08e-05 |
| 227 | 42 | -0.09 | 0.01 | 0.04 | 6.28e-06 | -1.88e-04 | -2.65e-05 |
| 227 | 46 | -0.09 | 0.03 | 0.05 | 5.53e-06 | -1.85e-04 | -2.31e-05 |
| 227 | 58 | -0.07 | 7.81e-03 | -0.01 | 3.62e-06 | -2.01e-04 | -5.15e-05 |
| 227 | 61 | -0.05 | 0.01 | -0.07 | 0.0 | 2.45e-05 | -7.42e-05 |
| 227 | 62 | -0.07 | 0.01 | -6.23e-03 | 3.65e-06 | -1.68e-04 | -4.91e-05 |
| 227 | 64 | -0.05 | 0.01 | -0.07 | 0.0 | 2.45e-05 | -7.42e-05 |
| 227 | 65 | -0.06 | 0.02 | 0.01 | 3.72e-06 | -6.67e-05 | -4.18e-05 |
| 228 | 1 | -0.12 | 4.16e-03 | -0.02 | -5.19e-06 | -2.03e-04 | -7.02e-05 |
| 228 | 5 | -0.06 | 0.01 | -0.14 | -1.95e-06 | 1.22e-04 | -1.25e-04 |
| 228 | 6 | -0.03 | 2.14e-03 | -0.14 | 0.0 | 1.27e-04 | -1.08e-04 |
| 228 | 15 | -0.08 | 0.08 | 0.06 | -8.76e-06 | -7.15e-05 | -3.59e-05 |
| 228 | 19 | -0.14 | 0.01 | 0.08 | -3.62e-06 | -2.41e-04 | -1.16e-05 |
| 228 | 23 | -0.13 | 0.04 | 0.10 | -5.37e-06 | -2.37e-04 | -1.23e-05 |
| 228 | 39 | -0.07 | 0.05 | 0.04 | -7.56e-06 | -4.19e-05 | -3.76e-05 |
| 228 | 42 | -0.10 | 0.02 | 0.04 | -4.86e-06 | -1.29e-04 | -2.38e-05 |
| 228 | 46 | -0.10 | 0.04 | 0.05 | -5.75e-06 | -1.26e-04 | -2.33e-05 |
| 228 | 58 | -0.09 | 3.11e-03 | -0.01 | -3.96e-06 | -1.49e-04 | -5.08e-05 |
| 228 | 61 | -0.05 | 0.01 | -0.07 | -2.75e-06 | 6.59e-05 | -8.01e-05 |
| 228 | 62 | -0.08 | 8.11e-03 | -6.34e-03 | -4.56e-06 | -1.15e-04 | -4.94e-05 |
| 228 | 64 | -0.05 | 0.01 | -0.07 | -2.75e-06 | 6.59e-05 | -8.01e-05 |
| 228 | 65 | -0.06 | 0.02 | 0.01 | -6.36e-06 | -1.04e-05 | -4.52e-05 |
| 229 | 1 | -0.09 | 0.01 | -0.01 | 0.0 | -3.06e-04 | -9.85e-05 |
| 229 | 5 | -0.06 | 0.01 | -0.13 | 0.0 | 6.15e-05 | -1.36e-04 |
| 229 | 15 | -0.07 | 0.06 | 0.05 | 0.0 | -1.53e-04 | -5.36e-05 |
| 229 | 19 | -0.11 | 7.98e-03 | 0.08 | 0.0 | -3.42e-04 | -4.57e-05 |
| 229 | 23 | -0.11 | 0.03 | 0.09 | 0.0 | -3.34e-04 | -4.24e-05 |
| 229 | 39 | -0.06 | 0.04 | 0.03 | 0.0 | -1.23e-04 | -5.68e-05 |
| 229 | 42 | -0.08 | 0.01 | 0.04 | 0.0 | -2.20e-04 | -5.15e-05 |
| 229 | 46 | -0.08 | 0.03 | 0.05 | 0.0 | -2.16e-04 | -4.89e-05 |
| 229 | 58 | -0.07 | 7.63e-03 | -8.06e-03 | 0.0 | -2.26e-04 | -7.21e-05 |
| 229 | 61 | -0.04 | 0.01 | -0.07 | 0.0 | 1.13e-05 | -9.15e-05 |
| 229 | 62 | -0.06 | 0.01 | -4.35e-03 | 0.0 | -1.93e-04 | -7.06e-05 |
| 229 | 64 | -0.04 | 0.01 | -0.07 | 0.0 | 1.13e-05 | -9.15e-05 |
| 229 | 65 | -0.06 | 0.02 | 6.79e-03 | 0.0 | -9.27e-05 | -6.62e-05 |
| 230 | 1 | -0.11 | 3.88e-03 | -0.01 | 0.0 | -1.73e-04 | -9.77e-05 |
| 230 | 5 | -0.05 | 0.01 | -0.13 | 0.0 | 1.45e-04 | -1.42e-04 |
| 230 | 15 | -0.08 | 0.08 | 0.05 | 0.0 | -3.49e-05 | -6.00e-05 |
| 230 | 19 | -0.13 | 0.01 | 0.08 | 0.0 | -2.17e-04 | -3.80e-05 |
| 230 | 23 | -0.13 | 0.04 | 0.09 | 0.0 | -2.08e-04 | -3.87e-05 |
| 230 | 39 | -0.07 | 0.05 | 0.03 | 0.0 | -8.65e-06 | -6.11e-05 |
| 230 | 42 | -0.10 | 0.02 | 0.04 | 0.0 | -1.03e-04 | -4.84e-05 |
| 230 | 46 | -0.10 | 0.04 | 0.05 | 0.0 | -9.76e-05 | -4.79e-05 |
| 230 | 58 | -0.08 | 2.90e-03 | -8.36e-03 | 0.0 | -1.27e-04 | -7.14e-05 |
| 230 | 61 | -0.04 | 0.01 | -0.07 | 0.0 | 8.63e-05 | -9.54e-05 |
| 230 | 62 | -0.08 | 7.88e-03 | -4.61e-03 | 0.0 | -9.03e-05 | -7.07e-05 |

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|---|---|---|---|---|---|---|---|
| 230 | 64 | -0.04 | 0.01 | -0.07 | 0.0 | 8.63e-05 | -9.54e-05 |
| 230 | 65 | -0.06 | 0.02 | 6.62e-03 | 0.0 | 1.88e-05 | -6.83e-05 |
| 231 | 1 | -0.08 | 0.01 | -8.69e-03 | 0.0 | -3.17e-04 | -1.09e-04 |
| 231 | 5 | -0.05 | 0.01 | -0.13 | 0.0 | 6.40e-05 | -1.24e-04 |
| 231 | 15 | -0.07 | 0.06 | 0.04 | 0.0 | -1.63e-04 | -7.58e-05 |
| 231 | 19 | -0.10 | 7.86e-03 | 0.07 | 0.0 | -3.60e-04 | -6.58e-05 |
| 231 | 23 | -0.10 | 0.03 | 0.08 | 0.0 | -3.51e-04 | -6.50e-05 |
| 231 | 39 | -0.06 | 0.04 | 0.02 | 0.0 | -1.33e-04 | -7.64e-05 |
| 231 | 42 | -0.08 | 0.01 | 0.04 | 0.0 | -2.34e-04 | -6.92e-05 |
| 231 | 46 | -0.08 | 0.03 | 0.04 | 0.0 | -2.29e-04 | -6.81e-05 |
| 231 | 58 | -0.06 | 7.51e-03 | -4.15e-03 | 0.0 | -2.35e-04 | -8.06e-05 |
| 231 | 61 | -0.04 | 0.01 | -0.07 | 0.0 | 9.99e-06 | -8.92e-05 |
| 231 | 62 | -0.06 | 0.01 | -2.41e-03 | 0.0 | -2.02e-04 | -8.11e-05 |
| 231 | 64 | -0.04 | 0.01 | -0.07 | 0.0 | 9.99e-06 | -8.92e-05 |
| 231 | 65 | -0.05 | 0.02 | 2.80e-03 | 0.0 | -1.02e-04 | -8.25e-05 |
| 232 | 1 | -0.10 | 3.66e-03 | -9.25e-03 | 0.0 | -1.60e-04 | -1.13e-04 |
| 232 | 5 | -0.04 | 0.01 | -0.13 | 0.0 | 1.53e-04 | -1.31e-04 |
| 232 | 15 | -0.07 | 0.08 | 0.04 | 0.0 | -1.63e-05 | -8.29e-05 |
| 232 | 19 | -0.13 | 0.01 | 0.07 | 0.0 | -2.08e-04 | -6.16e-05 |
| 232 | 23 | -0.13 | 0.04 | 0.08 | 0.0 | -1.95e-04 | -6.38e-05 |
| 232 | 39 | -0.06 | 0.05 | 0.02 | 0.0 | 7.87e-06 | -8.21e-05 |
| 232 | 42 | -0.09 | 0.02 | 0.04 | 0.0 | -9.17e-05 | -6.90e-05 |
| 232 | 46 | -0.09 | 0.04 | 0.04 | 0.0 | -8.47e-05 | -6.94e-05 |
| 232 | 58 | -0.08 | 2.73e-03 | -4.55e-03 | 0.0 | -1.17e-04 | -8.31e-05 |
| 232 | 61 | -0.03 | 0.01 | -0.07 | 0.0 | 9.42e-05 | -9.40e-05 |
| 232 | 62 | -0.07 | 7.71e-03 | -2.78e-03 | 0.0 | -7.97e-05 | -8.40e-05 |
| 232 | 64 | -0.03 | 0.01 | -0.07 | 0.0 | 9.42e-05 | -9.40e-05 |
| 232 | 65 | -0.05 | 0.02 | 2.53e-03 | 0.0 | 3.25e-05 | -8.67e-05 |
| 233 | 1 | -0.07 | 0.01 | -3.37e-03 | 0.0 | -3.12e-04 | -1.09e-04 |
| 233 | 5 | -0.04 | 0.01 | -0.13 | 0.0 | 6.86e-05 | -9.88e-05 |
| 233 | 15 | -0.06 | 0.06 | 0.03 | 0.0 | -1.56e-04 | -8.79e-05 |
| 233 | 19 | -0.10 | 7.77e-03 | 0.07 | 0.0 | -3.61e-04 | -7.80e-05 |
| 233 | 20 | 9.62e-03 | 1.08e-04 | -0.08 | 0.0 | 1.54e-04 | -1.02e-04 |
| 233 | 39 | -0.05 | 0.04 | 0.01 | 0.0 | -1.27e-04 | -8.65e-05 |
| 233 | 42 | -0.07 | 0.01 | 0.03 | 0.0 | -2.32e-04 | -7.88e-05 |
| 233 | 44 | -0.02 | 5.74e-03 | -0.04 | 0.0 | 3.18e-05 | -1.02e-04 |
| 233 | 58 | -0.06 | 7.42e-03 | -2.13e-04 | 0.0 | -2.31e-04 | -8.14e-05 |
| 233 | 61 | -0.03 | 0.01 | -0.07 | 0.0 | 1.38e-05 | -7.77e-05 |
| 233 | 62 | -0.05 | 9.92e-03 | -4.58e-04 | 0.0 | -1.98e-04 | -8.36e-05 |
| 233 | 64 | -0.03 | 0.01 | -0.07 | 0.0 | 1.38e-05 | -7.77e-05 |
| 233 | 65 | -0.04 | 0.02 | -1.19e-03 | 0.0 | -9.75e-05 | -9.02e-05 |
| 234 | 1 | -0.10 | 3.46e-03 | -3.91e-03 | 0.0 | -1.57e-04 | -1.18e-04 |
| 234 | 5 | -0.03 | 9.97e-03 | -0.13 | 0.0 | 1.59e-04 | -1.06e-04 |
| 234 | 15 | -0.07 | 0.08 | 0.03 | 0.0 | -1.10e-05 | -9.79e-05 |
| 234 | 19 | -0.13 | 9.96e-03 | 0.07 | 0.0 | -2.11e-04 | -7.81e-05 |
| 234 | 20 | 0.03 | 2.35e-03 | -0.08 | 0.0 | 2.68e-04 | -1.14e-04 |
| 234 | 39 | -0.06 | 0.05 | 0.01 | 0.0 | 1.23e-05 | -9.52e-05 |
| 234 | 42 | -0.09 | 0.02 | 0.03 | 0.0 | -9.14e-05 | -8.23e-05 |
| 234 | 44 | -7.36e-03 | 9.30e-03 | -0.04 | 0.0 | 1.56e-04 | -1.12e-04 |
| 234 | 58 | -0.07 | 2.58e-03 | -5.98e-04 | 0.0 | -1.14e-04 | -8.75e-05 |
| 234 | 61 | -0.03 | 0.01 | -0.07 | 0.0 | 9.85e-05 | -8.38e-05 |
| 234 | 62 | -0.07 | 7.56e-03 | -8.16e-04 | 0.0 | -7.67e-05 | -9.00e-05 |
| 234 | 64 | -0.03 | 0.01 | -0.07 | 0.0 | 9.85e-05 | -8.38e-05 |
| 234 | 65 | -0.05 | 0.02 | -1.47e-03 | 0.0 | 3.61e-05 | -9.76e-05 |
| 235 | 1 | -0.06 | 9.77e-03 | 3.45e-03 | 0.0 | -2.81e-04 | -1.27e-04 |
| 235 | 5 | -0.03 | 0.01 | -0.12 | 0.0 | 8.43e-05 | -9.77e-05 |
| 235 | 15 | -0.05 | 0.06 | 0.01 | 0.0 | -1.23e-04 | -1.07e-04 |
| 235 | 19 | -0.09 | 7.59e-03 | 0.07 | 0.0 | -3.37e-04 | -1.00e-04 |
| 235 | 24 | 0.02 | 0.03 | -0.08 | 0.0 | 1.98e-04 | -1.15e-04 |
| 235 | 39 | -0.04 | 0.04 | 3.42e-03 | 0.0 | -9.67e-05 | -1.05e-04 |
| 235 | 42 | -0.06 | 0.01 | 0.03 | 0.0 | -2.07e-04 | -9.83e-05 |
| 235 | 48 | -5.04e-03 | 0.02 | -0.05 | 0.0 | 6.82e-05 | -1.17e-04 |
| 235 | 58 | -0.05 | 7.24e-03 | 4.84e-03 | 0.0 | -2.08e-04 | -9.50e-05 |
| 235 | 61 | -0.02 | 0.01 | -0.07 | 0.0 | 2.97e-05 | -8.18e-05 |
| 235 | 62 | -0.04 | 9.73e-03 | 2.07e-03 | 0.0 | -1.73e-04 | -9.81e-05 |
| 235 | 64 | -0.02 | 0.01 | -0.07 | 0.0 | 2.97e-05 | -8.18e-05 |
| 235 | 65 | -0.04 | 0.02 | -6.24e-03 | 0.0 | -6.97e-05 | -1.08e-04 |
| 236 | 1 | -0.08 | 3.17e-03 | 3.13e-03 | 0.0 | -1.67e-04 | -1.38e-04 |
| 236 | 5 | -0.02 | 9.89e-03 | -0.13 | 0.0 | 1.57e-04 | -1.05e-04 |
| 236 | 15 | -0.06 | 0.08 | 0.01 | 0.0 | -1.99e-05 | -1.21e-04 |
| 236 | 19 | -0.12 | 9.59e-03 | 0.07 | 0.0 | -2.30e-04 | -1.02e-04 |
| 236 | 24 | 0.04 | 0.03 | -0.08 | 0.0 | 2.83e-04 | -1.33e-04 |
| 236 | 39 | -0.05 | 0.05 | 3.26e-03 | 0.0 | 2.94e-06 | -1.17e-04 |
| 236 | 42 | -0.08 | 0.02 | 0.03 | 0.0 | -1.06e-04 | -1.04e-04 |
| 236 | 48 | 5.41e-03 | 0.03 | -0.05 | 0.0 | 1.59e-04 | -1.31e-04 |

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|---|---|---|---|---|---|---|---|
| 236 | 58 | -0.06 | 2.36e-03 | 4.61e-03 | 0.0 | -1.22e-04 | -1.03e-04 |
| 236 | 61 | -0.02 | 0.01 | -0.07 | 0.0 | 9.50e-05 | -8.82e-05 |
| 236 | 62 | -0.06 | 7.33e-03 | 1.85e-03 | 0.0 | -8.49e-05 | -1.07e-04 |
| 236 | 64 | -0.02 | 0.01 | -0.07 | 0.0 | 9.50e-05 | -8.82e-05 |
| 236 | 65 | -0.04 | 0.02 | -6.43e-03 | 0.0 | 2.63e-05 | -1.18e-04 |
| 237 | 1 | -0.05 | 9.51e-03 | 8.38e-03 | -9.51e-06 | -2.43e-04 | -1.42e-04 |
| 237 | 5 | -0.02 | 0.01 | -0.12 | -4.75e-06 | 1.11e-04 | -1.19e-04 |
| 237 | 15 | -0.04 | 0.06 | 3.60e-03 | -1.30e-05 | -8.39e-05 | -1.12e-04 |
| 237 | 19 | -0.08 | 7.37e-03 | 0.07 | -8.10e-06 | -3.08e-04 | -1.08e-04 |
| 237 | 24 | 0.03 | 0.03 | -0.09 | -1.04e-05 | 2.35e-04 | -1.24e-04 |
| 237 | 39 | -0.04 | 0.04 | -3.42e-03 | -1.12e-05 | -6.05e-05 | -1.11e-04 |
| 237 | 42 | -0.06 | 0.01 | 0.03 | -8.56e-06 | -1.76e-04 | -1.07e-04 |
| 237 | 48 | 3.10e-03 | 0.02 | -0.05 | -9.90e-06 | 1.04e-04 | -1.25e-04 |
| 237 | 58 | -0.04 | 7.05e-03 | 8.49e-03 | -7.16e-06 | -1.79e-04 | -1.06e-04 |
| 237 | 61 | -0.02 | 0.01 | -0.07 | -5.04e-06 | 5.27e-05 | -9.57e-05 |
| 237 | 62 | -0.04 | 9.53e-03 | 3.94e-03 | -7.68e-06 | -1.44e-04 | -1.08e-04 |
| 237 | 64 | -0.02 | 0.01 | -0.07 | -5.04e-06 | 5.27e-05 | -9.57e-05 |
| 237 | 65 | -0.03 | 0.02 | -9.72e-03 | -9.24e-06 | -3.66e-05 | -1.16e-04 |
| 238 | 1 | -0.07 | 2.92e-03 | 8.17e-03 | 2.99e-06 | -1.89e-04 | -1.51e-04 |
| 238 | 5 | -9.31e-03 | 9.78e-03 | -0.12 | -2.04e-06 | 1.40e-04 | -1.25e-04 |
| 238 | 15 | -0.05 | 0.08 | 3.44e-03 | 0.0 | -3.57e-05 | -1.30e-04 |
| 238 | 19 | -0.11 | 9.32e-03 | 0.07 | 6.16e-06 | -2.57e-04 | -1.10e-04 |
| 238 | 24 | 0.05 | 0.03 | -0.09 | 0.0 | 2.74e-04 | -1.42e-04 |
| 238 | 39 | -0.04 | 0.05 | -3.58e-03 | 1.53e-06 | -1.39e-05 | -1.25e-04 |
| 238 | 42 | -0.07 | 0.02 | 0.03 | 4.38e-06 | -1.28e-04 | -1.12e-04 |
| 238 | 48 | 0.01 | 0.03 | -0.05 | 0.0 | 1.45e-04 | -1.39e-04 |
| 238 | 58 | -0.06 | 2.17e-03 | 8.33e-03 | 2.34e-06 | -1.39e-04 | -1.13e-04 |
| 238 | 61 | -0.01 | 0.01 | -0.07 | 0.0 | 8.10e-05 | -1.02e-04 |
| 238 | 62 | -0.05 | 7.13e-03 | 3.78e-03 | 2.42e-06 | -1.02e-04 | -1.16e-04 |
| 238 | 64 | -0.01 | 0.01 | -0.07 | 0.0 | 8.10e-05 | -1.02e-04 |
| 238 | 65 | -0.03 | 0.02 | -9.88e-03 | 2.65e-06 | 8.41e-06 | -1.26e-04 |
| 239 | 1 | -0.06 | 0.05 | -0.05 | 2.67e-04 | -1.84e-04 | 0.0 |
| 239 | 4 | -0.05 | 0.04 | -0.06 | 1.94e-04 | -7.75e-05 | 0.0 |
| 239 | 5 | -0.06 | 0.05 | -0.06 | 2.67e-04 | 5.85e-05 | 0.0 |
| 239 | 14 | -0.05 | 0.07 | 0.03 | 2.32e-05 | -4.72e-05 | 0.0 |
| 239 | 15 | -0.05 | 0.07 | 0.03 | 1.87e-05 | -4.76e-05 | 0.0 |
| 239 | 18 | -0.08 | 0.03 | 6.38e-03 | 9.92e-05 | -1.76e-04 | 0.0 |
| 239 | 38 | -0.05 | 0.06 | 0.02 | 5.08e-05 | -3.35e-05 | 0.0 |
| 239 | 39 | -0.05 | 0.06 | 0.02 | 4.95e-05 | -3.37e-05 | 0.0 |
| 239 | 42 | -0.06 | 0.03 | 8.91e-03 | 8.92e-05 | -9.98e-05 | 0.0 |
| 239 | 58 | -0.05 | 0.04 | -0.04 | 1.97e-04 | -1.35e-04 | 0.0 |
| 239 | 59 | -0.05 | 0.04 | -0.02 | 1.68e-04 | -1.06e-04 | 0.0 |
| 239 | 61 | -0.05 | 0.04 | -0.03 | 1.68e-04 | 2.88e-05 | 0.0 |
| 239 | 62 | -0.05 | 0.04 | -0.02 | 1.68e-04 | -1.06e-04 | 0.0 |
| 239 | 63 | -0.05 | 0.04 | -0.03 | 1.44e-04 | -5.16e-05 | 0.0 |
| 239 | 64 | -0.05 | 0.04 | -0.03 | 1.68e-04 | 2.88e-05 | 0.0 |
| 239 | 65 | -0.05 | 0.04 | 0.01 | 8.17e-05 | -1.93e-05 | 0.0 |
| 240 | 1 | -0.08 | 0.07 | -0.11 | 1.02e-04 | -1.50e-04 | 0.0 |
| 240 | 5 | 0.02 | 0.09 | -0.03 | -1.29e-05 | 1.21e-04 | 0.0 |
| 240 | 16 | 0.03 | 0.16 | -0.01 | -2.33e-04 | 4.72e-05 | 0.0 |
| 240 | 19 | -0.12 | 0.06 | -0.04 | -2.04e-05 | -1.25e-04 | 0.0 |
| 240 | 22 | -0.12 | 0.10 | -0.05 | -9.77e-05 | -1.18e-04 | 0.0 |
| 240 | 40 | 6.50e-03 | 0.13 | -0.01 | -1.67e-04 | 2.42e-05 | 0.0 |
| 240 | 42 | -0.07 | 0.07 | -0.03 | -5.52e-05 | -6.23e-05 | 0.0 |
| 240 | 46 | -0.07 | 0.09 | -0.03 | -9.55e-05 | -5.94e-05 | 0.0 |
| 240 | 58 | -0.06 | 0.05 | -0.08 | 7.58e-05 | -1.13e-04 | 0.0 |
| 240 | 61 | 7.49e-03 | 0.07 | -0.02 | -3.06e-05 | 6.58e-05 | 0.0 |
| 240 | 62 | -0.05 | 0.06 | -0.06 | 3.32e-05 | -8.47e-05 | 0.0 |
| 240 | 64 | 7.49e-03 | 0.07 | -0.02 | -3.06e-05 | 6.58e-05 | 0.0 |
| 240 | 65 | -0.01 | 0.09 | -0.02 | -9.43e-05 | 0.0 | 0.0 |
| 241 | 1 | -0.07 | 0.07 | -0.10 | 7.70e-05 | -1.75e-04 | 0.0 |
| 241 | 5 | 0.03 | 0.09 | -0.03 | -1.96e-05 | 1.13e-04 | 0.0 |
| 241 | 16 | 0.03 | 0.16 | -0.03 | -2.39e-04 | 3.62e-05 | 0.0 |
| 241 | 19 | -0.12 | 0.06 | -0.04 | -2.16e-05 | -1.21e-04 | 0.0 |
| 241 | 22 | -0.11 | 0.10 | -0.06 | -1.01e-04 | -1.17e-04 | 0.0 |
| 241 | 40 | 0.01 | 0.13 | -0.02 | -1.71e-04 | 1.67e-05 | 0.0 |
| 241 | 42 | -0.07 | 0.07 | -0.04 | -5.68e-05 | -6.18e-05 | 0.0 |
| 241 | 46 | -0.06 | 0.09 | -0.04 | -9.81e-05 | -6.06e-05 | 0.0 |
| 241 | 58 | -0.05 | 0.05 | -0.07 | 5.72e-05 | -1.32e-04 | 0.0 |
| 241 | 61 | 0.01 | 0.07 | -0.02 | -3.49e-05 | 6.04e-05 | 0.0 |
| 241 | 62 | -0.04 | 0.06 | -0.06 | 1.88e-05 | -9.98e-05 | 0.0 |
| 241 | 64 | 0.01 | 0.07 | -0.02 | -3.49e-05 | 6.04e-05 | 0.0 |
| 241 | 65 | -7.70e-03 | 0.09 | -0.02 | -9.66e-05 | -3.19e-06 | 0.0 |
| 242 | 1 | -0.06 | 0.07 | -0.10 | 6.01e-05 | -1.87e-04 | 0.0 |
| 242 | 5 | 0.04 | 0.09 | -0.03 | -2.29e-05 | 1.08e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 242 | 16 | 0.04 | 0.16 | -0.05 | -2.42e-04 | 3.01e-05 | 0.0 |
| 242 | 19 | -0.11 | 0.06 | -0.05 | -2.10e-05 | -1.18e-04 | 0.0 |
| 242 | 22 | -0.11 | 0.10 | -0.06 | -1.01e-04 | -1.15e-04 | 0.0 |
| 242 | 40 | 0.02 | 0.13 | -0.04 | -1.73e-04 | 1.22e-05 | 0.0 |
| 242 | 42 | -0.06 | 0.07 | -0.04 | -5.69e-05 | -6.14e-05 | 0.0 |
| 242 | 46 | -0.06 | 0.09 | -0.05 | -9.89e-05 | -6.09e-05 | 0.0 |
| 242 | 58 | -0.04 | 0.05 | -0.07 | 4.47e-05 | -1.41e-04 | 0.0 |
| 242 | 61 | 0.02 | 0.07 | -0.02 | -3.70e-05 | 5.69e-05 | 0.0 |
| 242 | 62 | -0.03 | 0.06 | -0.06 | 9.10e-06 | -1.07e-04 | 0.0 |
| 242 | 64 | 0.02 | 0.07 | -0.02 | -3.70e-05 | 5.69e-05 | 0.0 |
| 242 | 65 | -7.68e-04 | 0.09 | -0.03 | -9.76e-05 | -5.79e-06 | 0.0 |
| 243 | 1 | -0.05 | 0.07 | -0.09 | 5.13e-05 | -1.93e-04 | 0.0 |
| 243 | 2 | -0.05 | 0.04 | -0.08 | 8.57e-05 | -1.93e-04 | 0.0 |
| 243 | 5 | 0.05 | 0.09 | -0.03 | -2.35e-05 | 1.03e-04 | 0.0 |
| 243 | 14 | -0.02 | 0.15 | -0.08 | -2.21e-04 | -3.95e-05 | 0.0 |
| 243 | 16 | 0.05 | 0.16 | -0.06 | -2.43e-04 | 2.48e-05 | 0.0 |
| 243 | 24 | 0.12 | 0.12 | -0.02 | -1.75e-04 | 9.98e-05 | 0.0 |
| 243 | 38 | -7.68e-03 | 0.12 | -0.06 | -1.62e-04 | -2.40e-05 | 0.0 |
| 243 | 40 | 0.03 | 0.13 | -0.05 | -1.74e-04 | 8.11e-06 | 0.0 |
| 243 | 48 | 0.07 | 0.11 | -0.03 | -1.39e-04 | 4.54e-05 | 0.0 |
| 243 | 58 | -0.04 | 0.05 | -0.07 | 3.82e-05 | -1.45e-04 | 0.0 |
| 243 | 61 | 0.03 | 0.07 | -0.03 | -3.74e-05 | 5.36e-05 | 0.0 |
| 243 | 62 | -0.03 | 0.06 | -0.06 | 4.22e-06 | -1.11e-04 | 0.0 |
| 243 | 64 | 0.03 | 0.07 | -0.03 | -3.74e-05 | 5.36e-05 | 0.0 |
| 243 | 65 | 6.15e-03 | 0.09 | -0.04 | -9.77e-05 | -8.54e-06 | 0.0 |
| 244 | 1 | -0.04 | 0.07 | -0.09 | 4.79e-05 | -1.95e-04 | 0.0 |
| 244 | 5 | 0.06 | 0.09 | -0.04 | -2.26e-05 | 9.76e-05 | 0.0 |
| 244 | 14 | -0.01 | 0.15 | -0.09 | -2.21e-04 | -4.39e-05 | 0.0 |
| 244 | 16 | 0.06 | 0.16 | -0.08 | -2.43e-04 | 1.81e-05 | 0.0 |
| 244 | 24 | 0.13 | 0.12 | -0.04 | -1.75e-04 | 9.18e-05 | 0.0 |
| 244 | 38 | -1.06e-03 | 0.12 | -0.07 | -1.62e-04 | -2.79e-05 | 0.0 |
| 244 | 40 | 0.04 | 0.13 | -0.06 | -1.74e-04 | 2.89e-06 | 0.0 |
| 244 | 48 | 0.08 | 0.11 | -0.04 | -1.38e-04 | 3.93e-05 | 0.0 |
| 244 | 58 | -0.03 | 0.05 | -0.06 | 3.57e-05 | -1.47e-04 | 0.0 |
| 244 | 61 | 0.04 | 0.07 | -0.03 | -3.67e-05 | 4.95e-05 | 0.0 |
| 244 | 62 | -0.02 | 0.06 | -0.06 | 2.53e-06 | -1.13e-04 | 0.0 |
| 244 | 64 | 0.04 | 0.07 | -0.03 | -3.67e-05 | 4.95e-05 | 0.0 |
| 244 | 65 | 0.01 | 0.09 | -0.04 | -9.70e-05 | -1.21e-05 | 0.0 |
| 245 | 1 | -0.03 | 0.07 | -0.09 | 4.78e-05 | -1.95e-04 | 0.0 |
| 245 | 5 | 0.07 | 0.09 | -0.04 | -2.23e-05 | 9.38e-05 | 0.0 |
| 245 | 14 | -4.51e-03 | 0.15 | -0.11 | -2.21e-04 | -4.74e-05 | 0.0 |
| 245 | 16 | 0.06 | 0.16 | -0.10 | -2.45e-04 | 1.30e-05 | 0.0 |
| 245 | 24 | 0.14 | 0.12 | -0.05 | -1.78e-04 | 8.61e-05 | 0.0 |
| 245 | 38 | 5.55e-03 | 0.12 | -0.08 | -1.61e-04 | -3.08e-05 | 0.0 |
| 245 | 40 | 0.04 | 0.13 | -0.07 | -1.74e-04 | 0.0 | 0.0 |
| 245 | 48 | 0.08 | 0.11 | -0.05 | -1.39e-04 | 3.50e-05 | 0.0 |
| 245 | 58 | -0.02 | 0.05 | -0.06 | 3.58e-05 | -1.47e-04 | 0.0 |
| 245 | 61 | 0.04 | 0.07 | -0.03 | -3.62e-05 | 4.67e-05 | 0.0 |
| 245 | 62 | -0.01 | 0.06 | -0.06 | 2.78e-06 | -1.14e-04 | 0.0 |
| 245 | 64 | 0.04 | 0.07 | -0.03 | -3.62e-05 | 4.67e-05 | 0.0 |
| 245 | 65 | 0.02 | 0.09 | -0.05 | -9.63e-05 | -1.45e-05 | 0.0 |
| 246 | 1 | -0.08 | 0.06 | -0.09 | 1.13e-04 | -2.66e-04 | 0.0 |
| 246 | 5 | 0.02 | 0.08 | -0.04 | -2.16e-06 | 7.42e-05 | 0.0 |
| 246 | 16 | 0.03 | 0.15 | -0.01 | -2.14e-04 | 1.05e-05 | 0.0 |
| 246 | 19 | -0.12 | 0.05 | -0.03 | -2.50e-05 | -1.27e-04 | 0.0 |
| 246 | 22 | -0.12 | 0.09 | -0.04 | -9.69e-05 | -1.26e-04 | 0.0 |
| 246 | 40 | 6.16e-03 | 0.12 | -0.01 | -1.54e-04 | -5.23e-06 | 0.0 |
| 246 | 42 | -0.07 | 0.06 | -0.03 | -5.43e-05 | -7.99e-05 | 0.0 |
| 246 | 46 | -0.07 | 0.09 | -0.03 | -9.18e-05 | -7.85e-05 | 0.0 |
| 246 | 58 | -0.06 | 0.05 | -0.06 | 8.36e-05 | -1.96e-04 | 0.0 |
| 246 | 61 | 7.14e-03 | 0.06 | -0.02 | -2.29e-05 | 3.66e-05 | 0.0 |
| 246 | 62 | -0.05 | 0.06 | -0.05 | 4.10e-05 | -1.53e-04 | 0.0 |
| 246 | 64 | 7.14e-03 | 0.06 | -0.02 | -2.29e-05 | 3.66e-05 | 0.0 |
| 246 | 65 | -0.02 | 0.08 | -0.01 | -8.69e-05 | -2.39e-05 | 0.0 |
| 247 | 1 | -0.07 | 0.06 | -0.08 | 8.34e-05 | -2.54e-04 | 0.0 |
| 247 | 5 | 0.03 | 0.08 | -0.04 | -1.21e-05 | 6.78e-05 | 0.0 |
| 247 | 16 | 0.03 | 0.15 | -0.03 | -2.29e-04 | -1.84e-06 | 0.0 |
| 247 | 19 | -0.12 | 0.05 | -0.03 | -2.42e-05 | -1.26e-04 | 0.0 |
| 247 | 22 | -0.11 | 0.09 | -0.05 | -1.01e-04 | -1.27e-04 | 0.0 |
| 247 | 40 | 0.01 | 0.12 | -0.03 | -1.64e-04 | -1.46e-05 | 0.0 |
| 247 | 42 | -0.07 | 0.06 | -0.03 | -5.60e-05 | -8.18e-05 | 0.0 |
| 247 | 46 | -0.06 | 0.09 | -0.03 | -9.63e-05 | -8.17e-05 | 0.0 |
| 247 | 58 | -0.05 | 0.05 | -0.06 | 6.18e-05 | -1.86e-04 | 0.0 |
| 247 | 61 | 0.01 | 0.06 | -0.02 | -2.96e-05 | 3.17e-05 | 0.0 |
| 247 | 62 | -0.04 | 0.06 | -0.05 | 2.34e-05 | -1.47e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 247 | 64 | 0.01 | 0.06 | -0.02 | -2.96e-05 | 3.17e-05 | 0.0 |
| 247 | 65 | -8.06e-03 | 0.08 | -0.02 | -9.17e-05 | -2.99e-05 | 0.0 |
| 248 | 1 | -0.06 | 0.06 | -0.08 | 6.24e-05 | -2.48e-04 | 0.0 |
| 248 | 5 | 0.04 | 0.08 | -0.04 | -1.58e-05 | 6.12e-05 | 0.0 |
| 248 | 14 | -0.02 | 0.15 | -0.06 | -2.15e-04 | -6.63e-05 | 0.0 |
| 248 | 16 | 0.04 | 0.15 | -0.05 | -2.33e-04 | -1.13e-05 | 0.0 |
| 248 | 19 | -0.11 | 0.05 | -0.04 | -2.25e-05 | -1.25e-04 | 0.0 |
| 248 | 38 | -0.01 | 0.12 | -0.04 | -1.57e-04 | -5.13e-05 | 0.0 |
| 248 | 40 | 0.02 | 0.12 | -0.04 | -1.67e-04 | -2.20e-05 | 0.0 |
| 248 | 42 | -0.06 | 0.06 | -0.03 | -5.57e-05 | -8.40e-05 | 0.0 |
| 248 | 58 | -0.04 | 0.05 | -0.06 | 4.63e-05 | -1.82e-04 | 0.0 |
| 248 | 61 | 0.02 | 0.06 | -0.03 | -3.19e-05 | 2.67e-05 | 0.0 |
| 248 | 62 | -0.03 | 0.06 | -0.05 | 1.15e-05 | -1.45e-04 | 0.0 |
| 248 | 64 | 0.02 | 0.06 | -0.03 | -3.19e-05 | 2.67e-05 | 0.0 |
| 248 | 65 | -1.13e-03 | 0.08 | -0.03 | -9.29e-05 | -3.52e-05 | 0.0 |
| 249 | 1 | -0.05 | 0.06 | -0.08 | 5.29e-05 | -2.46e-04 | 0.0 |
| 249 | 2 | -0.05 | 0.03 | -0.06 | 8.54e-05 | -2.29e-04 | 0.0 |
| 249 | 5 | 0.05 | 0.08 | -0.04 | -1.52e-05 | 5.32e-05 | 0.0 |
| 249 | 14 | -0.02 | 0.15 | -0.07 | -2.14e-04 | -7.39e-05 | 0.0 |
| 249 | 16 | 0.05 | 0.15 | -0.06 | -2.34e-04 | -2.14e-05 | 0.0 |
| 249 | 24 | 0.12 | 0.11 | -0.03 | -1.64e-04 | 4.40e-05 | 0.0 |
| 249 | 38 | -7.99e-03 | 0.12 | -0.05 | -1.56e-04 | -5.78e-05 | 0.0 |
| 249 | 40 | 0.03 | 0.12 | -0.05 | -1.66e-04 | -3.00e-05 | 0.0 |
| 249 | 48 | 0.07 | 0.10 | -0.03 | -1.30e-04 | 4.48e-06 | 0.0 |
| 249 | 58 | -0.04 | 0.05 | -0.05 | 3.93e-05 | -1.80e-04 | 0.0 |
| 249 | 61 | 0.03 | 0.06 | -0.03 | -3.14e-05 | 2.09e-05 | 0.0 |
| 249 | 62 | -0.03 | 0.06 | -0.05 | 6.41e-06 | -1.45e-04 | 0.0 |
| 249 | 64 | 0.03 | 0.06 | -0.03 | -3.14e-05 | 2.09e-05 | 0.0 |
| 249 | 65 | 5.79e-03 | 0.08 | -0.03 | -9.23e-05 | -4.08e-05 | 0.0 |
| 250 | 1 | -0.04 | 0.06 | -0.07 | 4.97e-05 | -2.46e-04 | 0.0 |
| 250 | 5 | 0.06 | 0.08 | -0.04 | -1.38e-05 | 4.47e-05 | 0.0 |
| 250 | 14 | -0.01 | 0.15 | -0.09 | -2.14e-04 | -8.13e-05 | 0.0 |
| 250 | 16 | 0.06 | 0.15 | -0.08 | -2.33e-04 | -3.14e-05 | 0.0 |
| 250 | 24 | 0.13 | 0.11 | -0.04 | -1.63e-04 | 3.32e-05 | 0.0 |
| 250 | 38 | -1.35e-03 | 0.12 | -0.06 | -1.55e-04 | -6.42e-05 | 0.0 |
| 250 | 40 | 0.04 | 0.12 | -0.06 | -1.66e-04 | -3.78e-05 | 0.0 |
| 250 | 48 | 0.08 | 0.10 | -0.04 | -1.29e-04 | -3.96e-06 | 0.0 |
| 250 | 58 | -0.03 | 0.05 | -0.05 | 3.70e-05 | -1.80e-04 | 0.0 |
| 250 | 61 | 0.03 | 0.06 | -0.03 | -3.04e-05 | 1.49e-05 | 0.0 |
| 250 | 62 | -0.02 | 0.06 | -0.05 | 4.90e-06 | -1.47e-04 | 0.0 |
| 250 | 64 | 0.03 | 0.06 | -0.03 | -3.04e-05 | 1.49e-05 | 0.0 |
| 250 | 65 | 0.01 | 0.08 | -0.04 | -9.15e-05 | -4.63e-05 | 0.0 |
| 251 | 1 | -0.03 | 0.06 | -0.07 | 4.55e-05 | -2.47e-04 | 0.0 |
| 251 | 5 | 0.07 | 0.08 | -0.04 | -1.66e-05 | 3.79e-05 | 0.0 |
| 251 | 14 | -4.69e-03 | 0.15 | -0.10 | -2.16e-04 | -8.66e-05 | 0.0 |
| 251 | 16 | 0.06 | 0.15 | -0.10 | -2.35e-04 | -3.96e-05 | 0.0 |
| 251 | 24 | 0.14 | 0.11 | -0.05 | -1.66e-04 | 2.35e-05 | 0.0 |
| 251 | 38 | 5.30e-03 | 0.12 | -0.08 | -1.58e-04 | -6.88e-05 | 0.0 |
| 251 | 40 | 0.04 | 0.12 | -0.07 | -1.68e-04 | -4.40e-05 | 0.0 |
| 251 | 48 | 0.08 | 0.10 | -0.05 | -1.31e-04 | -1.10e-05 | 0.0 |
| 251 | 58 | -0.02 | 0.05 | -0.05 | 3.41e-05 | -1.81e-04 | 0.0 |
| 251 | 61 | 0.04 | 0.06 | -0.03 | -3.23e-05 | 1.02e-05 | 0.0 |
| 251 | 62 | -0.01 | 0.06 | -0.05 | 2.22e-06 | -1.48e-04 | 0.0 |
| 251 | 64 | 0.04 | 0.06 | -0.03 | -3.23e-05 | 1.02e-05 | 0.0 |
| 251 | 65 | 0.02 | 0.08 | -0.05 | -9.36e-05 | -5.03e-05 | 0.0 |
| 252 | 1 | -0.08 | 0.06 | -0.08 | 9.57e-05 | -3.28e-04 | 0.0 |
| 252 | 5 | 0.02 | 0.07 | -0.04 | 2.61e-06 | 4.97e-05 | 0.0 |
| 252 | 17 | 0.02 | 0.15 | -0.01 | -2.06e-04 | -3.16e-06 | 0.0 |
| 252 | 19 | -0.12 | 0.05 | -0.02 | -2.48e-05 | -1.58e-04 | 0.0 |
| 252 | 22 | -0.12 | 0.09 | -0.03 | -9.52e-05 | -1.56e-04 | 0.0 |
| 252 | 41 | 5.82e-03 | 0.11 | -0.01 | -1.47e-04 | -2.29e-05 | 0.0 |
| 252 | 42 | -0.07 | 0.06 | -0.02 | -5.18e-05 | -1.07e-04 | 0.0 |
| 252 | 46 | -0.07 | 0.08 | -0.02 | -8.87e-05 | -1.05e-04 | 0.0 |
| 252 | 58 | -0.06 | 0.04 | -0.05 | 7.08e-05 | -2.39e-04 | 0.0 |
| 252 | 61 | 6.94e-03 | 0.06 | -0.02 | -1.91e-05 | 1.92e-05 | 0.0 |
| 252 | 62 | -0.05 | 0.05 | -0.04 | 3.26e-05 | -1.90e-04 | 0.0 |
| 252 | 64 | 6.94e-03 | 0.06 | -0.02 | -1.91e-05 | 1.92e-05 | 0.0 |
| 252 | 65 | -0.02 | 0.08 | -0.01 | -8.20e-05 | -4.53e-05 | 0.0 |
| 253 | 1 | -0.07 | 0.06 | -0.07 | 7.23e-05 | -3.00e-04 | 0.0 |
| 253 | 5 | 0.03 | 0.07 | -0.04 | -8.09e-06 | 4.48e-05 | 0.0 |
| 253 | 17 | 0.03 | 0.15 | -0.03 | -2.23e-04 | -8.93e-06 | 0.0 |
| 253 | 19 | -0.12 | 0.05 | -0.03 | -2.33e-05 | -1.61e-04 | 0.0 |
| 253 | 22 | -0.11 | 0.09 | -0.04 | -9.96e-05 | -1.60e-04 | 0.0 |
| 253 | 41 | 0.01 | 0.11 | -0.02 | -1.59e-04 | -2.85e-05 | 0.0 |
| 253 | 42 | -0.07 | 0.06 | -0.02 | -5.39e-05 | -1.11e-04 | 0.0 |

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|---|---|---|---|---|---|---|---|
| 253 | 46 | -0.07 | 0.08 | -0.03 | -9.38e-05 | -1.09e-04 | 0.0 |
| 253 | 58 | -0.05 | 0.04 | -0.05 | 5.36e-05 | -2.18e-04 | 0.0 |
| 253 | 61 | 0.01 | 0.06 | -0.03 | -2.65e-05 | 1.53e-05 | 0.0 |
| 253 | 62 | -0.04 | 0.05 | -0.04 | 1.82e-05 | -1.76e-04 | 0.0 |
| 253 | 64 | 0.01 | 0.06 | -0.03 | -2.65e-05 | 1.53e-05 | 0.0 |
| 253 | 65 | -8.27e-03 | 0.08 | -0.02 | -8.80e-05 | -5.06e-05 | 0.0 |
| 254 | 1 | -0.06 | 0.06 | -0.07 | 5.86e-05 | -2.87e-04 | 0.0 |
| 254 | 5 | 0.04 | 0.07 | -0.04 | -9.31e-06 | 3.64e-05 | 0.0 |
| 254 | 14 | -0.03 | 0.14 | -0.05 | -2.08e-04 | -8.66e-05 | 0.0 |
| 254 | 17 | 0.04 | 0.15 | -0.04 | -2.25e-04 | -1.95e-05 | 0.0 |
| 254 | 19 | -0.11 | 0.05 | -0.03 | -2.18e-05 | -1.64e-04 | 0.0 |
| 254 | 38 | -0.01 | 0.11 | -0.04 | -1.51e-04 | -7.24e-05 | 0.0 |
| 254 | 41 | 0.02 | 0.11 | -0.03 | -1.60e-04 | -3.70e-05 | 0.0 |
| 254 | 42 | -0.06 | 0.06 | -0.03 | -5.33e-05 | -1.16e-04 | 0.0 |
| 254 | 58 | -0.04 | 0.04 | -0.05 | 4.34e-05 | -2.08e-04 | 0.0 |
| 254 | 61 | 0.02 | 0.06 | -0.03 | -2.72e-05 | 9.02e-06 | 0.0 |
| 254 | 62 | -0.03 | 0.05 | -0.04 | 1.05e-05 | -1.70e-04 | 0.0 |
| 254 | 64 | 0.02 | 0.06 | -0.03 | -2.72e-05 | 9.02e-06 | 0.0 |
| 254 | 65 | -1.34e-03 | 0.08 | -0.02 | -8.84e-05 | -5.70e-05 | 0.0 |
| 255 | 1 | -0.05 | 0.06 | -0.06 | 5.20e-05 | -2.82e-04 | 0.0 |
| 255 | 2 | -0.05 | 0.03 | -0.05 | 8.29e-05 | -2.54e-04 | 0.0 |
| 255 | 5 | 0.05 | 0.07 | -0.04 | -8.79e-06 | 2.69e-05 | 0.0 |
| 255 | 14 | -0.02 | 0.14 | -0.07 | -2.09e-04 | -9.57e-05 | 0.0 |
| 255 | 17 | 0.05 | 0.15 | -0.06 | -2.26e-04 | -3.07e-05 | 0.0 |
| 255 | 24 | 0.12 | 0.11 | -0.03 | -1.56e-04 | 3.83e-05 | 0.0 |
| 255 | 38 | -8.17e-03 | 0.11 | -0.05 | -1.51e-04 | -8.01e-05 | 0.0 |
| 255 | 41 | 0.03 | 0.11 | -0.05 | -1.60e-04 | -4.60e-05 | 0.0 |
| 255 | 48 | 0.07 | 0.09 | -0.03 | -1.24e-04 | -8.44e-06 | 0.0 |
| 255 | 58 | -0.04 | 0.04 | -0.04 | 3.86e-05 | -2.05e-04 | 0.0 |
| 255 | 61 | 0.03 | 0.06 | -0.03 | -2.68e-05 | 2.20e-06 | 0.0 |
| 255 | 62 | -0.03 | 0.05 | -0.04 | 6.96e-06 | -1.69e-04 | 0.0 |
| 255 | 64 | 0.03 | 0.06 | -0.03 | -2.68e-05 | 2.20e-06 | 0.0 |
| 255 | 65 | 5.58e-03 | 0.08 | -0.03 | -8.80e-05 | -6.34e-05 | 0.0 |
| 256 | 1 | -0.04 | 0.06 | -0.06 | 4.97e-05 | -2.82e-04 | 0.0 |
| 256 | 5 | 0.06 | 0.07 | -0.04 | -8.58e-06 | 1.77e-05 | 0.0 |
| 256 | 14 | -0.01 | 0.14 | -0.08 | -2.09e-04 | -1.04e-04 | 0.0 |
| 256 | 17 | 0.06 | 0.15 | -0.07 | -2.27e-04 | -4.10e-05 | 0.0 |
| 256 | 24 | 0.13 | 0.11 | -0.04 | -1.57e-04 | 2.73e-05 | 0.0 |
| 256 | 38 | -1.53e-03 | 0.11 | -0.06 | -1.51e-04 | -8.69e-05 | 0.0 |
| 256 | 41 | 0.04 | 0.11 | -0.06 | -1.61e-04 | -5.42e-05 | 0.0 |
| 256 | 48 | 0.08 | 0.09 | -0.04 | -1.24e-04 | -1.71e-05 | 0.0 |
| 256 | 58 | -0.03 | 0.04 | -0.04 | 3.69e-05 | -2.04e-04 | 0.0 |
| 256 | 61 | 0.03 | 0.06 | -0.03 | -2.67e-05 | -4.33e-06 | 0.0 |
| 256 | 62 | -0.02 | 0.05 | -0.04 | 5.68e-06 | -1.71e-04 | 0.0 |
| 256 | 64 | 0.03 | 0.06 | -0.03 | -2.67e-05 | -4.33e-06 | 0.0 |
| 256 | 65 | 0.01 | 0.08 | -0.04 | -8.81e-05 | -6.93e-05 | 0.0 |
| 257 | 1 | -0.03 | 0.06 | -0.05 | 4.89e-05 | -2.83e-04 | 0.0 |
| 257 | 5 | 0.07 | 0.07 | -0.04 | -7.13e-06 | 1.01e-05 | 0.0 |
| 257 | 14 | -4.81e-03 | 0.14 | -0.10 | -2.09e-04 | -1.10e-04 | 0.0 |
| 257 | 16 | 0.06 | 0.15 | -0.09 | -2.25e-04 | -5.16e-05 | 0.0 |
| 257 | 24 | 0.14 | 0.11 | -0.05 | -1.53e-04 | 1.94e-05 | 0.0 |
| 257 | 38 | 5.15e-03 | 0.11 | -0.07 | -1.51e-04 | -9.22e-05 | 0.0 |
| 257 | 40 | 0.04 | 0.11 | -0.07 | -1.60e-04 | -6.13e-05 | 0.0 |
| 257 | 48 | 0.08 | 0.09 | -0.05 | -1.22e-04 | -2.36e-05 | 0.0 |
| 257 | 59 | -0.01 | 0.05 | -0.04 | 5.34e-06 | -1.72e-04 | 0.0 |
| 257 | 61 | 0.04 | 0.06 | -0.03 | -2.58e-05 | -9.61e-06 | 0.0 |
| 257 | 62 | -0.01 | 0.05 | -0.04 | 5.34e-06 | -1.72e-04 | 0.0 |
| 257 | 64 | 0.04 | 0.06 | -0.03 | -2.58e-05 | -9.61e-06 | 0.0 |
| 257 | 65 | 0.02 | 0.08 | -0.04 | -8.79e-05 | -7.41e-05 | 0.0 |
| 258 | 1 | -0.08 | 0.04 | -0.04 | 7.99e-05 | -9.38e-05 | 0.0 |
| 258 | 5 | 0.02 | 0.05 | -0.07 | 7.11e-05 | 2.32e-04 | 0.0 |
| 258 | 16 | 0.02 | 0.13 | -0.03 | -1.77e-04 | 1.31e-04 | 0.0 |
| 258 | 17 | 0.02 | 0.13 | -0.02 | -1.77e-04 | 1.28e-04 | 0.0 |
| 258 | 19 | -0.12 | 0.03 | 2.27e-03 | -1.98e-06 | -8.07e-05 | 0.0 |
| 258 | 40 | 5.36e-03 | 0.10 | -0.02 | -1.20e-04 | 9.15e-05 | 0.0 |
| 258 | 41 | 5.20e-03 | 0.10 | -0.02 | -1.20e-04 | 9.05e-05 | 0.0 |
| 258 | 42 | -0.07 | 0.05 | -6.10e-03 | -2.85e-05 | -1.68e-05 | 0.0 |
| 258 | 58 | -0.06 | 0.03 | -0.02 | 5.87e-05 | -6.92e-05 | 0.0 |
| 258 | 61 | 6.28e-03 | 0.04 | -0.04 | 2.47e-05 | 1.41e-04 | 0.0 |
| 258 | 62 | -0.05 | 0.03 | -0.02 | 2.96e-05 | -3.97e-05 | 0.0 |
| 258 | 64 | 6.28e-03 | 0.04 | -0.04 | 2.47e-05 | 1.41e-04 | 0.0 |
| 258 | 65 | -0.02 | 0.06 | -0.01 | -5.79e-05 | 4.88e-05 | 0.0 |
| 259 | 1 | -0.07 | 0.04 | -0.03 | 6.34e-05 | -1.11e-04 | 0.0 |
| 259 | 5 | 0.03 | 0.05 | -0.06 | 2.85e-05 | 1.97e-04 | 0.0 |
| 259 | 16 | 0.03 | 0.13 | -0.04 | -1.99e-04 | 1.12e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 259 | 17 | 0.03 | 0.13 | -0.04 | -1.99e-04 | 1.09e-04 | 0.0 |
| 259 | 19 | -0.12 | 0.03 | 2.01e-03 | -5.33e-06 | -9.11e-05 | 0.0 |
| 259 | 40 | 0.01 | 0.10 | -0.03 | -1.37e-04 | 7.48e-05 | 0.0 |
| 259 | 41 | 0.01 | 0.10 | -0.03 | -1.37e-04 | 7.39e-05 | 0.0 |
| 259 | 42 | -0.07 | 0.05 | -8.40e-03 | -3.54e-05 | -2.87e-05 | 0.0 |
| 259 | 58 | -0.05 | 0.03 | -0.02 | 4.69e-05 | -8.19e-05 | 0.0 |
| 259 | 61 | 0.01 | 0.04 | -0.04 | -1.30e-06 | 1.18e-04 | 0.0 |
| 259 | 62 | -0.04 | 0.03 | -0.02 | 1.81e-05 | -5.27e-05 | 0.0 |
| 259 | 64 | 0.01 | 0.04 | -0.04 | -1.30e-06 | 1.18e-04 | 0.0 |
| 259 | 65 | -8.96e-03 | 0.06 | -0.02 | -6.84e-05 | 3.49e-05 | 0.0 |
| 260 | 1 | -0.06 | 0.04 | -0.03 | 5.71e-05 | -1.22e-04 | 0.0 |
| 260 | 5 | 0.04 | 0.05 | -0.06 | 1.43e-05 | 1.80e-04 | 0.0 |
| 260 | 16 | 0.04 | 0.13 | -0.05 | -2.04e-04 | 1.01e-04 | 0.0 |
| 260 | 17 | 0.04 | 0.13 | -0.05 | -2.04e-04 | 9.75e-05 | 0.0 |
| 260 | 19 | -0.11 | 0.03 | 1.48e-03 | -9.84e-06 | -1.00e-04 | 0.0 |
| 260 | 40 | 0.02 | 0.10 | -0.04 | -1.41e-04 | 6.40e-05 | 0.0 |
| 260 | 41 | 0.02 | 0.10 | -0.04 | -1.41e-04 | 6.31e-05 | 0.0 |
| 260 | 42 | -0.06 | 0.05 | -0.01 | -3.97e-05 | -3.80e-05 | 0.0 |
| 260 | 58 | -0.04 | 0.03 | -0.02 | 4.24e-05 | -9.01e-05 | 0.0 |
| 260 | 61 | 0.02 | 0.04 | -0.04 | -1.02e-05 | 1.07e-04 | 0.0 |
| 260 | 62 | -0.03 | 0.03 | -0.02 | 1.36e-05 | -6.13e-05 | 0.0 |
| 260 | 64 | 0.02 | 0.04 | -0.04 | -1.02e-05 | 1.07e-04 | 0.0 |
| 260 | 65 | -2.05e-03 | 0.06 | -0.02 | -7.25e-05 | 2.50e-05 | 0.0 |
| 261 | 2 | -0.05 | 0.01 | -0.01 | 8.10e-05 | -1.34e-04 | 0.0 |
| 261 | 5 | 0.05 | 0.05 | -0.06 | 1.07e-05 | 1.69e-04 | 0.0 |
| 261 | 16 | 0.05 | 0.13 | -0.07 | -2.07e-04 | 9.14e-05 | 0.0 |
| 261 | 17 | 0.05 | 0.13 | -0.06 | -2.07e-04 | 8.83e-05 | 0.0 |
| 261 | 24 | 0.12 | 0.08 | -0.05 | -1.37e-04 | 1.41e-04 | 0.0 |
| 261 | 40 | 0.03 | 0.10 | -0.05 | -1.44e-04 | 5.57e-05 | 0.0 |
| 261 | 41 | 0.03 | 0.10 | -0.05 | -1.44e-04 | 5.48e-05 | 0.0 |
| 261 | 48 | 0.07 | 0.07 | -0.04 | -1.07e-04 | 8.05e-05 | 0.0 |
| 261 | 58 | -0.04 | 0.03 | -0.01 | 4.05e-05 | -9.49e-05 | 0.0 |
| 261 | 61 | 0.03 | 0.04 | -0.04 | -1.28e-05 | 9.85e-05 | 0.0 |
| 261 | 64 | 0.03 | 0.04 | -0.04 | -1.28e-05 | 9.85e-05 | 0.0 |
| 261 | 65 | 4.85e-03 | 0.06 | -0.03 | -7.51e-05 | 1.77e-05 | 0.0 |
| 262 | 5 | 0.06 | 0.05 | -0.06 | 1.08e-05 | 1.58e-04 | 0.0 |
| 262 | 16 | 0.06 | 0.13 | -0.08 | -2.08e-04 | 8.13e-05 | 0.0 |
| 262 | 17 | 0.05 | 0.13 | -0.08 | -2.08e-04 | 7.83e-05 | 0.0 |
| 262 | 24 | 0.13 | 0.08 | -0.06 | -1.36e-04 | 1.31e-04 | 0.0 |
| 262 | 40 | 0.03 | 0.10 | -0.06 | -1.45e-04 | 4.72e-05 | 0.0 |
| 262 | 41 | 0.03 | 0.10 | -0.06 | -1.45e-04 | 4.63e-05 | 0.0 |
| 262 | 48 | 0.08 | 0.07 | -0.05 | -1.07e-04 | 7.17e-05 | 0.0 |
| 262 | 61 | 0.03 | 0.04 | -0.04 | -1.29e-05 | 9.06e-05 | 0.0 |
| 262 | 64 | 0.03 | 0.04 | -0.04 | -1.29e-05 | 9.06e-05 | 0.0 |
| 262 | 65 | 0.01 | 0.06 | -0.03 | -7.56e-05 | 1.08e-05 | 0.0 |
| 263 | 5 | 0.07 | 0.05 | -0.06 | 1.36e-05 | 1.48e-04 | 0.0 |
| 263 | 16 | 0.06 | 0.13 | -0.10 | -2.06e-04 | 7.21e-05 | 0.0 |
| 263 | 17 | 0.06 | 0.13 | -0.09 | -2.06e-04 | 6.90e-05 | 0.0 |
| 263 | 24 | 0.14 | 0.08 | -0.07 | -1.37e-04 | 1.21e-04 | 0.0 |
| 263 | 40 | 0.04 | 0.10 | -0.07 | -1.43e-04 | 3.95e-05 | 0.0 |
| 263 | 41 | 0.04 | 0.10 | -0.07 | -1.43e-04 | 3.86e-05 | 0.0 |
| 263 | 48 | 0.08 | 0.07 | -0.06 | -1.07e-04 | 6.37e-05 | 0.0 |
| 263 | 61 | 0.04 | 0.04 | -0.04 | -1.09e-05 | 8.40e-05 | 0.0 |
| 263 | 64 | 0.04 | 0.04 | -0.04 | -1.09e-05 | 8.40e-05 | 0.0 |
| 263 | 65 | 0.02 | 0.06 | -0.04 | -7.38e-05 | 4.91e-06 | 0.0 |
| 264 | 1 | -0.08 | 0.03 | -0.03 | 8.55e-05 | -9.74e-05 | 0.0 |
| 264 | 5 | 0.02 | 0.04 | -0.08 | 8.47e-05 | 1.96e-04 | 0.0 |
| 264 | 17 | 0.02 | 0.12 | -0.03 | -1.71e-04 | 1.23e-04 | 0.0 |
| 264 | 19 | -0.12 | 0.03 | 7.42e-03 | 0.0 | -1.00e-04 | 0.0 |
| 264 | 24 | 0.09 | 0.08 | -0.04 | -1.06e-04 | 1.80e-04 | 0.0 |
| 264 | 41 | 5.03e-03 | 0.09 | -0.02 | -1.15e-04 | 8.35e-05 | 0.0 |
| 264 | 42 | -0.07 | 0.04 | -4.85e-03 | -2.56e-05 | -3.11e-05 | 0.0 |
| 264 | 48 | 0.04 | 0.07 | -0.03 | -8.04e-05 | 1.11e-04 | 0.0 |
| 264 | 58 | -0.06 | 0.02 | -0.02 | 6.29e-05 | -7.08e-05 | 0.0 |
| 264 | 61 | 6.09e-03 | 0.04 | -0.05 | 3.34e-05 | 1.20e-04 | 0.0 |
| 264 | 62 | -0.05 | 0.03 | -0.02 | 3.39e-05 | -4.32e-05 | 0.0 |
| 264 | 64 | 6.09e-03 | 0.04 | -0.05 | 3.34e-05 | 1.20e-04 | 0.0 |
| 264 | 65 | -0.02 | 0.05 | -0.01 | -5.31e-05 | 3.98e-05 | 0.0 |
| 265 | 1 | -0.07 | 0.03 | -0.02 | 7.06e-05 | -1.01e-04 | 0.0 |
| 265 | 5 | 0.03 | 0.04 | -0.07 | 3.72e-05 | 1.99e-04 | 0.0 |
| 265 | 16 | 0.03 | 0.12 | -0.05 | -1.90e-04 | 1.22e-04 | 0.0 |
| 265 | 17 | 0.03 | 0.12 | -0.04 | -1.90e-04 | 1.20e-04 | 0.0 |
| 265 | 19 | -0.12 | 0.03 | 7.58e-03 | 0.0 | -1.01e-04 | 0.0 |
| 265 | 40 | 0.01 | 0.09 | -0.03 | -1.29e-04 | 8.07e-05 | 0.0 |
| 265 | 41 | 0.01 | 0.09 | -0.03 | -1.29e-04 | 8.00e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 265 | 42 | -0.07 | 0.04 | -6.67e-03 | -3.01e-05 | -3.31e-05 | 0.0 |
| 265 | 58 | -0.05 | 0.02 | -0.02 | 5.23e-05 | -7.36e-05 | 0.0 |
| 265 | 61 | 0.01 | 0.04 | -0.04 | 5.10e-06 | 1.20e-04 | 0.0 |
| 265 | 62 | -0.04 | 0.03 | -0.02 | 2.37e-05 | -4.61e-05 | 0.0 |
| 265 | 64 | 0.01 | 0.04 | -0.04 | 5.10e-06 | 1.20e-04 | 0.0 |
| 265 | 65 | -9.18e-03 | 0.05 | -0.02 | -6.21e-05 | 3.66e-05 | 0.0 |
| 266 | 1 | -0.06 | 0.03 | -0.02 | 6.21e-05 | -1.06e-04 | 0.0 |
| 266 | 5 | 0.04 | 0.04 | -0.07 | 2.32e-05 | 1.91e-04 | 0.0 |
| 266 | 16 | 0.04 | 0.12 | -0.06 | -1.97e-04 | 1.13e-04 | 0.0 |
| 266 | 17 | 0.04 | 0.12 | -0.06 | -1.97e-04 | 1.11e-04 | 0.0 |
| 266 | 19 | -0.11 | 0.03 | 7.38e-03 | -7.22e-06 | -1.02e-04 | 0.0 |
| 266 | 40 | 0.02 | 0.09 | -0.04 | -1.35e-04 | 7.40e-05 | 0.0 |
| 266 | 41 | 0.02 | 0.09 | -0.04 | -1.35e-04 | 7.32e-05 | 0.0 |
| 266 | 42 | -0.06 | 0.04 | -8.96e-03 | -3.61e-05 | -3.55e-05 | 0.0 |
| 266 | 58 | -0.04 | 0.02 | -0.01 | 4.60e-05 | -7.76e-05 | 0.0 |
| 266 | 61 | 0.02 | 0.04 | -0.04 | -3.96e-06 | 1.15e-04 | 0.0 |
| 266 | 62 | -0.03 | 0.03 | -0.01 | 1.76e-05 | -5.02e-05 | 0.0 |
| 266 | 64 | 0.02 | 0.04 | -0.04 | -3.96e-06 | 1.15e-04 | 0.0 |
| 266 | 65 | -2.30e-03 | 0.05 | -0.02 | -6.76e-05 | 3.19e-05 | 0.0 |
| 267 | 2 | -0.05 | 9.62e-03 | -2.50e-03 | 8.32e-05 | -1.19e-04 | 0.0 |
| 267 | 5 | 0.05 | 0.04 | -0.07 | 1.86e-05 | 1.82e-04 | 0.0 |
| 267 | 16 | 0.05 | 0.12 | -0.07 | -2.00e-04 | 1.06e-04 | 0.0 |
| 267 | 17 | 0.05 | 0.12 | -0.07 | -2.00e-04 | 1.03e-04 | 0.0 |
| 267 | 24 | 0.12 | 0.08 | -0.06 | -1.30e-04 | 1.58e-04 | 0.0 |
| 267 | 40 | 0.03 | 0.09 | -0.05 | -1.38e-04 | 6.77e-05 | 0.0 |
| 267 | 41 | 0.03 | 0.09 | -0.05 | -1.38e-04 | 6.69e-05 | 0.0 |
| 267 | 48 | 0.07 | 0.07 | -0.05 | -1.01e-04 | 9.34e-05 | 0.0 |
| 267 | 58 | -0.04 | 0.02 | -9.05e-03 | 4.33e-05 | -8.10e-05 | 0.0 |
| 267 | 61 | 0.03 | 0.04 | -0.04 | -7.34e-06 | 1.09e-04 | 0.0 |
| 267 | 62 | -0.03 | 0.03 | -0.01 | 1.48e-05 | -5.39e-05 | 0.0 |
| 267 | 64 | 0.03 | 0.04 | -0.04 | -7.34e-06 | 1.09e-04 | 0.0 |
| 267 | 65 | 4.60e-03 | 0.05 | -0.03 | -7.06e-05 | 2.74e-05 | 0.0 |
| 268 | 5 | 0.06 | 0.04 | -0.07 | 1.79e-05 | 1.73e-04 | 0.0 |
| 268 | 16 | 0.06 | 0.12 | -0.09 | -2.01e-04 | 9.76e-05 | 0.0 |
| 268 | 17 | 0.05 | 0.12 | -0.08 | -2.01e-04 | 9.53e-05 | 0.0 |
| 268 | 24 | 0.13 | 0.08 | -0.07 | -1.30e-04 | 1.49e-04 | 0.0 |
| 268 | 40 | 0.03 | 0.09 | -0.06 | -1.39e-04 | 6.12e-05 | 0.0 |
| 268 | 41 | 0.03 | 0.09 | -0.06 | -1.39e-04 | 6.06e-05 | 0.0 |
| 268 | 48 | 0.07 | 0.07 | -0.05 | -1.02e-04 | 8.67e-05 | 0.0 |
| 268 | 61 | 0.03 | 0.04 | -0.04 | -7.94e-06 | 1.03e-04 | 0.0 |
| 268 | 64 | 0.03 | 0.04 | -0.04 | -7.94e-06 | 1.03e-04 | 0.0 |
| 268 | 65 | 0.01 | 0.05 | -0.03 | -7.15e-05 | 2.27e-05 | 0.0 |
| 269 | 5 | 0.06 | 0.04 | -0.07 | 2.17e-05 | 1.67e-04 | 0.0 |
| 269 | 16 | 0.06 | 0.12 | -0.10 | -1.97e-04 | 9.16e-05 | 0.0 |
| 269 | 17 | 0.06 | 0.12 | -0.10 | -1.98e-04 | 8.93e-05 | 0.0 |
| 269 | 24 | 0.14 | 0.08 | -0.08 | -1.24e-04 | 1.43e-04 | 0.0 |
| 269 | 40 | 0.04 | 0.09 | -0.07 | -1.36e-04 | 5.64e-05 | 0.0 |
| 269 | 41 | 0.04 | 0.09 | -0.07 | -1.36e-04 | 5.57e-05 | 0.0 |
| 269 | 48 | 0.08 | 0.07 | -0.06 | -9.76e-05 | 8.14e-05 | 0.0 |
| 269 | 61 | 0.04 | 0.04 | -0.04 | -5.08e-06 | 9.84e-05 | 0.0 |
| 269 | 64 | 0.04 | 0.04 | -0.04 | -5.08e-06 | 9.84e-05 | 0.0 |
| 269 | 65 | 0.02 | 0.05 | -0.04 | -6.87e-05 | 1.91e-05 | 0.0 |
| 270 | 1 | -0.04 | 0.03 | -0.01 | -7.22e-05 | -8.86e-05 | 0.0 |
| 270 | 5 | -0.04 | 0.03 | -0.07 | -1.80e-04 | 2.57e-04 | 0.0 |
| 270 | 15 | -0.04 | 0.06 | 0.01 | -1.75e-04 | 2.83e-05 | 0.0 |
| 270 | 22 | -0.06 | 0.04 | 0.03 | -1.21e-04 | -1.33e-04 | 0.0 |
| 270 | 23 | -0.06 | 0.04 | 0.03 | -1.16e-04 | -1.37e-04 | 0.0 |
| 270 | 39 | -0.03 | 0.05 | 7.62e-03 | -1.47e-04 | 4.47e-05 | 0.0 |
| 270 | 46 | -0.05 | 0.03 | 0.02 | -1.18e-04 | -3.96e-05 | 0.0 |
| 270 | 58 | -0.03 | 0.03 | -8.53e-03 | -5.07e-05 | -6.54e-05 | 0.0 |
| 270 | 61 | -0.03 | 0.03 | -0.04 | -1.27e-04 | 1.58e-04 | 0.0 |
| 270 | 62 | -0.03 | 0.03 | -5.74e-03 | -6.70e-05 | -3.38e-05 | 0.0 |
| 270 | 64 | -0.03 | 0.03 | -0.04 | -1.27e-04 | 1.58e-04 | 0.0 |
| 270 | 65 | -0.03 | 0.03 | 2.62e-03 | -1.16e-04 | 6.11e-05 | 0.0 |
| 271 | 1 | -0.03 | 0.06 | -0.05 | 8.84e-05 | -1.05e-04 | 0.0 |
| 271 | 3 | -0.03 | 0.06 | -0.06 | 1.35e-04 | 1.26e-05 | 0.0 |
| 271 | 17 | -0.01 | 0.08 | 7.70e-03 | -9.01e-05 | 7.57e-05 | 0.0 |
| 271 | 22 | -0.05 | 0.05 | -4.89e-03 | -5.18e-05 | -7.11e-05 | 0.0 |
| 271 | 33 | -0.01 | 0.05 | 9.08e-03 | -5.76e-05 | 5.44e-05 | 0.0 |
| 271 | 41 | -0.02 | 0.06 | 3.99e-03 | -6.81e-05 | 4.86e-05 | 0.0 |
| 271 | 46 | -0.04 | 0.05 | -1.97e-03 | -4.81e-05 | -2.64e-05 | 0.0 |
| 271 | 58 | -0.02 | 0.04 | -0.04 | 6.52e-05 | -7.75e-05 | 0.0 |
| 271 | 60 | -0.02 | 0.04 | -0.03 | 6.41e-05 | 1.19e-05 | 0.0 |
| 271 | 62 | -0.02 | 0.04 | -0.03 | 3.81e-05 | -5.33e-05 | 0.0 |
| 271 | 63 | -0.02 | 0.04 | -0.03 | 6.41e-05 | 1.19e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 271 | 65 | -0.02 | 0.04 | 5.43e-04 | -4.31e-05 | 1.94e-05 | 0.0 |
| 272 | 1 | -0.03 | 0.05 | -0.04 | 1.98e-05 | -1.73e-04 | 0.0 |
| 272 | 5 | -0.03 | 0.05 | -0.06 | -3.87e-05 | 1.01e-04 | 0.0 |
| 272 | 15 | -0.03 | 0.07 | 3.91e-03 | -1.53e-04 | 9.66e-06 | 0.0 |
| 272 | 22 | -0.05 | 0.05 | 2.91e-03 | -9.45e-05 | -9.94e-05 | 0.0 |
| 272 | 28 | -0.02 | 0.03 | -7.93e-03 | -7.70e-05 | 2.76e-05 | 0.0 |
| 272 | 39 | -0.03 | 0.06 | 1.43e-03 | -1.22e-04 | 9.56e-06 | 0.0 |
| 272 | 44 | -4.48e-03 | 0.03 | -3.52e-03 | -8.19e-05 | 6.41e-05 | 0.0 |
| 272 | 46 | -0.04 | 0.04 | 1.52e-03 | -9.06e-05 | -4.71e-05 | 0.0 |
| 272 | 58 | -0.02 | 0.04 | -0.03 | 1.53e-05 | -1.26e-04 | 0.0 |
| 272 | 61 | -0.02 | 0.04 | -0.03 | -4.25e-05 | 6.04e-05 | 0.0 |
| 272 | 62 | -0.02 | 0.04 | -0.02 | -9.99e-06 | -9.22e-05 | 0.0 |
| 272 | 64 | -0.02 | 0.04 | -0.03 | -4.25e-05 | 6.04e-05 | 0.0 |
| 272 | 65 | -0.02 | 0.04 | -4.52e-04 | -8.60e-05 | 8.45e-06 | 0.0 |
| 273 | 4 | -0.04 | 0.05 | -0.06 | -3.58e-05 | -3.89e-05 | 0.0 |
| 273 | 5 | -0.05 | 0.06 | -0.04 | 3.12e-06 | 5.69e-05 | 0.0 |
| 273 | 17 | -0.03 | 0.08 | 0.03 | -6.14e-06 | 4.06e-05 | 0.0 |
| 273 | 18 | -0.07 | 0.04 | -2.37e-03 | 2.38e-05 | -1.36e-04 | 0.0 |
| 273 | 41 | -0.04 | 0.06 | 0.02 | 1.84e-06 | 1.43e-05 | 0.0 |
| 273 | 42 | -0.06 | 0.04 | 5.23e-03 | 1.37e-05 | -7.64e-05 | 0.0 |
| 273 | 58 | -0.04 | 0.05 | -0.04 | 2.07e-05 | -1.11e-04 | 0.0 |
| 273 | 61 | -0.04 | 0.05 | -0.02 | 5.72e-06 | 2.87e-05 | 0.0 |
| 273 | 63 | -0.04 | 0.05 | -0.03 | -1.72e-05 | -2.78e-05 | 0.0 |
| 273 | 64 | -0.04 | 0.05 | -0.02 | 5.72e-06 | 2.87e-05 | 0.0 |
| 273 | 65 | -0.04 | 0.05 | 0.01 | 6.14e-06 | -1.39e-05 | 0.0 |
| 274 | 2 | -0.05 | 0.05 | -0.07 | 2.53e-04 | -1.62e-04 | 0.0 |
| 274 | 5 | -0.06 | 0.06 | -0.05 | 2.47e-04 | 5.98e-05 | 0.0 |
| 274 | 16 | -0.04 | 0.08 | 0.03 | 3.53e-05 | 3.29e-05 | 0.0 |
| 274 | 17 | -0.04 | 0.08 | 0.03 | 3.15e-05 | 3.22e-05 | 0.0 |
| 274 | 19 | -0.08 | 0.04 | -5.38e-03 | 1.37e-04 | -1.69e-04 | 0.0 |
| 274 | 40 | -0.04 | 0.06 | 0.02 | 6.29e-05 | 5.57e-06 | 0.0 |
| 274 | 41 | -0.04 | 0.06 | 0.02 | 6.18e-05 | 5.38e-06 | 0.0 |
| 274 | 42 | -0.06 | 0.04 | 3.12e-04 | 1.16e-04 | -9.79e-05 | 0.0 |
| 274 | 58 | -0.05 | 0.05 | -0.05 | 2.11e-04 | -1.26e-04 | 0.0 |
| 274 | 61 | -0.05 | 0.05 | -0.03 | 1.59e-04 | 2.80e-05 | 0.0 |
| 274 | 62 | -0.05 | 0.05 | -0.03 | 1.82e-04 | -1.01e-04 | 0.0 |
| 274 | 64 | -0.05 | 0.05 | -0.03 | 1.59e-04 | 2.80e-05 | 0.0 |
| 274 | 65 | -0.05 | 0.05 | 8.95e-03 | 9.21e-05 | -2.33e-05 | 0.0 |
| 275 | 4 | -0.04 | 0.04 | -0.05 | 2.44e-05 | -1.34e-04 | 0.0 |
| 275 | 5 | -0.06 | 0.05 | -0.05 | 5.88e-05 | 4.67e-06 | 0.0 |
| 275 | 14 | -0.05 | 0.07 | 0.03 | -2.90e-05 | -2.24e-05 | 0.0 |
| 275 | 15 | -0.05 | 0.07 | 0.03 | -2.84e-05 | -2.11e-05 | 0.0 |
| 275 | 18 | -0.07 | 0.03 | 0.01 | 2.38e-05 | -1.67e-04 | 0.0 |
| 275 | 38 | -0.04 | 0.06 | 0.02 | -9.72e-06 | -2.10e-05 | 0.0 |
| 275 | 39 | -0.04 | 0.06 | 0.02 | -9.55e-06 | -2.06e-05 | 0.0 |
| 275 | 42 | -0.06 | 0.03 | 0.01 | 1.51e-05 | -9.65e-05 | 0.0 |
| 275 | 58 | -0.04 | 0.04 | -0.03 | 5.63e-05 | -1.61e-04 | 0.0 |
| 275 | 61 | -0.04 | 0.04 | -0.02 | 3.61e-05 | 0.0 | 0.0 |
| 275 | 63 | -0.04 | 0.04 | -0.02 | 1.73e-05 | -8.40e-05 | 0.0 |
| 275 | 64 | -0.04 | 0.04 | -0.02 | 3.61e-05 | 0.0 | 0.0 |
| 275 | 65 | -0.04 | 0.04 | 0.01 | 8.52e-06 | -2.10e-05 | 0.0 |
| 276 | 1 | -0.07 | 0.07 | -0.11 | 4.63e-04 | -2.11e-04 | 0.0 |
| 276 | 5 | -0.07 | 0.07 | -0.07 | 3.43e-04 | 8.12e-05 | 0.0 |
| 276 | 16 | -0.04 | 0.09 | 0.03 | -1.34e-05 | 3.34e-05 | 0.0 |
| 276 | 18 | -0.08 | 0.04 | -0.04 | 2.32e-04 | -2.18e-04 | 0.0 |
| 276 | 19 | -0.08 | 0.04 | -0.04 | 2.24e-04 | -2.19e-04 | 0.0 |
| 276 | 40 | -0.05 | 0.07 | 0.02 | 4.10e-05 | 1.54e-06 | 0.0 |
| 276 | 42 | -0.07 | 0.05 | -0.02 | 1.71e-04 | -1.28e-04 | 0.0 |
| 276 | 58 | -0.05 | 0.05 | -0.08 | 3.38e-04 | -1.55e-04 | 0.0 |
| 276 | 61 | -0.05 | 0.05 | -0.04 | 2.14e-04 | 3.76e-05 | 0.0 |
| 276 | 62 | -0.05 | 0.05 | -0.06 | 2.81e-04 | -1.25e-04 | 0.0 |
| 276 | 64 | -0.05 | 0.05 | -0.04 | 2.14e-04 | 3.76e-05 | 0.0 |
| 276 | 65 | -0.05 | 0.05 | -1.33e-03 | 1.07e-04 | -3.24e-05 | 0.0 |
| 277 | 1 | -0.07 | 0.06 | -0.09 | 4.20e-04 | -2.05e-04 | 0.0 |
| 277 | 5 | -0.07 | 0.06 | -0.08 | 3.58e-04 | 7.49e-05 | 0.0 |
| 277 | 16 | -0.04 | 0.08 | 0.03 | -1.59e-05 | 2.96e-05 | 0.0 |
| 277 | 17 | -0.04 | 0.08 | 0.03 | -2.40e-05 | 2.86e-05 | 0.0 |
| 277 | 19 | -0.08 | 0.04 | -0.02 | 1.67e-04 | -2.14e-04 | 0.0 |
| 277 | 40 | -0.05 | 0.06 | 0.02 | 3.43e-05 | 0.0 | 0.0 |
| 277 | 41 | -0.05 | 0.06 | 0.02 | 3.19e-05 | 0.0 | 0.0 |
| 277 | 42 | -0.07 | 0.04 | -9.50e-03 | 1.36e-04 | -1.25e-04 | 0.0 |
| 277 | 58 | -0.05 | 0.05 | -0.07 | 3.07e-04 | -1.51e-04 | 0.0 |
| 277 | 59 | -0.05 | 0.05 | -0.05 | 2.54e-04 | -1.21e-04 | 0.0 |
| 277 | 61 | -0.05 | 0.05 | -0.04 | 2.20e-04 | 3.42e-05 | 0.0 |
| 277 | 62 | -0.05 | 0.05 | -0.05 | 2.54e-04 | -1.21e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 277 | 64 | -0.05 | 0.05 | -0.04 | 2.20e-04 | 3.42e-05 | 0.0 |
| 277 | 65 | -0.05 | 0.05 | 1.52e-03 | 9.61e-05 | -3.24e-05 | 0.0 |
| 278 | 1 | -0.07 | 0.05 | -0.08 | 3.78e-04 | -2.02e-04 | 0.0 |
| 278 | 5 | -0.07 | 0.05 | -0.08 | 3.80e-04 | 8.17e-05 | 0.0 |
| 278 | 14 | -0.06 | 0.07 | 0.03 | -2.15e-05 | -7.75e-05 | 0.0 |
| 278 | 15 | -0.06 | 0.07 | 0.03 | -3.02e-05 | -7.86e-05 | 0.0 |
| 278 | 19 | -0.08 | 0.03 | 1.59e-03 | 1.11e-04 | -2.15e-04 | 0.0 |
| 278 | 38 | -0.06 | 0.06 | 0.02 | 2.53e-05 | -5.41e-05 | 0.0 |
| 278 | 39 | -0.06 | 0.06 | 0.02 | 2.26e-05 | -5.45e-05 | 0.0 |
| 278 | 42 | -0.07 | 0.03 | 1.41e-03 | 1.02e-04 | -1.25e-04 | 0.0 |
| 278 | 58 | -0.05 | 0.04 | -0.05 | 2.76e-04 | -1.49e-04 | 0.0 |
| 278 | 59 | -0.05 | 0.04 | -0.04 | 2.28e-04 | -1.19e-04 | 0.0 |
| 278 | 61 | -0.05 | 0.04 | -0.04 | 2.29e-04 | 3.88e-05 | 0.0 |
| 278 | 62 | -0.05 | 0.04 | -0.04 | 2.28e-04 | -1.19e-04 | 0.0 |
| 278 | 64 | -0.05 | 0.04 | -0.04 | 2.29e-04 | 3.88e-05 | 0.0 |
| 278 | 65 | -0.05 | 0.04 | 4.25e-03 | 8.42e-05 | -2.94e-05 | 0.0 |
| 279 | 1 | -0.03 | 0.04 | -0.03 | -4.94e-05 | -1.29e-04 | 0.0 |
| 279 | 5 | -0.03 | 0.04 | -0.07 | -1.36e-04 | 1.88e-04 | 0.0 |
| 279 | 15 | -0.03 | 0.07 | 2.52e-03 | -1.98e-04 | 3.56e-05 | 0.0 |
| 279 | 22 | -0.05 | 0.04 | 8.29e-03 | -1.34e-04 | -8.60e-05 | 0.0 |
| 279 | 24 | 8.29e-03 | 0.04 | -0.02 | -1.62e-04 | 1.93e-04 | 0.0 |
| 279 | 39 | -0.03 | 0.05 | -4.57e-05 | -1.62e-04 | 3.91e-05 | 0.0 |
| 279 | 46 | -0.04 | 0.04 | 3.59e-03 | -1.28e-04 | -2.47e-05 | 0.0 |
| 279 | 48 | -5.23e-03 | 0.04 | -8.91e-03 | -1.42e-04 | 1.20e-04 | 0.0 |
| 279 | 58 | -0.02 | 0.03 | -0.02 | -3.48e-05 | -9.36e-05 | 0.0 |
| 279 | 61 | -0.02 | 0.03 | -0.03 | -1.05e-04 | 1.16e-04 | 0.0 |
| 279 | 62 | -0.02 | 0.03 | -0.02 | -5.65e-05 | -5.98e-05 | 0.0 |
| 279 | 64 | -0.02 | 0.03 | -0.03 | -1.05e-04 | 1.16e-04 | 0.0 |
| 279 | 65 | -0.02 | 0.03 | -1.94e-03 | -1.22e-04 | 4.16e-05 | 0.0 |
| 280 | 1 | -0.04 | 0.05 | -0.04 | -5.77e-06 | -2.66e-04 | 0.0 |
| 280 | 3 | -0.04 | 0.05 | -0.05 | -6.56e-06 | -2.12e-04 | 0.0 |
| 280 | 5 | -0.04 | 0.05 | -0.05 | -6.53e-05 | -2.14e-05 | 0.0 |
| 280 | 15 | -0.04 | 0.07 | 0.01 | -1.52e-04 | -4.01e-05 | 0.0 |
| 280 | 22 | -0.06 | 0.05 | 9.48e-03 | -1.00e-04 | -1.35e-04 | 0.0 |
| 280 | 39 | -0.03 | 0.06 | 9.51e-03 | -1.21e-04 | -3.73e-05 | 0.0 |
| 280 | 46 | -0.04 | 0.04 | 7.71e-03 | -9.38e-05 | -8.66e-05 | 0.0 |
| 280 | 58 | -0.03 | 0.04 | -0.03 | -3.05e-06 | -1.93e-04 | 0.0 |
| 280 | 60 | -0.03 | 0.04 | -0.03 | -2.45e-05 | -1.24e-04 | 0.0 |
| 280 | 61 | -0.03 | 0.04 | -0.03 | -5.71e-05 | -1.76e-05 | 0.0 |
| 280 | 62 | -0.03 | 0.04 | -0.02 | -2.40e-05 | -1.53e-04 | 0.0 |
| 280 | 63 | -0.03 | 0.04 | -0.03 | -2.45e-05 | -1.24e-04 | 0.0 |
| 280 | 64 | -0.03 | 0.04 | -0.03 | -5.71e-05 | -1.76e-05 | 0.0 |
| 280 | 65 | -0.03 | 0.04 | 5.30e-03 | -8.70e-05 | -3.54e-05 | 0.0 |
| 281 | 1 | -0.06 | 0.04 | -0.02 | 1.24e-04 | -5.99e-05 | 0.0 |
| 281 | 5 | -0.06 | 0.04 | -0.06 | 1.14e-04 | 2.76e-04 | 0.0 |
| 281 | 6 | -0.04 | 0.03 | -0.07 | 1.12e-04 | 2.55e-04 | 0.0 |
| 281 | 14 | -0.05 | 0.06 | 0.03 | -6.96e-05 | 5.31e-06 | 0.0 |
| 281 | 18 | -0.07 | 0.02 | 0.03 | 5.81e-06 | -1.44e-04 | 0.0 |
| 281 | 23 | -0.07 | 0.04 | 0.04 | -3.61e-05 | -1.46e-04 | 0.0 |
| 281 | 38 | -0.05 | 0.05 | 0.02 | -3.51e-05 | 2.93e-05 | 0.0 |
| 281 | 42 | -0.06 | 0.02 | 0.02 | 3.14e-06 | -4.71e-05 | 0.0 |
| 281 | 46 | -0.06 | 0.03 | 0.03 | -1.75e-05 | -4.56e-05 | 0.0 |
| 281 | 59 | -0.04 | 0.03 | -4.98e-03 | 6.90e-05 | -1.92e-05 | 0.0 |
| 281 | 61 | -0.04 | 0.03 | -0.03 | 6.32e-05 | 1.67e-04 | 0.0 |
| 281 | 62 | -0.04 | 0.03 | -4.98e-03 | 6.90e-05 | -1.92e-05 | 0.0 |
| 281 | 64 | -0.04 | 0.03 | -0.03 | 6.32e-05 | 1.67e-04 | 0.0 |
| 281 | 65 | -0.04 | 0.03 | 0.01 | 1.78e-06 | 5.76e-05 | 0.0 |
| 282 | 1 | -0.05 | 0.05 | -0.04 | -2.32e-05 | -2.98e-04 | 0.0 |
| 282 | 4 | -0.03 | 0.04 | -0.05 | -3.66e-05 | -2.22e-04 | 0.0 |
| 282 | 5 | -0.05 | 0.05 | -0.05 | -6.34e-05 | -6.96e-05 | 0.0 |
| 282 | 15 | -0.04 | 0.07 | 0.03 | -1.08e-04 | -1.58e-05 | 0.0 |
| 282 | 18 | -0.06 | 0.03 | 0.01 | -3.38e-05 | -1.74e-04 | 0.0 |
| 282 | 39 | -0.04 | 0.06 | 0.02 | -8.41e-05 | -2.60e-05 | 0.0 |
| 282 | 42 | -0.05 | 0.03 | 0.01 | -4.64e-05 | -1.08e-04 | 0.0 |
| 282 | 58 | -0.03 | 0.04 | -0.03 | -1.47e-05 | -2.16e-04 | 0.0 |
| 282 | 61 | -0.03 | 0.04 | -0.02 | -4.81e-05 | -4.46e-05 | 0.0 |
| 282 | 62 | -0.03 | 0.04 | -0.02 | -2.57e-05 | -1.71e-04 | 0.0 |
| 282 | 63 | -0.03 | 0.04 | -0.02 | -4.65e-05 | -1.40e-04 | 0.0 |
| 282 | 64 | -0.03 | 0.04 | -0.02 | -4.81e-05 | -4.46e-05 | 0.0 |
| 282 | 65 | -0.03 | 0.04 | 0.01 | -5.89e-05 | -3.82e-05 | 0.0 |
| 283 | 1 | -0.03 | 0.03 | -0.02 | -9.46e-05 | -1.14e-04 | 0.0 |
| 283 | 5 | -0.03 | 0.03 | -0.08 | -2.17e-04 | 2.43e-04 | 0.0 |
| 283 | 15 | -0.03 | 0.06 | -1.53e-04 | -2.18e-04 | 1.77e-05 | 0.0 |
| 283 | 22 | -0.05 | 0.04 | 0.02 | -1.52e-04 | -1.54e-04 | 0.0 |
| 283 | 24 | 7.58e-03 | 0.03 | -0.04 | -1.90e-04 | 2.75e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 283 | 39 | -0.03 | 0.05 | -3.56e-03 | -1.83e-04 | 3.31e-05 | 0.0 |
| 283 | 46 | -0.04 | 0.03 | 6.76e-03 | -1.47e-04 | -5.66e-05 | 0.0 |
| 283 | 48 | -5.96e-03 | 0.03 | -0.02 | -1.67e-04 | 1.65e-04 | 0.0 |
| 283 | 58 | -0.02 | 0.03 | -0.01 | -6.71e-05 | -8.40e-05 | 0.0 |
| 283 | 61 | -0.02 | 0.03 | -0.05 | -1.54e-04 | 1.47e-04 | 0.0 |
| 283 | 62 | -0.02 | 0.03 | -0.01 | -8.61e-05 | -5.10e-05 | 0.0 |
| 283 | 64 | -0.02 | 0.03 | -0.05 | -1.54e-04 | 1.47e-04 | 0.0 |
| 283 | 65 | -0.02 | 0.03 | -6.24e-03 | -1.43e-04 | 4.82e-05 | 0.0 |
| 284 | 1 | -0.05 | 0.07 | -0.07 | 9.86e-05 | -1.07e-04 | 0.0 |
| 284 | 2 | -0.04 | 0.05 | -0.07 | 9.14e-05 | -1.09e-04 | 0.0 |
| 284 | 5 | -0.05 | 0.07 | -0.04 | 6.37e-05 | 1.35e-04 | 0.0 |
| 284 | 17 | -0.03 | 0.08 | 0.04 | -7.45e-06 | 4.32e-05 | 0.0 |
| 284 | 18 | -0.07 | 0.04 | -0.01 | 7.34e-05 | -1.21e-04 | 0.0 |
| 284 | 41 | -0.04 | 0.07 | 0.03 | 1.08e-05 | 2.19e-05 | 0.0 |
| 284 | 42 | -0.06 | 0.05 | -7.87e-04 | 4.98e-05 | -6.23e-05 | 0.0 |
| 284 | 58 | -0.04 | 0.05 | -0.05 | 7.47e-05 | -8.06e-05 | 0.0 |
| 284 | 59 | -0.04 | 0.05 | -0.03 | 6.28e-05 | -6.05e-05 | 0.0 |
| 284 | 61 | -0.04 | 0.05 | -0.01 | 4.34e-05 | 7.41e-05 | 0.0 |
| 284 | 62 | -0.04 | 0.05 | -0.03 | 6.28e-05 | -6.05e-05 | 0.0 |
| 284 | 64 | -0.04 | 0.05 | -0.01 | 4.34e-05 | 7.41e-05 | 0.0 |
| 284 | 65 | -0.04 | 0.05 | 0.01 | 2.70e-05 | 0.0 | 0.0 |
| 285 | 1 | -0.04 | 0.04 | -0.03 | -6.12e-05 | -1.85e-04 | 0.0 |
| 285 | 5 | -0.04 | 0.04 | -0.06 | -1.44e-04 | 1.01e-04 | 0.0 |
| 285 | 15 | -0.04 | 0.07 | 0.01 | -1.68e-04 | 1.06e-05 | 0.0 |
| 285 | 22 | -0.06 | 0.04 | 0.02 | -1.20e-04 | -1.14e-04 | 0.0 |
| 285 | 23 | -0.06 | 0.04 | 0.02 | -1.16e-04 | -1.14e-04 | 0.0 |
| 285 | 39 | -0.03 | 0.05 | 0.01 | -1.40e-04 | 1.31e-05 | 0.0 |
| 285 | 46 | -0.04 | 0.04 | 0.01 | -1.15e-04 | -5.21e-05 | 0.0 |
| 285 | 58 | -0.03 | 0.03 | -0.02 | -4.31e-05 | -1.34e-04 | 0.0 |
| 285 | 61 | -0.03 | 0.03 | -0.03 | -1.06e-04 | 6.18e-05 | 0.0 |
| 285 | 62 | -0.03 | 0.03 | -0.01 | -5.97e-05 | -9.71e-05 | 0.0 |
| 285 | 64 | -0.03 | 0.03 | -0.03 | -1.06e-04 | 6.18e-05 | 0.0 |
| 285 | 65 | -0.03 | 0.03 | 5.95e-03 | -1.10e-04 | 1.46e-05 | 0.0 |
| 286 | 1 | -0.05 | 0.04 | -0.02 | 2.08e-06 | -2.04e-04 | 0.0 |
| 286 | 5 | -0.05 | 0.04 | -0.05 | -4.46e-05 | 5.49e-05 | 0.0 |
| 286 | 6 | -0.04 | 0.03 | -0.05 | -2.43e-05 | 5.91e-05 | 0.0 |
| 286 | 14 | -0.04 | 0.07 | 0.02 | -1.02e-04 | -8.83e-06 | 0.0 |
| 286 | 18 | -0.06 | 0.02 | 0.02 | -3.33e-05 | -1.51e-04 | 0.0 |
| 286 | 23 | -0.06 | 0.04 | 0.03 | -6.15e-05 | -1.30e-04 | 0.0 |
| 286 | 38 | -0.04 | 0.05 | 0.02 | -7.62e-05 | -4.23e-06 | 0.0 |
| 286 | 39 | -0.04 | 0.05 | 0.02 | -7.55e-05 | -4.06e-06 | 0.0 |
| 286 | 42 | -0.05 | 0.03 | 0.02 | -4.22e-05 | -7.86e-05 | 0.0 |
| 286 | 58 | -0.04 | 0.03 | -0.02 | 3.45e-06 | -1.48e-04 | 0.0 |
| 286 | 61 | -0.04 | 0.03 | -0.02 | -3.60e-05 | 3.27e-05 | 0.0 |
| 286 | 62 | -0.04 | 0.03 | -7.94e-03 | -1.01e-05 | -1.11e-04 | 0.0 |
| 286 | 64 | -0.04 | 0.03 | -0.02 | -3.60e-05 | 3.27e-05 | 0.0 |
| 286 | 65 | -0.04 | 0.03 | 0.01 | -5.08e-05 | 0.0 | 0.0 |
| 287 | 1 | -0.06 | 0.05 | -0.04 | 2.66e-04 | -1.67e-04 | 0.0 |
| 287 | 5 | -0.06 | 0.05 | -0.06 | 2.86e-04 | 1.01e-04 | 0.0 |
| 287 | 6 | -0.05 | 0.03 | -0.06 | 2.58e-04 | 1.05e-04 | 0.0 |
| 287 | 14 | -0.05 | 0.07 | 0.03 | -5.12e-06 | -4.10e-05 | 0.0 |
| 287 | 15 | -0.05 | 0.07 | 0.03 | -1.04e-05 | -4.22e-05 | 0.0 |
| 287 | 18 | -0.08 | 0.03 | 0.02 | 7.61e-05 | -1.77e-04 | 0.0 |
| 287 | 38 | -0.05 | 0.05 | 0.02 | 3.14e-05 | -2.43e-05 | 0.0 |
| 287 | 39 | -0.05 | 0.05 | 0.02 | 2.98e-05 | -2.47e-05 | 0.0 |
| 287 | 42 | -0.06 | 0.03 | 0.01 | 7.30e-05 | -9.40e-05 | 0.0 |
| 287 | 59 | -0.05 | 0.03 | -0.02 | 1.64e-04 | -9.35e-05 | 0.0 |
| 287 | 61 | -0.05 | 0.03 | -0.03 | 1.75e-04 | 5.58e-05 | 0.0 |
| 287 | 62 | -0.05 | 0.03 | -0.02 | 1.64e-04 | -9.35e-05 | 0.0 |
| 287 | 64 | -0.05 | 0.03 | -0.03 | 1.75e-04 | 5.58e-05 | 0.0 |
| 287 | 65 | -0.05 | 0.03 | 0.01 | 7.23e-05 | -5.82e-06 | 0.0 |
| 288 | 1 | -0.04 | 0.03 | -8.07e-03 | -4.24e-06 | -6.45e-05 | 0.0 |
| 288 | 5 | -0.04 | 0.03 | -0.10 | -9.52e-05 | 3.41e-04 | 0.0 |
| 288 | 15 | -0.04 | 0.05 | 0.01 | -1.58e-04 | 1.64e-05 | 0.0 |
| 288 | 22 | -0.06 | 0.03 | 0.04 | -9.17e-05 | -1.86e-04 | 0.0 |
| 288 | 24 | 1.39e-03 | 0.03 | -0.05 | -1.27e-04 | 3.53e-04 | 0.0 |
| 288 | 39 | -0.03 | 0.04 | 3.49e-03 | -1.23e-04 | 4.36e-05 | 0.0 |
| 288 | 46 | -0.05 | 0.03 | 0.02 | -8.80e-05 | -6.25e-05 | 0.0 |
| 288 | 48 | -0.01 | 0.02 | -0.03 | -1.06e-04 | 2.16e-04 | 0.0 |
| 288 | 58 | -0.03 | 0.02 | -3.84e-03 | -1.30e-06 | -4.93e-05 | 0.0 |
| 288 | 59 | -0.03 | 0.02 | -3.74e-03 | -2.19e-05 | -1.91e-05 | 0.0 |
| 288 | 61 | -0.03 | 0.02 | -0.05 | -7.25e-05 | 2.06e-04 | 0.0 |
| 288 | 62 | -0.03 | 0.02 | -3.74e-03 | -2.19e-05 | -1.91e-05 | 0.0 |
| 288 | 64 | -0.03 | 0.02 | -0.05 | -7.25e-05 | 2.06e-04 | 0.0 |
| 288 | 65 | -0.03 | 0.02 | -3.45e-03 | -8.39e-05 | 7.13e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 289 | 1 | -0.06 | 0.04 | -0.03 | 2.29e-04 | -9.71e-05 | 0.0 |
| 289 | 5 | -0.06 | 0.04 | -0.08 | 2.58e-04 | 2.34e-04 | 0.0 |
| 289 | 6 | -0.05 | 0.03 | -0.08 | 2.41e-04 | 2.24e-04 | 0.0 |
| 289 | 14 | -0.05 | 0.06 | 0.03 | -5.40e-05 | -3.39e-05 | 0.0 |
| 289 | 18 | -0.08 | 0.02 | 0.03 | 3.46e-05 | -1.74e-04 | 0.0 |
| 289 | 23 | -0.08 | 0.04 | 0.05 | -2.29e-05 | -1.80e-04 | 0.0 |
| 289 | 38 | -0.05 | 0.05 | 0.02 | -9.09e-06 | -5.45e-06 | 0.0 |
| 289 | 42 | -0.06 | 0.02 | 0.02 | 3.68e-05 | -7.63e-05 | 0.0 |
| 289 | 46 | -0.06 | 0.03 | 0.03 | 9.62e-06 | -7.78e-05 | 0.0 |
| 289 | 59 | -0.05 | 0.03 | -0.01 | 1.36e-04 | -4.73e-05 | 0.0 |
| 289 | 61 | -0.05 | 0.03 | -0.04 | 1.52e-04 | 1.37e-04 | 0.0 |
| 289 | 62 | -0.05 | 0.03 | -0.01 | 1.36e-04 | -4.73e-05 | 0.0 |
| 289 | 64 | -0.05 | 0.03 | -0.04 | 1.52e-04 | 1.37e-04 | 0.0 |
| 289 | 65 | -0.05 | 0.03 | 0.01 | 4.10e-05 | 2.81e-05 | 0.0 |
| 290 | 1 | -0.05 | 0.04 | -0.01 | 2.19e-05 | -5.98e-05 | 0.0 |
| 290 | 6 | -0.04 | 0.03 | -0.06 | -1.29e-05 | 2.55e-04 | 0.0 |
| 290 | 14 | -0.04 | 0.06 | 0.02 | -1.11e-04 | 2.96e-05 | 0.0 |
| 290 | 18 | -0.07 | 0.02 | 0.03 | -3.36e-05 | -1.36e-04 | 0.0 |
| 290 | 23 | -0.07 | 0.04 | 0.04 | -6.75e-05 | -1.29e-04 | 0.0 |
| 290 | 38 | -0.04 | 0.05 | 0.02 | -8.14e-05 | 4.79e-05 | 0.0 |
| 290 | 42 | -0.05 | 0.02 | 0.02 | -4.21e-05 | -3.75e-05 | 0.0 |
| 290 | 46 | -0.05 | 0.03 | 0.02 | -6.03e-05 | -3.18e-05 | 0.0 |
| 290 | 58 | -0.04 | 0.03 | -6.75e-03 | 1.76e-05 | -4.44e-05 | 0.0 |
| 290 | 59 | -0.04 | 0.03 | -2.42e-03 | 0.0 | -1.61e-05 | 0.0 |
| 290 | 61 | -0.04 | 0.03 | -0.03 | -2.96e-05 | 1.72e-04 | 0.0 |
| 290 | 62 | -0.04 | 0.03 | -2.42e-03 | 0.0 | -1.61e-05 | 0.0 |
| 290 | 64 | -0.04 | 0.03 | -0.03 | -2.96e-05 | 1.72e-04 | 0.0 |
| 290 | 65 | -0.04 | 0.03 | 0.01 | -5.06e-05 | 6.90e-05 | 0.0 |
| 291 | 1 | -0.05 | 0.03 | -9.94e-03 | 4.64e-05 | 7.97e-06 | 0.0 |
| 291 | 5 | -0.05 | 0.03 | -0.09 | -3.92e-06 | 4.41e-04 | 0.0 |
| 291 | 14 | -0.04 | 0.05 | 0.02 | -1.30e-04 | 2.91e-05 | 0.0 |
| 291 | 18 | -0.07 | 0.01 | 0.05 | -2.80e-05 | -1.71e-04 | 0.0 |
| 291 | 23 | -0.07 | 0.03 | 0.05 | -7.41e-05 | -1.76e-04 | 0.0 |
| 291 | 38 | -0.04 | 0.04 | 0.01 | -9.22e-05 | 6.12e-05 | 0.0 |
| 291 | 42 | -0.05 | 0.02 | 0.03 | -3.94e-05 | -4.14e-05 | 0.0 |
| 291 | 46 | -0.05 | 0.03 | 0.03 | -6.38e-05 | -3.94e-05 | 0.0 |
| 291 | 58 | -0.04 | 0.02 | -5.35e-03 | 3.51e-05 | 3.06e-06 | 0.0 |
| 291 | 59 | -0.04 | 0.02 | -3.29e-03 | 1.35e-05 | 2.70e-05 | 0.0 |
| 291 | 61 | -0.04 | 0.02 | -0.05 | -1.45e-05 | 2.68e-04 | 0.0 |
| 291 | 62 | -0.04 | 0.02 | -3.29e-03 | 1.35e-05 | 2.70e-05 | 0.0 |
| 291 | 64 | -0.04 | 0.02 | -0.05 | -1.45e-05 | 2.68e-04 | 0.0 |
| 291 | 65 | -0.04 | 0.02 | 2.91e-03 | -5.13e-05 | 9.86e-05 | 0.0 |
| 292 | 1 | -0.02 | 0.04 | -0.03 | 2.61e-06 | -6.50e-05 | 0.0 |
| 292 | 5 | -0.02 | 0.04 | -0.07 | -6.11e-05 | 2.76e-04 | 0.0 |
| 292 | 15 | -0.03 | 0.07 | -0.01 | -1.93e-04 | 7.78e-05 | 0.0 |
| 292 | 22 | -0.05 | 0.04 | 9.78e-05 | -1.11e-04 | -4.32e-05 | 0.0 |
| 292 | 24 | 0.01 | 0.04 | -0.03 | -1.52e-04 | 2.26e-04 | 0.0 |
| 292 | 39 | -0.02 | 0.05 | -0.01 | -1.50e-04 | 7.78e-05 | 0.0 |
| 292 | 46 | -0.04 | 0.04 | -4.21e-03 | -1.06e-04 | 1.40e-05 | 0.0 |
| 292 | 48 | 8.14e-04 | 0.04 | -0.02 | -1.27e-04 | 1.53e-04 | 0.0 |
| 292 | 58 | -0.02 | 0.03 | -0.02 | 2.68e-06 | -4.74e-05 | 0.0 |
| 292 | 61 | -0.02 | 0.03 | -0.04 | -5.87e-05 | 1.73e-04 | 0.0 |
| 292 | 62 | -0.02 | 0.03 | -0.02 | -2.32e-05 | -1.65e-05 | 0.0 |
| 292 | 64 | -0.02 | 0.03 | -0.04 | -5.87e-05 | 1.73e-04 | 0.0 |
| 292 | 65 | -0.02 | 0.03 | -9.32e-03 | -1.01e-04 | 7.63e-05 | 0.0 |
| 293 | 1 | -0.06 | 0.05 | -0.03 | 1.16e-04 | -1.82e-04 | 0.0 |
| 293 | 5 | -0.06 | 0.04 | -0.05 | 1.05e-04 | 7.50e-05 | 0.0 |
| 293 | 6 | -0.04 | 0.03 | -0.05 | 1.01e-04 | 7.77e-05 | 0.0 |
| 293 | 14 | -0.05 | 0.07 | 0.03 | -4.18e-05 | -1.43e-05 | 0.0 |
| 293 | 15 | -0.05 | 0.07 | 0.03 | -4.27e-05 | -1.44e-05 | 0.0 |
| 293 | 18 | -0.07 | 0.02 | 0.02 | 2.26e-05 | -1.58e-04 | 0.0 |
| 293 | 38 | -0.05 | 0.05 | 0.02 | -1.44e-05 | -6.62e-06 | 0.0 |
| 293 | 39 | -0.05 | 0.05 | 0.02 | -1.46e-05 | -6.66e-06 | 0.0 |
| 293 | 42 | -0.06 | 0.03 | 0.02 | 1.73e-05 | -8.10e-05 | 0.0 |
| 293 | 59 | -0.04 | 0.03 | -0.01 | 6.81e-05 | -9.90e-05 | 0.0 |
| 293 | 61 | -0.04 | 0.03 | -0.02 | 6.20e-05 | 4.37e-05 | 0.0 |
| 293 | 62 | -0.04 | 0.03 | -0.01 | 6.81e-05 | -9.90e-05 | 0.0 |
| 293 | 64 | -0.04 | 0.03 | -0.02 | 6.20e-05 | 4.37e-05 | 0.0 |
| 293 | 65 | -0.04 | 0.03 | 0.01 | 1.37e-05 | 1.30e-06 | 0.0 |
| 294 | 1 | -0.01 | 0.04 | -0.03 | 4.78e-05 | -7.82e-05 | 0.0 |
| 294 | 5 | -9.89e-03 | 0.04 | -0.07 | 8.11e-06 | 2.52e-04 | 0.0 |
| 294 | 15 | -0.02 | 0.07 | -0.03 | -1.88e-04 | 7.59e-05 | 0.0 |
| 294 | 16 | 1.48e-03 | 0.06 | -0.05 | -2.02e-04 | 1.58e-04 | 0.0 |
| 294 | 22 | -0.04 | 0.04 | -0.01 | -8.86e-05 | -4.89e-05 | 0.0 |
| 294 | 39 | -0.01 | 0.05 | -0.03 | -1.36e-04 | 7.20e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 294 | 40 | -2.34e-03 | 0.05 | -0.03 | -1.43e-04 | 1.14e-04 | 0.0 |
| 294 | 46 | -0.03 | 0.04 | -0.02 | -8.38e-05 | 6.53e-06 | 0.0 |
| 294 | 58 | -7.61e-03 | 0.03 | -0.02 | 3.54e-05 | -5.70e-05 | 0.0 |
| 294 | 61 | -7.36e-03 | 0.03 | -0.04 | -1.50e-05 | 1.57e-04 | 0.0 |
| 294 | 62 | -7.57e-03 | 0.03 | -0.02 | 7.10e-06 | -2.62e-05 | 0.0 |
| 294 | 64 | -7.36e-03 | 0.03 | -0.04 | -1.50e-05 | 1.57e-04 | 0.0 |
| 294 | 65 | -7.46e-03 | 0.03 | -0.02 | -7.78e-05 | 6.63e-05 | 0.0 |
| 295 | 1 | -2.41e-03 | 0.04 | -0.03 | 5.12e-05 | -8.22e-05 | 0.0 |
| 295 | 5 | -2.27e-03 | 0.04 | -0.07 | 1.24e-05 | 2.41e-04 | 0.0 |
| 295 | 14 | -0.01 | 0.07 | -0.05 | -1.87e-04 | 7.29e-05 | 0.0 |
| 295 | 16 | 7.43e-03 | 0.06 | -0.06 | -2.00e-04 | 1.50e-04 | 0.0 |
| 295 | 23 | -0.04 | 0.04 | -0.01 | -8.85e-05 | -5.39e-05 | 0.0 |
| 295 | 38 | -8.66e-03 | 0.05 | -0.04 | -1.34e-04 | 6.76e-05 | 0.0 |
| 295 | 40 | 3.58e-03 | 0.05 | -0.04 | -1.41e-04 | 1.07e-04 | 0.0 |
| 295 | 46 | -0.02 | 0.04 | -0.02 | -8.23e-05 | 3.31e-06 | 0.0 |
| 295 | 58 | -1.79e-03 | 0.03 | -0.02 | 3.79e-05 | -5.99e-05 | 0.0 |
| 295 | 61 | -1.68e-03 | 0.03 | -0.05 | -1.19e-05 | 1.50e-04 | 0.0 |
| 295 | 62 | -1.76e-03 | 0.03 | -0.02 | 9.64e-06 | -2.95e-05 | 0.0 |
| 295 | 64 | -1.68e-03 | 0.03 | -0.05 | -1.19e-05 | 1.50e-04 | 0.0 |
| 295 | 65 | -1.67e-03 | 0.03 | -0.03 | -7.50e-05 | 6.15e-05 | 0.0 |
| 296 | 1 | 5.42e-03 | 0.04 | -0.02 | 5.34e-05 | -8.63e-05 | 0.0 |
| 296 | 5 | 5.30e-03 | 0.04 | -0.07 | 1.42e-05 | 2.31e-04 | 0.0 |
| 296 | 14 | -7.78e-03 | 0.07 | -0.06 | -1.86e-04 | 6.74e-05 | 0.0 |
| 296 | 16 | 0.01 | 0.06 | -0.08 | -1.99e-04 | 1.43e-04 | 0.0 |
| 296 | 20 | 0.04 | 0.02 | -0.04 | -5.85e-05 | 1.70e-04 | 0.0 |
| 296 | 38 | -3.28e-03 | 0.05 | -0.05 | -1.32e-04 | 6.26e-05 | 0.0 |
| 296 | 40 | 9.45e-03 | 0.05 | -0.05 | -1.39e-04 | 1.01e-04 | 0.0 |
| 296 | 44 | 0.03 | 0.02 | -0.04 | -6.51e-05 | 1.14e-04 | 0.0 |
| 296 | 59 | 4.04e-03 | 0.03 | -0.02 | 1.14e-05 | -3.30e-05 | 0.0 |
| 296 | 61 | 3.97e-03 | 0.03 | -0.05 | -1.04e-05 | 1.43e-04 | 0.0 |
| 296 | 62 | 4.04e-03 | 0.03 | -0.02 | 1.14e-05 | -3.30e-05 | 0.0 |
| 296 | 64 | 3.97e-03 | 0.03 | -0.05 | -1.04e-05 | 1.43e-04 | 0.0 |
| 296 | 65 | 4.10e-03 | 0.03 | -0.03 | -7.30e-05 | 5.67e-05 | 0.0 |
| 297 | 1 | 0.01 | 0.04 | -0.02 | 5.29e-05 | -9.13e-05 | 0.0 |
| 297 | 5 | 0.01 | 0.04 | -0.07 | 1.33e-05 | 2.21e-04 | 0.0 |
| 297 | 14 | -2.46e-03 | 0.07 | -0.08 | -1.87e-04 | 6.17e-05 | 0.0 |
| 297 | 16 | 0.02 | 0.06 | -0.09 | -1.99e-04 | 1.36e-04 | 0.0 |
| 297 | 20 | 0.05 | 0.02 | -0.04 | -5.79e-05 | 1.63e-04 | 0.0 |
| 297 | 38 | 2.09e-03 | 0.05 | -0.06 | -1.33e-04 | 5.73e-05 | 0.0 |
| 297 | 40 | 0.02 | 0.05 | -0.06 | -1.39e-04 | 9.52e-05 | 0.0 |
| 297 | 44 | 0.03 | 0.02 | -0.04 | -6.49e-05 | 1.08e-04 | 0.0 |
| 297 | 59 | 9.84e-03 | 0.03 | -0.02 | 1.11e-05 | -3.70e-05 | 0.0 |
| 297 | 61 | 9.62e-03 | 0.03 | -0.05 | -1.09e-05 | 1.36e-04 | 0.0 |
| 297 | 62 | 9.84e-03 | 0.03 | -0.02 | 1.11e-05 | -3.70e-05 | 0.0 |
| 297 | 64 | 9.62e-03 | 0.03 | -0.05 | -1.09e-05 | 1.36e-04 | 0.0 |
| 297 | 65 | 9.87e-03 | 0.03 | -0.04 | -7.32e-05 | 5.16e-05 | 0.0 |
| 298 | 1 | 0.02 | 0.04 | -0.01 | 4.73e-05 | -9.50e-05 | 0.0 |
| 298 | 5 | 0.02 | 0.04 | -0.07 | 1.11e-05 | 2.14e-04 | 0.0 |
| 298 | 14 | 2.81e-03 | 0.07 | -0.09 | -1.89e-04 | 5.83e-05 | 0.0 |
| 298 | 16 | 0.03 | 0.06 | -0.10 | -1.99e-04 | 1.31e-04 | 0.0 |
| 298 | 20 | 0.05 | 0.02 | -0.05 | -5.58e-05 | 1.57e-04 | 0.0 |
| 298 | 38 | 7.43e-03 | 0.05 | -0.07 | -1.35e-04 | 5.39e-05 | 0.0 |
| 298 | 40 | 0.02 | 0.05 | -0.07 | -1.40e-04 | 9.12e-05 | 0.0 |
| 298 | 44 | 0.04 | 0.03 | -0.04 | -6.49e-05 | 1.03e-04 | 0.0 |
| 298 | 58 | 0.02 | 0.03 | -7.95e-03 | 3.49e-05 | -6.92e-05 | 0.0 |
| 298 | 61 | 0.02 | 0.03 | -0.05 | -1.28e-05 | 1.32e-04 | 0.0 |
| 298 | 62 | 0.02 | 0.03 | -0.02 | 7.32e-06 | -3.99e-05 | 0.0 |
| 298 | 64 | 0.02 | 0.03 | -0.05 | -1.28e-05 | 1.32e-04 | 0.0 |
| 298 | 65 | 0.02 | 0.03 | -0.04 | -7.55e-05 | 4.81e-05 | 0.0 |
| 299 | 1 | -0.03 | 0.03 | -8.28e-03 | 6.77e-06 | -1.58e-04 | 0.0 |
| 299 | 5 | -0.03 | 0.03 | -0.10 | -9.43e-05 | 2.11e-04 | 0.0 |
| 299 | 15 | -0.03 | 0.05 | 2.12e-04 | -1.64e-04 | -2.19e-05 | 0.0 |
| 299 | 22 | -0.06 | 0.03 | 0.04 | -8.25e-05 | -2.32e-04 | 0.0 |
| 299 | 24 | 7.02e-03 | 0.03 | -0.06 | -1.44e-04 | 3.01e-04 | 0.0 |
| 299 | 39 | -0.03 | 0.04 | -4.82e-03 | -1.27e-04 | 0.0 | 0.0 |
| 299 | 46 | -0.04 | 0.03 | 0.01 | -8.36e-05 | -1.10e-04 | 0.0 |
| 299 | 48 | -6.55e-03 | 0.02 | -0.04 | -1.15e-04 | 1.65e-04 | 0.0 |
| 299 | 58 | -0.02 | 0.02 | -3.86e-03 | 6.94e-06 | -1.17e-04 | 0.0 |
| 299 | 59 | -0.02 | 0.02 | -5.17e-03 | -1.60e-05 | -8.26e-05 | 0.0 |
| 299 | 61 | -0.02 | 0.02 | -0.06 | -7.21e-05 | 1.22e-04 | 0.0 |
| 299 | 62 | -0.02 | 0.02 | -5.17e-03 | -1.60e-05 | -8.26e-05 | 0.0 |
| 299 | 64 | -0.02 | 0.02 | -0.06 | -7.21e-05 | 1.22e-04 | 0.0 |
| 299 | 65 | -0.02 | 0.02 | -9.13e-03 | -8.46e-05 | 2.10e-05 | 0.0 |
| 300 | 1 | -0.01 | 0.09 | -0.09 | 4.36e-05 | -4.18e-04 | 0.0 |
| 300 | 17 | -1.21e-03 | 0.10 | -5.47e-03 | -2.13e-04 | -5.19e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 300 | 22 | -0.04 | 0.07 | -0.04 | -9.10e-05 | -2.59e-04 | 0.0 |
| 300 | 23 | -0.04 | 0.07 | -0.04 | -9.08e-05 | -2.55e-04 | 0.0 |
| 300 | 41 | -5.14e-03 | 0.08 | -8.77e-03 | -1.53e-04 | -7.69e-05 | 0.0 |
| 300 | 46 | -0.03 | 0.07 | -0.03 | -8.82e-05 | -1.85e-04 | 0.0 |
| 300 | 58 | -0.01 | 0.06 | -0.06 | 3.24e-05 | -3.07e-04 | 0.0 |
| 300 | 62 | -0.01 | 0.06 | -0.05 | 2.67e-06 | -2.56e-04 | 0.0 |
| 300 | 65 | -0.01 | 0.06 | -0.01 | -8.66e-05 | -1.04e-04 | 0.0 |
| 301 | 1 | -6.12e-03 | 0.09 | -0.09 | 4.37e-05 | -4.14e-04 | 0.0 |
| 301 | 3 | -6.13e-03 | 0.08 | -0.05 | 8.06e-06 | -1.69e-04 | 0.0 |
| 301 | 17 | 4.73e-03 | 0.10 | -0.02 | -2.16e-04 | -7.73e-05 | 0.0 |
| 301 | 22 | -0.04 | 0.07 | -0.05 | -9.14e-05 | -2.63e-04 | 0.0 |
| 301 | 23 | -0.04 | 0.07 | -0.04 | -9.13e-05 | -2.60e-04 | 0.0 |
| 301 | 41 | 8.02e-04 | 0.08 | -0.02 | -1.55e-04 | -9.50e-05 | 0.0 |
| 301 | 46 | -0.02 | 0.07 | -0.03 | -8.86e-05 | -1.92e-04 | 0.0 |
| 301 | 58 | -4.54e-03 | 0.06 | -0.06 | 3.25e-05 | -3.04e-04 | 0.0 |
| 301 | 62 | -4.52e-03 | 0.06 | -0.05 | 2.66e-06 | -2.56e-04 | 0.0 |
| 301 | 63 | -4.52e-03 | 0.06 | -0.03 | -1.71e-05 | -1.20e-04 | 0.0 |
| 301 | 65 | -4.48e-03 | 0.06 | -0.02 | -8.69e-05 | -1.14e-04 | 0.0 |
| 302 | 1 | 1.84e-03 | 0.09 | -0.08 | 4.29e-05 | -4.10e-04 | 0.0 |
| 302 | 17 | 0.01 | 0.10 | -0.04 | -2.20e-04 | -9.87e-05 | 0.0 |
| 302 | 20 | 0.04 | 0.06 | 2.11e-03 | -8.42e-05 | 1.80e-05 | 0.0 |
| 302 | 22 | -0.03 | 0.07 | -0.05 | -9.18e-05 | -2.68e-04 | 0.0 |
| 302 | 41 | 6.74e-03 | 0.08 | -0.03 | -1.57e-04 | -1.11e-04 | 0.0 |
| 302 | 44 | 0.02 | 0.06 | -0.01 | -8.66e-05 | -4.93e-05 | 0.0 |
| 302 | 46 | -0.02 | 0.07 | -0.04 | -8.93e-05 | -1.98e-04 | 0.0 |
| 302 | 58 | 1.36e-03 | 0.06 | -0.06 | 3.19e-05 | -3.01e-04 | 0.0 |
| 302 | 62 | 1.36e-03 | 0.06 | -0.05 | 1.97e-06 | -2.56e-04 | 0.0 |
| 302 | 65 | 1.35e-03 | 0.06 | -0.02 | -8.79e-05 | -1.23e-04 | 0.0 |
| 303 | 1 | 9.81e-03 | 0.09 | -0.08 | 4.32e-05 | -4.07e-04 | 0.0 |
| 303 | 14 | -4.46e-03 | 0.09 | -0.07 | -2.03e-04 | -2.01e-04 | 0.0 |
| 303 | 16 | 0.02 | 0.10 | -0.06 | -2.23e-04 | -1.22e-04 | 0.0 |
| 303 | 20 | 0.04 | 0.06 | -3.92e-03 | -8.54e-05 | 5.46e-06 | 0.0 |
| 303 | 38 | -9.67e-05 | 0.08 | -0.05 | -1.48e-04 | -1.68e-04 | 0.0 |
| 303 | 40 | 0.01 | 0.08 | -0.04 | -1.59e-04 | -1.26e-04 | 0.0 |
| 303 | 44 | 0.03 | 0.06 | -0.02 | -8.76e-05 | -6.04e-05 | 0.0 |
| 303 | 58 | 7.27e-03 | 0.06 | -0.06 | 3.22e-05 | -2.98e-04 | 0.0 |
| 303 | 62 | 7.25e-03 | 0.06 | -0.05 | 1.95e-06 | -2.57e-04 | 0.0 |
| 303 | 65 | 7.18e-03 | 0.06 | -0.03 | -8.87e-05 | -1.33e-04 | 0.0 |
| 304 | 1 | 0.02 | 0.09 | -0.08 | 4.49e-05 | -4.07e-04 | 0.0 |
| 304 | 14 | 1.02e-03 | 0.09 | -0.08 | -2.04e-04 | -2.19e-04 | 0.0 |
| 304 | 16 | 0.02 | 0.10 | -0.07 | -2.25e-04 | -1.43e-04 | 0.0 |
| 304 | 20 | 0.05 | 0.06 | -0.01 | -8.71e-05 | -7.48e-06 | 0.0 |
| 304 | 38 | 5.40e-03 | 0.08 | -0.06 | -1.49e-04 | -1.82e-04 | 0.0 |
| 304 | 40 | 0.02 | 0.08 | -0.05 | -1.60e-04 | -1.42e-04 | 0.0 |
| 304 | 44 | 0.04 | 0.06 | -0.02 | -8.87e-05 | -7.22e-05 | 0.0 |
| 304 | 58 | 0.01 | 0.06 | -0.06 | 3.33e-05 | -2.98e-04 | 0.0 |
| 304 | 62 | 0.01 | 0.06 | -0.05 | 2.71e-06 | -2.59e-04 | 0.0 |
| 304 | 65 | 0.01 | 0.06 | -0.04 | -8.91e-05 | -1.43e-04 | 0.0 |
| 305 | 1 | 0.03 | 0.09 | -0.07 | 4.65e-05 | -4.11e-04 | 0.0 |
| 305 | 14 | 6.60e-03 | 0.09 | -0.10 | -2.03e-04 | -2.35e-04 | 0.0 |
| 305 | 16 | 0.03 | 0.10 | -0.09 | -2.28e-04 | -1.61e-04 | 0.0 |
| 305 | 20 | 0.06 | 0.06 | -0.02 | -9.44e-05 | -1.82e-05 | 0.0 |
| 305 | 38 | 0.01 | 0.08 | -0.07 | -1.49e-04 | -1.95e-04 | 0.0 |
| 305 | 40 | 0.02 | 0.08 | -0.07 | -1.62e-04 | -1.56e-04 | 0.0 |
| 305 | 44 | 0.04 | 0.06 | -0.03 | -9.34e-05 | -8.26e-05 | 0.0 |
| 305 | 58 | 0.02 | 0.06 | -0.05 | 3.44e-05 | -3.01e-04 | 0.0 |
| 305 | 62 | 0.02 | 0.06 | -0.05 | 3.24e-06 | -2.64e-04 | 0.0 |
| 305 | 65 | 0.02 | 0.06 | -0.04 | -9.01e-05 | -1.52e-04 | 0.0 |
| 306 | 1 | -0.02 | 0.08 | -0.06 | 4.31e-05 | -2.22e-04 | 0.0 |
| 306 | 17 | -1.96e-03 | 0.09 | -2.64e-03 | -1.89e-04 | -4.05e-06 | 0.0 |
| 306 | 22 | -0.04 | 0.06 | -0.02 | -8.96e-05 | -1.14e-04 | 0.0 |
| 306 | 23 | -0.04 | 0.06 | -0.02 | -8.96e-05 | -1.15e-04 | 0.0 |
| 306 | 41 | -5.86e-03 | 0.07 | -4.22e-03 | -1.36e-04 | -1.92e-05 | 0.0 |
| 306 | 46 | -0.03 | 0.06 | -0.01 | -8.33e-05 | -7.39e-05 | 0.0 |
| 306 | 58 | -0.01 | 0.06 | -0.04 | 3.20e-05 | -1.65e-04 | 0.0 |
| 306 | 62 | -0.01 | 0.06 | -0.03 | 4.71e-06 | -1.33e-04 | 0.0 |
| 306 | 65 | -0.01 | 0.06 | -5.15e-03 | -7.71e-05 | -3.47e-05 | 0.0 |
| 307 | 1 | -7.11e-03 | 0.08 | -0.06 | 4.18e-05 | -2.24e-04 | 0.0 |
| 307 | 17 | 3.97e-03 | 0.09 | -0.02 | -2.01e-04 | -9.82e-06 | 0.0 |
| 307 | 22 | -0.04 | 0.06 | -0.03 | -8.99e-05 | -1.12e-04 | 0.0 |
| 307 | 23 | -0.04 | 0.06 | -0.03 | -8.98e-05 | -1.13e-04 | 0.0 |
| 307 | 41 | 6.40e-05 | 0.07 | -0.01 | -1.43e-04 | -2.38e-05 | 0.0 |
| 307 | 46 | -0.02 | 0.06 | -0.02 | -8.44e-05 | -7.39e-05 | 0.0 |
| 307 | 58 | -5.27e-03 | 0.06 | -0.04 | 3.10e-05 | -1.67e-04 | 0.0 |
| 307 | 62 | -5.24e-03 | 0.06 | -0.03 | 3.46e-06 | -1.35e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 307 | 65 | -5.18e-03 | 0.06 | -0.01 | -7.93e-05 | -3.81e-05 | 0.0 |
| 308 | 1 | 8.32e-04 | 0.08 | -0.06 | 4.28e-05 | -2.27e-04 | 0.0 |
| 308 | 5 | 8.54e-04 | 0.07 | -0.03 | -7.86e-06 | 5.41e-05 | 0.0 |
| 308 | 14 | -0.01 | 0.09 | -0.04 | -1.89e-04 | -5.60e-05 | 0.0 |
| 308 | 17 | 9.90e-03 | 0.09 | -0.03 | -2.05e-04 | -1.37e-05 | 0.0 |
| 308 | 20 | 0.04 | 0.05 | 5.73e-04 | -7.13e-05 | 2.91e-05 | 0.0 |
| 308 | 38 | -6.27e-03 | 0.07 | -0.03 | -1.37e-04 | -4.81e-05 | 0.0 |
| 308 | 41 | 5.98e-03 | 0.07 | -0.02 | -1.45e-04 | -2.76e-05 | 0.0 |
| 308 | 44 | 0.02 | 0.05 | -7.48e-03 | -7.57e-05 | -7.83e-06 | 0.0 |
| 308 | 58 | 6.16e-04 | 0.06 | -0.04 | 3.18e-05 | -1.69e-04 | 0.0 |
| 308 | 61 | 6.35e-04 | 0.06 | -0.02 | -2.42e-05 | 1.92e-05 | 0.0 |
| 308 | 62 | 6.22e-04 | 0.06 | -0.03 | 3.93e-06 | -1.37e-04 | 0.0 |
| 308 | 64 | 6.35e-04 | 0.06 | -0.02 | -2.42e-05 | 1.92e-05 | 0.0 |
| 308 | 65 | 6.41e-04 | 0.06 | -0.02 | -7.97e-05 | -4.17e-05 | 0.0 |
| 309 | 1 | 8.78e-03 | 0.08 | -0.05 | 4.36e-05 | -2.31e-04 | 0.0 |
| 309 | 14 | -5.23e-03 | 0.09 | -0.06 | -1.91e-04 | -5.87e-05 | 0.0 |
| 309 | 17 | 0.02 | 0.09 | -0.05 | -2.08e-04 | -1.83e-05 | 0.0 |
| 309 | 20 | 0.04 | 0.05 | -4.57e-03 | -7.38e-05 | 2.20e-05 | 0.0 |
| 309 | 38 | -8.39e-04 | 0.07 | -0.04 | -1.38e-04 | -5.12e-05 | 0.0 |
| 309 | 41 | 0.01 | 0.07 | -0.03 | -1.47e-04 | -3.18e-05 | 0.0 |
| 309 | 44 | 0.03 | 0.05 | -0.01 | -7.74e-05 | -1.35e-05 | 0.0 |
| 309 | 58 | 6.50e-03 | 0.06 | -0.04 | 3.23e-05 | -1.71e-04 | 0.0 |
| 309 | 62 | 6.49e-03 | 0.06 | -0.03 | 4.09e-06 | -1.40e-04 | 0.0 |
| 309 | 65 | 6.45e-03 | 0.06 | -0.02 | -8.07e-05 | -4.54e-05 | 0.0 |
| 310 | 1 | 0.02 | 0.08 | -0.05 | 4.59e-05 | -2.33e-04 | 0.0 |
| 310 | 14 | 1.85e-04 | 0.09 | -0.07 | -1.93e-04 | -6.14e-05 | 0.0 |
| 310 | 16 | 0.02 | 0.09 | -0.06 | -2.11e-04 | -2.22e-05 | 0.0 |
| 310 | 20 | 0.05 | 0.05 | -9.89e-03 | -7.60e-05 | 1.47e-05 | 0.0 |
| 310 | 38 | 4.61e-03 | 0.07 | -0.05 | -1.40e-04 | -5.43e-05 | 0.0 |
| 310 | 40 | 0.02 | 0.07 | -0.05 | -1.49e-04 | -3.58e-05 | 0.0 |
| 310 | 44 | 0.03 | 0.05 | -0.02 | -7.91e-05 | -1.94e-05 | 0.0 |
| 310 | 58 | 0.01 | 0.06 | -0.03 | 3.40e-05 | -1.73e-04 | 0.0 |
| 310 | 62 | 0.01 | 0.06 | -0.03 | 5.13e-06 | -1.42e-04 | 0.0 |
| 310 | 65 | 0.01 | 0.06 | -0.03 | -8.16e-05 | -4.91e-05 | 0.0 |
| 311 | 1 | 0.02 | 0.08 | -0.05 | 5.96e-05 | -2.36e-04 | 0.0 |
| 311 | 14 | 5.60e-03 | 0.09 | -0.08 | -1.82e-04 | -6.41e-05 | 0.0 |
| 311 | 16 | 0.03 | 0.09 | -0.08 | -2.02e-04 | -2.79e-05 | 0.0 |
| 311 | 20 | 0.06 | 0.05 | -0.02 | -7.18e-05 | 5.81e-06 | 0.0 |
| 311 | 38 | 0.01 | 0.07 | -0.06 | -1.31e-04 | -5.74e-05 | 0.0 |
| 311 | 40 | 0.02 | 0.07 | -0.06 | -1.41e-04 | -4.07e-05 | 0.0 |
| 311 | 44 | 0.04 | 0.05 | -0.02 | -7.37e-05 | -2.62e-05 | 0.0 |
| 311 | 58 | 0.02 | 0.06 | -0.03 | 4.39e-05 | -1.75e-04 | 0.0 |
| 311 | 59 | 0.02 | 0.06 | -0.03 | 1.44e-05 | -1.45e-04 | 0.0 |
| 311 | 62 | 0.02 | 0.06 | -0.03 | 1.44e-05 | -1.45e-04 | 0.0 |
| 311 | 65 | 0.02 | 0.06 | -0.03 | -7.43e-05 | -5.30e-05 | 0.0 |
| 312 | 1 | -0.02 | 0.07 | -0.05 | 4.37e-05 | -8.86e-05 | 0.0 |
| 312 | 3 | -0.02 | 0.07 | -0.05 | 3.07e-05 | 8.33e-05 | 0.0 |
| 312 | 17 | -2.41e-03 | 0.08 | -4.02e-03 | -1.91e-04 | 5.84e-05 | 0.0 |
| 312 | 22 | -0.04 | 0.06 | -0.02 | -9.35e-05 | -3.76e-05 | 0.0 |
| 312 | 23 | -0.04 | 0.06 | -0.02 | -9.34e-05 | -4.14e-05 | 0.0 |
| 312 | 41 | -6.30e-03 | 0.07 | -4.85e-03 | -1.37e-04 | 4.27e-05 | 0.0 |
| 312 | 46 | -0.03 | 0.06 | -0.01 | -8.55e-05 | -4.52e-06 | 0.0 |
| 312 | 58 | -0.01 | 0.05 | -0.04 | 3.24e-05 | -6.80e-05 | 0.0 |
| 312 | 60 | -0.01 | 0.05 | -0.02 | -2.19e-06 | 5.11e-05 | 0.0 |
| 312 | 62 | -0.01 | 0.05 | -0.03 | 5.03e-06 | -4.44e-05 | 0.0 |
| 312 | 63 | -0.01 | 0.05 | -0.02 | -2.19e-06 | 5.11e-05 | 0.0 |
| 312 | 65 | -0.01 | 0.05 | -5.00e-03 | -7.72e-05 | 2.63e-05 | 0.0 |
| 313 | 1 | -7.70e-03 | 0.07 | -0.05 | 4.52e-05 | -9.33e-05 | 0.0 |
| 313 | 3 | -7.60e-03 | 0.07 | -0.04 | 2.22e-05 | 7.95e-05 | 0.0 |
| 313 | 14 | -0.02 | 0.08 | -0.03 | -1.89e-04 | 3.01e-05 | 0.0 |
| 313 | 17 | 3.51e-03 | 0.08 | -0.02 | -2.03e-04 | 6.90e-05 | 0.0 |
| 313 | 23 | -0.04 | 0.06 | -0.02 | -9.09e-05 | -3.85e-05 | 0.0 |
| 313 | 38 | -0.01 | 0.07 | -0.02 | -1.36e-04 | 2.98e-05 | 0.0 |
| 313 | 41 | -3.83e-04 | 0.07 | -0.01 | -1.44e-04 | 4.91e-05 | 0.0 |
| 313 | 46 | -0.03 | 0.06 | -0.02 | -8.47e-05 | -1.97e-06 | 0.0 |
| 313 | 58 | -5.71e-03 | 0.05 | -0.04 | 3.35e-05 | -7.15e-05 | 0.0 |
| 313 | 60 | -5.62e-03 | 0.05 | -0.03 | -7.22e-06 | 4.94e-05 | 0.0 |
| 313 | 62 | -5.68e-03 | 0.05 | -0.03 | 5.54e-06 | -4.66e-05 | 0.0 |
| 313 | 63 | -5.62e-03 | 0.05 | -0.03 | -7.22e-06 | 4.94e-05 | 0.0 |
| 313 | 65 | -5.60e-03 | 0.05 | -0.01 | -7.84e-05 | 2.81e-05 | 0.0 |
| 314 | 1 | 2.15e-04 | 0.07 | -0.05 | 4.62e-05 | -9.94e-05 | 0.0 |
| 314 | 3 | 1.70e-04 | 0.07 | -0.04 | 2.12e-05 | 7.05e-05 | 0.0 |
| 314 | 5 | 2.75e-04 | 0.07 | -0.03 | -2.08e-06 | 1.53e-04 | 0.0 |
| 314 | 14 | -0.01 | 0.08 | -0.04 | -1.90e-04 | 3.63e-05 | 0.0 |
| 314 | 17 | 9.43e-03 | 0.08 | -0.03 | -2.05e-04 | 7.51e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 314 | 20 | 0.03 | 0.04 | -2.57e-03 | -6.79e-05 | 9.34e-05 | 0.0 |
| 314 | 38 | -6.72e-03 | 0.07 | -0.03 | -1.37e-04 | 3.34e-05 | 0.0 |
| 314 | 41 | 5.53e-03 | 0.07 | -0.03 | -1.45e-04 | 5.25e-05 | 0.0 |
| 314 | 44 | 0.02 | 0.05 | -8.82e-03 | -7.31e-05 | 5.87e-05 | 0.0 |
| 314 | 58 | 1.59e-04 | 0.05 | -0.03 | 3.43e-05 | -7.60e-05 | 0.0 |
| 314 | 60 | 1.47e-04 | 0.05 | -0.03 | -7.80e-06 | 4.46e-05 | 0.0 |
| 314 | 61 | 2.05e-04 | 0.05 | -0.02 | -2.07e-05 | 9.03e-05 | 0.0 |
| 314 | 62 | 1.72e-04 | 0.05 | -0.03 | 6.10e-06 | -4.98e-05 | 0.0 |
| 314 | 63 | 1.47e-04 | 0.05 | -0.03 | -7.80e-06 | 4.46e-05 | 0.0 |
| 314 | 64 | 2.05e-04 | 0.05 | -0.02 | -2.07e-05 | 9.03e-05 | 0.0 |
| 314 | 65 | 2.10e-04 | 0.05 | -0.02 | -7.84e-05 | 2.86e-05 | 0.0 |
| 315 | 1 | 8.14e-03 | 0.07 | -0.04 | 4.62e-05 | -1.05e-04 | 0.0 |
| 315 | 3 | 7.93e-03 | 0.07 | -0.04 | 1.96e-05 | 6.15e-05 | 0.0 |
| 315 | 14 | -5.71e-03 | 0.08 | -0.05 | -1.92e-04 | 4.17e-05 | 0.0 |
| 315 | 17 | 0.02 | 0.08 | -0.05 | -2.08e-04 | 7.97e-05 | 0.0 |
| 315 | 20 | 0.04 | 0.04 | -7.46e-03 | -7.03e-05 | 9.10e-05 | 0.0 |
| 315 | 38 | -1.30e-03 | 0.07 | -0.04 | -1.38e-04 | 3.65e-05 | 0.0 |
| 315 | 41 | 0.01 | 0.07 | -0.04 | -1.47e-04 | 5.51e-05 | 0.0 |
| 315 | 44 | 0.03 | 0.05 | -0.01 | -7.50e-05 | 5.74e-05 | 0.0 |
| 315 | 58 | 6.03e-03 | 0.05 | -0.03 | 3.43e-05 | -7.99e-05 | 0.0 |
| 315 | 62 | 6.03e-03 | 0.05 | -0.03 | 5.80e-06 | -5.27e-05 | 0.0 |
| 315 | 63 | 5.91e-03 | 0.05 | -0.03 | -8.95e-06 | 3.97e-05 | 0.0 |
| 315 | 65 | 6.01e-03 | 0.05 | -0.02 | -7.96e-05 | 2.90e-05 | 0.0 |
| 316 | 1 | 0.02 | 0.07 | -0.04 | 4.85e-05 | -1.08e-04 | 0.0 |
| 316 | 3 | 0.02 | 0.07 | -0.04 | 1.95e-05 | 5.41e-05 | 0.0 |
| 316 | 14 | -3.21e-04 | 0.08 | -0.07 | -1.93e-04 | 4.81e-05 | 0.0 |
| 316 | 16 | 0.02 | 0.08 | -0.07 | -2.10e-04 | 8.84e-05 | 0.0 |
| 316 | 20 | 0.05 | 0.04 | -0.01 | -7.21e-05 | 8.78e-05 | 0.0 |
| 316 | 38 | 4.13e-03 | 0.07 | -0.05 | -1.39e-04 | 4.04e-05 | 0.0 |
| 316 | 40 | 0.02 | 0.07 | -0.05 | -1.48e-04 | 5.92e-05 | 0.0 |
| 316 | 44 | 0.03 | 0.05 | -0.02 | -7.61e-05 | 5.58e-05 | 0.0 |
| 316 | 58 | 0.01 | 0.05 | -0.03 | 3.60e-05 | -8.25e-05 | 0.0 |
| 316 | 62 | 0.01 | 0.05 | -0.03 | 7.00e-06 | -5.45e-05 | 0.0 |
| 316 | 63 | 0.01 | 0.05 | -0.03 | -9.12e-06 | 3.58e-05 | 0.0 |
| 316 | 65 | 0.01 | 0.05 | -0.03 | -7.99e-05 | 2.97e-05 | 0.0 |
| 317 | 1 | 0.02 | 0.07 | -0.04 | 5.54e-05 | -1.07e-04 | 0.0 |
| 317 | 3 | 0.02 | 0.07 | -0.04 | 2.34e-05 | 5.17e-05 | 0.0 |
| 317 | 14 | 4.99e-03 | 0.08 | -0.08 | -1.89e-04 | 5.60e-05 | 0.0 |
| 317 | 16 | 0.03 | 0.08 | -0.08 | -2.04e-04 | 9.50e-05 | 0.0 |
| 317 | 20 | 0.05 | 0.04 | -0.02 | -6.58e-05 | 8.65e-05 | 0.0 |
| 317 | 38 | 9.50e-03 | 0.07 | -0.06 | -1.35e-04 | 4.57e-05 | 0.0 |
| 317 | 40 | 0.02 | 0.07 | -0.06 | -1.43e-04 | 6.37e-05 | 0.0 |
| 317 | 44 | 0.04 | 0.05 | -0.02 | -7.10e-05 | 5.60e-05 | 0.0 |
| 317 | 58 | 0.02 | 0.05 | -0.03 | 4.10e-05 | -8.19e-05 | 0.0 |
| 317 | 60 | 0.02 | 0.05 | -0.03 | -6.01e-06 | 3.50e-05 | 0.0 |
| 317 | 62 | 0.02 | 0.05 | -0.03 | 1.17e-05 | -5.34e-05 | 0.0 |
| 317 | 63 | 0.02 | 0.05 | -0.03 | -6.01e-06 | 3.50e-05 | 0.0 |
| 317 | 65 | 0.02 | 0.05 | -0.03 | -7.60e-05 | 3.21e-05 | 0.0 |
| 318 | 1 | -0.02 | 0.05 | -0.04 | 3.08e-05 | -1.11e-04 | 0.0 |
| 318 | 5 | -0.02 | 0.05 | -0.06 | -2.06e-05 | 1.84e-04 | 0.0 |
| 318 | 15 | -0.02 | 0.07 | -0.02 | -1.91e-04 | 4.92e-05 | 0.0 |
| 318 | 16 | -4.01e-03 | 0.07 | -0.02 | -2.08e-04 | 1.14e-04 | 0.0 |
| 318 | 22 | -0.05 | 0.05 | -7.55e-03 | -9.62e-05 | -5.37e-05 | 0.0 |
| 318 | 39 | -0.02 | 0.06 | -0.01 | -1.43e-04 | 4.49e-05 | 0.0 |
| 318 | 40 | -7.82e-03 | 0.06 | -0.02 | -1.51e-04 | 7.82e-05 | 0.0 |
| 318 | 46 | -0.03 | 0.04 | -8.70e-03 | -9.30e-05 | -8.73e-06 | 0.0 |
| 318 | 58 | -0.01 | 0.04 | -0.02 | 2.31e-05 | -8.04e-05 | 0.0 |
| 318 | 61 | -0.01 | 0.04 | -0.03 | -3.35e-05 | 1.14e-04 | 0.0 |
| 318 | 62 | -0.01 | 0.04 | -0.02 | -4.91e-06 | -5.05e-05 | 0.0 |
| 318 | 64 | -0.01 | 0.04 | -0.03 | -3.35e-05 | 1.14e-04 | 0.0 |
| 318 | 65 | -0.01 | 0.04 | -0.01 | -8.91e-05 | 3.93e-05 | 0.0 |
| 319 | 1 | -9.65e-03 | 0.05 | -0.03 | 4.45e-05 | -1.03e-04 | 0.0 |
| 319 | 5 | -9.29e-03 | 0.05 | -0.06 | -1.56e-06 | 1.88e-04 | 0.0 |
| 319 | 15 | -0.02 | 0.07 | -0.03 | -1.95e-04 | 4.28e-05 | 0.0 |
| 319 | 16 | 1.97e-03 | 0.07 | -0.04 | -2.11e-04 | 1.07e-04 | 0.0 |
| 319 | 23 | -0.04 | 0.05 | -0.01 | -9.28e-05 | -5.50e-05 | 0.0 |
| 319 | 39 | -0.01 | 0.06 | -0.02 | -1.42e-04 | 4.20e-05 | 0.0 |
| 319 | 40 | -1.87e-03 | 0.06 | -0.03 | -1.50e-04 | 7.47e-05 | 0.0 |
| 319 | 46 | -0.03 | 0.04 | -0.02 | -8.80e-05 | -8.32e-06 | 0.0 |
| 319 | 58 | -7.15e-03 | 0.04 | -0.02 | 3.30e-05 | -7.46e-05 | 0.0 |
| 319 | 61 | -6.91e-03 | 0.04 | -0.04 | -2.15e-05 | 1.16e-04 | 0.0 |
| 319 | 62 | -7.12e-03 | 0.04 | -0.02 | 4.12e-06 | -4.60e-05 | 0.0 |
| 319 | 64 | -6.91e-03 | 0.04 | -0.04 | -2.15e-05 | 1.16e-04 | 0.0 |
| 319 | 65 | -7.01e-03 | 0.04 | -0.02 | -8.25e-05 | 3.99e-05 | 0.0 |
| 320 | 1 | -1.77e-03 | 0.05 | -0.03 | 5.03e-05 | -1.01e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 320 | 5 | -1.63e-03 | 0.05 | -0.06 | 6.19e-06 | 1.83e-04 | 0.0 |
| 320 | 15 | -0.01 | 0.07 | -0.04 | -1.92e-04 | 3.56e-05 | 0.0 |
| 320 | 16 | 7.92e-03 | 0.07 | -0.05 | -2.07e-04 | 9.85e-05 | 0.0 |
| 320 | 23 | -0.04 | 0.05 | -0.02 | -9.04e-05 | -5.79e-05 | 0.0 |
| 320 | 39 | -8.18e-03 | 0.06 | -0.03 | -1.38e-04 | 3.68e-05 | 0.0 |
| 320 | 40 | 4.06e-03 | 0.06 | -0.04 | -1.46e-04 | 6.88e-05 | 0.0 |
| 320 | 46 | -0.02 | 0.04 | -0.02 | -8.47e-05 | -1.12e-05 | 0.0 |
| 320 | 58 | -1.31e-03 | 0.04 | -0.02 | 3.72e-05 | -7.30e-05 | 0.0 |
| 320 | 61 | -1.20e-03 | 0.04 | -0.04 | -1.62e-05 | 1.12e-04 | 0.0 |
| 320 | 62 | -1.28e-03 | 0.04 | -0.02 | 8.31e-06 | -4.56e-05 | 0.0 |
| 320 | 64 | -1.20e-03 | 0.04 | -0.04 | -1.62e-05 | 1.12e-04 | 0.0 |
| 320 | 65 | -1.20e-03 | 0.04 | -0.02 | -7.84e-05 | 3.66e-05 | 0.0 |
| 321 | 1 | 6.10e-03 | 0.05 | -0.03 | 5.08e-05 | -1.01e-04 | 0.0 |
| 321 | 5 | 5.98e-03 | 0.05 | -0.06 | 6.33e-06 | 1.76e-04 | 0.0 |
| 321 | 14 | -7.26e-03 | 0.07 | -0.06 | -1.92e-04 | 2.82e-05 | 0.0 |
| 321 | 16 | 0.01 | 0.07 | -0.07 | -2.06e-04 | 8.85e-05 | 0.0 |
| 321 | 20 | 0.04 | 0.03 | -0.03 | -6.45e-05 | 1.25e-04 | 0.0 |
| 321 | 38 | -2.78e-03 | 0.06 | -0.04 | -1.38e-04 | 3.05e-05 | 0.0 |
| 321 | 40 | 9.95e-03 | 0.06 | -0.05 | -1.45e-04 | 6.12e-05 | 0.0 |
| 321 | 44 | 0.03 | 0.03 | -0.03 | -7.06e-05 | 7.90e-05 | 0.0 |
| 321 | 59 | 4.53e-03 | 0.04 | -0.02 | 8.81e-06 | -4.68e-05 | 0.0 |
| 321 | 61 | 4.47e-03 | 0.04 | -0.04 | -1.59e-05 | 1.07e-04 | 0.0 |
| 321 | 62 | 4.53e-03 | 0.04 | -0.02 | 8.81e-06 | -4.68e-05 | 0.0 |
| 321 | 64 | 4.47e-03 | 0.04 | -0.04 | -1.59e-05 | 1.07e-04 | 0.0 |
| 321 | 65 | 4.58e-03 | 0.04 | -0.03 | -7.75e-05 | 3.18e-05 | 0.0 |
| 322 | 1 | -0.06 | 0.10 | -0.14 | 2.92e-04 | -2.72e-04 | 0.0 |
| 322 | 3 | -0.06 | 0.10 | -0.08 | 3.35e-04 | -5.85e-05 | 0.0 |
| 322 | 5 | -0.06 | 0.10 | -0.03 | 2.69e-04 | 7.93e-05 | 0.0 |
| 322 | 17 | -0.04 | 0.10 | 0.05 | 1.21e-04 | 8.04e-05 | 0.0 |
| 322 | 19 | -0.08 | 0.06 | -0.07 | 2.52e-04 | -2.23e-04 | 0.0 |
| 322 | 25 | -0.02 | 0.08 | 0.07 | 3.02e-05 | 1.79e-04 | 0.0 |
| 322 | 41 | -0.04 | 0.09 | 0.03 | 1.33e-04 | 3.15e-05 | 0.0 |
| 322 | 42 | -0.06 | 0.06 | -0.03 | 1.96e-04 | -1.27e-04 | 0.0 |
| 322 | 48 | -0.03 | 0.08 | 0.04 | 8.81e-05 | 8.29e-05 | 0.0 |
| 322 | 58 | -0.05 | 0.07 | -0.10 | 2.15e-04 | -2.00e-04 | 0.0 |
| 322 | 60 | -0.05 | 0.07 | -0.04 | 2.21e-04 | -3.68e-05 | 0.0 |
| 322 | 61 | -0.05 | 0.07 | -0.01 | 1.84e-04 | 3.98e-05 | 0.0 |
| 322 | 62 | -0.05 | 0.07 | -0.07 | 1.97e-04 | -1.55e-04 | 0.0 |
| 322 | 63 | -0.05 | 0.07 | -0.04 | 2.21e-04 | -3.68e-05 | 0.0 |
| 322 | 64 | -0.05 | 0.07 | -0.01 | 1.84e-04 | 3.98e-05 | 0.0 |
| 322 | 65 | -0.05 | 0.07 | 2.14e-03 | 1.42e-04 | -2.20e-05 | 0.0 |
| 323 | 1 | -0.06 | 0.03 | -0.02 | 9.75e-05 | 7.08e-06 | 0.0 |
| 323 | 5 | -0.06 | 0.03 | -0.10 | 7.71e-05 | 4.38e-04 | 0.0 |
| 323 | 14 | -0.05 | 0.05 | 0.03 | -1.13e-04 | 0.0 | 0.0 |
| 323 | 18 | -0.07 | 0.01 | 0.05 | -1.41e-05 | -1.75e-04 | 0.0 |
| 323 | 23 | -0.07 | 0.03 | 0.06 | -6.53e-05 | -1.90e-04 | 0.0 |
| 323 | 38 | -0.05 | 0.04 | 0.02 | -7.22e-05 | 3.93e-05 | 0.0 |
| 323 | 42 | -0.06 | 0.02 | 0.03 | -2.07e-05 | -4.95e-05 | 0.0 |
| 323 | 46 | -0.06 | 0.03 | 0.03 | -4.67e-05 | -5.31e-05 | 0.0 |
| 323 | 59 | -0.04 | 0.02 | -5.55e-03 | 4.71e-05 | 2.29e-05 | 0.0 |
| 323 | 61 | -0.04 | 0.02 | -0.05 | 3.58e-05 | 2.63e-04 | 0.0 |
| 323 | 62 | -0.04 | 0.02 | -5.55e-03 | 4.71e-05 | 2.29e-05 | 0.0 |
| 323 | 64 | -0.04 | 0.02 | -0.05 | 3.58e-05 | 2.63e-04 | 0.0 |
| 323 | 65 | -0.04 | 0.02 | 5.79e-03 | -2.70e-05 | 8.53e-05 | 0.0 |
| 324 | 1 | -0.02 | 0.08 | -0.06 | 4.53e-05 | -2.19e-04 | 0.0 |
| 324 | 17 | -5.93e-03 | 0.09 | 6.09e-03 | -1.80e-04 | 8.46e-06 | 0.0 |
| 324 | 18 | -0.05 | 0.04 | -0.02 | -2.70e-05 | -1.23e-04 | 0.0 |
| 324 | 23 | -0.05 | 0.06 | -0.02 | -8.68e-05 | -1.16e-04 | 0.0 |
| 324 | 41 | -9.83e-03 | 0.07 | 2.07e-03 | -1.30e-04 | -1.06e-05 | 0.0 |
| 324 | 42 | -0.03 | 0.05 | -0.01 | -4.92e-05 | -7.65e-05 | 0.0 |
| 324 | 46 | -0.03 | 0.06 | -0.01 | -8.07e-05 | -7.25e-05 | 0.0 |
| 324 | 58 | -0.02 | 0.06 | -0.05 | 3.35e-05 | -1.63e-04 | 0.0 |
| 324 | 62 | -0.02 | 0.06 | -0.03 | 6.44e-06 | -1.30e-04 | 0.0 |
| 324 | 65 | -0.01 | 0.06 | -1.57e-03 | -7.47e-05 | -3.03e-05 | 0.0 |
| 325 | 1 | -0.06 | 0.08 | -0.09 | 3.47e-04 | -1.97e-04 | 0.0 |
| 325 | 5 | -0.06 | 0.08 | -0.04 | 2.63e-04 | 9.21e-05 | 0.0 |
| 325 | 17 | -0.04 | 0.09 | 0.04 | 4.81e-05 | 5.10e-05 | 0.0 |
| 325 | 19 | -0.08 | 0.05 | -0.03 | 2.15e-04 | -1.85e-04 | 0.0 |
| 325 | 25 | -0.02 | 0.07 | 0.04 | 1.18e-05 | 1.46e-04 | 0.0 |
| 325 | 41 | -0.04 | 0.08 | 0.02 | 8.14e-05 | 1.73e-05 | 0.0 |
| 325 | 42 | -0.06 | 0.05 | -0.01 | 1.67e-04 | -1.04e-04 | 0.0 |
| 325 | 48 | -0.03 | 0.06 | 0.02 | 6.47e-05 | 6.61e-05 | 0.0 |
| 325 | 58 | -0.05 | 0.06 | -0.07 | 2.55e-04 | -1.45e-04 | 0.0 |
| 325 | 61 | -0.05 | 0.06 | -0.02 | 1.74e-04 | 4.67e-05 | 0.0 |
| 325 | 62 | -0.05 | 0.06 | -0.05 | 2.20e-04 | -1.14e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 325 | 64 | -0.05 | 0.06 | -0.02 | 1.74e-04 | 4.67e-05 | 0.0 |
| 325 | 65 | -0.05 | 0.06 | 5.99e-03 | 1.15e-04 | -1.92e-05 | 0.0 |
| 326 | 1 | -0.06 | 0.03 | -0.02 | 1.45e-04 | -4.89e-05 | 0.0 |
| 326 | 5 | -0.06 | 0.03 | -0.10 | 1.52e-04 | 3.61e-04 | 0.0 |
| 326 | 14 | -0.05 | 0.05 | 0.04 | -1.12e-04 | -4.70e-05 | 0.0 |
| 326 | 18 | -0.08 | 0.01 | 0.05 | -8.70e-06 | -2.00e-04 | 0.0 |
| 326 | 23 | -0.08 | 0.03 | 0.06 | -6.85e-05 | -2.20e-04 | 0.0 |
| 326 | 38 | -0.05 | 0.04 | 0.02 | -6.46e-05 | -4.79e-06 | 0.0 |
| 326 | 42 | -0.06 | 0.02 | 0.03 | -1.05e-05 | -8.14e-05 | 0.0 |
| 326 | 46 | -0.06 | 0.03 | 0.03 | -4.01e-05 | -8.86e-05 | 0.0 |
| 326 | 59 | -0.05 | 0.02 | -0.01 | 7.66e-05 | -1.76e-05 | 0.0 |
| 326 | 61 | -0.05 | 0.02 | -0.05 | 8.06e-05 | 2.10e-04 | 0.0 |
| 326 | 62 | -0.05 | 0.02 | -0.01 | 7.66e-05 | -1.76e-05 | 0.0 |
| 326 | 64 | -0.05 | 0.02 | -0.05 | 8.06e-05 | 2.10e-04 | 0.0 |
| 326 | 65 | -0.05 | 0.02 | 7.19e-03 | -1.15e-05 | 4.55e-05 | 0.0 |
| 327 | 1 | 0.01 | 0.05 | -0.02 | 4.93e-05 | -1.03e-04 | 0.0 |
| 327 | 5 | 0.01 | 0.05 | -0.06 | 5.53e-06 | 1.67e-04 | 0.0 |
| 327 | 14 | -1.93e-03 | 0.07 | -0.07 | -1.94e-04 | 1.76e-05 | 0.0 |
| 327 | 16 | 0.02 | 0.07 | -0.08 | -2.07e-04 | 7.58e-05 | 0.0 |
| 327 | 20 | 0.05 | 0.03 | -0.04 | -6.34e-05 | 1.17e-04 | 0.0 |
| 327 | 38 | 2.59e-03 | 0.06 | -0.05 | -1.39e-04 | 2.20e-05 | 0.0 |
| 327 | 40 | 0.02 | 0.06 | -0.06 | -1.46e-04 | 5.15e-05 | 0.0 |
| 327 | 44 | 0.03 | 0.03 | -0.03 | -7.02e-05 | 7.14e-05 | 0.0 |
| 327 | 59 | 0.01 | 0.04 | -0.02 | 7.88e-06 | -4.91e-05 | 0.0 |
| 327 | 61 | 0.01 | 0.04 | -0.04 | -1.64e-05 | 1.01e-04 | 0.0 |
| 327 | 62 | 0.01 | 0.04 | -0.02 | 7.88e-06 | -4.91e-05 | 0.0 |
| 327 | 64 | 0.01 | 0.04 | -0.04 | -1.64e-05 | 1.01e-04 | 0.0 |
| 327 | 65 | 0.01 | 0.04 | -0.03 | -7.80e-05 | 2.54e-05 | 0.0 |
| 328 | 1 | 0.02 | 0.05 | -0.02 | 4.90e-05 | -1.04e-04 | 0.0 |
| 328 | 5 | 0.02 | 0.05 | -0.06 | 7.03e-06 | 1.60e-04 | 0.0 |
| 328 | 14 | 3.40e-03 | 0.07 | -0.09 | -1.93e-04 | 8.22e-06 | 0.0 |
| 328 | 16 | 0.03 | 0.07 | -0.10 | -2.07e-04 | 6.42e-05 | 0.0 |
| 328 | 20 | 0.05 | 0.03 | -0.04 | -6.38e-05 | 1.09e-04 | 0.0 |
| 328 | 38 | 7.98e-03 | 0.06 | -0.06 | -1.38e-04 | 1.47e-05 | 0.0 |
| 328 | 40 | 0.02 | 0.06 | -0.07 | -1.45e-04 | 4.30e-05 | 0.0 |
| 328 | 44 | 0.04 | 0.03 | -0.04 | -7.03e-05 | 6.50e-05 | 0.0 |
| 328 | 58 | 0.02 | 0.04 | -0.01 | 3.63e-05 | -7.46e-05 | 0.0 |
| 328 | 61 | 0.02 | 0.04 | -0.04 | -1.55e-05 | 9.57e-05 | 0.0 |
| 328 | 62 | 0.02 | 0.04 | -0.02 | 7.84e-06 | -5.09e-05 | 0.0 |
| 328 | 64 | 0.02 | 0.04 | -0.04 | -1.55e-05 | 9.57e-05 | 0.0 |
| 328 | 65 | 0.02 | 0.04 | -0.04 | -7.77e-05 | 2.03e-05 | 0.0 |
| 329 | 1 | -0.02 | 0.09 | -0.09 | 4.01e-05 | -4.19e-04 | 0.0 |
| 329 | 17 | -5.20e-03 | 0.10 | 4.66e-03 | -2.11e-04 | -3.32e-05 | 0.0 |
| 329 | 18 | -0.05 | 0.05 | -0.04 | -2.16e-05 | -2.63e-04 | 0.0 |
| 329 | 23 | -0.05 | 0.07 | -0.03 | -9.06e-05 | -2.52e-04 | 0.0 |
| 329 | 41 | -9.13e-03 | 0.08 | -1.49e-03 | -1.52e-04 | -6.37e-05 | 0.0 |
| 329 | 42 | -0.03 | 0.06 | -0.02 | -5.21e-05 | -1.84e-04 | 0.0 |
| 329 | 46 | -0.03 | 0.07 | -0.02 | -8.83e-05 | -1.79e-04 | 0.0 |
| 329 | 58 | -0.01 | 0.06 | -0.07 | 2.98e-05 | -3.08e-04 | 0.0 |
| 329 | 62 | -0.01 | 0.06 | -0.05 | 0.0 | -2.55e-04 | 0.0 |
| 329 | 65 | -0.01 | 0.06 | -7.36e-03 | -8.70e-05 | -9.65e-05 | 0.0 |
| 330 | 1 | -0.02 | 0.04 | -0.03 | 3.05e-05 | -7.09e-05 | 0.0 |
| 330 | 5 | -0.02 | 0.04 | -0.07 | -1.89e-05 | 2.66e-04 | 0.0 |
| 330 | 15 | -0.02 | 0.07 | -0.02 | -1.89e-04 | 8.07e-05 | 0.0 |
| 330 | 22 | -0.05 | 0.04 | -4.93e-03 | -9.64e-05 | -4.58e-05 | 0.0 |
| 330 | 24 | 0.02 | 0.04 | -0.03 | -1.44e-04 | 2.24e-04 | 0.0 |
| 330 | 39 | -0.02 | 0.05 | -0.02 | -1.41e-04 | 7.75e-05 | 0.0 |
| 330 | 46 | -0.03 | 0.04 | -9.04e-03 | -9.23e-05 | 1.09e-05 | 0.0 |
| 330 | 48 | 5.26e-03 | 0.04 | -0.02 | -1.17e-04 | 1.51e-04 | 0.0 |
| 330 | 58 | -0.01 | 0.03 | -0.02 | 2.29e-05 | -5.17e-05 | 0.0 |
| 330 | 61 | -0.01 | 0.03 | -0.04 | -3.21e-05 | 1.67e-04 | 0.0 |
| 330 | 62 | -0.01 | 0.03 | -0.02 | -4.65e-06 | -2.06e-05 | 0.0 |
| 330 | 64 | -0.01 | 0.03 | -0.04 | -3.21e-05 | 1.67e-04 | 0.0 |
| 330 | 65 | -0.01 | 0.03 | -0.01 | -8.72e-05 | 7.25e-05 | 0.0 |
| 331 | 1 | -0.03 | 0.09 | -0.09 | 3.01e-05 | -4.28e-04 | 0.0 |
| 331 | 17 | -0.01 | 0.10 | 0.02 | -2.14e-04 | -3.97e-06 | 0.0 |
| 331 | 18 | -0.05 | 0.05 | -0.04 | -2.43e-05 | -2.69e-04 | 0.0 |
| 331 | 23 | -0.05 | 0.07 | -0.03 | -9.24e-05 | -2.48e-04 | 0.0 |
| 331 | 41 | -0.01 | 0.08 | 8.66e-03 | -1.56e-04 | -4.40e-05 | 0.0 |
| 331 | 42 | -0.04 | 0.06 | -0.02 | -5.51e-05 | -1.82e-04 | 0.0 |
| 331 | 46 | -0.04 | 0.07 | -0.02 | -9.09e-05 | -1.73e-04 | 0.0 |
| 331 | 58 | -0.02 | 0.06 | -0.07 | 2.25e-05 | -3.14e-04 | 0.0 |
| 331 | 62 | -0.02 | 0.06 | -0.05 | -5.76e-06 | -2.57e-04 | 0.0 |
| 331 | 65 | -0.02 | 0.06 | -1.49e-03 | -9.07e-05 | -8.73e-05 | 0.0 |
| 332 | 1 | -0.03 | 0.08 | -0.07 | 3.26e-05 | -2.00e-04 | 0.0 |

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|---|---|---|---|---|---|---|---|
| 332 | 17 | -0.01 | 0.09 | 0.02 | -1.68e-04 | 3.75e-05 | 0.0 |
| 332 | 22 | -0.05 | 0.06 | -0.01 | -8.26e-05 | -1.06e-04 | 0.0 |
| 332 | 25 | 0.01 | 0.07 | 0.03 | -1.19e-04 | 8.88e-05 | 0.0 |
| 332 | 41 | -0.02 | 0.07 | 0.01 | -1.24e-04 | 1.13e-05 | 0.0 |
| 332 | 46 | -0.04 | 0.06 | -5.16e-03 | -7.80e-05 | -6.15e-05 | 0.0 |
| 332 | 48 | -2.91e-03 | 0.06 | 0.01 | -9.83e-05 | 3.72e-05 | 0.0 |
| 332 | 58 | -0.02 | 0.06 | -0.05 | 2.42e-05 | -1.49e-04 | 0.0 |
| 332 | 62 | -0.02 | 0.06 | -0.03 | 0.0 | -1.16e-04 | 0.0 |
| 332 | 65 | -0.02 | 0.06 | 3.31e-03 | -7.41e-05 | -1.62e-05 | 0.0 |
| 333 | 1 | -0.03 | 0.09 | -0.10 | -2.60e-06 | -4.46e-04 | 0.0 |
| 333 | 17 | -0.02 | 0.10 | 0.03 | -1.99e-04 | 3.80e-05 | 0.0 |
| 333 | 22 | -0.06 | 0.07 | -0.02 | -8.80e-05 | -2.42e-04 | 0.0 |
| 333 | 25 | 5.03e-03 | 0.08 | 0.04 | -1.52e-04 | 1.25e-04 | 0.0 |
| 333 | 41 | -0.02 | 0.08 | 0.02 | -1.47e-04 | -1.65e-05 | 0.0 |
| 333 | 46 | -0.04 | 0.07 | -9.63e-03 | -8.80e-05 | -1.63e-04 | 0.0 |
| 333 | 48 | -8.49e-03 | 0.07 | 0.02 | -1.24e-04 | 2.78e-05 | 0.0 |
| 333 | 58 | -0.03 | 0.06 | -0.07 | -1.19e-06 | -3.27e-04 | 0.0 |
| 333 | 62 | -0.03 | 0.06 | -0.05 | -2.35e-05 | -2.65e-04 | 0.0 |
| 333 | 65 | -0.03 | 0.06 | 4.56e-03 | -9.03e-05 | -7.59e-05 | 0.0 |
| 334 | 1 | -0.04 | 0.08 | -0.07 | 1.35e-06 | -1.80e-04 | 0.0 |
| 334 | 3 | -0.03 | 0.08 | -0.05 | 8.42e-06 | 7.37e-05 | 0.0 |
| 334 | 17 | -0.02 | 0.09 | 0.03 | -1.43e-04 | 6.63e-05 | 0.0 |
| 334 | 22 | -0.06 | 0.06 | -8.84e-03 | -6.89e-05 | -9.85e-05 | 0.0 |
| 334 | 25 | 4.42e-03 | 0.07 | 0.03 | -1.09e-04 | 1.16e-04 | 0.0 |
| 334 | 41 | -0.02 | 0.07 | 0.02 | -1.07e-04 | 3.29e-05 | 0.0 |
| 334 | 46 | -0.04 | 0.06 | -2.10e-04 | -6.81e-05 | -5.13e-05 | 0.0 |
| 334 | 48 | -9.08e-03 | 0.06 | 0.02 | -9.07e-05 | 5.83e-05 | 0.0 |
| 334 | 58 | -0.03 | 0.06 | -0.05 | 1.83e-06 | -1.34e-04 | 0.0 |
| 334 | 60 | -0.03 | 0.06 | -0.02 | -1.18e-05 | 3.95e-05 | 0.0 |
| 334 | 62 | -0.03 | 0.06 | -0.03 | -1.58e-05 | -1.01e-04 | 0.0 |
| 334 | 63 | -0.03 | 0.06 | -0.02 | -1.18e-05 | 3.95e-05 | 0.0 |
| 334 | 65 | -0.03 | 0.06 | 8.12e-03 | -6.86e-05 | -2.50e-06 | 0.0 |
| 335 | 1 | -0.05 | 0.09 | -0.09 | -2.08e-05 | -4.25e-04 | 0.0 |
| 335 | 2 | -0.03 | 0.06 | -0.09 | -4.19e-06 | -4.07e-04 | 0.0 |
| 335 | 3 | -0.05 | 0.09 | -0.05 | 5.10e-06 | -1.08e-04 | 0.0 |
| 335 | 17 | -0.02 | 0.10 | 0.05 | -8.97e-05 | 1.16e-04 | 0.0 |
| 335 | 19 | -0.06 | 0.05 | -0.03 | 9.58e-06 | -2.56e-04 | 0.0 |
| 335 | 25 | -4.03e-03 | 0.08 | 0.05 | -9.00e-05 | 1.81e-04 | 0.0 |
| 335 | 41 | -0.03 | 0.08 | 0.03 | -6.57e-05 | 4.21e-05 | 0.0 |
| 335 | 42 | -0.05 | 0.06 | -0.01 | -1.59e-05 | -1.55e-04 | 0.0 |
| 335 | 48 | -0.02 | 0.07 | 0.03 | -6.72e-05 | 7.50e-05 | 0.0 |
| 335 | 58 | -0.03 | 0.06 | -0.07 | -1.38e-05 | -3.12e-04 | 0.0 |
| 335 | 60 | -0.03 | 0.06 | -0.02 | -6.28e-06 | -6.76e-05 | 0.0 |
| 335 | 62 | -0.03 | 0.06 | -0.05 | -2.06e-05 | -2.44e-04 | 0.0 |
| 335 | 63 | -0.03 | 0.06 | -0.02 | -6.28e-06 | -6.76e-05 | 0.0 |
| 335 | 65 | -0.03 | 0.06 | 0.01 | -4.12e-05 | -3.94e-05 | 0.0 |
| 336 | 1 | -0.05 | 0.08 | -0.07 | 1.80e-05 | -1.54e-04 | 0.0 |
| 336 | 2 | -0.03 | 0.06 | -0.07 | 2.94e-05 | -1.57e-04 | 0.0 |
| 336 | 3 | -0.05 | 0.08 | -0.05 | 1.21e-05 | 8.47e-05 | 0.0 |
| 336 | 17 | -0.02 | 0.09 | 0.04 | -7.41e-05 | 7.52e-05 | 0.0 |
| 336 | 18 | -0.06 | 0.05 | -0.02 | 1.76e-05 | -1.24e-04 | 0.0 |
| 336 | 25 | -4.34e-03 | 0.07 | 0.04 | -7.12e-05 | 1.33e-04 | 0.0 |
| 336 | 41 | -0.03 | 0.07 | 0.03 | -5.04e-05 | 4.08e-05 | 0.0 |
| 336 | 42 | -0.05 | 0.05 | -1.73e-03 | -3.94e-06 | -6.18e-05 | 0.0 |
| 336 | 48 | -0.02 | 0.06 | 0.03 | -5.01e-05 | 7.11e-05 | 0.0 |
| 336 | 58 | -0.03 | 0.06 | -0.05 | 1.48e-05 | -1.15e-04 | 0.0 |
| 336 | 60 | -0.03 | 0.06 | -0.02 | 1.15e-06 | 4.73e-05 | 0.0 |
| 336 | 62 | -0.03 | 0.06 | -0.03 | 4.42e-06 | -8.51e-05 | 0.0 |
| 336 | 63 | -0.03 | 0.06 | -0.02 | 1.15e-06 | 4.73e-05 | 0.0 |
| 336 | 65 | -0.03 | 0.06 | 0.01 | -2.68e-05 | 4.39e-06 | 0.0 |
| 337 | 1 | -0.05 | 0.10 | -0.13 | -3.16e-05 | -3.80e-04 | 0.0 |
| 337 | 5 | -0.05 | 0.10 | -0.01 | 8.40e-05 | 5.27e-05 | 0.0 |
| 337 | 17 | -0.03 | 0.10 | 0.06 | 9.32e-05 | 1.40e-04 | 0.0 |
| 337 | 19 | -0.07 | 0.06 | -0.05 | 6.98e-05 | -2.47e-04 | 0.0 |
| 337 | 25 | -0.01 | 0.08 | 0.08 | 3.45e-05 | 2.17e-04 | 0.0 |
| 337 | 41 | -0.04 | 0.09 | 0.04 | 7.52e-05 | 6.56e-05 | 0.0 |
| 337 | 42 | -0.06 | 0.06 | -0.03 | 5.53e-05 | -1.40e-04 | 0.0 |
| 337 | 48 | -0.02 | 0.08 | 0.04 | 4.45e-05 | 1.06e-04 | 0.0 |
| 337 | 58 | -0.04 | 0.07 | -0.09 | -2.05e-05 | -2.78e-04 | 0.0 |
| 337 | 59 | -0.04 | 0.07 | -0.07 | -2.79e-06 | -2.13e-04 | 0.0 |
| 337 | 61 | -0.04 | 0.07 | -4.01e-03 | 6.15e-05 | 2.77e-05 | 0.0 |
| 337 | 62 | -0.04 | 0.07 | -0.07 | -2.79e-06 | -2.13e-04 | 0.0 |
| 337 | 64 | -0.04 | 0.07 | -4.01e-03 | 6.15e-05 | 2.77e-05 | 0.0 |
| 337 | 65 | -0.04 | 0.07 | 9.53e-03 | 5.04e-05 | -1.66e-05 | 0.0 |
| 338 | 1 | -0.05 | 0.09 | -0.10 | 9.77e-05 | -3.21e-04 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 338 | 2 | -0.04 | 0.06 | -0.10 | 8.23e-05 | -3.12e-04 | 0.0 |
| 338 | 5 | -0.05 | 0.09 | -0.02 | 1.12e-04 | 6.88e-05 | 0.0 |
| 338 | 17 | -0.03 | 0.10 | 0.05 | 3.01e-05 | 1.10e-04 | 0.0 |
| 338 | 19 | -0.07 | 0.05 | -0.03 | 1.09e-04 | -2.22e-04 | 0.0 |
| 338 | 25 | -0.01 | 0.08 | 0.06 | -1.43e-05 | 1.89e-04 | 0.0 |
| 338 | 41 | -0.03 | 0.08 | 0.03 | 4.00e-05 | 4.93e-05 | 0.0 |
| 338 | 42 | -0.06 | 0.06 | -0.01 | 7.75e-05 | -1.26e-04 | 0.0 |
| 338 | 48 | -0.02 | 0.07 | 0.03 | 1.67e-05 | 9.01e-05 | 0.0 |
| 338 | 58 | -0.04 | 0.06 | -0.07 | 7.32e-05 | -2.36e-04 | 0.0 |
| 338 | 59 | -0.04 | 0.06 | -0.05 | 6.67e-05 | -1.81e-04 | 0.0 |
| 338 | 61 | -0.04 | 0.06 | -6.83e-03 | 7.49e-05 | 3.55e-05 | 0.0 |
| 338 | 62 | -0.04 | 0.06 | -0.05 | 6.67e-05 | -1.81e-04 | 0.0 |
| 338 | 64 | -0.04 | 0.06 | -6.83e-03 | 7.49e-05 | 3.55e-05 | 0.0 |
| 338 | 65 | -0.04 | 0.06 | 0.01 | 4.72e-05 | -1.77e-05 | 0.0 |
| 339 | 1 | -0.06 | 0.09 | -0.11 | 3.33e-04 | -2.63e-04 | 0.0 |
| 339 | 5 | -0.06 | 0.09 | -0.03 | 2.73e-04 | 7.81e-05 | 0.0 |
| 339 | 17 | -0.04 | 0.10 | 0.04 | 8.11e-05 | 7.40e-05 | 0.0 |
| 339 | 19 | -0.08 | 0.05 | -0.05 | 2.43e-04 | -2.17e-04 | 0.0 |
| 339 | 25 | -0.02 | 0.08 | 0.06 | 1.49e-05 | 1.71e-04 | 0.0 |
| 339 | 41 | -0.04 | 0.08 | 0.02 | 1.06e-04 | 2.76e-05 | 0.0 |
| 339 | 42 | -0.06 | 0.06 | -0.02 | 1.88e-04 | -1.24e-04 | 0.0 |
| 339 | 48 | -0.03 | 0.07 | 0.03 | 7.40e-05 | 7.76e-05 | 0.0 |
| 339 | 58 | -0.05 | 0.06 | -0.08 | 2.45e-04 | -1.93e-04 | 0.0 |
| 339 | 61 | -0.05 | 0.06 | -0.02 | 1.83e-04 | 3.86e-05 | 0.0 |
| 339 | 62 | -0.05 | 0.06 | -0.06 | 2.16e-04 | -1.51e-04 | 0.0 |
| 339 | 64 | -0.05 | 0.06 | -0.02 | 1.83e-04 | 3.86e-05 | 0.0 |
| 339 | 65 | -0.05 | 0.06 | 4.17e-03 | 1.30e-04 | -2.32e-05 | 0.0 |
| 340 | 1 | -0.05 | 0.08 | -0.07 | 1.41e-04 | -1.76e-04 | 0.0 |
| 340 | 2 | -0.04 | 0.06 | -0.08 | 1.27e-04 | -1.74e-04 | 0.0 |
| 340 | 5 | -0.05 | 0.08 | -0.03 | 1.07e-04 | 1.20e-04 | 0.0 |
| 340 | 17 | -0.03 | 0.09 | 0.04 | 0.0 | 6.58e-05 | 0.0 |
| 340 | 19 | -0.07 | 0.05 | -0.02 | 1.06e-04 | -1.51e-04 | 0.0 |
| 340 | 25 | -0.01 | 0.07 | 0.04 | -2.23e-05 | 1.38e-04 | 0.0 |
| 340 | 41 | -0.04 | 0.08 | 0.03 | 2.19e-05 | 3.11e-05 | 0.0 |
| 340 | 42 | -0.06 | 0.05 | -4.39e-03 | 7.43e-05 | -8.04e-05 | 0.0 |
| 340 | 48 | -0.02 | 0.06 | 0.03 | 9.92e-06 | 6.85e-05 | 0.0 |
| 340 | 58 | -0.04 | 0.06 | -0.05 | 1.05e-04 | -1.31e-04 | 0.0 |
| 340 | 59 | -0.04 | 0.06 | -0.04 | 8.95e-05 | -9.95e-05 | 0.0 |
| 340 | 61 | -0.04 | 0.06 | -0.01 | 7.03e-05 | 6.50e-05 | 0.0 |
| 340 | 62 | -0.04 | 0.06 | -0.04 | 8.95e-05 | -9.95e-05 | 0.0 |
| 340 | 64 | -0.04 | 0.06 | -0.01 | 7.03e-05 | 6.50e-05 | 0.0 |
| 340 | 65 | -0.04 | 0.06 | 0.01 | 4.21e-05 | -6.11e-06 | 0.0 |
| 341 | 1 | -0.07 | 0.10 | -0.17 | 4.89e-04 | -2.52e-04 | 0.0 |
| 341 | 3 | -0.07 | 0.10 | -0.11 | 4.52e-04 | -7.59e-05 | 0.0 |
| 341 | 17 | -0.04 | 0.10 | 0.04 | 2.72e-05 | 3.94e-05 | 0.0 |
| 341 | 18 | -0.08 | 0.06 | -0.09 | 3.32e-04 | -2.45e-04 | 0.0 |
| 341 | 19 | -0.08 | 0.06 | -0.09 | 3.26e-04 | -2.46e-04 | 0.0 |
| 341 | 41 | -0.05 | 0.09 | 0.02 | 7.93e-05 | 1.30e-06 | 0.0 |
| 341 | 42 | -0.07 | 0.06 | -0.05 | 2.37e-04 | -1.46e-04 | 0.0 |
| 341 | 58 | -0.05 | 0.07 | -0.12 | 3.58e-04 | -1.85e-04 | 0.0 |
| 341 | 60 | -0.05 | 0.07 | -0.06 | 2.83e-04 | -5.12e-05 | 0.0 |
| 341 | 62 | -0.05 | 0.07 | -0.09 | 3.03e-04 | -1.49e-04 | 0.0 |
| 341 | 63 | -0.05 | 0.07 | -0.06 | 2.83e-04 | -5.12e-05 | 0.0 |
| 341 | 65 | -0.05 | 0.07 | -8.94e-03 | 1.39e-04 | -3.95e-05 | 0.0 |
| 342 | 1 | -0.07 | 0.09 | -0.14 | 4.96e-04 | -2.40e-04 | 0.0 |
| 342 | 3 | -0.07 | 0.09 | -0.10 | 4.32e-04 | -6.64e-05 | 0.0 |
| 342 | 5 | -0.07 | 0.09 | -0.06 | 3.34e-04 | 8.45e-05 | 0.0 |
| 342 | 17 | -0.04 | 0.10 | 0.04 | 3.09e-06 | 4.77e-05 | 0.0 |
| 342 | 18 | -0.08 | 0.05 | -0.07 | 3.04e-04 | -2.35e-04 | 0.0 |
| 342 | 19 | -0.08 | 0.05 | -0.07 | 2.97e-04 | -2.35e-04 | 0.0 |
| 342 | 41 | -0.05 | 0.08 | 0.02 | 6.11e-05 | 9.57e-06 | 0.0 |
| 342 | 42 | -0.07 | 0.06 | -0.04 | 2.17e-04 | -1.37e-04 | 0.0 |
| 342 | 58 | -0.05 | 0.06 | -0.10 | 3.63e-04 | -1.77e-04 | 0.0 |
| 342 | 60 | -0.05 | 0.07 | -0.06 | 2.69e-04 | -4.41e-05 | 0.0 |
| 342 | 61 | -0.05 | 0.07 | -0.03 | 2.14e-04 | 3.97e-05 | 0.0 |
| 342 | 62 | -0.05 | 0.07 | -0.08 | 3.04e-04 | -1.41e-04 | 0.0 |
| 342 | 63 | -0.05 | 0.07 | -0.06 | 2.69e-04 | -4.41e-05 | 0.0 |
| 342 | 64 | -0.05 | 0.07 | -0.03 | 2.14e-04 | 3.97e-05 | 0.0 |
| 342 | 65 | -0.05 | 0.07 | -5.85e-03 | 1.28e-04 | -3.19e-05 | 0.0 |
| 343 | 1 | -0.07 | 0.08 | -0.12 | 4.82e-04 | -2.20e-04 | 0.0 |
| 343 | 5 | -0.07 | 0.08 | -0.07 | 3.38e-04 | 8.43e-05 | 0.0 |
| 343 | 17 | -0.04 | 0.09 | 0.04 | -1.55e-05 | 3.76e-05 | 0.0 |
| 343 | 18 | -0.08 | 0.05 | -0.05 | 2.62e-04 | -2.24e-04 | 0.0 |
| 343 | 19 | -0.08 | 0.05 | -0.05 | 2.54e-04 | -2.25e-04 | 0.0 |
| 343 | 41 | -0.05 | 0.08 | 0.02 | 4.50e-05 | 4.15e-06 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 343 | 42 | -0.07 | 0.05 | -0.03 | 1.90e-04 | -1.31e-04 | 0.0 |
| 343 | 58 | -0.05 | 0.06 | -0.09 | 3.53e-04 | -1.62e-04 | 0.0 |
| 343 | 61 | -0.05 | 0.06 | -0.04 | 2.13e-04 | 3.94e-05 | 0.0 |
| 343 | 62 | -0.05 | 0.06 | -0.07 | 2.93e-04 | -1.30e-04 | 0.0 |
| 343 | 64 | -0.05 | 0.06 | -0.04 | 2.13e-04 | 3.94e-05 | 0.0 |
| 343 | 65 | -0.05 | 0.06 | -3.04e-03 | 1.14e-04 | -3.20e-05 | 0.0 |
| 344 | 1 | -0.02 | 0.07 | -0.06 | 5.04e-05 | -8.64e-05 | 0.0 |
| 344 | 3 | -0.02 | 0.07 | -0.05 | 5.32e-05 | 8.30e-05 | 0.0 |
| 344 | 17 | -6.37e-03 | 0.08 | 4.53e-03 | -1.67e-04 | 5.04e-05 | 0.0 |
| 344 | 18 | -0.05 | 0.04 | -0.02 | -3.17e-05 | -4.59e-05 | 0.0 |
| 344 | 23 | -0.05 | 0.06 | -0.01 | -8.76e-05 | -4.58e-05 | 0.0 |
| 344 | 41 | -0.01 | 0.07 | 1.33e-03 | -1.21e-04 | 3.78e-05 | 0.0 |
| 344 | 42 | -0.03 | 0.04 | -8.52e-03 | -4.98e-05 | -9.93e-06 | 0.0 |
| 344 | 46 | -0.03 | 0.06 | -8.32e-03 | -7.93e-05 | -7.80e-06 | 0.0 |
| 344 | 58 | -0.02 | 0.05 | -0.04 | 3.73e-05 | -6.63e-05 | 0.0 |
| 344 | 60 | -0.02 | 0.05 | -0.02 | 1.20e-05 | 5.06e-05 | 0.0 |
| 344 | 62 | -0.02 | 0.05 | -0.03 | 1.04e-05 | -4.35e-05 | 0.0 |
| 344 | 63 | -0.02 | 0.05 | -0.02 | 1.20e-05 | 5.06e-05 | 0.0 |
| 344 | 65 | -0.02 | 0.05 | -1.45e-03 | -7.03e-05 | 2.46e-05 | 0.0 |
| 345 | 1 | -0.07 | 0.05 | -0.07 | 3.46e-04 | -1.94e-04 | 0.0 |
| 345 | 5 | -0.07 | 0.05 | -0.09 | 3.82e-04 | 1.03e-04 | 0.0 |
| 345 | 14 | -0.06 | 0.07 | 0.03 | -4.62e-05 | -7.65e-05 | 0.0 |
| 345 | 15 | -0.06 | 0.07 | 0.04 | -5.50e-05 | -7.81e-05 | 0.0 |
| 345 | 19 | -0.08 | 0.03 | 0.01 | 7.44e-05 | -2.17e-04 | 0.0 |
| 345 | 38 | -0.06 | 0.05 | 0.02 | 6.56e-06 | -5.11e-05 | 0.0 |
| 345 | 39 | -0.06 | 0.05 | 0.02 | 3.90e-06 | -5.16e-05 | 0.0 |
| 345 | 42 | -0.07 | 0.03 | 8.79e-03 | 7.69e-05 | -1.22e-04 | 0.0 |
| 345 | 58 | -0.05 | 0.03 | -0.05 | 2.52e-04 | -1.43e-04 | 0.0 |
| 345 | 61 | -0.05 | 0.03 | -0.05 | 2.27e-04 | 5.21e-05 | 0.0 |
| 345 | 62 | -0.05 | 0.03 | -0.03 | 2.07e-04 | -1.13e-04 | 0.0 |
| 345 | 64 | -0.05 | 0.03 | -0.05 | 2.27e-04 | 5.21e-05 | 0.0 |
| 345 | 65 | -0.05 | 0.03 | 5.85e-03 | 7.15e-05 | -2.36e-05 | 0.0 |
| 346 | 1 | -0.03 | 0.07 | -0.06 | 5.56e-05 | -8.38e-05 | 0.0 |
| 346 | 3 | -0.03 | 0.07 | -0.05 | 7.81e-05 | 1.06e-04 | 0.0 |
| 346 | 17 | -0.01 | 0.08 | 0.01 | -1.37e-04 | 7.47e-05 | 0.0 |
| 346 | 22 | -0.05 | 0.06 | -0.01 | -7.25e-05 | -5.41e-05 | 0.0 |
| 346 | 25 | 0.01 | 0.06 | 0.02 | -9.28e-05 | 1.22e-04 | 0.0 |
| 346 | 41 | -0.02 | 0.07 | 8.56e-03 | -1.01e-04 | 5.18e-05 | 0.0 |
| 346 | 46 | -0.04 | 0.06 | -3.52e-03 | -6.66e-05 | -1.32e-05 | 0.0 |
| 346 | 48 | -3.32e-03 | 0.06 | 0.01 | -7.78e-05 | 7.61e-05 | 0.0 |
| 346 | 58 | -0.02 | 0.05 | -0.04 | 4.11e-05 | -6.42e-05 | 0.0 |
| 346 | 60 | -0.02 | 0.05 | -0.03 | 2.81e-05 | 6.41e-05 | 0.0 |
| 346 | 62 | -0.02 | 0.05 | -0.03 | 1.57e-05 | -4.13e-05 | 0.0 |
| 346 | 63 | -0.02 | 0.05 | -0.03 | 2.81e-05 | 6.41e-05 | 0.0 |
| 346 | 65 | -0.02 | 0.05 | 2.79e-03 | -6.05e-05 | 2.75e-05 | 0.0 |
| 347 | 1 | -0.07 | 0.04 | -0.05 | 2.75e-04 | -1.66e-04 | 0.0 |
| 347 | 5 | -0.07 | 0.04 | -0.10 | 3.31e-04 | 1.62e-04 | 0.0 |
| 347 | 14 | -0.06 | 0.06 | 0.04 | -9.03e-05 | -7.75e-05 | 0.0 |
| 347 | 18 | -0.08 | 0.02 | 0.03 | 2.84e-05 | -2.18e-04 | 0.0 |
| 347 | 23 | -0.08 | 0.04 | 0.05 | -4.95e-05 | -2.24e-04 | 0.0 |
| 347 | 38 | -0.06 | 0.05 | 0.02 | -3.23e-05 | -4.63e-05 | 0.0 |
| 347 | 42 | -0.07 | 0.02 | 0.02 | 3.20e-05 | -1.18e-04 | 0.0 |
| 347 | 46 | -0.07 | 0.04 | 0.03 | -5.70e-06 | -1.20e-04 | 0.0 |
| 347 | 59 | -0.05 | 0.03 | -0.02 | 1.59e-04 | -9.50e-05 | 0.0 |
| 347 | 61 | -0.05 | 0.03 | -0.05 | 1.90e-04 | 8.75e-05 | 0.0 |
| 347 | 62 | -0.05 | 0.03 | -0.02 | 1.59e-04 | -9.50e-05 | 0.0 |
| 347 | 64 | -0.05 | 0.03 | -0.05 | 1.90e-04 | 8.75e-05 | 0.0 |
| 347 | 65 | -0.05 | 0.03 | 7.40e-03 | 3.68e-05 | -1.08e-05 | 0.0 |
| 348 | 1 | -0.04 | 0.07 | -0.06 | 3.45e-05 | -1.29e-05 | 0.0 |
| 348 | 3 | -0.04 | 0.07 | -0.06 | 4.73e-05 | 2.00e-04 | 0.0 |
| 348 | 17 | -0.02 | 0.08 | 0.02 | -1.33e-04 | 1.15e-04 | 0.0 |
| 348 | 22 | -0.06 | 0.06 | -5.93e-03 | -6.11e-05 | -1.71e-05 | 0.0 |
| 348 | 25 | 4.09e-03 | 0.06 | 0.03 | -9.78e-05 | 1.50e-04 | 0.0 |
| 348 | 41 | -0.02 | 0.07 | 0.02 | -9.76e-05 | 8.63e-05 | 0.0 |
| 348 | 46 | -0.04 | 0.06 | 5.49e-04 | -5.97e-05 | 1.91e-05 | 0.0 |
| 348 | 48 | -9.42e-03 | 0.06 | 0.02 | -7.96e-05 | 1.05e-04 | 0.0 |
| 348 | 58 | -0.03 | 0.05 | -0.04 | 2.59e-05 | -1.27e-05 | 0.0 |
| 348 | 60 | -0.03 | 0.05 | -0.03 | 1.19e-05 | 1.23e-04 | 0.0 |
| 348 | 62 | -0.03 | 0.05 | -0.03 | 4.73e-06 | 4.48e-06 | 0.0 |
| 348 | 63 | -0.03 | 0.05 | -0.03 | 1.19e-05 | 1.23e-04 | 0.0 |
| 348 | 65 | -0.03 | 0.05 | 6.66e-03 | -5.87e-05 | 5.60e-05 | 0.0 |
| 349 | 1 | -0.05 | 0.07 | -0.06 | -2.75e-06 | -1.24e-05 | 0.0 |
| 349 | 2 | -0.03 | 0.05 | -0.07 | 1.41e-05 | -2.88e-05 | 0.0 |
| 349 | 5 | -0.05 | 0.07 | -0.03 | -2.44e-05 | 2.28e-04 | 0.0 |
| 349 | 17 | -0.02 | 0.08 | 0.03 | -9.31e-05 | 6.47e-05 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 349 | 18 | -0.06 | 0.04 | -0.01 | -2.37e-06 | -5.68e-05 | 0.0 |
| 349 | 41 | -0.03 | 0.07 | 0.02 | -6.66e-05 | 4.98e-05 | 0.0 |
| 349 | 42 | -0.05 | 0.05 | 9.85e-06 | -2.09e-05 | -1.16e-05 | 0.0 |
| 349 | 58 | -0.03 | 0.05 | -0.05 | 0.0 | -1.23e-05 | 0.0 |
| 349 | 61 | -0.03 | 0.05 | -0.01 | -2.20e-05 | 1.33e-04 | 0.0 |
| 349 | 62 | -0.03 | 0.05 | -0.03 | -9.99e-06 | 0.0 | 0.0 |
| 349 | 64 | -0.03 | 0.05 | -0.01 | -2.20e-05 | 1.33e-04 | 0.0 |
| 349 | 65 | -0.03 | 0.05 | 0.01 | -4.01e-05 | 3.49e-05 | 0.0 |
| 350 | 1 | -0.06 | 0.07 | -0.08 | 3.23e-04 | -1.72e-04 | 0.0 |
| 350 | 5 | -0.06 | 0.07 | -0.05 | 2.49e-04 | 8.56e-05 | 0.0 |
| 350 | 17 | -0.04 | 0.08 | 0.04 | 4.16e-05 | 3.81e-05 | 0.0 |
| 350 | 19 | -0.08 | 0.04 | -0.02 | 1.86e-04 | -1.72e-04 | 0.0 |
| 350 | 25 | -0.02 | 0.06 | 0.04 | 2.18e-05 | 1.30e-04 | 0.0 |
| 350 | 41 | -0.04 | 0.07 | 0.02 | 7.36e-05 | 9.95e-06 | 0.0 |
| 350 | 42 | -0.06 | 0.05 | -8.20e-03 | 1.48e-04 | -9.76e-05 | 0.0 |
| 350 | 58 | -0.05 | 0.05 | -0.06 | 2.38e-04 | -1.27e-04 | 0.0 |
| 350 | 61 | -0.05 | 0.05 | -0.02 | 1.64e-04 | 4.27e-05 | 0.0 |
| 350 | 62 | -0.05 | 0.05 | -0.04 | 2.05e-04 | -1.01e-04 | 0.0 |
| 350 | 64 | -0.05 | 0.05 | -0.02 | 1.64e-04 | 4.27e-05 | 0.0 |
| 350 | 65 | -0.05 | 0.05 | 7.04e-03 | 1.06e-04 | -2.02e-05 | 0.0 |
| 351 | 1 | -0.07 | 0.03 | -0.04 | 1.62e-04 | -1.47e-04 | 0.0 |
| 351 | 5 | -0.07 | 0.03 | -0.12 | 1.92e-04 | 2.24e-04 | 0.0 |
| 351 | 14 | -0.06 | 0.06 | 0.05 | -1.37e-04 | -9.26e-05 | 0.0 |
| 351 | 18 | -0.08 | 0.01 | 0.05 | -2.13e-05 | -2.36e-04 | 0.0 |
| 351 | 23 | -0.08 | 0.03 | 0.07 | -9.24e-05 | -2.51e-04 | 0.0 |
| 351 | 38 | -0.06 | 0.04 | 0.03 | -8.17e-05 | -5.30e-05 | 0.0 |
| 351 | 42 | -0.07 | 0.02 | 0.03 | -1.97e-05 | -1.25e-04 | 0.0 |
| 351 | 46 | -0.07 | 0.03 | 0.04 | -5.50e-05 | -1.31e-04 | 0.0 |
| 351 | 59 | -0.05 | 0.02 | -0.02 | 8.40e-05 | -8.40e-05 | 0.0 |
| 351 | 61 | -0.05 | 0.02 | -0.06 | 1.01e-04 | 1.22e-04 | 0.0 |
| 351 | 62 | -0.05 | 0.02 | -0.02 | 8.40e-05 | -8.40e-05 | 0.0 |
| 351 | 64 | -0.05 | 0.02 | -0.06 | 1.01e-04 | 1.22e-04 | 0.0 |
| 351 | 65 | -0.05 | 0.02 | 8.20e-03 | -1.76e-05 | -6.60e-06 | 0.0 |
| 352 | 1 | -0.02 | 0.05 | -0.04 | 2.66e-05 | -1.31e-04 | 0.0 |
| 352 | 5 | -0.02 | 0.05 | -0.06 | -2.83e-05 | 1.59e-04 | 0.0 |
| 352 | 15 | -0.03 | 0.07 | -6.72e-03 | -1.74e-04 | 4.67e-05 | 0.0 |
| 352 | 22 | -0.05 | 0.05 | -3.03e-03 | -9.32e-05 | -6.45e-05 | 0.0 |
| 352 | 24 | 0.01 | 0.05 | -0.02 | -1.40e-04 | 1.56e-04 | 0.0 |
| 352 | 39 | -0.02 | 0.06 | -6.86e-03 | -1.34e-04 | 3.94e-05 | 0.0 |
| 352 | 46 | -0.04 | 0.04 | -4.29e-03 | -9.10e-05 | -1.86e-05 | 0.0 |
| 352 | 48 | 1.35e-03 | 0.04 | -0.01 | -1.15e-04 | 9.56e-05 | 0.0 |
| 352 | 58 | -0.02 | 0.04 | -0.03 | 2.02e-05 | -9.49e-05 | 0.0 |
| 352 | 61 | -0.02 | 0.04 | -0.03 | -3.74e-05 | 9.77e-05 | 0.0 |
| 352 | 62 | -0.02 | 0.04 | -0.02 | -6.89e-06 | -6.35e-05 | 0.0 |
| 352 | 64 | -0.02 | 0.04 | -0.03 | -3.74e-05 | 9.77e-05 | 0.0 |
| 352 | 65 | -0.02 | 0.04 | -6.09e-03 | -8.81e-05 | 3.06e-05 | 0.0 |

| **Nodo** | **Traslazione X** | **Traslazione Y** | **Traslazione Z** | **Rotazione X** | **Rotazione Y** | **Rotazione Z** |
|---|---|---|---|---|---|---|
| | -0.16 | -0.01 | -0.21 | -1.83e-03 | -5.03e-04 | -1.85e-04 |
| | 0.14 | 0.17 | 0.10 | 2.24e-03 | 5.27e-04 | 0.0 |

| **Nodo** | **Cmb** | **Azione X** | **Azione Y** | **Azione Z** | **Azione RX** | **Azione RY** | **Azione RZ** |
|---|---|---|---|---|---|---|---|
| | | kN | kN | kN | kN m | kN m | kN m |

| **Nodo** | **Azione X** | **Azione Y** | **Azione Z** | **Azione RX** | **Azione RY** | **Azione RZ** |
|---|---|---|---|---|---|---|

| **Nodo** | **Cmb** | **Azione X** | **Azione Y** | **Azione Z** | **Azione RX** | **Azione RY** | **Azione RZ** |
|---|---|---|---|---|---|---|---|
| | | kN | kN | kN | kN m | kN m | kN m |

# 14 RISULTATI OPERE DI FONDAZIONE

## *14.1 LEGENDA RISULTATI OPERE DI FONDAZIONE*

Il controllo dei risultati delle analisi condotte, per quanto concerne le opere di fondazione, è possibile in relazione alle tabelle sotto riportate.

La prima tabella è riferita alle fondazioni tipo palo e plinto su pali.
Per questo tipo di fondazione vengono riportate le sei componenti di sollecitazione (espresse nel riferimento globale della struttura) per ogni palo componente l'opera.
In particolare viene riportato:

| | |
|---|---|
| **Nodo** | numero del nodo a cui è applicato il plinto |
| **Tipo** | codice corrispondente al nome assegnato al tipo di plinto di fondazione:<br>3) palo singolo (*PALO*)<br>4) plinto su palo<br>5) plinto su due pali (*PL.2P*)<br>6) plinto su tre pali (*PL.3P*)<br>7) plinto su quattro pali (*PL.4P*)<br>8) plinto rettangolare su cinque pali (*PL.5P.R*)<br>9) plinto pentagonale su cinque pali (*PL.5P*)<br>10) plinto su sei pali (*PL.6P*) |
| **Palo** | numero del palo |
| **Comb.** | combinazione di carico in cui si verificano le sei componenti di sollecitazione. |
| **Quota** | quota assoluta della sezione del palo per cui si riportano le sei componenti di sollecitazione. |

L'azione Fz ( corrispondente allo sforzo normale nel palo) è costante poiché il peso del palo stesso non è considerato nella modellazione.

La seconda tabella è riferita alle fondazioni tipo plinto su suolo elastico.
Per questo tipo di fondazione vengono riportate le pressioni nei quattro vertici dell'impronta sul terreno.
In particolare viene riportato:

| | |
|---|---|
| **Nodo** | numero del nodo a cui è applicato il plinto |
| **Tipo** | Codice identificativo del nome assegnato al plinto |
| **area** | area dell'impronta del plinto |
| **Wink O Wink V** | coefficienti di Winkler (orizzontale e verticale) adottati |
| **Comb** | Combinazione di carico in cui si verificano i valori riportati |
| **Pt (P1 P2 P3 P4)** | valori di pressione nei vertici |

La terza tabella è riferita alle fondazioni tipo platea su suolo elastico.
Per questo tipo di fondazione vengono riportate le pressioni in ogni vertice (nodo) degli elementi costituenti la platea.

La quarta tabella è riferita alle fondazioni tipo trave su suolo elastico.
Per questo tipo di fondazione vengono riportate le pressioni alle estremità dell'elemento e la massima (in valore assoluto) pressione lungo lo sviluppo dell'elemento.
Vengono inoltre riportati, con funzione statistica, i valori massimo e minimo delle pressioni che compaiono nella tabella.

Con riferimento al **Documento di Affidabilità** "*Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST*" - versione Settembre 2014, disponibile per il download sul sito **www.2si.it**, si segnalano i seguenti esempi applicativi:

| **Test N°** | **Titolo** |
|---|---|
| ***105*** | PLINTO SUPERFICIALE |
| ***106*** | PLINTO SUPERFICIALE |
| ***107*** | PLINTO SUPERFICIALE |
| ***108*** | PLINTO SUPERFICIALE |
| ***109*** | PLINTO SUPERFICIALE |
| ***110*** | PLINTO SUPERFICIALE |
| ***111*** | PLINTO SUPERFICIALE |
| ***112*** | PLINTO SUPERFICIALE |
| ***113*** | PLINTO SUPERFICIALE |
| ***114*** | PLINTO SUPERFICIALE |
| ***115*** | PLINTO SUPERFICIALE |
| ***116*** | PLINTO SUPERFICIALE |
| ***117*** | PLINTO SUPERFICIALE |
| ***118*** | PLINTO SUPERFICIALE |
| ***119*** | PLINTO SUPERFICIALE |
| ***120*** | PLINTO SUPERFICIALE |
| ***121*** | PLINTO SUPERFICIALE |
| ***122*** | PLINTO SUPERFICIALE |
| ***123*** | PLINTO SUPERFICIALE |
| ***124*** | FONDAZIONE NASTRIFORME |
| ***125*** | CALCOLO DEI K DI WINKLER |

| **Nodo (G)** | **Pt 1/12** | **Pt 2/13** | **Pt 3...** | **Pt 4...** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 | N/mm2 |
| 1 | -0.04 | -0.04 | -0.03 | -0.03 | -0.03 | -0.02 | | | | | |
| 2 | -0.05 | -0.02 | -9.37e-03 | -0.04 | -0.03 | 3.36e-03 | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 5 | -0.03 | -3.00e-03 | -9.30e-04 | -0.02 | -0.01 | 1.13e-03 |
| 6 | -0.02 | -3.64e-03 | -4.15e-05 | -0.02 | -0.01 | 3.66e-03 |
| 7 | -0.03 | -0.04 | -0.03 | -0.02 | -0.02 | -0.02 |
| 8 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -4.53e-03 |
| 9 | -0.04 | -0.03 | -0.02 | -0.03 | -0.03 | -4.33e-03 |
| 10 | -0.05 | -0.03 | -0.01 | -0.03 | -0.03 | 5.63e-03 |
| 11 | -0.04 | -0.02 | -8.17e-03 | -0.03 | -0.02 | -1.85e-04 |
| 12 | -0.07 | -0.04 | -0.02 | -0.05 | -0.04 | -4.84e-03 |
| 27 | -0.04 | -0.03 | -0.02 | -0.02 | -0.02 | -4.55e-03 |
| 37 | -0.05 | -0.02 | -8.28e-03 | -0.02 | -0.02 | 4.25e-03 |
| 47 | -0.04 | -0.01 | -5.84e-03 | -0.02 | -0.02 | 3.09e-03 |
| 57 | -0.04 | -0.01 | -5.97e-03 | -0.02 | -0.02 | 1.90e-03 |
| 61 | -0.04 | -0.01 | -6.11e-03 | -0.03 | -0.02 | 1.06e-03 |
| 68 | -0.05 | -0.02 | -0.01 | -0.04 | -0.03 | -1.44e-03 |
| 72 | -0.06 | -0.02 | -0.01 | -0.04 | -0.03 | -2.21e-03 |
| 76 | -0.05 | -0.02 | -0.01 | -0.03 | -0.03 | -2.21e-03 |
| 83 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -6.39e-03 |
| 87 | -0.03 | -0.02 | -0.02 | -0.02 | -0.02 | -8.15e-03 |
| 91 | -0.03 | -0.03 | -0.02 | -0.02 | -0.02 | -9.95e-03 |
| 95 | -0.03 | -0.03 | -0.02 | -0.02 | -0.02 | -0.01 |
| 99 | -0.03 | -0.04 | -0.03 | -0.02 | -0.02 | -0.01 |
| 106 | -0.02 | -6.21e-03 | -4.49e-03 | -0.01 | -0.01 | -2.91e-03 |
| 110 | -0.02 | -0.01 | -8.22e-03 | -0.01 | -0.01 | -5.07e-03 |
| 114 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -7.20e-03 |
| 118 | -0.02 | -0.02 | -0.02 | -0.01 | -0.01 | -9.32e-03 |
| 122 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 129 | -0.05 | -0.02 | -0.02 | -0.03 | -0.03 | -6.22e-03 |
| 133 | -0.04 | -0.03 | -0.02 | -0.03 | -0.03 | -8.74e-03 |
| 137 | -0.04 | -0.03 | -0.02 | -0.03 | -0.03 | -0.01 |
| 141 | -0.04 | -0.03 | -0.02 | -0.03 | -0.03 | -0.01 |
| 145 | -0.04 | -0.04 | -0.03 | -0.03 | -0.03 | -0.02 |
| 151 | -0.05 | -0.02 | -0.01 | -0.04 | -0.03 | 1.72e-04 |
| 158 | -0.02 | -3.66e-03 | -1.99e-03 | -0.01 | -0.01 | -7.63e-04 |
| 162 | -0.05 | -0.02 | -0.01 | -0.03 | -0.03 | -4.53e-03 |
| 171 | -0.06 | -0.03 | -0.02 | -0.05 | -0.04 | -3.48e-03 |
| 176 | -0.02 | -4.07e-03 | -2.55e-03 | -0.01 | -0.01 | -1.46e-03 |
| 180 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -5.19e-03 |
| 221 | -0.05 | -0.03 | -0.02 | -0.03 | -0.03 | -2.22e-03 |
| 222 | -0.05 | -0.03 | -0.01 | -0.03 | -0.03 | -3.06e-04 |
| 223 | -0.05 | -0.03 | -0.01 | -0.03 | -0.03 | 1.16e-03 |
| 224 | -0.05 | -0.03 | -0.01 | -0.03 | -0.03 | 2.60e-03 |
| 225 | -0.05 | -0.03 | -0.02 | -0.03 | -0.03 | -3.53e-03 |
| 226 | -0.05 | -0.03 | -0.01 | -0.03 | -0.03 | 4.04e-03 |
| 239 | -0.02 | -3.69e-03 | 1.85e-04 | -0.01 | -0.01 | 4.01e-03 |
| 270 | -0.03 | -9.62e-03 | -4.32e-03 | -0.01 | -0.01 | 9.69e-04 |
| 271 | -0.02 | -2.96e-03 | -1.20e-03 | -0.01 | -0.01 | 2.01e-04 |
| 272 | -0.02 | -2.94e-03 | -1.30e-03 | -0.01 | -0.01 | -1.67e-04 |
| 273 | -0.02 | -3.32e-03 | 6.74e-04 | -0.01 | -0.01 | 4.71e-03 |
| 274 | -0.03 | -5.68e-03 | -1.18e-03 | -0.02 | -0.01 | 3.31e-03 |
| 275 | -0.02 | -1.11e-03 | 2.12e-03 | -0.01 | -8.30e-03 | 5.29e-03 |
| 276 | -0.04 | -0.01 | -7.59e-03 | -0.03 | -0.02 | -4.93e-04 |
| 277 | -0.04 | -0.01 | -5.22e-03 | -0.03 | -0.02 | 5.62e-04 |
| 278 | -0.03 | -8.57e-03 | -3.54e-03 | -0.02 | -0.02 | 1.57e-03 |
| 279 | -0.02 | -6.11e-03 | -3.30e-03 | -0.01 | -0.01 | -7.19e-04 |
| 280 | -0.02 | -1.28e-03 | 4.01e-04 | -0.01 | -0.01 | 1.96e-03 |
| 281 | -0.02 | -7.05e-03 | -1.28e-03 | -0.01 | -0.01 | 4.57e-03 |
| 282 | -0.02 | -6.86e-04 | 1.96e-03 | -9.72e-03 | -8.84e-03 | 4.55e-03 |
| 283 | -0.03 | -0.01 | -8.05e-03 | -0.02 | -0.02 | -2.31e-03 |
| 284 | -0.03 | -5.08e-03 | -3.41e-04 | -0.02 | -0.01 | 4.48e-03 |
| 285 | -0.02 | -3.12e-03 | -3.65e-04 | -0.01 | -0.01 | 2.20e-03 |
| 286 | -0.02 | -5.59e-04 | 2.30e-03 | -7.63e-03 | -7.63e-03 | 5.04e-03 |
| 287 | -0.02 | -4.12e-03 | 1.07e-04 | -0.01 | -0.01 | 4.30e-03 |
| 288 | -0.04 | -0.02 | -0.01 | -0.02 | -0.02 | -1.27e-03 |
| 289 | -0.03 | -9.11e-03 | -2.66e-03 | -0.01 | -0.01 | 3.93e-03 |
| 290 | -0.02 | -6.96e-03 | -1.54e-03 | -0.01 | -0.01 | 3.91e-03 |
| 291 | -0.03 | -0.02 | -8.32e-03 | -0.02 | -0.02 | 1.08e-03 |
| 292 | -0.03 | -9.93e-03 | -6.59e-03 | -0.01 | -0.01 | -3.45e-03 |
| 293 | -0.02 | -9.78e-04 | 2.31e-03 | -7.99e-03 | -7.99e-03 | 5.54e-03 |
| 294 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -7.33e-03 |
| 295 | -0.03 | -0.02 | -0.02 | -0.02 | -0.02 | -9.35e-03 |
| 296 | -0.03 | -0.03 | -0.02 | -0.02 | -0.02 | -0.01 |
| 297 | -0.03 | -0.03 | -0.02 | -0.02 | -0.02 | -0.01 |
| 298 | -0.03 | -0.04 | -0.03 | -0.02 | -0.02 | -0.02 |
| 299 | -0.04 | -0.02 | -0.01 | -0.02 | -0.02 | -3.38e-03 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 300 | -0.03 | -0.01 | -9.52e-03 | -0.02 | -0.02 | -4.26e-03 |
| 301 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -6.53e-03 |
| 302 | -0.03 | -0.02 | -0.01 | -0.02 | -0.02 | -8.83e-03 |
| 303 | -0.03 | -0.02 | -0.02 | -0.02 | -0.02 | -0.01 |
| 304 | -0.03 | -0.03 | -0.02 | -0.02 | -0.02 | -0.01 |
| 305 | -0.03 | -0.04 | -0.03 | -0.02 | -0.02 | -0.02 |
| 306 | -0.02 | -8.78e-03 | -5.27e-03 | -0.02 | -0.01 | -1.91e-03 |
| 307 | -0.02 | -0.01 | -7.47e-03 | -0.02 | -0.01 | -3.96e-03 |
| 308 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -6.05e-03 |
| 309 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -8.15e-03 |
| 310 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 311 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 312 | -0.02 | -7.39e-03 | -4.56e-03 | -0.01 | -0.01 | -1.85e-03 |
| 313 | -0.02 | -0.01 | -7.07e-03 | -0.01 | -0.01 | -3.90e-03 |
| 314 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -5.95e-03 |
| 315 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -8.03e-03 |
| 316 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 317 | -0.01 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 318 | -0.02 | -8.77e-03 | -6.23e-03 | -0.01 | -0.01 | -3.83e-03 |
| 319 | -0.02 | -0.01 | -0.01 | -0.01 | -0.01 | -6.10e-03 |
| 320 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -8.22e-03 |
| 321 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 322 | -0.05 | -0.03 | -0.01 | -0.04 | -0.03 | 7.93e-04 |
| 323 | -0.04 | -0.02 | -7.70e-03 | -0.02 | -0.02 | 2.14e-03 |
| 324 | -0.02 | -7.47e-03 | -3.96e-03 | -0.02 | -0.01 | -5.80e-04 |
| 325 | -0.03 | -0.01 | -5.00e-03 | -0.02 | -0.02 | 2.22e-03 |
| 326 | -0.04 | -0.02 | -7.87e-03 | -0.02 | -0.02 | 2.66e-03 |
| 327 | -0.02 | -0.03 | -0.02 | -0.01 | -0.01 | -0.01 |
| 328 | -0.02 | -0.04 | -0.03 | -0.02 | -0.02 | -0.01 |
| 329 | -0.03 | -0.01 | -8.23e-03 | -0.02 | -0.02 | -2.72e-03 |
| 330 | -0.03 | -0.01 | -8.78e-03 | -0.02 | -0.02 | -5.14e-03 |
| 331 | -0.03 | -0.01 | -6.91e-03 | -0.02 | -0.02 | -5.52e-04 |
| 332 | -0.02 | -6.80e-03 | -2.77e-03 | -0.02 | -0.01 | 1.23e-03 |
| 333 | -0.04 | -0.01 | -5.53e-03 | -0.03 | -0.02 | 1.69e-03 |
| 334 | -0.03 | -6.05e-03 | -1.54e-03 | -0.02 | -0.01 | 3.00e-03 |
| 335 | -0.03 | -0.01 | -4.16e-03 | -0.02 | -0.02 | 4.06e-03 |
| 336 | -0.03 | -5.83e-03 | -6.40e-04 | -0.02 | -0.01 | 4.67e-03 |
| 337 | -0.05 | -0.02 | -9.27e-03 | -0.03 | -0.02 | 3.52e-03 |
| 338 | -0.04 | -0.01 | -4.97e-03 | -0.03 | -0.02 | 4.05e-03 |
| 339 | -0.04 | -0.02 | -8.67e-03 | -0.03 | -0.02 | 1.54e-03 |
| 340 | -0.03 | -7.56e-03 | -1.62e-03 | -0.02 | -0.01 | 4.44e-03 |
| 341 | -0.06 | -0.03 | -0.02 | -0.04 | -0.03 | -3.31e-03 |
| 342 | -0.05 | -0.03 | -0.01 | -0.04 | -0.03 | -2.16e-03 |
| 343 | -0.05 | -0.02 | -0.01 | -0.03 | -0.03 | -1.13e-03 |
| 344 | -0.02 | -5.87e-03 | -3.15e-03 | -0.01 | -0.01 | -5.35e-04 |
| 345 | -0.03 | -9.13e-03 | -3.54e-03 | -0.02 | -0.02 | 2.17e-03 |
| 346 | -0.02 | -5.11e-03 | -2.02e-03 | -0.02 | -0.01 | 1.03e-03 |
| 347 | -0.04 | -0.01 | -4.94e-03 | -0.02 | -0.02 | 2.74e-03 |
| 348 | -0.02 | -4.58e-03 | -1.06e-03 | -0.02 | -0.01 | 2.47e-03 |
| 349 | -0.02 | -4.15e-03 | -2.43e-05 | -0.02 | -0.01 | 4.22e-03 |
| 350 | -0.03 | -8.63e-03 | -3.03e-03 | -0.02 | -0.02 | 2.61e-03 |
| 351 | -0.04 | -0.02 | -8.46e-03 | -0.02 | -0.02 | 3.03e-03 |
| 352 | -0.02 | -5.73e-03 | -3.84e-03 | -0.01 | -0.01 | -2.25e-03 |

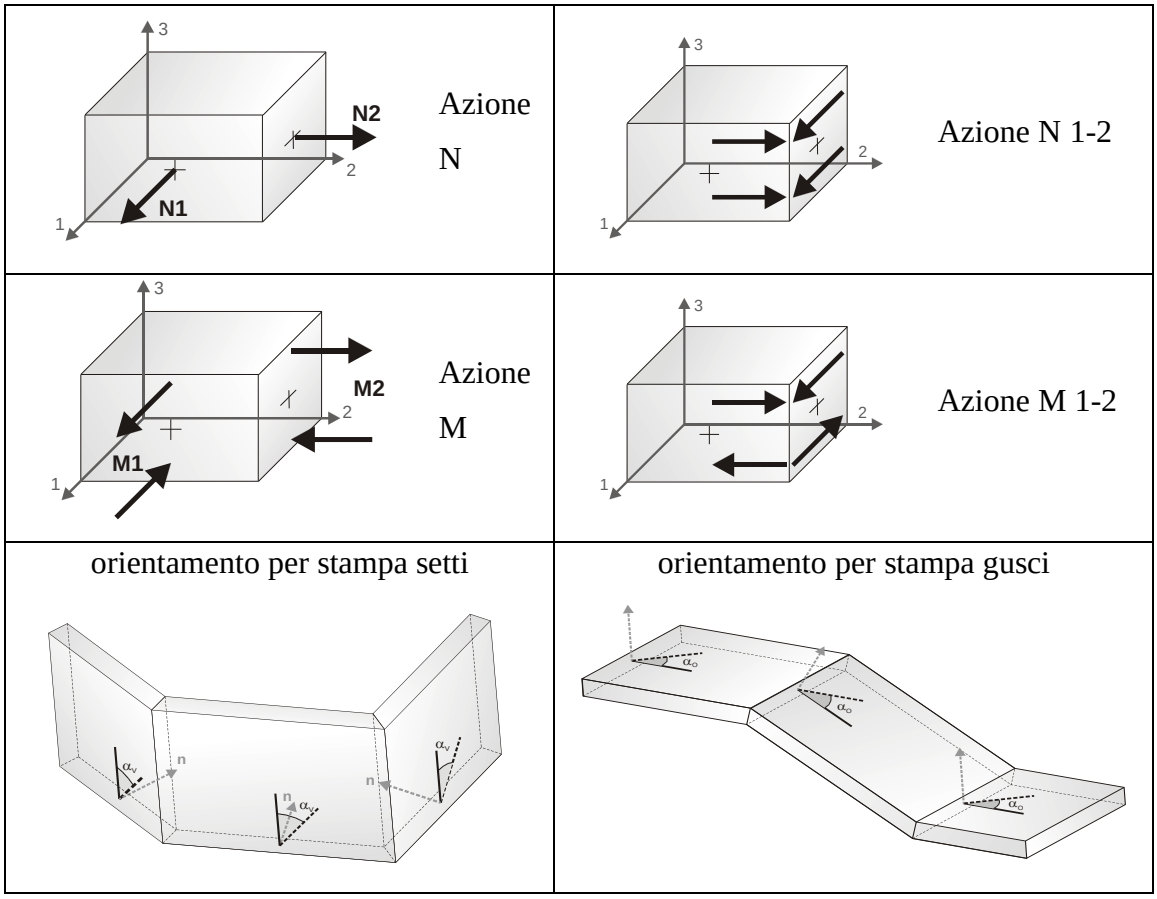
| **Nodo (G)** | **Pt 1/12** | **Pt 2/13** | **Pt 3...** | **Pt 4...** |
|---|---|---|---|---|
| | -0.07 | | | |
| | 5.63e-03 | | | |

# 15 RISULTATI ELEMENTI TIPO SHELL

## *15.1 LEGENDA RISULTATI ELEMENTI TIPO SHELL*

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo shell, è possibile in relazione alle tabelle sottoriportate.

Per ogni elemento, e per ogni combinazione(o caso di carico) vengono riportati i risultati più significativi.




In particolare vengono riportati in ogni nodo di un elemento per ogni combinazione:

| | |
|---|---|
| **tensione di Von Mises** | (valore riassuntivo del complessivo stato di sollecitazione) |
| **N max** | sforzo membranale principale massimo |
| **N min** | sforzo membranale principale minimo |
| **M max** | sforzo flessionale principale massimo |
| **M min** | sforzo flessionale principale minimo |
| **N1** **N2**<br>**N1-2** **M1** | |

| | | |
|---|---|---|
| **M2** | **M1-2** | sforzi membranali e flessionali in direzione locale 1 e 2 dell'elemento (lo sforzo 2-1 è uguale allo sforzo 1-2 per la reciprocità delle tensioni tangenziali) |

I suddetti risultati possono a scelta del progettista essere preceduti o sostituiti da valori di sollecitazione non più riferiti al sistema locale dell'elemento ma al sistema globale.

In questo caso gli elementi vengono raggruppati in gruppi (M_S: macro gusci o macro setti, raggruppati per materiale, spessore, e posizione fisica) per la valutazione dei valori mediati ai nodi appartenenti agli elementi dei gruppi stessi.

I valori di sollecitazione sono, in questo caso, riferiti ad una terna specifica del gruppo ruotata di $\alpha_O$ attorno all'asse Z per i gusci e ruotata di $\alpha_V$ attorno alla normale (che per definizione è orizzontale) al piano del setto.

Per i setti, in particolare, se $\alpha_V$ è zero, l'asse '1-1 rappresenta la verticale e l'asse '2-2 l'orizzontale contenuta nel setto.

Le azioni sui setti possono essere espresse anche con formato macro, cioè riferite all'intero macroelemento.

In particolare vengono riportati per ogni quota Z dei nodi e per ogni combinazione i seguenti valori:

| | |
|---|---|
| **N memb.** | Azione membranale complessiva agente sulla parete in direzione Z |
| **V memb.** | Azione complessiva di taglio agente nel piano del macroelemento |
| **V orto** | Azione complessiva di taglio agente in direzione perpendicolare al macroelemento |
| **M memb.** | Azione flessionale complessiva agente nel piano del macroelemento |
| **M orto** | Azione flessionale complessiva agente in direzione perpendicolare al macroelemento |
| **T** | Azione torsionale complessiva agente nel piano orizzontale |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **1** | **Setto** | **0.0** |

| M_S | Cmb | Z | N memb. | V memb. | V orto | M memb. | M orto | T |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 1 | 3 | -354.00 | -623.58 | -61.05 | -9.22 | 8.96 | 7.93 | -3.11 |
| 1 | 3 | -262.33 | -611.42 | -61.05 | -9.22 | 8.96 | 8.00 | -0.78 |
| 1 | 3 | -170.67 | -607.38 | -61.05 | -9.22 | 48.48 | -0.42 | -1.19 |
| 1 | 3 | -79.00 | -603.25 | -61.05 | -9.22 | 87.99 | -8.91 | -0.21 |
| 1 | 5 | -354.00 | -513.65 | -51.52 | -10.23 | 7.77 | 2.58 | -4.19 |
| 1 | 5 | -262.33 | -502.10 | -51.52 | -10.23 | 7.77 | 2.66 | -0.93 |
| 1 | 5 | -170.67 | -497.93 | -51.52 | -10.23 | 41.12 | -6.68 | -2.34 |
| 1 | 5 | -79.00 | -492.32 | -51.52 | -10.23 | 74.46 | -16.10 | 2.66 |
| 1 | 9 | -354.00 | -370.23 | -37.93 | -7.58 | 5.06 | 1.88 | -3.07 |
| 1 | 9 | -262.33 | -361.80 | -37.93 | -7.58 | 5.06 | 1.94 | -0.69 |
| 1 | 9 | -170.67 | -358.65 | -37.93 | -7.58 | 29.61 | -4.98 | -1.71 |
| 1 | 9 | -79.00 | -354.43 | -37.93 | -7.58 | 54.16 | -11.95 | 1.93 |
| 1 | 10 | -354.00 | -233.96 | 15.21 | -10.32 | 25.94 | 9.77 | -1.22 |
| 1 | 10 | -262.33 | -226.03 | 15.21 | -10.32 | 25.94 | 9.85 | 0.41 |
| 1 | 10 | -170.67 | -222.69 | 14.53 | -10.12 | 16.31 | 0.52 | 0.58 |
| 1 | 10 | -79.00 | -216.27 | 12.92 | -9.64 | 7.43 | -8.58 | -0.44 |
| 1 | 16 | -354.00 | -156.27 | -91.18 | -0.06 | -54.14 | -1.13 | -2.73 |
| 1 | 16 | -262.33 | -150.76 | -91.18 | -0.06 | -54.14 | -1.13 | -1.93 |
| 1 | 16 | -170.67 | -145.78 | -90.50 | -0.27 | 4.65 | -1.28 | -2.45 |
| 1 | 16 | -79.00 | -141.14 | -88.89 | -0.75 | 62.71 | -1.75 | -0.95 |
| 1 | 17 | -354.00 | -143.88 | -91.03 | -0.15 | -55.07 | -1.04 | -2.66 |
| 1 | 17 | -262.33 | -138.54 | -91.03 | -0.15 | -55.07 | -1.04 | -1.93 |
| 1 | 17 | -170.67 | -133.84 | -90.35 | -0.36 | 3.63 | -1.27 | -2.42 |
| 1 | 17 | -79.00 | -129.52 | -88.74 | -0.84 | 61.59 | -1.82 | -0.99 |
| 1 | 24 | -354.00 | -170.82 | -61.94 | 14.57 | -32.37 | -15.45 | -2.37 |
| 1 | 24 | -262.33 | -164.92 | -61.94 | 14.57 | -32.37 | -15.56 | -2.32 |
| 1 | 24 | -170.67 | -160.25 | -61.74 | 13.89 | 7.66 | -2.57 | -3.26 |
| 1 | 24 | -79.00 | -155.01 | -61.26 | 12.28 | 47.46 | 9.49 | 0.13 |
| 1 | 34 | -354.00 | -213.15 | -10.23 | -7.84 | 6.98 | 7.17 | -1.55 |
| 1 | 34 | -262.33 | -206.09 | -10.23 | -7.84 | 6.98 | 7.23 | -0.15 |
| 1 | 34 | -170.67 | -202.35 | -10.54 | -7.75 | 13.70 | 0.12 | -0.13 |
| 1 | 34 | -79.00 | -196.34 | -11.26 | -7.53 | 20.75 | -6.91 | -0.56 |
| 1 | 40 | -354.00 | -168.44 | -65.63 | -2.61 | -35.82 | 1.53 | -2.34 |
| 1 | 40 | -262.33 | -162.18 | -65.63 | -2.61 | -35.82 | 1.55 | -1.37 |
| 1 | 40 | -170.67 | -157.81 | -65.32 | -2.70 | 6.55 | -0.87 | -1.71 |
| 1 | 40 | -79.00 | -152.97 | -64.60 | -2.92 | 48.60 | -3.46 | -0.85 |
| 1 | 41 | -354.00 | -164.68 | -65.58 | -2.64 | -36.10 | 1.56 | -2.32 |
| 1 | 41 | -262.33 | -158.48 | -65.58 | -2.64 | -36.10 | 1.58 | -1.37 |
| 1 | 41 | -170.67 | -154.19 | -65.28 | -2.73 | 6.25 | -0.87 | -1.71 |
| 1 | 41 | -79.00 | -149.45 | -64.56 | -2.94 | 48.26 | -3.48 | -0.86 |
| 1 | 60 | -354.00 | -385.97 | -43.22 | -6.43 | 0.81 | 5.47 | -2.18 |
| 1 | 60 | -262.33 | -377.65 | -43.22 | -6.43 | 0.81 | 5.52 | -0.62 |
| 1 | 60 | -170.67 | -374.36 | -43.22 | -6.43 | 28.79 | -0.35 | -0.88 |
| 1 | 60 | -79.00 | -370.67 | -43.22 | -6.43 | 56.76 | -6.27 | -0.32 |
| 1 | 61 | -354.00 | -324.90 | -37.92 | -6.99 | 0.15 | 2.50 | -2.78 |
| 1 | 61 | -262.33 | -316.92 | -37.92 | -6.99 | 0.15 | 2.56 | -0.71 |
| 1 | 61 | -170.67 | -313.55 | -37.92 | -6.99 | 24.70 | -3.83 | -1.52 |
| 1 | 61 | -79.00 | -309.04 | -37.92 | -6.99 | 49.24 | -10.26 | 1.27 |
| 1 | 63 | -354.00 | -385.97 | -43.22 | -6.43 | 0.81 | 5.47 | -2.18 |
| 1 | 63 | -262.33 | -377.65 | -43.22 | -6.43 | 0.81 | 5.52 | -0.62 |
| 1 | 63 | -170.67 | -374.36 | -43.22 | -6.43 | 28.79 | -0.35 | -0.88 |
| 1 | 63 | -79.00 | -370.67 | -43.22 | -6.43 | 56.76 | -6.27 | -0.32 |
| 1 | 64 | -354.00 | -324.90 | -37.92 | -6.99 | 0.15 | 2.50 | -2.78 |
| 1 | 64 | -262.33 | -316.92 | -37.92 | -6.99 | 0.15 | 2.56 | -0.71 |
| 1 | 64 | -170.67 | -313.55 | -37.92 | -6.99 | 24.70 | -3.83 | -1.52 |
| 1 | 64 | -79.00 | -309.04 | -37.92 | -6.99 | 49.24 | -10.26 | 1.27 |
| 1 | 65 | -354.00 | -188.92 | -37.91 | -5.24 | -14.56 | 4.37 | -1.94 |
| 1 | 65 | -262.33 | -182.29 | -37.91 | -5.24 | -14.56 | 4.41 | -0.76 |
| 1 | 65 | -170.67 | -178.27 | -37.91 | -5.24 | 9.97 | -0.38 | -0.92 |
| 1 | 65 | -79.00 | -172.90 | -37.91 | -5.24 | 34.51 | -5.20 | -0.71 |

| M_S | | | N memb. | V memb. | V orto | M memb. | M orto | T |
|---|---|---|---|---|---|---|---|---|
| | | | -623.58 | -91.18 | -10.32 | -55.07 | -16.10 | -4.19 |
| | | | -129.52 | 15.21 | 14.57 | 87.99 | 9.85 | 2.66 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **3** | **Setto** | **0.0** |

| M_S | Cmb | Z | N memb. | V memb. | V orto | M memb. | M orto | T |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 3 | 1 | -354.00 | -106.71 | -146.15 | -51.37 | 47.48 | 10.08 | -9.75 |
| 3 | 1 | -262.33 | -91.07 | -146.15 | -51.37 | 40.41 | 10.51 | 2.12 |
| 3 | 1 | -170.67 | -76.37 | -87.60 | 10.54 | -10.21 | -8.25 | -5.10 |
| 3 | 1 | -79.00 | -76.67 | 21.24 | 27.88 | 4.18 | 8.93 | -0.49 |
| 3 | 5 | -354.00 | -188.16 | -113.36 | -75.22 | 86.29 | 18.83 | -13.99 |
| 3 | 5 | -262.33 | -173.05 | -113.36 | -75.22 | 80.49 | 19.19 | 3.55 |
| 3 | 5 | -170.67 | -169.32 | -66.47 | 4.83 | 44.70 | -13.05 | -9.52 |
| 3 | 5 | -79.00 | -191.66 | 8.16 | 82.26 | 79.73 | 26.40 | 8.78 |
| 3 | 7 | -354.00 | -76.84 | -108.91 | -37.19 | 33.98 | 7.18 | -7.09 |
| 3 | 7 | -262.33 | -65.25 | -108.91 | -37.19 | 28.71 | 7.50 | 1.52 |
| 3 | 7 | -170.67 | -54.47 | -65.05 | 7.83 | -8.80 | -5.99 | -3.70 |
| 3 | 7 | -79.00 | -54.53 | 16.20 | 19.68 | 1.77 | 6.30 | -0.51 |
| 3 | 16 | -354.00 | -75.39 | -117.31 | -23.91 | 22.27 | 2.23 | -8.77 |
| 3 | 16 | -262.33 | -57.33 | -117.31 | -23.91 | 14.73 | 2.56 | -4.08 |
| 3 | 16 | -170.67 | -53.96 | -69.21 | 7.06 | -9.94 | -5.16 | -9.56 |
| 3 | 16 | -79.00 | -46.72 | 4.65 | 21.92 | 7.63 | 7.79 | -3.76 |
| 3 | 19 | -354.00 | -41.80 | -153.87 | -21.86 | 24.49 | 2.36 | -4.66 |
| 3 | 19 | -262.33 | -33.40 | -153.87 | -21.86 | 19.53 | 2.69 | 2.61 |
| 3 | 19 | -170.67 | -22.18 | -115.09 | 7.16 | -27.14 | -3.99 | 0.46 |
| 3 | 19 | -79.00 | -22.91 | -6.90 | 5.96 | -23.51 | 1.58 | -1.93 |
| 3 | 20 | -354.00 | -91.57 | -33.98 | -40.03 | 24.26 | 8.87 | -7.17 |
| 3 | 20 | -262.33 | -80.73 | -33.98 | -40.03 | 19.19 | 9.17 | -0.66 |
| 3 | 20 | -170.67 | -69.01 | 33.58 | 6.36 | -2.74 | -6.49 | -7.19 |
| 3 | 20 | -79.00 | -56.06 | 77.09 | 20.05 | 19.37 | 5.55 | -0.10 |
| 3 | 23 | -354.00 | -41.71 | -172.99 | -17.09 | 23.17 | 0.27 | -5.75 |
| 3 | 23 | -262.33 | -29.58 | -172.99 | -17.09 | 17.05 | 0.60 | 0.49 |
| 3 | 23 | -170.67 | -22.31 | -138.34 | 7.33 | -26.79 | -3.75 | -1.85 |
| 3 | 23 | -79.00 | -23.55 | -26.55 | 8.96 | -22.19 | 3.21 | -3.34 |
| 3 | 40 | -354.00 | -70.61 | -110.77 | -26.02 | 22.65 | 3.27 | -7.59 |
| 3 | 40 | -262.33 | -55.62 | -110.77 | -26.02 | 16.00 | 3.59 | -2.13 |
| 3 | 40 | -170.67 | -49.34 | -61.11 | 6.90 | -12.61 | -5.19 | -7.16 |
| 3 | 40 | -79.00 | -43.05 | 14.67 | 18.40 | 3.08 | 6.10 | -2.84 |
| 3 | 42 | -354.00 | -55.53 | -130.12 | -25.75 | 25.03 | 3.63 | -5.64 |
| 3 | 42 | -262.33 | -45.56 | -130.12 | -25.75 | 19.77 | 3.95 | 1.34 |
| 3 | 42 | -170.67 | -34.68 | -86.16 | 7.13 | -20.46 | -4.57 | -1.96 |
| 3 | 42 | -79.00 | -31.82 | 7.17 | 10.36 | -12.47 | 3.08 | -1.78 |
| 3 | 44 | -354.00 | -79.11 | -66.70 | -34.32 | 23.81 | 6.77 | -6.83 |
| 3 | 44 | -262.33 | -68.12 | -66.70 | -34.32 | 18.52 | 7.08 | -0.41 |
| 3 | 44 | -170.67 | -57.70 | -6.64 | 6.52 | -8.64 | -5.80 | -5.90 |
| 3 | 44 | -79.00 | -48.32 | 53.36 | 17.28 | 9.39 | 4.93 | -0.88 |
| 3 | 46 | -354.00 | -55.42 | -140.22 | -23.30 | 24.30 | 2.52 | -6.18 |
| 3 | 46 | -262.33 | -43.43 | -140.22 | -23.30 | 18.41 | 2.85 | 0.26 |
| 3 | 46 | -170.67 | -34.54 | -98.45 | 7.21 | -20.39 | -4.49 | -3.18 |
| 3 | 46 | -79.00 | -32.05 | -3.22 | 12.00 | -11.85 | 3.92 | -2.53 |
| 3 | 58 | -354.00 | -76.84 | -108.91 | -37.19 | 33.98 | 7.18 | -7.09 |
| 3 | 58 | -262.33 | -65.25 | -108.91 | -37.19 | 28.71 | 7.50 | 1.52 |
| 3 | 58 | -170.67 | -54.47 | -65.05 | 7.83 | -8.80 | -5.99 | -3.70 |
| 3 | 58 | -79.00 | -54.53 | 16.20 | 19.68 | 1.77 | 6.30 | -0.51 |
| 3 | 59 | -354.00 | -74.29 | -107.56 | -35.03 | 31.41 | 6.53 | -6.93 |
| 3 | 59 | -262.33 | -62.73 | -107.56 | -35.03 | 26.06 | 6.85 | 1.12 |
| 3 | 59 | -170.67 | -52.27 | -61.88 | 7.58 | -10.29 | -5.77 | -3.90 |
| 3 | 59 | -79.00 | -50.85 | 18.46 | 18.39 | 0.97 | 5.82 | -0.81 |
| 3 | 61 | -354.00 | -119.54 | -89.34 | -48.28 | 52.97 | 11.39 | -9.28 |
| 3 | 61 | -262.33 | -108.27 | -89.34 | -48.28 | 48.33 | 11.67 | 1.91 |
| 3 | 61 | -170.67 | -103.90 | -50.15 | 4.41 | 20.21 | -8.44 | -6.36 |
| 3 | 61 | -79.00 | -114.74 | 11.20 | 48.60 | 42.95 | 15.53 | 4.34 |
| 3 | 62 | -354.00 | -74.29 | -107.56 | -35.03 | 31.41 | 6.53 | -6.93 |
| 3 | 62 | -262.33 | -62.73 | -107.56 | -35.03 | 26.06 | 6.85 | 1.12 |
| 3 | 62 | -170.67 | -52.27 | -61.88 | 7.58 | -10.29 | -5.77 | -3.90 |
| 3 | 62 | -79.00 | -50.85 | 18.46 | 18.39 | 0.97 | 5.82 | -0.81 |
| 3 | 64 | -354.00 | -119.54 | -89.34 | -48.28 | 52.97 | 11.39 | -9.28 |
| 3 | 64 | -262.33 | -108.27 | -89.34 | -48.28 | 48.33 | 11.67 | 1.91 |
| 3 | 64 | -170.67 | -103.90 | -50.15 | 4.41 | 20.21 | -8.44 | -6.36 |
| 3 | 64 | -79.00 | -114.74 | 11.20 | 48.60 | 42.95 | 15.53 | 4.34 |
| 3 | 65 | -354.00 | -66.64 | -103.49 | -28.56 | 23.71 | 4.57 | -6.46 |
| 3 | 65 | -262.33 | -55.16 | -103.49 | -28.56 | 18.12 | 4.88 | -0.08 |
| 3 | 65 | -170.67 | -45.66 | -52.38 | 6.84 | -14.76 | -5.12 | -4.52 |
| 3 | 65 | -79.00 | -39.81 | 25.27 | 14.50 | -1.41 | 4.38 | -1.72 |

| M_S | | N memb. | V memb. | V orto | M memb. | M orto | T |
|---|---|---|---|---|---|---|---|
| | | -191.66 | -172.99 | -75.22 | -27.14 | -13.05 | -13.99 |
| | | -22.18 | 77.09 | 82.26 | 86.29 | 26.40 | 8.78 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **4** | **Setto** | **0.0** |

| M_S | Cmb | Z | N memb. | V memb. | V orto | M memb. | M orto | T |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 4 | 1 | -354.00 | -763.43 | -131.99 | 524.08 | 602.63 | -179.81 | 29.93 |
| 4 | 1 | -262.33 | -755.19 | -132.22 | 525.56 | 586.90 | -180.17 | 0.79 |
| 4 | 1 | -170.67 | -661.73 | -80.62 | 25.37 | 549.86 | 72.13 | -9.56 |
| 4 | 1 | -79.00 | -566.88 | -32.26 | -316.37 | 558.49 | -61.52 | -27.00 |
| 4 | 2 | -354.00 | -641.26 | -82.63 | 385.55 | 532.81 | -147.76 | 31.39 |
| 4 | 2 | -262.33 | -631.96 | -82.79 | 386.54 | 521.58 | -148.02 | 7.86 |
| 4 | 2 | -170.67 | -561.36 | -46.44 | 14.52 | 513.68 | 35.68 | -6.44 |
| 4 | 2 | -79.00 | -489.14 | -12.03 | -240.39 | 539.04 | -68.06 | -30.21 |
| 4 | 5 | -354.00 | -730.48 | -198.86 | 546.02 | 124.33 | -175.62 | -1.82 |
| 4 | 5 | -262.33 | -721.96 | -199.10 | 546.96 | 128.12 | -176.30 | -23.27 |
| 4 | 5 | -170.67 | -639.58 | -165.16 | 28.91 | -16.26 | 87.71 | -11.16 |
| 4 | 5 | -79.00 | -559.20 | -139.65 | -334.81 | -145.58 | -52.26 | 7.81 |
| 4 | 9 | -354.00 | -531.93 | -147.67 | 403.93 | 87.87 | -127.67 | -1.97 |
| 4 | 9 | -262.33 | -525.82 | -147.85 | 404.65 | 90.33 | -128.17 | -17.56 |
| 4 | 9 | -170.67 | -464.65 | -122.19 | 21.41 | -16.46 | 67.16 | -8.04 |
| 4 | 9 | -79.00 | -404.95 | -102.76 | -247.48 | -111.70 | -36.30 | 6.37 |
| 4 | 10 | -354.00 | -387.04 | -222.15 | 325.95 | 266.98 | -77.36 | 10.70 |
| 4 | 10 | -262.33 | -378.35 | -222.39 | 326.97 | 258.86 | -77.69 | -2.87 |
| 4 | 10 | -170.67 | -297.04 | -179.25 | 6.32 | 157.54 | 74.92 | 3.92 |
| 4 | 10 | -79.00 | -214.55 | -134.80 | -193.18 | 94.81 | -10.83 | 9.59 |
| 4 | 15 | -354.00 | -256.67 | -183.94 | 463.97 | 255.38 | -94.27 | -9.14 |
| 4 | 15 | -262.33 | -274.33 | -184.24 | 465.96 | 229.53 | -94.40 | -31.50 |
| 4 | 15 | -170.67 | -214.73 | -130.55 | 61.55 | 90.93 | 146.92 | -15.81 |
| 4 | 15 | -79.00 | -157.85 | -80.23 | -229.67 | -6.49 | 69.58 | 19.23 |
| 4 | 17 | -354.00 | -240.31 | -62.78 | 461.53 | 99.41 | -87.11 | -23.87 |
| 4 | 17 | -262.33 | -256.64 | -62.94 | 463.52 | 79.08 | -87.33 | -39.99 |
| 4 | 17 | -170.67 | -206.20 | -14.92 | 55.60 | 15.15 | 150.23 | -20.01 |
| 4 | 17 | -79.00 | -158.10 | 24.45 | -236.90 | -13.45 | 66.84 | 13.25 |
| 4 | 19 | -354.00 | -350.71 | -350.64 | 375.63 | 442.95 | -88.84 | 20.52 |
| 4 | 19 | -262.33 | -353.05 | -351.06 | 377.02 | 421.84 | -88.98 | -3.15 |
| 4 | 19 | -170.67 | -270.38 | -297.09 | 31.66 | 220.43 | 97.96 | 2.15 |
| 4 | 19 | -79.00 | -188.38 | -237.38 | -198.04 | 65.68 | 21.54 | 20.40 |
| 4 | 34 | -354.00 | -346.90 | -182.35 | 340.22 | 227.10 | -80.49 | 3.70 |
| 4 | 34 | -262.33 | -344.05 | -182.56 | 341.37 | 216.15 | -80.81 | -10.58 |
| 4 | 34 | -170.67 | -270.59 | -139.04 | 17.94 | 124.68 | 83.71 | -2.30 |
| 4 | 34 | -79.00 | -196.86 | -96.78 | -186.34 | 69.97 | 6.41 | 9.14 |
| 4 | 41 | -354.00 | -280.46 | -102.59 | 447.26 | 139.29 | -83.99 | -16.87 |
| 4 | 41 | -262.33 | -290.94 | -102.77 | 449.11 | 121.80 | -84.21 | -32.28 |
| 4 | 41 | -170.67 | -232.66 | -55.13 | 43.98 | 48.01 | 141.44 | -13.79 |
| 4 | 41 | -79.00 | -175.79 | -13.57 | -243.73 | 11.39 | 49.61 | 13.70 |
| 4 | 42 | -354.00 | -337.34 | -245.27 | 379.14 | 317.70 | -87.17 | 8.15 |
| 4 | 42 | -262.33 | -340.39 | -245.59 | 380.54 | 299.90 | -87.38 | -11.23 |
| 4 | 42 | -170.67 | -265.32 | -196.63 | 31.14 | 157.73 | 101.01 | -2.73 |
| 4 | 42 | -79.00 | -190.88 | -146.97 | -201.40 | 56.46 | 22.80 | 15.35 |
| 4 | 58 | -354.00 | -556.33 | -98.14 | 387.68 | 442.17 | -130.77 | 21.54 |
| 4 | 58 | -262.33 | -550.43 | -98.31 | 388.80 | 430.16 | -131.03 | 0.27 |
| 4 | 58 | -170.67 | -481.05 | -59.57 | 18.79 | 402.89 | 55.61 | -6.86 |
| 4 | 58 | -79.00 | -410.63 | -23.22 | -233.82 | 409.84 | -43.16 | -19.42 |
| 4 | 61 | -354.00 | -477.36 | -146.37 | 401.38 | 111.70 | -116.31 | -3.13 |
| 4 | 61 | -262.33 | -473.74 | -146.55 | 402.30 | 109.99 | -116.75 | -18.53 |
| 4 | 61 | -170.67 | -411.40 | -115.92 | 23.80 | 9.24 | 78.51 | -8.04 |
| 4 | 61 | -79.00 | -350.29 | -90.87 | -239.37 | -73.61 | -20.22 | 7.63 |
| 4 | 62 | -354.00 | -495.67 | -109.22 | 389.19 | 377.43 | -118.64 | 14.51 |
| 4 | 62 | -262.33 | -492.20 | -109.40 | 390.41 | 364.87 | -118.90 | -5.16 |
| 4 | 62 | -170.67 | -423.70 | -68.95 | 21.83 | 323.75 | 69.85 | -7.15 |
| 4 | 62 | -79.00 | -354.56 | -31.21 | -229.12 | 317.55 | -25.37 | -11.71 |
| 4 | 64 | -354.00 | -477.36 | -146.37 | 401.38 | 111.70 | -116.31 | -3.13 |
| 4 | 64 | -262.33 | -473.74 | -146.55 | 402.30 | 109.99 | -116.75 | -18.53 |
| 4 | 64 | -170.67 | -411.40 | -115.92 | 23.80 | 9.24 | 78.51 | -8.04 |
| 4 | 64 | -79.00 | -350.29 | -90.87 | -239.37 | -73.61 | -20.22 | 7.63 |
| 4 | 65 | -354.00 | -313.68 | -142.47 | 393.74 | 183.19 | -82.24 | -6.59 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4 | 65 | -262.33 | -317.49 | -142.66 | 395.24 | 168.97 | -82.51 | -21.43 |
| 4 | 65 | -170.67 | -251.62 | -97.08 | 30.96 | 86.34 | 112.57 | -8.04 |
| 4 | 65 | -79.00 | -186.33 | -55.18 | -215.04 | 40.68 | 28.01 | 11.42 |

| **M_S** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|
| | -763.43 | -351.06 | -334.81 | -145.58 | -180.17 | -39.99 |
| | -157.85 | 24.45 | 546.96 | 602.63 | 150.23 | 31.39 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **5** | **Setto** | **0.0** |

| **M_S** | **Cmb** | **Z** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 5 | 1 | -354.00 | -806.30 | -154.60 | 401.40 | 497.40 | -102.38 | -32.34 |
| 5 | 1 | -262.33 | -816.92 | -154.60 | 401.40 | 520.64 | -102.18 | -22.50 |
| 5 | 1 | -170.67 | -744.32 | -166.99 | -5.24 | 712.92 | 79.50 | -8.43 |
| 5 | 1 | -79.00 | -666.69 | -186.41 | -294.12 | 892.93 | -58.00 | 50.23 |
| 5 | 9 | -354.00 | -379.34 | -51.94 | 304.57 | 92.63 | -53.18 | -9.49 |
| 5 | 9 | -262.33 | -368.95 | -51.94 | 304.57 | 77.35 | -53.25 | -11.87 |
| 5 | 9 | -170.67 | -322.39 | -58.82 | 3.73 | 150.98 | 88.16 | -12.42 |
| 5 | 9 | -79.00 | -269.43 | -65.71 | -209.27 | 208.02 | -6.16 | 13.20 |
| 5 | 16 | -354.00 | -349.70 | -209.71 | 332.59 | -304.20 | -66.95 | 14.24 |
| 5 | 16 | -262.33 | -341.01 | -209.71 | 332.59 | -315.84 | -67.15 | -12.23 |
| 5 | 16 | -170.67 | -297.01 | -205.50 | 21.37 | -75.23 | 95.26 | -27.22 |
| 5 | 16 | -79.00 | -245.19 | -203.99 | -203.63 | 146.56 | 11.44 | 6.36 |
| 5 | 17 | -354.00 | -335.76 | -210.54 | 331.35 | -310.10 | -63.98 | 14.50 |
| 5 | 17 | -262.33 | -326.76 | -210.54 | 331.35 | -322.30 | -64.19 | -12.09 |
| 5 | 17 | -170.67 | -285.40 | -206.13 | 20.15 | -80.70 | 97.09 | -27.14 |
| 5 | 17 | -79.00 | -236.24 | -204.41 | -204.84 | 142.21 | 12.17 | 6.20 |
| 5 | 21 | -354.00 | -289.30 | -75.91 | 383.56 | -98.22 | -77.30 | -4.74 |
| 5 | 21 | -262.33 | -284.42 | -75.91 | 383.56 | -108.28 | -77.47 | -12.63 |
| 5 | 21 | -170.67 | -239.60 | -78.93 | 47.14 | -13.26 | 119.98 | -18.42 |
| 5 | 21 | -79.00 | -192.83 | -87.65 | -206.71 | 82.27 | 46.87 | 2.24 |
| 5 | 22 | -354.00 | -425.11 | -71.28 | 207.98 | 15.18 | -9.24 | 4.32 |
| 5 | 22 | -262.33 | -408.35 | -71.28 | 207.98 | -10.69 | -9.33 | -4.50 |
| 5 | 22 | -170.67 | -362.80 | -77.92 | -56.71 | 85.70 | 60.21 | -8.61 |
| 5 | 22 | -79.00 | -306.81 | -80.58 | -228.11 | 151.39 | -70.65 | 13.54 |
| 5 | 40 | -354.00 | -352.45 | -144.54 | 319.27 | -181.26 | -54.90 | 7.40 |
| 5 | 40 | -262.33 | -342.16 | -144.54 | 319.27 | -197.10 | -55.08 | -10.47 |
| 5 | 40 | -170.67 | -298.16 | -144.89 | 8.64 | -25.18 | 95.37 | -20.69 |
| 5 | 40 | -79.00 | -247.13 | -147.45 | -214.84 | 130.23 | 0.65 | 7.04 |
| 5 | 41 | -354.00 | -348.23 | -144.79 | 318.89 | -183.04 | -54.01 | 7.48 |
| 5 | 41 | -262.33 | -337.84 | -144.79 | 318.89 | -199.06 | -54.18 | -10.43 |
| 5 | 41 | -170.67 | -294.65 | -145.08 | 8.27 | -26.84 | 95.93 | -20.67 |
| 5 | 41 | -79.00 | -244.41 | -147.58 | -215.20 | 128.92 | 0.87 | 6.99 |
| 5 | 45 | -354.00 | -330.09 | -59.65 | 277.98 | -33.23 | -53.44 | -1.50 |
| 5 | 45 | -262.33 | -321.83 | -59.65 | 277.98 | -47.71 | -53.54 | -8.30 |
| 5 | 45 | -170.67 | -276.15 | -64.27 | 7.90 | 30.90 | 77.56 | -12.67 |
| 5 | 45 | -79.00 | -226.02 | -70.88 | -176.66 | 99.92 | 0.12 | 5.51 |
| 5 | 46 | -354.00 | -387.40 | -70.47 | 234.81 | -11.58 | -26.09 | 2.65 |
| 5 | 46 | -262.33 | -373.67 | -70.47 | 234.81 | -33.45 | -26.18 | -5.95 |
| 5 | 46 | -170.67 | -328.51 | -76.17 | -31.92 | 60.28 | 66.96 | -10.46 |
| 5 | 46 | -79.00 | -275.15 | -80.34 | -208.34 | 131.41 | -43.39 | 10.41 |
| 5 | 58 | -354.00 | -587.42 | -115.09 | 297.60 | 364.17 | -74.34 | -23.80 |
| 5 | 58 | -262.33 | -595.07 | -115.09 | 297.60 | 380.95 | -74.19 | -16.54 |
| 5 | 58 | -170.67 | -541.41 | -124.08 | -3.60 | 524.08 | 60.64 | -6.16 |
| 5 | 58 | -79.00 | -484.05 | -138.26 | -217.57 | 658.30 | -40.94 | 36.98 |
| 5 | 61 | -354.00 | -373.80 | -57.36 | 302.37 | 59.09 | -50.70 | -7.17 |
| 5 | 61 | -262.33 | -363.31 | -57.36 | 302.37 | 43.14 | -50.79 | -11.04 |
| 5 | 61 | -170.67 | -317.09 | -63.72 | 1.60 | 122.29 | 88.64 | -12.69 |
| 5 | 61 | -79.00 | -264.53 | -70.32 | -211.30 | 185.22 | -7.59 | 11.87 |
| 5 | 62 | -354.00 | -529.86 | -104.72 | 297.14 | 262.75 | -66.57 | -17.90 |
| 5 | 62 | -262.33 | -532.90 | -104.72 | 297.14 | 270.84 | -66.49 | -14.55 |
| 5 | 62 | -170.67 | -481.36 | -112.66 | -3.89 | 402.11 | 68.00 | -8.00 |
| 5 | 62 | -79.00 | -425.49 | -124.72 | -217.53 | 522.93 | -33.68 | 29.71 |
| 5 | 64 | -354.00 | -373.80 | -57.36 | 302.37 | 59.09 | -50.70 | -7.17 |
| 5 | 64 | -262.33 | -363.31 | -57.36 | 302.37 | 43.14 | -50.79 | -11.04 |
| 5 | 64 | -170.67 | -317.09 | -63.72 | 1.60 | 122.29 | 88.64 | -12.69 |
| 5 | 64 | -79.00 | -264.53 | -70.32 | -211.30 | 185.22 | -7.59 | 11.87 |
| 5 | 65 | -354.00 | -357.20 | -73.60 | 295.77 | -41.52 | -43.27 | -0.21 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | 65 | -262.33 | -346.39 | -73.60 | 295.77 | -59.48 | -43.40 | -8.57 |
| 5 | 65 | -170.67 | -301.20 | -78.42 | -4.78 | 36.22 | 90.09 | -13.51 |
| 5 | 65 | -79.00 | -249.82 | -84.12 | -217.41 | 116.83 | -11.89 | 7.89 |

| **M_S** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|
| | -816.92 | -210.54 | -294.12 | -322.30 | -102.38 | -32.34 |
| | -192.83 | -51.94 | 401.40 | 892.93 | 119.98 | 50.23 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **6** | **Setto** | **0.0** |

| **M_S** | **Cmb** | **Z** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 6 | 3 | -354.00 | -547.34 | -135.43 | -21.27 | 84.14 | 36.07 | -5.42 |
| 6 | 3 | -262.33 | -543.95 | -135.43 | -21.27 | 77.50 | 36.06 | -8.77 |
| 6 | 3 | -170.67 | -503.69 | -135.43 | -21.27 | 206.24 | 16.60 | -9.57 |
| 6 | 3 | -79.00 | -447.40 | -135.43 | -21.28 | 310.09 | -2.94 | 2.90 |
| 6 | 5 | -354.00 | -502.82 | -70.98 | -0.84 | 66.51 | 10.50 | -8.06 |
| 6 | 5 | -262.33 | -500.35 | -70.98 | -0.84 | 60.55 | 10.55 | -11.81 |
| 6 | 5 | -170.67 | -457.49 | -70.98 | -0.84 | 130.25 | 9.76 | -12.02 |
| 6 | 5 | -79.00 | -406.20 | -70.98 | -0.84 | 183.58 | 8.94 | 7.93 |
| 6 | 9 | -354.00 | -358.57 | -52.25 | -0.80 | 47.51 | 7.46 | -5.93 |
| 6 | 9 | -262.33 | -356.73 | -52.25 | -0.80 | 43.03 | 7.50 | -8.70 |
| 6 | 9 | -170.67 | -324.97 | -52.25 | -0.80 | 94.35 | 6.76 | -8.86 |
| 6 | 9 | -79.00 | -287.02 | -52.25 | -0.80 | 133.70 | 5.99 | 5.83 |
| 6 | 13 | -354.00 | -250.41 | 49.36 | 16.44 | 109.16 | -6.78 | -4.02 |
| 6 | 13 | -262.33 | -251.27 | 49.36 | 16.44 | 106.20 | -6.77 | -5.33 |
| 6 | 13 | -170.67 | -216.06 | 46.27 | 15.51 | 66.04 | 7.84 | -5.25 |
| 6 | 13 | -79.00 | -184.28 | 38.99 | 13.33 | 30.59 | 21.09 | 2.05 |
| 6 | 14 | -354.00 | -400.60 | -152.50 | -32.76 | -125.03 | 41.84 | -6.08 |
| 6 | 14 | -262.33 | -393.76 | -152.50 | -32.76 | -131.09 | 41.82 | -9.12 |
| 6 | 14 | -170.67 | -365.59 | -149.41 | -31.83 | 8.97 | 12.28 | -8.90 |
| 6 | 14 | -79.00 | -325.12 | -142.13 | -29.65 | 127.93 | -15.95 | 3.76 |
| 6 | 17 | -354.00 | -375.07 | -169.15 | 26.99 | -150.38 | -14.61 | -8.34 |
| 6 | 17 | -262.33 | -367.50 | -169.15 | 26.99 | -157.03 | -14.60 | -11.33 |
| 6 | 17 | -170.67 | -341.82 | -166.05 | 26.06 | -1.79 | 9.67 | -11.18 |
| 6 | 17 | -79.00 | -302.16 | -158.78 | 23.87 | 130.66 | 32.60 | 2.37 |
| 6 | 24 | -354.00 | -340.30 | -110.59 | 93.82 | -83.05 | -77.54 | -9.63 |
| 6 | 24 | -262.33 | -334.93 | -110.59 | 93.82 | -88.88 | -77.51 | -11.95 |
| 6 | 24 | -170.67 | -305.06 | -109.66 | 90.73 | 14.34 | 6.91 | -11.90 |
| 6 | 24 | -79.00 | -265.46 | -107.48 | 83.45 | 102.31 | 86.89 | 0.74 |
| 6 | 37 | -354.00 | -286.92 | 0.75 | 4.81 | 52.62 | 4.55 | -4.55 |
| 6 | 37 | -262.33 | -286.21 | 0.75 | 4.81 | 49.20 | 4.55 | -6.38 |
| 6 | 37 | -170.67 | -252.36 | -0.63 | 4.40 | 52.17 | 8.77 | -6.30 |
| 6 | 37 | -79.00 | -218.15 | -3.89 | 3.42 | 53.34 | 12.36 | 2.45 |
| 6 | 38 | -354.00 | -364.09 | -103.89 | -21.13 | -68.49 | 30.51 | -5.55 |
| 6 | 38 | -262.33 | -358.82 | -103.89 | -21.13 | -74.09 | 30.50 | -8.08 |
| 6 | 38 | -170.67 | -329.29 | -102.51 | -20.72 | 22.84 | 11.36 | -7.84 |
| 6 | 38 | -79.00 | -291.25 | -99.25 | -19.74 | 105.19 | -7.22 | 3.37 |
| 6 | 41 | -354.00 | -352.98 | -112.70 | 10.00 | -81.73 | 0.76 | -6.76 |
| 6 | 41 | -262.33 | -347.37 | -112.70 | 10.00 | -87.62 | 0.77 | -9.39 |
| 6 | 41 | -170.67 | -318.75 | -111.31 | 9.58 | 17.33 | 9.73 | -9.25 |
| 6 | 41 | -79.00 | -280.72 | -108.05 | 8.61 | 106.78 | 18.08 | 2.62 |
| 6 | 48 | -354.00 | -328.61 | -82.81 | 44.75 | -48.31 | -32.56 | -7.46 |
| 6 | 48 | -262.33 | -324.34 | -82.81 | 44.75 | -53.62 | -32.54 | -9.91 |
| 6 | 48 | -170.67 | -293.81 | -82.39 | 43.37 | 24.60 | 7.77 | -9.90 |
| 6 | 48 | -79.00 | -256.03 | -81.42 | 40.11 | 90.99 | 46.10 | 1.72 |
| 6 | 58 | -354.00 | -377.62 | -31.53 | -26.27 | 100.44 | 41.74 | -1.57 |
| 6 | 58 | -262.33 | -376.80 | -31.53 | -26.27 | 96.50 | 41.69 | -2.13 |
| 6 | 58 | -170.67 | -343.88 | -31.53 | -26.27 | 128.98 | 17.67 | -2.77 |
| 6 | 58 | -79.00 | -306.95 | -31.53 | -26.27 | 151.87 | -6.40 | -2.04 |
| 6 | 60 | -354.00 | -375.03 | -87.89 | -13.99 | 43.44 | 24.19 | -4.24 |
| 6 | 60 | -262.33 | -372.40 | -87.89 | -13.99 | 38.58 | 24.18 | -6.65 |
| 6 | 60 | -170.67 | -342.10 | -87.89 | -13.99 | 122.36 | 11.38 | -7.05 |
| 6 | 60 | -79.00 | -301.83 | -87.89 | -13.99 | 190.38 | -1.47 | 2.31 |
| 6 | 61 | -354.00 | -350.30 | -52.08 | -2.64 | 33.65 | 9.98 | -5.71 |
| 6 | 61 | -262.33 | -348.18 | -52.08 | -2.64 | 29.16 | 10.01 | -8.33 |
| 6 | 61 | -170.67 | -316.44 | -52.08 | -2.64 | 80.14 | 7.58 | -8.41 |
| 6 | 61 | -79.00 | -278.94 | -52.08 | -2.64 | 120.09 | 5.13 | 5.10 |
| 6 | 63 | -354.00 | -375.03 | -87.89 | -13.99 | 43.44 | 24.19 | -4.24 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6 | 63 | -262.33 | -372.40 | -87.89 | -13.99 | 38.58 | 24.18 | -6.65 |
| 6 | 63 | -170.67 | -342.10 | -87.89 | -13.99 | 122.36 | 11.38 | -7.05 |
| 6 | 63 | -79.00 | -301.83 | -87.89 | -13.99 | 190.38 | -1.47 | 2.31 |
| 6 | 64 | -354.00 | -350.30 | -52.08 | -2.64 | 33.65 | 9.98 | -5.71 |
| 6 | 64 | -262.33 | -348.18 | -52.08 | -2.64 | 29.16 | 10.01 | -8.33 |
| 6 | 64 | -170.67 | -316.44 | -52.08 | -2.64 | 80.14 | 7.58 | -8.41 |
| 6 | 64 | -79.00 | -278.94 | -52.08 | -2.64 | 120.09 | 5.13 | 5.10 |
| 6 | 65 | -354.00 | -325.50 | -51.57 | -8.16 | -7.93 | 17.53 | -5.05 |
| 6 | 65 | -262.33 | -322.51 | -51.57 | -8.16 | -12.44 | 17.53 | -7.23 |
| 6 | 65 | -170.67 | -290.82 | -51.57 | -8.16 | 37.51 | 10.06 | -7.07 |
| 6 | 65 | -79.00 | -254.70 | -51.57 | -8.16 | 79.26 | 2.57 | 2.91 |

| **M_S** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|
| | -547.34 | -169.15 | -32.76 | -157.03 | -77.54 | -12.02 |
| | -184.28 | 49.36 | 93.82 | 310.09 | 86.89 | 7.93 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **7** | **Setto** | **0.0** |

| **M_S** | **Cmb** | **Z** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 7 | 2 | -354.00 | -191.71 | -1.72 | -238.21 | 39.96 | 36.06 | 16.61 |
| 7 | 2 | -262.33 | -187.63 | -1.72 | -238.21 | 36.08 | 36.03 | 11.87 |
| 7 | 2 | -170.67 | -132.23 | -18.03 | -8.16 | 2.64 | -76.97 | -5.93 |
| 7 | 2 | -79.00 | -81.01 | -46.51 | 109.73 | -7.33 | -30.21 | -18.55 |
| 7 | 5 | -354.00 | -366.89 | -70.11 | -306.65 | 101.33 | 44.47 | 18.96 |
| 7 | 5 | -262.33 | -378.31 | -70.11 | -306.65 | 113.61 | 44.34 | 8.32 |
| 7 | 5 | -170.67 | -300.34 | -89.82 | 1.35 | 126.84 | -95.68 | -13.44 |
| 7 | 5 | -79.00 | -196.38 | -88.75 | 180.13 | 91.05 | -12.18 | -30.58 |
| 7 | 15 | -354.00 | -252.88 | -75.85 | -248.22 | -16.62 | 44.62 | 8.26 |
| 7 | 15 | -262.33 | -241.29 | -75.85 | -248.22 | -28.56 | 44.64 | 6.23 |
| 7 | 15 | -170.67 | -163.50 | -102.34 | -9.45 | -45.19 | -73.61 | -8.53 |
| 7 | 15 | -79.00 | -90.99 | -120.98 | 107.99 | -30.60 | -28.19 | -19.03 |
| 7 | 16 | -354.00 | -261.54 | -45.99 | -211.56 | -8.25 | 19.95 | 7.44 |
| 7 | 16 | -262.33 | -248.12 | -45.99 | -211.56 | -23.78 | 19.92 | 3.06 |
| 7 | 16 | -170.67 | -187.23 | -69.29 | 14.29 | -29.06 | -70.55 | -12.60 |
| 7 | 16 | -79.00 | -124.03 | -84.61 | 142.18 | -21.99 | 1.33 | -18.62 |
| 7 | 23 | -354.00 | -217.39 | -67.23 | -284.94 | -12.34 | 69.00 | 12.08 |
| 7 | 23 | -262.33 | -212.21 | -67.23 | -284.94 | -15.61 | 69.05 | 11.51 |
| 7 | 23 | -170.67 | -125.99 | -95.61 | -35.50 | -55.22 | -78.04 | -3.29 |
| 7 | 23 | -79.00 | -56.86 | -126.73 | 72.97 | -35.26 | -60.55 | -18.99 |
| 7 | 40 | -354.00 | -236.23 | -22.92 | -215.67 | -2.41 | 22.14 | 9.58 |
| 7 | 40 | -262.33 | -225.35 | -22.92 | -215.67 | -15.08 | 22.11 | 4.96 |
| 7 | 40 | -170.67 | -170.00 | -46.88 | 9.91 | -29.44 | -72.25 | -11.33 |
| 7 | 40 | -79.00 | -116.40 | -69.53 | 137.91 | -21.15 | -4.34 | -18.39 |
| 7 | 42 | -354.00 | -201.18 | -15.83 | -250.72 | 0.83 | 45.69 | 13.47 |
| 7 | 42 | -262.33 | -196.84 | -15.83 | -250.72 | -2.89 | 45.69 | 10.39 |
| 7 | 42 | -170.67 | -132.76 | -41.44 | -15.31 | -39.52 | -76.36 | -5.98 |
| 7 | 42 | -79.00 | -81.97 | -75.76 | 102.93 | -26.08 | -35.98 | -18.27 |
| 7 | 46 | -354.00 | -216.58 | -35.57 | -254.06 | -3.91 | 48.19 | 12.18 |
| 7 | 46 | -262.33 | -210.38 | -35.57 | -254.06 | -9.62 | 48.20 | 9.64 |
| 7 | 46 | -170.67 | -140.46 | -61.47 | -16.25 | -41.56 | -75.83 | -6.12 |
| 7 | 46 | -79.00 | -82.11 | -92.07 | 100.53 | -27.39 | -36.96 | -18.46 |
| 7 | 47 | -354.00 | -214.92 | -17.77 | -237.48 | -0.97 | 36.26 | 11.29 |
| 7 | 47 | -262.33 | -207.94 | -17.77 | -237.48 | -8.42 | 36.25 | 7.30 |
| 7 | 47 | -170.67 | -147.71 | -43.21 | -5.13 | -37.13 | -75.05 | -9.08 |
| 7 | 47 | -79.00 | -96.68 | -72.08 | 119.17 | -25.58 | -22.58 | -18.66 |
| 7 | 58 | -354.00 | -196.22 | -0.81 | -233.42 | 30.51 | 33.07 | 15.42 |
| 7 | 58 | -262.33 | -191.30 | -0.81 | -233.42 | 25.46 | 33.04 | 10.64 |
| 7 | 58 | -170.67 | -137.24 | -19.15 | -4.69 | -5.79 | -76.16 | -6.97 |
| 7 | 58 | -79.00 | -87.94 | -47.96 | 115.68 | -10.86 | -25.10 | -18.44 |
| 7 | 61 | -354.00 | -253.38 | -38.13 | -225.26 | 56.12 | 30.68 | 13.56 |
| 7 | 61 | -262.33 | -257.64 | -38.13 | -225.26 | 60.55 | 30.60 | 6.47 |
| 7 | 61 | -170.67 | -201.69 | -55.47 | 1.99 | 61.19 | -71.80 | -9.95 |
| 7 | 61 | -79.00 | -133.31 | -62.74 | 132.99 | 44.28 | -9.72 | -21.53 |
| 7 | 62 | -354.00 | -199.43 | -0.15 | -229.99 | 23.75 | 30.94 | 14.56 |
| 7 | 62 | -262.33 | -193.93 | -0.15 | -229.99 | 17.87 | 30.90 | 9.76 |
| 7 | 62 | -170.67 | -140.81 | -19.96 | -2.21 | -11.81 | -75.59 | -7.71 |
| 7 | 62 | -79.00 | -92.89 | -49.00 | 119.94 | -13.39 | -21.45 | -18.37 |
| 7 | 64 | -354.00 | -253.38 | -38.13 | -225.26 | 56.12 | 30.68 | 13.56 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | 64 | -262.33 | -257.64 | -38.13 | -225.26 | 60.55 | 30.60 | 6.47 |
| 7 | 64 | -170.67 | -201.69 | -55.47 | 1.99 | 61.19 | -71.80 | -9.95 |
| 7 | 64 | -79.00 | -133.31 | -62.74 | 132.99 | 44.28 | -9.72 | -21.53 |
| 7 | 65 | -354.00 | -209.09 | 1.81 | -219.71 | 3.49 | 24.52 | 12.00 |
| 7 | 65 | -262.33 | -201.81 | 1.81 | -219.71 | -4.88 | 24.49 | 7.11 |
| 7 | 65 | -170.67 | -151.53 | -22.37 | 5.22 | -29.87 | -73.87 | -9.93 |
| 7 | 65 | -79.00 | -107.74 | -52.10 | 132.70 | -20.97 | -10.50 | -18.14 |

| **M_S** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|
| | -378.31 | -126.73 | -306.65 | -55.22 | -95.68 | -30.58 |
| | -56.86 | 1.81 | 180.13 | 126.84 | 69.05 | 18.96 |

| Macro | Tipo | Angolo 1-Z (gradi) |
|---|---|---|
| **9** | **Setto** | **0.0** |

| **M_S** | **Cmb** | **Z** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|---|---|
| | | cm | kN | kN | kN | kN m | kN m | kN m |
| 9 | 5 | -354.00 | -443.83 | -38.70 | -283.32 | -5.20 | 74.93 | -8.29 |
| 9 | 5 | -262.33 | -436.23 | -38.70 | -283.32 | -6.27 | 74.82 | -7.13 |
| 9 | 5 | -170.67 | -408.82 | -40.10 | 29.88 | 5.23 | -41.35 | -8.19 |
| 9 | 5 | -79.00 | -387.23 | -33.06 | 247.81 | 3.26 | 85.99 | -7.27 |
| 9 | 7 | -354.00 | -189.26 | -19.41 | -198.87 | -11.47 | 34.97 | -3.54 |
| 9 | 7 | -262.33 | -198.53 | -19.41 | -198.87 | -12.92 | 34.78 | -2.94 |
| 9 | 7 | -170.67 | -184.33 | -17.05 | 9.85 | -17.19 | -51.79 | -4.31 |
| 9 | 7 | -79.00 | -167.14 | -11.22 | 139.92 | -14.88 | 16.91 | -4.18 |
| 9 | 14 | -354.00 | -108.75 | -158.36 | -179.12 | -63.60 | 14.28 | -12.93 |
| 9 | 14 | -262.33 | -130.41 | -158.36 | -179.12 | -60.16 | 14.12 | -10.91 |
| 9 | 14 | -170.67 | -120.86 | -145.34 | 13.61 | -35.26 | -61.73 | -12.50 |
| 9 | 14 | -79.00 | -110.13 | -115.56 | 130.90 | -19.51 | 4.57 | -12.37 |
| 9 | 16 | -354.00 | -168.33 | -146.55 | -183.44 | -65.76 | 21.62 | -17.01 |
| 9 | 16 | -262.33 | -178.09 | -146.55 | -183.44 | -61.03 | 21.55 | -15.16 |
| 9 | 16 | -170.67 | -148.59 | -134.41 | 11.45 | -31.07 | -57.27 | -17.07 |
| 9 | 16 | -79.00 | -115.37 | -104.66 | 129.61 | -11.94 | 7.43 | -16.24 |
| 9 | 20 | -354.00 | -267.42 | 8.78 | -198.17 | -32.85 | 37.90 | -10.95 |
| 9 | 20 | -262.33 | -257.99 | 8.78 | -198.17 | -29.41 | 37.85 | -10.57 |
| 9 | 20 | -170.67 | -198.75 | 9.28 | 6.19 | -20.23 | -50.08 | -12.49 |
| 9 | 20 | -79.00 | -131.03 | 11.95 | 130.31 | -6.17 | 12.51 | -10.95 |
| 9 | 23 | -354.00 | -45.97 | -95.53 | -177.35 | -42.70 | 7.80 | -2.21 |
| 9 | 23 | -262.33 | -79.44 | -95.53 | -177.35 | -42.18 | 7.49 | -0.71 |
| 9 | 23 | -170.67 | -91.28 | -87.02 | 15.17 | -37.89 | -66.78 | -1.74 |
| 9 | 23 | -79.00 | -103.80 | -71.64 | 133.07 | -30.76 | 1.26 | -2.50 |
| 9 | 38 | -354.00 | -129.27 | -106.83 | -182.16 | -52.56 | 17.84 | -9.89 |
| 9 | 38 | -262.33 | -146.92 | -106.83 | -182.16 | -49.04 | 17.69 | -8.36 |
| 9 | 38 | -170.67 | -130.45 | -95.69 | 12.29 | -32.58 | -60.15 | -9.87 |
| 9 | 38 | -79.00 | -111.47 | -74.01 | 130.30 | -20.42 | 5.26 | -9.59 |
| 9 | 44 | -354.00 | -213.34 | -12.47 | -193.41 | -34.85 | 30.53 | -8.90 |
| 9 | 44 | -262.33 | -214.26 | -12.47 | -193.41 | -32.23 | 30.42 | -8.27 |
| 9 | 44 | -170.67 | -172.49 | -10.68 | 8.33 | -24.32 | -54.35 | -10.00 |
| 9 | 44 | -79.00 | -124.45 | -5.54 | 131.47 | -11.55 | 9.77 | -8.98 |
| 9 | 46 | -354.00 | -102.83 | -74.39 | -182.71 | -40.48 | 15.79 | -4.30 |
| 9 | 46 | -262.33 | -125.71 | -74.39 | -182.71 | -39.18 | 15.55 | -3.04 |
| 9 | 46 | -170.67 | -119.60 | -67.23 | 12.88 | -33.52 | -62.23 | -4.25 |
| 9 | 46 | -79.00 | -112.00 | -54.36 | 132.06 | -25.15 | 4.28 | -4.48 |
| 9 | 48 | -354.00 | -205.27 | -48.15 | -190.58 | -44.12 | 28.48 | -11.52 |
| 9 | 48 | -262.33 | -207.81 | -48.15 | -190.58 | -40.34 | 28.40 | -10.57 |
| 9 | 48 | -170.67 | -167.44 | -42.49 | 8.98 | -25.83 | -54.80 | -12.37 |
| 9 | 48 | -79.00 | -121.23 | -29.76 | 130.44 | -11.57 | 9.15 | -11.31 |
| 9 | 59 | -354.00 | -181.12 | -25.40 | -196.09 | -18.04 | 31.94 | -4.30 |
| 9 | 59 | -262.33 | -191.08 | -25.40 | -196.09 | -18.64 | 31.76 | -3.62 |
| 9 | 59 | -170.67 | -174.50 | -22.50 | 10.06 | -20.16 | -53.45 | -5.01 |
| 9 | 59 | -79.00 | -154.71 | -15.88 | 137.86 | -15.78 | 14.40 | -4.82 |
| 9 | 61 | -354.00 | -282.28 | -32.44 | -203.73 | -12.69 | 46.57 | -6.22 |
| 9 | 61 | -262.33 | -281.44 | -32.44 | -203.73 | -12.75 | 46.47 | -5.34 |
| 9 | 61 | -170.67 | -260.22 | -32.00 | 19.23 | -4.85 | -38.08 | -6.31 |
| 9 | 61 | -79.00 | -241.11 | -25.75 | 169.88 | -3.21 | 48.64 | -5.71 |
| 9 | 62 | -354.00 | -181.12 | -25.40 | -196.09 | -18.04 | 31.94 | -4.30 |
| 9 | 62 | -262.33 | -191.08 | -25.40 | -196.09 | -18.64 | 31.76 | -3.62 |
| 9 | 62 | -170.67 | -174.50 | -22.50 | 10.06 | -20.16 | -53.45 | -5.01 |
| 9 | 62 | -79.00 | -154.71 | -15.88 | 137.86 | -15.78 | 14.40 | -4.82 |
| 9 | 64 | -354.00 | -282.28 | -32.44 | -203.73 | -12.69 | 46.57 | -6.22 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 9 | 64 | -262.33 | -281.44 | -32.44 | -203.73 | -12.75 | 46.47 | -5.34 |
| 9 | 64 | -170.67 | -260.22 | -32.00 | 19.23 | -4.85 | -38.08 | -6.31 |
| 9 | 64 | -79.00 | -241.11 | -25.75 | 169.88 | -3.21 | 48.64 | -5.71 |
| 9 | 65 | -354.00 | -156.70 | -43.37 | -187.76 | -37.77 | 22.85 | -6.58 |
| 9 | 65 | -262.33 | -168.72 | -43.37 | -187.76 | -35.80 | 22.67 | -5.64 |
| 9 | 65 | -170.67 | -145.01 | -38.87 | 10.68 | -29.06 | -58.43 | -7.11 |
| 9 | 65 | -79.00 | -117.41 | -29.84 | 131.69 | -18.47 | 6.89 | -6.72 |

| **M_S** | **N memb.** | **V memb.** | **V orto** | **M memb.** | **M orto** | **T** |
|---|---|---|---|---|---|---|
| | -443.83 | -158.36 | -283.32 | -65.76 | -66.78 | -17.07 |
| | -45.97 | 11.95 | 247.81 | 5.23 | 85.99 | -0.71 |

| Macro | Tipo | Angolo 1-X (gradi) |
|---|---|---|
| **2** | **Guscio** | **0.0** |

| **M_G** | **Cmb** | **Nodo** | **N max** | **N min** | **N 1** | **N 2** | **N 1-2** | **M max** | **M min** | **M 1** | **M 2** | **M 1-2** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | kN/ m | kN/ m | kN/ m | kN/ m | kN/ m | kN | kN | kN | kN | kN |
| 2 | 1 | 4 | -7.40 | -77.09 | -68.21 | -16.28 | 23.24 | 12.76 | -1.86 | 8.31 | 2.59 | -6.73 |
| 2 | 1 | 17 | -33.18 | -57.40 | -49.96 | -40.62 | 11.17 | 35.85 | 21.01 | 35.48 | 21.37 | 2.29 |
| 2 | 1 | 18 | -22.71 | -61.08 | -57.73 | -26.06 | 10.83 | 28.58 | 12.29 | 28.31 | 12.56 | 2.05 |
| 2 | 1 | 19 | -35.73 | -65.22 | -40.23 | -60.72 | 10.60 | 18.81 | -9.38 | 18.76 | -9.32 | 1.29 |
| 2 | 1 | 20 | -25.21 | -57.77 | -27.62 | -55.36 | 8.52 | 6.12 | -26.29 | 6.06 | -26.23 | -1.41 |
| 2 | 1 | 21 | -34.18 | -54.60 | -42.82 | -45.95 | 10.09 | 17.88 | -14.73 | 10.21 | -7.06 | 13.83 |
| 2 | 1 | 22 | -7.16 | -60.64 | -8.53 | -59.26 | 8.46 | 4.06 | -12.21 | 0.35 | -8.50 | -6.83 |
| 2 | 1 | 23 | -11.57 | -57.16 | -12.20 | -56.53 | 5.30 | 4.39 | -8.32 | 3.12 | -7.06 | -3.81 |
| 2 | 1 | 24 | -16.69 | -58.50 | -16.72 | -58.47 | 1.11 | 2.56 | -3.81 | 2.50 | -3.75 | 0.61 |
| 2 | 1 | 30 | -5.40 | -11.25 | -9.07 | -7.58 | -2.83 | 3.63 | 1.23 | 3.21 | 1.64 | 0.90 |
| 2 | 1 | 31 | -18.83 | -37.39 | -33.66 | -22.56 | 7.44 | 8.17 | -1.49 | -1.14 | 7.83 | 1.79 |
| 2 | 1 | 34 | -50.45 | -79.61 | -59.81 | -70.25 | 13.62 | 10.63 | -7.52 | -7.04 | 10.15 | 2.91 |
| 2 | 1 | 40 | 6.07 | -24.35 | -3.72 | -14.56 | -14.21 | 2.17 | 0.43 | 1.18 | 1.42 | 0.87 |
| 2 | 1 | 41 | -2.71 | -51.05 | -11.66 | -42.10 | -18.77 | 8.42 | 0.78 | 1.29 | 7.91 | -1.91 |
| 2 | 1 | 44 | -13.16 | -72.52 | -19.12 | -66.56 | -17.84 | 13.73 | 1.23 | 1.33 | 13.64 | -1.10 |
| 2 | 1 | 45 | -35.26 | -58.99 | -54.74 | -39.52 | 9.10 | 2.82 | -10.60 | -10.42 | 2.64 | -1.54 |
| 2 | 1 | 46 | -38.62 | -58.09 | -53.58 | -43.13 | 8.21 | -1.40 | -18.00 | -16.06 | -3.34 | 5.33 |
| 2 | 1 | 48 | -35.66 | -53.50 | -35.67 | -53.49 | -0.42 | 4.81e-02 | -15.59 | -3.42 | -12.13 | 6.50 |
| 2 | 1 | 49 | -32.65 | -61.88 | -55.59 | -38.93 | 12.00 | 2.92 | -6.60 | -2.08 | -1.60 | 4.75 |
| 2 | 1 | 50 | -37.81 | -57.31 | -43.68 | -51.44 | -8.94 | -7.74 | -9.16 | -8.52 | -8.37 | 0.70 |
| 2 | 1 | 51 | -41.28 | -63.33 | -59.84 | -44.77 | 8.05 | -5.61 | -18.28 | -16.81 | -7.07 | 4.06 |
| 2 | 1 | 52 | -42.35 | -69.46 | -67.89 | -43.92 | 6.34 | 1.17 | -5.42 | -0.91 | -3.34 | 3.06 |
| 2 | 1 | 53 | -29.57 | -55.75 | -52.82 | -32.49 | 8.24 | 3.43 | -6.18 | -6.13 | 3.38 | 0.71 |
| 2 | 1 | 54 | -43.29 | -52.28 | -48.68 | -46.89 | 4.41 | 1.61e-02 | -18.69 | -8.89 | -9.79 | 9.34 |
| 2 | 1 | 55 | -16.77 | -46.61 | -30.54 | -32.84 | -14.88 | 6.17 | 0.65 | 5.70 | 1.12 | -1.55 |
| 2 | 1 | 59 | -10.89 | -66.99 | -12.15 | -65.74 | -8.30 | 11.82 | 1.47 | 1.51 | 11.77 | -0.68 |
| 2 | 1 | 63 | 1.46 | -59.81 | 1.42 | -59.77 | -1.61 | 9.44 | 1.56 | 1.90 | 9.11 | -1.59 |
| 2 | 1 | 66 | 11.35 | -56.34 | 11.18 | -56.17 | 3.37 | 9.17 | -0.34 | 1.99 | 6.84 | -4.09 |
| 2 | 1 | 70 | 13.83 | -60.16 | 13.12 | -59.45 | 7.23 | 11.81 | -1.95 | 1.67 | 8.20 | -6.05 |
| 2 | 1 | 74 | 8.62 | -64.74 | 7.63 | -63.75 | 8.46 | 11.53 | -2.06 | 0.63 | 8.85 | -5.41 |
| 2 | 1 | 78 | 5.01 | -76.02 | -64.52 | -6.49 | 28.28 | 9.73 | -6.49 | 6.92 | -3.68 | -6.14 |
| 2 | 1 | 81 | 3.68 | -55.75 | 2.89 | -54.96 | 6.83 | 2.30 | -0.89 | -0.89 | 2.30 | -4.06e-02 |
| 2 | 1 | 85 | -10.09 | -42.92 | -39.45 | -13.56 | -10.10 | 4.62 | -5.54 | -2.07 | 1.16 | 4.82 |
| 2 | 1 | 89 | 0.40 | -58.52 | -55.69 | -2.43 | -12.61 | 4.86 | -0.79 | 3.42 | 0.66 | 2.46 |
| 2 | 1 | 93 | 1.50 | -63.74 | -62.52 | 0.28 | -8.84 | 6.66 | 0.90 | 6.50 | 1.07 | 0.97 |
| 2 | 1 | 97 | 1.00 | -64.32 | -63.81 | 0.49 | -5.79 | 8.04 | 1.13 | 8.03 | 1.14 | 0.31 |
| 2 | 1 | 101 | -8.10e-02 | -64.10 | -63.80 | -0.38 | -4.35 | 9.02 | 0.93 | 9.01 | 0.94 | 0.33 |
| 2 | 1 | 104 | -1.76 | -72.07 | -71.85 | -1.98 | -3.95 | 9.97 | 0.69 | 9.95 | 0.70 | 0.41 |
| 2 | 1 | 108 | -1.21 | -58.80 | -57.93 | -2.08 | 7.02 | 16.40 | 5.35 | 16.34 | 5.42 | 0.85 |
| 2 | 1 | 112 | 0.89 | -58.67 | -58.41 | 0.64 | 3.88 | 13.03 | 2.62 | 13.00 | 2.65 | 0.56 |
| 2 | 1 | 116 | 0.49 | -59.34 | -59.31 | 0.47 | 1.25 | 11.24 | 1.79 | 11.24 | 1.80 | 0.17 |
| 2 | 1 | 120 | -0.13 | -59.66 | -59.65 | -0.13 | -0.14 | 10.46 | 1.45 | 10.46 | 1.45 | -8.65e-02 |
| 2 | 1 | 124 | -0.40 | -58.45 | -58.45 | -0.40 | -0.51 | 10.00 | 0.92 | 9.99 | 0.93 | -0.26 |
| 2 | 1 | 127 | 7.08e-02 | -53.53 | -53.53 | 6.63e-02 | -0.49 | 9.77 | 0.49 | 9.74 | 0.51 | -0.46 |
| 2 | 1 | 131 | -5.06 | -71.79 | -65.29 | -11.56 | 19.78 | 11.54 | -0.94 | 9.00 | 1.60 | -5.02 |
| 2 | 1 | 135 | -0.21 | -67.91 | -63.48 | -4.64 | 16.74 | 10.52 | 1.10 | 9.55 | 2.07 | -2.86 |
| 2 | 1 | 139 | 3.05 | -65.35 | -62.90 | 0.60 | 12.70 | 9.99 | 1.61 | 9.79 | 1.82 | -1.28 |
| 2 | 1 | 143 | 3.32 | -63.26 | -62.14 | 2.20 | 8.55 | 9.92 | 1.64 | 9.89 | 1.67 | -0.49 |
| 2 | 1 | 147 | 1.29 | -62.60 | -62.25 | 0.94 | 4.71 | 9.86 | 1.14 | 9.85 | 1.16 | -0.33 |
| 2 | 1 | 150 | -0.14 | -63.49 | -63.37 | -0.27 | 2.81 | 10.12 | 0.70 | 10.12 | 0.70 | -0.14 |
| 2 | 1 | 152 | 7.98 | -96.08 | -74.12 | -13.98 | 42.46 | 27.85 | -3.54 | 10.54 | 13.77 | -15.61 |
| 2 | 1 | 157 | -22.16 | -136.24 | -52.62 | -105.78 | 50.47 | 33.49 | -3.50 | -3.45 | 33.45 | -1.24 |
| 2 | 1 | 161 | -30.12 | -63.44 | -59.52 | -34.05 | 10.74 | 19.30 | 5.64 | 19.20 | 5.73 | 1.13 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 165 | -4.06 | -85.96 | -5.79 | -84.23 | 11.78 | -7.33 | -54.32 | -11.36 | -50.29 | 13.17 |
| 2 | 1 | 166 | -45.11 | -66.96 | -66.69 | -45.39 | -2.46 | 0.58 | -4.04 | 0.58 | -4.03 | 0.11 |
| 2 | 1 | 167 | -14.13 | -65.45 | -60.91 | -18.67 | 14.58 | 1.28 | -18.77 | -18.62 | 1.13 | 1.76 |
| 2 | 1 | 168 | -14.15 | -64.07 | -19.33 | -58.89 | 15.22 | -13.39 | -26.98 | -13.65 | -26.72 | -1.86 |
| 2 | 1 | 169 | -37.23 | -62.99 | -54.56 | -45.66 | -12.08 | 3.13 | -4.92 | 1.42 | -3.21 | -3.30 |
| 2 | 1 | 173 | 2.37 | -73.45 | 1.62 | -72.70 | 7.51 | 7.77 | -0.53 | -0.21 | 7.44 | -1.61 |
| 2 | 1 | 174 | -9.28 | -59.39 | -57.48 | -11.18 | 9.58 | 19.56 | 8.11 | 19.48 | 8.20 | 0.98 |
| 2 | 1 | 175 | -8.79 | -72.48 | -65.17 | -16.11 | 20.31 | 3.60 | -8.33 | -5.86 | 1.12 | -4.84 |
| 2 | 1 | 179 | -29.59 | -52.51 | -43.91 | -38.19 | 11.10 | 6.41 | -9.43 | -7.27 | 4.25 | 5.44 |
| 2 | 1 | 183 | -12.18 | -75.37 | -64.01 | -23.53 | 24.26 | 4.99 | -12.63 | -10.11 | 2.47 | -6.17 |
| 2 | 1 | 184 | -19.31 | -67.37 | -61.38 | -25.30 | 15.88 | 3.78 | -22.07 | -22.00 | 3.71 | 1.34 |
| 2 | 1 | 185 | -18.57 | -88.83 | -67.67 | -39.72 | 32.23 | 13.88 | -16.86 | -13.61 | 10.64 | -9.44 |
| 2 | 1 | 186 | -24.10 | -65.92 | -56.80 | -33.21 | 17.27 | 4.39 | -33.07 | -32.87 | 4.19 | 2.72 |
| 2 | 1 | 187 | -13.39 | -87.74 | -49.52 | -51.61 | 37.16 | 5.84 | -29.41 | -28.57 | 5.00 | 5.37 |
| 2 | 1 | 188 | -27.06 | -67.01 | -50.84 | -43.23 | 19.61 | -5.08 | -42.96 | -42.82 | -5.22 | 2.28 |
| 2 | 1 | 189 | -10.92 | -146.83 | -18.81 | -138.93 | 31.79 | 6.11 | -37.26 | -18.13 | -13.02 | 21.54 |
| 2 | 1 | 190 | -10.39 | -79.91 | -24.53 | -65.77 | 27.98 | -4.83 | -40.05 | -25.85 | -19.03 | 17.28 |
| 2 | 1 | 191 | -7.60 | -79.43 | -10.84 | -76.20 | 14.90 | -12.04 | -38.62 | -14.92 | -35.74 | 8.26 |
| 2 | 1 | 192 | -24.96 | -66.26 | -39.25 | -51.97 | 19.65 | -18.59 | -26.70 | -26.70 | -18.59 | -4.45e-02 |
| 2 | 1 | 193 | 1.59 | -63.66 | 0.84 | -62.91 | 6.94 | -4.83 | -23.03 | -5.55 | -22.31 | 3.54 |
| 2 | 1 | 194 | -0.51 | -74.54 | -1.56 | -73.49 | 8.78 | -6.16 | -15.29 | -6.29 | -15.17 | 1.07 |
| 2 | 1 | 195 | -2.72 | -65.54 | -4.43 | -63.82 | 10.24 | -1.30 | -12.76 | -4.63 | -9.43 | -5.20 |
| 2 | 1 | 196 | -17.24 | -58.09 | -57.15 | -18.18 | 6.12 | 6.53 | -1.47e-02 | 2.27 | 4.25 | 3.12 |
| 2 | 1 | 197 | -20.16 | -62.65 | -20.93 | -61.88 | -5.67 | 1.62 | -1.42 | -0.10 | 0.30 | 1.51 |
| 2 | 1 | 198 | -19.70 | -61.13 | -58.89 | -21.94 | 9.36 | 7.15 | -3.37 | -0.15 | 3.93 | 4.85 |
| 2 | 1 | 199 | -20.20 | -66.81 | -26.08 | -60.94 | -15.47 | 4.19 | -2.42 | -1.97 | 3.74 | -1.67 |
| 2 | 1 | 200 | -29.42 | -60.52 | -57.00 | -32.94 | 9.85 | 13.79 | -7.39 | -1.74 | 8.15 | 9.36 |
| 2 | 1 | 201 | -33.22 | -56.24 | -48.98 | -40.48 | 10.70 | 5.59 | -1.76 | -1.60 | 5.42 | -1.08 |
| 2 | 1 | 202 | -21.38 | -58.86 | -24.76 | -55.49 | 10.73 | -3.17e-02 | -27.18 | -1.75 | -25.46 | -6.61 |
| 2 | 1 | 203 | -17.60 | -56.17 | -29.72 | -44.05 | -17.90 | 6.98 | -2.40 | 1.68 | 2.90 | -4.65 |
| 2 | 1 | 204 | -17.06 | -63.52 | -58.65 | -21.93 | 14.22 | 12.98 | 4.57 | 12.90 | 4.65 | -0.80 |
| 2 | 1 | 205 | -29.41 | -54.94 | -30.84 | -53.51 | 5.88 | 6.65 | -18.66 | 4.95 | -16.96 | 6.33 |
| 2 | 1 | 206 | -49.22 | -71.42 | -54.25 | -66.39 | 9.29 | 6.42 | -9.72 | -9.69 | 6.38 | 0.75 |
| 2 | 1 | 207 | -22.43 | -46.52 | -40.38 | -28.57 | 10.50 | 5.77 | -3.65 | -1.59 | 3.70 | 3.90 |
| 2 | 1 | 208 | -41.21 | -65.51 | -54.97 | -51.76 | 12.04 | -1.77 | -15.02 | -14.64 | -2.15 | 2.21 |
| 2 | 1 | 209 | -37.14 | -65.32 | -60.10 | -42.35 | 10.95 | 19.58 | -0.86 | 19.44 | -0.73 | 1.66 |
| 2 | 1 | 210 | -22.06 | -65.14 | -61.01 | -26.18 | 12.67 | 12.81 | 3.30 | 12.09 | 4.01 | -2.51 |
| 2 | 1 | 211 | -28.69 | -61.53 | -59.92 | -30.30 | 7.09 | 4.61 | -6.83 | -6.14 | 3.92 | -2.72 |
| 2 | 1 | 212 | -29.92 | -63.14 | -57.62 | -35.44 | 12.37 | 17.57 | 5.45 | 14.21 | 8.80 | -5.43 |
| 2 | 1 | 213 | -45.38 | -56.43 | -56.43 | -45.38 | -0.20 | -8.01 | -16.19 | -14.39 | -9.81 | 3.39 |
| 2 | 1 | 214 | -32.49 | -59.82 | -51.40 | -40.91 | 12.62 | 17.29 | 2.81 | 12.47 | 7.63 | 6.82 |
| 2 | 1 | 215 | -31.14 | -55.68 | -39.25 | -47.57 | 11.54 | 3.02 | -18.73 | -2.38 | -13.33 | -9.40 |
| 2 | 1 | 216 | -40.30 | -61.73 | -58.23 | -43.80 | 7.92 | 9.18 | 0.21 | 8.62 | 0.77 | 2.18 |
| 2 | 1 | 217 | -65.08 | -76.30 | -74.54 | -66.85 | 4.09 | 13.31 | 0.57 | 13.16 | 0.71 | 1.36 |
| 2 | 1 | 218 | -71.42 | -76.83 | -74.69 | -73.55 | -2.64 | 14.03 | 0.74 | 14.03 | 0.74 | 0.14 |
| 2 | 1 | 219 | -51.12 | -72.93 | -62.72 | -61.34 | -10.88 | 11.79 | 0.59 | 11.69 | 0.69 | -1.06 |
| 2 | 1 | 220 | -18.74 | -35.51 | -35.00 | -19.25 | 2.88 | 5.37 | 6.19e-02 | 4.13 | 1.30 | 2.24 |
| 2 | 1 | 240 | -7.28 | -68.54 | -63.35 | -12.48 | 17.06 | 5.21 | -4.66 | -3.01 | 3.56 | -3.69 |
| 2 | 1 | 241 | -5.50 | -65.32 | -61.83 | -8.99 | 14.02 | 4.47 | -1.29 | -0.26 | 3.43 | -2.21 |
| 2 | 1 | 242 | -3.49 | -63.28 | -61.31 | -5.46 | 10.67 | 2.77 | 0.45 | 0.99 | 2.24 | -0.98 |
| 2 | 1 | 243 | -1.83 | -61.69 | -60.75 | -2.76 | 7.43 | 1.71 | 0.86 | 1.39 | 1.17 | -0.41 |
| 2 | 1 | 244 | -0.70 | -60.73 | -60.44 | -0.99 | 4.16 | 1.51 | 0.42 | 1.47 | 0.47 | -0.22 |
| 2 | 1 | 245 | -0.15 | -60.22 | -60.12 | -0.25 | 2.44 | 1.57 | 0.21 | 1.57 | 0.21 | 7.73e-02 |
| 2 | 1 | 246 | -11.00 | -62.32 | -59.35 | -13.97 | 11.98 | 2.49 | -14.51 | -14.38 | 2.36 | 1.49 |
| 2 | 1 | 247 | -8.18 | -60.17 | -58.51 | -9.83 | 9.12 | 3.02 | -10.16 | -10.08 | 2.94 | 1.03 |
| 2 | 1 | 248 | -4.96 | -59.08 | -58.18 | -5.87 | 6.95 | 1.55 | -8.17 | -8.16 | 1.53 | 0.42 |
| 2 | 1 | 249 | -2.45 | -58.43 | -57.95 | -2.93 | 5.17 | 0.13 | -7.58 | -7.58 | 0.13 | 6.80e-02 |
| 2 | 1 | 250 | -0.95 | -57.33 | -57.17 | -1.11 | 3.00 | -0.28 | -7.41 | -7.41 | -0.28 | -7.62e-02 |
| 2 | 1 | 251 | -0.23 | -54.88 | -54.83 | -0.29 | 1.71 | -0.20 | -7.53 | -7.53 | -0.20 | -0.15 |
| 2 | 1 | 252 | -14.23 | -58.25 | -57.52 | -14.95 | 5.61 | 6.23 | -3.28 | -0.73 | 3.68 | 4.21 |
| 2 | 1 | 253 | -8.07 | -57.77 | -57.32 | -8.53 | 4.74 | 4.30 | -1.92 | -0.61 | 2.99 | 2.54 |
| 2 | 1 | 254 | -3.97 | -57.33 | -57.02 | -4.28 | 4.06 | 1.99 | -1.07 | -0.67 | 1.59 | 1.03 |
| 2 | 1 | 255 | -1.61 | -56.87 | -56.67 | -1.81 | 3.26 | 0.69 | -0.80 | -0.75 | 0.64 | 0.25 |
| 2 | 1 | 256 | -0.45 | -55.32 | -55.24 | -0.53 | 2.07 | 0.16 | -0.85 | -0.85 | 0.15 | -5.79e-02 |
| 2 | 1 | 257 | 0.15 | -51.45 | -51.41 | 0.12 | 1.32 | 0.18 | -1.15 | -0.97 | 7.11e-03 | -0.45 |
| 2 | 1 | 258 | -17.70 | -57.88 | -56.18 | -19.39 | 8.08 | 10.83 | 3.37 | 10.16 | 4.03 | -2.12 |
| 2 | 1 | 259 | -12.01 | -58.32 | -58.27 | -12.07 | 1.62 | 10.22 | 2.72 | 9.88 | 3.06 | -1.56 |
| 2 | 1 | 260 | -5.74 | -61.92 | -61.82 | -5.85 | -2.42 | 9.49 | 1.72 | 9.37 | 1.84 | -0.99 |
| 2 | 1 | 261 | -1.88 | -63.28 | -63.05 | -2.11 | -3.74 | 9.05 | 1.16 | 8.99 | 1.23 | -0.71 |
| 2 | 1 | 262 | -0.35 | -63.10 | -62.94 | -0.51 | -3.18 | 8.83 | 0.55 | 8.77 | 0.60 | -0.65 |
| 2 | 1 | 263 | 0.26 | -59.98 | -59.88 | 0.17 | -2.39 | 8.80 | 0.22 | 8.76 | 0.26 | -0.58 |
| 2 | 1 | 264 | -24.32 | -46.47 | -46.00 | -24.79 | -3.20 | 2.51 | -1.17 | -1.16 | 2.51 | 0.12 |
| 2 | 1 | 265 | -12.95 | -57.21 | -55.97 | -14.19 | -7.30 | 3.14 | 2.07 | 2.93 | 2.28 | -0.42 |
| 2 | 1 | 266 | -4.95 | -62.70 | -61.92 | -5.73 | -6.66 | 5.00 | 1.50 | 4.91 | 1.59 | -0.54 |
| 2 | 1 | 267 | -2.09 | -63.92 | -63.47 | -2.54 | -5.24 | 5.84 | 0.93 | 5.79 | 0.98 | -0.51 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 268 | -0.85 | -64.01 | -63.76 | -1.10 | -3.97 | 6.41 | 0.45 | 6.39 | 0.48 | -0.36 |
| 2 | 1 | 269 | -0.58 | -67.47 | -67.31 | -0.74 | -3.24 | 7.09 | 0.28 | 7.08 | 0.29 | -0.23 |
| 2 | 5 | 4 | -3.68 | -67.58 | -66.42 | -4.84 | 8.53 | 10.62 | 2.00 | 10.22 | 2.39 | -1.80 |
| 2 | 5 | 17 | -46.46 | -50.52 | -49.77 | -47.21 | 1.58 | 36.30 | 20.98 | 36.12 | 21.17 | -1.68 |
| 2 | 5 | 18 | -27.04 | -58.75 | -58.61 | -27.18 | 2.12 | 27.28 | 9.41 | 26.03 | 10.66 | -4.55 |
| 2 | 5 | 19 | -41.19 | -68.42 | -41.20 | -68.42 | -0.46 | 19.75 | -9.36 | 19.40 | -9.02 | 3.16 |
| 2 | 5 | 20 | -31.17 | -60.73 | -32.14 | -59.76 | -5.26 | 7.79 | -28.56 | 5.88 | -26.64 | 8.12 |
| 2 | 5 | 21 | -45.90 | -56.62 | -45.98 | -56.55 | 0.88 | 9.36 | -27.76 | -0.69 | -17.71 | 16.50 |
| 2 | 5 | 22 | -11.59 | -57.61 | -14.12 | -55.08 | -10.48 | 4.07 | -9.52 | 2.27 | -7.72 | 4.61 |
| 2 | 5 | 23 | -18.50 | -62.22 | -22.18 | -58.54 | -12.14 | 7.91 | -12.54 | 2.65 | -7.28 | 8.94 |
| 2 | 5 | 24 | -26.41 | -70.36 | -31.08 | -65.69 | -13.54 | 9.21 | -14.69 | -1.15 | -4.34 | 11.84 |
| 2 | 5 | 30 | -3.05 | -24.34 | -13.97 | -13.42 | 10.64 | 8.19 | -3.21 | 2.77 | 2.21 | 5.69 |
| 2 | 5 | 31 | -26.24 | -61.94 | -32.84 | -55.34 | 13.86 | 26.49 | -0.48 | 2.99 | 23.03 | 9.03 |
| 2 | 5 | 34 | -64.67 | -93.88 | -64.68 | -93.88 | -0.38 | 36.68 | -2.67 | -1.51 | 35.52 | 6.64 |
| 2 | 5 | 40 | -1.24 | -47.36 | -23.55 | -25.06 | -23.04 | 7.74 | -4.58 | 1.60 | 1.56 | -6.16 |
| 2 | 5 | 41 | -20.39 | -77.20 | -38.72 | -58.87 | -26.56 | 20.32 | -5.27 | 0.97 | 14.08 | -10.99 |
| 2 | 5 | 44 | -37.24 | -97.28 | -53.37 | -81.15 | -26.62 | 23.80 | -0.99 | -0.26 | 23.06 | -4.21 |
| 2 | 5 | 45 | -51.37 | -56.53 | -56.28 | -51.62 | -1.12 | -1.06 | -29.92 | -26.47 | -4.51 | -9.36 |
| 2 | 5 | 46 | -55.74 | -57.56 | -56.17 | -57.12 | -0.78 | -18.31 | -39.58 | -39.34 | -18.55 | 2.24 |
| 2 | 5 | 48 | -40.57 | -70.64 | -44.55 | -66.65 | -10.20 | -12.69 | -34.91 | -21.89 | -25.72 | 10.94 |
| 2 | 5 | 49 | -48.52 | -71.60 | -58.90 | -61.23 | 11.48 | 9.81 | -20.77 | -4.76 | -6.20 | 15.27 |
| 2 | 5 | 50 | -41.44 | -79.89 | -53.63 | -67.70 | -17.89 | -23.19 | -30.89 | -30.31 | -23.77 | -2.03 |
| 2 | 5 | 51 | -62.75 | -64.11 | -62.99 | -63.87 | 0.52 | -23.85 | -43.35 | -42.21 | -24.99 | 4.58 |
| 2 | 5 | 52 | -61.00 | -73.77 | -73.53 | -61.24 | 1.74 | -3.23 | -18.85 | -8.33 | -13.75 | 7.33 |
| 2 | 5 | 53 | -30.00 | -59.08 | -58.77 | -30.31 | -2.98 | 15.63 | -10.39 | -10.39 | 15.63 | 0.12 |
| 2 | 5 | 54 | -51.23 | -62.97 | -53.35 | -60.85 | -4.51 | -18.54 | -40.04 | -31.88 | -26.70 | 10.44 |
| 2 | 5 | 55 | -20.49 | -68.60 | -47.69 | -41.40 | -23.85 | 17.66 | -6.53 | 9.87 | 1.25 | -11.30 |
| 2 | 5 | 59 | -33.42 | -86.75 | -43.92 | -76.25 | -21.20 | 20.92 | -0.49 | 0.53 | 19.90 | 4.55 |
| 2 | 5 | 63 | -15.66 | -72.69 | -22.34 | -66.01 | -18.34 | 17.83 | -1.61 | 1.86 | 14.35 | 7.45 |
| 2 | 5 | 66 | 0.13 | -62.01 | -4.47 | -57.41 | -16.26 | 10.90 | -2.53 | 1.72 | 6.65 | 6.25 |
| 2 | 5 | 70 | 6.70 | -58.26 | 3.72 | -55.28 | -13.58 | 6.17 | -1.79 | 1.15 | 3.22 | 3.84 |
| 2 | 5 | 74 | 5.68 | -57.60 | 3.96 | -55.88 | -10.29 | 4.23 | -1.56 | 0.56 | 2.12 | 2.79 |
| 2 | 5 | 78 | 1.87 | -65.41 | -63.15 | -0.39 | 12.12 | 10.72 | -1.17 | 10.29 | -0.74 | -2.22 |
| 2 | 5 | 81 | 1.01 | -52.42 | 0.34 | -51.75 | -5.94 | 1.66 | -4.46 | -0.36 | -2.44 | 2.88 |
| 2 | 5 | 85 | 16.70 | -47.25 | -42.15 | 11.60 | -17.34 | 11.74 | -4.04 | 0.16 | 7.54 | 6.97 |
| 2 | 5 | 89 | 15.41 | -57.61 | -54.11 | 11.91 | -15.60 | 7.34 | 0.36 | 5.69 | 2.01 | 2.96 |
| 2 | 5 | 93 | 6.62 | -64.46 | -62.96 | 5.12 | -10.20 | 9.37 | 1.55 | 9.25 | 1.67 | 0.94 |
| 2 | 5 | 97 | 2.03 | -66.69 | -66.13 | 1.46 | -6.22 | 11.46 | 1.63 | 11.46 | 1.64 | 0.16 |
| 2 | 5 | 101 | -9.10e-02 | -69.02 | -68.77 | -0.34 | -4.16 | 13.13 | 1.38 | 13.13 | 1.39 | 0.15 |
| 2 | 5 | 104 | -1.87 | -77.89 | -77.74 | -2.03 | -3.44 | 14.61 | 1.04 | 14.61 | 1.04 | 0.16 |
| 2 | 5 | 108 | -2.18 | -58.70 | -58.70 | -2.18 | 0.12 | 14.53 | 4.18 | 12.91 | 5.80 | -3.76 |
| 2 | 5 | 112 | 0.76 | -59.46 | -59.35 | 0.65 | -2.56 | 11.05 | 1.90 | 10.47 | 2.48 | -2.22 |
| 2 | 5 | 116 | 0.95 | -61.82 | -61.52 | 0.65 | -4.33 | 10.03 | 1.37 | 9.82 | 1.58 | -1.34 |
| 2 | 5 | 120 | 0.59 | -64.25 | -63.91 | 0.25 | -4.71 | 9.79 | 1.21 | 9.67 | 1.33 | -1.01 |
| 2 | 5 | 124 | 4.53e-02 | -65.83 | -65.67 | -0.11 | -3.19 | 9.59 | 0.83 | 9.50 | 0.92 | -0.92 |
| 2 | 5 | 127 | -0.24 | -66.62 | -66.57 | -0.29 | -1.84 | 9.43 | 0.45 | 9.33 | 0.55 | -0.91 |
| 2 | 5 | 131 | -4.68 | -66.78 | -66.28 | -5.17 | 5.52 | 10.08 | 1.26 | 9.98 | 1.35 | -0.91 |
| 2 | 5 | 135 | -4.01 | -65.81 | -65.66 | -4.16 | 3.09 | 9.24 | 1.37 | 9.23 | 1.38 | -0.28 |
| 2 | 5 | 139 | -2.04 | -64.74 | -64.72 | -2.05 | 1.08 | 8.37 | 1.19 | 8.37 | 1.19 | -2.17e-04 |
| 2 | 5 | 143 | -0.73 | -63.56 | -63.56 | -0.73 | -7.28e-02 | 7.43 | 1.04 | 7.43 | 1.04 | 9.88e-03 |
| 2 | 5 | 147 | -0.74 | -62.18 | -62.18 | -0.74 | -0.10 | 6.41 | 0.64 | 6.40 | 0.65 | -0.21 |
| 2 | 5 | 150 | -1.02 | -61.23 | -61.23 | -1.02 | 0.17 | 5.95 | 0.32 | 5.94 | 0.32 | -0.17 |
| 2 | 5 | 152 | -1.93 | -76.43 | -69.59 | -8.77 | 21.51 | 20.93 | 1.52 | 13.70 | 8.76 | -9.39 |
| 2 | 5 | 157 | -23.92 | -82.31 | -50.45 | -55.77 | 29.07 | 25.88 | 5.38 | 7.84 | 23.42 | -6.66 |
| 2 | 5 | 161 | -35.99 | -61.48 | -60.66 | -36.81 | 4.50 | 20.41 | 5.23 | 16.46 | 9.18 | -6.66 |
| 2 | 5 | 165 | -4.08 | -43.04 | -4.12 | -43.00 | 1.25 | -4.08e-02 | -18.22 | -3.19 | -15.07 | 6.88 |
| 2 | 5 | 166 | -55.42 | -79.24 | -74.02 | -60.64 | -9.85 | -7.01 | -15.29 | -7.57 | -14.73 | -2.08 |
| 2 | 5 | 167 | -14.42 | -61.80 | -61.61 | -14.61 | 2.99 | 2.30 | -6.48 | -6.25 | 2.08 | -1.40 |
| 2 | 5 | 168 | -19.14 | -49.24 | -19.21 | -49.17 | -1.41 | -1.23 | -13.02 | -1.29 | -12.95 | 0.87 |
| 2 | 5 | 169 | -42.05 | -83.82 | -65.25 | -60.62 | -20.75 | 3.40 | -20.22 | -5.14 | -11.68 | -11.35 |
| 2 | 5 | 173 | 2.66 | -52.71 | 1.70 | -51.75 | -7.22 | 3.03 | -2.56 | 7.33e-02 | 0.40 | 2.79 |
| 2 | 5 | 174 | -11.66 | -58.68 | -58.44 | -11.90 | 3.35 | 19.55 | 7.22 | 16.57 | 10.21 | -5.28 |
| 2 | 5 | 175 | -9.71 | -65.49 | -64.67 | -10.53 | 6.73 | 3.86 | 0.22 | 2.08 | 2.00 | -1.82 |
| 2 | 5 | 179 | -14.50 | -51.43 | -50.99 | -14.93 | -3.99 | 24.14 | -6.20 | -3.05 | 20.98 | 9.26 |
| 2 | 5 | 183 | -12.88 | -64.73 | -62.91 | -14.70 | 9.54 | 6.82 | -0.42 | 1.80 | 4.60 | -3.34 |
| 2 | 5 | 184 | -19.19 | -61.72 | -61.37 | -19.54 | 3.85 | 6.74 | -4.99 | -4.78 | 6.53 | -1.54 |
| 2 | 5 | 185 | -18.39 | -69.73 | -64.54 | -23.59 | 15.49 | 14.64 | -2.40 | 1.41 | 10.83 | -7.10 |
| 2 | 5 | 186 | -25.19 | -57.14 | -56.09 | -26.24 | 5.69 | 9.36 | -9.00 | -8.97 | 9.33 | -0.82 |
| 2 | 5 | 187 | -18.22 | -61.71 | -47.52 | -32.41 | 20.39 | 10.06 | -6.39 | -6.29 | 9.96 | -1.29 |
| 2 | 5 | 188 | -31.07 | -50.71 | -46.78 | -35.00 | 7.86 | 4.43 | -17.39 | -17.23 | 4.27 | -1.90 |
| 2 | 5 | 189 | -6.29 | -71.88 | -11.16 | -67.01 | 17.20 | 7.23 | -8.52 | -5.92 | 4.62 | 5.85 |
| 2 | 5 | 190 | -14.04 | -49.85 | -20.00 | -43.89 | 13.34 | 1.50 | -12.05 | -8.46 | -2.09 | 5.99 |
| 2 | 5 | 191 | -10.16 | -52.67 | -10.19 | -52.64 | 1.14 | -1.71 | -14.44 | -3.85 | -12.30 | 4.76 |
| 2 | 5 | 192 | -31.93 | -45.70 | -34.69 | -42.95 | 5.51 | -3.42 | -8.79 | -7.31 | -4.91 | -2.40 |
| 2 | 5 | 193 | -1.00 | -47.11 | -1.42 | -46.69 | -4.38 | 0.60 | -11.32 | -1.54 | -9.18 | 4.58 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 5 | 194 | -3.43 | -52.89 | -4.02 | -52.30 | -5.40 | 0.89 | -9.26 | -1.24 | -7.13 | 4.12 |
| 2 | 5 | 195 | -7.30 | -56.05 | -8.60 | -54.74 | -7.87 | 1.43 | -7.95 | 0.14 | -6.65 | 3.24 |
| 2 | 5 | 196 | -16.24 | -58.29 | -57.93 | -16.60 | -3.87 | 8.81 | 3.00 | 6.46 | 5.36 | -2.85 |
| 2 | 5 | 197 | -30.83 | -79.98 | -37.97 | -72.85 | -17.32 | 3.76 | -14.02 | -9.16 | -1.10 | 7.92 |
| 2 | 5 | 198 | -19.00 | -59.41 | -59.39 | -19.02 | -0.96 | 9.31 | 4.70 | 8.18 | 5.83 | -1.98 |
| 2 | 5 | 199 | -30.62 | -88.85 | -43.93 | -75.55 | -24.45 | 3.67 | -14.79 | -13.15 | 2.03 | -5.25 |
| 2 | 5 | 200 | -30.34 | -55.71 | -55.67 | -30.39 | -1.03 | 13.71 | 6.78 | 9.30 | 11.20 | 3.33 |
| 2 | 5 | 201 | -37.45 | -45.46 | -45.36 | -37.55 | -0.90 | 13.83 | 6.44 | 9.18 | 11.09 | -3.57 |
| 2 | 5 | 202 | -25.28 | -52.79 | -26.20 | -51.86 | -4.97 | 5.10 | -16.90 | 5.09 | -16.89 | 0.52 |
| 2 | 5 | 203 | -26.61 | -80.56 | -47.51 | -59.66 | -26.28 | 16.57 | -15.17 | -1.24 | 2.64 | -15.75 |
| 2 | 5 | 204 | -20.99 | -63.05 | -60.34 | -23.71 | 10.33 | 14.06 | -1.41 | 3.84 | 8.82 | -7.32 |
| 2 | 5 | 205 | -36.96 | -64.53 | -38.10 | -63.39 | -5.50 | 3.74 | -32.84 | -3.52 | -25.58 | 14.59 |
| 2 | 5 | 206 | -55.30 | -101.41 | -55.30 | -101.41 | -0.24 | 17.38 | -11.90 | -11.74 | 17.22 | 2.15 |
| 2 | 5 | 207 | -33.26 | -66.31 | -41.97 | -57.59 | 14.56 | 22.26 | -9.95 | 0.96 | 11.35 | 15.25 |
| 2 | 5 | 208 | -55.13 | -77.49 | -56.13 | -76.49 | 4.62 | -12.11 | -30.70 | -30.06 | -12.74 | 3.39 |
| 2 | 5 | 209 | -43.05 | -62.33 | -61.73 | -43.66 | 3.36 | 19.04 | -2.15 | 16.68 | 0.21 | -6.67 |
| 2 | 5 | 210 | -29.23 | -66.33 | -65.18 | -30.38 | 6.44 | 14.42 | -8.11 | 1.25 | 5.06 | -11.10 |
| 2 | 5 | 211 | -33.35 | -63.99 | -63.46 | -33.88 | -3.99 | 12.41 | -21.02 | -16.31 | 7.69 | -11.64 |
| 2 | 5 | 212 | -41.50 | -61.48 | -60.37 | -42.61 | 4.57 | 19.58 | -10.12 | 4.84 | 4.63 | -14.85 |
| 2 | 5 | 213 | -53.70 | -70.73 | -62.04 | -62.39 | -8.51 | -28.25 | -41.38 | -40.94 | -28.70 | 2.37 |
| 2 | 5 | 214 | -47.46 | -57.14 | -54.07 | -50.53 | 4.51 | 3.97 | -2.37 | 2.60 | -1.01 | 2.60 |
| 2 | 5 | 215 | -37.04 | -44.78 | -37.38 | -44.43 | -1.60 | 12.73 | -7.79 | 8.87 | -3.94 | -8.01 |
| 2 | 5 | 216 | -45.78 | -69.62 | -62.83 | -52.57 | 10.76 | 21.85 | -5.92 | 15.03 | 0.90 | 11.95 |
| 2 | 5 | 217 | -75.22 | -81.57 | -81.39 | -75.40 | 1.04 | 22.67 | -1.10 | 21.23 | 0.33 | 5.66 |
| 2 | 5 | 218 | -72.16 | -91.37 | -82.56 | -80.98 | -9.57 | 22.14 | 0.23 | 21.99 | 0.37 | -1.79 |
| 2 | 5 | 219 | -50.68 | -90.12 | -73.02 | -67.78 | -19.55 | 21.89 | -2.88 | 18.60 | 0.41 | -8.40 |
| 2 | 5 | 220 | -18.57 | -46.74 | -38.78 | -26.54 | 12.69 | 15.59 | -7.25 | 6.38 | 1.96 | 11.20 |
| 2 | 5 | 240 | -7.75 | -64.89 | -64.59 | -8.05 | 4.13 | 3.04 | 0.57 | 1.94 | 1.67 | -1.23 |
| 2 | 5 | 241 | -5.95 | -64.34 | -64.29 | -6.00 | 1.70 | 2.19 | 0.43 | 1.60 | 1.01 | -0.83 |
| 2 | 5 | 242 | -4.07 | -64.03 | -64.03 | -4.07 | -0.18 | 1.43 | 3.82e-02 | 1.02 | 0.45 | -0.64 |
| 2 | 5 | 243 | -2.34 | -63.59 | -63.58 | -2.35 | -0.97 | 0.86 | -0.56 | 0.29 | 1.25e-02 | -0.70 |
| 2 | 5 | 244 | -0.94 | -62.78 | -62.78 | -0.95 | -0.70 | 0.47 | -1.02 | -0.41 | -0.15 | -0.74 |
| 2 | 5 | 245 | -0.22 | -61.50 | -61.50 | -0.22 | -0.32 | 0.13 | -1.09 | -0.81 | -0.15 | -0.51 |
| 2 | 5 | 246 | -11.09 | -60.93 | -60.91 | -11.10 | 0.93 | 1.19 | -5.98 | -5.78 | 0.99 | -1.18 |
| 2 | 5 | 247 | -7.84 | -61.96 | -61.93 | -7.88 | -1.42 | 0.59 | -5.68 | -5.55 | 0.46 | -0.90 |
| 2 | 5 | 248 | -4.55 | -62.98 | -62.86 | -4.67 | -2.69 | -0.26 | -6.16 | -5.96 | -0.46 | -1.07 |
| 2 | 5 | 249 | -2.23 | -63.74 | -63.61 | -2.35 | -2.77 | -0.69 | -6.65 | -6.41 | -0.93 | -1.17 |
| 2 | 5 | 250 | -0.86 | -64.10 | -64.05 | -0.92 | -1.83 | -0.49 | -6.83 | -6.64 | -0.69 | -1.08 |
| 2 | 5 | 251 | -0.27 | -62.99 | -62.97 | -0.29 | -1.11 | -0.18 | -7.07 | -6.88 | -0.37 | -1.14 |
| 2 | 5 | 252 | -13.11 | -59.88 | -59.39 | -13.60 | -4.78 | 4.08 | 2.15 | 3.44 | 2.79 | -0.91 |
| 2 | 5 | 253 | -7.00 | -61.94 | -61.46 | -7.49 | -5.14 | 3.09 | 0.61 | 2.42 | 1.27 | -1.10 |
| 2 | 5 | 254 | -3.40 | -63.19 | -62.79 | -3.80 | -4.87 | 2.67 | -0.44 | 1.94 | 0.29 | -1.32 |
| 2 | 5 | 255 | -1.56 | -64.47 | -64.17 | -1.85 | -4.27 | 2.65 | -0.50 | 1.97 | 0.18 | -1.29 |
| 2 | 5 | 256 | -0.52 | -65.99 | -65.88 | -0.64 | -2.73 | 2.66 | -0.38 | 2.16 | 0.12 | -1.13 |
| 2 | 5 | 257 | -4.13e-02 | -65.83 | -65.79 | -7.99e-02 | -1.59 | 2.92 | -0.58 | 2.30 | 3.61e-02 | -1.34 |
| 2 | 5 | 258 | -20.00 | -56.01 | -55.53 | -20.48 | 4.15 | 12.91 | -0.28 | 3.92 | 8.71 | -6.15 |
| 2 | 5 | 259 | -12.50 | -56.07 | -55.98 | -12.59 | -2.01 | 8.80 | 2.82 | 6.20 | 5.43 | -2.97 |
| 2 | 5 | 260 | -5.21 | -61.03 | -60.56 | -5.69 | -5.13 | 6.98 | 1.55 | 6.32 | 2.22 | -1.78 |
| 2 | 5 | 261 | -1.45 | -64.38 | -63.93 | -1.91 | -5.32 | 6.44 | 0.62 | 6.05 | 1.01 | -1.46 |
| 2 | 5 | 262 | -0.35 | -66.12 | -65.93 | -0.54 | -3.53 | 6.14 | 0.12 | 5.81 | 0.46 | -1.39 |
| 2 | 5 | 263 | -0.32 | -68.05 | -67.98 | -0.38 | -2.10 | 6.01 | -9.08e-02 | 5.70 | 0.22 | -1.35 |
| 2 | 5 | 264 | -23.40 | -51.76 | -48.56 | -26.60 | -8.98 | 10.63 | -2.76 | -2.61 | 10.49 | 1.37 |
| 2 | 5 | 265 | -9.89 | -57.48 | -54.88 | -12.49 | -10.82 | 5.55 | 3.53 | 3.58 | 5.49 | -0.33 |
| 2 | 5 | 266 | -2.53 | -63.18 | -61.87 | -3.84 | -8.80 | 6.15 | 1.97 | 5.88 | 2.24 | -1.03 |
| 2 | 5 | 267 | -0.83 | -65.85 | -65.26 | -1.42 | -6.17 | 7.29 | 1.08 | 7.08 | 1.29 | -1.13 |
| 2 | 5 | 268 | -0.44 | -68.36 | -68.13 | -0.67 | -3.97 | 8.20 | 0.59 | 8.08 | 0.71 | -0.96 |
| 2 | 5 | 269 | -0.56 | -74.11 | -74.00 | -0.67 | -2.86 | 9.19 | 0.36 | 9.09 | 0.46 | -0.93 |
| 2 | 14 | 4 | -2.13 | -60.78 | -46.60 | -16.31 | 25.11 | 11.10 | 2.23 | 11.02 | 2.31 | -0.86 |
| 2 | 14 | 17 | -29.70 | -62.10 | -32.78 | -59.02 | 9.51 | 14.95 | 10.97 | 11.51 | 14.40 | 1.37 |
| 2 | 14 | 18 | -25.06 | -38.24 | -31.96 | -31.35 | 6.58 | 3.63 | -1.26 | 3.58 | -1.20 | 0.52 |
| 2 | 14 | 19 | -30.03 | -76.78 | -31.92 | -74.89 | 9.21 | 8.62 | 2.63 | 6.08 | 5.18 | 2.96 |
| 2 | 14 | 20 | -30.46 | -62.52 | -31.34 | -61.64 | 5.23 | 2.06 | -9.42 | 0.26 | -7.62 | 4.18 |
| 2 | 14 | 21 | -30.83 | -56.14 | -34.66 | -52.31 | 9.07 | 9.82 | -7.15 | 1.18 | 1.49 | 8.48 |
| 2 | 14 | 22 | -25.28 | -52.75 | -25.28 | -52.75 | -0.19 | 0.62 | -6.86 | -1.11 | -5.13 | 3.15 |
| 2 | 14 | 23 | -33.44 | -56.71 | -33.54 | -56.62 | -1.47 | 1.86 | -5.38 | -0.35 | -3.17 | 3.34 |
| 2 | 14 | 24 | -38.90 | -59.77 | -39.54 | -59.13 | -3.61 | 3.61 | -4.35 | -0.26 | -0.48 | 3.98 |
| 2 | 14 | 30 | 14.59 | -8.69 | 11.03 | -5.13 | -8.38 | 2.37 | 1.30 | 2.04 | 1.63 | -0.49 |
| 2 | 14 | 31 | 11.82 | -8.50 | 11.32 | -8.00 | 3.14 | 5.20 | -0.41 | -0.41 | 5.19 | 0.12 |
| 2 | 14 | 34 | 6.12 | -50.74 | 5.67 | -50.29 | -5.05 | 7.20 | -5.96 | -5.52 | 6.75 | 2.38 |
| 2 | 14 | 40 | 6.64 | -23.06 | -9.09 | -7.33 | -14.82 | 4.31 | -2.45 | 0.92 | 0.93 | 3.38 |
| 2 | 14 | 41 | -12.65 | -50.19 | -27.50 | -35.35 | -18.36 | 5.38 | -2.00e-02 | 0.81 | 4.55 | 1.94 |
| 2 | 14 | 44 | -40.06 | -75.45 | -53.63 | -61.88 | -17.21 | 9.11 | 0.12 | 0.56 | 8.67 | 1.95 |
| 2 | 14 | 45 | -23.11 | -42.86 | -25.96 | -40.01 | 6.94 | 2.17 | -4.63 | -4.63 | 2.17 | 8.22e-02 |
| 2 | 14 | 46 | -36.21 | -45.87 | -38.38 | -43.70 | 4.03 | 0.15 | -10.82 | -10.33 | -0.34 | 2.27 |
| 2 | 14 | 48 | -37.23 | -57.29 | -39.08 | -55.44 | -5.80 | 2.59 | -8.76 | -3.29 | -2.89 | 5.67 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 14 | 49 | -24.10 | -36.66 | -33.70 | -27.06 | -5.33 | 2.44 | -2.16 | 4.37e-02 | 0.23 | 2.30 |
| 2 | 14 | 50 | -27.78 | -64.30 | -43.08 | -49.00 | -18.02 | -0.85 | -5.76 | -4.44 | -2.17 | 2.18 |
| 2 | 14 | 51 | -36.16 | -45.99 | -44.32 | -37.83 | -3.69 | -1.03 | -8.99 | -8.07 | -1.95 | 2.55 |
| 2 | 14 | 52 | -27.45 | -59.01 | -51.30 | -35.16 | -13.56 | 2.67 | -1.88 | 1.28 | -0.49 | 2.10 |
| 2 | 14 | 53 | -1.39 | -37.31 | -6.45 | -32.24 | -12.50 | 2.96 | -7.01 | -6.44 | 2.39 | 2.32 |
| 2 | 14 | 54 | -41.27 | -48.83 | -41.39 | -48.71 | -0.96 | 1.54 | -10.35 | -6.86 | -1.96 | 5.42 |
| 2 | 14 | 55 | -2.20 | -44.81 | -24.68 | -22.34 | -21.27 | 4.76 | -0.43 | 3.48 | 0.84 | 2.24 |
| 2 | 14 | 59 | -52.15 | -72.46 | -60.67 | -63.95 | -10.02 | 7.64 | -0.15 | 0.32 | 7.17 | 1.85 |
| 2 | 14 | 63 | -48.41 | -63.80 | -52.54 | -59.68 | -6.82 | 5.23 | -0.35 | 0.26 | 4.61 | 1.74 |
| 2 | 14 | 66 | -36.55 | -56.85 | -38.30 | -55.09 | -5.70 | 1.92 | -1.32 | -4.74e-02 | 0.65 | 1.58 |
| 2 | 14 | 70 | -24.58 | -52.35 | -25.52 | -51.41 | -5.02 | 0.53 | -3.39 | -0.38 | -2.48 | 1.66 |
| 2 | 14 | 74 | -14.97 | -51.07 | -15.41 | -50.63 | -3.97 | 0.19 | -5.62 | -0.82 | -4.61 | 2.20 |
| 2 | 14 | 78 | -1.04 | -63.67 | -45.17 | -19.53 | 28.57 | 12.28 | -1.31 | 12.19 | -1.22 | -1.10 |
| 2 | 14 | 81 | -2.34 | -41.99 | -3.31 | -41.01 | -6.15 | -2.40e-02 | -14.45 | -1.16 | -13.32 | 3.88 |
| 2 | 14 | 85 | 11.97 | -47.70 | -20.21 | -15.52 | -29.74 | 2.61 | -5.92 | -3.52 | 0.21 | 3.84 |
| 2 | 14 | 89 | 8.63 | -52.45 | -38.68 | -5.14 | -25.52 | 2.40 | -1.19 | 0.82 | 0.39 | 1.78 |
| 2 | 14 | 93 | 8.44 | -49.82 | -43.17 | 1.79 | -18.53 | 3.50 | 0.68 | 3.39 | 0.79 | 0.53 |
| 2 | 14 | 97 | 7.66 | -47.35 | -44.17 | 4.48 | -12.85 | 4.81 | 0.93 | 4.81 | 0.93 | 6.07e-02 |
| 2 | 14 | 101 | 4.54 | -45.96 | -44.57 | 3.15 | -8.27 | 5.98 | 0.81 | 5.98 | 0.82 | 0.10 |
| 2 | 14 | 104 | 1.53 | -51.90 | -51.17 | 0.80 | -6.20 | 7.09 | 0.64 | 7.08 | 0.65 | 0.18 |
| 2 | 14 | 108 | -7.68 | -32.22 | -31.28 | -8.62 | -4.71 | 10.36 | 5.09 | 9.79 | 5.66 | -1.64 |
| 2 | 14 | 112 | -1.70 | -36.56 | -34.95 | -3.30 | -7.31 | 8.70 | 1.57 | 8.46 | 1.81 | -1.29 |
| 2 | 14 | 116 | 2.70 | -39.15 | -37.60 | 1.15 | -7.90 | 8.37 | 1.13 | 8.21 | 1.28 | -1.04 |
| 2 | 14 | 120 | 5.17 | -39.63 | -38.55 | 4.09 | -6.88 | 8.38 | 1.24 | 8.27 | 1.34 | -0.86 |
| 2 | 14 | 124 | 4.29 | -38.40 | -37.95 | 3.83 | -4.39 | 8.28 | 0.95 | 8.20 | 1.03 | -0.76 |
| 2 | 14 | 127 | 2.85 | -38.40 | -38.22 | 2.66 | -2.74 | 8.13 | 0.56 | 8.05 | 0.65 | -0.79 |
| 2 | 14 | 131 | -0.65 | -55.59 | -45.56 | -10.68 | 21.22 | 10.03 | 1.19 | 10.03 | 1.19 | -0.15 |
| 2 | 14 | 135 | 1.40 | -50.55 | -43.92 | -5.23 | 17.34 | 8.64 | 1.28 | 8.63 | 1.28 | 0.25 |
| 2 | 14 | 139 | 4.31 | -46.17 | -42.21 | 0.35 | 13.58 | 7.58 | 1.15 | 7.55 | 1.17 | 0.38 |
| 2 | 14 | 143 | 5.45 | -42.95 | -40.76 | 3.26 | 10.07 | 6.55 | 1.07 | 6.53 | 1.08 | 0.29 |
| 2 | 14 | 147 | 3.55 | -39.12 | -38.22 | 2.65 | 6.13 | 5.44 | 0.74 | 5.44 | 0.74 | -3.78e-03 |
| 2 | 14 | 150 | 2.50 | -32.28 | -31.83 | 2.05 | 3.94 | 4.85 | 0.41 | 4.85 | 0.41 | -6.63e-02 |
| 2 | 14 | 152 | -6.33 | -80.69 | -53.78 | -33.25 | 35.74 | 22.39 | 3.17 | 16.65 | 8.91 | -8.80 |
| 2 | 14 | 157 | -22.87 | -113.44 | -48.03 | -88.27 | 40.57 | 31.85 | 9.16 | 11.96 | 29.05 | -7.47 |
| 2 | 14 | 161 | -30.83 | -44.58 | -31.14 | -44.26 | 2.07 | 15.84 | 10.10 | 11.56 | 14.38 | -2.50 |
| 2 | 14 | 165 | -4.08 | -49.82 | -5.63 | -48.26 | 8.30 | 4.78 | -12.40 | -2.19 | -5.43 | 8.43 |
| 2 | 14 | 166 | -24.08 | -68.31 | -53.60 | -38.79 | -20.84 | 2.56 | -1.19 | 2.07 | -0.69 | 1.27 |
| 2 | 14 | 167 | -21.29 | -39.89 | -38.14 | -23.04 | 5.43 | 4.00 | -5.71 | -4.60 | 2.88 | -3.10 |
| 2 | 14 | 168 | -18.05 | -54.12 | -21.40 | -50.76 | 10.48 | 0.80 | -7.90 | -3.96 | -3.14 | 4.33 |
| 2 | 14 | 169 | -17.33 | -69.01 | -46.40 | -39.94 | -25.64 | 2.04 | -0.36 | 2.01 | -0.32 | 0.30 |
| 2 | 14 | 173 | -5.71 | -41.44 | -6.33 | -40.83 | -4.66 | 0.12 | -9.98 | -1.06 | -8.80 | 3.25 |
| 2 | 14 | 174 | -18.71 | -28.93 | -28.92 | -18.72 | -0.34 | 13.46 | 9.56 | 11.31 | 11.72 | -1.94 |
| 2 | 14 | 175 | -11.18 | -53.50 | -43.54 | -21.14 | 17.95 | 5.41 | 0.80 | 4.38 | 1.83 | -1.92 |
| 2 | 14 | 179 | 16.96 | -42.94 | 2.27 | -28.25 | -25.77 | 3.94 | -8.66 | -6.53 | 1.82 | 4.72 |
| 2 | 14 | 183 | -13.43 | -58.35 | -43.61 | -28.17 | 21.09 | 8.69 | 1.67 | 5.91 | 4.46 | -3.43 |
| 2 | 14 | 184 | -25.44 | -43.57 | -39.52 | -29.49 | 7.55 | 7.66 | -4.15 | -2.44 | 5.95 | -4.15 |
| 2 | 14 | 185 | -16.69 | -70.32 | -48.30 | -38.70 | 26.38 | 17.35 | 2.10 | 7.19 | 12.27 | -7.19 |
| 2 | 14 | 186 | -25.88 | -48.92 | -38.68 | -36.12 | 11.45 | 9.03 | -3.17 | -2.90 | 8.77 | -1.78 |
| 2 | 14 | 187 | -12.95 | -74.65 | -42.20 | -45.40 | 30.81 | 15.76 | -0.82 | -0.77 | 15.72 | -0.86 |
| 2 | 14 | 188 | -24.65 | -57.53 | -38.71 | -43.47 | 16.27 | 7.45 | -12.89 | -12.73 | 7.29 | 1.81 |
| 2 | 14 | 189 | -5.25 | -101.17 | -13.45 | -92.97 | 26.82 | 17.57 | -4.94 | -3.42 | 16.05 | 5.65 |
| 2 | 14 | 190 | -7.21 | -65.00 | -19.94 | -52.27 | 23.95 | 11.10 | -9.21 | -5.76 | 7.64 | 7.63 |
| 2 | 14 | 191 | -9.64 | -57.82 | -12.05 | -55.41 | 10.51 | 3.35 | -10.65 | -3.56 | -3.74 | 7.00 |
| 2 | 14 | 192 | -21.89 | -58.80 | -32.20 | -48.48 | 16.57 | 4.41 | -8.90 | -8.12 | 3.63 | 3.11 |
| 2 | 14 | 193 | -4.09 | -39.90 | -4.17 | -39.81 | -1.75 | 1.24 | -14.72 | -1.93 | -11.55 | 6.37 |
| 2 | 14 | 194 | -9.19 | -46.25 | -9.19 | -46.25 | -4.96e-02 | 1.08 | -11.96 | -2.22 | -8.67 | 5.66 |
| 2 | 14 | 195 | -17.59 | -51.48 | -17.63 | -51.45 | 1.07 | 0.47 | -8.41 | -2.07 | -5.87 | 4.01 |
| 2 | 14 | 196 | -18.54 | -36.08 | -31.31 | -23.30 | -7.80 | 8.40 | 0.30 | 1.37 | 7.33 | -2.74 |
| 2 | 14 | 197 | -37.88 | -64.25 | -41.49 | -60.64 | -9.07 | 4.49 | -3.16 | -0.79 | 2.12 | 3.54 |
| 2 | 14 | 198 | -26.89 | -35.62 | -34.86 | -27.65 | -2.46 | 8.08 | -3.39 | 0.40 | 4.30 | -5.39 |
| 2 | 14 | 199 | -27.49 | -68.54 | -39.49 | -56.54 | -18.67 | 4.26 | -1.36 | -0.91 | 3.80 | 1.53 |
| 2 | 14 | 200 | -34.60 | -39.38 | -34.64 | -39.33 | 0.46 | 5.67 | -1.53 | -1.15 | 5.28 | 1.62 |
| 2 | 14 | 201 | -30.49 | -46.68 | -32.33 | -44.83 | 5.14 | 9.56 | -3.19 | -2.48 | 8.84 | 2.93 |
| 2 | 14 | 202 | -25.76 | -56.01 | -27.36 | -54.41 | 6.76 | -6.62e-02 | -5.64 | -1.46 | -4.24 | 2.41 |
| 2 | 14 | 203 | -11.23 | -57.30 | -31.12 | -37.41 | -22.82 | 2.40 | 1.35 | 1.39 | 2.36 | 0.20 |
| 2 | 14 | 204 | -19.36 | -34.01 | -26.59 | -26.78 | 7.33 | 7.36 | 6.26 | 6.26 | 7.35 | -5.96e-02 |
| 2 | 14 | 205 | -34.80 | -59.04 | -35.07 | -58.77 | 2.54 | 4.63 | -9.16 | -0.18 | -4.34 | 6.58 |
| 2 | 14 | 206 | -10.58 | -50.64 | -11.33 | -49.88 | 5.44 | 5.38 | -5.37 | -5.32 | 5.33 | 0.73 |
| 2 | 14 | 207 | -8.44 | -15.15 | -8.58 | -15.01 | 0.96 | 3.48 | -0.96 | -0.44 | 2.97 | 1.43 |
| 2 | 14 | 208 | -27.67 | -40.22 | -28.67 | -39.21 | 3.41 | 0.78 | -7.42 | -7.11 | 0.47 | 1.56 |
| 2 | 14 | 209 | -30.62 | -45.50 | -31.59 | -44.53 | 3.67 | 6.20 | 0.82 | 5.85 | 1.16 | -1.32 |
| 2 | 14 | 210 | -17.63 | -39.17 | -24.04 | -32.76 | 9.85 | 5.21 | -0.84 | 2.57 | 1.80 | 3.00 |
| 2 | 14 | 211 | -15.42 | -36.95 | -15.94 | -36.43 | 3.30 | 2.80 | -4.84 | -4.72 | 2.67 | 0.96 |
| 2 | 14 | 212 | -20.75 | -51.60 | -29.52 | -42.84 | 13.91 | 5.08 | 0.43 | 3.41 | 2.09 | -2.23 |
| 2 | 14 | 213 | -32.29 | -56.92 | -47.25 | -41.97 | -12.03 | -1.75 | -8.68 | -7.42 | -3.01 | 2.67 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 14 | 214 | -25.83 | -55.99 | -35.25 | -46.58 | 13.97 | 5.81 | 1.10 | 1.68 | 5.23 | 1.55 |
| 2 | 14 | 215 | -27.92 | -53.32 | -31.07 | -50.17 | 8.37 | 4.71 | -1.78 | -1.70 | 4.64 | -0.70 |
| 2 | 14 | 216 | -26.74 | -53.31 | -39.20 | -40.86 | -13.26 | 5.68 | 0.67 | 5.65 | 0.69 | 0.36 |
| 2 | 14 | 217 | -39.51 | -78.45 | -57.22 | -60.75 | -19.39 | 9.08 | 0.48 | 8.99 | 0.58 | 0.90 |
| 2 | 14 | 218 | -37.56 | -85.74 | -59.03 | -64.27 | -23.95 | 9.78 | 0.33 | 9.56 | 0.56 | 1.45 |
| 2 | 14 | 219 | -22.65 | -76.12 | -49.44 | -49.33 | -26.74 | 8.27 | 0.10 | 7.74 | 0.64 | 2.02 |
| 2 | 14 | 220 | -5.68 | -24.40 | -12.99 | -17.10 | -9.13 | 2.64 | 1.22 | 2.62 | 1.24 | 0.14 |
| 2 | 14 | 240 | -9.13 | -49.01 | -42.63 | -15.52 | 14.62 | 3.99 | 1.01 | 3.45 | 1.56 | -1.16 |
| 2 | 14 | 241 | -6.47 | -44.96 | -41.36 | -10.06 | 11.20 | 2.78 | 0.79 | 2.58 | 0.98 | -0.59 |
| 2 | 14 | 242 | -3.43 | -42.08 | -40.29 | -5.22 | 8.13 | 1.88 | 0.42 | 1.77 | 0.53 | -0.38 |
| 2 | 14 | 243 | -0.75 | -39.92 | -39.07 | -1.60 | 5.70 | 1.14 | -7.94e-02 | 0.92 | 0.15 | -0.48 |
| 2 | 14 | 244 | 0.36 | -36.57 | -36.27 | 5.76e-02 | 3.33 | 0.65 | -0.53 | 0.16 | -3.76e-02 | -0.58 |
| 2 | 14 | 245 | 1.13 | -28.45 | -28.30 | 0.98 | 2.07 | 0.30 | -0.62 | -0.24 | -7.96e-02 | -0.45 |
| 2 | 14 | 246 | -17.01 | -36.80 | -36.42 | -17.39 | 2.73 | 2.46 | -4.34 | -3.85 | 1.97 | -1.75 |
| 2 | 14 | 247 | -11.78 | -36.59 | -36.59 | -11.78 | -0.13 | 1.08 | -3.87 | -3.68 | 0.89 | -0.95 |
| 2 | 14 | 248 | -6.05 | -36.81 | -36.71 | -6.16 | -1.78 | -1.19e-02 | -4.52 | -4.28 | -0.25 | -1.01 |
| 2 | 14 | 249 | -1.89 | -36.21 | -36.05 | -2.05 | -2.34 | -0.42 | -5.06 | -4.81 | -0.66 | -1.04 |
| 2 | 14 | 250 | -7.43e-02 | -33.96 | -33.85 | -0.18 | -1.92 | -0.31 | -5.23 | -5.05 | -0.49 | -0.91 |
| 2 | 14 | 251 | 1.01 | -24.87 | -24.79 | 0.93 | -1.43 | -0.12 | -5.36 | -5.21 | -0.27 | -0.87 |
| 2 | 14 | 252 | -14.10 | -37.42 | -32.41 | -19.11 | -9.58 | 4.27 | 0.58 | 0.72 | 4.13 | -0.68 |
| 2 | 14 | 253 | -6.54 | -38.52 | -34.31 | -10.76 | -10.81 | 2.05 | -0.18 | 0.52 | 1.35 | -1.03 |
| 2 | 14 | 254 | -1.47 | -38.84 | -35.59 | -4.73 | -10.53 | 1.49 | -1.07 | 0.26 | 0.16 | -1.28 |
| 2 | 14 | 255 | 0.95 | -38.06 | -35.77 | -1.34 | -9.16 | 1.40 | -0.96 | 0.34 | 0.11 | -1.18 |
| 2 | 14 | 256 | 1.07 | -35.66 | -34.52 | -7.18e-02 | -6.36 | 1.26 | -0.66 | 0.50 | 0.10 | -0.94 |
| 2 | 14 | 257 | 1.06 | -31.13 | -30.50 | 0.42 | -4.48 | 1.40 | -0.73 | 0.61 | 6.34e-02 | -1.03 |
| 2 | 14 | 258 | -21.42 | -29.08 | -28.90 | -21.61 | -1.17 | 8.07 | 3.36 | 5.99 | 5.44 | -2.34 |
| 2 | 14 | 259 | -10.85 | -37.19 | -36.23 | -11.81 | -4.94 | 7.32 | 2.08 | 6.55 | 2.85 | -1.86 |
| 2 | 14 | 260 | -3.73 | -41.25 | -40.43 | -4.56 | -5.50 | 6.86 | 1.21 | 6.55 | 1.51 | -1.27 |
| 2 | 14 | 261 | -0.54 | -42.21 | -41.73 | -1.03 | -4.46 | 6.73 | 0.98 | 6.52 | 1.20 | -1.10 |
| 2 | 14 | 262 | 0.16 | -42.44 | -42.31 | 2.06e-02 | -2.40 | 6.61 | 0.47 | 6.41 | 0.68 | -1.10 |
| 2 | 14 | 263 | 0.29 | -40.81 | -40.79 | 0.27 | -1.05 | 6.56 | 0.16 | 6.38 | 0.33 | -1.05 |
| 2 | 14 | 264 | -2.77 | -42.03 | -22.35 | -22.45 | -19.63 | 2.57 | -2.69 | -2.63 | 2.50 | 0.58 |
| 2 | 14 | 265 | -1.59 | -46.71 | -36.99 | -11.31 | -18.55 | 2.33 | 0.71 | 0.97 | 2.07 | -0.60 |
| 2 | 14 | 266 | 0.65 | -46.71 | -41.92 | -4.13 | -14.27 | 2.97 | 0.94 | 2.61 | 1.29 | -0.77 |
| 2 | 14 | 267 | 1.05 | -45.52 | -43.18 | -1.28 | -10.17 | 3.69 | 0.62 | 3.46 | 0.85 | -0.81 |
| 2 | 14 | 268 | 0.64 | -44.99 | -44.10 | -0.26 | -6.32 | 4.35 | 0.37 | 4.22 | 0.50 | -0.71 |
| 2 | 14 | 269 | 0.32 | -46.37 | -45.96 | -9.13e-02 | -4.36 | 5.13 | 0.27 | 5.06 | 0.34 | -0.59 |
| 2 | 22 | 4 | 12.86 | -47.33 | -45.62 | 11.15 | 10.02 | 17.35 | 3.11 | 17.33 | 3.13 | -0.46 |
| 2 | 22 | 17 | -28.74 | -39.87 | -28.74 | -39.87 | -6.19e-02 | 14.00 | 9.61 | 10.77 | 12.84 | 1.93 |
| 2 | 22 | 18 | -23.14 | -31.36 | -31.18 | -23.32 | 1.21 | 7.47 | 2.13 | 6.11 | 3.48 | 2.32 |
| 2 | 22 | 19 | -24.71 | -54.15 | -25.72 | -53.15 | -5.36 | 6.95 | 3.50e-03 | 4.85 | 2.10 | 3.19 |
| 2 | 22 | 20 | -16.66 | -53.46 | -22.85 | -47.28 | -13.76 | 2.13 | -9.76 | -3.96e-03 | -7.63 | 4.56 |
| 2 | 22 | 21 | -28.44 | -47.40 | -30.49 | -45.34 | -5.89 | 9.64 | -8.44 | 0.94 | 0.26 | 9.03 |
| 2 | 22 | 22 | -2.69 | -52.14 | -14.53 | -40.30 | -21.10 | 1.38 | -6.51 | -0.89 | -4.23 | 3.57 |
| 2 | 22 | 23 | -7.39 | -60.84 | -21.69 | -46.53 | -23.67 | 2.56 | -4.82 | -0.18 | -2.09 | 3.56 |
| 2 | 22 | 24 | -11.44 | -68.31 | -27.77 | -51.98 | -25.73 | 4.34 | -3.69 | -8.47e-02 | 0.73 | 3.99 |
| 2 | 22 | 30 | 8.25 | -11.59 | 7.61 | -10.95 | -3.49 | 3.26 | 1.41 | 3.14 | 1.54 | -0.47 |
| 2 | 22 | 31 | 11.41 | -18.73 | -1.60 | -5.71 | 14.93 | 2.46 | -3.03 | -2.93 | 2.36 | -0.71 |
| 2 | 22 | 34 | -10.37 | -86.27 | -11.53 | -85.10 | 9.33 | -0.47 | -13.73 | -13.58 | -0.62 | 1.42 |
| 2 | 22 | 40 | 10.69 | -28.28 | -5.04 | -12.56 | -19.12 | 4.00 | -2.27 | 0.63 | 1.10 | 3.13 |
| 2 | 22 | 41 | 3.04 | -55.41 | -18.00 | -34.37 | -28.05 | 6.02 | 0.14 | 0.80 | 5.36 | 1.86 |
| 2 | 22 | 44 | -10.66 | -83.92 | -37.57 | -57.00 | -35.32 | 10.37 | 0.40 | 0.81 | 9.96 | 1.97 |
| 2 | 22 | 45 | -28.35 | -46.28 | -29.66 | -44.97 | 4.66 | 1.50 | -9.21 | -9.08 | 1.38 | 1.16 |
| 2 | 22 | 46 | -37.58 | -45.06 | -37.95 | -44.68 | -1.63 | 1.32 | -12.48 | -11.39 | 0.22 | 3.74 |
| 2 | 22 | 48 | -19.28 | -65.04 | -33.22 | -51.11 | -21.06 | 2.58 | -8.77 | -3.34 | -2.85 | 5.67 |
| 2 | 22 | 49 | -32.99 | -42.65 | -37.98 | -37.66 | 4.83 | -0.85 | -2.55 | -2.44 | -0.96 | 0.42 |
| 2 | 22 | 50 | -16.87 | -72.25 | -39.86 | -49.25 | -27.29 | -0.73 | -5.56 | -4.58 | -1.71 | 1.94 |
| 2 | 22 | 51 | -43.27 | -48.13 | -45.54 | -45.86 | -2.43 | -1.05 | -10.84 | -10.28 | -1.61 | 2.26 |
| 2 | 22 | 52 | -43.47 | -57.85 | -53.36 | -47.96 | -6.66 | 0.30 | -1.03 | -0.27 | -0.45 | 0.66 |
| 2 | 22 | 53 | -13.71 | -49.44 | -14.28 | -48.88 | -4.45 | -2.07 | -11.47 | -11.07 | -2.47 | 1.89 |
| 2 | 22 | 54 | -30.30 | -54.31 | -38.14 | -46.48 | -11.26 | 2.36 | -11.04 | -6.81 | -1.86 | 6.23 |
| 2 | 22 | 55 | -5.93 | -52.02 | -23.65 | -34.30 | -22.42 | 3.81 | -0.14 | 2.90 | 0.77 | 1.66 |
| 2 | 22 | 59 | -17.07 | -83.64 | -42.54 | -58.18 | -32.35 | 9.29 | 0.21 | 0.62 | 8.88 | 1.89 |
| 2 | 22 | 63 | -11.51 | -75.57 | -34.19 | -52.89 | -30.64 | 6.95 | 0.11 | 0.62 | 6.44 | 1.80 |
| 2 | 22 | 66 | -2.03 | -65.70 | -21.15 | -46.57 | -29.19 | 3.41 | -0.63 | 0.34 | 2.44 | 1.73 |
| 2 | 22 | 70 | 5.16 | -56.49 | -10.25 | -41.09 | -26.69 | 1.53 | -2.43 | 2.15e-02 | -0.92 | 1.92 |
| 2 | 22 | 74 | 6.89 | -49.89 | -3.82 | -39.18 | -22.21 | 1.13 | -4.64 | -0.39 | -3.12 | 2.54 |
| 2 | 22 | 78 | 19.08 | -44.95 | -42.52 | 16.65 | 12.23 | 17.10 | 0.18 | 17.07 | 0.21 | -0.71 |
| 2 | 22 | 81 | 5.35 | -32.36 | 0.28 | -27.29 | -12.86 | 0.56 | -13.28 | -0.90 | -11.82 | 4.25 |
| 2 | 22 | 85 | -6.60 | -61.49 | -20.23 | -47.86 | -23.72 | -0.78 | -12.09 | -10.55 | -2.32 | 3.87 |
| 2 | 22 | 89 | -7.61 | -55.02 | -37.58 | -25.05 | -22.87 | -4.26e-02 | -6.90 | -6.18 | -0.76 | 2.10 |
| 2 | 22 | 93 | -2.18 | -48.23 | -40.42 | -9.99 | -17.28 | 2.33e-02 | -4.12 | -3.93 | -0.16 | 0.85 |
| 2 | 22 | 97 | 1.69 | -44.02 | -40.44 | -1.88 | -12.27 | -8.90e-03 | -2.89 | -2.86 | -3.83e-02 | 0.29 |
| 2 | 22 | 101 | 2.55 | -39.98 | -38.27 | 0.83 | -8.37 | 4.84e-02 | -2.14 | -2.10 | 1.71e-02 | 0.26 |
| 2 | 22 | 104 | 0.70 | -47.83 | -46.86 | -0.28 | -6.82 | 0.17 | -1.40 | -1.32 | 8.13e-02 | 0.36 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 22 | 108 | -7.69 | -33.24 | -33.21 | -7.71 | 0.75 | 8.13 | 2.48 | 7.52 | 3.09 | -1.75 |
| 2 | 22 | 112 | -4.59 | -35.35 | -35.30 | -4.64 | -1.28 | 6.91 | 0.96 | 6.66 | 1.22 | -1.20 |
| 2 | 22 | 116 | -2.16 | -36.73 | -36.63 | -2.27 | -1.90 | 6.37 | 0.77 | 6.24 | 0.90 | -0.85 |
| 2 | 22 | 120 | -0.18 | -36.72 | -36.66 | -0.24 | -1.48 | 6.13 | 0.82 | 6.07 | 0.88 | -0.58 |
| 2 | 22 | 124 | 0.74 | -35.19 | -35.16 | 0.71 | -1.07 | 5.93 | 0.59 | 5.90 | 0.63 | -0.42 |
| 2 | 22 | 127 | 1.18 | -31.43 | -31.39 | 1.14 | -1.11 | 5.87 | 0.30 | 5.80 | 0.36 | -0.59 |
| 2 | 22 | 131 | 9.93 | -46.15 | -45.01 | 8.79 | 7.91 | 17.28 | 2.15 | 17.28 | 2.15 | 0.12 |
| 2 | 22 | 135 | 7.24 | -45.48 | -44.70 | 6.46 | 6.38 | 17.15 | 2.25 | 17.14 | 2.26 | 0.34 |
| 2 | 22 | 139 | 5.43 | -44.87 | -44.40 | 4.96 | 4.85 | 16.93 | 2.16 | 16.93 | 2.17 | 0.35 |
| 2 | 22 | 143 | 3.21 | -44.05 | -43.78 | 2.93 | 3.61 | 16.63 | 2.17 | 16.63 | 2.17 | 0.28 |
| 2 | 22 | 147 | 0.44 | -44.81 | -44.74 | 0.38 | 1.67 | 16.25 | 1.63 | 16.25 | 1.63 | 3.71e-02 |
| 2 | 22 | 150 | 7.13e-02 | -38.40 | -38.40 | 7.02e-02 | 0.20 | 16.11 | 1.03 | 16.11 | 1.03 | 9.19e-02 |
| 2 | 22 | 152 | 15.83 | -54.10 | -48.97 | 10.70 | 18.23 | 23.47 | 5.07 | 19.57 | 8.97 | -7.52 |
| 2 | 22 | 157 | -3.97 | -51.61 | -35.24 | -20.34 | 22.63 | 27.86 | 9.81 | 12.37 | 25.29 | -6.30 |
| 2 | 22 | 161 | -24.70 | -37.32 | -33.04 | -28.97 | 5.97 | 10.13 | 3.59 | 8.03 | 5.69 | -3.05 |
| 2 | 22 | 165 | -2.36 | -7.58 | -2.55 | -7.39 | -0.98 | 4.69 | -12.76 | -1.96 | -6.11 | 8.47 |
| 2 | 22 | 166 | -34.54 | -69.93 | -54.59 | -49.89 | -17.54 | 1.07 | -0.61 | 1.04 | -0.58 | 0.23 |
| 2 | 22 | 167 | -5.91 | -36.83 | -35.74 | -6.99 | 5.69 | 2.04 | -3.81 | -3.74 | 1.97 | -0.62 |
| 2 | 22 | 168 | -10.75 | -34.32 | -13.03 | -32.04 | -6.96 | 1.12 | -9.01 | -3.74 | -4.15 | 5.06 |
| 2 | 22 | 169 | -19.93 | -72.99 | -45.85 | -47.07 | -26.52 | 1.52 | -0.31 | 1.42 | -0.21 | -0.42 |
| 2 | 22 | 173 | 7.41 | -34.83 | 3.83e-02 | -27.46 | -16.04 | 0.87 | -9.01 | -0.72 | -7.43 | 3.63 |
| 2 | 22 | 174 | -12.38 | -33.22 | -31.74 | -13.86 | 5.36 | 9.21 | 4.41 | 8.05 | 5.56 | -2.05 |
| 2 | 22 | 175 | 2.46 | -43.87 | -42.17 | 0.76 | 8.71 | 8.39 | 2.23 | 8.37 | 2.26 | -0.38 |
| 2 | 22 | 179 | -2.47 | -72.86 | -4.44 | -70.89 | -11.60 | -2.49 | -16.68 | -15.39 | -3.78 | 4.08 |
| 2 | 22 | 183 | 1.15 | -43.36 | -40.88 | -1.33 | 10.21 | 9.24 | 4.23 | 8.66 | 4.80 | -1.59 |
| 2 | 22 | 184 | -9.01 | -37.26 | -36.13 | -10.14 | 5.54 | 5.50 | -3.44 | -3.33 | 5.39 | -0.98 |
| 2 | 22 | 185 | -1.95 | -47.89 | -43.36 | -6.48 | 13.70 | 15.01 | 5.07 | 8.62 | 11.46 | -4.76 |
| 2 | 22 | 186 | -12.98 | -34.99 | -33.24 | -14.73 | 5.95 | 8.18 | -4.55 | -4.52 | 8.15 | 0.57 |
| 2 | 22 | 187 | -2.94 | -40.80 | -31.86 | -11.88 | 16.08 | 13.44 | 7.84e-03 | 4.95e-02 | 13.40 | 0.75 |
| 2 | 22 | 188 | -17.60 | -31.70 | -28.19 | -21.11 | 6.10 | 6.75 | -12.04 | -11.59 | 6.30 | 2.89 |
| 2 | 22 | 189 | -0.11 | -30.44 | -6.80 | -23.75 | 12.58 | 14.55 | -4.85 | -3.05 | 12.75 | 5.62 |
| 2 | 22 | 190 | -6.65 | -26.26 | -12.75 | -20.16 | 9.08 | 9.57 | -9.38 | -5.07 | 5.27 | 7.94 |
| 2 | 22 | 191 | -6.83 | -27.39 | -7.18 | -27.05 | -2.64 | 3.32 | -11.36 | -3.27 | -4.77 | 7.30 |
| 2 | 22 | 192 | -20.72 | -27.67 | -21.30 | -27.10 | 1.91 | 3.38 | -8.92 | -7.45 | 1.92 | 3.98 |
| 2 | 22 | 193 | 2.44 | -21.77 | -1.62 | -17.71 | -9.05 | 1.78 | -14.30 | -1.73 | -10.79 | 6.64 |
| 2 | 22 | 194 | 0.57 | -32.74 | -4.47 | -27.70 | -11.93 | 1.74 | -11.79 | -1.96 | -8.08 | 6.04 |
| 2 | 22 | 195 | -1.05 | -45.39 | -9.23 | -37.22 | -17.19 | 1.29 | -8.29 | -1.78 | -5.21 | 4.47 |
| 2 | 22 | 196 | -11.77 | -29.19 | -29.13 | -11.83 | 1.04 | 3.30 | -3.26 | -3.06 | 3.10 | -1.13 |
| 2 | 22 | 197 | -11.62 | -74.73 | -30.92 | -55.43 | -29.08 | 5.22 | -2.65 | -0.62 | 3.19 | 3.44 |
| 2 | 22 | 198 | -12.64 | -32.97 | -32.93 | -12.68 | 0.89 | 4.21 | -1.79 | -1.57 | 4.00 | -1.12 |
| 2 | 22 | 199 | -7.24 | -78.27 | -31.80 | -53.71 | -33.78 | 5.02 | -1.09 | -0.77 | 4.71 | 1.36 |
| 2 | 22 | 200 | -20.88 | -28.69 | -28.64 | -20.93 | -0.63 | 7.20 | -4.18 | -3.19 | 6.21 | 3.20 |
| 2 | 22 | 201 | -23.45 | -27.17 | -24.13 | -26.49 | -1.44 | 8.54 | -4.13 | -3.37 | 7.78 | 3.00 |
| 2 | 22 | 202 | -12.83 | -42.85 | -18.09 | -37.59 | -11.41 | 0.32 | -6.91 | -1.60 | -4.99 | 3.20 |
| 2 | 22 | 203 | -3.50 | -63.32 | -27.34 | -39.47 | -29.29 | 2.87 | 1.14 | 1.17 | 2.85 | -0.19 |
| 2 | 22 | 204 | -23.54 | -38.18 | -34.10 | -27.62 | 6.56 | 7.76 | 2.60 | 7.71 | 2.65 | 0.50 |
| 2 | 22 | 205 | -19.51 | -58.78 | -27.78 | -50.52 | -16.01 | 4.35 | -9.46 | -0.41 | -4.70 | 6.56 |
| 2 | 22 | 206 | -17.41 | -77.24 | -21.56 | -73.09 | 15.21 | 1.06 | -11.60 | -11.60 | 1.06 | -4.41e-02 |
| 2 | 22 | 207 | -4.38 | -29.76 | -16.48 | -17.65 | 12.68 | 0.48 | -3.29 | -3.27 | 0.46 | -0.32 |
| 2 | 22 | 208 | -29.35 | -57.39 | -32.97 | -53.77 | 9.40 | 6.66e-02 | -11.32 | -11.23 | -2.01e-02 | 0.99 |
| 2 | 22 | 209 | -29.25 | -34.71 | -32.34 | -31.62 | 2.71 | 5.36 | -0.39 | 5.28 | -0.31 | -0.67 |
| 2 | 22 | 210 | -25.63 | -37.71 | -29.42 | -33.92 | 5.61 | 3.62 | -1.11 | 2.71 | -0.20 | 1.87 |
| 2 | 22 | 211 | -22.29 | -44.68 | -23.23 | -43.73 | 4.49 | 2.18e-02 | -8.58 | -8.17 | -0.39 | 1.84 |
| 2 | 22 | 212 | -30.47 | -42.59 | -33.58 | -39.48 | 5.30 | 4.47 | 2.41 | 3.77 | 3.11 | -0.98 |
| 2 | 22 | 213 | -30.28 | -62.03 | -46.59 | -45.72 | -15.87 | -1.62 | -9.18 | -8.25 | -2.56 | 2.48 |
| 2 | 22 | 214 | -34.00 | -42.25 | -34.69 | -41.56 | 2.29 | 8.72 | -0.47 | 2.56 | 5.68 | 4.32 |
| 2 | 22 | 215 | -20.60 | -33.82 | -22.53 | -31.89 | -4.67 | 2.59 | -2.17 | -2.10 | 2.52 | 0.57 |
| 2 | 22 | 216 | -43.47 | -59.96 | -44.37 | -59.07 | -3.73 | 5.21 | -9.43e-02 | 4.89 | 0.23 | -1.27 |
| 2 | 22 | 217 | -56.68 | -90.39 | -60.50 | -86.57 | -10.69 | 8.02 | 0.14 | 7.98 | 0.18 | -0.61 |
| 2 | 22 | 218 | -53.91 | -99.40 | -61.73 | -91.59 | -17.16 | 8.61 | 0.20 | 8.60 | 0.21 | 0.29 |
| 2 | 22 | 219 | -36.39 | -86.52 | -51.22 | -71.69 | -22.88 | 7.08 | 0.13 | 6.89 | 0.32 | 1.13 |
| 2 | 22 | 220 | -20.00 | -27.49 | -20.53 | -26.96 | -1.92 | 3.04 | 0.77 | 2.87 | 0.94 | -0.60 |
| 2 | 22 | 240 | 2.59 | -42.85 | -41.72 | 1.46 | 7.08 | 8.16 | 1.82 | 8.16 | 1.82 | 4.90e-02 |
| 2 | 22 | 241 | 2.31 | -42.05 | -41.35 | 1.61 | 5.53 | 7.89 | 1.24 | 7.89 | 1.25 | 0.18 |
| 2 | 22 | 242 | 1.89 | -41.57 | -41.18 | 1.50 | 4.08 | 7.55 | 0.97 | 7.55 | 0.97 | 0.14 |
| 2 | 22 | 243 | 1.77 | -40.88 | -40.68 | 1.57 | 2.90 | 7.19 | 0.80 | 7.19 | 0.80 | 1.76e-02 |
| 2 | 22 | 244 | 1.28 | -40.45 | -40.41 | 1.24 | 1.31 | 6.86 | 0.46 | 6.86 | 0.47 | -9.97e-02 |
| 2 | 22 | 245 | 1.36 | -35.62 | -35.62 | 1.36 | 0.27 | 6.82 | 0.24 | 6.81 | 0.24 | 0.13 |
| 2 | 22 | 246 | -4.12 | -35.36 | -34.65 | -4.82 | 4.65 | 0.60 | -3.83 | -3.81 | 0.59 | -0.29 |
| 2 | 22 | 247 | -2.60 | -35.29 | -35.00 | -2.88 | 3.04 | -0.15 | -4.36 | -4.35 | -0.16 | -0.15 |
| 2 | 22 | 248 | -0.82 | -35.50 | -35.38 | -0.94 | 2.04 | -0.69 | -4.96 | -4.94 | -0.70 | -0.26 |
| 2 | 22 | 249 | 0.19 | -35.05 | -35.00 | 0.14 | 1.31 | -0.83 | -5.35 | -5.33 | -0.85 | -0.31 |
| 2 | 22 | 250 | 0.30 | -33.68 | -33.67 | 0.29 | 0.48 | -0.55 | -5.50 | -5.49 | -0.56 | -0.22 |
| 2 | 22 | 251 | 0.40 | -30.84 | -30.84 | 0.40 | 5.84e-02 | -0.31 | -5.76 | -5.76 | -0.31 | 7.12e-02 |
| 2 | 22 | 252 | -9.00 | -28.81 | -28.81 | -9.01 | -0.30 | 0.94 | -4.59 | -4.55 | 0.90 | -0.46 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 22 | 253 | -4.43 | -30.31 | -30.27 | -4.47 | -1.00 | -0.27 | -5.46 | -5.38 | -0.34 | -0.62 |
| 2 | 22 | 254 | -1.38 | -31.10 | -31.07 | -1.40 | -0.91 | -0.79 | -5.99 | -5.92 | -0.86 | -0.60 |
| 2 | 22 | 255 | -0.13 | -30.83 | -30.82 | -0.14 | -0.54 | -0.84 | -6.18 | -6.14 | -0.88 | -0.48 |
| 2 | 22 | 256 | 1.36e-02 | -28.66 | -28.65 | 5.65e-03 | -0.48 | -0.52 | -6.23 | -6.21 | -0.55 | -0.37 |
| 2 | 22 | 257 | -0.15 | -27.78 | -27.77 | -0.17 | -0.63 | -0.23 | -6.47 | -6.43 | -0.27 | -0.48 |
| 2 | 22 | 258 | -24.82 | -35.84 | -35.84 | -24.82 | -1.08e-02 | 7.24 | 2.20 | 6.87 | 2.58 | -1.32 |
| 2 | 22 | 259 | -16.57 | -40.87 | -40.29 | -17.16 | -3.73 | 8.10 | 1.77 | 7.72 | 2.16 | -1.51 |
| 2 | 22 | 260 | -9.53 | -43.47 | -42.82 | -10.18 | -4.64 | 8.35 | 1.58 | 8.19 | 1.74 | -1.02 |
| 2 | 22 | 261 | -4.56 | -43.32 | -42.89 | -4.99 | -4.08 | 8.49 | 1.42 | 8.42 | 1.49 | -0.71 |
| 2 | 22 | 262 | -1.56 | -43.04 | -42.83 | -1.77 | -2.94 | 8.51 | 0.78 | 8.46 | 0.83 | -0.61 |
| 2 | 22 | 263 | 0.14 | -36.60 | -36.46 | 2.10e-03 | -2.21 | 8.52 | 0.33 | 8.50 | 0.35 | -0.42 |
| 2 | 22 | 264 | -13.87 | -44.21 | -24.38 | -33.71 | -14.44 | -0.74 | -7.17 | -7.16 | -0.75 | 0.27 |
| 2 | 22 | 265 | -12.48 | -47.12 | -37.34 | -22.26 | -15.59 | 0.65 | -3.74 | -3.73 | 0.64 | -0.16 |
| 2 | 22 | 266 | -7.50 | -45.64 | -40.83 | -12.31 | -12.66 | 0.82 | -1.89 | -1.86 | 0.79 | -0.26 |
| 2 | 22 | 267 | -4.22 | -43.59 | -41.15 | -6.65 | -9.49 | 0.45 | -1.09 | -1.01 | 0.37 | -0.33 |
| 2 | 22 | 268 | -1.88 | -41.14 | -40.03 | -3.00 | -6.53 | 0.25 | -0.58 | -0.44 | 0.12 | -0.31 |
| 2 | 22 | 269 | -1.04 | -42.60 | -41.99 | -1.66 | -5.03 | 0.18 | 8.63e-02 | 0.16 | 0.11 | -3.88e-02 |
| 2 | 38 | 4 | -7.41 | -55.37 | -47.39 | -15.39 | 17.86 | 10.35 | 2.01 | 10.29 | 2.07 | -0.70 |
| 2 | 38 | 17 | -30.78 | -53.74 | -33.11 | -51.40 | 6.94 | 12.99 | 10.60 | 11.18 | 12.41 | 1.03 |
| 2 | 38 | 18 | -26.49 | -38.50 | -35.78 | -29.21 | 5.03 | 5.06 | 0.65 | 5.05 | 0.66 | 0.21 |
| 2 | 38 | 19 | -28.76 | -67.75 | -29.93 | -66.58 | 6.65 | 7.07 | 1.75 | 5.70 | 3.12 | 2.33 |
| 2 | 38 | 20 | -26.72 | -58.06 | -27.13 | -57.64 | 3.59 | 1.73 | -8.21 | 0.50 | -6.98 | 3.27 |
| 2 | 38 | 21 | -30.27 | -51.50 | -32.51 | -49.25 | 6.53 | 8.21 | -6.61 | 1.17 | 0.43 | 7.40 |
| 2 | 38 | 22 | -19.92 | -52.17 | -19.93 | -52.16 | -0.54 | 0.87 | -4.18 | -0.60 | -2.71 | 2.30 |
| 2 | 38 | 23 | -26.47 | -55.18 | -26.55 | -55.10 | -1.49 | 2.07 | -3.29 | 3.21e-02 | -1.25 | 2.60 |
| 2 | 38 | 24 | -31.14 | -57.65 | -31.52 | -57.28 | -3.15 | 3.78 | -2.75 | 5.19e-02 | 0.97 | 3.23 |
| 2 | 38 | 30 | 9.35 | -8.60 | 4.42 | -3.67 | -8.01 | 2.31 | 1.12 | 2.03 | 1.40 | -0.51 |
| 2 | 38 | 31 | -3.31 | -10.22 | -3.84 | -9.69 | 1.84 | 4.58 | -0.29 | -0.27 | 4.56 | 0.32 |
| 2 | 38 | 34 | -18.58 | -53.07 | -18.58 | -53.07 | -0.20 | 6.69 | -4.50 | -3.98 | 6.17 | 2.35 |
| 2 | 38 | 40 | 5.97 | -17.66 | -5.88 | -5.82 | -11.81 | 4.13 | -2.16 | 0.93 | 1.04 | 3.15 |
| 2 | 38 | 41 | -10.65 | -44.25 | -20.83 | -34.08 | -15.44 | 5.60 | 0.31 | 0.92 | 4.98 | 1.70 |
| 2 | 38 | 44 | -33.20 | -68.15 | -41.50 | -59.85 | -14.88 | 9.76 | 0.51 | 0.81 | 9.46 | 1.62 |
| 2 | 38 | 45 | -29.20 | -40.94 | -31.63 | -38.51 | 4.75 | 1.52 | -4.88 | -4.87 | 1.51 | -0.31 |
| 2 | 38 | 46 | -36.42 | -43.73 | -37.94 | -42.21 | 2.96 | -0.34 | -9.96 | -9.51 | -0.79 | 2.04 |
| 2 | 38 | 48 | -32.90 | -54.32 | -34.11 | -53.11 | -4.96 | 1.87 | -7.52 | -2.94 | -2.71 | 4.69 |
| 2 | 38 | 49 | -26.71 | -36.39 | -36.31 | -26.79 | -0.86 | 2.50 | -1.84 | 0.51 | 0.15 | 2.16 |
| 2 | 38 | 50 | -27.67 | -57.84 | -38.52 | -46.99 | -14.48 | -1.16 | -4.73 | -3.96 | -1.92 | 1.47 |
| 2 | 38 | 51 | -37.38 | -43.74 | -43.42 | -37.70 | -1.38 | -1.50 | -8.31 | -7.58 | -2.23 | 2.11 |
| 2 | 38 | 52 | -30.63 | -52.92 | -50.22 | -33.33 | -7.27 | 2.61 | -1.43 | 1.70 | -0.52 | 1.69 |
| 2 | 38 | 53 | -20.29 | -34.00 | -23.19 | -31.10 | -5.60 | 2.46 | -5.20 | -4.83 | 2.09 | 1.64 |
| 2 | 38 | 54 | -38.23 | -46.88 | -38.34 | -46.78 | -0.95 | 0.80 | -9.39 | -6.24 | -2.35 | 4.71 |
| 2 | 38 | 55 | -4.14 | -37.71 | -22.28 | -19.57 | -16.73 | 4.45 | -4.23e-02 | 3.47 | 0.93 | 1.85 |
| 2 | 38 | 59 | -42.54 | -65.74 | -46.19 | -62.10 | -8.45 | 8.84 | 0.37 | 0.64 | 8.57 | 1.49 |
| 2 | 38 | 63 | -37.26 | -59.71 | -38.77 | -58.21 | -5.61 | 6.81 | 0.31 | 0.62 | 6.49 | 1.39 |
| 2 | 38 | 66 | -26.59 | -55.19 | -27.37 | -54.41 | -4.68 | 3.71 | -6.82e-02 | 0.37 | 3.27 | 1.21 |
| 2 | 38 | 70 | -17.18 | -52.17 | -17.68 | -51.68 | -4.13 | 1.77 | -0.79 | 8.71e-02 | 0.90 | 1.21 |
| 2 | 38 | 74 | -10.37 | -51.45 | -10.65 | -51.17 | -3.37 | 1.17 | -2.11 | -0.26 | -0.68 | 1.62 |
| 2 | 38 | 78 | -6.37 | -56.83 | -45.67 | -17.53 | 20.94 | 11.13 | -0.79 | 11.06 | -0.71 | -0.93 |
| 2 | 38 | 81 | -2.12 | -44.47 | -2.74 | -43.85 | -5.11 | 0.52 | -8.46 | -0.69 | -7.26 | 3.06 |
| 2 | 38 | 85 | -1.31 | -42.53 | -26.45 | -17.39 | -20.11 | 3.22 | -4.09 | -1.26 | 0.39 | 3.56 |
| 2 | 38 | 89 | 1.30 | -49.38 | -41.18 | -6.91 | -18.67 | 3.82 | -0.42 | 2.89 | 0.52 | 1.76 |
| 2 | 38 | 93 | 2.84 | -49.56 | -45.76 | -0.96 | -13.58 | 5.44 | 0.84 | 5.36 | 0.92 | 0.62 |
| 2 | 38 | 97 | 3.23 | -48.46 | -46.72 | 1.49 | -9.31 | 6.73 | 1.07 | 6.72 | 1.07 | 0.13 |
| 2 | 38 | 101 | 1.80 | -48.22 | -47.47 | 1.04 | -6.11 | 7.80 | 0.92 | 7.80 | 0.92 | 0.15 |
| 2 | 38 | 104 | -5.74e-02 | -53.85 | -53.44 | -0.47 | -4.69 | 8.82 | 0.70 | 8.82 | 0.71 | 0.19 |
| 2 | 38 | 108 | -8.95 | -37.43 | -37.25 | -9.14 | -2.31 | 8.79 | 3.85 | 8.31 | 4.33 | -1.46 |
| 2 | 38 | 112 | -4.28 | -40.23 | -39.67 | -4.84 | -4.45 | 7.46 | 1.26 | 7.24 | 1.49 | -1.16 |
| 2 | 38 | 116 | -0.73 | -42.28 | -41.60 | -1.41 | -5.28 | 7.12 | 0.92 | 6.98 | 1.06 | -0.94 |
| 2 | 38 | 120 | 1.62 | -43.02 | -42.49 | 1.09 | -4.85 | 7.07 | 0.98 | 6.97 | 1.08 | -0.76 |
| 2 | 38 | 124 | 1.82 | -42.52 | -42.29 | 1.59 | -3.14 | 6.97 | 0.74 | 6.90 | 0.82 | -0.68 |
| 2 | 38 | 127 | 1.27 | -42.56 | -42.47 | 1.19 | -1.92 | 6.85 | 0.43 | 6.77 | 0.51 | -0.71 |
| 2 | 38 | 131 | -6.13 | -52.16 | -46.88 | -11.41 | 14.67 | 9.58 | 1.14 | 9.58 | 1.14 | -0.11 |
| 2 | 38 | 135 | -3.92 | -48.99 | -45.75 | -7.16 | 11.64 | 8.50 | 1.19 | 8.50 | 1.20 | 0.20 |
| 2 | 38 | 139 | -0.70 | -46.19 | -44.41 | -2.48 | 8.83 | 7.61 | 1.09 | 7.59 | 1.10 | 0.29 |
| 2 | 38 | 143 | 1.28 | -44.06 | -43.15 | 0.36 | 6.37 | 6.73 | 1.01 | 6.72 | 1.02 | 0.21 |
| 2 | 38 | 147 | 1.03 | -41.64 | -41.29 | 0.68 | 3.85 | 5.80 | 0.70 | 5.80 | 0.70 | -3.60e-02 |
| 2 | 38 | 150 | 0.76 | -37.16 | -36.99 | 0.60 | 2.48 | 5.35 | 0.39 | 5.35 | 0.39 | -6.39e-02 |
| 2 | 38 | 152 | -10.46 | -70.63 | -52.17 | -28.92 | 27.75 | 18.93 | 2.87 | 14.51 | 7.30 | -7.17 |
| 2 | 38 | 157 | -22.73 | -95.38 | -43.37 | -74.74 | 32.76 | 25.33 | 7.53 | 10.11 | 22.75 | -6.27 |
| 2 | 38 | 161 | -34.90 | -40.01 | -37.27 | -37.65 | 2.55 | 12.02 | 7.69 | 9.62 | 10.09 | -2.15 |
| 2 | 38 | 165 | -3.72 | -46.80 | -4.53 | -45.99 | 5.86 | 3.35 | -10.04 | -1.93 | -4.76 | 6.55 |
| 2 | 38 | 166 | -27.53 | -59.83 | -51.26 | -36.10 | -14.26 | 2.54 | -0.83 | 2.37 | -0.66 | 0.73 |
| 2 | 38 | 167 | -19.94 | -42.23 | -41.29 | -20.88 | 4.48 | 2.81 | -5.11 | -4.38 | 2.08 | -2.28 |
| 2 | 38 | 168 | -16.41 | -51.04 | -18.21 | -49.24 | 7.69 | -8.48e-02 | -6.15 | -3.24 | -2.99 | 3.03 |
| 2 | 38 | 169 | -20.32 | -60.22 | -43.31 | -37.24 | -19.72 | 2.26 | -0.19 | 2.23 | -0.16 | -0.25 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 38 | 173 | -4.25 | -44.12 | -4.65 | -43.72 | -3.97 | 0.85 | -5.19 | -0.52 | -3.82 | 2.53 |
| 2 | 38 | 174 | -17.20 | -35.56 | -35.52 | -17.24 | 0.89 | 10.83 | 7.29 | 9.49 | 8.63 | -1.72 |
| 2 | 38 | 175 | -13.88 | -50.59 | -45.17 | -19.30 | 13.02 | 4.56 | 0.88 | 3.88 | 1.57 | -1.43 |
| 2 | 38 | 179 | -10.14 | -38.27 | -16.25 | -32.16 | -11.60 | 4.11 | -6.57 | -4.41 | 1.96 | 4.29 |
| 2 | 38 | 183 | -16.39 | -53.37 | -44.59 | -25.16 | 15.73 | 7.05 | 1.63 | 4.92 | 3.77 | -2.65 |
| 2 | 38 | 184 | -24.33 | -43.87 | -41.71 | -26.49 | 6.13 | 5.82 | -3.69 | -2.69 | 4.82 | -2.92 |
| 2 | 38 | 185 | -19.35 | -62.59 | -47.51 | -34.43 | 20.61 | 13.84 | 1.76 | 5.73 | 9.87 | -5.67 |
| 2 | 38 | 186 | -26.39 | -46.01 | -39.61 | -32.79 | 9.20 | 7.23 | -3.78 | -3.66 | 7.11 | -1.15 |
| 2 | 38 | 187 | -15.30 | -64.94 | -38.90 | -41.34 | 24.79 | 12.08 | -0.98 | -0.94 | 12.05 | -0.65 |
| 2 | 38 | 188 | -25.22 | -51.39 | -36.47 | -40.13 | 12.96 | 5.63 | -11.31 | -11.23 | 5.55 | 1.16 |
| 2 | 38 | 189 | -5.10 | -86.29 | -11.18 | -80.22 | 21.37 | 12.87 | -4.25 | -3.13 | 11.75 | 4.24 |
| 2 | 38 | 190 | -8.57 | -57.73 | -17.50 | -48.79 | 18.96 | 7.86 | -7.84 | -5.09 | 5.12 | 5.97 |
| 2 | 38 | 191 | -8.79 | -54.43 | -10.11 | -53.10 | 7.66 | 2.10 | -8.58 | -3.07 | -3.41 | 5.34 |
| 2 | 38 | 192 | -21.88 | -52.78 | -28.81 | -45.85 | 12.89 | 2.53 | -7.26 | -6.85 | 2.13 | 1.95 |
| 2 | 38 | 193 | -3.06 | -41.71 | -3.15 | -41.62 | -1.88 | 1.31 | -10.19 | -1.49 | -7.39 | 4.94 |
| 2 | 38 | 194 | -7.16 | -47.27 | -7.17 | -47.26 | -0.57 | 1.26 | -8.15 | -1.67 | -5.22 | 4.36 |
| 2 | 38 | 195 | -13.85 | -51.26 | -13.85 | -51.25 | 0.36 | 0.75 | -5.38 | -1.45 | -3.18 | 2.94 |
| 2 | 38 | 196 | -19.68 | -38.00 | -36.53 | -21.15 | -4.98 | 6.24 | 0.22 | 1.19 | 5.26 | -2.22 |
| 2 | 38 | 197 | -31.24 | -60.88 | -33.37 | -58.75 | -7.66 | 4.69 | -2.02 | -0.48 | 3.15 | 2.82 |
| 2 | 38 | 198 | -24.96 | -38.61 | -38.52 | -25.04 | -1.05 | 5.98 | -1.96 | 0.53 | 3.49 | -3.68 |
| 2 | 38 | 199 | -24.36 | -62.86 | -32.58 | -54.64 | -15.77 | 4.59 | -0.77 | -0.59 | 4.41 | 0.95 |
| 2 | 38 | 200 | -34.91 | -37.39 | -37.01 | -35.30 | 0.90 | 5.41 | -0.99 | -0.50 | 4.93 | 1.69 |
| 2 | 38 | 201 | -30.62 | -42.77 | -32.17 | -41.21 | 4.06 | 7.71 | -1.73 | -1.42 | 7.39 | 1.70 |
| 2 | 38 | 202 | -22.78 | -52.75 | -23.55 | -51.97 | 4.76 | -0.34 | -4.66 | -0.95 | -4.04 | 1.51 |
| 2 | 38 | 203 | -12.19 | -50.49 | -27.04 | -35.64 | -18.66 | 2.74 | 1.50 | 1.55 | 2.69 | -0.23 |
| 2 | 38 | 204 | -21.07 | -38.42 | -34.88 | -24.60 | 6.99 | 5.72 | 4.79 | 5.19 | 5.32 | -0.46 |
| 2 | 38 | 205 | -30.33 | -55.73 | -30.42 | -55.63 | 1.56 | 3.79 | -7.95 | -6.05e-02 | -4.10 | 5.51 |
| 2 | 38 | 206 | -23.51 | -51.55 | -24.08 | -50.97 | 3.98 | 4.55 | -4.62 | -4.55 | 4.48 | 0.82 |
| 2 | 38 | 207 | -14.78 | -18.78 | -17.55 | -16.01 | 1.85 | 3.30 | -0.78 | -8.17e-02 | 2.61 | 1.53 |
| 2 | 38 | 208 | -31.59 | -42.14 | -33.30 | -40.42 | 3.89 | 0.17 | -6.85 | -6.58 | -0.11 | 1.36 |
| 2 | 38 | 209 | -34.74 | -41.96 | -37.09 | -39.62 | 3.38 | 5.94 | 0.25 | 5.64 | 0.55 | -1.26 |
| 2 | 38 | 210 | -23.79 | -39.61 | -33.46 | -29.94 | 7.71 | 3.42 | 0.52 | 2.46 | 1.48 | 1.36 |
| 2 | 38 | 211 | -27.82 | -33.89 | -28.66 | -33.06 | 2.09 | 2.13 | -4.15 | -4.15 | 2.13 | 0.10 |
| 2 | 38 | 212 | -26.60 | -46.92 | -34.48 | -39.05 | 9.90 | 5.18 | 0.21 | 3.16 | 2.23 | -2.44 |
| 2 | 38 | 213 | -33.57 | -51.32 | -44.23 | -40.66 | -8.69 | -2.15 | -7.72 | -6.81 | -3.06 | 2.06 |
| 2 | 38 | 214 | -28.56 | -50.38 | -35.33 | -43.62 | 10.09 | 5.18 | 0.89 | 1.74 | 4.34 | 1.71 |
| 2 | 38 | 215 | -26.82 | -48.89 | -28.72 | -46.98 | 6.20 | 3.36 | -1.38 | -0.98 | 2.97 | -1.32 |
| 2 | 38 | 216 | -29.61 | -44.20 | -40.08 | -33.73 | -6.57 | 6.07 | 0.79 | 6.07 | 0.79 | 0.17 |
| 2 | 38 | 217 | -42.69 | -65.20 | -55.68 | -52.20 | -11.12 | 9.34 | 0.66 | 9.30 | 0.70 | 0.60 |
| 2 | 38 | 218 | -40.64 | -72.55 | -56.84 | -56.36 | -15.95 | 9.82 | 0.56 | 9.70 | 0.68 | 1.04 |
| 2 | 38 | 219 | -25.44 | -65.39 | -47.09 | -43.74 | -19.91 | 8.07 | 0.40 | 7.74 | 0.73 | 1.55 |
| 2 | 38 | 220 | -8.99 | -22.42 | -17.96 | -13.45 | -6.33 | 2.77 | 1.15 | 2.77 | 1.15 | 2.19e-02 |
| 2 | 38 | 240 | -11.46 | -47.94 | -44.74 | -14.65 | 10.31 | 3.51 | 0.93 | 3.17 | 1.27 | -0.87 |
| 2 | 38 | 241 | -8.57 | -45.59 | -43.96 | -10.20 | 7.59 | 2.58 | 0.64 | 2.45 | 0.77 | -0.49 |
| 2 | 38 | 242 | -5.40 | -43.90 | -43.17 | -6.13 | 5.25 | 1.85 | 0.33 | 1.76 | 0.42 | -0.35 |
| 2 | 38 | 243 | -2.55 | -42.52 | -42.21 | -2.87 | 3.52 | 1.22 | -4.61e-02 | 1.05 | 0.13 | -0.43 |
| 2 | 38 | 244 | -0.75 | -40.34 | -40.24 | -0.85 | 2.02 | 0.75 | -0.36 | 0.42 | -2.71e-02 | -0.51 |
| 2 | 38 | 245 | 0.28 | -35.00 | -34.96 | 0.24 | 1.25 | 0.38 | -0.35 | 9.13e-02 | -6.38e-02 | -0.36 |
| 2 | 38 | 246 | -15.91 | -40.52 | -40.30 | -16.14 | 2.33 | 1.60 | -4.32 | -3.96 | 1.24 | -1.41 |
| 2 | 38 | 247 | -11.44 | -40.70 | -40.70 | -11.44 | 4.87e-02 | 0.62 | -4.08 | -3.92 | 0.46 | -0.83 |
| 2 | 38 | 248 | -6.65 | -40.94 | -40.89 | -6.70 | -1.30 | -0.19 | -4.59 | -4.41 | -0.37 | -0.87 |
| 2 | 38 | 249 | -2.99 | -40.60 | -40.51 | -3.07 | -1.74 | -0.49 | -5.01 | -4.82 | -0.68 | -0.90 |
| 2 | 38 | 250 | -0.92 | -39.15 | -39.09 | -0.98 | -1.41 | -0.35 | -5.15 | -5.02 | -0.49 | -0.79 |
| 2 | 38 | 251 | 0.20 | -33.25 | -33.21 | 0.17 | -1.02 | -0.15 | -5.30 | -5.19 | -0.26 | -0.76 |
| 2 | 38 | 252 | -15.74 | -39.45 | -37.67 | -17.52 | -6.25 | 3.10 | 0.22 | 0.41 | 2.91 | -0.72 |
| 2 | 38 | 253 | -9.00 | -40.98 | -39.29 | -10.70 | -7.16 | 1.59 | -0.41 | 0.23 | 0.95 | -0.93 |
| 2 | 38 | 254 | -4.28 | -41.68 | -40.30 | -5.66 | -7.05 | 1.13 | -1.04 | 2.10e-02 | 6.79e-02 | -1.09 |
| 2 | 38 | 255 | -1.56 | -41.55 | -40.57 | -2.54 | -6.21 | 1.06 | -0.95 | 7.76e-02 | 3.38e-02 | -1.01 |
| 2 | 38 | 256 | -0.38 | -40.43 | -39.96 | -0.85 | -4.29 | 0.96 | -0.70 | 0.21 | 4.65e-02 | -0.82 |
| 2 | 38 | 257 | 0.15 | -37.54 | -37.31 | -8.25e-02 | -2.97 | 1.09 | -0.79 | 0.28 | 2.14e-02 | -0.93 |
| 2 | 38 | 258 | -20.55 | -35.70 | -35.66 | -20.59 | 0.79 | 6.56 | 2.31 | 4.81 | 4.06 | -2.09 |
| 2 | 38 | 259 | -12.44 | -40.37 | -40.08 | -12.72 | -2.80 | 6.07 | 1.55 | 5.34 | 2.29 | -1.67 |
| 2 | 38 | 260 | -5.96 | -43.83 | -43.41 | -6.38 | -3.97 | 5.72 | 0.98 | 5.41 | 1.29 | -1.18 |
| 2 | 38 | 261 | -2.39 | -44.99 | -44.69 | -2.69 | -3.55 | 5.63 | 0.78 | 5.41 | 0.99 | -1.00 |
| 2 | 38 | 262 | -0.84 | -45.41 | -45.32 | -0.93 | -2.05 | 5.53 | 0.35 | 5.34 | 0.54 | -0.97 |
| 2 | 38 | 263 | -0.29 | -44.59 | -44.57 | -0.31 | -0.98 | 5.50 | 9.32e-02 | 5.33 | 0.26 | -0.95 |
| 2 | 38 | 264 | -13.10 | -39.08 | -29.40 | -22.78 | -12.56 | 2.10 | -1.44 | -1.41 | 2.06 | 0.35 |
| 2 | 38 | 265 | -7.93 | -45.53 | -40.20 | -13.26 | -13.11 | 2.36 | 1.35 | 1.90 | 1.81 | -0.50 |
| 2 | 38 | 266 | -3.57 | -47.33 | -44.70 | -6.20 | -10.41 | 3.71 | 1.10 | 3.54 | 1.27 | -0.64 |
| 2 | 38 | 267 | -1.66 | -47.20 | -45.93 | -2.93 | -7.49 | 4.53 | 0.78 | 4.40 | 0.91 | -0.69 |
| 2 | 38 | 268 | -0.68 | -47.48 | -47.00 | -1.17 | -4.76 | 5.19 | 0.45 | 5.12 | 0.53 | -0.61 |
| 2 | 38 | 269 | -0.35 | -49.43 | -49.20 | -0.58 | -3.35 | 5.93 | 0.29 | 5.88 | 0.35 | -0.55 |
| 2 | 58 | 4 | -5.68 | -57.22 | -50.49 | -12.41 | 17.37 | 9.49 | -1.34 | 6.23 | 1.91 | -4.96 |
| 2 | 58 | 17 | -24.60 | -42.54 | -36.98 | -30.17 | 8.30 | 26.04 | 15.25 | 25.75 | 15.53 | 1.73 |
| 2 | 58 | 18 | -16.93 | -45.26 | -42.77 | -19.42 | 8.03 | 20.75 | 8.85 | 20.53 | 9.06 | 1.58 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 58 | 19 | -26.38 | -48.24 | -29.75 | -44.86 | 7.89 | 13.75 | -6.60 | 13.70 | -6.55 | 0.95 |
| 2 | 58 | 20 | -18.58 | -42.80 | -20.39 | -40.98 | 6.37 | 4.57 | -18.80 | 4.53 | -18.75 | -1.06 |
| 2 | 58 | 21 | -25.27 | -40.42 | -31.65 | -34.05 | 7.48 | 13.13 | -10.44 | 7.56 | -4.88 | 10.01 |
| 2 | 58 | 22 | -5.22 | -44.93 | -6.26 | -43.89 | 6.34 | 3.12 | -8.81 | 0.32 | -6.02 | -5.05 |
| 2 | 58 | 23 | -8.48 | -42.35 | -8.96 | -41.87 | 4.00 | 3.31 | -5.90 | 2.35 | -4.94 | -2.82 |
| 2 | 58 | 24 | -12.26 | -43.32 | -12.29 | -43.29 | 0.89 | 1.95 | -2.58 | 1.91 | -2.54 | 0.43 |
| 2 | 58 | 30 | -3.54 | -8.53 | -6.61 | -5.45 | -2.43 | 2.63 | 0.97 | 2.40 | 1.21 | 0.58 |
| 2 | 58 | 31 | -13.52 | -27.53 | -25.01 | -16.05 | 5.38 | 5.73 | -1.13 | -0.92 | 5.51 | 1.20 |
| 2 | 58 | 34 | -37.39 | -59.32 | -44.46 | -52.25 | 10.25 | 7.41 | -5.63 | -5.28 | 7.06 | 2.12 |
| 2 | 58 | 40 | 4.63 | -17.53 | -2.44 | -10.46 | -10.33 | 1.77 | 0.16 | 0.87 | 1.05 | 0.80 |
| 2 | 58 | 41 | -1.83 | -37.40 | -8.35 | -30.88 | -13.76 | 6.04 | 0.67 | 0.95 | 5.75 | -1.21 |
| 2 | 58 | 44 | -9.63 | -53.54 | -13.99 | -49.18 | -13.13 | 10.02 | 0.94 | 0.99 | 9.97 | -0.68 |
| 2 | 58 | 45 | -26.15 | -43.71 | -40.54 | -29.32 | 6.75 | 2.08 | -7.53 | -7.42 | 1.97 | -1.02 |
| 2 | 58 | 46 | -28.57 | -43.01 | -39.64 | -31.93 | 6.11 | -0.81 | -12.86 | -11.44 | -2.24 | 3.89 |
| 2 | 58 | 48 | -26.30 | -39.59 | -26.30 | -39.58 | -0.28 | 0.24 | -11.07 | -2.31 | -8.52 | 4.72 |
| 2 | 58 | 49 | -23.95 | -45.72 | -41.14 | -28.53 | 8.87 | 2.04 | -4.61 | -1.46 | -1.10 | 3.32 |
| 2 | 58 | 50 | -27.91 | -42.29 | -32.22 | -37.98 | -6.59 | -5.35 | -6.51 | -6.01 | -5.84 | 0.57 |
| 2 | 58 | 51 | -30.44 | -46.87 | -44.27 | -33.04 | 6.00 | -3.87 | -13.06 | -12.00 | -4.92 | 2.93 |
| 2 | 58 | 52 | -31.15 | -51.39 | -50.22 | -32.32 | 4.71 | 0.93 | -3.74 | -0.52 | -2.28 | 2.16 |
| 2 | 58 | 53 | -22.16 | -41.42 | -39.18 | -24.41 | 6.18 | 2.33 | -4.46 | -4.42 | 2.29 | 0.55 |
| 2 | 58 | 54 | -31.98 | -38.68 | -35.97 | -34.69 | 3.29 | 0.24 | -13.32 | -6.24 | -6.84 | 6.77 |
| 2 | 58 | 55 | -12.26 | -34.08 | -22.32 | -24.02 | -10.88 | 4.40 | 0.59 | 4.15 | 0.83 | -0.94 |
| 2 | 58 | 59 | -8.02 | -49.57 | -8.93 | -48.66 | -6.07 | 8.66 | 1.10 | 1.12 | 8.63 | -0.45 |
| 2 | 58 | 63 | 1.12 | -44.30 | 1.09 | -44.27 | -1.11 | 6.94 | 1.16 | 1.40 | 6.70 | -1.16 |
| 2 | 58 | 66 | 8.46 | -41.75 | 8.33 | -41.61 | 2.58 | 6.78 | -0.25 | 1.47 | 5.06 | -3.02 |
| 2 | 58 | 70 | 10.37 | -44.56 | 9.83 | -44.01 | 5.43 | 8.74 | -1.45 | 1.24 | 6.05 | -4.49 |
| 2 | 58 | 74 | 6.54 | -47.93 | 5.79 | -47.19 | 6.32 | 8.56 | -1.54 | 0.48 | 6.54 | -4.04 |
| 2 | 58 | 78 | 3.20 | -56.53 | -47.83 | -5.50 | 21.07 | 7.26 | -4.75 | 5.21 | -2.70 | -4.52 |
| 2 | 58 | 81 | 2.74 | -41.57 | 2.15 | -40.99 | 5.05 | 1.89 | -0.64 | -0.63 | 1.88 | -0.13 |
| 2 | 58 | 85 | -8.22 | -31.90 | -29.23 | -10.89 | -7.49 | 3.36 | -4.10 | -1.50 | 0.75 | 3.56 |
| 2 | 58 | 89 | -9.65e-02 | -43.44 | -41.27 | -2.27 | -9.45 | 3.64 | -0.58 | 2.59 | 0.48 | 1.83 |
| 2 | 58 | 93 | 0.97 | -47.24 | -46.29 | 2.33e-02 | -6.68 | 5.00 | 0.67 | 4.87 | 0.80 | 0.72 |
| 2 | 58 | 97 | 0.70 | -47.62 | -47.22 | 0.30 | -4.40 | 6.02 | 0.84 | 6.01 | 0.85 | 0.23 |
| 2 | 58 | 101 | -8.07e-02 | -47.41 | -47.18 | -0.31 | -3.31 | 6.74 | 0.69 | 6.73 | 0.70 | 0.25 |
| 2 | 58 | 104 | -1.33 | -53.30 | -53.13 | -1.50 | -3.00 | 7.45 | 0.51 | 7.44 | 0.53 | 0.31 |
| 2 | 58 | 108 | -1.24 | -43.60 | -42.95 | -1.89 | 5.21 | 11.90 | 3.87 | 11.85 | 3.93 | 0.65 |
| 2 | 58 | 112 | 0.34 | -43.45 | -43.26 | 0.15 | 2.89 | 9.40 | 1.90 | 9.38 | 1.92 | 0.42 |
| 2 | 58 | 116 | 0.13 | -43.90 | -43.88 | 0.11 | 0.94 | 8.08 | 1.29 | 8.07 | 1.30 | 0.13 |
| 2 | 58 | 120 | -0.26 | -44.09 | -44.09 | -0.26 | -8.95e-02 | 7.49 | 1.04 | 7.49 | 1.04 | -6.10e-02 |
| 2 | 58 | 124 | -0.41 | -43.15 | -43.15 | -0.41 | -0.37 | 7.15 | 0.66 | 7.14 | 0.66 | -0.19 |
| 2 | 58 | 127 | -4.97e-02 | -39.48 | -39.48 | -5.31e-02 | -0.37 | 6.97 | 0.35 | 6.95 | 0.37 | -0.33 |
| 2 | 58 | 131 | -3.78 | -53.25 | -48.32 | -8.71 | 14.82 | 8.61 | -0.66 | 6.75 | 1.20 | -3.71 |
| 2 | 58 | 135 | -0.12 | -50.33 | -46.97 | -3.49 | 12.56 | 7.87 | 0.84 | 7.16 | 1.55 | -2.12 |
| 2 | 58 | 139 | 2.29 | -48.40 | -46.53 | 0.42 | 9.55 | 7.49 | 1.21 | 7.34 | 1.36 | -0.95 |
| 2 | 58 | 143 | 2.45 | -46.83 | -45.97 | 1.59 | 6.45 | 7.44 | 1.23 | 7.42 | 1.25 | -0.37 |
| 2 | 58 | 147 | 0.92 | -46.29 | -46.01 | 0.64 | 3.60 | 7.41 | 0.86 | 7.40 | 0.87 | -0.26 |
| 2 | 58 | 150 | -0.18 | -47.11 | -47.01 | -0.28 | 2.19 | 7.61 | 0.53 | 7.61 | 0.53 | -0.13 |
| 2 | 58 | 152 | 5.30 | -71.28 | -54.84 | -11.14 | 31.45 | 20.46 | -2.53 | 7.85 | 10.08 | -11.44 |
| 2 | 58 | 157 | -16.58 | -101.04 | -38.97 | -78.65 | 37.28 | 24.54 | -2.44 | -2.41 | 24.50 | -0.92 |
| 2 | 58 | 161 | -22.27 | -47.01 | -44.12 | -25.16 | 7.95 | 14.04 | 4.12 | 13.96 | 4.20 | 0.88 |
| 2 | 58 | 165 | -3.02 | -63.82 | -4.29 | -62.56 | 8.69 | -5.37 | -39.63 | -8.26 | -36.73 | 9.53 |
| 2 | 58 | 166 | -33.23 | -49.50 | -49.31 | -33.42 | -1.78 | 0.57 | -2.78 | 0.57 | -2.77 | 0.10 |
| 2 | 58 | 167 | -10.60 | -48.53 | -45.13 | -14.00 | 10.84 | 0.99 | -13.39 | -13.27 | 0.87 | 1.32 |
| 2 | 58 | 168 | -10.44 | -47.51 | -14.28 | -43.67 | 11.30 | -9.68 | -19.50 | -9.88 | -19.30 | -1.37 |
| 2 | 58 | 169 | -27.43 | -46.43 | -40.26 | -33.61 | -8.90 | 2.31 | -3.36 | 1.15 | -2.20 | -2.29 |
| 2 | 58 | 173 | 1.85 | -54.43 | 1.29 | -53.87 | 5.58 | 5.83 | -0.41 | -0.13 | 5.56 | -1.27 |
| 2 | 58 | 174 | -7.11 | -44.06 | -42.64 | -8.53 | 7.10 | 14.23 | 5.88 | 14.16 | 5.95 | 0.76 |
| 2 | 58 | 175 | -6.68 | -53.77 | -48.26 | -12.19 | 15.14 | 2.73 | -5.91 | -4.02 | 0.84 | -3.57 |
| 2 | 58 | 179 | -22.35 | -39.45 | -32.58 | -29.23 | 8.39 | 4.47 | -7.02 | -5.40 | 2.85 | 4.00 |
| 2 | 58 | 183 | -9.20 | -55.95 | -47.43 | -17.72 | 18.05 | 3.69 | -9.05 | -7.16 | 1.79 | -4.53 |
| 2 | 58 | 184 | -14.42 | -49.97 | -45.49 | -18.91 | 11.80 | 2.75 | -15.88 | -15.82 | 2.70 | 0.99 |
| 2 | 58 | 185 | -13.92 | -65.86 | -50.09 | -29.69 | 23.89 | 10.18 | -12.14 | -9.74 | 7.78 | -6.91 |
| 2 | 58 | 186 | -17.94 | -48.93 | -42.12 | -24.76 | 12.84 | 3.19 | -23.91 | -23.76 | 3.04 | 2.01 |
| 2 | 58 | 187 | -10.07 | -65.08 | -36.67 | -38.48 | 27.49 | 4.33 | -21.34 | -20.72 | 3.71 | 3.94 |
| 2 | 58 | 188 | -20.08 | -49.72 | -37.65 | -32.15 | 14.56 | -3.66 | -31.16 | -31.05 | -3.77 | 1.74 |
| 2 | 58 | 189 | -8.08 | -108.73 | -13.89 | -102.91 | 23.48 | 4.49 | -27.16 | -13.19 | -9.48 | 15.72 |
| 2 | 58 | 190 | -7.73 | -59.30 | -18.14 | -48.90 | 20.69 | -3.42 | -29.17 | -18.77 | -13.82 | 12.63 |
| 2 | 58 | 191 | -5.63 | -58.92 | -8.01 | -56.54 | 11.02 | -8.76 | -28.07 | -10.83 | -26.01 | 5.97 |
| 2 | 58 | 192 | -18.47 | -49.15 | -29.02 | -38.60 | 14.57 | -13.43 | -19.35 | -19.35 | -13.44 | 3.53e-02 |
| 2 | 58 | 193 | 1.16 | -47.40 | 0.62 | -46.85 | 5.12 | -3.56 | -16.66 | -4.04 | -16.18 | 2.46 |
| 2 | 58 | 194 | -0.35 | -55.27 | -1.14 | -54.48 | 6.51 | -4.50 | -11.03 | -4.56 | -10.96 | 0.66 |
| 2 | 58 | 195 | -1.96 | -48.55 | -3.24 | -47.27 | 7.63 | -0.78 | -9.28 | -3.33 | -6.73 | -3.89 |
| 2 | 58 | 196 | -12.90 | -43.10 | -42.38 | -13.62 | 4.61 | 4.88 | -3.11e-02 | 1.73 | 3.12 | 2.35 |
| 2 | 58 | 197 | -14.82 | -46.35 | -15.38 | -45.80 | -4.14 | 1.36 | -0.94 | 2.29e-02 | 0.40 | 1.13 |
| 2 | 58 | 198 | -14.73 | -45.35 | -43.66 | -16.41 | 6.98 | 5.28 | -2.45 | -3.19e-02 | 2.86 | 3.58 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 58 | 199 | -14.84 | -49.32 | -19.15 | -45.02 | -11.39 | 3.13 | -1.60 | -1.33 | 2.86 | -1.10 |
| 2 | 58 | 200 | -21.85 | -44.90 | -42.25 | -24.50 | 7.35 | 10.05 | -5.39 | -1.22 | 5.89 | 6.85 |
| 2 | 58 | 201 | -24.60 | -41.74 | -36.27 | -30.07 | 7.99 | 4.04 | -1.20 | -1.11 | 3.95 | -0.68 |
| 2 | 58 | 202 | -15.76 | -43.65 | -18.29 | -41.12 | 8.02 | 8.30e-02 | -19.57 | -1.18 | -18.30 | -4.82 |
| 2 | 58 | 203 | -12.88 | -41.25 | -21.77 | -32.37 | -13.16 | 4.97 | -1.52 | 1.28 | 2.17 | -3.21 |
| 2 | 58 | 204 | -12.84 | -47.07 | -43.51 | -16.40 | 10.45 | 9.54 | 3.30 | 9.50 | 3.35 | -0.54 |
| 2 | 58 | 205 | -21.68 | -40.69 | -22.75 | -39.62 | 4.39 | 4.97 | -13.24 | 3.74 | -12.01 | 4.58 |
| 2 | 58 | 206 | -36.42 | -52.91 | -40.25 | -49.08 | 6.97 | 4.53 | -7.13 | -7.11 | 4.50 | 0.55 |
| 2 | 58 | 207 | -16.30 | -34.27 | -29.93 | -20.64 | 7.69 | 3.99 | -2.60 | -1.20 | 2.60 | 2.69 |
| 2 | 58 | 208 | -30.41 | -48.53 | -40.71 | -38.23 | 8.97 | -1.18 | -10.82 | -10.55 | -1.45 | 1.60 |
| 2 | 58 | 209 | -27.39 | -48.35 | -44.54 | -31.20 | 8.09 | 14.27 | -0.61 | 14.15 | -0.49 | 1.29 |
| 2 | 58 | 210 | -16.51 | -48.24 | -45.21 | -19.55 | 9.33 | 9.33 | 2.41 | 8.88 | 2.87 | -1.71 |
| 2 | 58 | 211 | -21.41 | -45.60 | -44.39 | -22.62 | 5.28 | 3.20 | -4.84 | -4.39 | 2.75 | -1.84 |
| 2 | 58 | 212 | -22.23 | -46.75 | -42.67 | -26.31 | 9.13 | 12.72 | 4.08 | 10.41 | 6.39 | -3.82 |
| 2 | 58 | 213 | -33.49 | -41.71 | -41.71 | -33.50 | -0.12 | -5.56 | -11.54 | -10.23 | -6.87 | 2.47 |
| 2 | 58 | 214 | -24.08 | -44.27 | -38.02 | -30.32 | 9.33 | 12.68 | 2.14 | 9.17 | 5.65 | 4.97 |
| 2 | 58 | 215 | -23.00 | -41.34 | -29.04 | -35.31 | 8.62 | 2.20 | -13.44 | -1.67 | -9.56 | -6.75 |
| 2 | 58 | 216 | -29.71 | -45.57 | -43.08 | -32.20 | 5.78 | 6.64 | 0.25 | 6.31 | 0.58 | 1.42 |
| 2 | 58 | 217 | -48.05 | -56.43 | -55.13 | -49.34 | 3.03 | 9.73 | 0.45 | 9.64 | 0.54 | 0.92 |
| 2 | 58 | 218 | -52.82 | -56.75 | -55.24 | -54.33 | -1.91 | 10.27 | 0.56 | 10.27 | 0.56 | 0.14 |
| 2 | 58 | 219 | -37.75 | -53.76 | -46.29 | -45.22 | -7.99 | 8.59 | 0.47 | 8.54 | 0.52 | -0.63 |
| 2 | 58 | 220 | -13.74 | -26.21 | -25.92 | -14.04 | 1.90 | 3.81 | 0.18 | 3.04 | 0.96 | 1.49 |
| 2 | 58 | 240 | -5.52 | -50.83 | -46.89 | -9.45 | 12.76 | 3.94 | -3.17 | -1.90 | 2.66 | -2.73 |
| 2 | 58 | 241 | -4.15 | -48.41 | -45.75 | -6.81 | 10.51 | 3.40 | -0.68 | 0.14 | 2.58 | -1.63 |
| 2 | 58 | 242 | -2.64 | -46.87 | -45.36 | -4.14 | 8.03 | 2.17 | 0.60 | 1.07 | 1.70 | -0.72 |
| 2 | 58 | 243 | -1.39 | -45.66 | -44.93 | -2.12 | 5.62 | 1.52 | 0.76 | 1.37 | 0.90 | -0.30 |
| 2 | 58 | 244 | -0.54 | -44.90 | -44.67 | -0.77 | 3.17 | 1.46 | 0.34 | 1.43 | 0.37 | -0.16 |
| 2 | 58 | 245 | -0.13 | -44.56 | -44.48 | -0.21 | 1.88 | 1.53 | 0.17 | 1.52 | 0.17 | 4.62e-02 |
| 2 | 58 | 246 | -8.28 | -46.20 | -43.96 | -10.52 | 8.93 | 1.91 | -10.23 | -10.12 | 1.81 | 1.12 |
| 2 | 58 | 247 | -6.17 | -44.56 | -43.31 | -7.43 | 6.84 | 2.30 | -7.00 | -6.94 | 2.24 | 0.78 |
| 2 | 58 | 248 | -3.77 | -43.72 | -43.03 | -4.47 | 5.23 | 1.21 | -5.53 | -5.51 | 1.19 | 0.32 |
| 2 | 58 | 249 | -1.88 | -43.21 | -42.83 | -2.25 | 3.91 | 0.16 | -5.08 | -5.08 | 0.16 | 5.83e-02 |
| 2 | 58 | 250 | -0.73 | -42.36 | -42.23 | -0.86 | 2.27 | -0.17 | -4.95 | -4.95 | -0.17 | -4.71e-02 |
| 2 | 58 | 251 | -0.18 | -40.44 | -40.40 | -0.22 | 1.30 | -0.13 | -5.03 | -5.03 | -0.13 | -8.96e-02 |
| 2 | 58 | 252 | -10.66 | -43.17 | -42.61 | -11.22 | 4.23 | 4.66 | -2.36 | -0.42 | 2.72 | 3.14 |
| 2 | 58 | 253 | -6.14 | -42.76 | -42.41 | -6.49 | 3.57 | 3.22 | -1.34 | -0.33 | 2.22 | 1.89 |
| 2 | 58 | 254 | -3.08 | -42.39 | -42.16 | -3.32 | 3.05 | 1.50 | -0.69 | -0.38 | 1.19 | 0.77 |
| 2 | 58 | 255 | -1.30 | -42.02 | -41.87 | -1.45 | 2.44 | 0.52 | -0.49 | -0.45 | 0.48 | 0.20 |
| 2 | 58 | 256 | -0.38 | -40.82 | -40.76 | -0.44 | 1.53 | 0.12 | -0.52 | -0.52 | 0.12 | -2.99e-02 |
| 2 | 58 | 257 | 0.10 | -37.89 | -37.86 | 7.59e-02 | 0.97 | 0.13 | -0.74 | -0.61 | 8.62e-03 | -0.30 |
| 2 | 58 | 258 | -13.30 | -42.92 | -41.69 | -14.54 | 5.93 | 7.96 | 2.43 | 7.49 | 2.90 | -1.54 |
| 2 | 58 | 259 | -9.10 | -43.22 | -43.18 | -9.14 | 1.17 | 7.52 | 1.97 | 7.27 | 2.22 | -1.15 |
| 2 | 58 | 260 | -4.44 | -45.84 | -45.76 | -4.52 | -1.80 | 6.99 | 1.26 | 6.89 | 1.36 | -0.73 |
| 2 | 58 | 261 | -1.52 | -46.80 | -46.63 | -1.69 | -2.77 | 6.67 | 0.86 | 6.62 | 0.91 | -0.52 |
| 2 | 58 | 262 | -0.32 | -46.64 | -46.52 | -0.44 | -2.35 | 6.50 | 0.41 | 6.46 | 0.45 | -0.48 |
| 2 | 58 | 263 | 0.18 | -44.22 | -44.15 | 0.11 | -1.76 | 6.48 | 0.16 | 6.45 | 0.19 | -0.44 |
| 2 | 58 | 264 | -18.22 | -34.45 | -34.09 | -18.57 | -2.38 | 1.76 | -0.75 | -0.75 | 1.75 | 6.57e-02 |
| 2 | 58 | 265 | -9.81 | -42.42 | -41.48 | -10.76 | -5.47 | 2.41 | 1.52 | 2.28 | 1.66 | -0.32 |
| 2 | 58 | 266 | -3.85 | -46.45 | -45.85 | -4.45 | -5.02 | 3.81 | 1.13 | 3.76 | 1.19 | -0.40 |
| 2 | 58 | 267 | -1.66 | -47.31 | -46.96 | -2.01 | -3.96 | 4.45 | 0.71 | 4.41 | 0.75 | -0.38 |
| 2 | 58 | 268 | -0.68 | -47.34 | -47.14 | -0.87 | -3.00 | 4.87 | 0.35 | 4.85 | 0.37 | -0.26 |
| 2 | 58 | 269 | -0.44 | -49.82 | -49.70 | -0.56 | -2.44 | 5.37 | 0.22 | 5.37 | 0.22 | -0.17 |
| 2 | 62 | 4 | -6.77 | -56.06 | -50.57 | -12.26 | 15.51 | 9.21 | -0.14 | 7.16 | 1.90 | -3.86 |
| 2 | 62 | 17 | -26.48 | -41.83 | -36.41 | -31.90 | 7.34 | 22.38 | 14.09 | 22.11 | 14.36 | 1.47 |
| 2 | 62 | 18 | -17.93 | -44.42 | -42.43 | -19.92 | 6.98 | 17.25 | 7.43 | 17.11 | 7.57 | 1.16 |
| 2 | 62 | 19 | -26.98 | -48.65 | -29.45 | -46.18 | 6.88 | 11.71 | -4.80 | 11.63 | -4.72 | 1.14 |
| 2 | 62 | 20 | -19.81 | -43.30 | -20.99 | -42.11 | 5.14 | 3.55 | -15.89 | 3.55 | -15.89 | -0.20 |
| 2 | 62 | 21 | -26.62 | -40.22 | -31.53 | -35.30 | 6.53 | 11.40 | -9.33 | 5.94 | -3.88 | 9.13 |
| 2 | 62 | 22 | -7.54 | -44.28 | -8.08 | -43.75 | 4.39 | 1.90 | -6.67 | 0.18 | -4.95 | -3.44 |
| 2 | 62 | 23 | -11.13 | -42.89 | -11.32 | -42.70 | 2.45 | 2.27 | -4.35 | 1.82 | -3.90 | -1.66 |
| 2 | 62 | 24 | -14.80 | -44.22 | -14.80 | -44.22 | -0.20 | 1.72 | -1.91 | 1.46 | -1.65 | 0.93 |
| 2 | 62 | 30 | -1.47 | -8.93 | -5.79 | -4.61 | -3.68 | 2.39 | 1.11 | 2.31 | 1.19 | 0.32 |
| 2 | 62 | 31 | -13.36 | -25.54 | -24.01 | -14.89 | 4.04 | 5.29 | -0.90 | -0.72 | 5.11 | 1.05 |
| 2 | 62 | 34 | -38.57 | -58.01 | -44.68 | -51.89 | 9.03 | 7.12 | -4.95 | -4.54 | 6.72 | 2.17 |
| 2 | 62 | 40 | 4.79 | -16.29 | -2.38 | -9.11 | -9.99 | 2.19 | -0.26 | 0.89 | 1.03 | 1.22 |
| 2 | 62 | 41 | -2.65 | -36.58 | -9.35 | -29.89 | -13.50 | 5.55 | 0.85 | 0.95 | 5.45 | -0.69 |
| 2 | 62 | 44 | -12.42 | -53.88 | -17.09 | -49.20 | -13.12 | 9.69 | 0.95 | 0.96 | 9.68 | -0.29 |
| 2 | 62 | 45 | -27.34 | -42.76 | -40.18 | -29.92 | 5.75 | 1.83 | -7.00 | -6.89 | 1.72 | -0.97 |
| 2 | 62 | 46 | -29.91 | -42.16 | -39.42 | -32.64 | 5.10 | -0.83 | -11.97 | -10.82 | -1.97 | 3.38 |
| 2 | 62 | 48 | -26.96 | -40.60 | -27.09 | -40.48 | -1.29 | 0.24 | -9.90 | -2.46 | -7.21 | 4.48 |
| 2 | 62 | 49 | -24.03 | -44.27 | -40.79 | -27.51 | 7.63 | 2.20 | -3.86 | -0.86 | -0.80 | 3.03 |
| 2 | 62 | 50 | -27.43 | -43.44 | -32.80 | -38.07 | -7.56 | -4.53 | -5.86 | -5.45 | -4.94 | 0.62 |
| 2 | 62 | 51 | -31.18 | -45.88 | -44.06 | -33.00 | 4.85 | -3.39 | -11.78 | -10.84 | -4.33 | 2.64 |
| 2 | 62 | 52 | -30.74 | -50.69 | -50.07 | -31.36 | 3.47 | 1.34 | -3.07 | 0.13 | -1.86 | 1.97 |
| 2 | 62 | 53 | -23.07 | -41.56 | -39.89 | -24.74 | 5.29 | 2.24 | -4.16 | -4.10 | 2.18 | 0.63 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 62 | 54 | -33.50 | -38.04 | -36.00 | -35.55 | 2.26 | 0.10 | -12.13 | -6.16 | -5.87 | 6.11 |
| 2 | 62 | 55 | -11.14 | -33.33 | -22.15 | -22.32 | -11.10 | 4.09 | 0.81 | 4.05 | 0.86 | -0.38 |
| 2 | 62 | 59 | -12.66 | -50.48 | -13.81 | -49.34 | -6.49 | 8.56 | 1.03 | 1.04 | 8.56 | -9.79e-02 |
| 2 | 62 | 63 | -4.58 | -45.31 | -4.70 | -45.20 | -2.16 | 6.76 | 1.18 | 1.25 | 6.69 | -0.63 |
| 2 | 62 | 66 | 2.75 | -42.50 | 2.73 | -42.48 | 0.84 | 5.78 | 0.32 | 1.26 | 4.84 | -2.06 |
| 2 | 62 | 70 | 5.58 | -44.07 | 5.38 | -43.87 | 3.12 | 6.90 | -0.70 | 1.02 | 5.18 | -3.18 |
| 2 | 62 | 74 | 3.52 | -46.53 | 3.21 | -46.22 | 3.94 | 6.54 | -0.86 | 0.38 | 5.30 | -2.77 |
| 2 | 62 | 78 | 0.31 | -55.45 | -48.04 | -7.10 | 18.93 | 7.78 | -3.37 | 6.47 | -2.06 | -3.59 |
| 2 | 62 | 81 | 1.44 | -40.36 | 1.25 | -40.17 | 2.79 | 0.82 | -0.71 | -0.56 | 0.68 | 0.45 |
| 2 | 62 | 85 | -9.11 | -33.21 | -30.28 | -12.04 | -7.87 | 3.52 | -3.62 | -0.83 | 0.73 | 3.48 |
| 2 | 62 | 89 | -0.93 | -44.34 | -42.01 | -3.26 | -9.80 | 4.13 | -0.38 | 3.23 | 0.52 | 1.80 |
| 2 | 62 | 93 | 0.46 | -48.01 | -46.97 | -0.58 | -7.01 | 5.65 | 0.76 | 5.54 | 0.87 | 0.72 |
| 2 | 62 | 97 | 0.46 | -48.35 | -47.90 | 1.52e-02 | -4.66 | 6.74 | 0.94 | 6.73 | 0.95 | 0.23 |
| 2 | 62 | 101 | -0.19 | -48.40 | -48.15 | -0.44 | -3.43 | 7.53 | 0.78 | 7.53 | 0.79 | 0.23 |
| 2 | 62 | 104 | -1.36 | -54.10 | -53.93 | -1.53 | -3.02 | 8.30 | 0.58 | 8.29 | 0.59 | 0.28 |
| 2 | 62 | 108 | -2.73 | -43.89 | -43.49 | -3.13 | 4.05 | 10.55 | 3.66 | 10.55 | 3.66 | 0.16 |
| 2 | 62 | 112 | -0.90 | -44.05 | -43.97 | -0.98 | 1.87 | 8.50 | 1.72 | 8.50 | 1.72 | 5.12e-02 |
| 2 | 62 | 116 | -0.58 | -44.71 | -44.71 | -0.59 | 0.11 | 7.46 | 1.18 | 7.45 | 1.18 | -0.11 |
| 2 | 62 | 120 | -0.47 | -45.08 | -45.07 | -0.49 | -0.74 | 7.01 | 0.97 | 7.00 | 0.98 | -0.21 |
| 2 | 62 | 124 | -0.38 | -44.42 | -44.40 | -0.39 | -0.74 | 6.73 | 0.63 | 6.72 | 0.64 | -0.29 |
| 2 | 62 | 127 | -7.72e-02 | -41.67 | -41.66 | -8.43e-02 | -0.54 | 6.57 | 0.34 | 6.55 | 0.36 | -0.40 |
| 2 | 62 | 131 | -5.20 | -52.82 | -48.95 | -9.08 | 13.01 | 8.52 | 0.11 | 7.44 | 1.19 | -2.81 |
| 2 | 62 | 135 | -1.98 | -50.33 | -47.78 | -4.53 | 10.81 | 7.93 | 1.08 | 7.56 | 1.45 | -1.55 |
| 2 | 62 | 139 | 0.60 | -48.58 | -47.20 | -0.78 | 8.13 | 7.58 | 1.22 | 7.51 | 1.28 | -0.66 |
| 2 | 62 | 143 | 1.32 | -47.12 | -46.49 | 0.69 | 5.49 | 7.40 | 1.18 | 7.39 | 1.19 | -0.24 |
| 2 | 62 | 147 | 0.41 | -46.41 | -46.20 | 0.21 | 3.09 | 7.19 | 0.82 | 7.18 | 0.83 | -0.21 |
| 2 | 62 | 150 | -0.34 | -46.49 | -46.41 | -0.42 | 1.92 | 7.26 | 0.50 | 7.26 | 0.50 | -0.12 |
| 2 | 62 | 152 | 1.12 | -68.85 | -54.39 | -13.34 | 28.33 | 19.05 | -0.96 | 9.06 | 9.03 | -10.01 |
| 2 | 62 | 157 | -17.89 | -93.66 | -39.19 | -72.37 | 34.06 | 22.75 | 0.13 | 0.31 | 22.57 | -1.99 |
| 2 | 62 | 161 | -23.06 | -46.62 | -44.42 | -25.26 | 6.85 | 12.34 | 4.49 | 12.33 | 4.50 | 0.21 |
| 2 | 62 | 165 | -3.01 | -56.64 | -4.02 | -55.63 | 7.28 | -3.85 | -31.58 | -6.63 | -28.80 | 8.33 |
| 2 | 62 | 166 | -31.98 | -49.84 | -49.33 | -32.50 | -3.00 | 1.10 | -2.27 | 1.09 | -2.26 | 0.15 |
| 2 | 62 | 167 | -11.75 | -47.97 | -45.55 | -14.17 | 9.05 | 1.01 | -10.99 | -10.95 | 0.98 | 0.64 |
| 2 | 62 | 168 | -11.43 | -45.69 | -14.37 | -42.76 | 9.59 | -8.01 | -15.45 | -8.07 | -15.40 | -0.61 |
| 2 | 62 | 169 | -25.98 | -47.18 | -40.44 | -32.73 | -9.88 | 2.38 | -2.61 | 1.48 | -1.71 | -1.92 |
| 2 | 62 | 173 | 0.66 | -50.19 | 0.44 | -49.97 | 3.33 | 4.10 | -0.20 | -0.14 | 4.04 | -0.51 |
| 2 | 62 | 174 | -8.40 | -44.06 | -43.03 | -9.44 | 5.98 | 12.49 | 5.77 | 12.48 | 5.78 | 0.19 |
| 2 | 62 | 175 | -8.22 | -52.90 | -48.52 | -12.60 | 13.29 | 2.73 | -3.85 | -2.10 | 0.98 | -2.91 |
| 2 | 62 | 179 | -23.99 | -39.43 | -33.63 | -29.79 | 7.48 | 4.43 | -6.31 | -4.58 | 2.70 | 3.95 |
| 2 | 62 | 183 | -10.73 | -54.53 | -47.56 | -17.70 | 16.02 | 3.96 | -6.13 | -4.33 | 2.15 | -3.87 |
| 2 | 62 | 184 | -15.47 | -49.01 | -45.64 | -18.84 | 10.09 | 2.99 | -12.58 | -12.58 | 2.99 | 0.35 |
| 2 | 62 | 185 | -15.05 | -63.15 | -49.80 | -28.40 | 21.54 | 10.15 | -8.58 | -6.20 | 7.77 | -6.24 |
| 2 | 62 | 186 | -18.91 | -47.83 | -42.23 | -24.51 | 11.43 | 3.80 | -19.03 | -18.95 | 3.71 | 1.40 |
| 2 | 62 | 187 | -11.37 | -61.85 | -36.68 | -36.54 | 25.24 | 5.30 | -16.21 | -15.82 | 4.92 | 2.84 |
| 2 | 62 | 188 | -20.74 | -47.99 | -37.06 | -31.68 | 13.36 | -1.75 | -25.86 | -25.77 | -1.84 | 1.43 |
| 2 | 62 | 189 | -7.10 | -97.07 | -12.56 | -91.61 | 21.48 | 4.82 | -20.74 | -10.62 | -5.30 | 12.50 |
| 2 | 62 | 190 | -7.98 | -55.55 | -17.36 | -46.18 | 18.92 | -1.60 | -23.40 | -15.21 | -9.79 | 10.56 |
| 2 | 62 | 191 | -6.12 | -54.97 | -7.99 | -53.10 | 9.36 | -6.68 | -22.60 | -8.78 | -20.50 | 5.39 |
| 2 | 62 | 192 | -18.98 | -47.11 | -28.14 | -37.96 | 13.18 | -9.99 | -15.94 | -15.94 | -9.99 | 0.21 |
| 2 | 62 | 193 | 0.25 | -44.07 | -1.72e-03 | -43.82 | 3.33 | -2.62 | -14.00 | -3.31 | -13.32 | 2.71 |
| 2 | 62 | 194 | -1.60 | -51.28 | -2.02 | -50.86 | 4.55 | -3.45 | -9.30 | -3.73 | -9.02 | 1.25 |
| 2 | 62 | 195 | -4.02 | -46.89 | -4.74 | -46.17 | 5.51 | -1.31 | -6.96 | -2.74 | -5.53 | -2.46 |
| 2 | 62 | 196 | -13.60 | -43.13 | -42.79 | -13.93 | 3.13 | 3.88 | 0.77 | 1.55 | 3.10 | 1.35 |
| 2 | 62 | 197 | -16.84 | -47.25 | -17.62 | -46.47 | -4.83 | 1.91 | -1.00 | -9.90e-02 | 1.01 | 1.34 |
| 2 | 62 | 198 | -15.65 | -44.90 | -43.83 | -16.72 | 5.48 | 4.12 | -1.12 | 0.16 | 2.84 | 2.25 |
| 2 | 62 | 199 | -15.92 | -49.79 | -20.71 | -45.00 | -11.80 | 3.26 | -1.28 | -1.14 | 3.12 | -0.79 |
| 2 | 62 | 200 | -22.85 | -43.87 | -42.00 | -24.72 | 5.99 | 8.90 | -4.10 | -0.86 | 5.66 | 5.62 |
| 2 | 62 | 201 | -25.61 | -40.19 | -35.50 | -30.30 | 6.81 | 4.55 | -0.93 | -0.90 | 4.52 | -0.41 |
| 2 | 62 | 202 | -16.80 | -43.04 | -18.58 | -41.26 | 6.59 | -0.20 | -15.74 | -1.02 | -14.91 | -3.48 |
| 2 | 62 | 203 | -12.66 | -41.01 | -22.24 | -31.43 | -13.41 | 4.48 | -0.87 | 1.38 | 2.24 | -2.64 |
| 2 | 62 | 204 | -13.83 | -46.93 | -43.88 | -16.88 | 9.57 | 8.20 | 3.21 | 8.11 | 3.29 | -0.64 |
| 2 | 62 | 205 | -22.92 | -41.46 | -23.52 | -40.85 | 3.30 | 4.22 | -11.63 | 2.77 | -10.19 | 4.56 |
| 2 | 62 | 206 | -36.99 | -51.53 | -39.88 | -48.64 | 5.80 | 4.34 | -6.32 | -6.28 | 4.30 | 0.64 |
| 2 | 62 | 207 | -16.41 | -32.56 | -29.42 | -19.56 | 6.39 | 3.81 | -2.12 | -0.83 | 2.51 | 2.45 |
| 2 | 62 | 208 | -31.25 | -47.12 | -40.36 | -38.01 | 7.85 | -0.99 | -9.72 | -9.46 | -1.25 | 1.50 |
| 2 | 62 | 209 | -27.60 | -47.41 | -44.54 | -30.47 | 6.97 | 12.01 | -0.43 | 11.97 | -0.39 | 0.66 |
| 2 | 62 | 210 | -17.64 | -47.76 | -45.14 | -20.26 | 8.49 | 7.63 | 2.07 | 7.24 | 2.46 | -1.42 |
| 2 | 62 | 211 | -22.34 | -45.02 | -44.18 | -23.18 | 4.28 | 2.86 | -4.57 | -4.20 | 2.49 | -1.62 |
| 2 | 62 | 212 | -23.42 | -46.01 | -42.32 | -27.12 | 8.36 | 10.89 | 3.12 | 8.54 | 5.46 | -3.57 |
| 2 | 62 | 213 | -33.38 | -41.96 | -41.77 | -33.57 | -1.27 | -4.84 | -10.42 | -9.29 | -5.97 | 2.24 |
| 2 | 62 | 214 | -25.39 | -43.61 | -37.70 | -31.30 | 8.53 | 10.60 | 1.89 | 7.33 | 5.16 | 4.22 |
| 2 | 62 | 215 | -23.79 | -40.31 | -28.47 | -35.63 | 7.45 | 2.13 | -10.36 | -1.32 | -6.92 | -5.58 |
| 2 | 62 | 216 | -28.98 | -44.15 | -42.66 | -30.46 | 4.51 | 6.57 | 0.46 | 6.37 | 0.66 | 1.09 |
| 2 | 62 | 217 | -47.00 | -55.34 | -54.95 | -47.39 | 1.77 | 9.73 | 0.55 | 9.66 | 0.62 | 0.79 |
| 2 | 62 | 218 | -50.29 | -57.21 | -55.17 | -52.33 | -3.16 | 10.21 | 0.62 | 10.20 | 0.62 | 0.27 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 62 | 219 | -35.57 | -53.79 | -46.16 | -43.20 | -8.99 | 8.42 | 0.59 | 8.41 | 0.59 | -0.22 |
| 2 | 62 | 220 | -12.82 | -25.37 | -25.34 | -12.85 | 0.63 | 3.51 | 0.49 | 3.01 | 0.98 | 1.11 |
| 2 | 62 | 240 | -6.84 | -50.49 | -47.52 | -9.81 | 10.99 | 3.43 | -1.81 | -0.63 | 2.25 | -2.19 |
| 2 | 62 | 241 | -5.25 | -48.47 | -46.59 | -7.14 | 8.83 | 2.90 | -6.16e-02 | 0.76 | 2.08 | -1.32 |
| 2 | 62 | 242 | -3.48 | -47.17 | -46.16 | -4.49 | 6.58 | 1.96 | 0.70 | 1.31 | 1.35 | -0.62 |
| 2 | 62 | 243 | -1.92 | -46.11 | -45.64 | -2.39 | 4.53 | 1.52 | 0.58 | 1.39 | 0.71 | -0.33 |
| 2 | 62 | 244 | -0.76 | -45.29 | -45.14 | -0.91 | 2.56 | 1.36 | 0.22 | 1.31 | 0.27 | -0.24 |
| 2 | 62 | 245 | -0.17 | -44.40 | -44.34 | -0.23 | 1.52 | 1.31 | 0.11 | 1.31 | 0.12 | -3.76e-02 |
| 2 | 62 | 246 | -9.31 | -46.11 | -44.64 | -10.78 | 7.22 | 1.51 | -8.62 | -8.58 | 1.47 | 0.58 |
| 2 | 62 | 247 | -6.99 | -45.02 | -44.29 | -7.72 | 5.22 | 1.70 | -6.25 | -6.23 | 1.68 | 0.40 |
| 2 | 62 | 248 | -4.38 | -44.48 | -44.13 | -4.73 | 3.75 | 0.77 | -5.25 | -5.25 | 0.77 | 4.91e-02 |
| 2 | 62 | 249 | -2.27 | -44.11 | -43.94 | -2.44 | 2.66 | -5.05e-02 | -5.00 | -5.00 | -5.51e-02 | -0.15 |
| 2 | 62 | 250 | -0.90 | -43.37 | -43.32 | -0.96 | 1.49 | -0.24 | -4.95 | -4.94 | -0.25 | -0.21 |
| 2 | 62 | 251 | -0.23 | -41.25 | -41.24 | -0.25 | 0.82 | -0.15 | -5.05 | -5.04 | -0.16 | -0.23 |
| 2 | 62 | 252 | -11.32 | -43.47 | -43.26 | -11.53 | 2.62 | 3.62 | -1.48 | -0.30 | 2.44 | 2.15 |
| 2 | 62 | 253 | -6.79 | -43.53 | -43.43 | -6.89 | 1.94 | 2.34 | -0.82 | -0.27 | 1.79 | 1.20 |
| 2 | 62 | 254 | -3.66 | -43.45 | -43.40 | -3.71 | 1.48 | 0.98 | -0.43 | -0.34 | 0.88 | 0.35 |
| 2 | 62 | 255 | -1.73 | -43.28 | -43.26 | -1.76 | 1.07 | 0.36 | -0.38 | -0.37 | 0.35 | -6.58e-02 |
| 2 | 62 | 256 | -0.60 | -42.44 | -42.43 | -0.61 | 0.61 | 0.16 | -0.47 | -0.40 | 8.52e-02 | -0.20 |
| 2 | 62 | 257 | -2.09e-02 | -39.92 | -39.91 | -2.42e-02 | 0.37 | 0.27 | -0.72 | -0.46 | 9.39e-04 | -0.44 |
| 2 | 62 | 258 | -13.98 | -43.20 | -42.24 | -14.94 | 5.23 | 7.10 | 2.20 | 6.48 | 2.82 | -1.62 |
| 2 | 62 | 259 | -9.63 | -43.68 | -43.66 | -9.65 | 0.79 | 6.76 | 1.76 | 6.44 | 2.08 | -1.24 |
| 2 | 62 | 260 | -4.93 | -46.28 | -46.19 | -5.02 | -1.92 | 6.32 | 1.14 | 6.19 | 1.28 | -0.83 |
| 2 | 62 | 261 | -1.94 | -47.32 | -47.16 | -2.10 | -2.72 | 6.07 | 0.79 | 5.99 | 0.87 | -0.62 |
| 2 | 62 | 262 | -0.57 | -47.32 | -47.22 | -0.68 | -2.18 | 5.92 | 0.37 | 5.86 | 0.43 | -0.58 |
| 2 | 62 | 263 | -2.28e-02 | -45.50 | -45.45 | -7.52e-02 | -1.54 | 5.90 | 0.14 | 5.85 | 0.19 | -0.54 |
| 2 | 62 | 264 | -18.40 | -35.46 | -34.96 | -18.90 | -2.88 | 1.72 | -0.60 | -0.59 | 1.72 | 7.04e-02 |
| 2 | 62 | 265 | -10.19 | -43.22 | -42.16 | -11.25 | -5.84 | 2.56 | 1.50 | 2.43 | 1.63 | -0.34 |
| 2 | 62 | 266 | -4.31 | -47.12 | -46.45 | -4.97 | -5.29 | 4.02 | 1.14 | 3.95 | 1.20 | -0.43 |
| 2 | 62 | 267 | -2.01 | -47.96 | -47.59 | -2.38 | -4.11 | 4.71 | 0.76 | 4.67 | 0.80 | -0.43 |
| 2 | 62 | 268 | -0.86 | -48.23 | -48.04 | -1.05 | -3.02 | 5.19 | 0.40 | 5.17 | 0.42 | -0.33 |
| 2 | 62 | 269 | -0.51 | -50.69 | -50.57 | -0.63 | -2.40 | 5.74 | 0.24 | 5.73 | 0.26 | -0.26 |
| 2 | 65 | 4 | -9.43 | -53.18 | -50.79 | -11.82 | 9.94 | 9.98 | 1.84 | 9.94 | 1.88 | -0.56 |
| 2 | 65 | 17 | -31.27 | -40.52 | -34.69 | -37.10 | 4.46 | 11.74 | 10.29 | 11.19 | 10.83 | 0.70 |
| 2 | 65 | 18 | -20.72 | -42.12 | -41.41 | -21.44 | 3.85 | 6.85 | 3.09 | 6.85 | 3.09 | -0.11 |
| 2 | 65 | 19 | -27.90 | -50.78 | -28.56 | -50.11 | 3.85 | 5.97 | 0.20 | 5.40 | 0.76 | 1.71 |
| 2 | 65 | 20 | -22.68 | -45.60 | -22.77 | -45.51 | 1.42 | 1.28 | -7.94 | 0.63 | -7.30 | 2.36 |
| 2 | 65 | 21 | -29.72 | -40.53 | -31.18 | -39.08 | 3.69 | 6.65 | -6.44 | 1.09 | -0.89 | 6.47 |
| 2 | 65 | 22 | -13.46 | -43.39 | -13.53 | -43.32 | -1.46 | 0.60 | -2.60 | -0.26 | -1.75 | 1.41 |
| 2 | 65 | 23 | -18.21 | -45.36 | -18.39 | -45.18 | -2.20 | 1.63 | -2.19 | 0.24 | -0.80 | 1.84 |
| 2 | 65 | 24 | -21.86 | -47.48 | -22.34 | -47.00 | -3.47 | 3.04 | -1.91 | 0.13 | 1.00 | 2.44 |
| 2 | 65 | 30 | 4.77 | -10.16 | -3.31 | -2.08 | -7.44 | 2.22 | 0.95 | 2.03 | 1.14 | -0.45 |
| 2 | 65 | 31 | -11.43 | -21.02 | -21.02 | -11.43 | 1.38e-02 | 3.98 | -0.20 | -0.12 | 3.90 | 0.59 |
| 2 | 65 | 34 | -42.07 | -54.10 | -45.34 | -50.82 | 5.36 | 6.31 | -2.95 | -2.33 | 5.70 | 2.30 |
| 2 | 65 | 40 | 5.46 | -12.73 | -2.18 | -5.09 | -8.98 | 3.47 | -1.53 | 0.95 | 0.99 | 2.50 |
| 2 | 65 | 41 | -4.96 | -34.30 | -12.34 | -26.92 | -12.73 | 4.75 | 0.74 | 0.94 | 4.55 | 0.88 |
| 2 | 65 | 44 | -20.46 | -55.19 | -26.41 | -49.25 | -13.08 | 8.90 | 0.76 | 0.86 | 8.80 | 0.89 |
| 2 | 65 | 45 | -30.80 | -40.03 | -39.12 | -31.71 | 2.75 | 1.10 | -5.40 | -5.30 | 1.00 | -0.79 |
| 2 | 65 | 46 | -33.87 | -39.66 | -38.75 | -34.77 | 2.10 | -0.75 | -9.41 | -8.98 | -1.18 | 1.88 |
| 2 | 65 | 48 | -28.19 | -44.41 | -29.43 | -43.16 | -4.32 | 0.67 | -6.83 | -2.89 | -3.28 | 3.74 |
| 2 | 65 | 49 | -23.51 | -40.67 | -39.73 | -24.45 | 3.91 | 2.71 | -1.67 | 0.96 | 8.36e-02 | 2.14 |
| 2 | 65 | 50 | -25.78 | -47.09 | -34.52 | -38.34 | -10.48 | -1.92 | -4.07 | -3.78 | -2.21 | 0.74 |
| 2 | 65 | 51 | -32.69 | -43.62 | -43.44 | -32.87 | 1.39 | -1.95 | -7.92 | -7.34 | -2.54 | 1.78 |
| 2 | 65 | 52 | -28.49 | -49.60 | -49.60 | -28.49 | -0.25 | 2.69 | -1.19 | 2.08 | -0.58 | 1.41 |
| 2 | 65 | 53 | -25.31 | -42.45 | -42.05 | -25.72 | 2.61 | 2.01 | -3.27 | -3.13 | 1.87 | 0.85 |
| 2 | 65 | 54 | -35.78 | -38.41 | -36.09 | -38.10 | -0.84 | -4.75e-02 | -8.82 | -5.89 | -2.98 | 4.14 |
| 2 | 65 | 55 | -7.46 | -31.39 | -21.62 | -17.23 | -11.76 | 4.25 | 0.43 | 3.75 | 0.93 | 1.29 |
| 2 | 65 | 59 | -26.08 | -53.74 | -28.46 | -51.36 | -7.76 | 8.45 | 0.65 | 0.77 | 8.33 | 0.95 |
| 2 | 65 | 63 | -21.02 | -49.03 | -22.05 | -47.99 | -5.28 | 6.83 | 0.64 | 0.79 | 6.68 | 0.97 |
| 2 | 65 | 66 | -13.45 | -45.68 | -14.05 | -45.08 | -4.37 | 4.36 | 0.42 | 0.60 | 4.18 | 0.82 |
| 2 | 65 | 70 | -7.57 | -43.85 | -7.97 | -43.44 | -3.81 | 2.81 | 0.13 | 0.37 | 2.57 | 0.75 |
| 2 | 65 | 74 | -4.27 | -43.57 | -4.54 | -43.30 | -3.21 | 2.10 | -0.44 | 9.77e-02 | 1.57 | 1.04 |
| 2 | 65 | 78 | -8.04 | -52.52 | -48.65 | -11.90 | 12.53 | 10.33 | -0.22 | 10.26 | -0.16 | -0.80 |
| 2 | 65 | 81 | -1.02 | -38.12 | -1.45 | -37.70 | -3.96 | 0.88 | -4.16 | -0.35 | -2.94 | 2.16 |
| 2 | 65 | 85 | -11.73 | -37.20 | -33.45 | -15.48 | -9.02 | 4.20 | -2.35 | 1.19 | 0.66 | 3.26 |
| 2 | 65 | 89 | -3.39 | -47.10 | -44.23 | -6.26 | -10.82 | 5.74 | 7.89e-02 | 5.16 | 0.67 | 1.73 |
| 2 | 65 | 93 | -1.04 | -50.34 | -49.01 | -2.38 | -8.00 | 7.63 | 0.99 | 7.55 | 1.07 | 0.71 |
| 2 | 65 | 97 | -0.25 | -50.54 | -49.95 | -0.84 | -5.42 | 8.90 | 1.23 | 8.90 | 1.24 | 0.21 |
| 2 | 65 | 101 | -0.54 | -51.38 | -51.09 | -0.82 | -3.79 | 9.91 | 1.04 | 9.91 | 1.05 | 0.18 |
| 2 | 65 | 104 | -1.46 | -56.51 | -56.33 | -1.63 | -3.11 | 10.87 | 0.78 | 10.86 | 0.78 | 0.19 |
| 2 | 65 | 108 | -6.85 | -45.13 | -45.12 | -6.86 | 0.59 | 7.05 | 2.47 | 6.65 | 2.87 | -1.29 |
| 2 | 65 | 112 | -4.33 | -46.14 | -46.10 | -4.37 | -1.20 | 6.10 | 0.91 | 5.87 | 1.14 | -1.05 |
| 2 | 65 | 116 | -2.54 | -47.33 | -47.20 | -2.67 | -2.39 | 5.74 | 0.68 | 5.60 | 0.82 | -0.84 |
| 2 | 65 | 120 | -1.01 | -48.15 | -47.99 | -1.17 | -2.68 | 5.62 | 0.70 | 5.53 | 0.80 | -0.68 |
| 2 | 65 | 124 | -0.27 | -48.24 | -48.16 | -0.34 | -1.84 | 5.52 | 0.51 | 5.44 | 0.59 | -0.61 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 65 | 127 | -0.15 | -48.25 | -48.23 | -0.18 | -1.07 | 5.42 | 0.27 | 5.34 | 0.35 | -0.63 |
| 2 | 65 | 131 | -8.79 | -52.20 | -50.84 | -10.16 | 7.59 | 9.53 | 1.14 | 9.53 | 1.14 | -8.58e-02 |
| 2 | 65 | 135 | -6.96 | -50.92 | -50.20 | -7.68 | 5.57 | 8.78 | 1.16 | 8.77 | 1.16 | 0.15 |
| 2 | 65 | 139 | -4.07 | -49.52 | -49.19 | -4.40 | 3.86 | 8.04 | 1.06 | 8.03 | 1.07 | 0.19 |
| 2 | 65 | 143 | -1.86 | -48.18 | -48.04 | -2.00 | 2.58 | 7.29 | 1.00 | 7.29 | 1.00 | 0.13 |
| 2 | 65 | 147 | -1.05 | -46.83 | -46.78 | -1.11 | 1.57 | 6.52 | 0.69 | 6.52 | 0.70 | -8.61e-02 |
| 2 | 65 | 150 | -0.81 | -44.65 | -44.62 | -0.84 | 1.09 | 6.21 | 0.40 | 6.20 | 0.40 | -8.37e-02 |
| 2 | 65 | 152 | -11.30 | -61.69 | -53.05 | -19.94 | 18.99 | 15.94 | 2.65 | 12.70 | 5.89 | -5.71 |
| 2 | 65 | 157 | -21.35 | -72.03 | -39.85 | -53.53 | 24.40 | 19.28 | 5.94 | 8.45 | 16.78 | -5.21 |
| 2 | 65 | 161 | -24.94 | -45.94 | -45.32 | -25.56 | 3.56 | 8.50 | 4.34 | 7.46 | 5.39 | -1.81 |
| 2 | 65 | 165 | -2.94 | -35.15 | -3.24 | -34.85 | 3.08 | 1.61 | -8.36 | -1.73 | -5.02 | 4.71 |
| 2 | 65 | 166 | -27.68 | -51.44 | -49.38 | -29.73 | -6.67 | 2.69 | -0.74 | 2.66 | -0.72 | 0.30 |
| 2 | 65 | 167 | -14.26 | -47.25 | -46.83 | -14.68 | 3.68 | 1.66 | -4.36 | -4.01 | 1.30 | -1.42 |
| 2 | 65 | 168 | -13.88 | -40.79 | -14.63 | -40.03 | 4.45 | -1.42 | -4.92 | -2.64 | -3.70 | 1.67 |
| 2 | 65 | 169 | -21.61 | -49.45 | -40.97 | -30.09 | -12.81 | 2.71 | -0.47 | 2.48 | -0.24 | -0.82 |
| 2 | 65 | 173 | -1.80 | -38.57 | -2.12 | -38.26 | -3.39 | 1.44 | -2.10 | -0.15 | -0.51 | 1.77 |
| 2 | 65 | 174 | -11.93 | -44.42 | -44.21 | -12.15 | 2.63 | 8.23 | 4.50 | 7.46 | 5.26 | -1.50 |
| 2 | 65 | 175 | -12.21 | -50.90 | -49.29 | -13.82 | 7.72 | 3.98 | 1.04 | 3.65 | 1.37 | -0.93 |
| 2 | 65 | 179 | -28.70 | -39.58 | -36.79 | -31.48 | 4.75 | 4.46 | -4.32 | -2.13 | 2.26 | 3.80 |
| 2 | 65 | 183 | -14.68 | -50.93 | -47.95 | -17.66 | 9.96 | 5.62 | 1.77 | 4.16 | 3.23 | -1.87 |
| 2 | 65 | 184 | -17.77 | -46.94 | -46.08 | -18.63 | 4.94 | 4.21 | -3.18 | -2.83 | 3.86 | -1.57 |
| 2 | 65 | 185 | -17.80 | -55.67 | -48.94 | -24.54 | 14.48 | 10.64 | 1.54 | 4.43 | 7.74 | -4.24 |
| 2 | 65 | 186 | -21.31 | -45.00 | -42.56 | -23.76 | 7.20 | 5.74 | -4.53 | -4.52 | 5.72 | -0.44 |
| 2 | 65 | 187 | -14.97 | -52.45 | -36.71 | -30.70 | 18.50 | 8.56 | -1.16 | -1.14 | 8.54 | -0.47 |
| 2 | 65 | 188 | -22.71 | -42.83 | -35.27 | -30.26 | 9.74 | 3.96 | -9.95 | -9.94 | 3.95 | 0.49 |
| 2 | 65 | 189 | -4.10 | -62.17 | -8.58 | -57.70 | 15.48 | 7.99 | -3.65 | -2.90 | 7.24 | 2.85 |
| 2 | 65 | 190 | -8.70 | -44.33 | -15.03 | -38.00 | 13.62 | 4.41 | -6.62 | -4.52 | 2.30 | 4.33 |
| 2 | 65 | 191 | -7.37 | -43.33 | -7.92 | -42.78 | 4.40 | 0.41 | -7.03 | -2.65 | -3.97 | 3.66 |
| 2 | 65 | 192 | -20.34 | -41.20 | -25.50 | -36.03 | 9.00 | 0.42 | -5.76 | -5.68 | 0.34 | 0.72 |
| 2 | 65 | 193 | -1.72 | -34.83 | -1.85 | -34.70 | -2.07 | 0.99 | -6.84 | -1.13 | -4.72 | 3.48 |
| 2 | 65 | 194 | -4.61 | -40.03 | -4.66 | -39.98 | -1.33 | 0.96 | -5.39 | -1.24 | -3.20 | 3.02 |
| 2 | 65 | 195 | -9.19 | -42.90 | -9.21 | -42.88 | -0.84 | 0.45 | -3.35 | -1.00 | -1.91 | 1.84 |
| 2 | 65 | 196 | -14.82 | -44.10 | -44.04 | -14.88 | -1.33 | 3.98 | 7.03e-02 | 1.01 | 3.03 | -1.67 |
| 2 | 65 | 197 | -22.52 | -50.31 | -24.36 | -48.47 | -6.91 | 3.77 | -1.40 | -0.46 | 2.84 | 1.99 |
| 2 | 65 | 198 | -17.59 | -44.37 | -44.33 | -17.63 | 1.00 | 3.81 | -0.29 | 0.73 | 2.79 | -1.77 |
| 2 | 65 | 199 | -18.89 | -51.46 | -25.38 | -44.97 | -13.01 | 3.91 | -0.60 | -0.59 | 3.91 | 0.15 |
| 2 | 65 | 200 | -25.16 | -41.49 | -41.26 | -25.38 | 1.90 | 5.65 | -0.45 | 0.24 | 4.97 | 1.92 |
| 2 | 65 | 201 | -28.61 | -35.53 | -33.17 | -30.97 | 3.28 | 6.24 | -0.27 | -0.24 | 6.21 | 0.40 |
| 2 | 65 | 202 | -19.19 | -41.93 | -19.43 | -41.69 | 2.32 | -0.47 | -4.82 | -0.54 | -4.75 | 0.55 |
| 2 | 65 | 203 | -11.75 | -40.53 | -23.67 | -28.61 | -14.18 | 3.05 | 1.07 | 1.69 | 2.43 | -0.92 |
| 2 | 65 | 204 | -16.61 | -46.69 | -44.99 | -18.31 | 6.94 | 4.58 | 2.50 | 3.95 | 3.12 | -0.95 |
| 2 | 65 | 205 | -25.83 | -44.57 | -25.83 | -44.57 | 3.25e-02 | 2.63 | -7.46 | -0.12 | -4.71 | 4.49 |
| 2 | 65 | 206 | -38.19 | -47.91 | -38.76 | -47.34 | 2.28 | 3.79 | -3.92 | -3.81 | 3.68 | 0.91 |
| 2 | 65 | 207 | -15.79 | -28.40 | -27.88 | -16.30 | 2.49 | 3.25 | -0.72 | 0.28 | 2.25 | 1.73 |
| 2 | 65 | 208 | -33.75 | -42.91 | -39.32 | -37.34 | 4.47 | -0.40 | -6.43 | -6.18 | -0.65 | 1.20 |
| 2 | 65 | 209 | -27.48 | -45.30 | -44.53 | -28.25 | 3.61 | 5.67 | -0.35 | 5.42 | -9.74e-02 | -1.21 |
| 2 | 65 | 210 | -20.92 | -46.42 | -44.95 | -22.39 | 5.95 | 2.54 | 1.02 | 2.31 | 1.25 | -0.54 |
| 2 | 65 | 211 | -24.76 | -43.65 | -43.56 | -24.85 | 1.29 | 1.86 | -3.77 | -3.61 | 1.70 | -0.94 |
| 2 | 65 | 212 | -26.98 | -43.82 | -41.27 | -29.53 | 6.04 | 5.64 | -2.14e-02 | 2.92 | 2.69 | -2.83 |
| 2 | 65 | 213 | -31.63 | -44.11 | -41.95 | -33.79 | -4.72 | -2.66 | -7.10 | -6.46 | -3.29 | 1.55 |
| 2 | 65 | 214 | -29.24 | -41.74 | -36.73 | -34.24 | 6.12 | 4.92 | 0.57 | 1.81 | 3.68 | 1.96 |
| 2 | 65 | 215 | -25.39 | -37.97 | -26.77 | -36.59 | 3.94 | 2.54 | -1.77 | -0.25 | 1.02 | -2.06 |
| 2 | 65 | 216 | -25.22 | -41.45 | -41.42 | -25.25 | 0.72 | 6.54 | 0.90 | 6.54 | 0.90 | 8.73e-02 |
| 2 | 65 | 217 | -41.23 | -54.69 | -54.39 | -41.53 | -2.00 | 9.72 | 0.84 | 9.70 | 0.85 | 0.40 |
| 2 | 65 | 218 | -42.51 | -58.78 | -54.97 | -46.33 | -6.89 | 10.06 | 0.77 | 10.01 | 0.82 | 0.66 |
| 2 | 65 | 219 | -28.71 | -54.19 | -45.78 | -37.12 | -11.98 | 8.17 | 0.66 | 8.03 | 0.80 | 1.02 |
| 2 | 65 | 220 | -8.60 | -24.28 | -23.60 | -9.27 | -3.19 | 2.94 | 1.05 | 2.94 | 1.05 | -1.33e-02 |
| 2 | 65 | 240 | -10.05 | -50.23 | -49.40 | -10.88 | 5.69 | 3.33 | 0.86 | 3.18 | 1.01 | -0.58 |
| 2 | 65 | 241 | -7.80 | -49.45 | -49.10 | -8.15 | 3.78 | 2.67 | 0.51 | 2.59 | 0.58 | -0.40 |
| 2 | 65 | 242 | -5.42 | -48.66 | -48.55 | -5.53 | 2.24 | 2.08 | 0.26 | 2.02 | 0.33 | -0.34 |
| 2 | 65 | 243 | -3.16 | -47.80 | -47.76 | -3.20 | 1.29 | 1.55 | 5.54e-03 | 1.43 | 0.12 | -0.41 |
| 2 | 65 | 244 | -1.30 | -46.58 | -46.57 | -1.31 | 0.70 | 1.11 | -0.19 | 0.92 | -3.46e-03 | -0.46 |
| 2 | 65 | 245 | -0.28 | -43.93 | -43.93 | -0.28 | 0.46 | 0.77 | -0.14 | 0.67 | -4.13e-02 | -0.29 |
| 2 | 65 | 246 | -11.46 | -46.79 | -46.67 | -11.58 | 2.08 | 0.71 | -4.20 | -3.96 | 0.47 | -1.06 |
| 2 | 65 | 247 | -8.57 | -47.26 | -47.25 | -8.57 | 0.37 | 0.14 | -4.23 | -4.09 | 6.75e-03 | -0.75 |
| 2 | 65 | 248 | -5.49 | -47.45 | -47.44 | -5.51 | -0.71 | -0.34 | -4.60 | -4.46 | -0.49 | -0.77 |
| 2 | 65 | 249 | -2.98 | -47.30 | -47.27 | -3.01 | -1.09 | -0.55 | -4.90 | -4.75 | -0.69 | -0.78 |
| 2 | 65 | 250 | -1.23 | -46.58 | -46.57 | -1.25 | -0.87 | -0.38 | -5.01 | -4.91 | -0.48 | -0.68 |
| 2 | 65 | 251 | -0.32 | -43.77 | -43.76 | -0.33 | -0.61 | -0.17 | -5.16 | -5.07 | -0.26 | -0.65 |
| 2 | 65 | 252 | -12.31 | -45.36 | -45.21 | -12.46 | -2.23 | 1.92 | -0.26 | 8.58e-02 | 1.58 | -0.80 |
| 2 | 65 | 253 | -7.88 | -46.69 | -46.47 | -8.11 | -2.96 | 1.13 | -0.69 | -7.45e-02 | 0.51 | -0.86 |
| 2 | 65 | 254 | -4.65 | -47.37 | -47.12 | -4.89 | -3.21 | 0.80 | -1.04 | -0.21 | -2.64e-02 | -0.92 |
| 2 | 65 | 255 | -2.49 | -47.62 | -47.41 | -2.70 | -3.05 | 0.76 | -0.95 | -0.15 | -4.31e-02 | -0.85 |
| 2 | 65 | 256 | -1.02 | -47.54 | -47.44 | -1.12 | -2.15 | 0.70 | -0.75 | -4.17e-02 | -1.18e-02 | -0.73 |
| 2 | 65 | 257 | -0.28 | -46.12 | -46.08 | -0.32 | -1.44 | 0.83 | -0.85 | 1.35e-03 | -2.21e-02 | -0.84 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 65 | 258 | -15.82 | -44.24 | -43.89 | -16.17 | 3.12 | 4.91 | 1.10 | 3.45 | 2.55 | -1.86 |
| 2 | 65 | 259 | -11.16 | -45.11 | -45.10 | -11.16 | -0.38 | 4.68 | 0.93 | 3.93 | 1.68 | -1.49 |
| 2 | 65 | 260 | -6.41 | -47.62 | -47.49 | -6.53 | -2.27 | 4.44 | 0.68 | 4.08 | 1.04 | -1.10 |
| 2 | 65 | 261 | -3.18 | -48.87 | -48.73 | -3.32 | -2.54 | 4.34 | 0.52 | 4.11 | 0.75 | -0.91 |
| 2 | 65 | 262 | -1.34 | -49.40 | -49.34 | -1.40 | -1.66 | 4.25 | 0.19 | 4.06 | 0.38 | -0.86 |
| 2 | 65 | 263 | -0.63 | -49.37 | -49.35 | -0.64 | -0.88 | 4.25 | -2.29e-03 | 4.06 | 0.18 | -0.87 |
| 2 | 65 | 264 | -18.84 | -38.60 | -37.57 | -19.87 | -4.39 | 1.61 | -0.14 | -0.13 | 1.61 | 8.44e-02 |
| 2 | 65 | 265 | -11.28 | -45.66 | -44.20 | -12.73 | -6.92 | 3.01 | 1.42 | 2.89 | 1.54 | -0.42 |
| 2 | 65 | 266 | -5.69 | -49.15 | -48.28 | -6.55 | -6.07 | 4.62 | 1.16 | 4.53 | 1.24 | -0.53 |
| 2 | 65 | 267 | -3.07 | -49.93 | -49.48 | -3.51 | -4.54 | 5.51 | 0.90 | 5.44 | 0.97 | -0.58 |
| 2 | 65 | 268 | -1.39 | -50.90 | -50.71 | -1.58 | -3.07 | 6.17 | 0.53 | 6.12 | 0.57 | -0.52 |
| 2 | 65 | 269 | -0.73 | -53.29 | -53.19 | -0.82 | -2.27 | 6.86 | 0.31 | 6.82 | 0.36 | -0.53 |

| **M_G** | **N max** | **N min** | **N 1** | **N 2** | **N 1-2** | **M max** | **M min** | **M 1** | **M 2** | **M 1-2** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | -146.83 | -82.56 | -138.93 | -35.32 | | -54.32 | -42.82 | -50.29 | -15.75 |
| | 19.08 | | 13.12 | 16.65 | 50.47 | 36.68 | | 36.12 | 35.52 | 21.54 |

| Macro | Tipo | Angolo 1-X (gradi) |
|---|---|---|
| **8** | **Guscio** | **0.0** |

| **M_G** | **Cmb** | **Nodo** | **N max** | **N min** | **N 1** | **N 2** | **N 1-2** | **M max** | **M min** | **M 1** | **M 2** | **M 1-2** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | kN/ m | kN/ m | kN/ m | kN/ m | kN/ m | kN | kN | kN | kN | kN |
| 8 | 1 | 1 | -8.88 | -141.42 | -139.91 | -10.39 | -14.07 | -0.87 | -20.56 | -20.54 | -0.89 | -0.54 |
| 8 | 1 | 2 | -31.16 | -61.19 | -55.47 | -36.88 | 11.80 | 2.08 | -5.81 | 1.17 | -4.91 | -2.52 |
| 8 | 1 | 3 | -6.48 | -145.72 | -145.72 | -6.49 | 1.01 | 0.60 | -9.49e-02 | 0.28 | 0.22 | 0.35 |
| 8 | 1 | 5 | -60.80 | -105.25 | -104.81 | -61.25 | -4.41 | -11.11 | -19.30 | -18.40 | -12.02 | 2.57 |
| 8 | 1 | 6 | -63.92 | -79.98 | -79.56 | -64.34 | -2.55 | -4.11 | -19.72 | -19.62 | -4.22 | 1.27 |
| 8 | 1 | 7 | -8.82 | -132.07 | -132.05 | -8.84 | 1.59 | -1.46 | -23.87 | -23.85 | -1.48 | -0.58 |
| 8 | 1 | 8 | -96.33 | -191.92 | -191.69 | -96.57 | -4.74 | -10.34 | -27.04 | -14.15 | -23.24 | -7.00 |
| 8 | 1 | 9 | -7.30 | -48.79 | -43.07 | -13.02 | -14.31 | -0.77 | -3.19 | -2.47 | -1.49 | -1.11 |
| 8 | 1 | 10 | -14.44 | -28.78 | -28.08 | -15.14 | 3.08 | -1.37 | -3.41 | -2.65 | -2.13 | 0.99 |
| 8 | 1 | 11 | -47.10 | -130.15 | -50.99 | -126.26 | 17.54 | -2.82 | -32.38 | -3.42 | -31.78 | 4.16 |
| 8 | 1 | 12 | -5.53 | -108.28 | -5.93 | -107.88 | 6.42 | -1.86 | -30.63 | -1.87 | -30.61 | 0.68 |
| 8 | 1 | 27 | -56.16 | -109.39 | -96.16 | -69.39 | -23.00 | -1.27 | -15.91 | -5.34 | -11.84 | -6.55 |
| 8 | 1 | 37 | -45.81 | -81.90 | -47.13 | -80.58 | 6.78 | 0.26 | -16.25 | -2.53 | -13.46 | 6.19 |
| 8 | 1 | 47 | -63.81 | -124.97 | -68.31 | -120.47 | 15.97 | -0.77 | -27.12 | -2.27 | -25.62 | 6.12 |
| 8 | 1 | 57 | -64.80 | -136.66 | -72.53 | -128.92 | 22.27 | -1.93 | -30.98 | -2.78 | -30.14 | 4.87 |
| 8 | 1 | 61 | -57.67 | -134.10 | -64.36 | -127.41 | 21.60 | -2.55 | -31.66 | -3.20 | -31.02 | 4.29 |
| 8 | 1 | 68 | -35.90 | -128.28 | -37.71 | -126.47 | 12.81 | -3.01 | -33.86 | -3.45 | -33.42 | 3.66 |
| 8 | 1 | 72 | -25.66 | -124.88 | -26.29 | -124.24 | 7.91 | -3.44 | -34.18 | -3.69 | -33.93 | 2.76 |
| 8 | 1 | 76 | 4.75 | -122.44 | -113.12 | -4.57 | -33.14 | -0.50 | -13.86 | -13.22 | -1.15 | 2.87 |
| 8 | 1 | 83 | -16.98 | -121.39 | -120.49 | -17.88 | 9.65 | -4.64 | -19.76 | -18.36 | -6.04 | -4.38 |
| 8 | 1 | 87 | -14.95 | -119.27 | -119.25 | -14.97 | 1.48 | -2.17 | -21.73 | -21.39 | -2.51 | -2.56 |
| 8 | 1 | 91 | -16.82 | -128.14 | -128.13 | -16.83 | 1.19 | -2.61 | -23.38 | -23.27 | -2.72 | -1.46 |
| 8 | 1 | 95 | -15.27 | -129.62 | -129.58 | -15.31 | 2.26 | -2.84 | -23.91 | -23.88 | -2.86 | -0.78 |
| 8 | 1 | 99 | -11.43 | -132.16 | -132.13 | -11.46 | 1.88 | -2.23 | -23.81 | -23.79 | -2.26 | -0.75 |
| 8 | 1 | 106 | -21.27 | -128.87 | -128.87 | -21.27 | 0.38 | -0.71 | -1.98 | -1.64 | -1.05 | 0.57 |
| 8 | 1 | 110 | -18.25 | -130.12 | -130.12 | -18.25 | 0.13 | -0.48 | -0.86 | -0.74 | -0.59 | 0.18 |
| 8 | 1 | 114 | -17.64 | -132.26 | -132.25 | -17.65 | -0.93 | -1.80e-02 | -0.24 | -0.14 | -0.12 | -0.11 |
| 8 | 1 | 118 | -15.24 | -135.98 | -135.97 | -15.25 | -1.09 | 0.33 | 2.39e-02 | 0.25 | 0.10 | -0.13 |
| 8 | 1 | 122 | -9.75 | -141.08 | -141.08 | -9.75 | 9.20e-02 | 0.42 | 0.17 | 0.40 | 0.19 | 7.67e-02 |
| 8 | 1 | 129 | -20.39 | -144.10 | -126.30 | -38.18 | -43.41 | -1.63 | -17.08 | -16.87 | -1.84 | 1.77 |
| 8 | 1 | 133 | -24.43 | -146.59 | -129.94 | -41.09 | -41.92 | -1.78 | -18.39 | -18.27 | -1.89 | 1.37 |
| 8 | 1 | 137 | -23.58 | -145.19 | -131.91 | -36.87 | -37.93 | -1.82 | -19.11 | -19.06 | -1.88 | 1.01 |
| 8 | 1 | 141 | -19.14 | -140.15 | -131.85 | -27.44 | -30.59 | -2.08 | -19.63 | -19.61 | -2.10 | 0.61 |
| 8 | 1 | 145 | -13.30 | -141.45 | -138.27 | -16.48 | -19.93 | -1.58 | -20.05 | -20.04 | -1.58 | 0.25 |
| 8 | 1 | 151 | 4.21 | -112.16 | -111.23 | 3.28 | -10.36 | -2.98 | -17.81 | -12.81 | -7.97 | 7.01 |
| 8 | 1 | 158 | -47.96 | -126.97 | -126.87 | -48.07 | -2.91 | 6.22 | -2.34 | -2.30 | 6.18 | 0.58 |
| 8 | 1 | 162 | -11.74 | -138.26 | -123.07 | -26.92 | -41.12 | -2.21 | -15.91 | -15.46 | -2.66 | 2.44 |
| 8 | 1 | 171 | -14.95 | -130.19 | -15.24 | -129.89 | 5.80 | -3.05 | -33.21 | -3.07 | -33.19 | 0.81 |
| 8 | 1 | 176 | -28.01 | -125.68 | -125.65 | -28.05 | -1.84 | 0.25 | -3.26 | -2.99 | -1.40e-02 | 0.93 |
| 8 | 1 | 180 | -30.72 | -183.12 | -174.09 | -39.75 | 35.98 | -9.98 | -22.10 | -16.86 | -15.21 | -6.00 |
| 8 | 1 | 221 | -21.19 | -104.69 | -103.58 | -22.30 | 9.56 | -1.53 | -19.92 | -18.82 | -2.63 | -4.37 |
| 8 | 1 | 222 | -35.25 | -120.49 | -119.38 | -36.35 | 9.63 | -2.19 | -26.00 | -25.88 | -2.31 | -1.65 |
| 8 | 1 | 223 | -41.88 | -118.93 | -118.77 | -42.04 | 3.53 | -1.98 | -26.07 | -25.92 | -2.14 | 1.95 |
| 8 | 1 | 224 | -35.34 | -105.60 | -105.47 | -35.47 | -2.97 | -0.90 | -22.07 | -20.90 | -2.07 | 4.85 |
| 8 | 1 | 225 | -14.96 | -80.24 | -80.03 | -15.18 | -3.76 | -0.39 | -9.07 | -7.28 | -2.18 | -3.52 |
| 8 | 1 | 226 | -23.27 | -71.73 | -71.69 | -23.32 | -1.49 | 0.44 | -13.43 | -10.72 | -2.27 | 5.50 |
| 8 | 1 | 239 | -59.97 | -111.19 | -61.13 | -110.03 | 7.61 | 24.48 | 3.73 | 3.73 | 24.48 | -1.75e-03 |
| 8 | 1 | 270 | -85.69 | -112.04 | -107.50 | -90.22 | -9.95 | 12.56 | 5.55 | 9.16 | 8.94 | -3.50 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 1 | 271 | -71.85 | -119.98 | -119.73 | -72.10 | -3.51 | 4.60 | -5.76 | -5.47 | 4.31 | 1.70 |
| 8 | 1 | 272 | -45.65 | -137.45 | -136.31 | -46.79 | -10.17 | 8.67 | -12.44 | -0.63 | -3.15 | 10.48 |
| 8 | 1 | 273 | -63.75 | -96.03 | -63.89 | -95.90 | 2.09 | 27.63 | -4.40 | -4.31 | 27.53 | 1.72 |
| 8 | 1 | 274 | -52.67 | -110.24 | -53.79 | -109.12 | 7.97 | 32.05 | 2.59 | 3.03 | 31.61 | 3.58 |
| 8 | 1 | 275 | -70.61 | -95.58 | -70.62 | -95.57 | -0.47 | 25.43 | -0.41 | 1.89 | 23.13 | -7.35 |
| 8 | 1 | 276 | -38.05 | -121.53 | -39.43 | -120.16 | 10.63 | 3.21 | -7.80 | 0.81 | -5.41 | 4.54 |
| 8 | 1 | 277 | -47.40 | -123.62 | -50.19 | -120.83 | 14.31 | 2.73 | -8.03 | -7.64e-02 | -5.22 | 4.73 |
| 8 | 1 | 278 | -54.24 | -125.82 | -58.40 | -121.65 | 16.75 | 2.31 | -8.62 | 0.22 | -6.52 | 4.30 |
| 8 | 1 | 279 | -40.14 | -152.30 | -147.96 | -44.49 | -21.64 | 10.39 | -10.53 | 4.76 | -4.90 | 9.28 |
| 8 | 1 | 280 | -59.40 | -114.43 | -110.02 | -63.81 | -14.95 | 6.90 | -12.33 | -1.85 | -3.58 | 9.58 |
| 8 | 1 | 281 | -84.49 | -89.65 | -89.34 | -84.80 | -1.23 | 18.94 | 13.99 | 14.84 | 18.10 | 1.86 |
| 8 | 1 | 282 | -74.24 | -91.71 | -83.46 | -82.49 | -8.72 | 8.56 | -2.32 | -0.27 | 6.52 | -4.25 |
| 8 | 1 | 283 | -84.67 | -149.41 | -132.17 | -101.91 | -28.62 | -0.76 | -12.30 | -3.15 | -9.91 | -4.67 |
| 8 | 1 | 284 | -54.99 | -89.59 | -55.52 | -89.06 | 4.25 | 31.02 | 3.59 | 7.92 | 26.68 | 10.01 |
| 8 | 1 | 285 | -66.44 | -117.31 | -110.13 | -73.62 | -17.72 | 17.32 | 2.28 | 14.92 | 4.67 | 5.51 |
| 8 | 1 | 286 | -77.93 | -95.35 | -86.85 | -86.43 | -8.70 | 21.31 | 14.75 | 20.66 | 15.39 | -1.95 |
| 8 | 1 | 287 | -66.95 | -109.03 | -67.54 | -108.43 | 4.98 | 19.44 | 8.38 | 8.61 | 19.20 | 1.58 |
| 8 | 1 | 288 | -62.10 | -105.60 | -105.18 | -62.51 | 4.24 | 7.50 | -13.70 | -7.48 | 1.28 | -9.66 |
| 8 | 1 | 289 | -77.96 | -95.04 | -77.96 | -95.04 | 3.99e-02 | 18.84 | 3.70 | 9.51 | 13.03 | 7.36 |
| 8 | 1 | 290 | -82.28 | -96.66 | -96.36 | -82.59 | -2.08 | 18.09 | 13.83 | 16.09 | 15.84 | -2.13 |
| 8 | 1 | 291 | -58.51 | -112.05 | -111.30 | -59.26 | 6.29 | 7.05 | -8.27 | -7.50 | 6.28 | -3.34 |
| 8 | 1 | 292 | -39.37 | -171.03 | -170.39 | -40.00 | 9.13 | -3.60 | -10.52 | -3.70 | -10.43 | 0.80 |
| 8 | 1 | 293 | -77.19 | -96.95 | -77.43 | -96.71 | -2.18 | 23.81 | 13.45 | 14.69 | 22.56 | -3.36 |
| 8 | 1 | 294 | -31.95 | -121.46 | -121.42 | -32.00 | 2.03 | -2.57 | -8.56 | -8.42 | -2.71 | -0.90 |
| 8 | 1 | 295 | -21.25 | -127.47 | -127.47 | -21.25 | 0.11 | -1.60 | -9.85 | -9.81 | -1.64 | -0.58 |
| 8 | 1 | 296 | -13.56 | -130.10 | -130.10 | -13.56 | 0.50 | -1.36 | -10.51 | -10.47 | -1.40 | -0.59 |
| 8 | 1 | 297 | -6.63 | -132.76 | -132.75 | -6.64 | 0.74 | -0.73 | -10.78 | -10.73 | -0.78 | -0.67 |
| 8 | 1 | 298 | -3.10 | -135.77 | -135.76 | -3.10 | 0.86 | -0.39 | -11.04 | -11.03 | -0.40 | -0.31 |
| 8 | 1 | 299 | -63.46 | -104.27 | -100.86 | -66.87 | -11.29 | 3.25 | -17.90 | -7.35 | -7.30 | -10.58 |
| 8 | 1 | 300 | -17.24 | -134.98 | -125.92 | -26.30 | -31.38 | 4.89 | 8.16e-02 | 4.83 | 0.14 | 0.51 |
| 8 | 1 | 301 | -17.43 | -139.02 | -130.16 | -26.29 | -31.60 | 3.89 | 0.41 | 3.79 | 0.51 | 0.59 |
| 8 | 1 | 302 | -16.66 | -140.15 | -132.80 | -24.02 | -29.23 | 2.97 | 0.30 | 2.89 | 0.39 | 0.46 |
| 8 | 1 | 303 | -14.05 | -139.20 | -134.52 | -18.73 | -23.74 | 2.19 | 7.71e-02 | 2.17 | 9.91e-02 | 0.21 |
| 8 | 1 | 304 | -8.45 | -142.38 | -140.67 | -10.17 | -15.06 | 1.72 | -7.23e-02 | 1.71 | -6.48e-02 | -0.12 |
| 8 | 1 | 305 | -4.97 | -150.63 | -149.93 | -5.66 | -10.01 | 1.93 | -0.54 | 1.48 | -9.29e-02 | -0.95 |
| 8 | 1 | 306 | -25.68 | -128.71 | -126.95 | -27.43 | -13.32 | 28.45 | 3.79 | 28.44 | 3.79 | -0.27 |
| 8 | 1 | 307 | -21.74 | -134.46 | -132.43 | -23.77 | -15.00 | 27.72 | 3.35 | 27.72 | 3.35 | -0.31 |
| 8 | 1 | 308 | -18.17 | -137.52 | -135.75 | -19.94 | -14.44 | 26.87 | 3.07 | 26.86 | 3.08 | -0.40 |
| 8 | 1 | 309 | -14.61 | -140.30 | -139.25 | -15.67 | -11.47 | 26.19 | 2.88 | 26.18 | 2.89 | -0.36 |
| 8 | 1 | 310 | -8.77 | -145.20 | -144.90 | -9.06 | -6.37 | 25.77 | 1.77 | 25.76 | 1.77 | -0.36 |
| 8 | 1 | 311 | -6.45 | -162.97 | -162.90 | -6.52 | -3.34 | 26.12 | 0.87 | 26.12 | 0.88 | -0.37 |
| 8 | 1 | 312 | -29.07 | -129.61 | -129.47 | -29.22 | -3.81 | 13.78 | 2.35 | 13.77 | 2.36 | -0.34 |
| 8 | 1 | 313 | -23.28 | -134.37 | -134.27 | -23.38 | -3.40 | 13.97 | 1.43 | 13.93 | 1.47 | -0.67 |
| 8 | 1 | 314 | -18.91 | -137.09 | -137.03 | -18.97 | -2.65 | 14.12 | 1.56 | 14.08 | 1.60 | -0.72 |
| 8 | 1 | 315 | -14.41 | -140.37 | -140.36 | -14.42 | -1.19 | 14.19 | 1.48 | 14.16 | 1.51 | -0.57 |
| 8 | 1 | 316 | -7.84 | -146.36 | -146.36 | -7.85 | 0.92 | 14.28 | 0.95 | 14.27 | 0.96 | -0.26 |
| 8 | 1 | 317 | -4.74 | -157.32 | -157.29 | -4.76 | 2.03 | 14.73 | 0.62 | 14.71 | 0.64 | 0.49 |
| 8 | 1 | 318 | -34.68 | -129.24 | -129.11 | -34.81 | 3.52 | 4.23 | -1.80 | 3.64 | -1.21 | 1.80 |
| 8 | 1 | 319 | -28.50 | -123.82 | -123.82 | -28.50 | 0.45 | 2.46 | -1.34 | 2.43 | -1.31 | 0.35 |
| 8 | 1 | 320 | -21.16 | -127.05 | -126.97 | -21.24 | -2.95 | 2.05 | -0.27 | 2.05 | -0.27 | 3.71e-02 |
| 8 | 1 | 321 | -13.85 | -131.27 | -131.16 | -13.96 | -3.55 | 1.79 | 0.27 | 1.76 | 0.29 | -0.19 |
| 8 | 1 | 322 | -7.26 | -84.65 | -7.29 | -84.62 | 1.33 | 43.14 | 4.91 | 6.24 | 41.82 | -6.99 |
| 8 | 1 | 323 | -59.55 | -108.36 | -108.31 | -59.60 | 1.57 | 7.67 | -8.30 | -7.51 | 6.88 | 3.45 |
| 8 | 1 | 324 | -30.62 | -122.90 | -121.73 | -31.78 | -10.31 | 28.56 | 2.48 | 28.49 | 2.55 | -1.35 |
| 8 | 1 | 325 | -31.33 | -104.89 | -31.79 | -104.42 | 5.83 | 28.47 | 10.22 | 10.52 | 28.17 | 2.31 |
| 8 | 1 | 326 | -64.81 | -96.08 | -95.79 | -65.10 | -3.00 | 10.06 | -12.30 | -6.57 | 4.33 | 9.76 |
| 8 | 1 | 327 | -6.98 | -134.47 | -134.43 | -7.03 | -2.30 | 1.33 | 0.24 | 1.28 | 0.30 | -0.24 |
| 8 | 1 | 328 | -4.04 | -140.81 | -140.79 | -4.05 | -1.32 | 0.79 | 0.14 | 0.79 | 0.14 | -1.43e-02 |
| 8 | 1 | 329 | -18.25 | -130.01 | -122.20 | -26.06 | -28.49 | 5.86 | -0.69 | 5.79 | -0.63 | 0.65 |
| 8 | 1 | 330 | -40.22 | -127.61 | -126.91 | -40.92 | 7.80 | -4.07 | -7.00 | -5.55 | -5.52 | -1.47 |
| 8 | 1 | 331 | -22.46 | -118.36 | -113.12 | -27.70 | -21.80 | 8.58 | -2.96 | 8.40 | -2.78 | 1.41 |
| 8 | 1 | 332 | -38.43 | -112.79 | -112.17 | -39.05 | -6.76 | 28.37 | -0.80 | 28.10 | -0.53 | -2.77 |
| 8 | 1 | 333 | -38.07 | -105.25 | -104.61 | -38.71 | -6.53 | 11.88 | -2.89 | 11.63 | -2.64 | 1.88 |
| 8 | 1 | 334 | -51.68 | -94.27 | -94.20 | -51.75 | -1.69 | 37.06 | 2.36 | 36.74 | 2.67 | -3.28 |
| 8 | 1 | 335 | -49.47 | -66.08 | -59.37 | -56.17 | 8.15 | 23.84 | 7.19 | 20.37 | 10.66 | -6.76 |
| 8 | 1 | 336 | -62.12 | -71.43 | -64.46 | -69.09 | 4.04 | 35.73 | 15.05 | 35.73 | 15.05 | -6.94e-02 |
| 8 | 1 | 337 | -9.40 | -74.85 | -10.68 | -73.57 | 9.06 | 36.89 | 4.16 | 11.44 | 29.61 | -13.61 |
| 8 | 1 | 338 | -23.72 | -80.76 | -24.88 | -79.61 | 8.03 | 36.27 | 11.02 | 17.29 | 30.01 | -10.90 |
| 8 | 1 | 339 | -16.76 | -100.97 | -16.90 | -100.84 | 3.37 | 33.30 | 8.08 | 8.91 | 32.48 | -4.48 |
| 8 | 1 | 340 | -44.51 | -88.69 | -45.43 | -87.77 | 6.31 | 29.08 | 20.12 | 20.78 | 28.41 | 2.34 |
| 8 | 1 | 341 | -4.58 | -101.50 | -4.74 | -101.34 | 3.87 | 2.23 | -0.11 | 1.60 | 0.52 | -1.04 |
| 8 | 1 | 342 | -13.63 | -119.14 | -13.81 | -118.97 | 4.30 | 1.77 | -3.46 | 1.70 | -3.39 | -0.58 |
| 8 | 1 | 343 | -26.86 | -119.14 | -27.36 | -118.64 | 6.76 | 2.68 | -6.81 | 1.70 | -5.83 | 2.89 |
| 8 | 1 | 344 | -34.62 | -122.95 | -122.76 | -34.80 | -4.00 | 10.14 | 2.45 | 10.14 | 2.45 | 2.01e-02 |
| 8 | 1 | 345 | -58.64 | -125.42 | -62.57 | -121.49 | 15.71 | 4.24 | -10.92 | 1.68 | -8.36 | 5.67 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 1 | 346 | -41.02 | -112.03 | -112.02 | -41.03 | -0.55 | 13.33 | -2.07 | 11.46 | -0.21 | -5.02 |
| 8 | 1 | 347 | -63.90 | -112.39 | -65.58 | -110.71 | 8.86 | 7.86 | -14.60 | 2.06 | -8.81 | 9.82 |
| 8 | 1 | 348 | -55.80 | -97.48 | -97.39 | -55.89 | 1.94 | 12.57 | -5.17 | 10.35 | -2.95 | -5.87 |
| 8 | 1 | 349 | -69.96 | -75.72 | -72.67 | -73.01 | 2.88 | 13.49 | 0.86 | 7.74 | 6.61 | 6.29 |
| 8 | 1 | 350 | -43.16 | -107.11 | -43.92 | -106.36 | 6.91 | 30.90 | 4.91 | 6.32 | 29.50 | 5.88 |
| 8 | 1 | 351 | -70.81 | -75.68 | -71.06 | -75.43 | 1.08 | 6.40 | -16.79 | -4.62 | -5.76 | 11.58 |
| 8 | 1 | 352 | -38.51 | -132.71 | -132.71 | -38.51 | 0.30 | 5.44 | -2.78 | 3.02 | -0.36 | 3.74 |
| 8 | 3 | 1 | -9.12 | -137.09 | -136.36 | -9.85 | -9.64 | -0.98 | -20.12 | -20.08 | -1.02 | -0.78 |
| 8 | 3 | 2 | -49.55 | -100.86 | -57.86 | -92.55 | 18.90 | 7.59 | 1.94 | 2.51 | 7.02 | -1.70 |
| 8 | 3 | 3 | -6.23 | -120.34 | -120.34 | -6.23 | 0.50 | 0.10 | -4.27 | -4.27 | 0.10 | 3.32e-02 |
| 8 | 3 | 5 | -49.81 | -105.02 | -104.85 | -49.98 | 3.07 | -19.32 | -31.15 | -30.11 | -20.36 | 3.35 |
| 8 | 3 | 6 | -44.91 | -83.76 | -82.90 | -45.76 | 5.70 | -10.25 | -29.94 | -29.78 | -10.41 | 1.78 |
| 8 | 3 | 7 | -7.37 | -124.63 | -124.63 | -7.37 | 0.45 | -1.00 | -17.29 | -17.27 | -1.02 | -0.57 |
| 8 | 3 | 8 | -69.33 | -157.79 | -157.26 | -69.86 | -6.80 | -7.97 | -25.64 | -9.62 | -23.99 | -5.14 |
| 8 | 3 | 9 | -19.68 | -40.69 | -38.67 | -21.70 | -6.20 | 0.16 | -4.36 | -2.43 | -1.77 | -2.24 |
| 8 | 3 | 10 | -22.67 | -29.49 | -27.73 | -24.43 | -2.98 | 0.38 | -4.77 | -2.26 | -2.13 | 2.58 |
| 8 | 3 | 11 | 4.53 | -121.95 | -2.78 | -114.64 | 29.52 | -3.78 | -28.45 | -3.83 | -28.39 | 1.18 |
| 8 | 3 | 12 | -3.02 | -139.71 | -4.63 | -138.10 | 14.74 | -2.43 | -39.86 | -2.50 | -39.79 | 1.56 |
| 8 | 3 | 27 | -60.25 | -94.33 | -80.22 | -74.37 | -16.79 | -0.81 | -17.70 | -4.56 | -13.94 | -7.02 |
| 8 | 3 | 37 | -40.02 | -85.15 | -40.02 | -85.15 | -9.35e-02 | 1.35 | -18.08 | -2.24 | -14.49 | 7.55 |
| 8 | 3 | 47 | -45.03 | -118.85 | -46.36 | -117.52 | 9.84 | -0.80 | -27.28 | -2.10 | -25.98 | 5.71 |
| 8 | 3 | 57 | -30.24 | -124.59 | -34.92 | -119.91 | 20.48 | -2.55 | -29.00 | -2.85 | -28.70 | 2.80 |
| 8 | 3 | 61 | -10.27 | -122.07 | -16.78 | -115.56 | 26.17 | -3.43 | -28.43 | -3.51 | -28.35 | 1.37 |
| 8 | 3 | 68 | 10.77 | -127.08 | 3.59 | -119.90 | 30.64 | -3.87 | -31.49 | -3.95 | -31.41 | 1.49 |
| 8 | 3 | 72 | 7.13 | -128.12 | 1.48 | -122.47 | 27.06 | -4.07 | -33.90 | -4.15 | -33.82 | 1.58 |
| 8 | 3 | 76 | -46.33 | -115.43 | -112.21 | -49.55 | -14.57 | -1.24 | -9.18 | -9.06 | -1.37 | 1.00 |
| 8 | 3 | 83 | 5.17 | -109.29 | -109.29 | 5.17 | 0.41 | -4.39 | -15.22 | -13.56 | -6.04 | -3.90 |
| 8 | 3 | 87 | -5.37e-02 | -114.48 | -114.32 | -0.21 | -4.28 | -1.65 | -16.68 | -16.30 | -2.04 | -2.38 |
| 8 | 3 | 91 | -8.43 | -122.79 | -122.71 | -8.51 | -2.99 | -1.99 | -17.79 | -17.66 | -2.12 | -1.43 |
| 8 | 3 | 95 | -11.01 | -123.63 | -123.61 | -11.02 | -1.14 | -2.12 | -17.98 | -17.94 | -2.16 | -0.79 |
| 8 | 3 | 99 | -9.17 | -124.07 | -124.07 | -9.17 | -0.11 | -1.61 | -17.55 | -17.51 | -1.65 | -0.74 |
| 8 | 3 | 106 | -18.76 | -120.84 | -120.83 | -18.77 | 1.18 | 0.73 | -6.20 | -6.08 | 0.60 | 0.93 |
| 8 | 3 | 110 | -18.36 | -121.36 | -121.36 | -18.36 | -0.36 | -0.83 | -5.68 | -5.65 | -0.85 | 0.35 |
| 8 | 3 | 114 | -19.89 | -122.75 | -122.73 | -19.92 | -1.69 | -0.54 | -4.96 | -4.96 | -0.54 | -7.49e-02 |
| 8 | 3 | 118 | -18.18 | -124.56 | -124.53 | -18.20 | -1.61 | -0.23 | -4.43 | -4.42 | -0.24 | -0.21 |
| 8 | 3 | 122 | -11.47 | -125.70 | -125.70 | -11.47 | -0.34 | -2.26e-02 | -4.18 | -4.18 | -2.73e-02 | -0.14 |
| 8 | 3 | 129 | -45.34 | -128.44 | -120.97 | -52.81 | -23.77 | -1.50 | -13.89 | -13.89 | -1.50 | 3.11e-02 |
| 8 | 3 | 133 | -39.83 | -130.52 | -123.54 | -46.81 | -24.17 | -1.63 | -15.81 | -15.81 | -1.63 | -9.68e-05 |
| 8 | 3 | 137 | -31.40 | -130.64 | -124.97 | -37.07 | -23.03 | -1.76 | -16.98 | -16.98 | -1.76 | 1.57e-02 |
| 8 | 3 | 141 | -22.00 | -128.54 | -124.89 | -25.65 | -19.39 | -2.08 | -17.99 | -17.98 | -2.08 | -0.10 |
| 8 | 3 | 145 | -13.47 | -132.44 | -130.96 | -14.94 | -13.17 | -1.64 | -19.01 | -19.01 | -1.64 | -0.20 |
| 8 | 3 | 151 | -51.56 | -108.15 | -107.99 | -51.72 | 3.01 | -1.37 | -8.31 | -7.02 | -2.67 | 2.71 |
| 8 | 3 | 158 | -31.59 | -119.92 | -119.91 | -31.60 | 0.97 | 14.20 | -5.82 | -5.73 | 14.11 | 1.34 |
| 8 | 3 | 162 | -47.16 | -124.93 | -118.69 | -53.41 | -21.14 | -1.63 | -11.99 | -11.97 | -1.65 | 0.38 |
| 8 | 3 | 171 | -1.64 | -141.90 | -4.31 | -139.23 | 19.17 | -3.52 | -37.70 | -3.55 | -37.67 | 1.03 |
| 8 | 3 | 176 | -22.04 | -119.33 | -119.32 | -22.05 | 0.90 | 5.38 | -6.87 | -6.71 | 5.21 | 1.42 |
| 8 | 3 | 180 | -8.36 | -149.73 | -146.05 | -12.03 | 22.50 | -8.19 | -18.70 | -11.18 | -15.71 | -4.74 |
| 8 | 3 | 221 | -42.17 | -105.73 | -104.12 | -43.79 | 10.01 | 8.39e-03 | -19.20 | -17.34 | -1.85 | -5.67 |
| 8 | 3 | 222 | -58.40 | -122.75 | -121.40 | -59.74 | 9.21 | -1.38 | -24.08 | -23.91 | -1.55 | -1.96 |
| 8 | 3 | 223 | -64.63 | -120.21 | -119.89 | -64.95 | 4.20 | -1.19 | -24.40 | -24.12 | -1.47 | 2.54 |
| 8 | 3 | 224 | -55.96 | -106.19 | -106.06 | -56.09 | -2.59 | 0.62 | -21.62 | -19.62 | -1.39 | 6.37 |
| 8 | 3 | 225 | -29.04 | -74.29 | -74.25 | -29.08 | 1.23 | 1.31 | -10.18 | -6.89 | -1.98 | -5.20 |
| 8 | 3 | 226 | -36.72 | -71.62 | -70.96 | -37.38 | -4.76 | 2.58 | -14.61 | -10.10 | -1.93 | 7.56 |
| 8 | 3 | 239 | -49.79 | -97.92 | -54.52 | -93.19 | 14.33 | 26.24 | 2.83 | 3.28 | 25.79 | -3.23 |
| 8 | 3 | 270 | -73.60 | -105.27 | -104.18 | -74.69 | -5.78 | 16.43 | 9.46 | 15.56 | 10.33 | -2.31 |
| 8 | 3 | 271 | -56.40 | -114.98 | -114.93 | -56.46 | 1.78 | 5.76 | -12.73 | -12.33 | 5.37 | 2.67 |
| 8 | 3 | 272 | -34.73 | -127.51 | -126.39 | -35.85 | -10.15 | 12.02 | -17.17 | -1.99 | -3.17 | 14.58 |
| 8 | 3 | 273 | -58.34 | -81.96 | -65.18 | -75.12 | 10.71 | 25.84 | -10.74 | -10.68 | 25.78 | 1.46 |
| 8 | 3 | 274 | -41.58 | -98.83 | -47.62 | -92.79 | 17.59 | 31.25 | -0.64 | -0.52 | 31.13 | 1.97 |
| 8 | 3 | 275 | -68.02 | -80.99 | -71.31 | -77.70 | 5.64 | 26.33 | -3.50 | 0.30 | 22.53 | -9.94 |
| 8 | 3 | 276 | -15.22 | -120.81 | -21.89 | -114.15 | 25.68 | 0.62 | -7.86 | -1.49 | -5.76 | 3.66 |
| 8 | 3 | 277 | -21.67 | -116.11 | -29.07 | -108.71 | 25.38 | -0.29 | -4.62 | -1.44 | -3.47 | 1.91 |
| 8 | 3 | 278 | -31.01 | -115.48 | -37.45 | -109.04 | 22.41 | 0.28 | -4.40 | 0.17 | -4.29 | 0.72 |
| 8 | 3 | 279 | -29.73 | -136.13 | -133.06 | -32.80 | -17.82 | 15.58 | -11.97 | 8.33 | -4.72 | 12.13 |
| 8 | 3 | 280 | -46.32 | -109.38 | -107.36 | -48.34 | -11.10 | 6.55 | -17.62 | -3.92 | -7.15 | 11.98 |
| 8 | 3 | 281 | -76.13 | -89.88 | -89.62 | -76.40 | 1.87 | 21.95 | 19.96 | 21.40 | 20.52 | 0.89 |
| 8 | 3 | 282 | -64.65 | -85.71 | -85.09 | -65.26 | -3.55 | 6.62 | -6.43 | -2.85 | 3.04 | -5.82 |
| 8 | 3 | 283 | -69.71 | -128.49 | -117.28 | -80.92 | -23.09 | 2.18 | -10.38 | 1.65 | -9.85 | -2.53 |
| 8 | 3 | 284 | -51.11 | -89.67 | -57.79 | -82.99 | 14.59 | 28.19 | -7.31 | -1.53 | 22.40 | 13.11 |
| 8 | 3 | 285 | -54.74 | -109.57 | -106.83 | -57.48 | -11.95 | 23.22 | 1.12 | 20.20 | 4.14 | 7.59 |
| 8 | 3 | 286 | -69.28 | -88.81 | -88.29 | -69.79 | -3.13 | 25.78 | 14.26 | 25.13 | 14.90 | -2.65 |
| 8 | 3 | 287 | -59.14 | -97.19 | -61.45 | -94.89 | 9.08 | 21.47 | 10.95 | 11.15 | 21.26 | -1.44 |
| 8 | 3 | 288 | -62.72 | -104.30 | -103.55 | -63.47 | 5.54 | 10.68 | -10.77 | -3.37 | 3.28 | -10.19 |
| 8 | 3 | 289 | -73.55 | -89.20 | -73.72 | -89.04 | 1.60 | 21.23 | 8.85 | 14.35 | 15.72 | 6.15 |
| 8 | 3 | 290 | -71.38 | -98.05 | -97.97 | -71.46 | 1.49 | 24.32 | 17.06 | 23.49 | 17.89 | -2.31 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 3 | 291 | -60.70 | -113.39 | -112.41 | -61.67 | 7.11 | 9.43 | -3.56 | -2.48 | 8.36 | -3.58 |
| 8 | 3 | 292 | -26.61 | -145.94 | -145.88 | -26.66 | 2.62 | 0.72 | -10.36 | 6.05e-02 | -9.70 | 2.62 |
| 8 | 3 | 293 | -75.75 | -82.64 | -77.30 | -81.10 | 2.87 | 27.04 | 14.37 | 18.05 | 23.36 | -5.76 |
| 8 | 3 | 294 | -20.50 | -115.91 | -115.58 | -20.83 | -5.60 | -1.48 | -4.53 | -4.16 | -1.85 | -1.00 |
| 8 | 3 | 295 | -12.77 | -122.03 | -121.70 | -13.11 | -6.02 | -0.98 | -5.56 | -5.41 | -1.12 | -0.80 |
| 8 | 3 | 296 | -8.64 | -123.64 | -123.46 | -8.81 | -4.49 | -0.74 | -6.06 | -5.93 | -0.87 | -0.82 |
| 8 | 3 | 297 | -4.54 | -123.67 | -123.62 | -4.59 | -2.46 | -0.23 | -6.09 | -5.96 | -0.37 | -0.89 |
| 8 | 3 | 298 | -2.31 | -126.13 | -126.12 | -2.32 | -1.19 | -7.00e-02 | -6.04 | -5.97 | -0.14 | -0.64 |
| 8 | 3 | 299 | -67.75 | -93.33 | -91.15 | -69.93 | -7.14 | 4.91 | -17.48 | -5.16 | -7.41 | -11.14 |
| 8 | 3 | 300 | -36.28 | -123.07 | -120.21 | -39.14 | -15.49 | 3.78 | -0.18 | 2.99 | 0.61 | -1.59 |
| 8 | 3 | 301 | -31.42 | -126.25 | -123.20 | -34.47 | -16.73 | 2.69 | 0.30 | 2.16 | 0.83 | -0.99 |
| 8 | 3 | 302 | -25.75 | -127.61 | -124.97 | -28.40 | -16.18 | 1.82 | 2.59e-02 | 1.38 | 0.47 | -0.78 |
| 8 | 3 | 303 | -19.17 | -127.67 | -125.98 | -20.86 | -13.43 | 1.18 | -0.59 | 0.57 | 1.49e-02 | -0.84 |
| 8 | 3 | 304 | -10.40 | -131.70 | -131.07 | -11.02 | -8.71 | 0.83 | -1.06 | -6.66e-02 | -0.17 | -0.94 |
| 8 | 3 | 305 | -5.88 | -141.33 | -141.06 | -6.15 | -6.00 | 1.23 | -1.90 | -0.49 | -0.18 | -1.56 |
| 8 | 3 | 306 | -33.31 | -120.82 | -120.77 | -33.37 | -2.17 | 21.15 | 4.53 | 20.97 | 4.70 | -1.68 |
| 8 | 3 | 307 | -28.09 | -124.25 | -124.08 | -28.26 | -3.99 | 21.62 | 3.62 | 21.54 | 3.70 | -1.18 |
| 8 | 3 | 308 | -22.68 | -126.09 | -125.92 | -22.85 | -4.18 | 21.34 | 2.74 | 21.25 | 2.83 | -1.29 |
| 8 | 3 | 309 | -17.06 | -127.83 | -127.76 | -17.12 | -2.70 | 21.07 | 2.47 | 20.98 | 2.55 | -1.24 |
| 8 | 3 | 310 | -9.55 | -130.71 | -130.70 | -9.55 | -0.76 | 20.97 | 1.55 | 20.91 | 1.61 | -1.08 |
| 8 | 3 | 311 | -6.39 | -144.53 | -144.53 | -6.40 | 7.91e-02 | 21.46 | 0.79 | 21.41 | 0.83 | -0.97 |
| 8 | 3 | 312 | -29.85 | -123.42 | -122.85 | -30.42 | 7.28 | 6.91 | 4.30 | 6.91 | 4.30 | -0.10 |
| 8 | 3 | 313 | -24.91 | -125.56 | -125.09 | -25.37 | 6.81 | 7.97 | 1.61 | 7.86 | 1.73 | -0.86 |
| 8 | 3 | 314 | -20.15 | -126.39 | -126.00 | -20.54 | 6.41 | 8.73 | 1.05 | 8.54 | 1.23 | -1.19 |
| 8 | 3 | 315 | -14.62 | -127.47 | -127.10 | -14.99 | 6.39 | 9.35 | 1.09 | 9.21 | 1.24 | -1.09 |
| 8 | 3 | 316 | -7.62 | -128.96 | -128.67 | -7.92 | 5.95 | 9.87 | 0.80 | 9.80 | 0.87 | -0.77 |
| 8 | 3 | 317 | -4.04 | -131.68 | -131.46 | -4.26 | 5.37 | 10.45 | 0.61 | 10.45 | 0.61 | -2.28e-02 |
| 8 | 3 | 318 | -26.00 | -118.68 | -118.29 | -26.40 | -6.03 | 4.14 | 0.16 | 3.39 | 0.91 | 1.56 |
| 8 | 3 | 319 | -20.68 | -117.27 | -116.23 | -21.72 | -9.98 | 2.03 | -0.84 | 2.02 | -0.83 | 0.16 |
| 8 | 3 | 320 | -14.68 | -121.30 | -119.90 | -16.08 | -12.14 | 1.31 | -0.38 | 1.30 | -0.38 | -0.12 |
| 8 | 3 | 321 | -9.47 | -123.75 | -122.70 | -10.52 | -10.90 | 1.07 | -4.07e-02 | 0.83 | 0.20 | -0.45 |
| 8 | 3 | 322 | -8.27 | -129.72 | -8.47 | -129.52 | 4.91 | 29.68 | 4.12 | 4.13 | 29.68 | -0.37 |
| 8 | 3 | 323 | -63.49 | -108.66 | -108.47 | -63.67 | 2.86 | 9.99 | -3.91 | -2.86 | 8.94 | 3.67 |
| 8 | 3 | 324 | -38.30 | -117.05 | -117.04 | -38.31 | 0.91 | 20.37 | 2.50 | 19.54 | 3.33 | -3.76 |
| 8 | 3 | 325 | -25.45 | -108.92 | -28.72 | -105.65 | 16.18 | 25.19 | 2.95 | 4.86 | 23.28 | 6.23 |
| 8 | 3 | 326 | -69.46 | -94.31 | -94.02 | -69.75 | -2.66 | 13.33 | -9.93 | -3.05 | 6.45 | 10.62 |
| 8 | 3 | 327 | -4.84 | -123.67 | -123.22 | -5.29 | -7.34 | 0.85 | -0.34 | 0.26 | 0.25 | -0.60 |
| 8 | 3 | 328 | -2.57 | -124.18 | -123.97 | -2.78 | -5.03 | 0.55 | -0.64 | -0.23 | 0.14 | -0.57 |
| 8 | 3 | 329 | -41.34 | -119.69 | -117.63 | -43.40 | -12.55 | 4.78 | -1.01 | 4.06 | -0.29 | -1.91 |
| 8 | 3 | 330 | -29.63 | -115.70 | -115.69 | -29.65 | -1.17 | -1.53 | -4.43 | -1.74 | -4.21 | -0.76 |
| 8 | 3 | 331 | -48.02 | -111.84 | -111.11 | -48.74 | -6.77 | 7.41 | -1.86 | 7.17 | -1.62 | -1.45 |
| 8 | 3 | 332 | -45.46 | -111.19 | -110.87 | -45.77 | 4.54 | 20.98 | -2.02 | 19.29 | -0.33 | -5.99 |
| 8 | 3 | 333 | -62.23 | -103.07 | -102.37 | -62.93 | 5.32 | 10.86 | 0.78 | 10.76 | 0.88 | -1.01 |
| 8 | 3 | 334 | -56.03 | -98.06 | -96.12 | -57.96 | 8.82 | 28.94 | 0.58 | 28.24 | 1.27 | -4.39 |
| 8 | 3 | 335 | -52.23 | -90.30 | -60.94 | -81.59 | 15.99 | 18.01 | 10.59 | 15.37 | 13.23 | -3.55 |
| 8 | 3 | 336 | -57.33 | -84.55 | -67.87 | -74.00 | 13.26 | 26.04 | 10.60 | 25.31 | 11.33 | 3.27 |
| 8 | 3 | 337 | -12.22 | -127.57 | -13.74 | -126.05 | 13.16 | 30.65 | 7.16 | 8.37 | 29.44 | -5.20 |
| 8 | 3 | 338 | -23.90 | -105.28 | -26.39 | -102.79 | 14.01 | 27.51 | 11.52 | 12.05 | 26.98 | -2.87 |
| 8 | 3 | 339 | -14.65 | -121.24 | -15.55 | -120.33 | 9.80 | 24.41 | 5.28 | 5.38 | 24.31 | 1.41 |
| 8 | 3 | 340 | -42.49 | -95.71 | -47.26 | -90.94 | 15.20 | 27.37 | 8.38 | 12.04 | 23.72 | 7.49 |
| 8 | 3 | 341 | -2.60 | -137.96 | -3.34 | -137.21 | 10.01 | 0.55 | -11.02 | 1.94e-02 | -10.49 | 2.42 |
| 8 | 3 | 342 | -5.86 | -133.91 | -7.55 | -132.23 | 14.60 | 0.20 | -10.98 | -0.29 | -10.49 | 2.28 |
| 8 | 3 | 343 | -10.44 | -123.02 | -14.97 | -118.49 | 22.12 | 0.85 | -9.90 | -0.78 | -8.27 | 3.86 |
| 8 | 3 | 344 | -33.49 | -119.66 | -118.90 | -34.26 | 8.07 | 6.05 | 2.19 | 2.35 | 5.89 | -0.75 |
| 8 | 3 | 345 | -40.88 | -115.45 | -44.74 | -111.59 | 16.52 | 3.62 | -7.10 | 2.92 | -6.40 | 2.65 |
| 8 | 3 | 346 | -39.83 | -112.49 | -110.90 | -41.42 | 10.64 | 8.85 | -8.30 | 1.19 | -0.64 | -8.53 |
| 8 | 3 | 347 | -52.80 | -107.81 | -53.45 | -107.16 | 5.97 | 9.02 | -12.26 | 4.36 | -7.59 | 8.80 |
| 8 | 3 | 348 | -49.35 | -103.63 | -100.03 | -52.95 | 13.50 | 2.80 | -11.94 | -1.49 | -7.64 | -6.70 |
| 8 | 3 | 349 | -58.82 | -87.90 | -77.91 | -68.82 | 13.81 | 8.53 | -11.14 | -3.63 | 1.02 | 9.56 |
| 8 | 3 | 350 | -34.33 | -104.23 | -39.45 | -99.11 | 18.21 | 28.24 | -1.23 | 0.65 | 26.36 | 7.20 |
| 8 | 3 | 351 | -65.58 | -80.58 | -66.11 | -80.06 | -2.75 | 8.94 | -17.11 | -2.94 | -5.22 | 12.98 |
| 8 | 3 | 352 | -29.49 | -121.84 | -121.47 | -29.86 | -5.83 | 7.35 | -2.36 | 1.78 | 3.22 | 4.80 |
| 8 | 14 | 1 | -6.05 | -111.86 | -110.01 | -7.90 | -13.85 | -0.37 | -16.72 | -16.44 | -0.66 | -2.15 |
| 8 | 14 | 2 | -26.94 | -42.21 | -33.77 | -35.38 | -7.59 | 26.02 | -0.90 | -0.39 | 25.52 | -3.64 |
| 8 | 14 | 3 | -5.44 | -105.49 | -105.40 | -5.53 | 3.05 | 0.25 | -3.21 | -3.18 | 0.22 | 0.35 |
| 8 | 14 | 5 | -49.40 | -88.65 | -88.43 | -49.63 | -2.98 | -3.77 | -9.28 | -7.99 | -5.07 | 2.34 |
| 8 | 14 | 6 | -37.03 | -61.57 | -61.17 | -37.42 | -3.08 | 11.07 | -1.11 | -0.90 | 10.86 | 1.59 |
| 8 | 14 | 7 | -6.65 | -100.53 | -100.09 | -7.09 | 6.43 | -0.71 | -15.27 | -15.27 | -0.72 | 0.14 |
| 8 | 14 | 8 | -79.52 | -201.31 | -199.47 | -81.36 | 14.84 | -4.77 | -13.81 | -11.15 | -7.42 | -4.12 |
| 8 | 14 | 9 | -4.59 | -45.85 | -43.97 | -6.47 | -8.61 | -3.97e-02 | -2.13 | -1.97 | -0.21 | 0.57 |
| 8 | 14 | 10 | 18.56 | -20.05 | -2.33 | 0.84 | 19.24 | 0.89 | -5.28 | -1.94 | -2.45 | -3.07 |
| 8 | 14 | 11 | 5.97 | -109.96 | 0.39 | -104.38 | 24.81 | -4.05 | -33.76 | -4.18 | -33.63 | 1.96 |
| 8 | 14 | 12 | -5.70 | -119.59 | -6.32 | -118.97 | 8.35 | -3.19 | -46.13 | -3.34 | -45.98 | 2.54 |
| 8 | 14 | 27 | -39.92 | -108.83 | -105.11 | -43.63 | -15.56 | 0.99 | -6.21 | -3.10 | -2.11 | -3.56 |
| 8 | 14 | 37 | -0.47 | -65.75 | -6.96 | -59.27 | 19.52 | -2.53 | -11.15 | -2.59 | -11.09 | -0.72 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 14 | 47 | -2.05 | -99.34 | -7.87 | -93.51 | 23.09 | -3.08 | -21.81 | -3.13 | -21.75 | 0.99 |
| 8 | 14 | 57 | 1.69 | -109.32 | -5.35 | -102.28 | 27.05 | -3.40 | -28.14 | -3.55 | -27.98 | 1.95 |
| 8 | 14 | 61 | 5.64 | -109.09 | -1.12 | -102.34 | 27.01 | -3.70 | -30.73 | -3.85 | -30.57 | 2.04 |
| 8 | 14 | 68 | 4.66 | -112.00 | 0.50 | -107.83 | 21.64 | -4.22 | -36.62 | -4.34 | -36.50 | 2.00 |
| 8 | 14 | 72 | 0.48 | -110.46 | -2.00 | -107.98 | 16.41 | -4.67 | -38.63 | -4.82 | -38.48 | 2.27 |
| 8 | 14 | 76 | -27.21 | -101.22 | -86.54 | -41.89 | -29.51 | -3.15 | -9.59 | -9.17 | -3.57 | -1.59 |
| 8 | 14 | 83 | -14.67 | -115.98 | -103.99 | -26.65 | 32.72 | -2.81 | -16.32 | -16.02 | -3.11 | -1.99 |
| 8 | 14 | 87 | -12.64 | -97.48 | -93.03 | -17.09 | 18.91 | -1.59 | -17.26 | -17.16 | -1.69 | -1.27 |
| 8 | 14 | 91 | -14.15 | -100.43 | -98.18 | -16.40 | 13.77 | -1.82 | -17.47 | -17.44 | -1.85 | -0.70 |
| 8 | 14 | 95 | -13.36 | -100.14 | -98.64 | -14.86 | 11.32 | -1.84 | -16.95 | -16.95 | -1.84 | -0.18 |
| 8 | 14 | 99 | -9.80 | -102.06 | -101.34 | -10.51 | 8.08 | -1.31 | -15.95 | -15.95 | -1.31 | -0.11 |
| 8 | 14 | 106 | -19.92 | -109.10 | -108.26 | -20.76 | 8.59 | 3.12 | 1.86 | 2.33 | 2.66 | 0.61 |
| 8 | 14 | 110 | -18.36 | -105.25 | -104.26 | -19.36 | 9.25 | 1.25 | -6.02e-02 | 0.96 | 0.23 | 0.54 |
| 8 | 14 | 114 | -18.88 | -103.17 | -102.46 | -19.59 | 7.70 | 0.41 | -0.28 | 3.72e-02 | 9.62e-02 | 0.34 |
| 8 | 14 | 118 | -17.31 | -104.21 | -103.83 | -17.69 | 5.72 | 0.23 | -0.93 | -0.88 | 0.18 | 0.23 |
| 8 | 14 | 122 | -10.68 | -107.37 | -107.21 | -10.84 | 3.93 | 0.26 | -2.05 | -2.02 | 0.23 | 0.25 |
| 8 | 14 | 129 | -19.76 | -107.10 | -91.32 | -35.54 | -33.60 | -1.19 | -12.33 | -12.00 | -1.52 | -1.89 |
| 8 | 14 | 133 | -18.42 | -107.57 | -93.38 | -32.61 | -32.62 | -1.05 | -13.43 | -13.14 | -1.34 | -1.85 |
| 8 | 14 | 137 | -16.32 | -106.72 | -95.23 | -27.81 | -30.11 | -1.10 | -14.13 | -13.89 | -1.34 | -1.75 |
| 8 | 14 | 141 | -13.29 | -104.24 | -96.59 | -20.94 | -25.25 | -1.30 | -14.88 | -14.65 | -1.52 | -1.73 |
| 8 | 14 | 145 | -9.37 | -108.73 | -105.39 | -12.71 | -17.91 | -0.97 | -15.76 | -15.57 | -1.16 | -1.66 |
| 8 | 14 | 151 | -33.91 | -86.54 | -78.08 | -42.36 | -19.33 | 7.17 | -8.09 | -5.36 | 4.43 | -5.85 |
| 8 | 14 | 158 | -23.48 | -108.62 | -108.56 | -23.54 | 2.22 | 14.42 | 4.05 | 4.05 | 14.42 | 0.18 |
| 8 | 14 | 162 | -20.80 | -105.11 | -89.19 | -36.72 | -32.99 | -0.40 | -11.21 | -10.83 | -0.78 | -1.99 |
| 8 | 14 | 171 | -5.12 | -120.22 | -6.11 | -119.23 | 10.62 | -4.14 | -42.22 | -4.27 | -42.09 | 2.22 |
| 8 | 14 | 176 | -21.43 | -109.01 | -108.74 | -21.70 | 4.84 | 7.92 | 3.25 | 3.32 | 7.85 | 0.58 |
| 8 | 14 | 180 | -23.18 | -200.85 | -172.55 | -51.47 | 65.01 | -5.83 | -15.22 | -14.42 | -6.62 | -2.62 |
| 8 | 14 | 221 | 4.34 | -90.80 | -80.95 | -5.51 | 28.98 | -1.73 | -13.86 | -13.75 | -1.84 | 1.13 |
| 8 | 14 | 222 | -0.64 | -100.73 | -86.42 | -14.95 | 35.04 | -1.55 | -18.11 | -17.73 | -1.93 | 2.49 |
| 8 | 14 | 223 | -6.54 | -94.98 | -82.34 | -19.17 | 30.95 | -1.35 | -17.15 | -16.51 | -1.99 | 3.10 |
| 8 | 14 | 224 | -5.19 | -76.08 | -67.22 | -14.05 | 23.44 | -1.65 | -12.59 | -12.06 | -2.17 | 2.33 |
| 8 | 14 | 225 | -4.11 | -71.81 | -71.13 | -4.80 | 6.78 | -0.90 | -5.48 | -5.43 | -0.95 | 0.48 |
| 8 | 14 | 226 | 4.35 | -45.02 | -35.79 | -4.87 | 19.25 | -2.38 | -5.57 | -5.53 | -2.42 | 0.36 |
| 8 | 14 | 239 | -28.31 | -83.46 | -30.04 | -81.73 | 9.61 | 4.99 | -3.25 | 1.02 | 0.71 | 4.12 |
| 8 | 14 | 270 | -69.27 | -92.19 | -92.17 | -69.28 | 0.62 | 8.48 | 1.76 | 1.83 | 8.41 | -0.68 |
| 8 | 14 | 271 | -46.04 | -102.78 | -102.78 | -46.04 | -0.29 | 4.94 | -0.74 | -0.42 | 4.62 | 1.33 |
| 8 | 14 | 272 | -31.29 | -124.70 | -123.63 | -32.36 | -9.93 | 9.83 | -5.48 | 2.42 | 1.94 | 7.65 |
| 8 | 14 | 273 | -42.39 | -56.51 | -42.51 | -56.39 | 1.31 | 15.91 | 1.71 | 2.11 | 15.50 | 2.38 |
| 8 | 14 | 274 | -25.54 | -81.77 | -27.07 | -80.24 | 9.16 | 4.14 | -3.17 | 0.20 | 0.77 | 3.64 |
| 8 | 14 | 275 | -45.97 | -70.03 | -46.05 | -69.94 | -1.42 | 11.56 | 1.86 | 2.52 | 10.90 | 2.44 |
| 8 | 14 | 276 | -9.17 | -103.92 | -11.97 | -101.12 | 16.05 | -2.32 | -22.58 | -2.95 | -21.96 | 3.50 |
| 8 | 14 | 277 | -9.72 | -101.67 | -13.91 | -97.48 | 19.16 | -1.90 | -20.96 | -2.52 | -20.34 | 3.38 |
| 8 | 14 | 278 | -10.67 | -101.27 | -15.87 | -96.07 | 21.07 | -1.35 | -19.64 | -2.15 | -18.84 | 3.74 |
| 8 | 14 | 279 | -27.03 | -141.54 | -139.72 | -28.84 | -14.30 | 7.74 | -3.47 | 1.93 | 2.34 | 5.60 |
| 8 | 14 | 280 | -37.60 | -99.19 | -94.05 | -42.73 | -17.03 | 5.90 | 0.34 | 3.13 | 3.12 | 2.78 |
| 8 | 14 | 281 | -46.90 | -73.16 | -57.48 | -62.58 | 12.88 | 7.77 | -1.53 | 1.56 | 4.68 | 4.38 |
| 8 | 14 | 282 | -48.99 | -72.36 | -62.12 | -59.22 | -11.59 | 9.82 | 2.02 | 2.42 | 9.43 | -1.71 |
| 8 | 14 | 283 | -71.63 | -134.19 | -128.85 | -76.97 | -17.48 | 2.14 | -5.20 | -3.66 | 0.61 | -2.98 |
| 8 | 14 | 284 | -35.89 | -71.91 | -36.49 | -71.31 | 4.61 | 14.12 | -0.84 | 6.83e-02 | 13.21 | 3.57 |
| 8 | 14 | 285 | -50.22 | -99.89 | -96.13 | -53.98 | -13.13 | 10.37 | 5.10 | 7.58 | 7.90 | 2.63 |
| 8 | 14 | 286 | -60.21 | -67.39 | -63.68 | -63.92 | -3.58 | 9.73 | 4.69 | 4.76 | 9.66 | 0.59 |
| 8 | 14 | 287 | -30.52 | -84.39 | -33.08 | -81.83 | 11.46 | 5.34 | -4.51 | 1.05 | -0.22 | 4.89 |
| 8 | 14 | 288 | -34.53 | -93.84 | -85.61 | -42.76 | 20.50 | 2.40 | -7.92 | -7.19 | 1.67 | -2.64 |
| 8 | 14 | 289 | -35.65 | -76.34 | -41.34 | -70.65 | 14.11 | 4.99 | -7.30 | -0.60 | -1.70 | 6.12 |
| 8 | 14 | 290 | -54.93 | -77.13 | -70.18 | -61.88 | 10.30 | 8.60 | 2.89 | 3.50 | 7.98 | 1.77 |
| 8 | 14 | 291 | -26.51 | -94.50 | -80.94 | -40.07 | 27.17 | 2.54 | -8.86 | -8.52 | 2.19 | 1.96 |
| 8 | 14 | 292 | -26.73 | -170.96 | -165.65 | -32.04 | 27.16 | -2.07 | -5.84 | -5.01 | -2.90 | 1.57 |
| 8 | 14 | 293 | -47.54 | -72.50 | -48.14 | -71.90 | 3.82 | 9.04 | 2.00 | 3.07 | 7.97 | 2.52 |
| 8 | 14 | 294 | -26.61 | -99.90 | -96.28 | -30.23 | 15.87 | -0.62 | -5.37 | -5.16 | -0.82 | -0.96 |
| 8 | 14 | 295 | -20.25 | -99.52 | -98.22 | -21.54 | 10.04 | -0.62 | -5.30 | -5.15 | -0.76 | -0.81 |
| 8 | 14 | 296 | -13.55 | -99.98 | -99.39 | -14.14 | 7.13 | -0.41 | -4.74 | -4.60 | -0.55 | -0.77 |
| 8 | 14 | 297 | -6.90 | -101.37 | -101.14 | -7.13 | 4.65 | 1.82e-02 | -3.74 | -3.59 | -0.13 | -0.72 |
| 8 | 14 | 298 | -3.67 | -106.04 | -105.92 | -3.80 | 3.52 | 0.13 | -2.73 | -2.68 | 7.77e-02 | -0.37 |
| 8 | 14 | 299 | -43.38 | -95.79 | -95.78 | -43.40 | -0.87 | 2.19 | -8.49 | -5.43 | -0.86 | -4.83 |
| 8 | 14 | 300 | -21.78 | -100.97 | -93.51 | -29.24 | -23.13 | 3.15 | -2.07 | 0.57 | 0.50 | -2.61 |
| 8 | 14 | 301 | -19.80 | -102.44 | -95.82 | -26.42 | -22.42 | 3.11 | -1.32 | 1.19 | 0.61 | -2.20 |
| 8 | 14 | 302 | -17.56 | -102.84 | -97.65 | -22.76 | -20.40 | 3.38 | -0.87 | 1.85 | 0.65 | -2.04 |
| 8 | 14 | 303 | -14.17 | -103.17 | -99.87 | -17.47 | -16.81 | 3.73 | -0.82 | 2.37 | 0.55 | -2.09 |
| 8 | 14 | 304 | -8.27 | -108.97 | -107.65 | -9.58 | -11.44 | 4.01 | -0.81 | 2.88 | 0.32 | -2.05 |
| 8 | 14 | 305 | -5.25 | -121.62 | -121.02 | -5.85 | -8.35 | 4.73 | -1.23 | 3.30 | 0.20 | -2.54 |
| 8 | 14 | 306 | -25.96 | -99.24 | -98.86 | -26.34 | -5.25 | 14.98 | 3.48 | 14.91 | 3.55 | -0.88 |
| 8 | 14 | 307 | -23.11 | -101.21 | -100.95 | -23.38 | -4.53 | 17.37 | 2.98 | 17.36 | 2.99 | -0.34 |
| 8 | 14 | 308 | -20.03 | -102.45 | -102.32 | -20.16 | -3.31 | 19.22 | 2.65 | 19.21 | 2.66 | -0.47 |
| 8 | 14 | 309 | -16.26 | -105.22 | -105.19 | -16.29 | -1.58 | 21.05 | 2.82 | 21.03 | 2.84 | -0.51 |
| 8 | 14 | 310 | -9.57 | -110.82 | -110.82 | -9.57 | -1.21e-02 | 22.98 | 2.02 | 22.97 | 2.03 | -0.53 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 14 | 311 | -7.19 | -132.92 | -132.92 | -7.19 | 0.56 | 24.97 | 1.23 | 24.96 | 1.23 | -0.48 |
| 8 | 14 | 312 | -23.52 | -106.27 | -105.19 | -24.60 | 9.40 | 8.52 | 3.71 | 8.08 | 4.14 | 1.38 |
| 8 | 14 | 313 | -20.89 | -106.88 | -105.48 | -22.30 | 10.91 | 8.95 | 1.65 | 8.83 | 1.76 | 0.92 |
| 8 | 14 | 314 | -17.94 | -106.76 | -105.26 | -19.45 | 11.46 | 9.58 | 1.32 | 9.52 | 1.37 | 0.64 |
| 8 | 14 | 315 | -13.58 | -108.21 | -106.85 | -14.94 | 11.27 | 10.33 | 1.44 | 10.29 | 1.49 | 0.65 |
| 8 | 14 | 316 | -7.34 | -112.16 | -111.29 | -8.21 | 9.53 | 11.08 | 1.02 | 11.03 | 1.07 | 0.73 |
| 8 | 14 | 317 | -4.51 | -120.73 | -120.18 | -5.06 | 7.98 | 12.00 | 0.60 | 11.84 | 0.76 | 1.34 |
| 8 | 14 | 318 | -24.97 | -112.81 | -111.91 | -25.86 | 8.83 | 6.17 | 3.05 | 6.15 | 3.07 | -0.25 |
| 8 | 14 | 319 | -24.53 | -100.06 | -99.52 | -25.06 | 6.33 | 5.35 | 0.46 | 5.19 | 0.62 | -0.86 |
| 8 | 14 | 320 | -21.16 | -98.22 | -98.19 | -21.19 | 1.43 | 4.69 | 9.91e-02 | 4.50 | 0.29 | -0.91 |
| 8 | 14 | 321 | -14.69 | -100.20 | -100.17 | -14.71 | -1.46 | 4.39 | 0.29 | 4.06 | 0.62 | -1.12 |
| 8 | 14 | 322 | -3.73 | -88.21 | -3.83 | -88.11 | -2.95 | 6.95 | -4.89 | -8.78e-02 | 2.16 | 5.81 |
| 8 | 14 | 323 | -26.77 | -86.49 | -73.60 | -39.67 | 24.57 | 2.63 | -10.67 | -8.41 | 0.37 | 4.99 |
| 8 | 14 | 324 | -28.82 | -96.02 | -95.66 | -29.18 | -4.90 | 13.29 | 2.91 | 12.62 | 3.58 | -2.54 |
| 8 | 14 | 325 | -15.25 | -89.91 | -15.43 | -89.72 | 3.70 | 5.15 | -4.07 | -0.94 | 2.02 | 4.37 |
| 8 | 14 | 326 | -30.63 | -71.90 | -58.15 | -44.38 | 19.45 | 1.53 | -11.39 | -7.11 | -2.75 | 6.08 |
| 8 | 14 | 327 | -7.55 | -101.93 | -101.86 | -7.62 | -2.52 | 4.01 | 9.75e-02 | 3.61 | 0.50 | -1.19 |
| 8 | 14 | 328 | -4.50 | -107.89 | -107.82 | -4.57 | -2.64 | 3.70 | -0.11 | 3.33 | 0.27 | -1.13 |
| 8 | 14 | 329 | -24.33 | -98.90 | -91.32 | -31.92 | -22.54 | 3.46 | -2.74 | 0.62 | 0.10 | -3.09 |
| 8 | 14 | 330 | -25.85 | -117.77 | -110.42 | -33.20 | 24.93 | -1.28 | -4.78 | -4.69 | -1.37 | -0.54 |
| 8 | 14 | 331 | -27.73 | -93.18 | -86.69 | -34.22 | -19.56 | 5.41 | -2.19 | 1.84 | 1.38 | -3.80 |
| 8 | 14 | 332 | -34.06 | -90.10 | -89.90 | -34.27 | -3.41 | 13.62 | 2.66 | 11.54 | 4.75 | -4.30 |
| 8 | 14 | 333 | -38.34 | -79.73 | -75.88 | -42.19 | -12.02 | 13.29 | -1.31 | 3.30 | 8.68 | -6.78 |
| 8 | 14 | 334 | -44.68 | -76.01 | -75.97 | -44.73 | -1.22 | 14.81 | 7.34 | 13.45 | 8.70 | -2.88 |
| 8 | 14 | 335 | -37.93 | -59.04 | -38.87 | -58.09 | -4.36 | 18.47 | 8.53e-02 | 0.84 | 17.72 | -3.64 |
| 8 | 14 | 336 | -45.31 | -59.07 | -45.35 | -59.03 | 0.73 | 12.38 | 2.56 | 2.79 | 12.16 | 1.46 |
| 8 | 14 | 337 | -2.56 | -53.19 | -2.95 | -52.80 | -4.46 | 24.76 | -0.17 | 0.69 | 23.90 | 4.57 |
| 8 | 14 | 338 | -13.12 | -75.80 | -13.23 | -75.69 | -2.58 | 17.93 | -0.48 | 0.19 | 17.27 | 3.44 |
| 8 | 14 | 339 | -8.05 | -91.56 | -8.06 | -91.55 | -0.91 | 6.24 | -4.08 | -0.41 | 2.57 | 4.94 |
| 8 | 14 | 340 | -26.15 | -75.25 | -26.20 | -75.20 | 1.49 | 13.57 | -1.55 | -0.63 | 12.65 | 3.61 |
| 8 | 14 | 341 | -1.90 | -111.44 | -2.05 | -111.29 | 4.07 | -1.04 | -28.22 | -1.92 | -27.34 | 4.81 |
| 8 | 14 | 342 | -4.49 | -109.51 | -4.84 | -109.16 | 6.07 | -1.87 | -25.80 | -2.63 | -25.04 | 4.19 |
| 8 | 14 | 343 | -7.81 | -103.91 | -9.12 | -102.61 | 11.12 | -2.50 | -23.62 | -3.27 | -22.85 | 3.96 |
| 8 | 14 | 344 | -27.17 | -103.76 | -102.93 | -28.00 | 7.97 | 6.70 | 5.63 | 5.63 | 6.70 | 6.87e-02 |
| 8 | 14 | 345 | -12.12 | -100.88 | -17.64 | -95.36 | 21.44 | -0.88 | -18.42 | -2.04 | -17.26 | 4.36 |
| 8 | 14 | 346 | -33.16 | -94.18 | -93.40 | -33.95 | 6.87 | 9.23 | -0.53 | 4.94 | 3.77 | -4.84 |
| 8 | 14 | 347 | -16.82 | -90.61 | -22.18 | -85.26 | 19.15 | -0.84 | -15.79 | -2.75 | -13.88 | 4.99 |
| 8 | 14 | 348 | -41.12 | -82.34 | -80.95 | -42.52 | 7.45 | 3.79 | 2.58 | 2.65 | 3.71 | -0.28 |
| 8 | 14 | 349 | -51.45 | -62.68 | -56.63 | -57.50 | 5.60 | 12.79 | -2.88 | -0.26 | 10.17 | 5.84 |
| 8 | 14 | 350 | -21.25 | -86.76 | -22.18 | -85.83 | 7.77 | 4.55 | -3.23 | -0.62 | 1.94 | 3.67 |
| 8 | 14 | 351 | -22.13 | -64.65 | -32.42 | -54.37 | 18.21 | -1.91 | -10.61 | -4.58 | -7.93 | 4.01 |
| 8 | 14 | 352 | -26.95 | -118.43 | -118.41 | -26.97 | 1.39 | 8.00 | 3.55 | 5.85 | 5.70 | 2.23 |
| 8 | 15 | 1 | -6.17 | -111.73 | -109.91 | -8.00 | -13.76 | -0.37 | -16.64 | -16.36 | -0.65 | -2.13 |
| 8 | 15 | 2 | -26.60 | -42.40 | -33.71 | -35.28 | -7.86 | 26.22 | -1.00 | -0.52 | 25.74 | -3.57 |
| 8 | 15 | 3 | -5.58 | -105.32 | -105.23 | -5.68 | 3.02 | 0.26 | -3.01 | -2.97 | 0.22 | 0.35 |
| 8 | 15 | 5 | -49.25 | -88.41 | -88.17 | -49.48 | -3.02 | -3.55 | -8.80 | -7.52 | -4.83 | 2.26 |
| 8 | 15 | 6 | -36.98 | -61.35 | -60.95 | -37.38 | -3.08 | 11.27 | -0.55 | -0.34 | 11.07 | 1.54 |
| 8 | 15 | 7 | -6.73 | -100.45 | -100.01 | -7.16 | 6.34 | -0.73 | -15.39 | -15.39 | -0.73 | 0.13 |
| 8 | 15 | 8 | -79.06 | -200.88 | -198.99 | -80.94 | 15.03 | -4.25 | -13.43 | -11.01 | -6.68 | -4.04 |
| 8 | 15 | 9 | -4.17 | -45.87 | -43.79 | -6.25 | -9.08 | 6.51e-02 | -2.25 | -1.99 | -0.19 | 0.72 |
| 8 | 15 | 10 | 19.22 | -19.80 | -1.87 | 1.30 | 19.45 | 1.15 | -5.53 | -1.93 | -2.44 | -3.33 |
| 8 | 15 | 11 | 6.06 | -109.80 | 0.43 | -104.17 | 24.91 | -4.02 | -33.56 | -4.15 | -33.43 | 2.00 |
| 8 | 15 | 12 | -5.75 | -119.59 | -6.35 | -118.98 | 8.31 | -3.18 | -46.08 | -3.34 | -45.92 | 2.60 |
| 8 | 15 | 27 | -38.76 | -108.75 | -104.99 | -42.52 | -15.77 | 1.09 | -5.72 | -2.97 | -1.66 | -3.34 |
| 8 | 15 | 37 | 6.08e-02 | -65.26 | -6.52 | -58.68 | 19.66 | -2.45 | -11.01 | -2.58 | -10.88 | -1.05 |
| 8 | 15 | 47 | -1.70 | -99.01 | -7.57 | -93.15 | 23.16 | -3.10 | -21.47 | -3.14 | -21.44 | 0.80 |
| 8 | 15 | 57 | 1.92 | -109.09 | -5.17 | -102.00 | 27.15 | -3.40 | -27.84 | -3.54 | -27.69 | 1.90 |
| 8 | 15 | 61 | 5.79 | -108.90 | -1.03 | -102.09 | 27.11 | -3.67 | -30.48 | -3.83 | -30.32 | 2.06 |
| 8 | 15 | 68 | 4.72 | -111.81 | 0.52 | -107.61 | 21.72 | -4.19 | -36.43 | -4.32 | -36.30 | 2.04 |
| 8 | 15 | 72 | 0.53 | -110.26 | -1.97 | -107.76 | 16.47 | -4.64 | -38.45 | -4.80 | -38.29 | 2.32 |
| 8 | 15 | 76 | -27.54 | -101.32 | -86.42 | -42.45 | -29.62 | -3.16 | -9.58 | -9.14 | -3.59 | -1.61 |
| 8 | 15 | 83 | -15.46 | -115.75 | -103.71 | -27.49 | 32.59 | -2.65 | -16.33 | -16.04 | -2.94 | -1.96 |
| 8 | 15 | 87 | -13.17 | -97.34 | -92.95 | -17.55 | 18.71 | -1.58 | -17.33 | -17.23 | -1.68 | -1.28 |
| 8 | 15 | 91 | -14.36 | -100.27 | -98.06 | -16.56 | 13.58 | -1.83 | -17.57 | -17.53 | -1.86 | -0.70 |
| 8 | 15 | 95 | -13.45 | -99.98 | -98.51 | -14.92 | 11.18 | -1.86 | -17.05 | -17.05 | -1.86 | -0.18 |
| 8 | 15 | 99 | -9.87 | -101.88 | -101.19 | -10.57 | 7.97 | -1.32 | -16.06 | -16.06 | -1.33 | -0.11 |
| 8 | 15 | 106 | -20.23 | -108.88 | -108.07 | -21.04 | 8.44 | 3.23 | 2.04 | 2.52 | 2.75 | 0.58 |
| 8 | 15 | 110 | -18.67 | -105.05 | -104.07 | -19.64 | 9.12 | 1.39 | 1.38e-02 | 1.14 | 0.27 | 0.54 |
| 8 | 15 | 114 | -19.12 | -102.97 | -102.28 | -19.81 | 7.59 | 0.53 | -0.18 | 0.22 | 0.12 | 0.35 |
| 8 | 15 | 118 | -17.49 | -104.01 | -103.64 | -17.86 | 5.65 | 0.27 | -0.75 | -0.69 | 0.21 | 0.24 |
| 8 | 15 | 122 | -10.82 | -107.17 | -107.01 | -10.98 | 3.88 | 0.27 | -1.86 | -1.82 | 0.24 | 0.25 |
| 8 | 15 | 129 | -19.77 | -107.01 | -91.11 | -35.67 | -33.68 | -1.18 | -12.28 | -11.95 | -1.51 | -1.89 |
| 8 | 15 | 133 | -18.42 | -107.45 | -93.16 | -32.71 | -32.68 | -1.05 | -13.36 | -13.08 | -1.33 | -1.85 |
| 8 | 15 | 137 | -16.35 | -106.56 | -95.01 | -27.90 | -30.15 | -1.09 | -14.06 | -13.82 | -1.33 | -1.75 |
| 8 | 15 | 141 | -13.35 | -104.05 | -96.36 | -21.03 | -25.26 | -1.29 | -14.80 | -14.58 | -1.51 | -1.72 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 15 | 145 | -9.45 | -108.40 | -105.06 | -12.79 | -17.87 | -0.97 | -15.67 | -15.49 | -1.15 | -1.64 |
| 8 | 15 | 151 | -34.23 | -86.62 | -77.87 | -42.99 | -19.55 | 7.38 | -8.12 | -5.31 | 4.58 | -5.97 |
| 8 | 15 | 158 | -23.16 | -108.38 | -108.33 | -23.21 | 2.09 | 14.44 | 4.27 | 4.27 | 14.44 | 0.10 |
| 8 | 15 | 162 | -20.90 | -105.06 | -88.99 | -36.96 | -33.08 | -0.37 | -11.17 | -10.79 | -0.76 | -2.00 |
| 8 | 15 | 171 | -5.10 | -119.94 | -6.09 | -118.95 | 10.63 | -4.12 | -42.08 | -4.26 | -41.94 | 2.28 |
| 8 | 15 | 176 | -21.57 | -108.80 | -108.55 | -21.83 | 4.69 | 8.04 | 3.49 | 3.55 | 7.98 | 0.52 |
| 8 | 15 | 180 | -23.76 | -200.53 | -171.99 | -52.31 | 65.04 | -5.39 | -15.06 | -14.33 | -6.13 | -2.56 |
| 8 | 15 | 221 | 4.58 | -90.42 | -80.72 | -5.11 | 28.75 | -1.68 | -13.76 | -13.59 | -1.85 | 1.42 |
| 8 | 15 | 222 | -0.33 | -100.36 | -86.16 | -14.54 | 34.91 | -1.52 | -17.93 | -17.51 | -1.95 | 2.61 |
| 8 | 15 | 223 | -6.18 | -94.64 | -82.07 | -18.75 | 30.89 | -1.39 | -16.90 | -16.28 | -2.00 | 3.02 |
| 8 | 15 | 224 | -4.76 | -75.72 | -66.88 | -13.60 | 23.43 | -1.76 | -12.29 | -11.86 | -2.19 | 2.08 |
| 8 | 15 | 225 | -3.88 | -71.55 | -70.94 | -4.49 | 6.39 | -0.82 | -5.51 | -5.38 | -0.94 | 0.76 |
| 8 | 15 | 226 | 4.93 | -44.62 | -35.29 | -4.40 | 19.36 | -2.43 | -5.41 | -5.41 | -2.43 | 1.42e-02 |
| 8 | 15 | 239 | -28.09 | -83.21 | -29.83 | -81.47 | 9.64 | 4.70 | -3.86 | 0.87 | -3.11e-02 | 4.26 |
| 8 | 15 | 270 | -68.65 | -91.96 | -91.94 | -68.67 | 0.65 | 8.17 | 1.31 | 1.36 | 8.11 | -0.63 |
| 8 | 15 | 271 | -45.47 | -102.52 | -102.52 | -45.47 | -0.38 | 4.85 | -0.50 | -0.20 | 4.54 | 1.24 |
| 8 | 15 | 272 | -31.24 | -124.35 | -123.26 | -32.33 | -10.01 | 9.63 | -5.22 | 2.36 | 2.04 | 7.42 |
| 8 | 15 | 273 | -42.18 | -56.25 | -42.31 | -56.12 | 1.33 | 15.38 | 1.86 | 2.29 | 14.95 | 2.38 |
| 8 | 15 | 274 | -25.35 | -81.57 | -26.90 | -80.02 | 9.21 | 3.72 | -3.65 | 0.15 | -7.42e-02 | 3.68 |
| 8 | 15 | 275 | -45.75 | -69.79 | -45.83 | -69.70 | -1.41 | 11.15 | 1.59 | 2.43 | 10.31 | 2.70 |
| 8 | 15 | 276 | -9.05 | -103.73 | -11.88 | -100.91 | 16.11 | -2.35 | -22.81 | -2.98 | -22.18 | 3.53 |
| 8 | 15 | 277 | -9.56 | -101.49 | -13.78 | -97.27 | 19.24 | -1.93 | -21.22 | -2.56 | -20.59 | 3.43 |
| 8 | 15 | 278 | -10.45 | -101.06 | -15.69 | -95.82 | 21.15 | -1.41 | -19.87 | -2.23 | -19.05 | 3.80 |
| 8 | 15 | 279 | -27.05 | -141.09 | -139.29 | -28.85 | -14.22 | 7.42 | -3.26 | 1.64 | 2.52 | 5.33 |
| 8 | 15 | 280 | -37.42 | -98.89 | -93.74 | -42.57 | -17.03 | 5.67 | 0.67 | 3.15 | 3.20 | 2.50 |
| 8 | 15 | 281 | -46.59 | -72.78 | -57.23 | -62.14 | 12.86 | 7.12 | -2.20 | 0.87 | 4.05 | 4.38 |
| 8 | 15 | 282 | -48.75 | -72.11 | -61.87 | -58.98 | -11.59 | 9.64 | 2.03 | 2.40 | 9.28 | -1.63 |
| 8 | 15 | 283 | -70.97 | -133.79 | -128.58 | -76.18 | -17.33 | 2.37 | -5.18 | -3.74 | 0.93 | -2.97 |
| 8 | 15 | 284 | -35.71 | -71.81 | -36.31 | -71.21 | 4.62 | 13.58 | -0.83 | 3.05e-03 | 12.75 | 3.35 |
| 8 | 15 | 285 | -49.99 | -99.58 | -95.85 | -53.72 | -13.08 | 9.89 | 4.96 | 7.08 | 7.78 | 2.44 |
| 8 | 15 | 286 | -59.96 | -67.08 | -63.46 | -63.59 | -3.56 | 9.29 | 4.00 | 4.07 | 9.21 | 0.64 |
| 8 | 15 | 287 | -30.27 | -84.09 | -32.84 | -81.52 | 11.48 | 4.93 | -5.14 | 0.68 | -0.89 | 4.97 |
| 8 | 15 | 288 | -34.00 | -93.46 | -85.39 | -42.07 | 20.37 | 2.09 | -7.88 | -7.30 | 1.51 | -2.32 |
| 8 | 15 | 289 | -35.36 | -75.94 | -41.07 | -70.24 | 14.11 | 4.34 | -7.71 | -1.11 | -2.25 | 6.00 |
| 8 | 15 | 290 | -54.53 | -76.81 | -69.96 | -61.39 | 10.28 | 8.08 | 2.15 | 2.80 | 7.44 | 1.85 |
| 8 | 15 | 291 | -26.09 | -94.12 | -80.69 | -39.52 | 27.08 | 2.26 | -9.14 | -8.74 | 1.87 | 2.09 |
| 8 | 15 | 292 | -26.90 | -170.47 | -165.13 | -32.24 | 27.16 | -1.86 | -5.92 | -5.22 | -2.56 | 1.53 |
| 8 | 15 | 293 | -47.30 | -72.17 | -47.90 | -71.57 | 3.83 | 8.51 | 1.33 | 2.53 | 7.31 | 2.67 |
| 8 | 15 | 294 | -26.81 | -99.70 | -96.16 | -30.36 | 15.69 | -0.60 | -5.56 | -5.37 | -0.79 | -0.94 |
| 8 | 15 | 295 | -20.42 | -99.35 | -98.09 | -21.68 | 9.88 | -0.65 | -5.52 | -5.38 | -0.79 | -0.80 |
| 8 | 15 | 296 | -13.66 | -99.81 | -99.24 | -14.24 | 7.01 | -0.45 | -4.97 | -4.84 | -0.59 | -0.76 |
| 8 | 15 | 297 | -6.96 | -101.19 | -100.97 | -7.18 | 4.57 | -1.61e-02 | -3.98 | -3.84 | -0.15 | -0.72 |
| 8 | 15 | 298 | -3.70 | -105.86 | -105.74 | -3.81 | 3.45 | 0.11 | -2.99 | -2.94 | 6.39e-02 | -0.36 |
| 8 | 15 | 299 | -42.42 | -95.59 | -95.57 | -42.44 | -1.06 | 2.06 | -8.08 | -5.37 | -0.65 | -4.49 |
| 8 | 15 | 300 | -21.85 | -100.86 | -93.32 | -29.39 | -23.22 | 2.99 | -2.22 | 0.29 | 0.48 | -2.60 |
| 8 | 15 | 301 | -19.85 | -102.30 | -95.62 | -26.53 | -22.50 | 2.93 | -1.45 | 0.91 | 0.57 | -2.19 |
| 8 | 15 | 302 | -17.60 | -102.67 | -97.44 | -22.84 | -20.45 | 3.18 | -0.99 | 1.57 | 0.62 | -2.03 |
| 8 | 15 | 303 | -14.23 | -102.97 | -99.65 | -17.54 | -16.83 | 3.53 | -0.91 | 2.09 | 0.52 | -2.08 |
| 8 | 15 | 304 | -8.31 | -108.70 | -107.38 | -9.62 | -11.42 | 3.79 | -0.88 | 2.60 | 0.31 | -2.03 |
| 8 | 15 | 305 | -5.29 | -121.42 | -120.82 | -5.88 | -8.30 | 4.49 | -1.28 | 3.02 | 0.19 | -2.52 |
| 8 | 15 | 306 | -26.03 | -99.10 | -98.70 | -26.43 | -5.37 | 14.37 | 3.41 | 14.30 | 3.48 | -0.88 |
| 8 | 15 | 307 | -23.20 | -101.05 | -100.77 | -23.47 | -4.63 | 16.75 | 2.91 | 16.75 | 2.92 | -0.34 |
| 8 | 15 | 308 | -20.12 | -102.27 | -102.14 | -20.25 | -3.38 | 18.61 | 2.57 | 18.59 | 2.59 | -0.46 |
| 8 | 15 | 309 | -16.33 | -105.03 | -105.00 | -16.36 | -1.63 | 20.43 | 2.76 | 20.42 | 2.77 | -0.50 |
| 8 | 15 | 310 | -9.60 | -110.62 | -110.62 | -9.60 | -3.31e-02 | 22.36 | 1.98 | 22.35 | 1.99 | -0.52 |
| 8 | 15 | 311 | -7.19 | -132.63 | -132.63 | -7.20 | 0.56 | 24.33 | 1.20 | 24.32 | 1.21 | -0.48 |
| 8 | 15 | 312 | -23.57 | -106.09 | -105.02 | -24.64 | 9.33 | 8.32 | 3.68 | 7.87 | 4.13 | 1.38 |
| 8 | 15 | 313 | -21.01 | -106.69 | -105.30 | -22.41 | 10.83 | 8.73 | 1.62 | 8.60 | 1.75 | 0.93 |
| 8 | 15 | 314 | -18.08 | -106.57 | -105.09 | -19.57 | 11.37 | 9.35 | 1.29 | 9.29 | 1.35 | 0.65 |
| 8 | 15 | 315 | -13.69 | -108.02 | -106.68 | -15.03 | 11.18 | 10.10 | 1.42 | 10.05 | 1.47 | 0.65 |
| 8 | 15 | 316 | -7.39 | -111.97 | -111.11 | -8.25 | 9.46 | 10.84 | 1.00 | 10.79 | 1.06 | 0.72 |
| 8 | 15 | 317 | -4.52 | -120.51 | -119.97 | -5.07 | 7.92 | 11.76 | 0.59 | 11.60 | 0.75 | 1.32 |
| 8 | 15 | 318 | -25.04 | -112.54 | -111.68 | -25.90 | 8.60 | 6.08 | 3.15 | 6.05 | 3.18 | -0.28 |
| 8 | 15 | 319 | -24.65 | -99.86 | -99.35 | -25.16 | 6.15 | 5.28 | 0.52 | 5.12 | 0.67 | -0.85 |
| 8 | 15 | 320 | -21.29 | -98.03 | -98.01 | -21.31 | 1.31 | 4.62 | 0.10 | 4.43 | 0.28 | -0.89 |
| 8 | 15 | 321 | -14.79 | -100.00 | -99.97 | -14.82 | -1.54 | 4.32 | 0.27 | 3.98 | 0.61 | -1.11 |
| 8 | 15 | 322 | -3.70 | -88.02 | -3.80 | -87.91 | -3.01 | 6.68 | -5.48 | -0.20 | 1.40 | 6.02 |
| 8 | 15 | 323 | -26.36 | -86.14 | -73.33 | -39.17 | 24.53 | 2.25 | -10.85 | -8.63 | 2.96e-02 | 4.92 |
| 8 | 15 | 324 | -28.87 | -95.87 | -95.49 | -29.25 | -5.03 | 12.72 | 2.83 | 12.02 | 3.53 | -2.54 |
| 8 | 15 | 325 | -15.14 | -89.75 | -15.32 | -89.57 | 3.69 | 4.71 | -4.40 | -1.11 | 1.42 | 4.38 |
| 8 | 15 | 326 | -30.20 | -71.51 | -57.82 | -43.89 | 19.44 | 1.02 | -11.33 | -7.27 | -3.05 | 5.80 |
| 8 | 15 | 327 | -7.60 | -101.73 | -101.66 | -7.67 | -2.55 | 3.94 | 8.83e-02 | 3.54 | 0.49 | -1.18 |
| 8 | 15 | 328 | -4.51 | -107.64 | -107.57 | -4.58 | -2.64 | 3.63 | -0.11 | 3.26 | 0.26 | -1.12 |
| 8 | 15 | 329 | -24.40 | -98.82 | -91.13 | -32.09 | -22.65 | 3.30 | -2.87 | 0.34 | 9.50e-02 | -3.09 |
| 8 | 15 | 330 | -25.96 | -117.43 | -110.14 | -33.25 | 24.77 | -1.14 | -4.97 | -4.91 | -1.20 | -0.49 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 15 | 331 | -27.79 | -93.13 | -86.53 | -34.38 | -19.68 | 5.29 | -2.33 | 1.54 | 1.42 | -3.81 |
| 8 | 15 | 332 | -34.08 | -89.93 | -89.71 | -34.30 | -3.52 | 13.18 | 2.60 | 10.99 | 4.79 | -4.29 |
| 8 | 15 | 333 | -38.30 | -79.66 | -75.69 | -42.27 | -12.19 | 13.29 | -1.55 | 2.98 | 8.76 | -6.84 |
| 8 | 15 | 334 | -44.67 | -75.89 | -75.84 | -44.72 | -1.29 | 14.25 | 7.24 | 12.79 | 8.71 | -2.85 |
| 8 | 15 | 335 | -37.77 | -59.12 | -38.78 | -58.11 | -4.53 | 18.32 | -0.31 | 0.39 | 17.62 | -3.54 |
| 8 | 15 | 336 | -45.18 | -59.00 | -45.21 | -58.97 | 0.67 | 12.16 | 1.90 | 2.10 | 11.96 | 1.44 |
| 8 | 15 | 337 | -2.42 | -52.73 | -2.85 | -52.31 | -4.61 | 24.51 | -0.52 | 0.48 | 23.51 | 4.89 |
| 8 | 15 | 338 | -13.00 | -75.72 | -13.12 | -75.61 | -2.69 | 17.58 | -0.90 | -0.14 | 16.82 | 3.67 |
| 8 | 15 | 339 | -7.99 | -91.37 | -8.00 | -91.36 | -0.96 | 5.95 | -4.55 | -0.57 | 1.96 | 5.09 |
| 8 | 15 | 340 | -25.98 | -75.14 | -26.03 | -75.10 | 1.45 | 13.08 | -1.91 | -1.01 | 12.18 | 3.56 |
| 8 | 15 | 341 | -1.92 | -111.38 | -2.07 | -111.24 | 4.03 | -1.05 | -28.55 | -1.96 | -27.64 | 4.92 |
| 8 | 15 | 342 | -4.47 | -109.27 | -4.82 | -108.91 | 6.06 | -1.89 | -26.05 | -2.68 | -25.26 | 4.29 |
| 8 | 15 | 343 | -7.75 | -103.72 | -9.07 | -102.40 | 11.15 | -2.53 | -23.83 | -3.32 | -23.05 | 4.01 |
| 8 | 15 | 344 | -27.20 | -103.60 | -102.77 | -28.03 | 7.92 | 6.72 | 5.51 | 5.51 | 6.72 | 2.84e-02 |
| 8 | 15 | 345 | -11.85 | -100.63 | -17.41 | -95.07 | 21.50 | -1.05 | -18.57 | -2.20 | -17.41 | 4.35 |
| 8 | 15 | 346 | -33.21 | -93.99 | -93.22 | -33.98 | 6.79 | 9.16 | -0.53 | 4.82 | 3.81 | -4.82 |
| 8 | 15 | 347 | -16.49 | -90.26 | -21.88 | -84.87 | 19.20 | -1.19 | -15.74 | -2.97 | -13.96 | 4.78 |
| 8 | 15 | 348 | -41.07 | -82.16 | -80.79 | -42.45 | 7.40 | 3.86 | 2.52 | 2.55 | 3.83 | -0.20 |
| 8 | 15 | 349 | -51.33 | -62.52 | -56.46 | -57.40 | 5.58 | 12.65 | -2.84 | -0.33 | 10.14 | 5.70 |
| 8 | 15 | 350 | -21.09 | -86.60 | -22.04 | -85.66 | 7.81 | 4.03 | -3.48 | -0.71 | 1.26 | 3.62 |
| 8 | 15 | 351 | -21.61 | -64.21 | -32.00 | -53.82 | 18.29 | -2.32 | -10.28 | -4.64 | -7.95 | 3.62 |
| 8 | 15 | 352 | -26.96 | -118.15 | -118.14 | -26.97 | 1.16 | 7.94 | 3.65 | 5.77 | 5.82 | 2.15 |
| 8 | 38 | 1 | -6.29 | -106.85 | -105.63 | -7.52 | -11.02 | -0.60 | -17.00 | -16.83 | -0.77 | -1.64 |
| 8 | 38 | 2 | -38.64 | -50.70 | -38.74 | -50.60 | 1.10 | 18.92 | -2.46 | -2.24 | 18.70 | -2.18 |
| 8 | 38 | 3 | -4.87 | -100.47 | -100.43 | -4.92 | 2.09 | 0.22 | -2.09 | -2.06 | 0.18 | 0.28 |
| 8 | 38 | 5 | -51.33 | -84.63 | -84.58 | -51.37 | -1.16 | -2.93 | -8.19 | -7.16 | -3.96 | 2.09 |
| 8 | 38 | 6 | -44.82 | -61.12 | -61.11 | -44.82 | -0.22 | 8.30 | -2.55 | -2.38 | 8.13 | 1.35 |
| 8 | 38 | 7 | -6.14 | -96.91 | -96.74 | -6.31 | 3.94 | -0.74 | -14.29 | -14.29 | -0.74 | -2.43e-02 |
| 8 | 38 | 8 | -78.66 | -173.35 | -172.55 | -79.46 | 8.69 | -5.15 | -13.77 | -9.72 | -9.20 | -4.30 |
| 8 | 38 | 9 | -5.78 | -40.03 | -37.36 | -8.44 | -9.17 | -0.48 | -2.01 | -1.95 | -0.54 | 0.30 |
| 8 | 38 | 10 | 8.65 | -18.96 | -7.65 | -2.66 | 13.58 | 0.46 | -4.55 | -1.87 | -2.22 | -2.50 |
| 8 | 38 | 11 | -4.98 | -108.60 | -10.50 | -103.08 | 23.29 | -3.64 | -30.56 | -3.70 | -30.50 | 1.30 |
| 8 | 38 | 12 | -6.24 | -114.20 | -6.71 | -113.73 | 7.11 | -2.75 | -39.47 | -2.82 | -39.40 | 1.63 |
| 8 | 38 | 27 | -40.13 | -93.25 | -88.91 | -44.46 | -14.54 | 0.25 | -7.02 | -3.05 | -3.71 | -3.62 |
| 8 | 38 | 37 | -11.41 | -64.95 | -15.66 | -60.69 | 14.48 | -2.35 | -10.76 | -2.35 | -10.76 | -9.98e-03 |
| 8 | 38 | 47 | -16.71 | -99.16 | -21.53 | -94.34 | 19.35 | -2.65 | -21.04 | -2.72 | -20.97 | 1.12 |
| 8 | 38 | 57 | -13.74 | -109.02 | -20.48 | -102.29 | 24.41 | -3.03 | -26.48 | -3.13 | -26.37 | 1.56 |
| 8 | 38 | 61 | -8.38 | -108.57 | -15.08 | -101.87 | 25.03 | -3.34 | -28.42 | -3.43 | -28.34 | 1.45 |
| 8 | 38 | 68 | -3.17 | -109.73 | -7.24 | -105.66 | 20.41 | -3.77 | -32.66 | -3.83 | -32.60 | 1.31 |
| 8 | 38 | 72 | -4.28 | -108.00 | -6.66 | -105.62 | 15.53 | -4.13 | -34.12 | -4.21 | -34.05 | 1.50 |
| 8 | 38 | 76 | -35.71 | -94.88 | -86.33 | -44.26 | -20.81 | -2.89 | -10.59 | -10.48 | -3.01 | -0.93 |
| 8 | 38 | 83 | -18.43 | -102.33 | -96.55 | -24.20 | 21.25 | -2.59 | -14.38 | -13.86 | -3.11 | -2.43 |
| 8 | 38 | 87 | -13.92 | -91.31 | -89.87 | -15.36 | 10.46 | -1.45 | -15.49 | -15.34 | -1.60 | -1.47 |
| 8 | 38 | 91 | -13.48 | -95.78 | -95.11 | -14.15 | 7.37 | -1.72 | -15.92 | -15.88 | -1.77 | -0.79 |
| 8 | 38 | 95 | -12.03 | -96.14 | -95.64 | -12.53 | 6.45 | -1.77 | -15.58 | -15.58 | -1.77 | -0.27 |
| 8 | 38 | 99 | -8.71 | -97.83 | -97.57 | -8.97 | 4.79 | -1.29 | -14.79 | -14.79 | -1.29 | -0.23 |
| 8 | 38 | 106 | -20.90 | -102.31 | -101.85 | -21.36 | 6.11 | 2.23 | 0.90 | 1.62 | 1.50 | 0.66 |
| 8 | 38 | 110 | -18.34 | -99.62 | -99.14 | -18.82 | 6.19 | 1.09 | -0.17 | 0.85 | 6.85e-02 | 0.50 |
| 8 | 38 | 114 | -17.55 | -98.36 | -98.08 | -17.84 | 4.82 | 0.45 | -0.13 | 0.25 | 6.03e-02 | 0.27 |
| 8 | 38 | 118 | -15.23 | -99.48 | -99.34 | -15.38 | 3.48 | 0.19 | -0.43 | -0.39 | 0.15 | 0.16 |
| 8 | 38 | 122 | -9.25 | -102.00 | -101.93 | -9.32 | 2.52 | 0.21 | -1.23 | -1.21 | 0.19 | 0.17 |
| 8 | 38 | 129 | -25.99 | -100.84 | -90.53 | -36.30 | -25.79 | -1.45 | -13.03 | -12.87 | -1.60 | -1.32 |
| 8 | 38 | 133 | -22.70 | -101.57 | -92.16 | -32.11 | -25.57 | -1.34 | -14.00 | -13.85 | -1.49 | -1.35 |
| 8 | 38 | 137 | -18.69 | -101.28 | -93.60 | -26.37 | -23.99 | -1.37 | -14.66 | -14.53 | -1.50 | -1.31 |
| 8 | 38 | 141 | -14.26 | -99.68 | -94.58 | -19.35 | -20.23 | -1.55 | -15.34 | -15.22 | -1.68 | -1.30 |
| 8 | 38 | 145 | -9.56 | -104.12 | -101.90 | -11.78 | -14.30 | -1.19 | -16.13 | -16.03 | -1.29 | -1.22 |
| 8 | 38 | 151 | -44.06 | -83.12 | -80.22 | -46.96 | -10.23 | 3.71 | -8.83 | -7.69 | 2.57 | -3.60 |
| 8 | 38 | 158 | -30.89 | -102.05 | -101.99 | -30.94 | 1.92 | 10.15 | 2.55 | 2.58 | 10.12 | 0.50 |
| 8 | 38 | 162 | -28.77 | -98.94 | -88.89 | -38.81 | -24.58 | -0.93 | -12.04 | -11.88 | -1.09 | -1.31 |
| 8 | 38 | 171 | -6.83 | -115.45 | -7.70 | -114.58 | 9.69 | -3.63 | -36.70 | -3.69 | -36.64 | 1.37 |
| 8 | 38 | 176 | -24.03 | -101.89 | -101.72 | -24.21 | 3.70 | 5.08 | 1.82 | 2.00 | 4.90 | 0.73 |
| 8 | 38 | 180 | -27.82 | -170.77 | -151.74 | -46.86 | 48.56 | -5.53 | -13.91 | -12.37 | -7.07 | -3.25 |
| 8 | 38 | 221 | -7.28 | -85.26 | -79.35 | -13.19 | 20.63 | -1.75 | -13.33 | -13.32 | -1.75 | 0.25 |
| 8 | 38 | 222 | -15.52 | -95.84 | -87.45 | -23.92 | 24.58 | -1.58 | -17.67 | -17.49 | -1.76 | 1.67 |
| 8 | 38 | 223 | -21.01 | -91.06 | -84.36 | -27.71 | 20.60 | -1.34 | -17.00 | -16.57 | -1.78 | 2.59 |
| 8 | 38 | 224 | -17.16 | -74.03 | -70.22 | -20.98 | 14.23 | -1.43 | -12.84 | -12.34 | -1.93 | 2.33 |
| 8 | 38 | 225 | -8.82 | -65.74 | -65.56 | -9.01 | 3.23 | -1.12 | -5.27 | -5.27 | -1.12 | -0.16 |
| 8 | 38 | 226 | -5.25 | -44.16 | -39.87 | -9.54 | 12.18 | -1.99 | -5.96 | -5.75 | -2.19 | 0.87 |
| 8 | 38 | 239 | -33.12 | -85.86 | -35.26 | -83.73 | 10.40 | 4.99 | -0.49 | 1.56 | 2.95 | 2.65 |
| 8 | 38 | 270 | -68.82 | -86.84 | -86.82 | -68.84 | -0.64 | 7.99 | 2.88 | 3.11 | 7.77 | -1.05 |
| 8 | 38 | 271 | -51.23 | -97.02 | -97.02 | -51.23 | 0.22 | 4.20 | -1.06 | -0.65 | 3.79 | 1.41 |
| 8 | 38 | 272 | -34.81 | -114.27 | -113.51 | -35.57 | -7.71 | 8.41 | -4.75 | 2.46 | 1.20 | 6.55 |
| 8 | 38 | 273 | -44.09 | -65.23 | -44.89 | -64.42 | 4.05 | 14.59 | 1.02 | 1.25 | 14.36 | 1.74 |
| 8 | 38 | 274 | -29.54 | -85.27 | -31.69 | -83.13 | 10.73 | 4.86 | -0.99 | 0.49 | 3.38 | 2.55 |
| 8 | 38 | 275 | -48.56 | -72.32 | -48.62 | -72.26 | 1.22 | 11.12 | 2.65 | 2.75 | 11.03 | 0.88 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 38 | 276 | -14.37 | -103.11 | -17.42 | -100.06 | 16.17 | -2.04 | -18.84 | -2.40 | -18.48 | 2.43 |
| 8 | 38 | 277 | -16.78 | -101.70 | -21.19 | -97.30 | 18.83 | -1.68 | -17.57 | -2.03 | -17.22 | 2.32 |
| 8 | 38 | 278 | -19.23 | -101.48 | -24.45 | -96.27 | 20.05 | -1.08 | -16.64 | -1.55 | -16.17 | 2.66 |
| 8 | 38 | 279 | -30.78 | -127.69 | -125.79 | -32.68 | -13.42 | 7.14 | -3.23 | 2.72 | 1.18 | 5.13 |
| 8 | 38 | 280 | -43.07 | -92.50 | -88.93 | -46.64 | -12.80 | 5.94 | -0.43 | 2.84 | 2.68 | 3.18 |
| 8 | 38 | 281 | -53.43 | -71.15 | -60.74 | -63.84 | 8.72 | 8.79 | 1.20 | 3.82 | 6.16 | 3.61 |
| 8 | 38 | 282 | -54.62 | -69.56 | -62.32 | -61.86 | -7.47 | 8.89 | 2.15 | 2.53 | 8.52 | -1.54 |
| 8 | 38 | 283 | -70.90 | -121.04 | -114.73 | -77.22 | -16.63 | 1.10 | -5.04 | -2.76 | -1.17 | -2.96 |
| 8 | 38 | 284 | -37.85 | -75.04 | -39.20 | -73.69 | 6.96 | 13.22 | -0.33 | 0.57 | 12.31 | 3.38 |
| 8 | 38 | 285 | -52.36 | -93.27 | -89.95 | -55.69 | -11.18 | 10.15 | 4.82 | 8.03 | 6.94 | 2.61 |
| 8 | 38 | 286 | -61.94 | -67.55 | -64.21 | -65.28 | -2.76 | 9.81 | 6.86 | 6.90 | 9.77 | 0.34 |
| 8 | 38 | 287 | -36.52 | -85.36 | -38.74 | -83.14 | 10.17 | 5.80 | -1.46 | 2.40 | 1.94 | 3.63 |
| 8 | 38 | 288 | -39.32 | -87.30 | -82.30 | -44.32 | 14.67 | 2.84 | -7.67 | -6.39 | 1.56 | -3.43 |
| 8 | 38 | 289 | -43.40 | -75.46 | -46.63 | -72.22 | 9.66 | 6.43 | -4.69 | 1.35 | 0.38 | 5.54 |
| 8 | 38 | 290 | -58.30 | -74.98 | -70.92 | -62.36 | 7.16 | 8.83 | 5.06 | 5.40 | 8.49 | 1.08 |
| 8 | 38 | 291 | -34.84 | -89.51 | -81.64 | -42.70 | 19.18 | 2.75 | -7.53 | -7.43 | 2.65 | 1.00 |
| 8 | 38 | 292 | -30.47 | -150.09 | -146.99 | -33.57 | 19.01 | -2.68 | -4.51 | -3.45 | -3.74 | 0.90 |
| 8 | 38 | 293 | -51.06 | -73.84 | -51.62 | -73.28 | 3.53 | 9.58 | 4.41 | 4.91 | 9.08 | 1.53 |
| 8 | 38 | 294 | -27.23 | -93.80 | -92.49 | -28.54 | 9.24 | -0.93 | -4.94 | -4.72 | -1.15 | -0.90 |
| 8 | 38 | 295 | -19.32 | -95.38 | -95.03 | -19.67 | 5.14 | -0.73 | -5.08 | -4.95 | -0.86 | -0.73 |
| 8 | 38 | 296 | -12.45 | -96.35 | -96.20 | -12.61 | 3.59 | -0.50 | -4.74 | -4.62 | -0.62 | -0.70 |
| 8 | 38 | 297 | -6.18 | -97.57 | -97.51 | -6.24 | 2.43 | -8.53e-02 | -4.01 | -3.89 | -0.21 | -0.68 |
| 8 | 38 | 298 | -3.14 | -100.85 | -100.81 | -3.18 | 1.96 | 4.16e-02 | -3.31 | -3.27 | -5.21e-05 | -0.37 |
| 8 | 38 | 299 | -44.32 | -86.00 | -85.85 | -44.47 | -2.46 | 1.99 | -8.90 | -5.05 | -1.86 | -5.20 |
| 8 | 38 | 300 | -25.98 | -96.60 | -91.79 | -30.79 | -17.79 | 1.71 | -2.32 | -0.73 | 0.13 | -1.97 |
| 8 | 38 | 301 | -22.56 | -98.10 | -93.65 | -27.01 | -17.79 | 1.67 | -1.80 | -0.38 | 0.25 | -1.70 |
| 8 | 38 | 302 | -18.91 | -98.70 | -95.12 | -22.49 | -16.52 | 1.77 | -1.46 | 1.22e-02 | 0.30 | -1.61 |
| 8 | 38 | 303 | -14.46 | -99.15 | -96.87 | -16.73 | -13.70 | 1.92 | -1.39 | 0.32 | 0.22 | -1.65 |
| 8 | 38 | 304 | -8.05 | -104.10 | -103.20 | -8.95 | -9.28 | 2.01 | -1.28 | 0.62 | 0.11 | -1.62 |
| 8 | 38 | 305 | -4.79 | -114.06 | -113.64 | -5.21 | -6.73 | 2.56 | -1.66 | 0.84 | 6.11e-02 | -2.08 |
| 8 | 38 | 306 | -27.82 | -95.44 | -95.16 | -28.09 | -4.33 | 13.41 | 2.69 | 13.36 | 2.74 | -0.75 |
| 8 | 38 | 307 | -23.95 | -97.23 | -96.98 | -24.20 | -4.30 | 15.13 | 2.37 | 15.11 | 2.39 | -0.41 |
| 8 | 38 | 308 | -19.85 | -98.32 | -98.16 | -20.01 | -3.52 | 16.50 | 2.20 | 16.49 | 2.22 | -0.50 |
| 8 | 38 | 309 | -15.39 | -100.53 | -100.48 | -15.44 | -2.04 | 17.86 | 2.36 | 17.84 | 2.38 | -0.52 |
| 8 | 38 | 310 | -8.80 | -104.96 | -104.95 | -8.80 | -0.50 | 19.28 | 1.66 | 19.27 | 1.68 | -0.54 |
| 8 | 38 | 311 | -6.27 | -122.10 | -122.10 | -6.27 | 0.15 | 20.80 | 0.99 | 20.79 | 1.00 | -0.55 |
| 8 | 38 | 312 | -26.23 | -100.19 | -99.69 | -26.74 | 6.07 | 7.68 | 2.83 | 7.51 | 3.00 | 0.89 |
| 8 | 38 | 313 | -22.26 | -100.86 | -100.23 | -22.89 | 7.04 | 8.28 | 1.35 | 8.23 | 1.40 | 0.55 |
| 8 | 38 | 314 | -18.25 | -100.88 | -100.18 | -18.94 | 7.55 | 8.92 | 1.22 | 8.90 | 1.23 | 0.36 |
| 8 | 38 | 315 | -13.37 | -102.13 | -101.46 | -14.04 | 7.69 | 9.58 | 1.32 | 9.56 | 1.34 | 0.36 |
| 8 | 38 | 316 | -7.08 | -105.26 | -104.79 | -7.55 | 6.77 | 10.20 | 0.93 | 10.18 | 0.95 | 0.43 |
| 8 | 38 | 317 | -4.17 | -111.97 | -111.66 | -4.49 | 5.81 | 10.98 | 0.58 | 10.90 | 0.66 | 0.94 |
| 8 | 38 | 318 | -26.92 | -104.97 | -104.41 | -27.47 | 6.56 | 5.18 | 1.63 | 5.17 | 1.63 | 0.17 |
| 8 | 38 | 319 | -24.47 | -95.45 | -95.24 | -24.68 | 3.86 | 4.25 | 4.12e-03 | 4.17 | 7.88e-02 | -0.56 |
| 8 | 38 | 320 | -19.74 | -94.92 | -94.92 | -19.74 | -0.27 | 3.70 | -3.51e-02 | 3.56 | 0.10 | -0.70 |
| 8 | 38 | 321 | -13.20 | -96.89 | -96.83 | -13.26 | -2.30 | 3.42 | 0.16 | 3.14 | 0.43 | -0.91 |
| 8 | 38 | 322 | -4.72 | -89.20 | -4.73 | -89.20 | -0.65 | 6.35 | -2.07 | 0.25 | 4.03 | 3.76 |
| 8 | 38 | 323 | -36.28 | -82.56 | -75.91 | -42.92 | 16.23 | 3.06 | -9.11 | -7.35 | 1.30 | 4.28 |
| 8 | 38 | 324 | -31.60 | -92.87 | -92.69 | -31.79 | -3.37 | 12.15 | 2.26 | 11.74 | 2.67 | -1.96 |
| 8 | 38 | 325 | -18.14 | -90.72 | -18.75 | -90.11 | 6.62 | 5.22 | -1.95 | -0.14 | 3.41 | 3.12 |
| 8 | 38 | 326 | -40.90 | -68.45 | -61.90 | -47.46 | 11.73 | 2.56 | -10.25 | -6.19 | -1.49 | 5.96 |
| 8 | 38 | 327 | -6.63 | -98.33 | -98.26 | -6.70 | -2.58 | 3.05 | 2.89e-02 | 2.71 | 0.37 | -0.95 |
| 8 | 38 | 328 | -3.76 | -102.36 | -102.30 | -3.81 | -2.35 | 2.73 | -0.11 | 2.42 | 0.20 | -0.88 |
| 8 | 38 | 329 | -29.77 | -94.64 | -90.05 | -34.36 | -16.63 | 1.84 | -2.71 | -0.64 | -0.23 | -2.26 |
| 8 | 38 | 330 | -29.60 | -106.14 | -102.36 | -33.38 | 16.57 | -1.72 | -4.05 | -3.74 | -2.03 | -0.79 |
| 8 | 38 | 331 | -34.35 | -89.39 | -85.97 | -37.76 | -13.28 | 3.16 | -2.14 | 0.45 | 0.57 | -2.65 |
| 8 | 38 | 332 | -37.55 | -87.89 | -87.85 | -37.59 | -1.42 | 11.98 | 2.11 | 10.73 | 3.37 | -3.29 |
| 8 | 38 | 333 | -45.94 | -78.01 | -77.08 | -46.86 | -5.37 | 9.21 | -1.34 | 1.78 | 6.09 | -4.81 |
| 8 | 38 | 334 | -48.02 | -75.30 | -75.21 | -48.11 | 1.56 | 13.51 | 5.96 | 12.68 | 6.79 | -2.36 |
| 8 | 38 | 335 | -42.18 | -62.42 | -42.47 | -62.13 | 2.38 | 14.89 | 0.27 | 1.03 | 14.13 | -3.24 |
| 8 | 38 | 336 | -46.66 | -63.37 | -47.98 | -62.05 | 4.51 | 10.77 | 4.72 | 4.88 | 10.62 | 0.95 |
| 8 | 38 | 337 | -5.36 | -66.90 | -5.39 | -66.88 | 1.28 | 20.50 | 0.75 | 1.19 | 20.05 | 2.92 |
| 8 | 38 | 338 | -15.72 | -78.86 | -15.84 | -78.74 | 2.77 | 15.61 | 0.98 | 1.17 | 15.42 | 1.66 |
| 8 | 38 | 339 | -9.90 | -93.07 | -9.95 | -93.02 | 1.96 | 5.80 | -1.61 | 0.20 | 3.99 | 3.18 |
| 8 | 38 | 340 | -29.35 | -77.75 | -29.99 | -77.11 | 5.52 | 12.57 | 0.33 | 0.95 | 11.96 | 2.68 |
| 8 | 38 | 341 | -2.75 | -107.37 | -2.90 | -107.22 | 3.97 | -0.94 | -22.86 | -1.44 | -22.36 | 3.26 |
| 8 | 38 | 342 | -6.34 | -107.11 | -6.75 | -106.70 | 6.40 | -1.64 | -21.17 | -2.03 | -20.78 | 2.74 |
| 8 | 38 | 343 | -11.33 | -102.75 | -12.84 | -101.24 | 11.67 | -2.16 | -19.67 | -2.60 | -19.23 | 2.74 |
| 8 | 38 | 344 | -30.27 | -97.91 | -97.49 | -30.69 | 5.32 | 5.32 | 4.62 | 5.28 | 4.65 | 0.15 |
| 8 | 38 | 345 | -21.64 | -100.69 | -26.62 | -95.71 | 19.21 | -0.37 | -15.93 | -1.19 | -15.10 | 3.49 |
| 8 | 38 | 346 | -36.19 | -90.33 | -89.71 | -36.80 | 5.74 | 7.49 | -4.89e-02 | 4.73 | 2.71 | -3.63 |
| 8 | 38 | 347 | -26.45 | -90.01 | -30.25 | -86.21 | 15.05 | 0.22 | -14.17 | -1.61 | -12.35 | 4.79 |
| 8 | 38 | 348 | -44.99 | -80.22 | -78.65 | -46.56 | 7.27 | 3.51 | 2.27 | 2.91 | 2.87 | -0.62 |
| 8 | 38 | 349 | -51.72 | -66.04 | -57.04 | -60.72 | 6.92 | 10.74 | -1.70 | 0.50 | 8.54 | 4.75 |
| 8 | 38 | 350 | -24.73 | -88.63 | -26.26 | -87.10 | 9.79 | 5.14 | -1.68 | -0.16 | 3.62 | 2.84 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 38 | 351 | -31.95 | -62.31 | -37.92 | -56.34 | 12.07 | -0.79 | -10.33 | -4.04 | -7.08 | 4.53 |
| 8 | 38 | 352 | -29.75 | -109.42 | -109.38 | -29.79 | 1.67 | 6.51 | 2.06 | 5.02 | 3.55 | 2.10 |
| 8 | 46 | 1 | -5.17 | -91.98 | -91.21 | -5.94 | -8.15 | -0.15 | -8.96 | -8.79 | -0.32 | -1.22 |
| 8 | 46 | 2 | -37.77 | -82.85 | -40.05 | -80.57 | 9.88 | 13.84 | 0.54 | 1.08 | 13.31 | -2.62 |
| 8 | 46 | 3 | -4.27 | -98.21 | -98.19 | -4.28 | 1.16 | 0.11 | -2.27 | -2.23 | 7.12e-02 | 0.31 |
| 8 | 46 | 5 | -50.29 | -81.22 | -81.21 | -50.30 | -0.46 | -1.83 | -8.58 | -7.44 | -2.97 | 2.53 |
| 8 | 46 | 6 | -48.05 | -61.51 | -60.95 | -48.61 | 2.69 | 5.77 | -4.82 | -4.67 | 5.62 | 1.27 |
| 8 | 46 | 7 | -6.25 | -98.82 | -98.72 | -6.35 | 2.95 | -1.17 | -20.13 | -20.13 | -1.17 | -0.16 |
| 8 | 46 | 8 | -57.22 | -162.02 | -162.01 | -57.23 | -0.99 | -7.47 | -17.48 | -13.51 | -11.45 | -4.90 |
| 8 | 46 | 9 | 2.72 | -42.03 | -35.15 | -4.16 | -16.14 | -0.27 | -2.03 | -1.69 | -0.61 | 0.69 |
| 8 | 46 | 10 | 11.83 | -20.53 | -8.76 | 5.50e-02 | 15.57 | 0.58 | -4.60 | -2.13 | -1.88 | -2.59 |
| 8 | 46 | 11 | -5.13 | -110.97 | -19.13 | -96.97 | 35.86 | -2.89 | -27.42 | -3.20 | -27.11 | 2.75 |
| 8 | 46 | 12 | -5.53 | -110.27 | -7.10 | -108.70 | 12.69 | -2.23 | -35.71 | -2.38 | -35.57 | 2.17 |
| 8 | 46 | 27 | -30.65 | -94.11 | -82.22 | -42.54 | -24.76 | -0.46 | -7.59 | -4.02 | -4.03 | -3.56 |
| 8 | 46 | 37 | -9.91 | -61.17 | -18.74 | -52.34 | 19.36 | -2.26 | -8.67 | -2.28 | -8.65 | 0.34 |
| 8 | 46 | 47 | -16.50 | -97.56 | -28.26 | -85.79 | 28.55 | -2.15 | -17.90 | -2.39 | -17.66 | 1.91 |
| 8 | 46 | 57 | -13.13 | -110.07 | -28.87 | -94.33 | 35.75 | -2.35 | -22.98 | -2.70 | -22.63 | 2.66 |
| 8 | 46 | 61 | -7.95 | -110.80 | -24.06 | -94.70 | 37.38 | -2.60 | -24.98 | -2.95 | -24.63 | 2.77 |
| 8 | 46 | 68 | -4.07 | -111.67 | -15.01 | -100.72 | 32.52 | -3.05 | -29.98 | -3.31 | -29.72 | 2.61 |
| 8 | 46 | 72 | -5.14 | -108.55 | -12.33 | -101.36 | 26.31 | -3.41 | -31.51 | -3.64 | -31.28 | 2.52 |
| 8 | 46 | 76 | -47.23 | -82.72 | -77.46 | -52.48 | -12.61 | -1.50 | -5.22 | -5.21 | -1.50 | -0.10 |
| 8 | 46 | 83 | -5.97 | -97.96 | -95.30 | -8.63 | 15.42 | -3.50 | -18.25 | -17.78 | -3.97 | -2.58 |
| 8 | 46 | 87 | -5.85 | -90.95 | -90.48 | -6.31 | 6.28 | -2.05 | -19.78 | -19.64 | -2.19 | -1.54 |
| 8 | 46 | 91 | -8.67 | -97.05 | -96.84 | -8.87 | 4.26 | -2.32 | -20.70 | -20.66 | -2.36 | -0.85 |
| 8 | 46 | 95 | -9.63 | -97.94 | -97.75 | -9.82 | 4.13 | -2.43 | -20.75 | -20.74 | -2.43 | -0.35 |
| 8 | 46 | 99 | -8.19 | -100.58 | -100.47 | -8.31 | 3.29 | -1.85 | -20.33 | -20.33 | -1.86 | -0.33 |
| 8 | 46 | 106 | -19.66 | -96.38 | -96.35 | -19.69 | 1.61 | 0.22 | -0.41 | -0.27 | 8.13e-02 | 0.26 |
| 8 | 46 | 110 | -16.40 | -94.68 | -94.64 | -16.44 | 1.77 | -5.36e-02 | -0.68 | -0.46 | -0.28 | 0.30 |
| 8 | 46 | 114 | -14.83 | -94.25 | -94.24 | -14.84 | 0.78 | -8.42e-02 | -0.80 | -0.75 | -0.14 | 0.19 |
| 8 | 46 | 118 | -12.38 | -95.67 | -95.67 | -12.38 | 0.11 | -2.67e-02 | -1.16 | -1.14 | -4.72e-02 | 0.15 |
| 8 | 46 | 122 | -7.52 | -98.07 | -98.06 | -7.53 | 0.56 | 5.96e-02 | -1.71 | -1.68 | 2.68e-02 | 0.24 |
| 8 | 46 | 129 | -35.05 | -88.61 | -81.01 | -42.65 | -18.69 | -0.71 | -6.65 | -6.60 | -0.76 | -0.54 |
| 8 | 46 | 133 | -28.63 | -88.81 | -81.98 | -35.46 | -19.09 | -0.62 | -7.14 | -7.07 | -0.69 | -0.67 |
| 8 | 46 | 137 | -21.40 | -88.10 | -82.66 | -26.83 | -18.25 | -0.64 | -7.48 | -7.40 | -0.72 | -0.73 |
| 8 | 46 | 141 | -14.37 | -86.56 | -83.02 | -17.90 | -15.57 | -0.76 | -7.87 | -7.78 | -0.85 | -0.79 |
| 8 | 46 | 145 | -8.32 | -89.28 | -87.79 | -9.81 | -10.88 | -0.55 | -8.33 | -8.24 | -0.63 | -0.81 |
| 8 | 46 | 151 | -57.21 | -73.36 | -73.26 | -57.31 | -1.29 | 1.63 | -4.12 | -3.75 | 1.26 | -1.41 |
| 8 | 46 | 158 | -35.60 | -96.50 | -96.41 | -35.70 | -2.35 | 5.66 | -0.10 | -7.15e-02 | 5.63 | -0.43 |
| 8 | 46 | 162 | -40.09 | -87.07 | -79.84 | -47.32 | -16.95 | -0.49 | -6.05 | -6.02 | -0.52 | -0.41 |
| 8 | 46 | 171 | -7.38 | -115.50 | -10.26 | -112.62 | 17.39 | -3.06 | -33.79 | -3.19 | -33.66 | 1.99 |
| 8 | 46 | 176 | -24.18 | -95.73 | -95.71 | -24.21 | -1.40 | 1.64 | -0.55 | -0.53 | 1.62 | 0.22 |
| 8 | 46 | 180 | -12.94 | -157.62 | -146.07 | -24.48 | 39.21 | -7.32 | -18.19 | -16.78 | -8.73 | -3.66 |
| 8 | 46 | 221 | 1.60 | -78.81 | -76.88 | -0.34 | 12.32 | -2.19 | -13.83 | -13.83 | -2.19 | -1.24e-02 |
| 8 | 46 | 222 | -3.21 | -90.05 | -86.38 | -6.88 | 17.47 | -2.10 | -18.40 | -18.35 | -2.14 | 0.87 |
| 8 | 46 | 223 | -7.18 | -87.19 | -84.14 | -10.23 | 15.32 | -1.94 | -17.77 | -17.62 | -2.10 | 1.56 |
| 8 | 46 | 224 | -5.26 | -73.28 | -71.35 | -7.20 | 11.30 | -2.04 | -13.66 | -13.52 | -2.18 | 1.27 |
| 8 | 46 | 225 | -1.37 | -62.10 | -61.75 | -1.72 | -4.60 | -1.37 | -5.30 | -5.29 | -1.37 | 0.16 |
| 8 | 46 | 226 | 0.69 | -46.40 | -42.87 | -2.84 | 12.39 | -2.13 | -6.66 | -6.66 | -2.13 | 6.15e-02 |
| 8 | 46 | 239 | -31.22 | -86.54 | -38.77 | -78.99 | 18.99 | 6.75 | -0.72 | 1.02 | 5.02 | 3.16 |
| 8 | 46 | 270 | -55.06 | -84.94 | -83.68 | -56.33 | -6.01 | 6.63 | -0.39 | 4.89e-02 | 6.19 | -1.69 |
| 8 | 46 | 271 | -53.61 | -92.27 | -92.22 | -53.66 | -1.34 | 3.17 | -2.16 | -1.92 | 2.93 | 1.09 |
| 8 | 46 | 272 | -30.72 | -108.10 | -107.36 | -31.46 | -7.53 | 5.92 | -5.45 | 0.77 | -0.29 | 5.66 |
| 8 | 46 | 273 | -42.99 | -72.11 | -46.95 | -68.15 | 9.97 | 14.49 | -0.21 | 7.91e-02 | 14.20 | 2.04 |
| 8 | 46 | 274 | -28.32 | -88.92 | -35.58 | -81.65 | 19.69 | 8.94 | -0.97 | 0.77 | 7.20 | 3.77 |
| 8 | 46 | 275 | -47.32 | -70.84 | -50.03 | -68.13 | 7.51 | 10.73 | 1.52 | 1.55 | 10.70 | 0.51 |
| 8 | 46 | 276 | -13.68 | -105.69 | -22.75 | -96.62 | 27.43 | -0.31 | -15.64 | -1.41 | -14.55 | 3.95 |
| 8 | 46 | 277 | -15.13 | -104.36 | -26.98 | -92.50 | 30.29 | -0.29 | -14.61 | -1.49 | -13.41 | 3.96 |
| 8 | 46 | 278 | -16.95 | -103.12 | -30.24 | -89.82 | 31.13 | -0.11 | -13.94 | -1.39 | -12.67 | 4.00 |
| 8 | 46 | 279 | -23.24 | -122.33 | -119.68 | -25.89 | -15.97 | 4.60 | -5.28 | -2.11e-02 | -0.66 | 4.93 |
| 8 | 46 | 280 | -41.24 | -86.36 | -83.95 | -43.65 | -10.14 | 5.21 | -1.97 | 1.41 | 1.82 | 3.59 |
| 8 | 46 | 281 | -48.11 | -68.27 | -61.48 | -54.90 | 9.53 | 7.44 | 0.25 | 1.94 | 5.75 | 3.05 |
| 8 | 46 | 282 | -56.13 | -62.94 | -60.88 | -58.19 | -3.12 | 7.51 | 1.60 | 1.71 | 7.40 | -0.81 |
| 8 | 46 | 283 | -50.07 | -118.36 | -108.29 | -60.13 | -24.21 | -0.67 | -8.57 | -6.09 | -3.14 | -3.66 |
| 8 | 46 | 284 | -38.44 | -79.20 | -42.39 | -75.25 | 12.05 | 15.51 | 0.25 | 2.13 | 13.63 | 5.02 |
| 8 | 46 | 285 | -44.99 | -89.60 | -86.21 | -48.39 | -11.83 | 7.64 | 2.53 | 4.85 | 5.32 | 2.54 |
| 8 | 46 | 286 | -58.19 | -63.92 | -63.52 | -58.59 | -1.46 | 8.94 | 5.63 | 5.69 | 8.88 | 0.44 |
| 8 | 46 | 287 | -34.97 | -83.41 | -42.02 | -76.37 | 17.08 | 6.38 | -1.49 | 1.65 | 3.24 | 3.86 |
| 8 | 46 | 288 | -34.07 | -80.86 | -79.97 | -34.95 | 6.38 | 1.71 | -9.89 | -8.30 | 0.12 | -3.99 |
| 8 | 46 | 289 | -40.91 | -71.88 | -49.20 | -63.59 | 13.72 | 5.89 | -4.75 | 0.19 | 0.95 | 5.31 |
| 8 | 46 | 290 | -51.26 | -71.24 | -70.03 | -52.47 | 4.76 | 7.36 | 2.73 | 2.78 | 7.32 | 0.46 |
| 8 | 46 | 291 | -28.09 | -84.31 | -80.92 | -31.48 | 13.38 | 1.73 | -9.35 | -9.35 | 1.73 | 6.49e-02 |
| 8 | 46 | 292 | -21.63 | -141.76 | -140.40 | -23.00 | 12.73 | -5.33 | -6.88 | -6.67 | -5.54 | 0.53 |
| 8 | 46 | 293 | -49.79 | -70.15 | -53.14 | -66.80 | 7.54 | 9.36 | 3.63 | 4.02 | 8.97 | 1.45 |
| 8 | 46 | 294 | -21.50 | -91.64 | -91.24 | -21.90 | 5.31 | -1.77 | -8.53 | -8.46 | -1.84 | -0.68 |
| 8 | 46 | 295 | -14.82 | -94.85 | -94.78 | -14.89 | 2.33 | -1.28 | -8.96 | -8.93 | -1.31 | -0.51 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 46 | 296 | -9.48 | -96.31 | -96.27 | -9.52 | 1.74 | -1.10 | -8.92 | -8.89 | -1.13 | -0.50 |
| 8 | 46 | 297 | -4.61 | -98.24 | -98.22 | -4.64 | 1.53 | -0.56 | -8.57 | -8.53 | -0.59 | -0.53 |
| 8 | 46 | 298 | -2.11 | -100.44 | -100.42 | -2.13 | 1.56 | -0.25 | -8.29 | -8.29 | -0.25 | -0.16 |
| 8 | 46 | 299 | -36.47 | -84.98 | -81.63 | -39.82 | -12.29 | 1.04 | -10.39 | -6.48 | -2.87 | -5.43 |
| 8 | 46 | 300 | -31.59 | -87.12 | -83.42 | -35.29 | -13.86 | 4.43 | 0.34 | 4.23 | 0.53 | -0.87 |
| 8 | 46 | 301 | -26.20 | -88.38 | -84.84 | -29.74 | -14.41 | 4.64 | 0.46 | 4.47 | 0.63 | -0.83 |
| 8 | 46 | 302 | -20.63 | -88.64 | -85.78 | -23.50 | -13.67 | 4.88 | 0.48 | 4.69 | 0.66 | -0.89 |
| 8 | 46 | 303 | -14.88 | -88.69 | -86.89 | -16.68 | -11.39 | 5.08 | 0.38 | 4.87 | 0.60 | -0.98 |
| 8 | 46 | 304 | -8.03 | -91.86 | -91.18 | -8.71 | -7.51 | 5.29 | 0.14 | 5.07 | 0.35 | -1.04 |
| 8 | 46 | 305 | -4.64 | -99.29 | -99.00 | -4.93 | -5.21 | 5.68 | -0.19 | 5.30 | 0.20 | -1.45 |
| 8 | 46 | 306 | -30.51 | -89.62 | -89.04 | -31.09 | -5.83 | 15.41 | 2.27 | 15.41 | 2.27 | -0.11 |
| 8 | 46 | 307 | -25.26 | -91.39 | -90.81 | -25.84 | -6.21 | 16.13 | 1.97 | 16.13 | 1.97 | -0.16 |
| 8 | 46 | 308 | -19.96 | -92.16 | -91.73 | -20.39 | -5.56 | 16.84 | 1.97 | 16.84 | 1.98 | -0.28 |
| 8 | 46 | 309 | -14.69 | -93.73 | -93.54 | -14.88 | -3.88 | 17.65 | 2.14 | 17.65 | 2.14 | -0.29 |
| 8 | 46 | 310 | -8.08 | -96.89 | -96.86 | -8.12 | -1.67 | 18.56 | 1.48 | 18.55 | 1.48 | -0.28 |
| 8 | 46 | 311 | -5.34 | -108.85 | -108.84 | -5.34 | -0.55 | 19.62 | 0.85 | 19.62 | 0.85 | -0.12 |
| 8 | 46 | 312 | -28.94 | -96.00 | -96.00 | -28.94 | 2.16e-02 | 5.40 | 1.29 | 5.34 | 1.35 | 0.49 |
| 8 | 46 | 313 | -23.62 | -96.83 | -96.82 | -23.64 | 0.96 | 5.58 | 0.51 | 5.57 | 0.52 | 0.25 |
| 8 | 46 | 314 | -18.68 | -96.98 | -96.94 | -18.72 | 1.75 | 5.97 | 0.67 | 5.96 | 0.67 | 0.21 |
| 8 | 46 | 315 | -13.23 | -98.16 | -98.09 | -13.30 | 2.53 | 6.39 | 0.74 | 6.38 | 0.76 | 0.27 |
| 8 | 46 | 316 | -6.75 | -101.35 | -101.24 | -6.85 | 3.18 | 6.83 | 0.53 | 6.81 | 0.55 | 0.37 |
| 8 | 46 | 317 | -3.53 | -105.26 | -105.15 | -3.64 | 3.38 | 7.39 | 0.33 | 7.27 | 0.44 | 0.88 |
| 8 | 46 | 318 | -23.59 | -97.66 | -97.45 | -23.80 | 3.90 | 4.32 | 0.23 | 4.21 | 0.34 | 0.65 |
| 8 | 46 | 319 | -20.32 | -90.21 | -90.17 | -20.36 | 1.63 | 3.51 | -0.28 | 3.49 | -0.26 | -0.25 |
| 8 | 46 | 320 | -15.66 | -90.85 | -90.81 | -15.70 | -1.78 | 3.19 | 2.98e-02 | 3.14 | 8.24e-02 | -0.40 |
| 8 | 46 | 321 | -10.32 | -93.20 | -93.09 | -10.43 | -3.03 | 2.97 | 0.30 | 2.85 | 0.43 | -0.56 |
| 8 | 46 | 322 | -6.94 | -106.61 | -7.17 | -106.38 | 4.79 | 12.03 | 1.22 | 1.64 | 11.60 | 2.10 |
| 8 | 46 | 323 | -28.25 | -79.84 | -76.27 | -31.81 | 13.08 | 1.72 | -10.03 | -9.09 | 0.78 | 3.19 |
| 8 | 46 | 324 | -35.85 | -87.08 | -86.72 | -36.21 | -4.29 | 14.69 | 2.26 | 14.64 | 2.31 | -0.81 |
| 8 | 46 | 325 | -19.71 | -94.25 | -23.13 | -90.84 | 15.58 | 9.52 | 0.27 | 2.27 | 7.52 | 3.81 |
| 8 | 46 | 326 | -33.07 | -67.96 | -63.68 | -37.35 | 11.44 | 1.29 | -10.39 | -7.54 | -1.56 | 5.02 |
| 8 | 46 | 327 | -5.28 | -94.42 | -94.36 | -5.34 | -2.34 | 2.62 | 0.21 | 2.47 | 0.35 | -0.56 |
| 8 | 46 | 328 | -3.28 | -99.61 | -99.59 | -3.31 | -1.55 | 2.23 | 8.18e-02 | 2.16 | 0.15 | -0.38 |
| 8 | 46 | 329 | -37.23 | -85.27 | -81.99 | -40.51 | -12.12 | 4.44 | 4.54e-02 | 4.22 | 0.26 | -0.95 |
| 8 | 46 | 330 | -24.20 | -101.01 | -99.30 | -25.91 | 11.34 | -3.10 | -7.32 | -7.13 | -3.29 | -0.88 |
| 8 | 46 | 331 | -44.18 | -80.39 | -78.43 | -46.13 | -8.18 | 5.28 | 0.38 | 5.04 | 0.63 | -1.07 |
| 8 | 46 | 332 | -43.18 | -82.34 | -82.28 | -43.25 | -1.62 | 13.46 | 2.40 | 13.17 | 2.70 | -1.79 |
| 8 | 46 | 333 | -57.81 | -71.54 | -71.53 | -57.82 | 0.25 | 8.07 | 2.78 | 6.08 | 4.78 | -2.56 |
| 8 | 46 | 334 | -53.51 | -71.82 | -71.48 | -53.85 | 2.45 | 16.22 | 5.90 | 16.02 | 6.10 | -1.43 |
| 8 | 46 | 335 | -40.94 | -75.05 | -43.28 | -72.71 | 8.62 | 14.11 | 4.98 | 6.21 | 12.89 | -3.11 |
| 8 | 46 | 336 | -47.29 | -69.84 | -50.15 | -66.98 | 7.51 | 12.20 | 9.59 | 10.70 | 11.08 | 1.29 |
| 8 | 46 | 337 | -9.42 | -103.12 | -10.16 | -102.38 | 8.28 | 20.92 | 3.42 | 3.44 | 20.90 | -0.65 |
| 8 | 46 | 338 | -18.28 | -89.09 | -19.61 | -87.75 | 9.64 | 17.14 | 4.72 | 4.73 | 17.14 | -0.33 |
| 8 | 46 | 339 | -11.88 | -100.54 | -12.85 | -99.56 | 9.23 | 9.85 | 1.46 | 2.14 | 9.16 | 2.29 |
| 8 | 46 | 340 | -32.04 | -83.00 | -34.87 | -80.18 | 11.66 | 15.06 | 4.09 | 5.09 | 14.06 | 3.15 |
| 8 | 46 | 341 | -3.32 | -110.32 | -4.13 | -109.51 | 9.28 | -6.65e-02 | -17.07 | -0.68 | -16.45 | 3.18 |
| 8 | 46 | 342 | -7.10 | -109.59 | -9.04 | -107.65 | 13.96 | -0.48 | -16.64 | -1.04 | -16.08 | 2.96 |
| 8 | 46 | 343 | -11.33 | -104.43 | -16.91 | -98.85 | 22.10 | -0.42 | -16.24 | -1.37 | -15.29 | 3.76 |
| 8 | 46 | 344 | -33.30 | -93.04 | -93.03 | -33.31 | -0.95 | 3.68 | 2.22 | 3.47 | 2.42 | 0.51 |
| 8 | 46 | 345 | -19.72 | -100.46 | -32.06 | -88.12 | 29.05 | 0.35 | -13.70 | -1.23 | -12.12 | 4.44 |
| 8 | 46 | 346 | -40.41 | -85.01 | -84.91 | -40.51 | 2.12 | 5.97 | 0.98 | 4.75 | 2.20 | -2.15 |
| 8 | 46 | 347 | -25.13 | -87.25 | -34.79 | -77.59 | 22.50 | 0.62 | -12.61 | -1.87 | -10.12 | 5.17 |
| 8 | 46 | 348 | -49.81 | -78.10 | -76.95 | -50.95 | 5.57 | 3.75 | 1.97 | 3.17 | 2.55 | -0.84 |
| 8 | 46 | 349 | -52.72 | -69.54 | -58.61 | -63.66 | 8.02 | 10.51 | -1.08 | 1.52 | 7.91 | 4.83 |
| 8 | 46 | 350 | -25.08 | -92.43 | -30.67 | -86.84 | 18.59 | 9.83 | -0.87 | 1.32 | 7.64 | 4.32 |
| 8 | 46 | 351 | -28.93 | -59.82 | -41.27 | -47.48 | 15.13 | -1.11 | -9.48 | -4.67 | -5.93 | 4.13 |
| 8 | 46 | 352 | -26.70 | -101.83 | -101.83 | -26.71 | -0.22 | 5.27 | 8.14e-02 | 4.17 | 1.19 | 2.13 |
| 8 | 58 | 1 | -6.68 | -104.84 | -103.74 | -7.79 | -10.36 | -0.66 | -15.34 | -15.33 | -0.67 | -0.37 |
| 8 | 58 | 2 | -23.12 | -45.26 | -41.19 | -27.19 | 8.58 | 1.30 | -4.13 | 0.63 | -3.46 | -1.78 |
| 8 | 58 | 3 | -4.90 | -108.02 | -108.02 | -4.91 | 0.74 | 0.65 | 4.40e-02 | 0.51 | 0.18 | 0.25 |
| 8 | 58 | 5 | -45.14 | -78.03 | -77.69 | -45.48 | -3.33 | -7.95 | -13.77 | -13.11 | -8.61 | 1.85 |
| 8 | 58 | 6 | -47.56 | -59.25 | -58.92 | -47.89 | -1.93 | -2.75 | -14.04 | -13.96 | -2.82 | 0.92 |
| 8 | 58 | 7 | -6.58 | -97.85 | -97.83 | -6.59 | 1.12 | -1.09 | -17.82 | -17.81 | -1.11 | -0.44 |
| 8 | 58 | 8 | -71.73 | -142.52 | -142.36 | -71.89 | -3.36 | -7.58 | -19.73 | -10.47 | -16.83 | -5.18 |
| 8 | 58 | 9 | -4.98 | -36.29 | -31.83 | -9.43 | -10.94 | -0.65 | -2.29 | -1.84 | -1.09 | -0.73 |
| 8 | 58 | 10 | -10.26 | -21.11 | -20.49 | -10.87 | 2.51 | -1.16 | -2.39 | -1.97 | -1.58 | 0.58 |
| 8 | 58 | 11 | -35.12 | -96.50 | -38.01 | -93.61 | 13.00 | -2.09 | -23.99 | -2.53 | -23.55 | 3.07 |
| 8 | 58 | 12 | -4.18 | -80.20 | -4.46 | -79.92 | 4.65 | -1.38 | -22.67 | -1.39 | -22.66 | 0.51 |
| 8 | 58 | 27 | -41.06 | -81.13 | -71.40 | -50.80 | -17.19 | -0.93 | -11.49 | -3.90 | -8.52 | -4.75 |
| 8 | 58 | 37 | -33.61 | -60.44 | -34.66 | -59.39 | 5.20 | 6.47e-02 | -11.82 | -1.88 | -9.87 | 4.40 |
| 8 | 58 | 47 | -47.14 | -92.54 | -50.53 | -89.15 | 11.94 | -0.63 | -19.93 | -1.70 | -18.87 | 4.41 |
| 8 | 58 | 57 | -48.05 | -101.33 | -53.85 | -95.53 | 16.59 | -1.45 | -22.88 | -2.06 | -22.27 | 3.57 |
| 8 | 58 | 61 | -42.89 | -99.45 | -47.89 | -94.46 | 16.05 | -1.89 | -23.43 | -2.37 | -22.96 | 3.17 |
| 8 | 58 | 68 | -26.81 | -95.05 | -28.14 | -93.71 | 9.44 | -2.23 | -25.06 | -2.55 | -24.74 | 2.69 |
| 8 | 58 | 72 | -19.16 | -92.50 | -19.62 | -92.04 | 5.79 | -2.55 | -25.28 | -2.73 | -25.10 | 2.04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 58 | 76 | 3.21 | -90.89 | -83.93 | -3.74 | -24.62 | -0.43 | -10.43 | -9.96 | -0.90 | 2.12 |
| 8 | 58 | 83 | -13.41 | -90.02 | -89.34 | -14.10 | 7.20 | -3.37 | -14.70 | -13.68 | -4.39 | -3.24 |
| 8 | 58 | 87 | -11.55 | -88.40 | -88.39 | -11.56 | 1.03 | -1.61 | -16.21 | -15.96 | -1.86 | -1.90 |
| 8 | 58 | 91 | -12.64 | -94.95 | -94.94 | -12.65 | 0.78 | -1.95 | -17.44 | -17.36 | -2.02 | -1.08 |
| 8 | 58 | 95 | -11.38 | -96.03 | -96.00 | -11.41 | 1.58 | -2.12 | -17.84 | -17.82 | -2.14 | -0.58 |
| 8 | 58 | 99 | -8.51 | -97.90 | -97.88 | -8.53 | 1.32 | -1.67 | -17.77 | -17.75 | -1.69 | -0.56 |
| 8 | 58 | 106 | -16.04 | -95.58 | -95.58 | -16.04 | 0.25 | -0.40 | -1.24 | -0.92 | -0.71 | 0.41 |
| 8 | 58 | 110 | -13.78 | -96.47 | -96.47 | -13.78 | 7.84e-02 | -0.18 | -0.47 | -0.26 | -0.39 | 0.13 |
| 8 | 58 | 114 | -13.26 | -98.02 | -98.01 | -13.26 | -0.70 | 0.22 | -7.72e-02 | 0.19 | -5.33e-02 | -8.03e-02 |
| 8 | 58 | 118 | -11.41 | -100.75 | -100.75 | -11.42 | -0.82 | 0.50 | 8.79e-02 | 0.48 | 0.11 | -9.65e-02 |
| 8 | 58 | 122 | -7.32 | -104.52 | -104.52 | -7.32 | 6.04e-02 | 0.60 | 0.16 | 0.59 | 0.17 | 5.58e-02 |
| 8 | 58 | 129 | -15.08 | -106.81 | -93.60 | -28.29 | -32.20 | -1.23 | -12.78 | -12.63 | -1.38 | 1.32 |
| 8 | 58 | 133 | -18.08 | -108.64 | -96.29 | -30.44 | -31.09 | -1.33 | -13.74 | -13.66 | -1.42 | 1.02 |
| 8 | 58 | 137 | -17.49 | -107.59 | -97.74 | -27.34 | -28.12 | -1.36 | -14.28 | -14.23 | -1.41 | 0.75 |
| 8 | 58 | 141 | -14.24 | -103.85 | -97.70 | -20.39 | -22.66 | -1.55 | -14.65 | -14.64 | -1.57 | 0.46 |
| 8 | 58 | 145 | -9.94 | -104.75 | -102.41 | -12.28 | -14.73 | -1.18 | -14.96 | -14.96 | -1.18 | 0.20 |
| 8 | 58 | 151 | 2.69 | -83.21 | -82.49 | 1.97 | -7.82 | -2.27 | -13.19 | -9.64 | -5.82 | 5.11 |
| 8 | 58 | 158 | -35.52 | -94.18 | -94.10 | -35.60 | -2.21 | 4.56 | -1.44 | -1.41 | 4.53 | 0.40 |
| 8 | 58 | 162 | -8.75 | -102.51 | -91.23 | -20.03 | -30.51 | -1.65 | -11.93 | -11.60 | -1.97 | 1.80 |
| 8 | 58 | 171 | -11.15 | -96.30 | -11.36 | -96.09 | 4.20 | -2.26 | -24.56 | -2.27 | -24.54 | 0.61 |
| 8 | 58 | 176 | -20.96 | -93.25 | -93.22 | -20.99 | -1.41 | 0.25 | -2.12 | -1.91 | 4.82e-02 | 0.66 |
| 8 | 58 | 180 | -23.57 | -136.04 | -129.20 | -30.41 | 26.88 | -7.27 | -16.27 | -12.53 | -11.01 | -4.43 |
| 8 | 58 | 221 | -15.40 | -77.49 | -76.69 | -16.20 | 7.01 | -1.22 | -14.63 | -13.89 | -1.96 | -3.07 |
| 8 | 58 | 222 | -25.88 | -89.21 | -88.39 | -26.70 | 7.15 | -1.65 | -19.18 | -19.11 | -1.73 | -1.15 |
| 8 | 58 | 223 | -30.82 | -88.06 | -87.93 | -30.95 | 2.66 | -1.48 | -19.23 | -19.12 | -1.60 | 1.41 |
| 8 | 58 | 224 | -25.93 | -78.09 | -78.00 | -26.02 | -2.13 | -0.74 | -16.21 | -15.39 | -1.55 | 3.45 |
| 8 | 58 | 225 | -10.77 | -59.50 | -59.31 | -10.96 | -3.02 | -0.41 | -6.58 | -5.38 | -1.61 | -2.45 |
| 8 | 58 | 226 | -16.92 | -52.86 | -52.84 | -16.94 | -0.94 | 0.18 | -9.75 | -7.88 | -1.69 | 3.88 |
| 8 | 58 | 239 | -44.39 | -82.45 | -45.25 | -81.60 | 5.63 | 17.64 | 2.72 | 2.72 | 17.64 | 0.10 |
| 8 | 58 | 270 | -63.51 | -83.01 | -79.67 | -66.85 | -7.34 | 9.05 | 3.91 | 6.48 | 6.48 | -2.57 |
| 8 | 58 | 271 | -53.05 | -88.99 | -88.79 | -53.25 | -2.66 | 3.34 | -3.95 | -3.75 | 3.13 | 1.21 |
| 8 | 58 | 272 | -33.98 | -101.94 | -101.08 | -34.83 | -7.58 | 6.36 | -8.97 | -0.36 | -2.25 | 7.60 |
| 8 | 58 | 273 | -47.20 | -71.22 | -47.29 | -71.12 | 1.52 | 20.15 | -3.03 | -2.96 | 20.08 | 1.26 |
| 8 | 58 | 274 | -39.01 | -81.76 | -39.83 | -80.93 | 5.89 | 23.15 | 1.92 | 2.25 | 22.81 | 2.65 |
| 8 | 58 | 275 | -52.26 | -70.92 | -52.27 | -70.92 | -0.37 | 18.44 | -0.17 | 1.44 | 16.83 | -5.23 |
| 8 | 58 | 276 | -28.26 | -90.06 | -29.27 | -89.05 | 7.84 | 2.27 | -5.94 | 0.58 | -4.25 | 3.33 |
| 8 | 58 | 277 | -35.18 | -91.65 | -37.24 | -89.59 | 10.60 | 1.94 | -6.14 | -7.11e-02 | -4.13 | 3.49 |
| 8 | 58 | 278 | -40.20 | -93.29 | -43.30 | -90.19 | 12.44 | 1.66 | -6.60 | 0.12 | -5.07 | 3.21 |
| 8 | 58 | 279 | -29.94 | -112.94 | -109.72 | -33.17 | -16.04 | 7.46 | -7.61 | 3.36 | -3.51 | 6.71 |
| 8 | 58 | 280 | -44.11 | -84.83 | -81.54 | -47.40 | -11.10 | 5.08 | -8.81 | -1.23 | -2.50 | 6.91 |
| 8 | 58 | 281 | -62.54 | -66.35 | -66.13 | -62.76 | -0.89 | 13.71 | 9.95 | 10.59 | 13.07 | 1.42 |
| 8 | 58 | 282 | -55.02 | -68.00 | -61.80 | -61.22 | -6.48 | 6.32 | -1.54 | -8.95e-02 | 4.86 | -3.05 |
| 8 | 58 | 283 | -62.85 | -110.78 | -98.08 | -75.55 | -21.16 | -0.60 | -9.01 | -2.43 | -7.17 | -3.47 |
| 8 | 58 | 284 | -40.71 | -66.46 | -41.10 | -66.08 | 3.12 | 22.58 | 2.78 | 5.87 | 19.49 | 7.19 |
| 8 | 58 | 285 | -49.32 | -86.96 | -81.62 | -54.67 | -13.14 | 12.49 | 1.71 | 10.75 | 3.45 | 3.97 |
| 8 | 58 | 286 | -57.76 | -70.67 | -64.31 | -64.11 | -6.45 | 15.36 | 10.75 | 14.90 | 11.21 | -1.38 |
| 8 | 58 | 287 | -49.54 | -80.82 | -49.98 | -80.37 | 3.70 | 14.02 | 5.99 | 6.19 | 13.81 | 1.26 |
| 8 | 58 | 288 | -45.74 | -78.21 | -77.91 | -46.04 | 3.13 | 5.31 | -10.10 | -5.64 | 0.86 | -6.99 |
| 8 | 58 | 289 | -57.67 | -70.33 | -57.67 | -70.33 | 5.68e-02 | 13.61 | 2.48 | 6.76 | 9.33 | 5.41 |
| 8 | 58 | 290 | -60.93 | -71.57 | -71.35 | -61.15 | -1.52 | 12.99 | 9.96 | 11.49 | 11.45 | -1.51 |
| 8 | 58 | 291 | -43.15 | -82.97 | -82.41 | -43.71 | 4.69 | 5.01 | -6.26 | -5.73 | 4.48 | -2.39 |
| 8 | 58 | 292 | -29.50 | -126.92 | -126.44 | -29.99 | 6.87 | -2.82 | -7.62 | -2.88 | -7.56 | 0.56 |
| 8 | 58 | 293 | -57.12 | -71.88 | -57.30 | -71.70 | -1.61 | 17.20 | 9.76 | 10.60 | 16.37 | -2.35 |
| 8 | 58 | 294 | -23.94 | -90.03 | -90.00 | -23.98 | 1.48 | -1.90 | -6.48 | -6.39 | -2.00 | -0.66 |
| 8 | 58 | 295 | -15.96 | -94.45 | -94.45 | -15.96 | 3.02e-02 | -1.20 | -7.45 | -7.42 | -1.23 | -0.43 |
| 8 | 58 | 296 | -10.18 | -96.39 | -96.39 | -10.18 | 0.32 | -1.03 | -7.95 | -7.92 | -1.06 | -0.44 |
| 8 | 58 | 297 | -4.97 | -98.35 | -98.35 | -4.97 | 0.51 | -0.56 | -8.15 | -8.12 | -0.59 | -0.50 |
| 8 | 58 | 298 | -2.31 | -100.53 | -100.53 | -2.32 | 0.60 | -0.30 | -8.35 | -8.35 | -0.30 | -0.22 |
| 8 | 58 | 299 | -46.53 | -77.33 | -74.80 | -49.07 | -8.46 | 2.30 | -13.03 | -5.44 | -5.29 | -7.66 |
| 8 | 58 | 300 | -12.83 | -100.09 | -93.34 | -19.58 | -23.30 | 3.30 | 1.59e-02 | 3.26 | 6.25e-02 | 0.39 |
| 8 | 58 | 301 | -12.96 | -103.05 | -96.47 | -19.55 | -23.45 | 2.57 | 0.25 | 2.48 | 0.34 | 0.44 |
| 8 | 58 | 302 | -12.38 | -103.87 | -98.41 | -17.85 | -21.68 | 1.89 | 0.17 | 1.82 | 0.25 | 0.35 |
| 8 | 58 | 303 | -10.45 | -103.15 | -99.68 | -13.92 | -17.59 | 1.31 | 1.93e-02 | 1.29 | 4.12e-02 | 0.17 |
| 8 | 58 | 304 | -6.29 | -105.47 | -104.20 | -7.56 | -11.14 | 0.95 | -7.18e-02 | 0.95 | -6.62e-02 | -7.54e-02 |
| 8 | 58 | 305 | -3.70 | -111.61 | -111.10 | -4.21 | -7.38 | 1.16 | -0.46 | 0.77 | -7.87e-02 | -0.69 |
| 8 | 58 | 306 | -19.10 | -95.45 | -94.14 | -20.42 | -9.94 | 20.61 | 2.74 | 20.61 | 2.74 | -0.20 |
| 8 | 58 | 307 | -16.18 | -99.69 | -98.17 | -17.70 | -11.16 | 20.07 | 2.42 | 20.07 | 2.42 | -0.22 |
| 8 | 58 | 308 | -13.53 | -101.94 | -100.61 | -14.86 | -10.73 | 19.44 | 2.22 | 19.43 | 2.22 | -0.29 |
| 8 | 58 | 309 | -10.88 | -103.98 | -103.19 | -11.66 | -8.52 | 18.93 | 2.08 | 18.93 | 2.09 | -0.26 |
| 8 | 58 | 310 | -6.52 | -107.60 | -107.38 | -6.74 | -4.73 | 18.62 | 1.28 | 18.61 | 1.28 | -0.26 |
| 8 | 58 | 311 | -4.79 | -120.70 | -120.64 | -4.84 | -2.48 | 18.87 | 0.63 | 18.87 | 0.63 | -0.29 |
| 8 | 58 | 312 | -21.63 | -96.12 | -96.01 | -21.74 | -2.88 | 10.15 | 1.72 | 10.14 | 1.73 | -0.26 |
| 8 | 58 | 313 | -17.36 | -99.62 | -99.54 | -17.44 | -2.57 | 10.28 | 1.05 | 10.26 | 1.08 | -0.50 |
| 8 | 58 | 314 | -14.12 | -101.61 | -101.57 | -14.17 | -2.02 | 10.39 | 1.15 | 10.36 | 1.18 | -0.52 |
| 8 | 58 | 315 | -10.76 | -104.03 | -104.02 | -10.77 | -0.94 | 10.44 | 1.09 | 10.42 | 1.11 | -0.42 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 58 | 316 | -5.85 | -108.46 | -108.46 | -5.86 | 0.62 | 10.51 | 0.70 | 10.50 | 0.71 | -0.19 |
| 8 | 58 | 317 | -3.52 | -116.58 | -116.56 | -3.54 | 1.46 | 10.83 | 0.46 | 10.82 | 0.47 | 0.34 |
| 8 | 58 | 318 | -25.87 | -95.88 | -95.79 | -25.96 | 2.61 | 3.17 | -1.28 | 2.74 | -0.85 | 1.32 |
| 8 | 58 | 319 | -21.31 | -91.80 | -91.80 | -21.31 | 0.36 | 1.89 | -0.96 | 1.86 | -0.93 | 0.26 |
| 8 | 58 | 320 | -15.86 | -94.14 | -94.08 | -15.92 | -2.16 | 1.58 | -0.19 | 1.58 | -0.19 | 3.38e-02 |
| 8 | 58 | 321 | -10.39 | -97.24 | -97.16 | -10.47 | -2.60 | 1.38 | 0.21 | 1.36 | 0.22 | -0.14 |
| 8 | 58 | 322 | -5.36 | -62.41 | -5.38 | -62.39 | 0.92 | 31.33 | 3.57 | 4.52 | 30.38 | -5.06 |
| 8 | 58 | 323 | -43.92 | -80.23 | -80.19 | -43.96 | 1.21 | 5.48 | -6.30 | -5.72 | 4.90 | 2.54 |
| 8 | 58 | 324 | -22.75 | -91.16 | -90.27 | -23.63 | -7.73 | 20.71 | 1.79 | 20.66 | 1.85 | -0.98 |
| 8 | 58 | 325 | -23.20 | -77.72 | -23.54 | -77.39 | 4.26 | 20.64 | 7.45 | 7.66 | 20.43 | 1.65 |
| 8 | 58 | 326 | -47.81 | -71.05 | -70.85 | -48.01 | -2.16 | 7.17 | -9.11 | -4.98 | 3.04 | 7.09 |
| 8 | 58 | 327 | -5.23 | -99.61 | -99.58 | -5.26 | -1.67 | 1.04 | 0.19 | 1.01 | 0.22 | -0.17 |
| 8 | 58 | 328 | -3.01 | -104.26 | -104.25 | -3.02 | -0.95 | 0.65 | 0.10 | 0.65 | 0.10 | 2.73e-03 |
| 8 | 58 | 329 | -13.60 | -96.42 | -90.60 | -19.42 | -21.18 | 4.02 | -0.54 | 3.97 | -0.49 | 0.49 |
| 8 | 58 | 330 | -30.03 | -94.64 | -94.11 | -30.55 | 5.81 | -3.06 | -5.21 | -4.25 | -4.03 | -1.07 |
| 8 | 58 | 331 | -16.71 | -87.83 | -83.91 | -20.63 | -16.23 | 6.02 | -2.18 | 5.88 | -2.05 | 1.04 |
| 8 | 58 | 332 | -28.52 | -83.67 | -83.19 | -29.00 | -5.10 | 20.61 | -0.56 | 20.41 | -0.36 | -2.02 |
| 8 | 58 | 333 | -28.23 | -78.08 | -77.58 | -28.72 | -4.94 | 8.43 | -2.08 | 8.25 | -1.90 | 1.35 |
| 8 | 58 | 334 | -38.35 | -69.95 | -69.90 | -38.40 | -1.31 | 26.94 | 1.79 | 26.71 | 2.02 | -2.40 |
| 8 | 58 | 335 | -36.79 | -48.91 | -44.06 | -41.64 | 5.94 | 17.26 | 5.24 | 14.66 | 7.84 | -4.95 |
| 8 | 58 | 336 | -46.09 | -52.94 | -47.79 | -51.24 | 2.95 | 25.93 | 11.05 | 25.93 | 11.05 | -0.10 |
| 8 | 58 | 337 | -6.91 | -54.91 | -7.84 | -53.98 | 6.61 | 26.85 | 3.08 | 8.29 | 21.64 | -9.83 |
| 8 | 58 | 338 | -17.56 | -59.78 | -18.39 | -58.95 | 5.87 | 26.45 | 7.99 | 12.52 | 21.92 | -7.94 |
| 8 | 58 | 339 | -12.41 | -74.71 | -12.51 | -74.61 | 2.43 | 24.20 | 5.87 | 6.46 | 23.60 | -3.26 |
| 8 | 58 | 340 | -32.94 | -65.74 | -33.61 | -65.07 | 4.63 | 21.18 | 14.66 | 15.10 | 20.74 | 1.64 |
| 8 | 58 | 341 | -3.43 | -75.08 | -3.53 | -74.97 | 2.78 | 1.53 | -0.26 | 1.15 | 0.13 | -0.74 |
| 8 | 58 | 342 | -10.14 | -88.14 | -10.27 | -88.01 | 3.11 | 1.26 | -2.77 | 1.22 | -2.72 | -0.41 |
| 8 | 58 | 343 | -19.97 | -88.25 | -20.33 | -87.89 | 4.94 | 1.91 | -5.22 | 1.21 | -4.52 | 2.12 |
| 8 | 58 | 344 | -25.74 | -91.21 | -91.07 | -25.88 | -3.02 | 7.53 | 1.80 | 7.53 | 1.80 | -9.20e-03 |
| 8 | 58 | 345 | -43.40 | -92.96 | -46.33 | -90.03 | 11.70 | 3.04 | -8.24 | 1.16 | -6.37 | 4.20 |
| 8 | 58 | 346 | -30.50 | -83.10 | -83.10 | -30.50 | -0.49 | 9.85 | -1.46 | 8.50 | -0.11 | -3.67 |
| 8 | 58 | 347 | -47.22 | -83.19 | -48.49 | -81.92 | 6.64 | 5.61 | -10.82 | 1.40 | -6.62 | 7.17 |
| 8 | 58 | 348 | -41.42 | -72.29 | -72.23 | -41.48 | 1.36 | 9.29 | -3.63 | 7.69 | -2.03 | -4.26 |
| 8 | 58 | 349 | -51.91 | -56.10 | -53.84 | -54.17 | 2.09 | 9.91 | 0.83 | 5.77 | 4.97 | 4.53 |
| 8 | 58 | 350 | -31.97 | -79.42 | -32.52 | -78.86 | 5.09 | 22.37 | 3.62 | 4.64 | 21.35 | 4.26 |
| 8 | 58 | 351 | -52.19 | -55.87 | -52.44 | -55.62 | 0.92 | 4.49 | -12.26 | -3.47 | -4.30 | 8.37 |
| 8 | 58 | 352 | -28.68 | -98.47 | -98.47 | -28.68 | 0.17 | 4.07 | -1.96 | 2.33 | -0.22 | 2.73 |
| 8 | 60 | 1 | -6.77 | -102.23 | -101.67 | -7.32 | -7.26 | -0.77 | -15.77 | -15.74 | -0.81 | -0.69 |
| 8 | 60 | 2 | -37.75 | -72.60 | -43.56 | -66.79 | 12.99 | 6.94 | -4.16e-02 | 0.10 | 6.79 | -1.00 |
| 8 | 60 | 3 | -4.53 | -90.86 | -90.86 | -4.54 | 0.50 | 0.11 | -2.34 | -2.34 | 0.10 | 5.91e-02 |
| 8 | 60 | 5 | -39.89 | -78.71 | -78.61 | -39.99 | 2.00 | -11.11 | -18.72 | -17.96 | -11.87 | 2.28 |
| 8 | 60 | 6 | -36.76 | -62.20 | -61.56 | -37.40 | 4.01 | -4.23 | -17.32 | -17.20 | -4.35 | 1.24 |
| 8 | 60 | 7 | -5.43 | -92.46 | -92.46 | -5.43 | 0.43 | -0.75 | -12.98 | -12.97 | -0.76 | -0.37 |
| 8 | 60 | 8 | -56.63 | -122.90 | -122.72 | -56.81 | -3.45 | -5.83 | -17.45 | -7.40 | -15.88 | -3.97 |
| 8 | 60 | 9 | -12.27 | -31.19 | -28.85 | -14.61 | -6.23 | -0.29 | -2.76 | -1.84 | -1.20 | -1.20 |
| 8 | 60 | 10 | -15.02 | -18.65 | -18.64 | -15.03 | 0.23 | -0.72 | -2.63 | -1.72 | -1.63 | 0.96 |
| 8 | 60 | 11 | -1.67 | -92.68 | -7.30 | -87.05 | 21.92 | -2.84 | -22.17 | -2.87 | -22.14 | 0.80 |
| 8 | 60 | 12 | -3.34 | -102.56 | -4.29 | -101.61 | 9.67 | -1.89 | -29.80 | -1.93 | -29.76 | 1.05 |
| 8 | 60 | 27 | -43.19 | -71.09 | -62.10 | -52.18 | -13.04 | -0.56 | -11.65 | -3.26 | -8.94 | -4.76 |
| 8 | 60 | 37 | -28.13 | -61.28 | -28.29 | -61.13 | 2.28 | 9.85e-02 | -12.20 | -1.74 | -10.36 | 4.39 |
| 8 | 60 | 47 | -33.11 | -88.56 | -34.75 | -86.92 | 9.40 | -1.01 | -19.70 | -1.69 | -19.02 | 3.50 |
| 8 | 60 | 57 | -24.36 | -94.35 | -28.68 | -90.03 | 16.85 | -2.02 | -21.82 | -2.20 | -21.65 | 1.85 |
| 8 | 60 | 61 | -11.58 | -92.92 | -17.04 | -87.45 | 20.36 | -2.58 | -21.84 | -2.63 | -21.79 | 0.98 |
| 8 | 60 | 68 | 3.08 | -95.51 | -2.04 | -90.39 | 21.88 | -2.92 | -24.16 | -2.96 | -24.12 | 0.96 |
| 8 | 60 | 72 | 1.60 | -95.51 | -2.16 | -91.75 | 18.73 | -3.09 | -25.72 | -3.14 | -25.67 | 1.04 |
| 8 | 60 | 76 | -36.49 | -87.17 | -84.60 | -39.05 | -11.12 | -1.37 | -8.28 | -8.24 | -1.41 | 0.51 |
| 8 | 60 | 83 | -1.96 | -82.84 | -82.78 | -2.02 | 2.19 | -2.98 | -11.58 | -10.47 | -4.09 | -2.89 |
| 8 | 60 | 87 | -3.09 | -85.26 | -85.20 | -3.15 | -2.33 | -1.24 | -12.73 | -12.46 | -1.51 | -1.74 |
| 8 | 60 | 91 | -7.34 | -91.24 | -91.20 | -7.38 | -1.83 | -1.52 | -13.51 | -13.43 | -1.60 | -1.02 |
| 8 | 60 | 95 | -8.43 | -91.84 | -91.84 | -8.43 | -0.59 | -1.61 | -13.58 | -13.56 | -1.63 | -0.53 |
| 8 | 60 | 99 | -6.83 | -92.31 | -92.31 | -6.83 | 6.99e-02 | -1.22 | -13.19 | -13.17 | -1.24 | -0.50 |
| 8 | 60 | 106 | -15.53 | -91.16 | -91.14 | -15.55 | 1.40 | 0.58 | -3.06 | -2.93 | 0.45 | 0.68 |
| 8 | 60 | 110 | -14.50 | -91.12 | -91.12 | -14.50 | 0.38 | -0.43 | -2.76 | -2.72 | -0.46 | 0.30 |
| 8 | 60 | 114 | -14.85 | -91.81 | -91.81 | -14.85 | -0.66 | -0.27 | -2.40 | -2.40 | -0.27 | 6.95e-03 |
| 8 | 60 | 118 | -13.18 | -93.08 | -93.08 | -13.19 | -0.74 | -7.46e-02 | -2.19 | -2.19 | -7.93e-02 | -9.87e-02 |
| 8 | 60 | 122 | -8.24 | -94.11 | -94.11 | -8.24 | 9.29e-05 | 4.12e-02 | -2.17 | -2.17 | 3.95e-02 | -6.10e-02 |
| 8 | 60 | 129 | -33.03 | -95.77 | -90.33 | -38.47 | -17.66 | -1.28 | -11.41 | -11.40 | -1.29 | -0.15 |
| 8 | 60 | 133 | -28.68 | -97.15 | -92.03 | -33.79 | -18.01 | -1.34 | -12.68 | -12.68 | -1.34 | -0.20 |
| 8 | 60 | 137 | -22.55 | -97.25 | -93.07 | -26.74 | -17.18 | -1.42 | -13.48 | -13.48 | -1.42 | -0.20 |
| 8 | 60 | 141 | -15.94 | -95.86 | -93.15 | -18.65 | -14.47 | -1.64 | -14.20 | -14.19 | -1.64 | -0.27 |
| 8 | 60 | 145 | -9.93 | -99.02 | -97.91 | -11.03 | -9.86 | -1.29 | -14.95 | -14.94 | -1.29 | -0.29 |
| 8 | 60 | 151 | -41.32 | -81.39 | -81.34 | -41.37 | 1.38 | -1.07 | -6.93 | -6.67 | -1.32 | 1.19 |
| 8 | 60 | 158 | -26.28 | -90.60 | -90.59 | -26.29 | 0.89 | 9.26 | -2.77 | -2.70 | 9.19 | 0.93 |
| 8 | 60 | 162 | -35.13 | -93.42 | -88.79 | -39.76 | -15.76 | -1.29 | -10.14 | -10.14 | -1.29 | 7.53e-02 |
| 8 | 60 | 171 | -3.06 | -104.30 | -4.72 | -102.64 | 12.86 | -2.67 | -28.21 | -2.69 | -28.19 | 0.70 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 60 | 176 | -18.41 | -90.12 | -90.11 | -18.43 | 1.04 | 3.52 | -3.49 | -3.34 | 3.38 | 0.99 |
| 8 | 60 | 180 | -12.39 | -117.08 | -113.13 | -16.34 | 19.95 | -5.93 | -13.33 | -8.78 | -10.48 | -3.60 |
| 8 | 60 | 221 | -28.02 | -78.55 | -77.24 | -29.32 | 8.03 | -0.60 | -13.68 | -12.83 | -1.45 | -3.23 |
| 8 | 60 | 222 | -39.70 | -90.94 | -89.65 | -41.00 | 8.05 | -1.23 | -17.62 | -17.58 | -1.27 | -0.86 |
| 8 | 60 | 223 | -44.18 | -88.79 | -88.34 | -44.62 | 4.43 | -1.01 | -17.76 | -17.55 | -1.22 | 1.88 |
| 8 | 60 | 224 | -37.70 | -77.53 | -77.52 | -37.70 | -0.48 | -4.29e-02 | -15.24 | -14.09 | -1.20 | 4.03 |
| 8 | 60 | 225 | -19.37 | -55.99 | -55.99 | -19.37 | 0.14 | 0.26 | -6.78 | -5.09 | -1.43 | -3.01 |
| 8 | 60 | 226 | -24.06 | -50.94 | -50.86 | -24.14 | -1.52 | 0.92 | -9.61 | -7.15 | -1.54 | 4.46 |
| 8 | 60 | 239 | -37.30 | -74.87 | -40.74 | -71.44 | 10.83 | 15.68 | 2.22 | 2.38 | 15.52 | -1.46 |
| 8 | 60 | 270 | -56.64 | -78.89 | -78.20 | -57.33 | -3.84 | 10.46 | 6.51 | 9.57 | 7.40 | -1.64 |
| 8 | 60 | 271 | -44.19 | -86.82 | -86.78 | -44.22 | 1.20 | 3.97 | -7.16 | -6.86 | 3.66 | 1.83 |
| 8 | 60 | 272 | -28.08 | -96.62 | -95.91 | -28.79 | -6.97 | 8.37 | -10.38 | -0.39 | -1.63 | 9.35 |
| 8 | 60 | 273 | -44.01 | -62.58 | -48.28 | -58.31 | 7.82 | 17.49 | -5.75 | -5.70 | 17.44 | 1.07 |
| 8 | 60 | 274 | -31.55 | -75.55 | -35.79 | -71.31 | 12.98 | 18.76 | -0.16 | -4.84e-02 | 18.65 | 1.43 |
| 8 | 60 | 275 | -50.83 | -62.16 | -52.71 | -60.28 | 4.21 | 17.10 | -0.98 | 0.97 | 15.15 | -5.60 |
| 8 | 60 | 276 | -13.41 | -90.87 | -18.08 | -86.20 | 18.44 | -0.39 | -7.57 | -1.25 | -6.70 | 2.34 |
| 8 | 60 | 277 | -18.07 | -88.19 | -23.55 | -82.71 | 18.82 | -0.72 | -5.63 | -1.13 | -5.22 | 1.35 |
| 8 | 60 | 278 | -24.31 | -87.80 | -29.41 | -82.70 | 17.26 | 2.02e-02 | -5.63 | -9.49e-02 | -5.52 | 0.80 |
| 8 | 60 | 279 | -24.33 | -103.69 | -101.50 | -26.53 | -13.01 | 10.18 | -7.35 | 5.42 | -2.59 | 7.80 |
| 8 | 60 | 280 | -36.90 | -82.17 | -80.66 | -38.42 | -8.14 | 5.11 | -9.93 | -1.45 | -3.37 | 7.46 |
| 8 | 60 | 281 | -56.82 | -66.56 | -66.09 | -57.28 | 2.07 | 14.38 | 12.00 | 13.24 | 13.14 | 1.19 |
| 8 | 60 | 282 | -50.49 | -63.70 | -63.14 | -51.05 | -2.64 | 5.51 | -2.78 | -0.83 | 3.56 | -3.52 |
| 8 | 60 | 283 | -54.82 | -98.00 | -89.86 | -62.96 | -16.89 | 1.04 | -6.80 | 0.39 | -6.16 | -2.15 |
| 8 | 60 | 284 | -38.34 | -68.14 | -42.80 | -63.68 | 10.63 | 18.47 | -3.88 | -0.56 | 15.15 | 7.95 |
| 8 | 60 | 285 | -43.01 | -82.40 | -80.29 | -45.12 | -8.87 | 15.18 | 1.72 | 13.17 | 3.74 | 4.80 |
| 8 | 60 | 286 | -53.66 | -65.89 | -65.50 | -54.06 | -2.17 | 16.39 | 10.26 | 16.04 | 10.61 | -1.43 |
| 8 | 60 | 287 | -43.75 | -73.92 | -45.61 | -72.05 | 7.27 | 12.78 | 7.10 | 7.10 | 12.77 | -0.18 |
| 8 | 60 | 288 | -45.23 | -77.94 | -77.21 | -45.96 | 4.81 | 6.58 | -7.79 | -3.33 | 2.11 | -6.65 |
| 8 | 60 | 289 | -53.95 | -66.62 | -54.32 | -66.24 | 2.13 | 13.64 | 4.38 | 8.72 | 9.30 | 4.62 |
| 8 | 60 | 290 | -53.97 | -72.70 | -72.54 | -54.12 | 1.68 | 15.11 | 11.56 | 14.66 | 12.01 | -1.19 |
| 8 | 60 | 291 | -43.68 | -84.16 | -83.15 | -44.69 | 6.31 | 5.75 | -3.51 | -3.06 | 5.31 | -1.98 |
| 8 | 60 | 292 | -22.67 | -112.68 | -112.51 | -22.83 | 3.86 | -0.15 | -6.81 | -0.50 | -6.46 | 1.48 |
| 8 | 60 | 293 | -56.06 | -63.13 | -57.04 | -62.15 | 2.44 | 17.03 | 9.95 | 11.62 | 15.36 | -3.01 |
| 8 | 60 | 294 | -17.62 | -86.54 | -86.42 | -17.74 | -2.84 | -1.15 | -3.71 | -3.46 | -1.40 | -0.76 |
| 8 | 60 | 295 | -11.17 | -90.79 | -90.62 | -11.33 | -3.62 | -0.77 | -4.39 | -4.28 | -0.87 | -0.61 |
| 8 | 60 | 296 | -7.31 | -91.96 | -91.88 | -7.40 | -2.75 | -0.58 | -4.64 | -4.55 | -0.67 | -0.62 |
| 8 | 60 | 297 | -3.72 | -92.16 | -92.14 | -3.75 | -1.48 | -0.19 | -4.56 | -4.46 | -0.29 | -0.66 |
| 8 | 60 | 298 | -1.84 | -93.80 | -93.79 | -1.84 | -0.68 | -5.81e-02 | -4.44 | -4.39 | -0.10 | -0.45 |
| 8 | 60 | 299 | -48.30 | -70.65 | -69.27 | -49.68 | -5.38 | 3.10 | -11.91 | -4.03 | -4.78 | -7.49 |
| 8 | 60 | 300 | -27.28 | -92.11 | -89.91 | -29.48 | -11.74 | 1.74 | -0.72 | 0.80 | 0.23 | -1.20 |
| 8 | 60 | 301 | -23.46 | -94.22 | -91.91 | -25.78 | -12.59 | 1.21 | -0.48 | 0.35 | 0.38 | -0.84 |
| 8 | 60 | 302 | -19.14 | -95.13 | -93.14 | -21.13 | -12.14 | 0.80 | -0.66 | -6.66e-02 | 0.20 | -0.72 |
| 8 | 60 | 303 | -14.19 | -95.26 | -93.99 | -15.46 | -10.07 | 0.51 | -1.07 | -0.50 | -6.12e-02 | -0.76 |
| 8 | 60 | 304 | -7.66 | -98.44 | -97.97 | -8.13 | -6.56 | 0.39 | -1.37 | -0.84 | -0.14 | -0.81 |
| 8 | 60 | 305 | -4.30 | -105.50 | -105.29 | -4.51 | -4.54 | 0.73 | -1.95 | -1.09 | -0.13 | -1.25 |
| 8 | 60 | 306 | -25.43 | -90.52 | -90.45 | -25.50 | -2.16 | 14.33 | 2.92 | 14.22 | 3.03 | -1.09 |
| 8 | 60 | 307 | -21.42 | -92.81 | -92.65 | -21.58 | -3.35 | 14.83 | 2.39 | 14.78 | 2.44 | -0.78 |
| 8 | 60 | 308 | -17.23 | -94.04 | -93.89 | -17.38 | -3.37 | 14.89 | 1.91 | 14.83 | 1.97 | -0.86 |
| 8 | 60 | 309 | -12.90 | -95.37 | -95.31 | -12.96 | -2.23 | 14.95 | 1.80 | 14.89 | 1.85 | -0.82 |
| 8 | 60 | 310 | -7.20 | -97.72 | -97.71 | -7.21 | -0.74 | 15.10 | 1.16 | 15.06 | 1.20 | -0.74 |
| 8 | 60 | 311 | -4.81 | -108.17 | -108.17 | -4.81 | -6.62e-02 | 15.62 | 0.60 | 15.59 | 0.64 | -0.71 |
| 8 | 60 | 312 | -23.27 | -92.43 | -92.12 | -23.57 | 4.58 | 5.53 | 2.82 | 5.53 | 2.82 | 1.79e-02 |
| 8 | 60 | 313 | -19.31 | -93.81 | -93.55 | -19.57 | 4.36 | 6.27 | 1.17 | 6.23 | 1.21 | -0.44 |
| 8 | 60 | 314 | -15.51 | -94.30 | -94.08 | -15.73 | 4.23 | 6.84 | 0.88 | 6.77 | 0.96 | -0.65 |
| 8 | 60 | 315 | -11.20 | -95.12 | -94.90 | -11.42 | 4.35 | 7.34 | 0.93 | 7.28 | 0.98 | -0.60 |
| 8 | 60 | 316 | -5.83 | -96.45 | -96.26 | -6.02 | 4.13 | 7.76 | 0.66 | 7.74 | 0.69 | -0.41 |
| 8 | 60 | 317 | -3.13 | -99.05 | -98.91 | -3.28 | 3.75 | 8.26 | 0.48 | 8.25 | 0.48 | 8.70e-02 |
| 8 | 60 | 318 | -21.24 | -90.00 | -89.91 | -21.33 | -2.52 | 3.33 | 0.20 | 2.97 | 0.56 | 1.01 |
| 8 | 60 | 319 | -17.24 | -87.83 | -87.41 | -17.66 | -5.43 | 1.95 | -0.56 | 1.95 | -0.56 | 2.64e-02 |
| 8 | 60 | 320 | -12.43 | -90.36 | -89.65 | -13.14 | -7.41 | 1.44 | -0.25 | 1.42 | -0.22 | -0.19 |
| 8 | 60 | 321 | -7.98 | -92.22 | -91.65 | -8.55 | -6.93 | 1.22 | -1.31e-04 | 1.05 | 0.17 | -0.42 |
| 8 | 60 | 322 | -6.00 | -92.60 | -6.11 | -92.49 | 3.14 | 17.81 | 2.38 | 2.39 | 17.81 | 0.26 |
| 8 | 60 | 323 | -45.58 | -80.31 | -80.01 | -45.88 | 3.23 | 6.28 | -4.12 | -3.25 | 5.42 | 2.87 |
| 8 | 60 | 324 | -29.26 | -87.94 | -87.94 | -29.26 | -2.19e-02 | 13.72 | 1.71 | 13.21 | 2.22 | -2.43 |
| 8 | 60 | 325 | -19.38 | -81.81 | -21.58 | -79.62 | 11.49 | 15.26 | 1.61 | 2.81 | 14.06 | 3.87 |
| 8 | 60 | 326 | -50.14 | -68.97 | -68.95 | -50.16 | -0.67 | 8.16 | -7.76 | -3.08 | 3.48 | 7.26 |
| 8 | 60 | 327 | -4.00 | -92.45 | -92.19 | -4.25 | -4.76 | 0.97 | -0.14 | 0.63 | 0.20 | -0.51 |
| 8 | 60 | 328 | -2.10 | -93.09 | -92.97 | -2.22 | -3.29 | 0.67 | -0.27 | 0.29 | 0.11 | -0.46 |
| 8 | 60 | 329 | -31.22 | -89.80 | -88.16 | -32.86 | -9.67 | 2.20 | -1.11 | 1.43 | -0.35 | -1.40 |
| 8 | 60 | 330 | -24.18 | -87.69 | -87.68 | -24.20 | 1.01 | -1.43 | -3.29 | -1.73 | -2.99 | -0.68 |
| 8 | 60 | 331 | -36.16 | -84.31 | -83.67 | -36.79 | -5.50 | 3.69 | -1.29 | 3.40 | -1.00 | -1.15 |
| 8 | 60 | 332 | -34.72 | -83.67 | -83.53 | -34.86 | 2.68 | 13.97 | -0.82 | 12.88 | 0.27 | -3.87 |
| 8 | 60 | 333 | -46.60 | -77.44 | -77.08 | -46.96 | 3.33 | 6.02 | 0.98 | 5.69 | 1.30 | -1.24 |
| 8 | 60 | 334 | -42.82 | -73.77 | -72.51 | -44.08 | 6.11 | 18.79 | 1.38 | 18.30 | 1.87 | -2.89 |
| 8 | 60 | 335 | -39.73 | -66.78 | -45.80 | -60.71 | 11.29 | 11.91 | 6.48 | 8.53 | 9.85 | -2.63 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 60 | 336 | -43.42 | -63.44 | -50.71 | -56.15 | 9.63 | 15.98 | 7.99 | 15.52 | 8.45 | 1.88 |
| 8 | 60 | 337 | -8.51 | -89.40 | -9.55 | -88.36 | 9.11 | 20.56 | 4.59 | 4.96 | 20.19 | -2.43 |
| 8 | 60 | 338 | -17.67 | -77.78 | -19.35 | -76.10 | 9.92 | 18.43 | 6.86 | 7.07 | 18.21 | -1.57 |
| 8 | 60 | 339 | -11.07 | -89.27 | -11.64 | -88.69 | 6.70 | 14.89 | 3.02 | 3.13 | 14.77 | 1.15 |
| 8 | 60 | 340 | -31.60 | -72.07 | -34.86 | -68.81 | 11.02 | 17.76 | 5.24 | 7.17 | 15.84 | 4.52 |
| 8 | 60 | 341 | -2.38 | -100.29 | -2.82 | -99.85 | 6.53 | 8.77e-02 | -10.22 | -0.23 | -9.91 | 1.77 |
| 8 | 60 | 342 | -5.37 | -98.50 | -6.42 | -97.45 | 9.82 | -0.24 | -9.95 | -0.51 | -9.68 | 1.59 |
| 8 | 60 | 343 | -9.58 | -91.82 | -12.58 | -88.82 | 15.42 | -0.13 | -8.99 | -0.90 | -8.23 | 2.49 |
| 8 | 60 | 344 | -26.31 | -89.80 | -89.39 | -26.72 | 5.09 | 3.98 | 2.45 | 2.55 | 3.88 | -0.39 |
| 8 | 60 | 345 | -30.75 | -87.37 | -34.14 | -83.98 | 13.43 | 2.10 | -7.06 | 1.57 | -6.53 | 2.14 |
| 8 | 60 | 346 | -31.18 | -84.42 | -83.47 | -32.13 | 7.06 | 6.30 | -4.47 | 1.79 | 3.83e-02 | -5.31 |
| 8 | 60 | 347 | -38.77 | -80.25 | -39.67 | -79.35 | 6.05 | 5.34 | -9.68 | 2.32 | -6.67 | 6.01 |
| 8 | 60 | 348 | -38.63 | -77.40 | -74.99 | -41.04 | 9.36 | 2.48 | -6.22 | -2.50e-02 | -3.71 | -3.94 |
| 8 | 60 | 349 | -45.23 | -65.66 | -57.92 | -52.97 | 9.91 | 6.72 | -6.11 | -1.67 | 2.28 | 6.10 |
| 8 | 60 | 350 | -26.13 | -78.99 | -29.68 | -75.44 | 13.22 | 17.05 | -0.74 | 0.44 | 15.87 | 4.43 |
| 8 | 60 | 351 | -47.95 | -57.55 | -47.95 | -57.55 | -0.13 | 5.02 | -11.86 | -2.53 | -4.30 | 8.39 |
| 8 | 60 | 352 | -23.94 | -92.60 | -92.48 | -24.06 | -2.88 | 5.24 | -1.02 | 2.10 | 2.12 | 3.13 |
| 8 | 62 | 1 | -6.64 | -104.62 | -103.64 | -7.62 | -9.73 | -0.72 | -16.01 | -15.99 | -0.74 | -0.55 |
| 8 | 62 | 2 | -29.46 | -48.64 | -42.23 | -35.86 | 9.04 | 1.27 | -1.74 | -0.64 | 0.17 | -1.45 |
| 8 | 62 | 3 | -4.67 | -104.96 | -104.96 | -4.68 | 0.79 | 0.41 | -5.18e-02 | 0.19 | 0.17 | 0.23 |
| 8 | 62 | 5 | -46.11 | -78.73 | -78.58 | -46.25 | -2.16 | -6.54 | -12.15 | -11.45 | -7.23 | 1.85 |
| 8 | 62 | 6 | -47.70 | -59.73 | -59.70 | -47.72 | -0.58 | -0.83 | -11.64 | -11.55 | -0.91 | 0.96 |
| 8 | 62 | 7 | -6.23 | -96.60 | -96.58 | -6.25 | 1.06 | -1.01 | -16.63 | -16.62 | -1.02 | -0.38 |
| 8 | 62 | 8 | -71.58 | -141.92 | -141.85 | -71.65 | -2.31 | -6.96 | -18.42 | -9.91 | -15.47 | -5.01 |
| 8 | 62 | 9 | -5.35 | -35.73 | -31.29 | -9.79 | -10.74 | -0.76 | -2.16 | -1.87 | -1.05 | -0.57 |
| 8 | 62 | 10 | -8.60 | -20.10 | -18.83 | -9.87 | 3.60 | -1.61 | -1.95 | -1.93 | -1.63 | 7.43e-02 |
| 8 | 62 | 11 | -30.39 | -97.20 | -34.08 | -93.51 | 15.27 | -2.36 | -24.30 | -2.64 | -24.02 | 2.46 |
| 8 | 62 | 12 | -4.70 | -85.13 | -5.01 | -84.81 | 5.04 | -1.57 | -24.68 | -1.58 | -24.66 | 0.56 |
| 8 | 62 | 27 | -40.49 | -79.88 | -70.95 | -49.42 | -16.49 | -0.79 | -10.68 | -3.69 | -7.78 | -4.50 |
| 8 | 62 | 37 | -30.89 | -59.93 | -32.24 | -58.59 | 6.10 | -0.48 | -11.20 | -1.90 | -9.78 | 3.64 |
| 8 | 62 | 47 | -43.32 | -92.17 | -46.94 | -88.55 | 12.80 | -1.01 | -19.59 | -1.78 | -18.81 | 3.73 |
| 8 | 62 | 57 | -43.41 | -101.20 | -49.58 | -95.04 | 17.84 | -1.72 | -22.88 | -2.16 | -22.45 | 3.00 |
| 8 | 62 | 61 | -37.83 | -99.69 | -43.47 | -94.04 | 17.82 | -2.14 | -23.59 | -2.46 | -23.28 | 2.60 |
| 8 | 62 | 68 | -22.97 | -96.06 | -24.98 | -94.04 | 11.97 | -2.48 | -25.44 | -2.68 | -25.24 | 2.16 |
| 8 | 62 | 72 | -16.72 | -93.60 | -17.59 | -92.74 | 8.10 | -2.76 | -25.86 | -2.88 | -25.73 | 1.70 |
| 8 | 62 | 76 | -8.10 | -91.08 | -85.11 | -14.07 | -21.44 | -1.03 | -10.80 | -10.55 | -1.28 | 1.55 |
| 8 | 62 | 83 | -14.11 | -89.72 | -89.01 | -14.83 | 7.32 | -3.10 | -14.12 | -13.13 | -4.09 | -3.15 |
| 8 | 62 | 87 | -11.34 | -87.95 | -87.94 | -11.35 | 0.87 | -1.53 | -15.54 | -15.29 | -1.77 | -1.84 |
| 8 | 62 | 91 | -12.00 | -94.21 | -94.21 | -12.00 | 0.49 | -1.86 | -16.62 | -16.54 | -1.93 | -1.04 |
| 8 | 62 | 95 | -10.79 | -95.17 | -95.15 | -10.81 | 1.30 | -2.01 | -16.88 | -16.86 | -2.03 | -0.53 |
| 8 | 62 | 99 | -8.09 | -96.80 | -96.79 | -8.11 | 1.17 | -1.56 | -16.68 | -16.66 | -1.58 | -0.51 |
| 8 | 62 | 106 | -16.93 | -95.61 | -95.60 | -16.94 | 0.96 | 1.85e-02 | -0.95 | -0.46 | -0.47 | 0.48 |
| 8 | 62 | 110 | -14.43 | -95.99 | -95.98 | -14.44 | 0.65 | 0.10 | -0.42 | 2.74e-03 | -0.32 | 0.20 |
| 8 | 62 | 114 | -13.59 | -97.10 | -97.10 | -13.59 | -0.23 | 0.28 | -3.35e-02 | 0.28 | -3.29e-02 | -1.38e-02 |
| 8 | 62 | 118 | -11.55 | -99.43 | -99.43 | -11.55 | -0.45 | 0.42 | 0.10 | 0.41 | 0.11 | -5.54e-02 |
| 8 | 62 | 122 | -7.29 | -102.66 | -102.66 | -7.29 | 0.24 | 0.39 | 0.15 | 0.38 | 0.16 | 5.89e-02 |
| 8 | 62 | 129 | -19.31 | -104.33 | -93.29 | -30.35 | -28.58 | -1.41 | -13.12 | -13.06 | -1.47 | 0.81 |
| 8 | 62 | 133 | -20.30 | -105.90 | -95.59 | -30.61 | -27.87 | -1.46 | -14.07 | -14.04 | -1.49 | 0.56 |
| 8 | 62 | 137 | -18.37 | -105.17 | -96.92 | -26.63 | -25.46 | -1.48 | -14.64 | -14.63 | -1.49 | 0.36 |
| 8 | 62 | 141 | -14.46 | -102.20 | -97.02 | -19.65 | -20.69 | -1.65 | -15.10 | -15.10 | -1.66 | 0.13 |
| 8 | 62 | 145 | -9.87 | -103.99 | -101.97 | -11.89 | -13.62 | -1.26 | -15.52 | -15.52 | -1.26 | -3.57e-02 |
| 8 | 62 | 151 | -10.31 | -83.64 | -83.14 | -10.81 | -6.05 | -2.53 | -11.64 | -9.89 | -4.27 | 3.58 |
| 8 | 62 | 158 | -35.41 | -94.48 | -94.45 | -35.44 | -1.26 | 4.83 | -0.84 | -0.80 | 4.78 | 0.51 |
| 8 | 62 | 162 | -15.52 | -100.76 | -91.23 | -25.05 | -26.86 | -1.71 | -12.23 | -12.08 | -1.85 | 1.22 |
| 8 | 62 | 171 | -10.45 | -97.79 | -10.79 | -97.45 | 5.43 | -2.41 | -25.71 | -2.43 | -25.70 | 0.58 |
| 8 | 62 | 176 | -21.75 | -93.63 | -93.62 | -21.76 | -0.48 | 0.73 | -1.54 | -1.28 | 0.47 | 0.72 |
| 8 | 62 | 180 | -24.52 | -135.94 | -128.71 | -31.74 | 27.44 | -6.68 | -15.46 | -11.94 | -10.20 | -4.30 |
| 8 | 62 | 221 | -16.39 | -77.94 | -76.94 | -17.39 | 7.78 | -1.38 | -14.16 | -13.65 | -1.89 | -2.51 |
| 8 | 62 | 222 | -26.90 | -89.64 | -88.52 | -28.01 | 8.29 | -1.66 | -18.70 | -18.67 | -1.69 | -0.69 |
| 8 | 62 | 223 | -31.60 | -88.01 | -87.72 | -31.90 | 4.06 | -1.45 | -18.69 | -18.55 | -1.59 | 1.55 |
| 8 | 62 | 224 | -26.24 | -77.20 | -77.19 | -26.24 | -0.70 | -0.85 | -15.52 | -14.79 | -1.58 | 3.19 |
| 8 | 62 | 225 | -11.50 | -59.34 | -59.20 | -11.65 | -2.63 | -0.62 | -6.23 | -5.31 | -1.54 | -2.07 |
| 8 | 62 | 226 | -16.33 | -51.27 | -51.26 | -16.33 | 0.30 | -0.22 | -9.00 | -7.49 | -1.72 | 3.31 |
| 8 | 62 | 239 | -43.07 | -82.13 | -44.41 | -80.79 | 7.10 | 14.80 | 2.62 | 2.63 | 14.79 | 0.33 |
| 8 | 62 | 270 | -63.64 | -82.36 | -80.05 | -65.96 | -6.16 | 8.65 | 4.00 | 6.02 | 6.62 | -2.31 |
| 8 | 62 | 271 | -52.83 | -89.53 | -89.45 | -52.92 | -1.74 | 3.33 | -3.30 | -3.04 | 3.07 | 1.29 |
| 8 | 62 | 272 | -34.15 | -102.14 | -101.42 | -34.87 | -6.98 | 6.52 | -7.77 | 0.37 | -1.61 | 7.07 |
| 8 | 62 | 273 | -47.16 | -70.26 | -47.56 | -69.85 | 3.03 | 18.49 | -2.23 | -2.16 | 18.42 | 1.21 |
| 8 | 62 | 274 | -37.85 | -81.76 | -39.22 | -80.39 | 7.63 | 19.23 | 1.61 | 1.92 | 18.91 | 2.33 |
| 8 | 62 | 275 | -52.29 | -70.25 | -52.33 | -70.21 | 0.82 | 16.66 | 0.68 | 1.85 | 15.49 | -4.16 |
| 8 | 62 | 276 | -26.22 | -91.14 | -27.82 | -89.54 | 10.08 | 1.08 | -7.56 | 2.43e-02 | -6.50 | 2.82 |
| 8 | 62 | 277 | -32.47 | -92.25 | -35.28 | -89.44 | 12.67 | 0.84 | -7.41 | -0.37 | -6.19 | 2.92 |
| 8 | 62 | 278 | -37.25 | -93.51 | -41.05 | -89.71 | 14.12 | 0.94 | -7.77 | -6.93e-02 | -6.76 | 2.79 |
| 8 | 62 | 279 | -30.14 | -112.65 | -109.78 | -33.02 | -15.13 | 7.30 | -6.55 | 3.43 | -2.69 | 6.21 |
| 8 | 62 | 280 | -44.23 | -84.92 | -82.13 | -47.01 | -10.27 | 5.31 | -6.99 | -0.29 | -1.39 | 6.12 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 62 | 281 | -61.92 | -65.96 | -65.93 | -61.95 | 0.35 | 12.75 | 8.65 | 9.59 | 11.80 | 1.73 |
| 8 | 62 | 282 | -55.85 | -67.00 | -62.24 | -60.61 | -5.51 | 6.65 | -0.56 | 0.60 | 5.49 | -2.64 |
| 8 | 62 | 283 | -63.21 | -109.54 | -98.13 | -74.62 | -19.96 | -0.36 | -8.11 | -2.27 | -6.19 | -3.34 |
| 8 | 62 | 284 | -40.63 | -67.95 | -41.53 | -67.05 | 4.89 | 20.05 | 2.17 | 4.69 | 17.53 | 6.22 |
| 8 | 62 | 285 | -49.60 | -86.61 | -82.13 | -54.09 | -12.08 | 11.92 | 2.35 | 10.24 | 4.03 | 3.64 |
| 8 | 62 | 286 | -58.69 | -69.30 | -64.69 | -63.30 | -5.26 | 13.91 | 10.53 | 13.56 | 10.88 | -1.04 |
| 8 | 62 | 287 | -48.21 | -80.37 | -49.00 | -79.58 | 4.99 | 11.98 | 5.33 | 5.69 | 11.63 | 1.50 |
| 8 | 62 | 288 | -44.92 | -78.62 | -78.12 | -45.42 | 4.09 | 4.85 | -9.47 | -5.61 | 1.00 | -6.35 |
| 8 | 62 | 289 | -56.55 | -69.70 | -56.68 | -69.58 | 1.26 | 12.28 | 1.55 | 6.02 | 7.80 | 5.29 |
| 8 | 62 | 290 | -60.29 | -71.66 | -71.65 | -60.30 | -0.30 | 11.81 | 9.61 | 10.55 | 10.87 | -1.09 |
| 8 | 62 | 291 | -42.49 | -83.39 | -82.53 | -43.34 | 5.86 | 4.48 | -6.18 | -5.85 | 4.16 | -1.84 |
| 8 | 62 | 292 | -29.66 | -126.71 | -126.13 | -30.24 | 7.48 | -2.54 | -6.92 | -2.59 | -6.87 | 0.47 |
| 8 | 62 | 293 | -57.11 | -70.83 | -57.12 | -70.82 | -0.36 | 15.42 | 9.26 | 9.75 | 14.92 | -1.68 |
| 8 | 62 | 294 | -23.91 | -89.69 | -89.66 | -23.94 | 1.39 | -1.75 | -5.95 | -5.83 | -1.88 | -0.71 |
| 8 | 62 | 295 | -15.86 | -93.83 | -93.83 | -15.86 | -0.21 | -1.12 | -6.77 | -6.72 | -1.16 | -0.49 |
| 8 | 62 | 296 | -10.04 | -95.56 | -95.56 | -10.04 | 2.53e-02 | -0.93 | -7.11 | -7.07 | -0.97 | -0.49 |
| 8 | 62 | 297 | -4.88 | -97.21 | -97.21 | -4.88 | 0.30 | -0.47 | -7.15 | -7.11 | -0.52 | -0.54 |
| 8 | 62 | 298 | -2.27 | -99.15 | -99.15 | -2.28 | 0.46 | -0.24 | -7.21 | -7.20 | -0.25 | -0.27 |
| 8 | 62 | 299 | -45.92 | -76.72 | -74.67 | -47.98 | -7.68 | 2.20 | -12.17 | -5.25 | -4.72 | -7.18 |
| 8 | 62 | 300 | -16.80 | -98.63 | -93.08 | -22.34 | -20.57 | 1.82 | -3.62e-02 | 1.82 | -3.56e-02 | -3.37e-02 |
| 8 | 62 | 301 | -15.80 | -101.21 | -95.77 | -21.23 | -20.86 | 1.25 | 0.21 | 1.25 | 0.21 | 3.33e-02 |
| 8 | 62 | 302 | -14.19 | -102.00 | -97.49 | -18.70 | -19.39 | 0.78 | 0.15 | 0.78 | 0.15 | -3.13e-02 |
| 8 | 62 | 303 | -11.41 | -101.60 | -98.73 | -14.27 | -15.81 | 0.46 | -8.15e-02 | 0.39 | -1.45e-02 | -0.18 |
| 8 | 62 | 304 | -6.61 | -104.35 | -103.30 | -7.66 | -10.09 | 0.40 | -0.34 | 0.15 | -8.84e-02 | -0.35 |
| 8 | 62 | 305 | -3.80 | -110.66 | -110.22 | -4.24 | -6.78 | 0.88 | -0.96 | 9.21e-03 | -8.56e-02 | -0.92 |
| 8 | 62 | 306 | -21.24 | -94.84 | -93.88 | -22.20 | -8.35 | 18.38 | 2.51 | 18.37 | 2.52 | -0.31 |
| 8 | 62 | 307 | -17.95 | -98.42 | -97.29 | -19.08 | -9.47 | 18.22 | 2.24 | 18.21 | 2.25 | -0.30 |
| 8 | 62 | 308 | -14.79 | -100.33 | -99.35 | -15.77 | -9.07 | 17.96 | 2.09 | 17.95 | 2.10 | -0.36 |
| 8 | 62 | 309 | -11.59 | -102.25 | -101.69 | -12.15 | -7.10 | 17.79 | 2.03 | 17.78 | 2.04 | -0.34 |
| 8 | 62 | 310 | -6.78 | -105.75 | -105.60 | -6.93 | -3.85 | 17.77 | 1.28 | 17.76 | 1.28 | -0.34 |
| 8 | 62 | 311 | -4.85 | -118.41 | -118.37 | -4.88 | -1.97 | 18.21 | 0.65 | 18.20 | 0.66 | -0.38 |
| 8 | 62 | 312 | -22.87 | -95.83 | -95.80 | -22.90 | -1.58 | 9.35 | 1.74 | 9.35 | 1.74 | -0.11 |
| 8 | 62 | 313 | -18.44 | -98.67 | -98.65 | -18.46 | -1.31 | 9.62 | 1.05 | 9.61 | 1.07 | -0.34 |
| 8 | 62 | 314 | -14.85 | -100.22 | -100.21 | -14.86 | -0.80 | 9.87 | 1.14 | 9.85 | 1.16 | -0.39 |
| 8 | 62 | 315 | -11.11 | -102.26 | -102.26 | -11.11 | 0.13 | 10.05 | 1.12 | 10.04 | 1.13 | -0.31 |
| 8 | 62 | 316 | -5.97 | -106.10 | -106.08 | -5.98 | 1.33 | 10.23 | 0.74 | 10.22 | 0.74 | -0.13 |
| 8 | 62 | 317 | -3.53 | -113.29 | -113.26 | -3.56 | 1.90 | 10.63 | 0.48 | 10.62 | 0.50 | 0.37 |
| 8 | 62 | 318 | -25.90 | -96.03 | -95.92 | -26.01 | 2.79 | 3.42 | -0.94 | 3.10 | -0.62 | 1.14 |
| 8 | 62 | 319 | -21.43 | -91.62 | -91.62 | -21.43 | 0.37 | 2.19 | -0.83 | 2.18 | -0.83 | 0.13 |
| 8 | 62 | 320 | -15.94 | -93.65 | -93.58 | -16.01 | -2.30 | 1.84 | -0.17 | 1.84 | -0.17 | -9.96e-02 |
| 8 | 62 | 321 | -10.37 | -96.44 | -96.35 | -10.46 | -2.85 | 1.63 | 0.17 | 1.57 | 0.22 | -0.28 |
| 8 | 62 | 322 | -5.43 | -67.56 | -5.45 | -67.54 | 1.15 | 25.09 | 3.02 | 3.56 | 24.55 | -3.42 |
| 8 | 62 | 323 | -43.45 | -80.10 | -79.92 | -43.62 | 2.52 | 4.98 | -6.54 | -5.84 | 4.28 | 2.75 |
| 8 | 62 | 324 | -25.03 | -91.15 | -90.55 | -25.63 | -6.25 | 18.25 | 1.72 | 18.18 | 1.79 | -1.08 |
| 8 | 62 | 325 | -22.70 | -79.52 | -23.28 | -78.93 | 5.75 | 17.04 | 5.70 | 5.96 | 16.78 | 1.69 |
| 8 | 62 | 326 | -47.54 | -69.97 | -69.93 | -47.57 | -0.86 | 6.34 | -9.07 | -5.04 | 2.31 | 6.78 |
| 8 | 62 | 327 | -5.17 | -98.46 | -98.42 | -5.22 | -1.95 | 1.29 | 0.13 | 1.20 | 0.22 | -0.31 |
| 8 | 62 | 328 | -2.91 | -102.33 | -102.31 | -2.92 | -1.23 | 0.88 | 7.80e-02 | 0.85 | 0.11 | -0.15 |
| 8 | 62 | 329 | -18.48 | -95.45 | -90.70 | -23.23 | -18.52 | 2.40 | -0.53 | 2.40 | -0.53 | 2.43e-02 |
| 8 | 62 | 330 | -29.91 | -94.47 | -93.91 | -30.47 | 5.99 | -2.71 | -4.86 | -3.85 | -3.72 | -1.08 |
| 8 | 62 | 331 | -22.05 | -87.85 | -84.79 | -25.10 | -13.85 | 4.12 | -1.68 | 4.09 | -1.65 | 0.44 |
| 8 | 62 | 332 | -30.88 | -84.49 | -84.24 | -31.12 | -3.60 | 18.01 | -8.52e-02 | 17.77 | 0.16 | -2.08 |
| 8 | 62 | 333 | -33.27 | -78.56 | -78.32 | -33.50 | -3.25 | 6.20 | -0.68 | 6.18 | -0.66 | 0.37 |
| 8 | 62 | 334 | -40.63 | -71.45 | -71.45 | -40.63 | 0.27 | 23.27 | 2.40 | 23.02 | 2.65 | -2.27 |
| 8 | 62 | 335 | -38.78 | -52.74 | -44.93 | -46.59 | 6.93 | 14.51 | 5.23 | 11.31 | 8.42 | -4.41 |
| 8 | 62 | 336 | -46.05 | -56.18 | -48.81 | -53.42 | 4.51 | 21.30 | 10.52 | 21.30 | 10.52 | 2.36e-02 |
| 8 | 62 | 337 | -6.96 | -60.10 | -7.86 | -59.20 | 6.83 | 23.31 | 3.64 | 6.67 | 20.28 | -7.10 |
| 8 | 62 | 338 | -17.56 | -64.17 | -18.51 | -63.22 | 6.60 | 22.75 | 7.13 | 9.98 | 19.89 | -6.04 |
| 8 | 62 | 339 | -12.24 | -78.02 | -12.39 | -77.87 | 3.13 | 19.62 | 4.78 | 5.09 | 19.31 | -2.12 |
| 8 | 62 | 340 | -32.76 | -68.13 | -33.84 | -67.05 | 6.07 | 18.85 | 11.62 | 12.02 | 18.45 | 1.66 |
| 8 | 62 | 341 | -3.47 | -80.05 | -3.59 | -79.93 | 3.12 | 0.66 | -3.79 | 0.65 | -3.79 | -0.15 |
| 8 | 62 | 342 | -9.68 | -90.30 | -9.89 | -90.09 | 4.10 | 0.59 | -5.74 | 0.59 | -5.74 | -4.99e-03 |
| 8 | 62 | 343 | -18.78 | -89.58 | -19.46 | -88.91 | 6.88 | 0.97 | -7.35 | 0.48 | -6.87 | 1.95 |
| 8 | 62 | 344 | -26.98 | -91.58 | -91.54 | -27.02 | -1.62 | 6.88 | 1.96 | 6.88 | 1.96 | 4.45e-02 |
| 8 | 62 | 345 | -40.59 | -92.93 | -44.04 | -89.48 | 12.99 | 2.34 | -9.08 | 0.88 | -7.62 | 3.81 |
| 8 | 62 | 346 | -31.90 | -84.11 | -84.09 | -31.91 | 0.84 | 8.82 | -1.04 | 7.50 | 0.28 | -3.36 |
| 8 | 62 | 347 | -44.80 | -82.93 | -46.41 | -81.32 | 7.65 | 4.66 | -10.95 | 1.05 | -7.35 | 6.58 |
| 8 | 62 | 348 | -42.40 | -73.80 | -73.53 | -42.67 | 2.94 | 7.90 | -2.45 | 6.55 | -1.10 | -3.48 |
| 8 | 62 | 349 | -51.32 | -58.99 | -55.01 | -55.30 | 3.83 | 9.32 | 0.71 | 4.65 | 5.38 | 4.29 |
| 8 | 62 | 350 | -31.17 | -80.47 | -32.16 | -79.47 | 6.94 | 18.52 | 2.68 | 3.59 | 17.61 | 3.70 |
| 8 | 62 | 351 | -49.91 | -55.77 | -50.70 | -54.98 | 2.00 | 3.61 | -11.67 | -3.46 | -4.60 | 7.62 |
| 8 | 62 | 352 | -28.86 | -98.73 | -98.72 | -28.86 | 0.52 | 4.34 | -1.41 | 2.79 | 0.14 | 2.55 |
| 8 | 63 | 1 | -6.77 | -102.23 | -101.67 | -7.32 | -7.26 | -0.77 | -15.77 | -15.74 | -0.81 | -0.69 |
| 8 | 63 | 2 | -37.75 | -72.60 | -43.56 | -66.79 | 12.99 | 6.94 | -4.16e-02 | 0.10 | 6.79 | -1.00 |
| 8 | 63 | 3 | -4.53 | -90.86 | -90.86 | -4.54 | 0.50 | 0.11 | -2.34 | -2.34 | 0.10 | 5.91e-02 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 63 | 5 | -39.89 | -78.71 | -78.61 | -39.99 | 2.00 | -11.11 | -18.72 | -17.96 | -11.87 | 2.28 |
| 8 | 63 | 6 | -36.76 | -62.20 | -61.56 | -37.40 | 4.01 | -4.23 | -17.32 | -17.20 | -4.35 | 1.24 |
| 8 | 63 | 7 | -5.43 | -92.46 | -92.46 | -5.43 | 0.43 | -0.75 | -12.98 | -12.97 | -0.76 | -0.37 |
| 8 | 63 | 8 | -56.63 | -122.90 | -122.72 | -56.81 | -3.45 | -5.83 | -17.45 | -7.40 | -15.88 | -3.97 |
| 8 | 63 | 9 | -12.27 | -31.19 | -28.85 | -14.61 | -6.23 | -0.29 | -2.76 | -1.84 | -1.20 | -1.20 |
| 8 | 63 | 10 | -15.02 | -18.65 | -18.64 | -15.03 | 0.23 | -0.72 | -2.63 | -1.72 | -1.63 | 0.96 |
| 8 | 63 | 11 | -1.67 | -92.68 | -7.30 | -87.05 | 21.92 | -2.84 | -22.17 | -2.87 | -22.14 | 0.80 |
| 8 | 63 | 12 | -3.34 | -102.56 | -4.29 | -101.61 | 9.67 | -1.89 | -29.80 | -1.93 | -29.76 | 1.05 |
| 8 | 63 | 27 | -43.19 | -71.09 | -62.10 | -52.18 | -13.04 | -0.56 | -11.65 | -3.26 | -8.94 | -4.76 |
| 8 | 63 | 37 | -28.13 | -61.28 | -28.29 | -61.13 | 2.28 | 9.85e-02 | -12.20 | -1.74 | -10.36 | 4.39 |
| 8 | 63 | 47 | -33.11 | -88.56 | -34.75 | -86.92 | 9.40 | -1.01 | -19.70 | -1.69 | -19.02 | 3.50 |
| 8 | 63 | 57 | -24.36 | -94.35 | -28.68 | -90.03 | 16.85 | -2.02 | -21.82 | -2.20 | -21.65 | 1.85 |
| 8 | 63 | 61 | -11.58 | -92.92 | -17.04 | -87.45 | 20.36 | -2.58 | -21.84 | -2.63 | -21.79 | 0.98 |
| 8 | 63 | 68 | 3.08 | -95.51 | -2.04 | -90.39 | 21.88 | -2.92 | -24.16 | -2.96 | -24.12 | 0.96 |
| 8 | 63 | 72 | 1.60 | -95.51 | -2.16 | -91.75 | 18.73 | -3.09 | -25.72 | -3.14 | -25.67 | 1.04 |
| 8 | 63 | 76 | -36.49 | -87.17 | -84.60 | -39.05 | -11.12 | -1.37 | -8.28 | -8.24 | -1.41 | 0.51 |
| 8 | 63 | 83 | -1.96 | -82.84 | -82.78 | -2.02 | 2.19 | -2.98 | -11.58 | -10.47 | -4.09 | -2.89 |
| 8 | 63 | 87 | -3.09 | -85.26 | -85.20 | -3.15 | -2.33 | -1.24 | -12.73 | -12.46 | -1.51 | -1.74 |
| 8 | 63 | 91 | -7.34 | -91.24 | -91.20 | -7.38 | -1.83 | -1.52 | -13.51 | -13.43 | -1.60 | -1.02 |
| 8 | 63 | 95 | -8.43 | -91.84 | -91.84 | -8.43 | -0.59 | -1.61 | -13.58 | -13.56 | -1.63 | -0.53 |
| 8 | 63 | 99 | -6.83 | -92.31 | -92.31 | -6.83 | 6.99e-02 | -1.22 | -13.19 | -13.17 | -1.24 | -0.50 |
| 8 | 63 | 106 | -15.53 | -91.16 | -91.14 | -15.55 | 1.40 | 0.58 | -3.06 | -2.93 | 0.45 | 0.68 |
| 8 | 63 | 110 | -14.50 | -91.12 | -91.12 | -14.50 | 0.38 | -0.43 | -2.76 | -2.72 | -0.46 | 0.30 |
| 8 | 63 | 114 | -14.85 | -91.81 | -91.81 | -14.85 | -0.66 | -0.27 | -2.40 | -2.40 | -0.27 | 6.95e-03 |
| 8 | 63 | 118 | -13.18 | -93.08 | -93.08 | -13.19 | -0.74 | -7.46e-02 | -2.19 | -2.19 | -7.93e-02 | -9.87e-02 |
| 8 | 63 | 122 | -8.24 | -94.11 | -94.11 | -8.24 | 9.29e-05 | 4.12e-02 | -2.17 | -2.17 | 3.95e-02 | -6.10e-02 |
| 8 | 63 | 129 | -33.03 | -95.77 | -90.33 | -38.47 | -17.66 | -1.28 | -11.41 | -11.40 | -1.29 | -0.15 |
| 8 | 63 | 133 | -28.68 | -97.15 | -92.03 | -33.79 | -18.01 | -1.34 | -12.68 | -12.68 | -1.34 | -0.20 |
| 8 | 63 | 137 | -22.55 | -97.25 | -93.07 | -26.74 | -17.18 | -1.42 | -13.48 | -13.48 | -1.42 | -0.20 |
| 8 | 63 | 141 | -15.94 | -95.86 | -93.15 | -18.65 | -14.47 | -1.64 | -14.20 | -14.19 | -1.64 | -0.27 |
| 8 | 63 | 145 | -9.93 | -99.02 | -97.91 | -11.03 | -9.86 | -1.29 | -14.95 | -14.94 | -1.29 | -0.29 |
| 8 | 63 | 151 | -41.32 | -81.39 | -81.34 | -41.37 | 1.38 | -1.07 | -6.93 | -6.67 | -1.32 | 1.19 |
| 8 | 63 | 158 | -26.28 | -90.60 | -90.59 | -26.29 | 0.89 | 9.26 | -2.77 | -2.70 | 9.19 | 0.93 |
| 8 | 63 | 162 | -35.13 | -93.42 | -88.79 | -39.76 | -15.76 | -1.29 | -10.14 | -10.14 | -1.29 | 7.53e-02 |
| 8 | 63 | 171 | -3.06 | -104.30 | -4.72 | -102.64 | 12.86 | -2.67 | -28.21 | -2.69 | -28.19 | 0.70 |
| 8 | 63 | 176 | -18.41 | -90.12 | -90.11 | -18.43 | 1.04 | 3.52 | -3.49 | -3.34 | 3.38 | 0.99 |
| 8 | 63 | 180 | -12.39 | -117.08 | -113.13 | -16.34 | 19.95 | -5.93 | -13.33 | -8.78 | -10.48 | -3.60 |
| 8 | 63 | 221 | -28.02 | -78.55 | -77.24 | -29.32 | 8.03 | -0.60 | -13.68 | -12.83 | -1.45 | -3.23 |
| 8 | 63 | 222 | -39.70 | -90.94 | -89.65 | -41.00 | 8.05 | -1.23 | -17.62 | -17.58 | -1.27 | -0.86 |
| 8 | 63 | 223 | -44.18 | -88.79 | -88.34 | -44.62 | 4.43 | -1.01 | -17.76 | -17.55 | -1.22 | 1.88 |
| 8 | 63 | 224 | -37.70 | -77.53 | -77.52 | -37.70 | -0.48 | -4.29e-02 | -15.24 | -14.09 | -1.20 | 4.03 |
| 8 | 63 | 225 | -19.37 | -55.99 | -55.99 | -19.37 | 0.14 | 0.26 | -6.78 | -5.09 | -1.43 | -3.01 |
| 8 | 63 | 226 | -24.06 | -50.94 | -50.86 | -24.14 | -1.52 | 0.92 | -9.61 | -7.15 | -1.54 | 4.46 |
| 8 | 63 | 239 | -37.30 | -74.87 | -40.74 | -71.44 | 10.83 | 15.68 | 2.22 | 2.38 | 15.52 | -1.46 |
| 8 | 63 | 270 | -56.64 | -78.89 | -78.20 | -57.33 | -3.84 | 10.46 | 6.51 | 9.57 | 7.40 | -1.64 |
| 8 | 63 | 271 | -44.19 | -86.82 | -86.78 | -44.22 | 1.20 | 3.97 | -7.16 | -6.86 | 3.66 | 1.83 |
| 8 | 63 | 272 | -28.08 | -96.62 | -95.91 | -28.79 | -6.97 | 8.37 | -10.38 | -0.39 | -1.63 | 9.35 |
| 8 | 63 | 273 | -44.01 | -62.58 | -48.28 | -58.31 | 7.82 | 17.49 | -5.75 | -5.70 | 17.44 | 1.07 |
| 8 | 63 | 274 | -31.55 | -75.55 | -35.79 | -71.31 | 12.98 | 18.76 | -0.16 | -4.84e-02 | 18.65 | 1.43 |
| 8 | 63 | 275 | -50.83 | -62.16 | -52.71 | -60.28 | 4.21 | 17.10 | -0.98 | 0.97 | 15.15 | -5.60 |
| 8 | 63 | 276 | -13.41 | -90.87 | -18.08 | -86.20 | 18.44 | -0.39 | -7.57 | -1.25 | -6.70 | 2.34 |
| 8 | 63 | 277 | -18.07 | -88.19 | -23.55 | -82.71 | 18.82 | -0.72 | -5.63 | -1.13 | -5.22 | 1.35 |
| 8 | 63 | 278 | -24.31 | -87.80 | -29.41 | -82.70 | 17.26 | 2.02e-02 | -5.63 | -9.49e-02 | -5.52 | 0.80 |
| 8 | 63 | 279 | -24.33 | -103.69 | -101.50 | -26.53 | -13.01 | 10.18 | -7.35 | 5.42 | -2.59 | 7.80 |
| 8 | 63 | 280 | -36.90 | -82.17 | -80.66 | -38.42 | -8.14 | 5.11 | -9.93 | -1.45 | -3.37 | 7.46 |
| 8 | 63 | 281 | -56.82 | -66.56 | -66.09 | -57.28 | 2.07 | 14.38 | 12.00 | 13.24 | 13.14 | 1.19 |
| 8 | 63 | 282 | -50.49 | -63.70 | -63.14 | -51.05 | -2.64 | 5.51 | -2.78 | -0.83 | 3.56 | -3.52 |
| 8 | 63 | 283 | -54.82 | -98.00 | -89.86 | -62.96 | -16.89 | 1.04 | -6.80 | 0.39 | -6.16 | -2.15 |
| 8 | 63 | 284 | -38.34 | -68.14 | -42.80 | -63.68 | 10.63 | 18.47 | -3.88 | -0.56 | 15.15 | 7.95 |
| 8 | 63 | 285 | -43.01 | -82.40 | -80.29 | -45.12 | -8.87 | 15.18 | 1.72 | 13.17 | 3.74 | 4.80 |
| 8 | 63 | 286 | -53.66 | -65.89 | -65.50 | -54.06 | -2.17 | 16.39 | 10.26 | 16.04 | 10.61 | -1.43 |
| 8 | 63 | 287 | -43.75 | -73.92 | -45.61 | -72.05 | 7.27 | 12.78 | 7.10 | 7.10 | 12.77 | -0.18 |
| 8 | 63 | 288 | -45.23 | -77.94 | -77.21 | -45.96 | 4.81 | 6.58 | -7.79 | -3.33 | 2.11 | -6.65 |
| 8 | 63 | 289 | -53.95 | -66.62 | -54.32 | -66.24 | 2.13 | 13.64 | 4.38 | 8.72 | 9.30 | 4.62 |
| 8 | 63 | 290 | -53.97 | -72.70 | -72.54 | -54.12 | 1.68 | 15.11 | 11.56 | 14.66 | 12.01 | -1.19 |
| 8 | 63 | 291 | -43.68 | -84.16 | -83.15 | -44.69 | 6.31 | 5.75 | -3.51 | -3.06 | 5.31 | -1.98 |
| 8 | 63 | 292 | -22.67 | -112.68 | -112.51 | -22.83 | 3.86 | -0.15 | -6.81 | -0.50 | -6.46 | 1.48 |
| 8 | 63 | 293 | -56.06 | -63.13 | -57.04 | -62.15 | 2.44 | 17.03 | 9.95 | 11.62 | 15.36 | -3.01 |
| 8 | 63 | 294 | -17.62 | -86.54 | -86.42 | -17.74 | -2.84 | -1.15 | -3.71 | -3.46 | -1.40 | -0.76 |
| 8 | 63 | 295 | -11.17 | -90.79 | -90.62 | -11.33 | -3.62 | -0.77 | -4.39 | -4.28 | -0.87 | -0.61 |
| 8 | 63 | 296 | -7.31 | -91.96 | -91.88 | -7.40 | -2.75 | -0.58 | -4.64 | -4.55 | -0.67 | -0.62 |
| 8 | 63 | 297 | -3.72 | -92.16 | -92.14 | -3.75 | -1.48 | -0.19 | -4.56 | -4.46 | -0.29 | -0.66 |
| 8 | 63 | 298 | -1.84 | -93.80 | -93.79 | -1.84 | -0.68 | -5.81e-02 | -4.44 | -4.39 | -0.10 | -0.45 |
| 8 | 63 | 299 | -48.30 | -70.65 | -69.27 | -49.68 | -5.38 | 3.10 | -11.91 | -4.03 | -4.78 | -7.49 |
| 8 | 63 | 300 | -27.28 | -92.11 | -89.91 | -29.48 | -11.74 | 1.74 | -0.72 | 0.80 | 0.23 | -1.20 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 63 | 301 | -23.46 | -94.22 | -91.91 | -25.78 | -12.59 | 1.21 | -0.48 | 0.35 | 0.38 | -0.84 |
| 8 | 63 | 302 | -19.14 | -95.13 | -93.14 | -21.13 | -12.14 | 0.80 | -0.66 | -6.66e-02 | 0.20 | -0.72 |
| 8 | 63 | 303 | -14.19 | -95.26 | -93.99 | -15.46 | -10.07 | 0.51 | -1.07 | -0.50 | -6.12e-02 | -0.76 |
| 8 | 63 | 304 | -7.66 | -98.44 | -97.97 | -8.13 | -6.56 | 0.39 | -1.37 | -0.84 | -0.14 | -0.81 |
| 8 | 63 | 305 | -4.30 | -105.50 | -105.29 | -4.51 | -4.54 | 0.73 | -1.95 | -1.09 | -0.13 | -1.25 |
| 8 | 63 | 306 | -25.43 | -90.52 | -90.45 | -25.50 | -2.16 | 14.33 | 2.92 | 14.22 | 3.03 | -1.09 |
| 8 | 63 | 307 | -21.42 | -92.81 | -92.65 | -21.58 | -3.35 | 14.83 | 2.39 | 14.78 | 2.44 | -0.78 |
| 8 | 63 | 308 | -17.23 | -94.04 | -93.89 | -17.38 | -3.37 | 14.89 | 1.91 | 14.83 | 1.97 | -0.86 |
| 8 | 63 | 309 | -12.90 | -95.37 | -95.31 | -12.96 | -2.23 | 14.95 | 1.80 | 14.89 | 1.85 | -0.82 |
| 8 | 63 | 310 | -7.20 | -97.72 | -97.71 | -7.21 | -0.74 | 15.10 | 1.16 | 15.06 | 1.20 | -0.74 |
| 8 | 63 | 311 | -4.81 | -108.17 | -108.17 | -4.81 | -6.62e-02 | 15.62 | 0.60 | 15.59 | 0.64 | -0.71 |
| 8 | 63 | 312 | -23.27 | -92.43 | -92.12 | -23.57 | 4.58 | 5.53 | 2.82 | 5.53 | 2.82 | 1.79e-02 |
| 8 | 63 | 313 | -19.31 | -93.81 | -93.55 | -19.57 | 4.36 | 6.27 | 1.17 | 6.23 | 1.21 | -0.44 |
| 8 | 63 | 314 | -15.51 | -94.30 | -94.08 | -15.73 | 4.23 | 6.84 | 0.88 | 6.77 | 0.96 | -0.65 |
| 8 | 63 | 315 | -11.20 | -95.12 | -94.90 | -11.42 | 4.35 | 7.34 | 0.93 | 7.28 | 0.98 | -0.60 |
| 8 | 63 | 316 | -5.83 | -96.45 | -96.26 | -6.02 | 4.13 | 7.76 | 0.66 | 7.74 | 0.69 | -0.41 |
| 8 | 63 | 317 | -3.13 | -99.05 | -98.91 | -3.28 | 3.75 | 8.26 | 0.48 | 8.25 | 0.48 | 8.70e-02 |
| 8 | 63 | 318 | -21.24 | -90.00 | -89.91 | -21.33 | -2.52 | 3.33 | 0.20 | 2.97 | 0.56 | 1.01 |
| 8 | 63 | 319 | -17.24 | -87.83 | -87.41 | -17.66 | -5.43 | 1.95 | -0.56 | 1.95 | -0.56 | 2.64e-02 |
| 8 | 63 | 320 | -12.43 | -90.36 | -89.65 | -13.14 | -7.41 | 1.44 | -0.25 | 1.42 | -0.22 | -0.19 |
| 8 | 63 | 321 | -7.98 | -92.22 | -91.65 | -8.55 | -6.93 | 1.22 | -1.31e-04 | 1.05 | 0.17 | -0.42 |
| 8 | 63 | 322 | -6.00 | -92.60 | -6.11 | -92.49 | 3.14 | 17.81 | 2.38 | 2.39 | 17.81 | 0.26 |
| 8 | 63 | 323 | -45.58 | -80.31 | -80.01 | -45.88 | 3.23 | 6.28 | -4.12 | -3.25 | 5.42 | 2.87 |
| 8 | 63 | 324 | -29.26 | -87.94 | -87.94 | -29.26 | -2.19e-02 | 13.72 | 1.71 | 13.21 | 2.22 | -2.43 |
| 8 | 63 | 325 | -19.38 | -81.81 | -21.58 | -79.62 | 11.49 | 15.26 | 1.61 | 2.81 | 14.06 | 3.87 |
| 8 | 63 | 326 | -50.14 | -68.97 | -68.95 | -50.16 | -0.67 | 8.16 | -7.76 | -3.08 | 3.48 | 7.26 |
| 8 | 63 | 327 | -4.00 | -92.45 | -92.19 | -4.25 | -4.76 | 0.97 | -0.14 | 0.63 | 0.20 | -0.51 |
| 8 | 63 | 328 | -2.10 | -93.09 | -92.97 | -2.22 | -3.29 | 0.67 | -0.27 | 0.29 | 0.11 | -0.46 |
| 8 | 63 | 329 | -31.22 | -89.80 | -88.16 | -32.86 | -9.67 | 2.20 | -1.11 | 1.43 | -0.35 | -1.40 |
| 8 | 63 | 330 | -24.18 | -87.69 | -87.68 | -24.20 | 1.01 | -1.43 | -3.29 | -1.73 | -2.99 | -0.68 |
| 8 | 63 | 331 | -36.16 | -84.31 | -83.67 | -36.79 | -5.50 | 3.69 | -1.29 | 3.40 | -1.00 | -1.15 |
| 8 | 63 | 332 | -34.72 | -83.67 | -83.53 | -34.86 | 2.68 | 13.97 | -0.82 | 12.88 | 0.27 | -3.87 |
| 8 | 63 | 333 | -46.60 | -77.44 | -77.08 | -46.96 | 3.33 | 6.02 | 0.98 | 5.69 | 1.30 | -1.24 |
| 8 | 63 | 334 | -42.82 | -73.77 | -72.51 | -44.08 | 6.11 | 18.79 | 1.38 | 18.30 | 1.87 | -2.89 |
| 8 | 63 | 335 | -39.73 | -66.78 | -45.80 | -60.71 | 11.29 | 11.91 | 6.48 | 8.53 | 9.85 | -2.63 |
| 8 | 63 | 336 | -43.42 | -63.44 | -50.71 | -56.15 | 9.63 | 15.98 | 7.99 | 15.52 | 8.45 | 1.88 |
| 8 | 63 | 337 | -8.51 | -89.40 | -9.55 | -88.36 | 9.11 | 20.56 | 4.59 | 4.96 | 20.19 | -2.43 |
| 8 | 63 | 338 | -17.67 | -77.78 | -19.35 | -76.10 | 9.92 | 18.43 | 6.86 | 7.07 | 18.21 | -1.57 |
| 8 | 63 | 339 | -11.07 | -89.27 | -11.64 | -88.69 | 6.70 | 14.89 | 3.02 | 3.13 | 14.77 | 1.15 |
| 8 | 63 | 340 | -31.60 | -72.07 | -34.86 | -68.81 | 11.02 | 17.76 | 5.24 | 7.17 | 15.84 | 4.52 |
| 8 | 63 | 341 | -2.38 | -100.29 | -2.82 | -99.85 | 6.53 | 8.77e-02 | -10.22 | -0.23 | -9.91 | 1.77 |
| 8 | 63 | 342 | -5.37 | -98.50 | -6.42 | -97.45 | 9.82 | -0.24 | -9.95 | -0.51 | -9.68 | 1.59 |
| 8 | 63 | 343 | -9.58 | -91.82 | -12.58 | -88.82 | 15.42 | -0.13 | -8.99 | -0.90 | -8.23 | 2.49 |
| 8 | 63 | 344 | -26.31 | -89.80 | -89.39 | -26.72 | 5.09 | 3.98 | 2.45 | 2.55 | 3.88 | -0.39 |
| 8 | 63 | 345 | -30.75 | -87.37 | -34.14 | -83.98 | 13.43 | 2.10 | -7.06 | 1.57 | -6.53 | 2.14 |
| 8 | 63 | 346 | -31.18 | -84.42 | -83.47 | -32.13 | 7.06 | 6.30 | -4.47 | 1.79 | 3.83e-02 | -5.31 |
| 8 | 63 | 347 | -38.77 | -80.25 | -39.67 | -79.35 | 6.05 | 5.34 | -9.68 | 2.32 | -6.67 | 6.01 |
| 8 | 63 | 348 | -38.63 | -77.40 | -74.99 | -41.04 | 9.36 | 2.48 | -6.22 | -2.50e-02 | -3.71 | -3.94 |
| 8 | 63 | 349 | -45.23 | -65.66 | -57.92 | -52.97 | 9.91 | 6.72 | -6.11 | -1.67 | 2.28 | 6.10 |
| 8 | 63 | 350 | -26.13 | -78.99 | -29.68 | -75.44 | 13.22 | 17.05 | -0.74 | 0.44 | 15.87 | 4.43 |
| 8 | 63 | 351 | -47.95 | -57.55 | -47.95 | -57.55 | -0.13 | 5.02 | -11.86 | -2.53 | -4.30 | 8.39 |
| 8 | 63 | 352 | -23.94 | -92.60 | -92.48 | -24.06 | -2.88 | 5.24 | -1.02 | 2.10 | 2.12 | 3.13 |
| 8 | 65 | 1 | -6.49 | -103.98 | -103.35 | -7.12 | -7.82 | -0.87 | -18.06 | -17.99 | -0.94 | -1.08 |
| 8 | 65 | 2 | -40.30 | -66.94 | -45.36 | -61.88 | 10.45 | 11.07 | -4.48 | -4.47 | 11.06 | -0.46 |
| 8 | 65 | 3 | -3.98 | -95.80 | -95.79 | -3.99 | 0.93 | 0.18 | -0.80 | -0.77 | 0.15 | 0.18 |
| 8 | 65 | 5 | -48.51 | -81.31 | -81.26 | -48.57 | 1.34 | -2.31 | -7.29 | -6.50 | -3.09 | 1.82 |
| 8 | 65 | 6 | -46.45 | -62.81 | -62.03 | -47.23 | 3.49 | 4.94 | -4.45 | -4.32 | 4.82 | 1.07 |
| 8 | 65 | 7 | -5.20 | -92.85 | -92.84 | -5.21 | 0.88 | -0.75 | -13.06 | -13.06 | -0.76 | -0.22 |
| 8 | 65 | 8 | -70.92 | -140.30 | -140.29 | -70.93 | 0.85 | -5.02 | -14.56 | -8.21 | -11.37 | -4.50 |
| 8 | 65 | 9 | -6.44 | -34.08 | -29.67 | -10.86 | -10.12 | -0.92 | -1.94 | -1.94 | -0.92 | -7.45e-02 |
| 8 | 65 | 10 | -2.65 | -18.06 | -13.84 | -6.88 | 6.87 | -0.36 | -3.26 | -1.83 | -1.78 | -1.45 |
| 8 | 65 | 11 | -15.99 | -99.51 | -22.30 | -93.21 | 22.07 | -2.96 | -25.44 | -2.98 | -25.42 | 0.61 |
| 8 | 65 | 12 | -6.25 | -99.93 | -6.66 | -99.51 | 6.22 | -2.12 | -30.69 | -2.14 | -30.67 | 0.71 |
| 8 | 65 | 27 | -38.58 | -76.32 | -69.61 | -45.28 | -14.42 | -0.33 | -8.28 | -3.06 | -5.56 | -3.77 |
| 8 | 65 | 37 | -22.66 | -58.48 | -24.96 | -56.17 | 8.79 | -1.74 | -9.74 | -1.97 | -9.50 | 1.35 |
| 8 | 65 | 47 | -31.86 | -91.07 | -36.15 | -86.77 | 15.37 | -1.89 | -18.83 | -2.05 | -18.66 | 1.67 |
| 8 | 65 | 57 | -29.48 | -100.84 | -36.76 | -93.55 | 21.60 | -2.36 | -23.06 | -2.45 | -22.97 | 1.32 |
| 8 | 65 | 61 | -22.61 | -100.40 | -30.22 | -92.79 | 23.11 | -2.71 | -24.27 | -2.75 | -24.24 | 0.89 |
| 8 | 65 | 68 | -10.96 | -99.57 | -15.51 | -95.02 | 19.57 | -3.06 | -26.76 | -3.07 | -26.74 | 0.57 |
| 8 | 65 | 72 | -8.87 | -97.48 | -11.49 | -94.86 | 15.03 | -3.32 | -27.65 | -3.34 | -27.64 | 0.68 |
| 8 | 65 | 76 | -42.01 | -91.67 | -88.65 | -45.03 | -11.87 | -2.45 | -12.34 | -12.33 | -2.45 | -0.17 |
| 8 | 65 | 83 | -16.21 | -88.83 | -88.01 | -17.03 | 7.68 | -2.28 | -12.40 | -11.48 | -3.19 | -2.91 |
| 8 | 65 | 87 | -10.72 | -86.59 | -86.58 | -10.73 | 0.41 | -1.28 | -13.53 | -13.29 | -1.51 | -1.68 |
| 8 | 65 | 91 | -10.06 | -92.03 | -92.03 | -10.07 | -0.36 | -1.60 | -14.15 | -14.09 | -1.66 | -0.89 |
| 8 | 65 | 95 | -9.03 | -92.59 | -92.59 | -9.04 | 0.46 | -1.67 | -13.98 | -13.97 | -1.69 | -0.39 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 65 | 99 | -6.83 | -93.51 | -93.50 | -6.83 | 0.72 | -1.25 | -13.39 | -13.38 | -1.26 | -0.36 |
| 8 | 65 | 106 | -19.52 | -95.78 | -95.65 | -19.64 | 3.07 | 1.37 | -0.20 | 0.90 | 0.26 | 0.72 |
| 8 | 65 | 110 | -16.32 | -94.59 | -94.52 | -16.39 | 2.35 | 0.96 | -0.28 | 0.78 | -0.10 | 0.44 |
| 8 | 65 | 114 | -14.56 | -94.37 | -94.36 | -14.58 | 1.17 | 0.60 | -3.20e-02 | 0.54 | 2.82e-02 | 0.19 |
| 8 | 65 | 118 | -11.93 | -95.48 | -95.48 | -11.93 | 0.65 | 0.23 | 7.46e-02 | 0.20 | 0.11 | 6.80e-02 |
| 8 | 65 | 122 | -7.17 | -97.07 | -97.06 | -7.18 | 0.78 | 0.16 | -0.28 | -0.27 | 0.15 | 6.82e-02 |
| 8 | 65 | 129 | -31.38 | -97.49 | -92.35 | -36.52 | -17.71 | -1.71 | -14.40 | -14.36 | -1.75 | -0.70 |
| 8 | 65 | 133 | -26.22 | -98.42 | -93.49 | -31.15 | -18.20 | -1.66 | -15.25 | -15.20 | -1.71 | -0.81 |
| 8 | 65 | 137 | -20.36 | -98.59 | -94.46 | -24.49 | -17.49 | -1.69 | -15.89 | -15.84 | -1.74 | -0.82 |
| 8 | 65 | 141 | -14.69 | -97.70 | -94.98 | -17.42 | -14.79 | -1.87 | -16.52 | -16.47 | -1.92 | -0.84 |
| 8 | 65 | 145 | -9.54 | -101.84 | -100.68 | -10.70 | -10.29 | -1.46 | -17.24 | -17.20 | -1.50 | -0.74 |
| 8 | 65 | 151 | -49.16 | -85.10 | -85.09 | -49.17 | -0.73 | 0.46 | -10.73 | -10.64 | 0.37 | -1.00 |
| 8 | 65 | 158 | -34.92 | -95.55 | -95.51 | -34.96 | 1.61 | 5.70 | 0.89 | 1.04 | 5.55 | 0.84 |
| 8 | 65 | 162 | -35.55 | -95.79 | -91.23 | -40.11 | -15.93 | -1.47 | -13.55 | -13.53 | -1.49 | -0.54 |
| 8 | 65 | 171 | -8.20 | -102.43 | -9.09 | -101.54 | 9.11 | -2.88 | -29.19 | -2.89 | -29.18 | 0.49 |
| 8 | 65 | 176 | -23.99 | -94.91 | -94.84 | -24.06 | 2.32 | 2.25 | 0.12 | 0.61 | 1.75 | 0.90 |
| 8 | 65 | 180 | -27.25 | -135.73 | -127.24 | -35.74 | 29.13 | -4.86 | -13.05 | -10.15 | -7.75 | -3.92 |
| 8 | 65 | 221 | -19.21 | -79.44 | -77.70 | -20.95 | 10.09 | -1.60 | -12.98 | -12.92 | -1.67 | -0.83 |
| 8 | 65 | 222 | -29.64 | -91.24 | -88.93 | -31.95 | 11.70 | -1.56 | -17.40 | -17.37 | -1.59 | 0.67 |
| 8 | 65 | 223 | -33.48 | -88.35 | -87.09 | -34.74 | 8.23 | -1.33 | -17.09 | -16.84 | -1.58 | 1.98 |
| 8 | 65 | 224 | -26.66 | -75.03 | -74.76 | -26.93 | 3.59 | -1.18 | -13.47 | -12.99 | -1.66 | 2.38 |
| 8 | 65 | 225 | -13.65 | -58.91 | -58.86 | -13.70 | -1.44 | -1.10 | -5.34 | -5.12 | -1.32 | -0.95 |
| 8 | 65 | 226 | -14.00 | -47.04 | -46.54 | -14.49 | 4.02 | -1.32 | -6.85 | -6.33 | -1.83 | 1.61 |
| 8 | 65 | 239 | -38.58 | -81.68 | -41.89 | -78.37 | 11.48 | 6.50 | 2.09 | 2.34 | 6.25 | 1.02 |
| 8 | 65 | 270 | -62.92 | -81.56 | -81.18 | -63.30 | -2.62 | 7.77 | 3.92 | 4.64 | 7.04 | -1.51 |
| 8 | 65 | 271 | -51.88 | -91.46 | -91.43 | -51.91 | 1.03 | 3.41 | -1.45 | -0.93 | 2.89 | 1.50 |
| 8 | 65 | 272 | -34.58 | -102.82 | -102.42 | -34.98 | -5.18 | 7.01 | -4.18 | 2.54 | 0.28 | 5.48 |
| 8 | 65 | 273 | -45.60 | -68.82 | -48.38 | -66.04 | 7.54 | 13.52 | 0.14 | 0.23 | 13.43 | 1.05 |
| 8 | 65 | 274 | -33.70 | -82.42 | -37.38 | -78.75 | 12.86 | 7.50 | 0.64 | 0.93 | 7.21 | 1.38 |
| 8 | 65 | 275 | -51.37 | -69.23 | -52.51 | -68.09 | 4.37 | 11.56 | 2.97 | 3.08 | 11.46 | -0.96 |
| 8 | 65 | 276 | -19.52 | -94.94 | -23.47 | -91.00 | 16.79 | -1.49 | -13.42 | -1.63 | -13.27 | 1.32 |
| 8 | 65 | 277 | -23.93 | -94.46 | -29.41 | -88.98 | 18.87 | -1.16 | -12.50 | -1.29 | -12.37 | 1.20 |
| 8 | 65 | 278 | -28.21 | -94.37 | -34.31 | -88.27 | 19.14 | -0.44 | -12.04 | -0.65 | -11.83 | 1.54 |
| 8 | 65 | 279 | -30.63 | -111.90 | -109.95 | -32.58 | -12.42 | 6.82 | -3.39 | 3.65 | -0.23 | 4.72 |
| 8 | 65 | 280 | -44.32 | -85.45 | -83.92 | -45.85 | -7.79 | 5.99 | -1.54 | 2.50 | 1.96 | 3.76 |
| 8 | 65 | 281 | -57.42 | -67.44 | -65.34 | -59.52 | 4.08 | 10.06 | 4.55 | 6.59 | 8.01 | 2.66 |
| 8 | 65 | 282 | -57.65 | -64.69 | -63.53 | -58.80 | -2.60 | 7.78 | 2.27 | 2.66 | 7.38 | -1.42 |
| 8 | 65 | 283 | -64.01 | -106.12 | -98.29 | -71.84 | -16.38 | 0.52 | -5.56 | -1.78 | -3.26 | -2.95 |
| 8 | 65 | 284 | -39.45 | -73.35 | -42.84 | -69.96 | 10.18 | 12.61 | 0.17 | 1.13 | 11.65 | 3.32 |
| 8 | 65 | 285 | -49.99 | -86.00 | -83.66 | -52.34 | -8.88 | 10.27 | 4.20 | 8.70 | 5.77 | 2.66 |
| 8 | 65 | 286 | -60.36 | -66.34 | -65.82 | -60.88 | -1.68 | 9.90 | 9.54 | 9.54 | 9.90 | -3.91e-03 |
| 8 | 65 | 287 | -43.71 | -79.54 | -46.06 | -77.19 | 8.87 | 6.89 | 2.36 | 4.20 | 5.06 | 2.22 |
| 8 | 65 | 288 | -42.23 | -80.10 | -78.76 | -43.57 | 7.00 | 3.60 | -7.68 | -5.51 | 1.43 | -4.45 |
| 8 | 65 | 289 | -52.11 | -68.90 | -53.69 | -67.33 | 4.89 | 8.45 | -1.40 | 3.83 | 3.22 | 4.92 |
| 8 | 65 | 290 | -57.04 | -73.26 | -72.53 | -57.76 | 3.35 | 9.14 | 7.70 | 7.73 | 9.11 | 0.20 |
| 8 | 65 | 291 | -40.20 | -84.95 | -82.90 | -42.26 | 9.37 | 3.20 | -6.22 | -6.22 | 3.20 | -0.20 |
| 8 | 65 | 292 | -30.09 | -126.12 | -125.21 | -31.01 | 9.31 | -1.70 | -4.80 | -1.71 | -4.79 | 0.21 |
| 8 | 65 | 293 | -55.65 | -69.12 | -56.56 | -68.21 | 3.39 | 10.60 | 7.20 | 7.23 | 10.57 | 0.32 |
| 8 | 65 | 294 | -23.81 | -88.66 | -88.64 | -23.83 | 1.15 | -1.24 | -4.41 | -4.15 | -1.50 | -0.87 |
| 8 | 65 | 295 | -15.55 | -91.96 | -91.95 | -15.56 | -0.94 | -0.83 | -4.75 | -4.63 | -0.95 | -0.68 |
| 8 | 65 | 296 | -9.61 | -93.10 | -93.09 | -9.62 | -0.85 | -0.58 | -4.64 | -4.53 | -0.69 | -0.67 |
| 8 | 65 | 297 | -4.62 | -93.78 | -93.78 | -4.62 | -0.35 | -0.17 | -4.20 | -4.09 | -0.28 | -0.66 |
| 8 | 65 | 298 | -2.16 | -95.02 | -95.02 | -2.16 | 3.54e-02 | -3.64e-02 | -3.82 | -3.77 | -7.98e-02 | -0.40 |
| 8 | 65 | 299 | -43.77 | -75.20 | -74.27 | -44.71 | -5.34 | 1.96 | -9.64 | -4.66 | -3.01 | -5.74 |
| 8 | 65 | 300 | -28.26 | -94.69 | -92.30 | -30.64 | -12.35 | 0.28 | -3.09 | -2.48 | -0.33 | -1.30 |
| 8 | 65 | 301 | -23.85 | -96.12 | -93.67 | -26.30 | -13.07 | 0.34 | -2.95 | -2.43 | -0.18 | -1.20 |
| 8 | 65 | 302 | -19.19 | -96.81 | -94.73 | -21.27 | -12.54 | 0.37 | -2.86 | -2.36 | -0.13 | -1.17 |
| 8 | 65 | 303 | -14.00 | -97.23 | -95.90 | -15.33 | -10.44 | 0.37 | -2.85 | -2.30 | -0.18 | -1.21 |
| 8 | 65 | 304 | -7.44 | -101.10 | -100.58 | -7.96 | -6.94 | 0.38 | -2.78 | -2.25 | -0.15 | -1.18 |
| 8 | 65 | 305 | -4.08 | -107.84 | -107.60 | -4.32 | -4.95 | 0.74 | -3.13 | -2.28 | -0.11 | -1.60 |
| 8 | 65 | 306 | -27.37 | -93.32 | -93.12 | -27.56 | -3.58 | 11.68 | 1.83 | 11.64 | 1.87 | -0.65 |
| 8 | 65 | 307 | -22.95 | -94.90 | -94.63 | -23.22 | -4.39 | 12.68 | 1.71 | 12.65 | 1.73 | -0.53 |
| 8 | 65 | 308 | -18.28 | -95.78 | -95.57 | -18.49 | -4.10 | 13.53 | 1.71 | 13.50 | 1.74 | -0.58 |
| 8 | 65 | 309 | -13.52 | -97.30 | -97.20 | -13.62 | -2.84 | 14.37 | 1.85 | 14.34 | 1.88 | -0.57 |
| 8 | 65 | 310 | -7.49 | -100.27 | -100.26 | -7.51 | -1.21 | 15.23 | 1.28 | 15.20 | 1.30 | -0.59 |
| 8 | 65 | 311 | -5.01 | -111.56 | -111.56 | -5.01 | -0.42 | 16.24 | 0.72 | 16.21 | 0.75 | -0.67 |
| 8 | 65 | 312 | -26.32 | -95.25 | -95.17 | -26.39 | 2.32 | 6.97 | 1.76 | 6.95 | 1.78 | 0.32 |
| 8 | 65 | 313 | -21.44 | -96.07 | -95.99 | -21.52 | 2.49 | 7.67 | 1.02 | 7.66 | 1.02 | 0.12 |
| 8 | 65 | 314 | -16.84 | -96.23 | -96.13 | -16.94 | 2.84 | 8.31 | 1.10 | 8.31 | 1.10 | 2.69e-02 |
| 8 | 65 | 315 | -11.98 | -97.12 | -96.99 | -12.11 | 3.36 | 8.88 | 1.19 | 8.88 | 1.19 | 1.63e-02 |
| 8 | 65 | 316 | -6.23 | -99.08 | -98.95 | -6.36 | 3.46 | 9.39 | 0.83 | 9.39 | 0.83 | 6.86e-02 |
| 8 | 65 | 317 | -3.50 | -103.44 | -103.34 | -3.61 | 3.22 | 10.03 | 0.54 | 10.01 | 0.56 | 0.46 |
| 8 | 65 | 318 | -25.99 | -96.47 | -96.31 | -26.15 | 3.34 | 4.27 | -1.24e-02 | 4.18 | 7.62e-02 | 0.61 |
| 8 | 65 | 319 | -21.76 | -91.10 | -91.09 | -21.77 | 0.39 | 3.15 | -0.53 | 3.13 | -0.51 | -0.26 |
| 8 | 65 | 320 | -16.19 | -92.17 | -92.07 | -16.29 | -2.73 | 2.68 | -0.19 | 2.59 | -9.70e-02 | -0.50 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 65 | 321 | -10.28 | -94.05 | -93.89 | -10.43 | -3.59 | 2.42 | 7.93e-03 | 2.19 | 0.23 | -0.70 |
| 8 | 65 | 322 | -5.63 | -83.03 | -5.68 | -82.99 | 1.84 | 7.41 | 0.35 | 0.68 | 7.08 | 1.50 |
| 8 | 65 | 323 | -41.50 | -80.24 | -79.13 | -42.60 | 6.45 | 3.58 | -7.37 | -6.18 | 2.40 | 3.40 |
| 8 | 65 | 324 | -31.56 | -91.44 | -91.38 | -31.62 | -1.81 | 10.95 | 1.43 | 10.74 | 1.63 | -1.39 |
| 8 | 65 | 325 | -20.87 | -85.21 | -22.53 | -83.56 | 10.19 | 6.42 | 0.25 | 0.85 | 5.82 | 1.83 |
| 8 | 65 | 326 | -45.82 | -67.63 | -67.19 | -46.25 | 3.05 | 3.87 | -8.97 | -5.21 | 0.12 | 5.84 |
| 8 | 65 | 327 | -4.98 | -95.02 | -94.93 | -5.07 | -2.80 | 2.06 | -6.54e-02 | 1.77 | 0.22 | -0.73 |
| 8 | 65 | 328 | -2.59 | -96.54 | -96.49 | -2.64 | -2.07 | 1.71 | -0.12 | 1.46 | 0.12 | -0.63 |
| 8 | 65 | 329 | -32.72 | -92.93 | -91.02 | -34.63 | -10.55 | 0.12 | -3.10 | -2.31 | -0.66 | -1.38 |
| 8 | 65 | 330 | -29.54 | -93.98 | -93.32 | -30.20 | 6.52 | -1.62 | -3.81 | -2.63 | -2.79 | -1.09 |
| 8 | 65 | 331 | -37.62 | -88.35 | -87.45 | -38.52 | -6.70 | 0.57 | -2.32 | -1.31 | -0.45 | -1.38 |
| 8 | 65 | 332 | -37.49 | -87.42 | -87.41 | -37.50 | 0.90 | 10.43 | 1.13 | 9.83 | 1.72 | -2.27 |
| 8 | 65 | 333 | -47.75 | -80.64 | -80.54 | -47.85 | 1.83 | 4.54 | -1.52 | -5.42e-02 | 3.08 | -2.59 |
| 8 | 65 | 334 | -46.45 | -76.94 | -76.08 | -47.31 | 5.03 | 12.41 | 4.08 | 11.97 | 4.53 | -1.87 |
| 8 | 65 | 335 | -42.39 | -66.58 | -47.53 | -61.44 | 9.90 | 10.99 | 0.46 | 1.26 | 10.18 | -2.80 |
| 8 | 65 | 336 | -45.90 | -65.95 | -51.89 | -59.96 | 9.18 | 9.02 | 7.30 | 7.40 | 8.92 | 0.41 |
| 8 | 65 | 337 | -7.09 | -75.71 | -7.91 | -74.88 | 7.48 | 16.29 | 1.72 | 1.80 | 16.21 | 1.10 |
| 8 | 65 | 338 | -17.55 | -77.35 | -18.86 | -76.04 | 8.78 | 13.82 | 2.35 | 2.36 | 13.81 | -0.32 |
| 8 | 65 | 339 | -11.68 | -87.99 | -12.04 | -87.63 | 5.23 | 6.75 | 0.67 | 0.96 | 6.46 | 1.29 |
| 8 | 65 | 340 | -31.89 | -75.62 | -34.52 | -72.98 | 10.41 | 11.89 | 2.47 | 2.80 | 11.56 | 1.73 |
| 8 | 65 | 341 | -3.58 | -94.98 | -3.77 | -94.80 | 4.12 | -0.66 | -15.70 | -0.84 | -15.53 | 1.62 |
| 8 | 65 | 342 | -8.20 | -96.89 | -8.77 | -96.32 | 7.08 | -1.16 | -14.89 | -1.27 | -14.78 | 1.22 |
| 8 | 65 | 343 | -14.77 | -94.04 | -16.85 | -91.96 | 12.69 | -1.54 | -14.07 | -1.72 | -13.90 | 1.45 |
| 8 | 65 | 344 | -30.34 | -93.07 | -92.96 | -30.44 | 2.59 | 4.95 | 2.43 | 4.93 | 2.45 | 0.21 |
| 8 | 65 | 345 | -32.08 | -92.94 | -37.18 | -87.85 | 16.86 | 0.64 | -11.98 | 5.76e-02 | -11.40 | 2.66 |
| 8 | 65 | 346 | -35.70 | -87.54 | -87.09 | -36.15 | 4.83 | 5.85 | 0.10 | 4.49 | 1.46 | -2.44 |
| 8 | 65 | 347 | -37.43 | -82.25 | -40.15 | -79.53 | 10.69 | 2.00 | -11.54 | -5.36e-03 | -9.54 | 4.81 |
| 8 | 65 | 348 | -44.48 | -79.20 | -77.43 | -46.25 | 7.65 | 3.77 | 1.07 | 3.15 | 1.69 | -1.14 |
| 8 | 65 | 349 | -49.52 | -67.68 | -58.52 | -58.67 | 9.08 | 8.40 | -0.53 | 1.27 | 6.60 | 3.59 |
| 8 | 65 | 350 | -28.16 | -84.24 | -31.09 | -81.31 | 12.50 | 7.01 | -0.17 | 0.45 | 6.39 | 2.01 |
| 8 | 65 | 351 | -42.80 | -55.73 | -45.47 | -53.05 | 5.23 | 0.99 | -9.95 | -3.44 | -5.53 | 5.37 |
| 8 | 65 | 352 | -29.36 | -99.52 | -99.49 | -29.40 | 1.55 | 5.18 | 0.22 | 4.19 | 1.21 | 1.98 |

| **M_G** | | | **N max** | **N min** | **N 1** | **N 2** | **N 1-2** | **M max** | **M min** | **M 1** | **M 2** | **M 1-2** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | -201.31 | -199.47 | -139.23 | -43.41 | | -46.13 | -30.11 | -45.98 | -13.61 |
| | | | 19.22 | | 3.59 | 5.17 | 65.04 | 43.14 | | 36.74 | 41.82 | 14.58 |

# 16 VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.

## *16.1 LEGENDA TABELLA VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.*

Per le pareti in c.a. progettate in ottemperanza al cap. 7 del DM 14-01-08 vengono riportate 4 tabelle. In particolare per ogni parete si riportano:

- una tabella riassuntiva della geometria e dello stato di verifica per compressione assiale, pressoflessione e taglio; per le estese debolmente armate anche lo stato di verifica relativo alla snellezza.
- una tabella nella quale, per ogni quota significativa, si riporta l'armatura verticale di base e della zona confinata, eventuale armatura concentrata all'estremita per le estese debolmente armate, l'armatura orizzontale, l'esito delle 5 verifiche condotte, lo sforzo assiale aggiuntivo per q superiore a 2 e i valori di inviluppo di taglio e momento
- una tabella nella quale, per ogni quota significativa, si riportano le azioni che hanno reso massimo il valore delle 5 verifiche condotte (in particolare le verifiche a taglio sono influenzate dal valore dello sforzo assiale e del momento). Le azioni derivate dall'analisi, in ogni combinazione di calcolo, sono elaborate come previsto al punto 7.4.4.5.1: traslazione del momento, incremento e variazione diagramma taglio, incremento e decremento sforzo assiale
- una tabella riassuntiva dei parametri utilizzati per le verifiche a taglio per ogni quota significativa.

| **Tabella 1** | |
|---|---|
| **H totale** | Altezza complessiva della parete |
| **Spessore** | Spessore della parete |
| **H critica** | Altezza come da punto 7.4.4.5.1 per traslazione momento |
| **H critica V** | Altezza come da punto 7.4.6.1.4 per la definizione della zona critica e zona confinata |
| **L totale** | Larghezza di base della parete |
| **L confinata** | Larghezza della zona confinata |
| **Verif. N** | Verifica di cui al punto 7.4.4.5.2.1 compressione semplice |
| **Verif. N-M** | Verifica di cui al punto 7.4.4.5.2.1 pressoflessione |
| **Verif. Snellezza** | Verifica di cui al punto 7.4.4.5.2.1 limitazione compressione per prevenire l'instabilità |
| **Fattore V** | Fattore di amplificazione del taglio di cui al punto 7.4.4.5.1 |
| **Diagramma V** | Diagramma elaborato per effetto modi superiori come da fig. 7.4.2 |
| **Verif. V** | Verifica di cui al punto 7.4.4.5.2.2 taglio (compressione cls, trazione acciaio, scorrimento in zona critica) |
| **Tabella 2** | |

| | |
|---|---|
| **Af conf.** | Numero e diametro armatura presente in una zona confinata |
| **Af std** | Diametro e passo armatura in zona non confinata (doppia maglia) |
| **Af estremi** | Diametro dei ferri di estremità del pannello; se posto uguale 0, viene utilizzato il diametro standard |
| **Af V (ori)** | Diametro e passo armatura orizzontale (doppia maglia) |
| **Ver. N** | Rapporto tra azione di calcolo e resistenza a compressione (normalizzato a 1 in quanto da confrontare con 40% in CDB e 35 % in CDA) |
| **Ver. N/M** | Rapporto tra azione di calcolo e resistenza a pressoflessione |
| **Ver. Snell.** | Rapporto tra la snellezza dell'elemento e la snellezza lim. come da formula 4.1.33 |
| **Ver. V cls** | Rapporto tra azione di calcolo e resistenza a taglio-compressione |
| **Ver. V acc** | Rapporto tra azione di calcolo e resistenza a taglio-trazione |
| **Ver. V scorr.** | Rapporto tra azione di calcolo e resistenza a taglio scorrimento |
| **N add** | Sforzo assiale di cui al punto 7.4.4.5.1 da sommare e sottrarre nelle verifiche quando q supera 2 |
| **M invil** | Inviluppo del momento come al punto 7.4.4.5.1 (informativo) |
| **V invil** | Inviluppo del taglio come al punto 7.4.4.5.1 (informativo) |
| **Tabella 3** | |
| **N v.N** | Valore dello sforzo assiale per cui Ver. N attinge il massimo valore |
| **N v.M/N, M v.M/N** | Valore dello sforzo assiale e momento per cui Ver. N/M attinge il massimo valore |
| **N v.M/N, M v.M/N Mo v.M/N** | Valore dello sforzo assiale e dei momenti per cui Ver. N/M attinge il massimo valore (per le pareti estese debolmente armate) |
| **N v.Vcls, V v.Vcls,** | Valore dello sforzo assiale e taglio per cui Ver. V. cls attinge il massimo valore |
| **N v.Vacc, M v.Vacc, V v.Vacc,** | Valore dello sforzo assiale, momento e taglio per cui Ver. V. acc attinge il massimo valore |
| **N v.Vscorr, M v.Vscorr, V v.Vscorr,** | Valore dello sforzo assiale, momento e taglio per cui Ver. V. scorr.e |
| **Tabella 4** | |
| **CtgT Vcls** | Valore di ctg(teta) adottato nella verifica V compressione cls |
| **Vrsd Vcls** | Valore della resistenza a taglio trazione (armatura di calcolo) |

| | |
|---|---|
| **Vrcd Vcls** | Valore della resistenza a taglio compressione |
| **CtgT Vacc** | Valore di ctg(teta) adottato nella verifica V trazione armatura |
| **Vrsd Vacc** | Valore della resistenza a taglio trazione (armatura presente) |
| **Vrcd Vacc** | Valore della resistenza a taglio compressione |
| **Vdd** | Valore del contributo alla resistenza allo scorrimento come da [7.4.19] |
| **Vid** | Valore del contributo alla resistenza allo scorrimento come da [7.4.20] |
| **Vfd** | Valore del contributo alla resistenza allo scorrimento come da [7.4.21] |

Nel caso dei gusci e nel caso in cui la progettazione della parete sia integrata o effettuata del tutto con progettazione locale si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica.

Per la progettazione con il metodo degli stati limite vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media con l'indicazione delle due combinazioni in cui si sono attinti i rispettivi valori.

Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie

sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

In particolare i simboli utilizzati assumono il seguente significato:

| | |
|---|---|
| **M_S** | macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà) |
| **M_G** | macroelemento di tipo guscio (elementi non verticali contigui ed analoghi per proprietà) |
| **Stato** | codice di verifica dell'elemento |
| **Nodo** | numero del nodo |
| **x/d** | rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione) |

| | | |
|---|---|---|
| **verif.** | | rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva |
| **Ver.rd** | | rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva |
| **Rete pr** | | maglia di armatura (diametro/passo) in direzione principale inferiore e superiore |
| **Rete sec** | | maglia di armatura (diametro/passo) in direzione secondaria inferiore e superiore |
| **Aggiuntivi** | | relativa armatura aggiuntiva (diametro/passo) inferiore (i) e superiore (s) eventualmente differenziate |
| **sc max** | | massima tensione di compressione del calcestruzzo |
| **sc med** | | massima tensione media di compressione del calcestruzzo |
| **sf max** | | massima tensione dell'acciaio |
| **Rif. cmb** | | combinazioni di carico in cui si verificano i valori riportati |
| **Af pr-** | | quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo) |
| **Af pr+** | | quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo) |
| **Af sec-** | **Af sec+** | valori analoghi a quelli soprariportati ma relativi alla armatura secondaria |
| **N** | **M** | azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica |

### *16.2 PROGETTAZIONE DELLE FONDAZIONI*

Il D.M.14/02/2008 - par: 7.2.5 prevede:

"Per le strutture progettate sia per CD "A" sia per CD "B" il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azioni in fondazione le resistenze degli elementi strutturali soprastanti [...] si richiede tuttavia che tali azioni risultino non maggiori di quelle trasferite dagli elementi soprastanti, amplificate con un γRd pari a 1,1 in CD "B" e 1,3 in CD "A" e comunque non maggiori di quelle derivanti da una analisi elastica della struttura in elevazione eseguita con un fattore di struttura q pari a 1...."

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO_SAP (per travi e platee) o da PRO_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma del fattore: γrd= 1.1 in CDB γrd=1.3 in CDA per pali, plinti, travi e platee.
Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore: γrd= 1.2 in CDB γrd=1.35 in CDA.
N.B.: se il fattore di struttura q è =1 la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore: γrd= 1.1 in CDB γrd=1.3 in CDA per pali, plinti, travi e platee.
N.B.: se il fattore di struttura q è =1 le verifiche geotecniche vengono effettuate senza nessun incremento.

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 1 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 5 | ok | 0.19 | 0.1 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -601.1 | -86.6 | -64.8 | 9.9 | 1.29e-02 | 1.5 |
| 6 | ok | 0.19 | 0.1 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -722.2 | -101.1 | -64.8 | 7.0 | -0.3 | 1.8 |
| 13 | ok | 0.19 | 0.1 | 0.2 | 17.0 | 17.0 | 5.7 | 5.7 | -709.3 | 6.4 | -64.8 | 7.0 | 0.3 | 0.6 |
| 14 | ok | 0.19 | 0.1 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -588.2 | 20.9 | -64.8 | 9.9 | 0.6 | 0.3 |
| 15 | ok | 0.19 | 9.15e-02 | 0.2 | 17.0 | 17.0 | 5.7 | 5.7 | -1221.4 | -56.5 | -64.8 | -10.0 | -0.5 | 0.7 |
| 16 | ok | 0.19 | 0.1 | 5.64e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -32.6 | 86.1 | -64.8 | -9.0 | -0.4 | 0.4 |
| 17 | ok | 0.19 | 9.15e-02 | 0.2 | 17.0 | 17.0 | 5.7 | 5.7 | -1234.4 | -165.4 | -64.8 | -10.0 | 9.80e-02 | 0.3 |
| 18 | ok | 0.19 | 0.1 | 3.10e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -45.7 | -22.8 | -64.8 | -8.9 | 0.2 | -3.06e-02 |

| Nodo | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -1234.44 | -165.42 | -64.78 | -10.04 | -0.53 | -0.03 |
| | 0.19 | 0.14 | 0.21 | 16.96 | 16.96 | 5.65 | 5.65 | -32.62 | 86.10 | -64.78 | 9.93 | 0.64 | 1.79 |

| Nodo | Stato | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 5 | ok | 1.18 | | | | | | |
| 6 | ok | 0.78 | | | | | | |
| 13 | ok | 0.95 | | | | | | |
| 14 | ok | 1.18 | | | | | | |
| 15 | ok | 0.95 | | | | | | |
| 16 | ok | 1.10 | | | | | | |
| 17 | ok | 0.76 | | | | | | |
| 18 | ok | 1.10 | | | | | | |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 1.18 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 3 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 8 | ok | 0.19 | 0.1 | 6.31e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -315.7 | -142.7 | -95.3 | 22.4 | 0.9 | 3.2 |
| 9 | ok | 0.19 | 3.85e-02 | 2.04e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -31.7 | -43.3 | -72.0 | -1.7 | 0.2 | 1.4 |
| 25 | ok | 0.19 | 4.12e-02 | 2.28e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -32.5 | -50.1 | -72.0 | -1.4 | 2.7 | 1.3 |
| 26 | ok | 0.19 | 6.97e-02 | 2.26e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -39.5 | 18.1 | -95.3 | 9.6 | 3.0 | -1.1 |
| 27 | ok | 0.19 | 7.02e-02 | 4.12e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -55.1 | -111.4 | -95.3 | 9.1 | -0.7 | 4.8 |
| 28 | ok | 0.19 | 4.69e-02 | 1.89e-02 | 17.0 | 17.0 | 5.7 | 5.7 | 19.4 | -4.7 | -6.1 | 2.8 | 0.4 | 2.5 |
| 29 | ok | 0.19 | 0.1 | 2.17e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -74.3 | 52.7 | 15.1 | 15.6 | 7.2 | 1.9 |
| 30 | ok | 0.19 | 4.87e-02 | 9.89e-03 | 17.0 | 17.0 | 5.7 | 5.7 | 18.8 | -10.0 | -6.1 | 2.9 | 1.6 | -3.0 |
| 31 | ok | 0.19 | 9.91e-02 | 2.20e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -83.3 | -22.2 | -6.1 | 15.1 | 3.1 | -3.5 |
| 32 | ok | 0.19 | 0.1 | 5.70e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -300.2 | -13.2 | -95.3 | 22.9 | 4.6 | -2.7 |
| 33 | ok | 0.19 | 0.2 | 4.51e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -262.4 | 30.2 | 15.1 | 26.5 | 8.5 | 4.5 |
| 34 | ok | 0.19 | 0.1 | 4.73e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -274.8 | -73.0 | 15.1 | 25.8 | 2.4 | -0.3 |

| Nodo | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -315.75 | -142.72 | -95.27 | -1.68 | -0.72 | -3.49 |
| | 0.19 | 0.17 | 0.06 | 16.96 | 16.96 | 5.65 | 5.65 | 19.43 | 52.73 | 15.12 | 26.50 | 8.49 | 4.83 |

| Nodo | Stato | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 8 | ok | 2.92 | | | | | | |
| 9 | ok | 0.41 | | | | | | |
| 25 | ok | 1.10 | | | | | | |
| 26 | ok | 1.56 | | | | | | |
| 27 | ok | 1.36 | | | | | | |
| 28 | ok | 0.99 | | | | | | |
| 29 | ok | 1.38 | | | | | | |
| 30 | ok | 0.31 | | | | | | |
| 31 | ok | 1.27 | | | | | | |
| 32 | ok | 3.03 | | | | | | |
| 33 | ok | 3.77 | | | | | | |
| 34 | ok | 3.74 | | | | | | |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 3.77 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 4 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 10 | ok | 0.19 | 3.52e-02 | 9.75e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -8.3 | -27.1 | -28.7 | -0.8 | -0.8 | -0.7 |
| 11 | ok | 0.19 | 0.2 | 2.24e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -110.2 | -27.2 | -36.9 | -28.8 | -3.7 | 2.7 |
| 12 | ok | 0.19 | 0.2 | 2.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -143.9 | -10.3 | -0.5 | -36.7 | -2.6 | -0.7 |
| 35 | ok | 0.19 | 0.1 | 1.55e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -11.7 | -55.6 | -28.7 | -1.3 | -4.9 | 2.1 |
| 36 | ok | 0.19 | 0.1 | 1.52e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -39.6 | -59.0 | -28.7 | -7.7 | -5.6 | 3.9 |
| 37 | ok | 0.19 | 7.54e-02 | 1.61e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -70.8 | -39.9 | -17.3 | -11.8 | -1.6 | -2.5 |
| 38 | ok | 0.19 | 0.1 | 1.42e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -31.8 | -53.8 | -29.6 | 0.9 | -7.0 | -2.4 |
| 39 | ok | 0.19 | 0.1 | 1.29e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -72.7 | -30.0 | -2.9 | -12.9 | -1.2 | -0.8 |
| 40 | ok | 0.19 | 4.47e-02 | 5.51e-03 | 17.0 | 17.0 | 5.7 | 5.7 | 19.3 | -18.2 | -2.9 | -2.4 | -0.8 | 3.4 |
| 41 | ok | 0.19 | 9.41e-02 | 1.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -70.1 | -29.0 | -2.9 | -12.7 | -2.1 | 3.8 |
| 42 | ok | 0.19 | 0.2 | 2.38e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -126.7 | -16.0 | -30.1 | -23.1 | -4.8 | -0.2 |
| 43 | ok | 0.19 | 0.1 | 2.56e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -137.8 | -12.6 | -36.7 | -21.9 | -5.1 | 2.3 |
| 44 | ok | 0.19 | 0.1 | 2.76e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -143.5 | -59.8 | -12.4 | -21.6 | -2.3 | 4.8 |
| 47 | ok | 0.19 | 0.1 | 2.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -131.5 | -55.6 | -26.7 | -22.8 | -2.1 | -4.3 |
| 56 | ok | 0.19 | 0.2 | 2.54e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -132.4 | -21.7 | -36.0 | -28.3 | -6.2 | 0.9 |
| 57 | ok | 0.19 | 0.1 | 2.57e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -136.2 | -53.4 | -30.1 | -28.0 | -3.3 | -1.6 |
| 58 | ok | 0.19 | 0.1 | 2.53e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -127.4 | -19.2 | -44.6 | -19.9 | -5.2 | 1.4 |
| 59 | ok | 0.19 | 0.1 | 2.60e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -129.9 | -40.6 | -44.6 | -19.6 | -2.6 | -2.5 |
| 60 | ok | 0.19 | 0.2 | 2.39e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -122.7 | -20.5 | -36.0 | -29.2 | -6.3 | 1.6 |
| 61 | ok | 0.19 | 0.2 | 2.44e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -124.5 | -36.0 | -39.6 | -28.9 | -3.8 | 2.0 |
| 62 | ok | 0.19 | 0.1 | 2.26e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -114.6 | -21.3 | -7.2 | -17.7 | -4.4 | 1.8 |
| 63 | ok | 0.19 | 0.1 | 2.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -118.8 | -56.7 | -7.2 | -17.4 | -2.3 | 1.9 |
| 64 | ok | 0.19 | 0.2 | 2.27e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -109.8 | -24.1 | -39.6 | -28.9 | -4.8 | 2.4 |
| 65 | ok | 0.19 | 0.1 | 2.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -132.5 | -23.4 | -7.2 | -17.9 | -4.4 | 0.9 |
| 66 | ok | 0.19 | 9.93e-02 | 2.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -135.7 | -50.1 | -24.2 | -17.6 | -2.3 | -1.4 |
| 67 | ok | 0.19 | 0.2 | 2.32e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -131.5 | -30.3 | -10.8 | -33.5 | -4.5 | -1.4 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 68 | ok | 0.19 | 0.2 | 2.31e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -133.2 | -44.6 | -10.8 | -33.5 | -4.3 | -2.9 |
| 69 | ok | 0.19 | 0.1 | 2.25e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -111.6 | -15.5 | -24.2 | -12.6 | -3.5 | 0.2 |
| 70 | ok | 0.19 | 8.86e-02 | 2.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -113.7 | -33.2 | -29.7 | -12.4 | -1.6 | -3.5 |
| 71 | ok | 0.19 | 0.2 | 2.39e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -137.6 | -9.3 | -4.1 | -35.2 | -5.1 | -1.1 |
| 72 | ok | 0.19 | 0.2 | 2.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -139.2 | -23.0 | -4.1 | -35.2 | -5.0 | -1.7 |
| 73 | ok | 0.19 | 0.1 | 2.18e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -115.5 | 1.8 | 13.6 | -14.0 | -2.7 | 1.8 |
| 74 | ok | 0.19 | 0.1 | 2.02e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -116.0 | -2.7 | 13.6 | -14.0 | -2.2 | 3.3 |
| 79 | ok | 0.19 | 0.2 | 2.45e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -142.8 | -1.3 | -0.5 | -36.8 | -3.8 | -0.5 |
| 80 | ok | 0.19 | 0.1 | 2.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -133.8 | 2.4 | 3.4 | -17.1 | -2.2 | 1.4 |
| 81 | ok | 0.19 | 0.1 | 2.31e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -134.9 | -6.7 | 3.4 | -17.0 | -1.3 | 1.3 |
| 170 | ok | 0.19 | 0.2 | 2.62e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -152.7 | -11.2 | -4.1 | -36.7 | -5.3 | -1.0 |
| 171 | ok | 0.19 | 0.2 | 2.65e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -154.3 | -24.8 | -4.1 | -36.6 | -5.2 | -1.7 |
| 172 | ok | 0.19 | 0.1 | 2.44e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -139.3 | -1.1 | 13.6 | -17.3 | -3.1 | 1.5 |
| 173 | ok | 0.19 | 0.1 | 2.42e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -139.9 | -5.6 | 13.6 | -17.3 | -2.6 | 3.1 |

| **Nodo** | **x/d** | **V N/M** | **ver. rid** | **Af pr-** | **Af pr+** | **Af sec-** | **Af sec+** | **N z** | **N o** | **N zo** | **M z** | **M o** | **M zo** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -154.32 | -59.79 | -44.55 | -36.83 | -6.95 | -4.33 |
| | 0.19 | 0.20 | 0.03 | 16.96 | 16.96 | 5.65 | 5.65 | 19.34 | 2.45 | 13.56 | 0.94 | -0.79 | 4.82 |

| **Nodo** | **Stato** | **Max tau** | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** | **V sec** |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 10 | ok | 0.86 | | | | | | |
| 11 | ok | 2.92 | | | | | | |
| 12 | ok | 3.36 | | | | | | |
| 35 | ok | 1.57 | | | | | | |
| 36 | ok | 1.93 | | | | | | |
| 37 | ok | 1.86 | | | | | | |
| 38 | ok | 1.52 | | | | | | |
| 39 | ok | 1.67 | | | | | | |
| 40 | ok | 0.64 | | | | | | |
| 41 | ok | 1.55 | | | | | | |
| 42 | ok | 2.89 | | | | | | |
| 43 | ok | 2.51 | | | | | | |
| 44 | ok | 2.50 | | | | | | |
| 47 | ok | 2.85 | | | | | | |
| 56 | ok | 2.94 | | | | | | |
| 57 | ok | 2.94 | | | | | | |
| 58 | ok | 2.24 | | | | | | |
| 59 | ok | 2.22 | | | | | | |
| 60 | ok | 2.91 | | | | | | |
| 61 | ok | 2.92 | | | | | | |
| 62 | ok | 2.09 | | | | | | |
| 63 | ok | 2.11 | | | | | | |
| 64 | ok | 2.91 | | | | | | |
| 65 | ok | 2.08 | | | | | | |
| 66 | ok | 2.08 | | | | | | |
| 67 | ok | 2.94 | | | | | | |
| 68 | ok | 2.96 | | | | | | |
| 69 | ok | 1.87 | | | | | | |
| 70 | ok | 1.85 | | | | | | |
| 71 | ok | 3.03 | | | | | | |
| 72 | ok | 3.04 | | | | | | |
| 73 | ok | 1.81 | | | | | | |
| 74 | ok | 1.85 | | | | | | |
| 79 | ok | 3.35 | | | | | | |
| 80 | ok | 1.46 | | | | | | |
| 81 | ok | 1.51 | | | | | | |
| 170 | ok | 3.13 | | | | | | |
| 171 | ok | 3.14 | | | | | | |
| 172 | ok | 1.91 | | | | | | |
| 173 | ok | 1.94 | | | | | | |

| **Nodo** | **Max tau** | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** | **V sec** |
|---|---|---|---|---|---|---|---|
| | 3.36 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 5 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 1 | ok | 0.19 | 0.1 | 1.58e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -88.1 | -4.2 | -10.1 | -18.4 | -1.3 | 0.5 |
| 2 | ok | 0.19 | 0.1 | 7.61e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -441.1 | -41.9 | 31.3 | -27.7 | -1.5 | 6.3 |
| 4 | ok | 0.19 | 8.32e-02 | 1.54e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -72.1 | -15.4 | 32.4 | 11.4 | 1.1 | -4.6 |
| 75 | ok | 0.19 | 0.1 | 3.09e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -124.8 | -72.2 | -68.5 | -18.6 | -0.8 | 4.0 |
| 76 | ok | 0.19 | 0.1 | 2.73e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -115.1 | 8.4 | -68.5 | -18.8 | -2.4 | 4.0 |
| 77 | ok | 0.19 | 0.1 | 2.85e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -130.4 | -101.2 | -1.5 | -16.2 | -0.1 | -2.7 |
| 78 | ok | 0.19 | 0.1 | 2.27e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -118.6 | -2.5 | -1.5 | -16.5 | -2.6 | -6.0 |
| 128 | ok | 0.19 | 0.1 | 2.66e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -103.5 | -40.0 | -57.1 | -18.6 | -0.9 | 1.9 |
| 129 | ok | 0.19 | 0.1 | 2.53e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -103.3 | -38.4 | -57.1 | -18.8 | -2.1 | 2.2 |
| 130 | ok | 0.19 | 0.1 | 2.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -80.0 | -34.2 | -46.1 | 16.4 | 3.7 | 0.6 |
| 131 | ok | 0.19 | 6.89e-02 | 1.40e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -62.8 | -14.3 | 32.4 | 6.9 | 0.6 | -4.3 |
| 132 | ok | 0.19 | 0.1 | 2.42e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -78.0 | -37.0 | -46.1 | 17.5 | 3.4 | 1.1 |
| 133 | ok | 0.19 | 0.1 | 2.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -102.2 | -38.2 | -57.1 | -18.2 | -2.0 | 1.8 |
| 134 | ok | 0.19 | 0.1 | 1.91e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -77.6 | -33.9 | -46.1 | 17.5 | 3.8 | 0.5 |
| 135 | ok | 0.19 | 7.02e-02 | 1.20e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -52.4 | -6.8 | -30.4 | -3.7 | -0.2 | -2.8 |
| 136 | ok | 0.19 | 0.1 | 2.20e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -76.5 | -27.5 | -35.1 | 18.9 | 3.2 | 1.0 |
| 137 | ok | 0.19 | 0.1 | 2.24e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -102.1 | -37.3 | -46.5 | -18.3 | -2.1 | 1.2 |
| 138 | ok | 0.19 | 0.1 | 1.65e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -75.9 | -22.2 | -35.1 | 18.9 | 3.5 | 0.2 |
| 139 | ok | 0.19 | 7.43e-02 | 1.04e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -51.3 | 0.3 | -22.3 | -2.0 | -3.89e-02 | -1.3 |
| 140 | ok | 0.19 | 0.1 | 1.97e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -76.2 | -18.5 | -23.6 | 19.5 | 2.8 | 0.6 |
| 141 | ok | 0.19 | 0.1 | 2.01e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -98.8 | -18.0 | -25.4 | -18.2 | -2.8 | 0.6 |
| 142 | ok | 0.19 | 0.1 | 1.45e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -75.5 | -12.5 | -23.6 | 19.6 | 3.1 | 0.2 |
| 143 | ok | 0.19 | 8.10e-02 | 9.46e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -51.4 | 3.7 | -14.0 | -1.2 | 3.81e-02 | -0.5 |
| 144 | ok | 0.19 | 0.1 | 1.84e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -72.7 | -8.5 | -12.8 | 20.0 | 2.5 | 0.4 |
| 145 | ok | 0.19 | 0.1 | 1.87e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -100.6 | -18.3 | -25.4 | -18.2 | -2.8 | 0.4 |
| 146 | ok | 0.19 | 0.1 | 1.28e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -72.3 | -5.1 | -12.8 | 20.0 | 2.7 | 0.1 |
| 147 | ok | 0.19 | 8.75e-02 | 9.01e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -52.2 | 1.1 | -1.7 | -0.8 | 0.2 | -0.2 |
| 148 | ok | 0.19 | 0.1 | 1.58e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -60.3 | -0.3 | -2.9 | 20.3 | 2.2 | 0.6 |
| 149 | ok | 0.19 | 0.1 | 1.04e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -60.4 | -1.1 | -2.9 | 20.3 | 1.6 | 0.4 |
| 150 | ok | 0.19 | 9.33e-02 | 7.62e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -44.4 | 2.0 | -1.7 | -0.4 | 0.2 | -0.6 |
| 151 | ok | 0.19 | 0.1 | 2.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -107.5 | -1.9 | 31.3 | -18.4 | -0.4 | 6.7 |
| 152 | ok | 0.19 | 0.2 | 3.10e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -39.7 | -26.7 | -134.7 | -21.5 | 7.51e-02 | -12.0 |
| 153 | ok | 0.19 | 0.1 | 7.63e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -442.5 | -53.7 | 31.3 | -27.8 | -2.4 | 2.3 |
| 154 | ok | 0.19 | 0.1 | 3.88e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -115.8 | -71.1 | -68.5 | -18.4 | -0.8 | 4.6 |
| 155 | ok | 0.19 | 0.2 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -669.5 | -91.7 | -134.7 | -47.6 | -3.9 | -0.5 |
| 156 | ok | 0.19 | 0.1 | 4.05e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -47.4 | -91.2 | -1.5 | -21.6 | -0.8 | -3.5 |
| 157 | ok | 0.19 | 0.2 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -670.7 | -102.4 | -134.7 | -47.5 | -3.0 | -11.7 |
| 162 | ok | 0.19 | 0.1 | 2.50e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -99.9 | -32.6 | 65.8 | 19.1 | 2.0 | 2.8 |
| 163 | ok | 0.19 | 0.1 | 2.82e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -101.8 | -49.0 | 65.8 | 18.9 | 0.8 | 1.4 |
| 164 | ok | 0.19 | 0.1 | 2.33e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -88.6 | -47.2 | 52.8 | -15.2 | -3.5 | 1.2 |

| Nodo | | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | -670.74 | -102.42 | -134.69 | -47.61 | -3.85 | -12.02 |
| | | 0.19 | 0.21 | 0.12 | 16.96 | 16.96 | 5.65 | 5.65 | -39.68 | 8.44 | 65.77 | 20.34 | 3.84 | 6.73 |

| Nodo | Stato | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 1 | ok | 3.09 | | | | | | |
| 2 | ok | 2.62 | | | | | | |
| 4 | ok | 2.16 | | | | | | |
| 75 | ok | 2.50 | | | | | | |
| 76 | ok | 2.52 | | | | | | |
| 77 | ok | 2.13 | | | | | | |
| 78 | ok | 2.13 | | | | | | |
| 128 | ok | 3.10 | | | | | | |
| 129 | ok | 3.12 | | | | | | |
| 130 | ok | 2.11 | | | | | | |
| 131 | ok | 2.12 | | | | | | |
| 132 | ok | 2.78 | | | | | | |
| 133 | ok | 2.79 | | | | | | |
| 134 | ok | 1.97 | | | | | | |
| 135 | ok | 1.97 | | | | | | |
| 136 | ok | 2.78 | | | | | | |
| 137 | ok | 2.78 | | | | | | |
| 138 | ok | 1.92 | | | | | | |
| 139 | ok | 1.92 | | | | | | |
| 140 | ok | 2.83 | | | | | | |
| 141 | ok | 2.84 | | | | | | |
| 142 | ok | 1.89 | | | | | | |
| 143 | ok | 1.89 | | | | | | |
| 144 | ok | 2.87 | | | | | | |
| 145 | ok | 2.88 | | | | | | |

| | | |
|---|---|---|
| 146 | ok | 1.82 |
| 147 | ok | 1.83 |
| 148 | ok | 3.09 |
| 149 | ok | 1.82 |
| 150 | ok | 1.82 |
| 151 | ok | 2.43 |
| 152 | ok | 2.19 |
| 153 | ok | 2.58 |
| 154 | ok | 2.37 |
| 155 | ok | 4.02 |
| 156 | ok | 1.95 |
| 157 | ok | 4.09 |
| 162 | ok | 2.90 |
| 163 | ok | 2.87 |
| 164 | ok | 2.12 |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 4.09 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 6 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 3 | ok | 0.19 | 0.1 | 2.38e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -136.0 | -9.5 | -17.9 | -6.1 | -0.3 | 0.8 |
| 105 | ok | 0.19 | 0.1 | 3.28e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -168.3 | -15.8 | -42.4 | 10.1 | 1.3 | 1.1 |
| 106 | ok | 0.19 | 0.1 | 3.13e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -169.2 | -23.1 | -42.4 | 10.1 | 1.3 | 1.0 |
| 107 | ok | 0.19 | 0.1 | 3.52e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -115.6 | -49.0 | -90.5 | -3.9 | -0.5 | 0.8 |
| 108 | ok | 0.19 | 0.1 | 2.91e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -110.7 | -8.7 | -90.5 | -3.9 | -0.3 | -0.9 |
| 109 | ok | 0.19 | 0.1 | 2.67e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -137.3 | -29.5 | -44.6 | 9.8 | 1.5 | 1.2 |
| 110 | ok | 0.19 | 0.1 | 2.64e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -136.1 | -19.1 | -42.4 | 9.8 | 1.2 | 0.9 |
| 111 | ok | 0.19 | 0.1 | 2.73e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -109.1 | -35.4 | -39.8 | 3.4 | 0.7 | 1.1 |
| 112 | ok | 0.19 | 0.1 | 1.51e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -64.7 | 5.6 | -43.9 | -1.8 | -0.2 | -0.6 |
| 113 | ok | 0.19 | 0.1 | 2.40e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -119.3 | -27.4 | -44.6 | 8.9 | 1.4 | 1.1 |
| 114 | ok | 0.19 | 0.1 | 2.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -118.3 | -19.0 | -44.6 | 8.8 | 1.2 | 0.6 |
| 115 | ok | 0.19 | 0.1 | 2.00e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -93.3 | -33.5 | -39.8 | 3.9 | 0.7 | 1.1 |
| 116 | ok | 0.19 | 0.1 | 1.32e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -55.4 | 2.4 | -29.0 | 8.0 | 0.9 | -0.3 |
| 117 | ok | 0.19 | 0.1 | 2.21e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -114.8 | -22.5 | -36.0 | 7.7 | 1.2 | 1.0 |
| 118 | ok | 0.19 | 0.1 | 2.20e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -114.4 | -19.3 | -36.0 | 7.6 | 0.9 | 0.4 |
| 119 | ok | 0.19 | 0.1 | 1.73e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -61.5 | -6.0 | -29.0 | 9.8 | 1.4 | 0.8 |
| 120 | ok | 0.19 | 0.1 | 1.29e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -60.4 | 3.3 | -18.9 | 9.7 | 1.3 | -0.2 |
| 121 | ok | 0.19 | 0.1 | 2.18e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -116.4 | -10.0 | -33.1 | -5.2 | -0.6 | 1.4 |
| 122 | ok | 0.19 | 0.1 | 2.21e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -117.3 | -17.7 | -33.1 | -5.2 | -0.6 | 0.7 |
| 123 | ok | 0.19 | 0.1 | 1.67e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -89.3 | -3.1 | -26.0 | 3.1 | 0.5 | 1.4 |
| 124 | ok | 0.19 | 0.1 | 1.28e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -64.3 | 2.9 | -18.9 | 11.6 | 1.5 | -0.2 |
| 125 | ok | 0.19 | 0.1 | 2.37e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -135.6 | -5.6 | -17.9 | -6.1 | -0.7 | 1.3 |
| 126 | ok | 0.19 | 0.1 | 1.53e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -88.0 | -1.4 | -9.5 | 3.4 | -0.1 | 1.5 |
| 127 | ok | 0.19 | 0.1 | 1.10e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -62.3 | -1.0 | 1.6 | -0.9 | -3.42e-02 | -0.1 |
| 158 | ok | 0.19 | 0.2 | 4.61e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -248.3 | -52.1 | 62.0 | 12.4 | 0.4 | 0.2 |
| 159 | ok | 0.19 | 0.2 | 4.48e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -243.6 | -12.9 | 62.0 | 12.4 | 0.5 | 1.99e-02 |
| 160 | ok | 0.19 | 0.1 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -571.3 | -40.2 | -146.5 | -6.9 | -0.7 | 0.8 |
| 161 | ok | 0.19 | 0.1 | 0.1 | 17.0 | 17.0 | 5.7 | 5.7 | -576.9 | -86.7 | -146.5 | -6.8 | -5.72e-02 | -1.2 |
| 174 | ok | 0.19 | 0.1 | 6.47e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -295.3 | -30.9 | -90.5 | -5.8 | -0.5 | -0.8 |
| 176 | ok | 0.19 | 0.2 | 3.25e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -185.6 | -30.9 | 6.1 | 13.6 | 1.3 | 0.1 |
| 177 | ok | 0.19 | 0.2 | 4.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -133.5 | 0.3 | 62.0 | 12.4 | 0.5 | 1.34e-02 |
| 178 | ok | 0.19 | 0.1 | 6.20e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -300.1 | -71.2 | -90.5 | -5.8 | -0.8 | 0.8 |

| Nodo | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -576.86 | -86.69 | -146.54 | -6.91 | -0.76 | -1.16 |
| | 0.19 | 0.15 | 0.11 | 16.96 | 16.96 | 5.65 | 5.65 | -55.42 | 5.65 | 62.01 | 13.61 | 1.49 | 1.46 |

| Nodo | Stato | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 3 | ok | 1.08 | | | | | | |
| 105 | ok | 0.93 | | | | | | |
| 106 | ok | 0.94 | | | | | | |
| 107 | ok | 0.90 | | | | | | |
| 108 | ok | 0.88 | | | | | | |

| | | |
|---|---|---|
| 109 | ok | 0.93 |
| 110 | ok | 0.93 |
| 111 | ok | 0.89 |
| 112 | ok | 0.82 |
| 113 | ok | 0.89 |
| 114 | ok | 0.89 |
| 115 | ok | 0.87 |
| 116 | ok | 0.78 |
| 117 | ok | 0.88 |
| 118 | ok | 0.88 |
| 119 | ok | 0.87 |
| 120 | ok | 0.78 |
| 121 | ok | 0.94 |
| 122 | ok | 0.98 |
| 123 | ok | 0.85 |
| 124 | ok | 0.87 |
| 125 | ok | 1.24 |
| 126 | ok | 1.24 |
| 127 | ok | 0.95 |
| 158 | ok | 1.15 |
| 159 | ok | 1.40 |
| 160 | ok | 1.40 |
| 161 | ok | 1.18 |
| 174 | ok | 1.12 |
| 176 | ok | 1.15 |
| 177 | ok | 1.01 |
| 178 | ok | 1.00 |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 1.40 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 7 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 7 | ok | 0.19 | 8.85e-02 | 1.13e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -65.9 | 7.29e-02 | -1.7 | 6.1 | 0.2 | -0.5 |
| 8 | ok | 0.19 | 0.1 | 5.27e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -299.1 | -4.3 | 47.2 | 19.3 | 1.9 | -7.9 |
| 32 | ok | 0.19 | 0.2 | 5.25e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -298.3 | 2.4 | 47.2 | 20.4 | 11.1 | 1.0 |
| 33 | ok | 0.19 | 0.2 | 5.66e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -165.4 | -7.9 | -45.7 | -11.7 | 7.5 | -2.8 |
| 34 | ok | 0.19 | 8.70e-02 | 5.90e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -273.5 | -62.0 | -128.5 | 7.1 | 0.1 | 10.3 |
| 82 | ok | 0.19 | 0.1 | 1.88e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -82.9 | -12.7 | -11.5 | 14.0 | 5.0 | -4.2 |
| 83 | ok | 0.19 | 0.1 | 1.56e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -75.1 | 52.7 | -11.5 | 13.8 | 3.5 | -4.7 |
| 84 | ok | 0.19 | 0.1 | 2.01e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -90.3 | -39.4 | -35.1 | -15.5 | -5.3 | 2.1 |
| 85 | ok | 0.19 | 0.1 | 1.93e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -14.6 | -33.3 | -47.0 | -13.4 | -2.4 | 4.4 |
| 86 | ok | 0.19 | 0.1 | 1.74e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -46.1 | -12.8 | -24.6 | -21.4 | -5.3 | 0.1 |
| 87 | ok | 0.19 | 0.1 | 1.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -69.1 | 37.6 | -40.1 | 11.7 | 2.3 | -3.7 |
| 88 | ok | 0.19 | 0.1 | 1.42e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -48.7 | -34.4 | -35.1 | -21.5 | -6.0 | 2.6 |
| 89 | ok | 0.19 | 0.1 | 1.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -22.6 | -34.2 | -47.0 | -15.0 | -2.6 | 3.4 |
| 90 | ok | 0.19 | 0.2 | 1.59e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -49.2 | -13.2 | -24.6 | -25.3 | -5.8 | 0.2 |
| 91 | ok | 0.19 | 9.50e-02 | 1.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -72.3 | 10.9 | -32.8 | 10.1 | 0.9 | -1.7 |
| 92 | ok | 0.19 | 0.2 | 1.13e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -50.0 | -19.8 | -24.6 | -25.3 | -6.0 | 2.4 |
| 93 | ok | 0.19 | 9.18e-02 | 9.42e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -24.3 | 1.0 | -32.2 | -7.7 | -1.4 | 1.5 |
| 94 | ok | 0.19 | 0.2 | 1.42e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -54.5 | -5.6 | -14.9 | -26.7 | -4.7 | 0.9 |
| 95 | ok | 0.19 | 9.13e-02 | 1.40e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -75.9 | -5.4 | -11.2 | 8.7 | 1.3 | -0.3 |
| 96 | ok | 0.19 | 0.2 | 1.02e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -54.7 | -7.9 | -14.9 | -26.8 | -4.8 | 1.8 |
| 97 | ok | 0.19 | 8.69e-02 | 6.74e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -38.2 | 1.0 | 5.8 | 10.1 | 1.5 | 0.7 |
| 98 | ok | 0.19 | 0.2 | 1.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -55.5 | -0.6 | -6.7 | -27.4 | -3.6 | 1.2 |
| 99 | ok | 0.19 | 8.93e-02 | 1.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -77.5 | -5.6 | -11.2 | 7.2 | 1.1 | -6.26e-02 |
| 100 | ok | 0.19 | 0.2 | 9.71e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -55.7 | -2.0 | -6.7 | -27.3 | -3.5 | 1.6 |
| 101 | ok | 0.19 | 8.48e-02 | 7.47e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -42.4 | 0.5 | 5.8 | 11.0 | 1.6 | 0.6 |
| 102 | ok | 0.19 | 0.2 | 1.13e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -53.5 | 1.0 | -0.9 | -27.9 | -2.5 | 0.8 |
| 103 | ok | 0.19 | 0.2 | 9.21e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -53.7 | -0.8 | -0.9 | -27.9 | -2.0 | 1.2 |
| 104 | ok | 0.19 | 8.53e-02 | 6.71e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -39.1 | 1.4 | -1.1 | 11.5 | 0.6 | 1.1 |
| 179 | ok | 0.19 | 0.1 | 3.82e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -112.1 | -42.7 | -128.5 | 1.3 | -0.6 | 11.4 |
| 180 | ok | 0.19 | 0.1 | 2.77e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -147.1 | 14.0 | 47.2 | 14.2 | 1.3 | -8.9 |
| 181 | ok | 0.19 | 0.2 | 3.14e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -146.3 | 20.6 | 47.2 | 15.3 | 10.5 | -7.26e-02 |
| 182 | ok | 0.19 | 0.2 | 3.46e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -167.7 | -8.2 | -45.7 | -9.5 | 7.8 | -2.8 |

| Nodo | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -299.13 | -62.04 | -128.51 | -27.93 | -6.02 | -8.94 |
| | 0.19 | 0.21 | 0.06 | 16.96 | 16.96 | 5.65 | 5.65 | -14.61 | 52.71 | 47.17 | 20.45 | 11.10 | 11.37 |

| Nodo | Stato | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 7 | ok | 2.83 | | | | | | |
| 8 | ok | 3.09 | | | | | | |
| 32 | ok | 2.92 | | | | | | |
| 33 | ok | 4.43 | | | | | | |
| 34 | ok | 3.37 | | | | | | |
| 82 | ok | 2.41 | | | | | | |
| 83 | ok | 2.39 | | | | | | |
| 84 | ok | 1.67 | | | | | | |
| 85 | ok | 1.57 | | | | | | |
| 86 | ok | 2.61 | | | | | | |
| 87 | ok | 2.61 | | | | | | |
| 88 | ok | 1.65 | | | | | | |
| 89 | ok | 1.74 | | | | | | |
| 90 | ok | 2.79 | | | | | | |
| 91 | ok | 2.81 | | | | | | |
| 92 | ok | 1.82 | | | | | | |
| 93 | ok | 1.87 | | | | | | |
| 94 | ok | 2.81 | | | | | | |
| 95 | ok | 2.81 | | | | | | |
| 96 | ok | 1.92 | | | | | | |
| 97 | ok | 1.93 | | | | | | |
| 98 | ok | 2.74 | | | | | | |
| 99 | ok | 2.74 | | | | | | |
| 100 | ok | 1.88 | | | | | | |
| 101 | ok | 1.88 | | | | | | |
| 102 | ok | 2.83 | | | | | | |
| 103 | ok | 2.30 | | | | | | |
| 104 | ok | 2.30 | | | | | | |
| 179 | ok | 1.87 | | | | | | |
| 180 | ok | 2.48 | | | | | | |
| 181 | ok | 2.22 | | | | | | |
| 182 | ok | 3.40 | | | | | | |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 4.43 | | | | | | |

| Macro Setto | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 9 | 35.00 | 1 | 1 | Singolo elemento NON DISSIPATIVO |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N z | N o | N zo | M z | M o | M zo |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 9 | ok | 0.19 | 4.00e-02 | 8.35e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -15.5 | -23.2 | 18.7 | 1.2 | 0.4 | 0.4 |
| 10 | ok | 0.19 | 4.15e-02 | 6.74e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -10.9 | -17.1 | -21.3 | 0.3 | 1.2 | 1.3 |
| 25 | ok | 0.19 | 0.1 | 2.10e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -33.3 | -56.5 | -32.2 | 2.7 | 8.9 | 2.9 |
| 28 | ok | 0.19 | 0.1 | 1.98e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -54.7 | -48.3 | -55.9 | -2.5 | 7.5 | -0.8 |
| 30 | ok | 0.19 | 3.51e-02 | 1.12e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -28.0 | -14.9 | -39.4 | -1.2 | -0.3 | -0.5 |
| 35 | ok | 0.19 | 0.1 | 1.43e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -36.9 | -63.0 | 18.9 | -1.0 | 9.0 | -1.9 |
| 38 | ok | 0.19 | 0.1 | 1.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -36.9 | -62.8 | 18.9 | -1.0 | 8.9 | 1.3 |
| 40 | ok | 0.19 | 4.09e-02 | 6.91e-03 | 17.0 | 17.0 | 5.7 | 5.7 | -18.4 | -13.8 | 16.9 | -0.2 | 1.5 | 1.4 |
| 55 | ok | 0.19 | 9.01e-02 | 1.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -47.2 | -54.8 | 4.2 | 11.3 | 0.8 | -4.4 |
| 216 | ok | 0.19 | 0.1 | 1.74e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -76.1 | -41.2 | -19.2 | 16.7 | 1.7 | 6.6 |
| 217 | ok | 0.19 | 0.2 | 2.33e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -131.5 | -73.8 | -13.7 | 26.6 | 2.8 | 5.4 |
| 218 | ok | 0.19 | 0.1 | 2.38e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -136.4 | -85.3 | -3.0 | 27.4 | 3.0 | -2.4 |
| 219 | ok | 0.19 | 0.1 | 1.89e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -107.3 | -62.0 | 4.2 | 22.1 | 2.1 | -5.1 |
| 220 | ok | 0.19 | 7.39e-02 | 1.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -15.8 | -33.9 | -19.2 | 6.3 | 0.5 | 5.5 |
| 221 | ok | 0.19 | 9.44e-02 | 1.57e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -88.6 | -33.4 | -10.2 | 14.7 | 1.8 | -3.7 |
| 222 | ok | 0.19 | 0.1 | 2.43e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -140.2 | -44.4 | -10.3 | 23.4 | 2.8 | -3.3 |
| 223 | ok | 0.19 | 0.1 | 2.49e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -144.4 | -49.4 | -6.0 | 23.8 | 3.0 | 3.7 |
| 224 | ok | 0.19 | 0.1 | 2.04e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -118.2 | -41.7 | -7.0 | 18.7 | 1.9 | 5.9 |
| 225 | ok | 0.19 | 6.30e-02 | 1.15e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -34.4 | -26.9 | -10.2 | 6.1 | 0.8 | -2.5 |
| 226 | ok | 0.19 | 7.83e-02 | 1.27e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -57.1 | -28.6 | -2.5 | 9.3 | 2.0 | 3.2 |
| 227 | ok | 0.19 | 0.1 | 1.36e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -2.2 | -58.8 | 18.9 | -7.0 | 8.2 | -1.9 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 228 | ok | 0.19 | 0.1 | 1.29e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -2.2 | -58.7 | 18.9 | -7.0 | 8.1 | 1.3 |
| 229 | ok | 0.19 | 0.1 | 2.01e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -114.9 | -14.1 | -6.0 | 19.0 | 4.2 | 1.7 |
| 230 | ok | 0.19 | 0.1 | 1.87e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -102.3 | -20.9 | -3.0 | 22.4 | 4.5 | -0.4 |
| 231 | ok | 0.19 | 0.1 | 2.41e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -140.1 | -13.8 | -9.2 | 24.3 | 6.9 | 1.1 |
| 232 | ok | 0.19 | 0.1 | 2.38e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -128.7 | -21.2 | -7.2 | 27.9 | 7.1 | 0.3 |
| 233 | ok | 0.19 | 0.1 | 2.38e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -136.5 | -13.4 | -9.2 | 23.9 | 6.8 | -0.1 |
| 234 | ok | 0.19 | 0.1 | 2.32e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -125.2 | -20.8 | -7.2 | 27.1 | 7.0 | 1.7 |
| 235 | ok | 0.19 | 0.1 | 1.56e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -88.5 | -32.9 | -10.2 | 14.3 | -2.1 | 1.5 |
| 236 | ok | 0.19 | 9.35e-02 | 1.58e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -73.5 | -19.3 | -13.7 | 16.8 | 2.2 | 1.5 |
| 237 | ok | 0.19 | 0.1 | 1.86e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -27.2 | -55.8 | -32.2 | 2.6 | 8.9 | 4.4 |
| 238 | ok | 0.19 | 0.1 | 1.71e-02 | 17.0 | 17.0 | 5.7 | 5.7 | -24.4 | -44.7 | -55.9 | -5.8 | 7.2 | -0.9 |

| **Nodo** | **x/d** | **V N/M** | **ver. rid** | **Af pr-** | **Af pr+** | **Af sec-** | **Af sec+** | **N z** | **N o** | **N zo** | **M z** | **M o** | **M zo** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -144.36 | -85.28 | -55.90 | -7.03 | -2.08 | -5.15 |
| | 0.19 | 0.15 | 0.02 | 16.96 | 16.96 | 5.65 | 5.65 | -2.15 | -13.37 | 18.90 | 27.89 | 8.96 | 6.58 |

| **Nodo** | **Stato** | **Max tau** | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** | **V sec** |
|---|---|---|---|---|---|---|---|---|
| | | N/mm2 | | | | | kN/ m | kN/ m |
| 9 | ok | 1.08 | | | | | | |
| 10 | ok | 0.78 | | | | | | |
| 25 | ok | 1.61 | | | | | | |
| 28 | ok | 1.54 | | | | | | |
| 30 | ok | 0.90 | | | | | | |
| 35 | ok | 1.63 | | | | | | |
| 38 | ok | 1.54 | | | | | | |
| 40 | ok | 0.76 | | | | | | |
| 55 | ok | 1.31 | | | | | | |
| 216 | ok | 1.95 | | | | | | |
| 217 | ok | 2.62 | | | | | | |
| 218 | ok | 2.58 | | | | | | |
| 219 | ok | 2.31 | | | | | | |
| 220 | ok | 0.84 | | | | | | |
| 221 | ok | 2.18 | | | | | | |
| 222 | ok | 2.88 | | | | | | |
| 223 | ok | 2.87 | | | | | | |
| 224 | ok | 2.61 | | | | | | |
| 225 | ok | 1.17 | | | | | | |
| 226 | ok | 1.55 | | | | | | |
| 227 | ok | 1.84 | | | | | | |
| 228 | ok | 1.59 | | | | | | |
| 229 | ok | 2.62 | | | | | | |
| 230 | ok | 2.34 | | | | | | |
| 231 | ok | 2.88 | | | | | | |
| 232 | ok | 2.60 | | | | | | |
| 233 | ok | 2.90 | | | | | | |
| 234 | ok | 2.63 | | | | | | |
| 235 | ok | 2.21 | | | | | | |
| 236 | ok | 1.97 | | | | | | |
| 237 | ok | 1.82 | | | | | | |
| 238 | ok | 1.51 | | | | | | |

| **Nodo** | **Max tau** | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** | **V sec** |
|---|---|---|---|---|---|---|---|
| | 2.90 | | | | | | |

| Macro Guscio | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 2 | 35.00 | 1 | 2 | Singolo elemento |

| **Nodo** | **Stato** | **x/d** | **V N/M** | **ver. rid** | **Af pr-** | **Af pr+** | **Af sec-** | **Af sec+** | **N x** | **N y** | **N xy** | **M x** | **M y** | **M xy** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 4 | ok | 0.19 | 0.1 | 1.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -72.3 | -5.0 | 11.4 | 16.9 | 4.8 | -4.2 |
| 17 | ok | 0.19 | 0.2 | 1.72e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.1 | -14.5 | 15.7 | 40.3 | 29.8 | 4.2 |
| 18 | ok | 0.19 | 0.2 | 1.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.2 | -14.9 | 15.5 | 34.6 | 29.1 | -2.6 |
| 19 | ok | 0.19 | 0.3 | 1.69e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -41.0 | -77.8 | 3.6 | -1.7 | -44.8 | 9.7 |
| 20 | ok | 0.19 | 0.3 | 1.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -33.2 | -76.8 | 1.2 | -13.1 | -46.1 | 3.6 |
| 21 | ok | 0.19 | 0.2 | 1.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -51.2 | -63.2 | -3.5 | -19.5 | -30.1 | 17.0 |
| 22 | ok | 0.19 | 0.2 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -32.1 | -67.8 | -1.8 | -9.5 | -30.0 | 5.5 |
| 23 | ok | 0.19 | 0.2 | 1.29e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -32.9 | -74.4 | -1.8 | -9.9 | -32.9 | 4.7 |
| 24 | ok | 0.19 | 0.2 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -34.5 | -64.7 | -9.7 | -6.9 | -23.4 | 13.1 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | ok | 0.19 | 4.72e-02 | 4.35e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -14.0 | -13.4 | 10.6 | 2.8 | 2.2 | 5.7 |
| 31 | ok | 0.19 | 0.2 | 1.50e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -18.7 | -52.5 | 10.6 | 5.3 | 23.3 | 9.2 |
| 34 | ok | 0.19 | 0.2 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -54.7 | -122.2 | 17.1 | 2.8 | 40.3 | 4.3 |
| 40 | ok | 0.19 | 4.65e-02 | 8.11e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -23.5 | -25.1 | -23.0 | 1.6 | 1.6 | -6.2 |
| 41 | ok | 0.19 | 0.1 | 1.47e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -27.4 | -57.5 | -23.0 | 3.1 | 14.3 | -10.8 |
| 44 | ok | 0.19 | 0.1 | 1.71e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -52.5 | -81.0 | -30.1 | -7.34e-02 | 23.1 | -6.0 |
| 45 | ok | 0.19 | 0.2 | 1.10e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -54.0 | -55.4 | 0.5 | -35.6 | -12.5 | -4.1 |
| 46 | ok | 0.19 | 0.3 | 1.06e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.7 | -58.8 | -3.3 | -46.9 | -25.0 | 5.0 |
| 48 | ok | 0.19 | 0.2 | 1.38e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -47.5 | -62.7 | -10.4 | -32.5 | -30.2 | 9.0 |
| 49 | ok | 0.19 | 0.2 | 1.34e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -53.7 | -59.6 | 8.6 | -24.7 | -14.6 | 12.6 |
| 50 | ok | 0.19 | 0.2 | 1.62e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -47.4 | -62.4 | -10.4 | -32.3 | -28.3 | 2.4 |
| 51 | ok | 0.19 | 0.3 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.9 | -60.1 | -3.3 | -47.3 | -28.8 | 3.8 |
| 52 | ok | 0.19 | 0.2 | 1.41e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -67.4 | -61.3 | 8.6 | -36.5 | -16.0 | 10.2 |
| 53 | ok | 0.19 | 0.2 | 2.00e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -53.5 | -35.6 | 8.3 | -2.1 | 29.1 | 10.7 |
| 54 | ok | 0.19 | 0.3 | 1.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -56.1 | -63.7 | -10.4 | -45.3 | -31.8 | 9.7 |
| 55 | ok | 0.19 | 0.1 | 1.32e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -46.1 | -27.8 | -23.0 | 10.0 | 2.6 | -10.7 |
| 59 | ok | 0.19 | 0.1 | 1.57e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -34.1 | -75.1 | -19.2 | 1.9 | 20.1 | 5.9 |
| 63 | ok | 0.19 | 0.1 | 1.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -11.6 | -64.7 | -17.4 | 2.5 | 14.4 | 7.7 |
| 66 | ok | 0.19 | 7.03e-02 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -10.8 | -58.2 | -17.4 | 1.6 | 6.6 | 6.6 |
| 70 | ok | 0.19 | 6.79e-02 | 1.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | 14.0 | -59.3 | 5.7 | 2.2 | 8.3 | -5.9 |
| 74 | ok | 0.19 | 6.73e-02 | 1.15e-02 | 17.0 | 17.0 | 17.0 | 17.0 | 11.8 | -63.3 | 8.7 | 1.2 | 8.9 | -5.9 |
| 78 | ok | 0.19 | 0.1 | 1.38e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -68.1 | 7.3 | 15.4 | 17.0 | -5.4 | -4.8 |
| 81 | ok | 0.19 | 8.14e-02 | 9.55e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -3.3 | -41.0 | -6.1 | -1.2 | -13.3 | 3.9 |
| 85 | ok | 0.19 | 9.75e-02 | 1.27e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -42.8 | 6.5 | -16.3 | 0.9 | 13.4 | 7.7 |
| 89 | ok | 0.19 | 9.31e-02 | 1.09e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -50.5 | 16.1 | 1.8 | 16.5 | 2.1 | 1.8 |
| 93 | ok | 0.19 | 0.1 | 1.16e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.2 | 8.2 | 0.7 | 19.1 | 2.4 | 0.8 |
| 97 | ok | 0.19 | 0.1 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.7 | -1.7 | 1.0 | 20.7 | 2.7 | 4.89e-02 |
| 101 | ok | 0.19 | 0.1 | 1.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -63.9 | -2.2 | 1.0 | 22.0 | 2.8 | 0.1 |
| 104 | ok | 0.19 | 0.1 | 1.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -64.3 | -1.7 | -0.7 | 23.0 | 1.5 | -2.37e-02 |
| 108 | ok | 0.19 | 0.1 | 1.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.5 | -4.9 | 12.4 | 13.7 | 8.3 | -5.2 |
| 112 | ok | 0.19 | 9.68e-02 | 1.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -60.4 | 0.6 | 1.6 | 17.4 | 2.7 | -0.2 |
| 116 | ok | 0.19 | 9.12e-02 | 1.21e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -43.9 | -1.9 | -1.7 | 16.2 | 2.1 | -0.8 |
| 120 | ok | 0.19 | 8.96e-02 | 1.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -61.5 | 1.2 | -11.7 | 16.1 | 2.2 | -1.0 |
| 124 | ok | 0.19 | 9.37e-02 | 1.27e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -65.6 | 0.7 | -11.7 | 16.9 | 2.3 | -0.9 |
| 127 | ok | 0.19 | 9.62e-02 | 1.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -65.3 | -0.2 | -5.4 | 17.4 | 1.8 | -0.7 |
| 131 | ok | 0.19 | 0.1 | 1.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -47.9 | 9.9 | -1.0 | 18.7 | 2.4 | 0.3 |
| 135 | ok | 0.19 | 0.1 | 1.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.2 | 5.4 | -1.1 | 19.1 | 2.4 | 0.3 |
| 139 | ok | 0.19 | 0.1 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.0 | 5.4 | -1.1 | 19.2 | 2.4 | 0.3 |
| 143 | ok | 0.19 | 0.1 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.1 | -1.2 | -0.7 | 19.2 | 2.5 | 0.2 |
| 147 | ok | 0.19 | 0.1 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -50.1 | -1.5 | -0.7 | 19.2 | 2.5 | 4.61e-02 |
| 150 | ok | 0.19 | 0.1 | 1.13e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -45.8 | -1.7 | -1.8 | 19.2 | 1.2 | 9.97e-02 |
| 152 | ok | 0.19 | 0.3 | 1.92e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -76.2 | -31.1 | 53.8 | 13.6 | 38.9 | -18.2 |
| 157 | ok | 0.19 | 0.2 | 3.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -49.2 | -14.5 | 35.2 | 13.2 | 26.2 | -11.3 |
| 161 | ok | 0.19 | 0.1 | 1.82e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -63.9 | -55.1 | 16.4 | 18.7 | 7.0 | -8.1 |
| 165 | ok | 0.19 | 0.3 | 1.72e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -7.4 | -97.2 | 16.5 | -11.8 | -53.6 | 17.6 |
| 166 | ok | 0.19 | 0.2 | 1.51e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -67.8 | -60.0 | -16.6 | -35.7 | -18.0 | -4.4 |
| 167 | ok | 0.19 | 0.1 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -65.9 | -19.7 | 1.6 | -18.2 | 2.9 | -2.8 |
| 168 | ok | 0.19 | 0.2 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -15.4 | -63.8 | 13.0 | -19.4 | -28.8 | -0.3 |
| 169 | ok | 0.19 | 0.2 | 1.59e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -58.1 | -58.9 | -16.6 | -28.1 | -17.1 | -8.4 |
| 173 | ok | 0.19 | 5.63e-02 | 1.26e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -9.4 | -41.2 | -3.2 | -1.5 | -8.9 | 3.1 |
| 174 | ok | 0.19 | 0.1 | 1.48e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -60.4 | -18.1 | 20.7 | 23.6 | 9.2 | 0.2 |
| 175 | ok | 0.19 | 0.1 | 1.36e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.3 | -17.7 | 18.9 | -20.3 | -2.5 | -3.9 |
| 179 | ok | 0.19 | 0.2 | 2.00e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -53.5 | -35.6 | 8.3 | -2.1 | 29.1 | 10.7 |
| 183 | ok | 0.19 | 0.2 | 1.45e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.1 | -28.9 | 21.6 | -27.7 | 4.1 | -6.8 |
| 184 | ok | 0.19 | 0.2 | 1.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.2 | -29.3 | 21.6 | -27.5 | 6.0 | -0.6 |
| 185 | ok | 0.19 | 0.2 | 2.06e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.2 | -48.9 | 22.4 | -37.1 | 12.7 | -5.0 |
| 186 | ok | 0.19 | 0.2 | 1.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -56.8 | -28.7 | 21.6 | -38.1 | 4.7 | -1.2 |
| 187 | ok | 0.19 | 0.3 | 1.72e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -53.4 | -56.0 | 25.3 | -51.6 | -6.4 | 12.5 |
| 188 | ok | 0.19 | 0.3 | 1.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -52.7 | -49.6 | 25.3 | -52.5 | -13.4 | 1.8 |
| 189 | ok | 0.19 | 0.4 | 3.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -13.9 | -98.0 | 16.5 | -23.2 | -54.9 | 25.3 |
| 190 | ok | 0.19 | 0.3 | 1.57e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -40.9 | -81.0 | 23.0 | -34.8 | -35.8 | 12.0 |
| 191 | ok | 0.19 | 0.2 | 1.47e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -16.8 | -75.7 | 13.0 | -20.6 | -38.8 | 4.9 |
| 192 | ok | 0.19 | 0.2 | 1.29e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -37.8 | -55.8 | 23.0 | -33.9 | -27.7 | 4.4 |
| 193 | ok | 0.19 | 0.3 | 1.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -0.1 | -70.7 | 7.1 | -8.5 | -46.7 | 5.2 |
| 194 | ok | 0.19 | 0.2 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -2.8 | -74.0 | 13.0 | -10.6 | -37.6 | 1.2 |
| 195 | ok | 0.19 | 0.2 | 1.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -1.3 | -62.1 | 13.0 | -9.4 | -27.6 | -4.0 |
| 196 | ok | 0.19 | 0.1 | 1.14e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -56.6 | -18.8 | -8.3 | 15.3 | 11.6 | -4.7 |
| 197 | ok | 0.19 | 0.2 | 1.50e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -40.2 | -70.4 | -17.2 | -16.6 | -21.8 | 6.8 |
| 198 | ok | 0.19 | 0.1 | 1.15e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.3 | -26.5 | 8.4 | 16.3 | 6.7 | 6.7 |
| 199 | ok | 0.19 | 0.1 | 1.68e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -46.6 | -71.4 | -27.4 | -15.0 | -17.7 | -9.3 |
| 200 | ok | 0.19 | 0.2 | 1.12e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.6 | -37.0 | -5.9 | 25.7 | 17.1 | 4.1 |
| 201 | ok | 0.19 | 0.2 | 1.14e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -44.3 | -35.9 | -6.2 | 33.5 | 18.1 | -0.3 |
| 202 | ok | 0.19 | 0.2 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -32.1 | -67.8 | -1.8 | -11.2 | -30.2 | 4.4 |
| 203 | ok | 0.19 | 0.2 | 1.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -49.9 | -60.2 | -23.0 | 11.6 | 15.4 | -15.3 |
| 204 | ok | 0.19 | 0.1 | 1.48e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.7 | -24.8 | 12.4 | 18.2 | 11.6 | -9.2 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 205 | ok | 0.19 | 0.2 | 1.28e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -40.6 | -61.9 | -3.5 | -12.2 | -29.3 | 16.2 |
| 206 | ok | 0.19 | 0.2 | 2.15e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -66.8 | -111.3 | -27.4 | -16.4 | 35.8 | -3.5 |
| 207 | ok | 0.19 | 0.2 | 1.19e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -42.2 | -54.3 | 10.6 | 8.9 | 23.1 | 13.4 |
| 208 | ok | 0.19 | 0.2 | 1.61e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -55.2 | -66.1 | 0.5 | -36.6 | -21.1 | -4.67e-02 |
| 209 | ok | 0.19 | 0.1 | 1.74e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -63.2 | -50.5 | -7.8 | 19.0 | 6.8 | -7.3 |
| 210 | ok | 0.19 | 0.1 | 1.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -60.5 | -35.5 | 7.4 | 15.7 | 5.1 | -12.4 |
| 211 | ok | 0.19 | 0.1 | 1.39e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -56.4 | -13.2 | -15.4 | -19.4 | 10.7 | -9.9 |
| 212 | ok | 0.19 | 0.2 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -60.4 | -41.1 | 16.0 | 33.0 | 14.7 | -4.8 |
| 213 | ok | 0.19 | 0.3 | 1.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -55.6 | -59.8 | -3.3 | -44.9 | -28.6 | 5.2 |
| 214 | ok | 0.19 | 0.2 | 1.19e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -51.2 | -40.6 | 16.2 | 38.7 | 15.4 | 2.0 |
| 215 | ok | 0.19 | 0.2 | 1.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -41.4 | -54.5 | 13.9 | -21.7 | -28.0 | -8.8 |
| 216 | ok | 0.19 | 0.1 | 1.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -61.3 | -39.4 | 14.7 | 15.2 | 2.3 | 12.4 |
| 217 | ok | 0.19 | 0.1 | 1.73e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -80.5 | -67.7 | 6.8 | 21.2 | 0.2 | 7.3 |
| 218 | ok | 0.19 | 0.1 | 1.73e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -82.3 | -78.8 | -14.4 | 22.0 | 0.2 | -3.4 |
| 219 | ok | 0.19 | 0.1 | 1.64e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -71.8 | -57.7 | -24.7 | 18.7 | 1.0 | -9.4 |
| 220 | ok | 0.19 | 9.36e-02 | 9.12e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -40.0 | -36.8 | 14.7 | 6.3 | 1.3 | 12.5 |
| 240 | ok | 0.19 | 0.1 | 1.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -72.0 | -10.7 | 7.4 | 16.3 | 4.7 | -3.3 |
| 241 | ok | 0.19 | 0.1 | 1.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.4 | 3.2 | -1.1 | 19.1 | 2.2 | 0.4 |
| 242 | ok | 0.19 | 0.1 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.3 | 3.2 | -1.1 | 19.2 | 2.2 | 0.3 |
| 243 | ok | 0.19 | 0.1 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -47.8 | 1.4 | -1.3 | 19.2 | 2.2 | 0.2 |
| 244 | ok | 0.19 | 0.1 | 1.19e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -49.8 | 0.6 | -0.7 | 19.2 | 2.1 | 4.51e-02 |
| 245 | ok | 0.19 | 0.1 | 1.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -45.5 | 0.7 | -1.8 | 19.3 | 1.6 | 0.2 |
| 246 | ok | 0.19 | 8.57e-02 | 1.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.0 | -11.8 | 8.0 | -13.3 | 3.3 | 2.6 |
| 247 | ok | 0.19 | 5.74e-02 | 1.16e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.5 | -11.9 | 8.0 | -9.8 | 3.7 | 2.0 |
| 248 | ok | 0.19 | 5.36e-02 | 1.16e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.5 | -7.5 | 5.9 | -8.2 | 2.5 | 0.8 |
| 249 | ok | 0.19 | 5.40e-02 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -68.5 | -1.5 | -4.1 | -9.7 | -1.0 | -1.1 |
| 250 | ok | 0.19 | 5.39e-02 | 1.21e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -70.7 | -1.7 | -4.1 | -9.7 | -1.0 | -1.0 |
| 251 | ok | 0.19 | 5.65e-02 | 1.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -72.2 | -0.7 | -2.0 | -10.0 | -0.5 | -1.0 |
| 252 | ok | 0.19 | 8.25e-02 | 1.19e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -57.2 | -11.2 | 2.2 | 11.9 | 5.3 | 3.8 |
| 253 | ok | 0.19 | 8.22e-02 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.5 | -11.1 | -13.8 | 14.5 | 2.1 | -1.4 |
| 254 | ok | 0.19 | 8.50e-02 | 1.19e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -61.4 | -11.4 | -13.8 | 15.2 | 2.2 | -1.4 |
| 255 | ok | 0.19 | 8.97e-02 | 1.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.1 | -3.1 | -11.7 | 16.1 | 2.1 | -1.4 |
| 256 | ok | 0.19 | 9.41e-02 | 1.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -66.1 | -3.6 | -11.7 | 16.9 | 2.2 | -1.4 |
| 257 | ok | 0.19 | 9.61e-02 | 1.32e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -65.4 | -0.9 | -5.4 | 17.4 | 1.4 | -1.0 |
| 258 | ok | 0.19 | 0.1 | 1.44e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -61.9 | -24.7 | 12.4 | 14.1 | 11.1 | -8.5 |
| 259 | ok | 0.19 | 9.85e-02 | 1.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.8 | -17.5 | 5.4 | 11.7 | 8.4 | -4.0 |
| 260 | ok | 0.19 | 9.18e-02 | 1.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -44.6 | -7.4 | -1.7 | 16.3 | 2.6 | -1.0 |
| 261 | ok | 0.19 | 9.00e-02 | 1.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -45.0 | -7.4 | -1.7 | 16.0 | 2.6 | -0.8 |
| 262 | ok | 0.19 | 8.85e-02 | 1.28e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -44.6 | -3.0 | -1.2 | 15.8 | 2.2 | -0.6 |
| 263 | ok | 0.19 | 8.71e-02 | 1.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -36.2 | 3.77e-02 | -1.2 | 15.4 | 1.2 | -0.7 |
| 264 | ok | 0.19 | 8.34e-02 | 1.14e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -51.4 | -34.8 | 3.0 | -5.4 | 13.1 | -0.1 |
| 265 | ok | 0.19 | 9.31e-02 | 1.12e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -51.0 | -3.5 | -6.9 | 16.2 | 4.9 | -0.4 |
| 266 | ok | 0.19 | 0.1 | 1.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -58.4 | -1.7 | 0.7 | 19.1 | 2.8 | -0.6 |
| 267 | ok | 0.19 | 0.1 | 1.21e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -59.6 | -0.7 | 1.9 | 20.7 | 2.8 | -0.7 |
| 268 | ok | 0.19 | 0.1 | 1.27e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.1 | 0.6 | -1.9 | 21.8 | 2.7 | -0.8 |
| 269 | ok | 0.19 | 0.1 | 1.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -64.0 | 0.4 | -0.7 | 23.0 | 1.8 | -0.7 |

| **Nodo** | **x/d** | **V N/M** | **ver. rid** | **Af pr-** | **Af pr+** | **Af sec-** | **Af sec+** | **N x** | **N y** | **N xy** | **M x** | **M y** | **M xy** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -82.29 | -122.22 | -30.07 | -52.48 | -54.93 | -18.23 |
| | 0.19 | 0.37 | 0.03 | 16.96 | 16.96 | 16.96 | 16.96 | 14.03 | 16.15 | 53.84 | 40.30 | 40.34 | 25.35 |

| **Nodo** | **Stato** | **Max tau** N/mm2 | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** kN/ m | **V sec** kN/ m |
|---|---|---|---|---|---|---|---|---|
| 4 | ok | 2.68 | | | | | | |
| 17 | ok Av | 9.52 | 0.24 | 0.26 | 7.6 | 8.5 | 180.9 | 201.5 |
| 18 | ok | 4.01 | | | | | | |
| 19 | ok Av | 7.16 | 0.05 | 0.26 | 1.5 | 8.5 | 35.3 | 201.5 |
| 20 | ok | 1.31 | | | | | | |
| 21 | ok | 2.76 | | | | | | |
| 22 | ok | 2.92 | | | | | | |
| 23 | ok | 3.49 | | | | | | |
| 24 | ok | 3.11 | | | | | | |
| 30 | ok | 2.87 | | | | | | |
| 31 | ok | 3.37 | | | | | | |
| 34 | ok Av | 6.69 | 0.14 | 0.23 | 4.3 | 7.3 | 103.0 | 174.3 |
| 40 | ok | 2.24 | | | | | | |
| 41 | ok | 2.58 | | | | | | |
| 44 | ok | 4.00 | | | | | | |
| 45 | ok | 2.53 | | | | | | |
| 46 | ok | 2.06 | | | | | | |
| 48 | ok | 1.81 | | | | | | |
| 49 | ok | 2.76 | | | | | | |
| 50 | ok | 2.07 | | | | | | |
| 51 | ok | 1.77 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 52 | ok | 3.63 | | | | | | |
| 53 | ok | 2.39 | | | | | | |
| 54 | ok | 2.59 | | | | | | |
| 55 | ok | 2.20 | | | | | | |
| 59 | ok | 3.52 | | | | | | |
| 63 | ok | 3.11 | | | | | | |
| 66 | ok | 3.53 | | | | | | |
| 70 | ok | 3.09 | | | | | | |
| 74 | ok | 3.13 | | | | | | |
| 78 | ok | 2.86 | | | | | | |
| 81 | ok | 3.33 | | | | | | |
| 85 | ok | 3.12 | | | | | | |
| 89 | ok | 0.85 | | | | | | |
| 93 | ok | 0.97 | | | | | | |
| 97 | ok | 1.03 | | | | | | |
| 101 | ok | 1.11 | | | | | | |
| 104 | ok | 1.16 | | | | | | |
| 108 | ok | 1.87 | | | | | | |
| 112 | ok | 1.10 | | | | | | |
| 116 | ok | 0.99 | | | | | | |
| 120 | ok | 1.05 | | | | | | |
| 124 | ok | 1.10 | | | | | | |
| 127 | ok | 1.27 | | | | | | |
| 131 | ok | 1.66 | | | | | | |
| 135 | ok | 1.35 | | | | | | |
| 139 | ok | 1.21 | | | | | | |
| 143 | ok | 1.19 | | | | | | |
| 147 | ok | 1.19 | | | | | | |
| 150 | ok | 1.10 | | | | | | |
| 152 | ok Av | 8.04 | 0.11 | 0.28 | 3.4 | 8.9 | 80.7 | 212.0 |
| 157 | ok Av | 12.33 | 0.25 | 0.38 | 8.1 | 12.2 | 192.8 | 289.4 |
| 161 | ok Av | 5.79 | 0.14 | 0.16 | 4.6 | 5.2 | 108.2 | 122.5 |
| 165 | ok | 3.30 | | | | | | |
| 166 | ok | 3.66 | | | | | | |
| 167 | ok | 0.84 | | | | | | |
| 168 | ok | 1.30 | | | | | | |
| 169 | ok | 3.11 | | | | | | |
| 173 | ok | 3.60 | | | | | | |
| 174 | ok | 2.72 | | | | | | |
| 175 | ok | 2.36 | | | | | | |
| 179 | ok | 3.78 | | | | | | |
| 183 | ok | 2.56 | | | | | | |
| 184 | ok | 1.66 | | | | | | |
| 185 | ok | 3.21 | | | | | | |
| 186 | ok | 2.42 | | | | | | |
| 187 | ok Av | 6.99 | 0.25 | 0.05 | 8.1 | 1.7 | 192.8 | 40.9 |
| 188 | ok | 1.40 | | | | | | |
| 189 | ok Av | 10.27 | 0.02 | 0.38 | 0.5 | 12.2 | 12.7 | 289.4 |
| 190 | ok | 1.52 | | | | | | |
| 191 | ok | 1.71 | | | | | | |
| 192 | ok | 2.48 | | | | | | |
| 193 | ok | 3.33 | | | | | | |
| 194 | ok | 3.58 | | | | | | |
| 195 | ok | 3.06 | | | | | | |
| 196 | ok | 2.68 | | | | | | |
| 197 | ok | 3.37 | | | | | | |
| 198 | ok | 1.68 | | | | | | |
| 199 | ok | 3.75 | | | | | | |
| 200 | ok | 2.68 | | | | | | |
| 201 | ok Av | 5.87 | 0.21 | 0.04 | 6.9 | 1.3 | 162.8 | 29.8 |
| 202 | ok | 1.37 | | | | | | |
| 203 | ok | 2.42 | | | | | | |
| 204 | ok | 2.60 | | | | | | |
| 205 | ok | 1.53 | | | | | | |
| 206 | ok Av | 6.19 | 0.03 | 0.23 | 1.0 | 7.3 | 24.7 | 174.3 |
| 207 | ok | 2.10 | | | | | | |
| 208 | ok | 2.54 | | | | | | |
| 209 | ok | 4.37 | | | | | | |
| 210 | ok | 1.36 | | | | | | |
| 211 | ok | 1.78 | | | | | | |
| 212 | ok | 2.43 | | | | | | |
| 213 | ok | 1.80 | | | | | | |
| 214 | ok Av | 6.37 | 0.23 | 0.04 | 7.5 | 1.2 | 177.6 | 28.9 |
| 215 | ok | 2.70 | | | | | | |
| 216 | ok | 2.92 | | | | | | |

| | | |
|---|---|---|
| 217 | ok | 3.88 |
| 218 | ok | 3.76 |
| 219 | ok | 3.42 |
| 220 | ok | 1.96 |
| 240 | ok | 1.61 |
| 241 | ok | 1.26 |
| 242 | ok | 1.20 |
| 243 | ok | 1.19 |
| 244 | ok | 1.18 |
| 245 | ok | 1.09 |
| 246 | ok | 0.98 |
| 247 | ok | 0.57 |
| 248 | ok | 0.55 |
| 249 | ok | 0.63 |
| 250 | ok | 0.51 |
| 251 | ok | 0.97 |
| 252 | ok | 1.56 |
| 253 | ok | 1.06 |
| 254 | ok | 0.99 |
| 255 | ok | 1.05 |
| 256 | ok | 1.10 |
| 257 | ok | 1.27 |
| 258 | ok | 1.36 |
| 259 | ok | 1.03 |
| 260 | ok | 0.95 |
| 261 | ok | 0.90 |
| 262 | ok | 0.94 |
| 263 | ok | 0.90 |
| 264 | ok | 1.08 |
| 265 | ok | 0.84 |
| 266 | ok | 0.97 |
| 267 | ok | 1.03 |
| 268 | ok | 1.09 |
| 269 | ok | 1.14 |

| Nodo | Max tau | Ver V pr | Ver V sec | Af V pr | Af V sec | V pr | V sec |
|---|---|---|---|---|---|---|---|
| | 12.33 | 0.25 | 0.38 | 8.13 | 12.20 | 192.82 | 289.36 |

| Macro Guscio | Spessore | Id Materiale | Id Criterio | Progettazione |
|---|---|---|---|---|
| | cm | | | |
| 8 | 35.00 | 1 | 3 | Singolo elemento |

| Nodo | Stato | x/d | V N/M | ver. rid | Af pr- | Af pr+ | Af sec- | Af sec+ | N x | N y | N xy | M x | M y | M xy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kN/ m | kN/ m | kN/ m | kN | kN | kN |
| 1 | ok | 0.19 | 0.2 | 2.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -125.8 | -9.5 | -11.0 | -35.8 | -2.0 | -1.5 |
| 2 | ok | 0.19 | 0.2 | 2.98e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -36.9 | -18.5 | -15.7 | -7.0 | 17.9 | -4.7 |
| 3 | ok | 0.19 | 6.93e-02 | 2.57e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -89.6 | -4.0 | 9.0 | 12.3 | 1.8 | 0.5 |
| 5 | ok | 0.19 | 0.2 | 2.02e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -104.1 | -26.7 | -10.1 | -29.9 | -30.3 | 7.6 |
| 6 | ok | 0.19 | 0.2 | 1.73e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -79.8 | -24.7 | 17.3 | -33.4 | -30.7 | 6.3 |
| 7 | ok | 0.19 | 0.1 | 2.26e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -101.8 | -6.5 | 1.6 | -27.7 | -1.7 | -0.3 |
| 8 | ok | 0.19 | 0.2 | 4.51e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -155.1 | 13.0 | 49.2 | -16.0 | -31.1 | -8.6 |
| 9 | ok | 0.19 | 3.30e-02 | 8.42e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -43.4 | -24.5 | -0.3 | -1.7 | -1.8 | -4.1 |
| 10 | ok | 0.19 | 4.23e-02 | 5.96e-03 | 17.0 | 17.0 | 17.0 | 17.0 | -34.5 | -25.9 | -1.7 | -2.2 | -2.1 | 5.3 |
| 11 | ok | 0.19 | 0.2 | 2.34e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -9.75e-02 | -104.4 | 26.3 | -4.2 | -33.6 | 2.0 |
| 12 | ok | 0.19 | 0.2 | 2.39e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -6.4 | -119.0 | 8.3 | -3.3 | -45.9 | 2.6 |
| 27 | ok | 0.19 | 0.1 | 2.86e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -115.6 | -89.7 | -37.9 | -9.7 | -19.5 | -10.1 |
| 37 | ok | 0.19 | 0.1 | 1.59e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -41.9 | -88.0 | -1.7 | -4.0 | -16.8 | 9.9 |
| 47 | ok | 0.19 | 0.2 | 2.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -54.2 | -118.3 | 12.4 | -1.9 | -29.2 | 7.4 |
| 57 | ok | 0.19 | 0.2 | 2.34e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -70.5 | -128.7 | 23.1 | -3.0 | -30.2 | 4.7 |
| 61 | ok | 0.19 | 0.2 | 2.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -70.5 | -128.1 | 23.1 | -3.1 | -31.0 | 4.4 |
| 68 | ok | 0.19 | 0.2 | 2.38e-02 | 17.0 | 17.0 | 17.0 | 17.0 | 0.5 | -107.8 | 23.4 | -4.5 | -36.5 | 2.0 |
| 72 | ok | 0.19 | 0.2 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -4.6 | -108.3 | 12.9 | -5.2 | -38.5 | 2.3 |
| 76 | ok | 0.19 | 0.1 | 2.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -104.5 | -28.5 | -19.2 | -25.3 | -8.1 | -1.5 |
| 83 | ok | 0.19 | 0.1 | 2.13e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -110.9 | 48.4 | 17.2 | -16.0 | -15.3 | -4.8 |
| 87 | ok | 0.19 | 0.1 | 2.05e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -91.6 | 8.6 | 2.5 | -25.4 | -2.9 | -2.0 |
| 91 | ok | 0.19 | 0.1 | 2.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -99.5 | 0.5 | -0.9 | -27.0 | -3.2 | -1.2 |
| 95 | ok | 0.19 | 0.1 | 2.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -101.3 | -7.8 | 0.8 | -27.5 | -3.5 | -0.4 |
| 99 | ok | 0.19 | 0.1 | 2.27e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -104.9 | -8.2 | 0.8 | -27.6 | -3.5 | -0.5 |
| 106 | ok | 0.19 | 6.44e-02 | 2.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -91.9 | -21.8 | 17.3 | 11.0 | 4.5 | 2.3 |
| 110 | ok | 0.19 | 6.23e-02 | 2.31e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -91.8 | -18.6 | 17.1 | 11.3 | 1.5 | 1.2 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 114 | ok | 0.19 | 6.43e-02 | 2.36e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -90.7 | -16.4 | 16.1 | 11.8 | 1.6 | 0.4 |
| 118 | ok | 0.19 | 6.61e-02 | 2.41e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -91.2 | -16.5 | 16.1 | 12.2 | 1.6 | 0.3 |
| 122 | ok | 0.19 | 6.83e-02 | 2.53e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -90.5 | -12.0 | 14.8 | 12.5 | 1.7 | 0.1 |
| 129 | ok | 0.19 | 0.2 | 2.48e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -108.6 | -18.9 | -24.6 | -28.8 | -3.9 | -1.8 |
| 133 | ok | 0.19 | 0.2 | 2.53e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -110.8 | -19.9 | -25.0 | -30.6 | -3.6 | -1.8 |
| 137 | ok | 0.19 | 0.2 | 2.53e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -113.1 | -20.5 | -24.1 | -32.0 | -3.7 | -1.7 |
| 141 | ok | 0.19 | 0.2 | 2.46e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -114.3 | -15.9 | -16.3 | -33.2 | -4.1 | -1.5 |
| 145 | ok | 0.19 | 0.2 | 2.48e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -124.7 | -17.1 | -16.3 | -34.7 | -4.3 | -1.3 |
| 151 | ok | 0.19 | 0.1 | 2.12e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -111.9 | -2.4 | 6.8 | -13.9 | -17.2 | 8.1 |
| 158 | ok | 0.19 | 0.1 | 2.21e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -120.7 | -39.9 | 10.7 | -7.0 | 19.7 | 2.3 |
| 162 | ok | 0.19 | 0.1 | 2.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -107.0 | -18.7 | -24.6 | -27.3 | -3.7 | -1.9 |
| 171 | ok | 0.19 | 0.2 | 2.45e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -5.9 | -119.2 | 12.9 | -5.7 | -42.3 | 2.3 |
| 176 | ok | 0.19 | 7.55e-02 | 2.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -91.9 | -22.9 | 19.5 | 10.3 | 8.8 | 2.6 |
| 180 | ok | 0.19 | 0.2 | 3.80e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -155.1 | 13.0 | 49.2 | -16.0 | -31.1 | -8.6 |
| 221 | ok | 0.19 | 0.1 | 1.84e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -103.8 | -35.3 | 11.3 | -18.5 | -2.8 | -9.5 |
| 222 | ok | 0.19 | 0.1 | 2.11e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -118.4 | -41.8 | 13.1 | -24.5 | -1.2 | -4.8 |
| 223 | ok | 0.19 | 0.1 | 2.07e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -116.3 | -46.0 | 3.8 | -24.4 | -1.2 | 5.1 |
| 224 | ok | 0.19 | 0.1 | 1.83e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -105.4 | -40.2 | -3.5 | -19.9 | -1.6 | 10.1 |
| 225 | ok | 0.19 | 7.91e-02 | 1.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -75.1 | -31.8 | 11.3 | -6.9 | -1.4 | -9.6 |
| 226 | ok | 0.19 | 0.1 | 1.32e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -75.9 | -30.9 | -1.7 | -10.5 | -3.1 | 10.5 |
| 239 | ok | 0.19 | 0.2 | 2.05e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -63.0 | -90.8 | 13.5 | 12.5 | 34.4 | -5.4 |
| 270 | ok | 0.19 | 0.1 | 2.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -110.3 | -68.0 | -3.0 | 23.5 | 21.2 | 0.9 |
| 271 | ok | 0.19 | 0.1 | 2.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -116.7 | -37.6 | -6.6 | -11.2 | 19.0 | 6.8 |
| 272 | ok | 0.19 | 0.2 | 2.64e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -116.5 | -36.0 | -12.6 | -14.5 | -8.4 | 16.1 |
| 273 | ok | 0.19 | 0.2 | 1.83e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.7 | -85.5 | 15.7 | -9.2 | 39.9 | 6.2 |
| 274 | ok | 0.19 | 0.2 | 2.10e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -48.4 | -101.7 | 5.2 | 5.1 | 42.2 | 3.7 |
| 275 | ok | 0.19 | 0.2 | 1.80e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -78.0 | -92.6 | 13.5 | 18.0 | 35.0 | -7.8 |
| 276 | ok | 0.19 | 0.2 | 2.42e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -12.0 | -109.3 | 19.9 | -4.8 | -36.6 | 3.2 |
| 277 | ok | 0.19 | 0.2 | 2.39e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -13.6 | -106.1 | 23.4 | -4.2 | -33.6 | 3.0 |
| 278 | ok | 0.19 | 0.2 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -61.8 | -127.1 | 23.1 | -2.0 | -30.9 | 4.8 |
| 279 | ok | 0.19 | 0.1 | 2.71e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -138.0 | -8.9 | 4.9 | 15.6 | -11.5 | 15.5 |
| 280 | ok | 0.19 | 0.2 | 2.03e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -104.6 | -34.3 | -12.5 | -27.9 | -10.0 | 16.1 |
| 281 | ok | 0.19 | 0.2 | 1.72e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -83.3 | -80.6 | 8.9 | 30.1 | 26.4 | 2.4 |
| 282 | ok | 0.19 | 0.2 | 1.61e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -88.4 | -75.9 | 4.6 | 27.0 | 22.5 | -6.9 |
| 283 | ok | 0.19 | 0.2 | 3.04e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -105.6 | -60.4 | -37.9 | -8.5 | -34.8 | -10.7 |
| 284 | ok | 0.19 | 0.2 | 1.94e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -53.0 | -99.6 | 5.5 | 19.8 | 37.9 | 8.8 |
| 285 | ok | 0.19 | 0.2 | 2.05e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -113.6 | -65.3 | -2.1 | 25.8 | 15.5 | 9.5 |
| 286 | ok | 0.19 | 0.2 | 1.65e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -94.4 | -78.5 | 4.6 | 33.4 | 27.6 | -2.1 |
| 287 | ok | 0.19 | 0.2 | 2.02e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -69.7 | -89.4 | 8.9 | 21.6 | 31.1 | -0.2 |
| 288 | ok | 0.19 | 0.2 | 1.90e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -106.4 | -57.0 | 13.1 | -17.0 | 9.3 | -11.9 |
| 289 | ok | 0.19 | 0.2 | 1.80e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -84.1 | -80.7 | 3.7 | 20.0 | 25.2 | 9.2 |
| 290 | ok | 0.19 | 0.2 | 1.81e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -93.4 | -70.6 | 4.6 | 33.3 | 27.0 | -0.5 |
| 291 | ok | 0.19 | 0.1 | 2.14e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -102.4 | -56.6 | 4.5 | 23.4 | 14.2 | -7.3 |
| 292 | ok | 0.19 | 0.2 | 3.87e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -155.1 | 13.0 | 49.2 | -16.0 | -31.1 | -8.6 |
| 293 | ok | 0.19 | 0.2 | 1.76e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -84.5 | -91.2 | 8.9 | 30.8 | 32.2 | -2.4 |
| 294 | ok | 0.19 | 0.1 | 2.10e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -94.9 | -17.4 | 2.7 | -25.6 | -5.1 | -0.6 |
| 295 | ok | 0.19 | 0.1 | 2.21e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -100.4 | -7.6 | 1.0 | -27.0 | -3.5 | -0.4 |
| 296 | ok | 0.19 | 0.1 | 2.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -101.3 | -7.7 | 1.0 | -27.5 | -3.5 | -0.3 |
| 297 | ok | 0.19 | 0.1 | 2.30e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -104.5 | -5.1 | 0.8 | -27.6 | -3.2 | -0.4 |
| 298 | ok | 0.19 | 0.1 | 2.45e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -101.1 | -0.8 | 1.6 | -27.7 | -2.1 | -0.2 |
| 299 | ok | 0.19 | 0.2 | 2.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -82.1 | -88.8 | -0.3 | -9.1 | -19.1 | -12.6 |
| 300 | ok | 0.19 | 0.2 | 2.42e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -108.6 | -18.8 | -24.6 | -28.7 | -3.4 | -3.0 |
| 301 | ok | 0.19 | 0.2 | 2.47e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -110.6 | -18.5 | -25.0 | -30.6 | -3.4 | -2.8 |
| 302 | ok | 0.19 | 0.2 | 2.47e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -112.5 | -15.8 | -22.0 | -31.9 | -3.5 | -2.3 |
| 303 | ok | 0.19 | 0.2 | 2.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -113.7 | -10.6 | -16.3 | -33.2 | -3.6 | -2.3 |
| 304 | ok | 0.19 | 0.2 | 2.50e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -124.1 | -11.9 | -16.3 | -34.7 | -3.8 | -2.1 |
| 305 | ok | 0.19 | 0.2 | 2.76e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -125.0 | -3.4 | -11.0 | -36.0 | -3.1 | -2.3 |
| 306 | ok | 0.19 | 0.2 | 2.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -127.1 | -29.7 | -6.1 | 30.2 | 4.2 | -0.4 |
| 307 | ok | 0.19 | 0.2 | 2.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -133.3 | -26.0 | -8.4 | 29.6 | 3.8 | -0.5 |
| 308 | ok | 0.19 | 0.2 | 2.38e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -136.5 | -17.9 | -7.7 | 28.9 | 3.3 | -0.6 |
| 309 | ok | 0.19 | 0.1 | 2.42e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -141.0 | -18.5 | -7.7 | 28.4 | 3.3 | -0.5 |
| 310 | ok | 0.19 | 0.1 | 2.52e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -146.7 | -14.0 | -4.4 | 28.2 | 3.0 | -0.5 |
| 311 | ok | 0.19 | 0.1 | 2.83e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -165.2 | -6.8 | -0.7 | 28.7 | 1.2 | 0.2 |
| 312 | ok | 0.19 | 0.2 | 2.27e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -127.4 | -32.7 | -6.1 | 30.3 | 5.3 | -0.3 |
| 313 | ok | 0.19 | 0.2 | 2.33e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -132.6 | -20.5 | -9.0 | 29.5 | 3.4 | -0.8 |
| 314 | ok | 0.19 | 0.2 | 2.36e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -136.4 | -16.8 | -7.7 | 28.9 | 3.5 | -0.7 |
| 315 | ok | 0.19 | 0.1 | 2.42e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -140.8 | -17.4 | -7.7 | 28.4 | 3.4 | -0.7 |
| 316 | ok | 0.19 | 0.1 | 2.53e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -146.5 | -12.3 | -4.4 | 28.2 | 3.0 | -0.5 |
| 317 | ok | 0.19 | 0.1 | 2.83e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -165.1 | -5.7 | -0.7 | 28.9 | 2.3 | 0.5 |
| 318 | ok | 0.19 | 8.77e-02 | 2.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -119.7 | -25.7 | 10.2 | 16.0 | 4.68e-02 | 2.6 |
| 319 | ok | 0.19 | 6.70e-02 | 2.18e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -117.8 | -21.5 | 6.4 | 12.2 | -1.7 | -0.5 |
| 320 | ok | 0.19 | 6.17e-02 | 2.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -125.2 | -10.4 | 1.1 | 11.5 | 1.4 | -1.1 |
| 321 | ok | 0.19 | 6.30e-02 | 2.26e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -92.4 | -9.1 | -2.3 | 11.4 | 1.3 | -1.5 |
| 322 | ok | 0.19 | 0.3 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -6.0 | -73.8 | 1.3 | 7.5 | 52.0 | -10.1 |
| 323 | ok | 0.19 | 0.2 | 2.08e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -96.6 | -60.8 | 3.7 | 23.6 | 14.7 | 7.6 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 324 | ok | 0.19 | 0.2 | 2.14e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -121.0 | -28.9 | -6.1 | 30.0 | 4.1 | -0.9 |
| 325 | ok | 0.19 | 0.2 | 2.20e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -23.8 | -94.4 | 6.6 | 12.9 | 33.9 | 0.7 |
| 326 | ok | 0.19 | 0.2 | 1.90e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -81.5 | -59.0 | 3.7 | 18.7 | 14.1 | 11.8 |
| 327 | ok | 0.19 | 6.67e-02 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -99.4 | -11.6 | 1.0 | 11.9 | 1.6 | -1.6 |
| 328 | ok | 0.19 | 7.23e-02 | 2.45e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -94.1 | -2.5 | -1.9 | 13.1 | 1.6 | -1.6 |
| 329 | ok | 0.19 | 0.1 | 2.39e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -107.1 | -19.4 | -23.0 | -27.3 | -4.1 | -3.2 |
| 330 | ok | 0.19 | 0.1 | 2.25e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -119.7 | -24.6 | 17.2 | -15.7 | -12.3 | -3.3 |
| 331 | ok | 0.19 | 0.2 | 2.23e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -110.6 | -29.7 | -7.0 | 30.3 | -2.2 | 1.3 |
| 332 | ok | 0.19 | 0.2 | 2.04e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -112.4 | -44.7 | -7.0 | 30.3 | -1.9 | -1.7 |
| 333 | ok | 0.19 | 0.2 | 2.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -94.0 | -47.2 | 1.6 | 36.0 | 2.1 | -1.4 |
| 334 | ok | 0.19 | 0.2 | 1.89e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -95.0 | -61.1 | 1.4 | 37.9 | 6.6 | -4.7 |
| 335 | ok | 0.19 | 0.2 | 1.93e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -62.6 | -69.7 | 7.4 | 39.2 | 23.4 | -9.6 |
| 336 | ok | 0.19 | 0.2 | 1.85e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -63.9 | -80.7 | 7.4 | 39.3 | 24.2 | -0.7 |
| 337 | ok | 0.19 | 0.3 | 2.89e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -10.8 | -74.4 | 1.3 | 14.2 | 52.8 | -15.4 |
| 338 | ok | 0.19 | 0.2 | 2.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -40.3 | -95.9 | 6.6 | 24.3 | 40.1 | -6.7 |
| 339 | ok | 0.19 | 0.2 | 2.24e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -23.7 | -93.9 | 6.6 | 13.5 | 38.8 | -4.9 |
| 340 | ok | 0.19 | 0.2 | 1.99e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -40.4 | -96.4 | 6.6 | 23.7 | 35.2 | -1.1 |
| 341 | ok | 0.19 | 0.2 | 2.39e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -2.9 | -118.6 | 8.3 | -4.2 | -46.0 | 4.2 |
| 342 | ok | 0.19 | 0.2 | 2.48e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -9.1 | -119.6 | 12.9 | -5.7 | -42.3 | 3.7 |
| 343 | ok | 0.19 | 0.2 | 2.37e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -7.8 | -108.7 | 12.9 | -5.2 | -38.5 | 3.7 |
| 344 | ok | 0.19 | 0.2 | 2.15e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -121.4 | -32.0 | -6.1 | 30.1 | 5.3 | -0.8 |
| 345 | ok | 0.19 | 0.2 | 2.35e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -58.1 | -123.0 | 28.2 | 4.1 | -31.9 | 3.5 |
| 346 | ok | 0.19 | 0.1 | 2.02e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -113.4 | -45.4 | -2.8 | 25.7 | -0.7 | -7.9 |
| 347 | ok | 0.19 | 0.2 | 2.22e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -66.4 | -119.7 | 12.4 | 4.9 | -28.4 | 12.2 |
| 348 | ok | 0.19 | 0.2 | 2.01e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -101.8 | -41.7 | 17.0 | -30.6 | -9.2 | -10.4 |
| 349 | ok | 0.19 | 0.2 | 1.79e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -67.7 | -79.8 | 5.7 | 33.8 | 20.0 | 8.7 |
| 350 | ok | 0.19 | 0.2 | 2.17e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -37.8 | -97.8 | 5.5 | 9.9 | 36.7 | 6.9 |
| 351 | ok | 0.19 | 0.2 | 1.63e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -83.4 | -93.0 | -1.7 | -12.3 | -17.8 | 15.1 |
| 352 | ok | 0.19 | 0.1 | 2.43e-02 | 17.0 | 17.0 | 17.0 | 17.0 | -128.6 | -32.8 | 4.9 | 22.9 | 0.9 | 7.4 |

| **Nodo** | **x/d** | **V N/M** | **ver. rid** | **Af pr-** | **Af pr+** | **Af sec-** | **Af sec+** | **N x** | **N y** | **N xy** | **M x** | **M y** | **M xy** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | -165.20 | -128.68 | -37.94 | -35.98 | -46.02 | -15.37 |
| | 0.19 | 0.32 | 0.05 | 16.96 | 16.96 | 16.96 | 16.96 | 0.45 | 48.41 | 49.24 | 39.33 | 52.79 | 16.11 |

| **Nodo** | **Stato** | **Max tau** N/mm2 | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** kN/ m | **V sec** kN/ m |
|---|---|---|---|---|---|---|---|---|
| 1 | ok | 3.12 | | | | | | |
| 2 | ok Av | 7.71 | 0.15 | 0.24 | 4.9 | 7.7 | 116.7 | 183.5 |
| 3 | ok | 2.29 | | | | | | |
| 5 | ok Av | 6.74 | 0.18 | 0.17 | 5.8 | 5.5 | 137.9 | 131.1 |
| 6 | ok Av | 6.42 | 0.17 | 0.17 | 5.4 | 5.4 | 128.3 | 127.9 |
| 7 | ok | 1.78 | | | | | | |
| 8 | ok Av | 8.07 | 0.19 | 0.25 | 6.2 | 8.0 | 147.8 | 190.4 |
| 9 | ok | 1.84 | | | | | | |
| 10 | ok | 1.99 | | | | | | |
| 11 | ok | 3.53 | | | | | | |
| 12 | ok | 4.05 | | | | | | |
| 27 | ok | 4.44 | | | | | | |
| 37 | ok | 2.62 | | | | | | |
| 47 | ok | 3.82 | | | | | | |
| 57 | ok | 3.64 | | | | | | |
| 61 | ok | 3.40 | | | | | | |
| 68 | ok | 3.79 | | | | | | |
| 72 | ok | 3.99 | | | | | | |
| 76 | ok | 2.75 | | | | | | |
| 83 | ok | 3.42 | | | | | | |
| 87 | ok | 2.07 | | | | | | |
| 91 | ok | 2.13 | | | | | | |
| 95 | ok | 2.06 | | | | | | |
| 99 | ok | 2.04 | | | | | | |
| 106 | ok | 2.35 | | | | | | |
| 110 | ok | 2.09 | | | | | | |
| 114 | ok | 1.99 | | | | | | |
| 118 | ok | 1.92 | | | | | | |
| 122 | ok | 1.88 | | | | | | |
| 129 | ok | 2.82 | | | | | | |
| 133 | ok | 2.85 | | | | | | |
| 137 | ok | 2.82 | | | | | | |
| 141 | ok | 2.79 | | | | | | |
| 145 | ok | 2.75 | | | | | | |
| 151 | ok | 4.38 | | | | | | |
| 158 | ok | 2.81 | | | | | | |
| 162 | ok | 2.94 | | | | | | |
| 171 | ok | 4.14 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 176 | ok | 2.27 | | | | | | |
| 180 | ok | 4.72 | | | | | | |
| 221 | ok | 2.64 | | | | | | |
| 222 | ok | 3.55 | | | | | | |
| 223 | ok | 3.56 | | | | | | |
| 224 | ok | 3.31 | | | | | | |
| 225 | ok | 1.76 | | | | | | |
| 226 | ok | 2.19 | | | | | | |
| 239 | ok | 1.64 | | | | | | |
| 270 | ok | 2.17 | | | | | | |
| 271 | ok | 4.71 | | | | | | |
| 272 | ok | 0.98 | | | | | | |
| 273 | ok | 4.56 | | | | | | |
| 274 | ok | 1.53 | | | | | | |
| 275 | ok | 1.66 | | | | | | |
| 276 | ok | 3.73 | | | | | | |
| 277 | ok | 3.46 | | | | | | |
| 278 | ok | 3.39 | | | | | | |
| 279 | ok | 2.00 | | | | | | |
| 280 | ok | 4.44 | | | | | | |
| 281 | ok | 1.28 | | | | | | |
| 282 | ok | 4.42 | | | | | | |
| 283 | ok Av | 6.77 | 0.05 | 0.25 | 1.7 | 8.0 | 39.8 | 190.4 |
| 284 | ok | 1.90 | | | | | | |
| 285 | ok | 1.62 | | | | | | |
| 286 | ok | 1.43 | | | | | | |
| 287 | ok | 1.72 | | | | | | |
| 288 | ok | 2.51 | | | | | | |
| 289 | ok | 1.67 | | | | | | |
| 290 | ok | 1.29 | | | | | | |
| 291 | ok | 3.38 | | | | | | |
| 292 | ok | 3.83 | | | | | | |
| 293 | ok | 1.19 | | | | | | |
| 294 | ok | 2.01 | | | | | | |
| 295 | ok | 2.10 | | | | | | |
| 296 | ok | 2.05 | | | | | | |
| 297 | ok | 2.02 | | | | | | |
| 298 | ok | 1.77 | | | | | | |
| 299 | ok | 1.57 | | | | | | |
| 300 | ok | 2.82 | | | | | | |
| 301 | ok | 2.85 | | | | | | |
| 302 | ok | 2.82 | | | | | | |
| 303 | ok | 2.79 | | | | | | |
| 304 | ok | 2.74 | | | | | | |
| 305 | ok | 3.12 | | | | | | |
| 306 | ok | 0.86 | | | | | | |
| 307 | ok | 0.95 | | | | | | |
| 308 | ok | 0.98 | | | | | | |
| 309 | ok | 1.06 | | | | | | |
| 310 | ok | 0.91 | | | | | | |
| 311 | ok | 1.53 | | | | | | |
| 312 | ok | 2.37 | | | | | | |
| 313 | ok | 2.08 | | | | | | |
| 314 | ok | 1.99 | | | | | | |
| 315 | ok | 1.92 | | | | | | |
| 316 | ok | 1.88 | | | | | | |
| 317 | ok | 2.29 | | | | | | |
| 318 | ok | 1.43 | | | | | | |
| 319 | ok | 1.22 | | | | | | |
| 320 | ok | 1.27 | | | | | | |
| 321 | ok | 1.41 | | | | | | |
| 322 | ok | 2.14 | | | | | | |
| 323 | ok | 3.40 | | | | | | |
| 324 | ok | 0.79 | | | | | | |
| 325 | ok | 1.75 | | | | | | |
| 326 | ok | 2.92 | | | | | | |
| 327 | ok | 1.53 | | | | | | |
| 328 | ok | 1.96 | | | | | | |
| 329 | ok | 2.89 | | | | | | |
| 330 | ok | 1.98 | | | | | | |
| 331 | ok | 2.70 | | | | | | |
| 332 | ok | 1.66 | | | | | | |
| 333 | ok | 3.44 | | | | | | |
| 334 | ok | 1.25 | | | | | | |
| 335 | ok | 4.32 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 336 | ok | 1.35 | | | | | | |
| 337 | ok Av | 6.51 | 6.16e-03 | 0.24 | 0.2 | 7.7 | 4.7 | 183.5 |
| 338 | ok | 0.82 | | | | | | |
| 339 | ok | 1.89 | | | | | | |
| 340 | ok | 1.29 | | | | | | |
| 341 | ok | 4.05 | | | | | | |
| 342 | ok | 4.13 | | | | | | |
| 343 | ok | 3.96 | | | | | | |
| 344 | ok | 2.27 | | | | | | |
| 345 | ok | 3.57 | | | | | | |
| 346 | ok | 1.82 | | | | | | |
| 347 | ok | 3.38 | | | | | | |
| 348 | ok | 5.05 | | | | | | |
| 349 | ok | 4.71 | | | | | | |
| 350 | ok | 1.70 | | | | | | |
| 351 | ok | 2.34 | | | | | | |
| 352 | ok | 1.41 | | | | | | |

| **Nodo** | **Max tau** | **Ver V pr** | **Ver V sec** | **Af V pr** | **Af V sec** | **V pr** | **V sec** |
|---|---|---|---|---|---|---|---|
| | 8.07 | 0.19 | 0.25 | 6.23 | 8.03 | 147.82 | 190.44 |

# 17 STATI LIMITE D' ESERCIZIO

## *17.1 LEGENDA TABELLA STATI LIMITE D' ESERCIZIO*

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, in relazione al tipo di elemento strutturale, i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

| | |
|---|---|
| **rRfck** | rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare [*normalizzato a 1*] |
| **rRfyk** | rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare [*normalizzato a 1*] |
| **rPfck** | rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti [*normalizzato a 1*] |
| **wR** | apertura caratteristica delle fessure in combinazioni rare [*mm*] |
| **wF** | apertura caratteristica delle fessure in combinazioni frequenti [*mm*] |
| **wP** | apertura caratteristica delle fessure in combinazioni quasi permanenti [*mm*] |
| **dR** | massima deformazione in combinazioni rare |
| **dF** | massima deformazione in combinazioni frequenti |
| **dP** | massima deformazione in combinazioni quasi permanenti |

Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

| | | | | |
|---|---|---|---|---|
| pilastri | **rRfck** | **rRfyk** | **rPfck** | per sezioni significative |
| travi | **rRfck** | **rRfyk** | **rPfck** | per sezioni significative |
| | **wR** | **wF** | **wP** | per sezioni significative |
| | **dR** | **dF** | **dP** | massimi in campata |
| setti e gusci | **rRfck** | **rRfyk** | **rPfck** | massimi nei nodi dell'elemento |

| | | | | |
|---|---|---|---|---|
| | **wR** | **wF** | **wP** | massimi nei nodi dell'elemento |

Si precisa che i valori di massima deformazione per travi sono riferiti al piano verticale (piano locale 1-2 con momenti flettenti 3-3).

| Setto | rRfck | rRfyk | rPfck | Rif. cmb | wR | wF | wP | Rif. cmb |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | mm | mm | |
| 1 | 0.08 | 0.07 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 2 | 0.09 | 0.11 | 0.05 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 3 | 0.12 | 0.19 | 0.09 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 7 | 0.03 | 0.06 | 0.02 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 8 | 0.02 | 0.04 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 9 | 0.04 | 0.03 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 10 | 0.06 | 0.16 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 11 | 0.04 | 0.17 | 0.03 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 12 | 0.06 | 0.21 | 0.03 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 13 | 0.04 | 0.06 | 0.06 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 14 | 0.03 | 0.03 | 0.04 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 15 | 0.03 | 0.03 | 0.05 | 59,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 16 | 0.06 | 0.04 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 17 | 0.06 | 0.08 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 18 | 0.05 | 0.03 | 0.04 | 61,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 31 | 0.07 | 0.07 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 32 | 0.05 | 0.06 | 0.10 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 33 | 0.05 | 0.06 | 0.01 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 34 | 0.08 | 0.09 | 0.06 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 35 | 0.05 | 0.05 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 36 | 0.04 | 0.06 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 37 | 0.09 | 0.10 | 0.07 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 38 | 0.05 | 0.04 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 39 | 0.03 | 0.04 | 0.02 | 60,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 40 | 0.10 | 0.10 | 0.08 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 41 | 0.05 | 0.05 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 42 | 0.03 | 0.05 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 43 | 0.10 | 0.11 | 0.08 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 44 | 0.05 | 0.05 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 45 | 0.04 | 0.04 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 46 | 0.06 | 0.11 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 47 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 48 | 0.05 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 49 | 0.06 | 0.15 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 50 | 0.06 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 51 | 0.07 | 0.12 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 52 | 0.04 | 0.05 | 0.03 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 53 | 0.03 | 0.02 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 54 | 0.06 | 0.09 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 55 | 0.04 | 0.13 | 0.05 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 56 | 0.07 | 0.15 | 0.09 | 58,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 57 | 0.04 | 0.15 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 58 | 0.03 | 0.06 | 0.03 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 59 | 0.08 | 0.13 | 0.10 | 58,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 60 | 0.03 | 0.10 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 61 | 0.03 | 0.03 | 0.03 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 62 | 0.08 | 0.12 | 0.11 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 63 | 0.03 | 0.06 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 64 | 0.03 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 65 | 0.08 | 0.12 | 0.11 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 66 | 0.02 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 67 | 0.02 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 68 | 0.09 | 0.12 | 0.11 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 69 | 0.02 | 0.03 | 0.01 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 70 | 0.10 | 0.12 | 0.10 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 71 | 0.06 | 0.07 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 72 | 0.05 | 0.07 | 0.06 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 73 | 0.04 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 74 | 0.02 | 0.03 | 0.02 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 75 | 0.02 | 0.03 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 76 | 0.04 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 77 | 0.02 | 0.01 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 78 | 0.01 | 0.02 | 0.01 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 79 | 0.04 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 80 | 0.02 | 0.01 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 81 | 0.01 | 0.01 | 0.02 | 61,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 82 | 0.04 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 83 | 0.02 | 0.01 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 84 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 85 | 0.03 | 0.02 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 86 | 0.02 | 0.01 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 87 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 91 | 0.05 | 0.08 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 92 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 93 | 0.02 | 0.03 | 8.64e-03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 94 | 0.05 | 0.06 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 95 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 96 | 0.01 | 0.02 | 9.53e-03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 97 | 0.05 | 0.05 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 98 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 99 | 9.75e-03 | 0.02 | 0.01 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 100 | 0.05 | 0.05 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 101 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 102 | 0.01 | 8.29e-03 | 0.01 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 103 | 0.05 | 0.06 | 0.07 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 104 | 0.07 | 0.09 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 105 | 0.01 | 0.02 | 0.01 | 61,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 106 | 0.09 | 0.06 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 107 | 0.07 | 0.05 | 0.10 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 108 | 0.15 | 0.18 | 0.10 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 109 | 0.10 | 0.12 | 0.09 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 110 | 0.06 | 0.06 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 111 | 0.05 | 0.04 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 112 | 0.04 | 0.04 | 0.03 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 113 | 0.03 | 0.06 | 0.02 | 58,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 114 | 0.04 | 0.05 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 115 | 0.06 | 0.22 | 0.06 | 61,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 116 | 0.04 | 0.28 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 117 | 0.05 | 0.29 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 118 | 0.05 | 0.13 | 0.05 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 119 | 0.05 | 0.13 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 120 | 0.04 | 0.16 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 166 | 0.04 | 0.04 | 0.06 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 167 | 0.03 | 0.03 | 0.05 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 168 | 0.04 | 0.05 | 0.07 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 169 | 0.05 | 0.03 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 170 | 0.06 | 0.07 | 0.08 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 171 | 0.05 | 0.04 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 172 | 0.06 | 0.03 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 173 | 0.06 | 0.07 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 174 | 0.06 | 0.04 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 175 | 0.06 | 0.04 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 176 | 0.06 | 0.07 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 177 | 0.06 | 0.04 | 0.01 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 178 | 0.06 | 0.04 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 179 | 0.06 | 0.08 | 0.09 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 180 | 0.06 | 0.04 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 181 | 0.04 | 0.03 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 182 | 0.05 | 0.07 | 0.07 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 183 | 0.04 | 0.03 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 184 | 0.04 | 0.03 | 0.06 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 185 | 0.03 | 0.02 | 0.04 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 186 | 0.04 | 0.05 | 0.06 | 59,59,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 340 | 0.06 | 0.10 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 341 | 0.07 | 0.08 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 342 | 0.04 | 0.02 | 9.64e-03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| **Setto** | **rRfck** | **rRfyk** | **rPfck** | | **wR** | **wF** | **wP** | |
|---|---|---|---|---|---|---|---|---|
| | 0.15 | 0.29 | 0.11 | | 0.0 | 0.0 | 0.0 | |

| **Guscio** | **rRfck** | **rRfyk** | **rPfck** | **Rif. cmb** | **wR** | **wF** | **wP** | **Rif. cmb** |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | mm | mm | |
| 4 | 0.04 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 5 | 0.08 | 0.11 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 6 | 0.10 | 0.14 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 19 | 0.10 | 0.14 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 20 | 0.09 | 0.13 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 21 | 0.09 | 0.11 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 22 | 0.05 | 0.05 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 23 | 0.04 | 0.05 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 24 | 0.06 | 0.08 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 25 | 0.08 | 0.10 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 26 | 0.09 | 0.12 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 27 | 0.10 | 0.14 | 0.06 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 28 | 0.08 | 0.10 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 29 | 0.06 | 0.05 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 30 | 0.07 | 0.10 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 88 | 0.07 | 0.05 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 89 | 0.07 | 0.05 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 90 | 0.07 | 0.04 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 121 | 0.05 | 0.05 | 0.06 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 122 | 0.08 | 0.11 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 123 | 0.08 | 0.10 | 0.08 | 60,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 124 | 0.11 | 0.16 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 125 | 0.14 | 0.19 | 0.11 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 126 | 0.15 | 0.22 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 127 | 0.20 | 0.28 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 128 | 0.10 | 0.12 | 0.11 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 129 | 0.14 | 0.18 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 130 | 0.16 | 0.23 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 131 | 0.04 | 0.05 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 132 | 0.14 | 0.20 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 133 | 0.03 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 134 | 0.11 | 0.15 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 135 | 0.05 | 0.05 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 136 | 0.08 | 0.09 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 137 | 0.08 | 0.11 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 138 | 0.10 | 0.13 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 139 | 0.10 | 0.15 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 140 | 0.12 | 0.18 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 141 | 0.11 | 0.14 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 142 | 0.09 | 0.12 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 143 | 0.11 | 0.14 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 144 | 0.12 | 0.17 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 145 | 0.04 | 0.04 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 146 | 0.08 | 0.10 | 0.03 | 60,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 147 | 0.06 | 0.06 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 148 | 0.05 | 0.06 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 149 | 0.07 | 0.08 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 150 | 0.07 | 0.08 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 151 | 0.06 | 0.07 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 152 | 0.08 | 0.09 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 153 | 0.08 | 0.11 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 154 | 0.07 | 0.09 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 155 | 0.11 | 0.15 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 156 | 0.09 | 0.12 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 157 | 0.12 | 0.17 | 0.06 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 158 | 0.11 | 0.16 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 159 | 0.08 | 0.11 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 160 | 0.09 | 0.12 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 161 | 0.06 | 0.06 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 162 | 0.09 | 0.12 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 163 | 0.09 | 0.08 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 164 | 0.07 | 0.11 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 165 | 0.10 | 0.10 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 187 | 0.06 | 0.07 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 188 | 0.06 | 0.05 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 189 | 0.06 | 0.05 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 190 | 0.06 | 0.06 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 191 | 0.07 | 0.08 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 192 | 0.07 | 0.10 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 193 | 0.05 | 0.04 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 194 | 0.05 | 0.04 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 195 | 0.04 | 0.03 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 196 | 0.04 | 0.03 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 197 | 0.04 | 0.02 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 198 | 0.03 | 0.02 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 199 | 0.06 | 0.06 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 200 | 0.04 | 0.04 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 201 | 0.03 | 0.02 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 202 | 0.02 | 0.01 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 203 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 204 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 205 | 0.05 | 0.05 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 206 | 0.04 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 207 | 0.03 | 0.02 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 208 | 0.02 | 0.01 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 209 | 0.02 | 0.01 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 210 | 0.03 | 0.01 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 211 | 0.05 | 0.05 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 212 | 0.04 | 0.04 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 213 | 0.03 | 0.02 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 214 | 0.03 | 0.01 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 215 | 0.03 | 0.01 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 216 | 0.03 | 0.02 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 217 | 0.07 | 0.08 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 218 | 0.06 | 0.06 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 219 | 0.05 | 0.05 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 220 | 0.04 | 0.04 | 0.04 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 221 | 0.04 | 0.03 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 222 | 0.04 | 0.03 | 0.03 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 223 | 0.05 | 0.05 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 224 | 0.02 | 0.02 | 0.01 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 225 | 0.01 | 0.01 | 0.01 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 226 | 0.01 | 8.42e-03 | 0.01 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 227 | 0.01 | 8.71e-03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 228 | 0.01 | 8.99e-03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 229 | 0.04 | 0.06 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 230 | 0.03 | 0.03 | 0.03 | 60,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 231 | 0.03 | 0.02 | 0.04 | 60,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 232 | 0.04 | 0.02 | 0.05 | 60,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 233 | 0.04 | 0.03 | 0.05 | 60,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 234 | 0.04 | 0.03 | 0.06 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 235 | 0.10 | 0.10 | 0.14 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 236 | 0.07 | 0.06 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 237 | 0.12 | 0.15 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 238 | 0.11 | 0.14 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 239 | 0.11 | 0.13 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 240 | 0.11 | 0.14 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 241 | 0.09 | 0.07 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 242 | 0.06 | 0.06 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 243 | 0.08 | 0.08 | 0.06 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 244 | 0.08 | 0.07 | 0.07 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 245 | 0.08 | 0.08 | 0.07 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 246 | 0.10 | 0.10 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 247 | 0.05 | 0.03 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 248 | 0.10 | 0.09 | 0.13 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 249 | 0.08 | 0.08 | 0.07 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 250 | 0.06 | 0.04 | 0.07 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 251 | 0.09 | 0.08 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 252 | 0.05 | 0.05 | 0.06 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 253 | 0.10 | 0.12 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 254 | 0.07 | 0.09 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 255 | 0.11 | 0.14 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 256 | 0.17 | 0.24 | 0.08 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 257 | 0.09 | 0.11 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 258 | 0.12 | 0.15 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 259 | 0.12 | 0.17 | 0.08 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 260 | 0.12 | 0.12 | 0.16 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 261 | 0.09 | 0.10 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 262 | 0.11 | 0.11 | 0.15 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 263 | 0.08 | 0.07 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 264 | 0.10 | 0.10 | 0.13 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 265 | 0.06 | 0.05 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 266 | 0.08 | 0.09 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 267 | 0.09 | 0.10 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 268 | 0.09 | 0.11 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 269 | 0.09 | 0.12 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 270 | 0.12 | 0.14 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 271 | 0.08 | 0.07 | 0.07 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 272 | 0.12 | 0.14 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 273 | 0.06 | 0.06 | 0.07 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 274 | 0.10 | 0.10 | 0.14 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 275 | 0.07 | 0.06 | 0.02 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 276 | 0.05 | 0.06 | 0.04 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 277 | 0.02 | 0.02 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 278 | 0.02 | 0.02 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 279 | 0.05 | 0.06 | 0.05 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 280 | 0.09 | 0.08 | 0.10 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 281 | 0.07 | 0.08 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 282 | 0.06 | 0.04 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 283 | 0.05 | 0.04 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 284 | 0.08 | 0.08 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 285 | 0.06 | 0.05 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 286 | 0.08 | 0.09 | 0.06 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 287 | 0.08 | 0.09 | 0.06 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 288 | 0.08 | 0.09 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 289 | 0.07 | 0.07 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 290 | 0.09 | 0.09 | 0.12 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 291 | 0.06 | 0.06 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 292 | 0.09 | 0.09 | 0.07 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 293 | 0.09 | 0.16 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 294 | 0.10 | 0.11 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 295 | 0.07 | 0.07 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 296 | 0.08 | 0.06 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 297 | 0.07 | 0.06 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 298 | 0.08 | 0.06 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 299 | 0.08 | 0.08 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 300 | 0.07 | 0.07 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 301 | 0.06 | 0.04 | 0.07 | 61,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 302 | 0.06 | 0.04 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 303 | 0.07 | 0.04 | 0.08 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 304 | 0.07 | 0.05 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 305 | 0.07 | 0.05 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 306 | 0.08 | 0.05 | 0.09 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 307 | 0.08 | 0.06 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 308 | 0.07 | 0.06 | 0.05 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 309 | 0.07 | 0.05 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 310 | 0.07 | 0.05 | 0.06 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 311 | 0.07 | 0.04 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 312 | 0.07 | 0.04 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 313 | 0.09 | 0.08 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 314 | 0.09 | 0.07 | 0.08 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 315 | 0.08 | 0.07 | 0.08 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 316 | 0.08 | 0.06 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 317 | 0.08 | 0.06 | 0.09 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 318 | 0.08 | 0.05 | 0.10 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 319 | 0.02 | 0.02 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 320 | 0.02 | 0.02 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 321 | 0.02 | 0.01 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 322 | 0.02 | 0.01 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 323 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 324 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 325 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 326 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 327 | 0.02 | 0.01 | 0.02 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 328 | 0.02 | 0.01 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 329 | 0.02 | 0.01 | 0.02 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 330 | 0.02 | 0.01 | 0.03 | 60,60,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 331 | 0.06 | 0.04 | 0.05 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 332 | 0.04 | 0.02 | 0.04 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 333 | 0.03 | 0.02 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 334 | 0.03 | 0.02 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 335 | 0.03 | 0.02 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 336 | 0.03 | 0.02 | 0.03 | 61,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 337 | 0.06 | 0.10 | 0.07 | 58,61,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 338 | 0.06 | 0.04 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |
| 339 | 0.07 | 0.04 | 0.07 | 58,58,65 | 0.0 | 0.0 | 0.0 | 0,0,0 |

| **Guscio** | **rRfck** | **rRfyk** | **rPfck** | | **wR** | **wF** | **wP** | |
|---|---|---|---|---|---|---|---|---|
| | 0.20 | 0.28 | 0.16 | | 0.0 | 0.0 | 0.0 | |