COMUNE di FOGGIA

Progetto definitivo per la realizzazione di un Parco Eolico

progetto " Stella "

COMMITTENTE	**DESE S.r.l.**
PROGETTO DEFINITIVO	COMUNE: **FOGGIA** LOCALITA': **"Stella - Vulgano"**

Relazione sulle strutture del progetto definitivo

ELABORATO: **RS**

Scala: -	**Data:** 29-02-2024	**Rev:** 00
	Codifica: DL/FG/PTO/EL_RS	

Progettazione:

Firmato digitalmente da:
FIORE LUIGI
Firmato il 04/03/2024 10:08
Seriale Certificato: 2005953
Valido dal 14/12/2022 al 14/12/2025
InfoCamere Qualified Electronic Signature CA

Tecnico incaricato:

Ing. **Luigi Fiore**

1 ILLUSTRAZIONE SINTETICA DEGLI ELEMENTI ESSENZIALI DEL PROGETTO

RELAZIONE SULLE STRUTTURE Premessa

La presente relazione si riferisce alla realizzazione di un Parco Eolico denominato "STELLA" della potenza complessiva nominale a regime di 31,5MW composto da 7 aerogeneratori di potenza nominale pari a 4,5MW o di potenza superiore, qualora vi siano evoluzioni tecnologiche che consentano, con ingombri della macchina simili a quelli che qui si presentano, l'istallazione di potenze superiori.

Gli aerogeneratori che verranno impiegati sono del tipo Sinovel SL 4.5/156 – 4.5 MW caratterizzati da diametro di 156 m, con torri tubolari di 100m di altezza al mozzo, per la cui colorazione saranno previste vernici non riflettenti di colore grigio/bianco.

Il parco verrà realizzato per conto della DESE S.r.l., (società con sede in Via Mario Forcella n.14 - FOGGIA), ed è costituita da n. 7 turbine eoliche che verranno installate in agro di Foggia, località "Stella" al Fg. cat. N. 21 p.lle 67, 306 e 266 e al Fg. cat. N. 22 p.lle 33, 152, 264 e 266, ad una quota media variabile dai 56 ai 64m slm.

Tali aree, nel vigente strumento urbanistico, sono destinate attualmente a zone di uso agricolo (zona E).

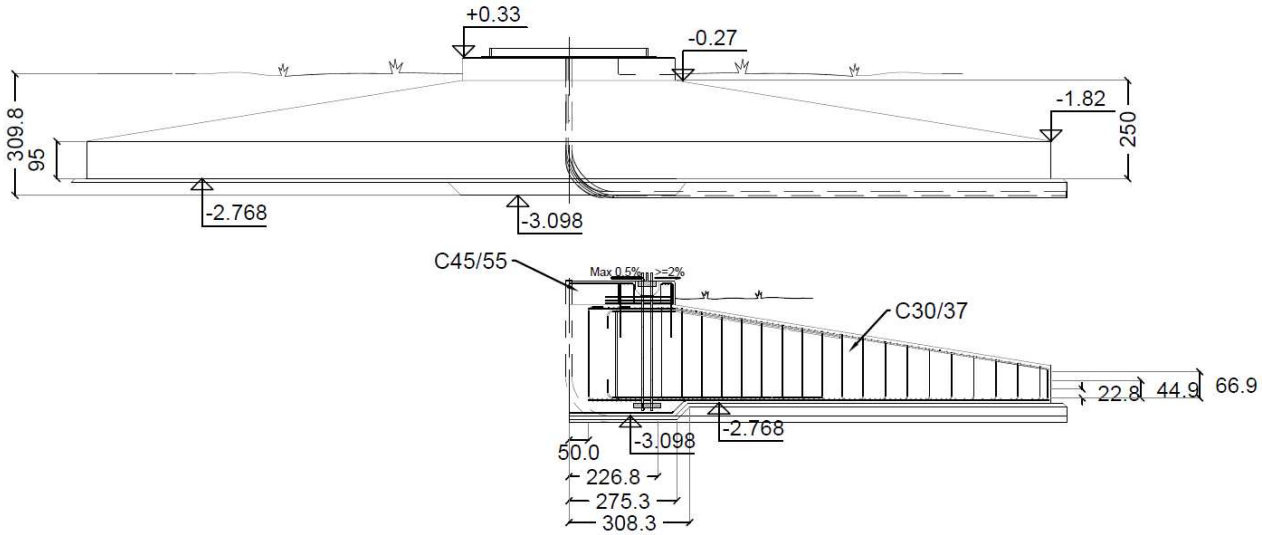
1.1 Descrizione generale dell'intervento

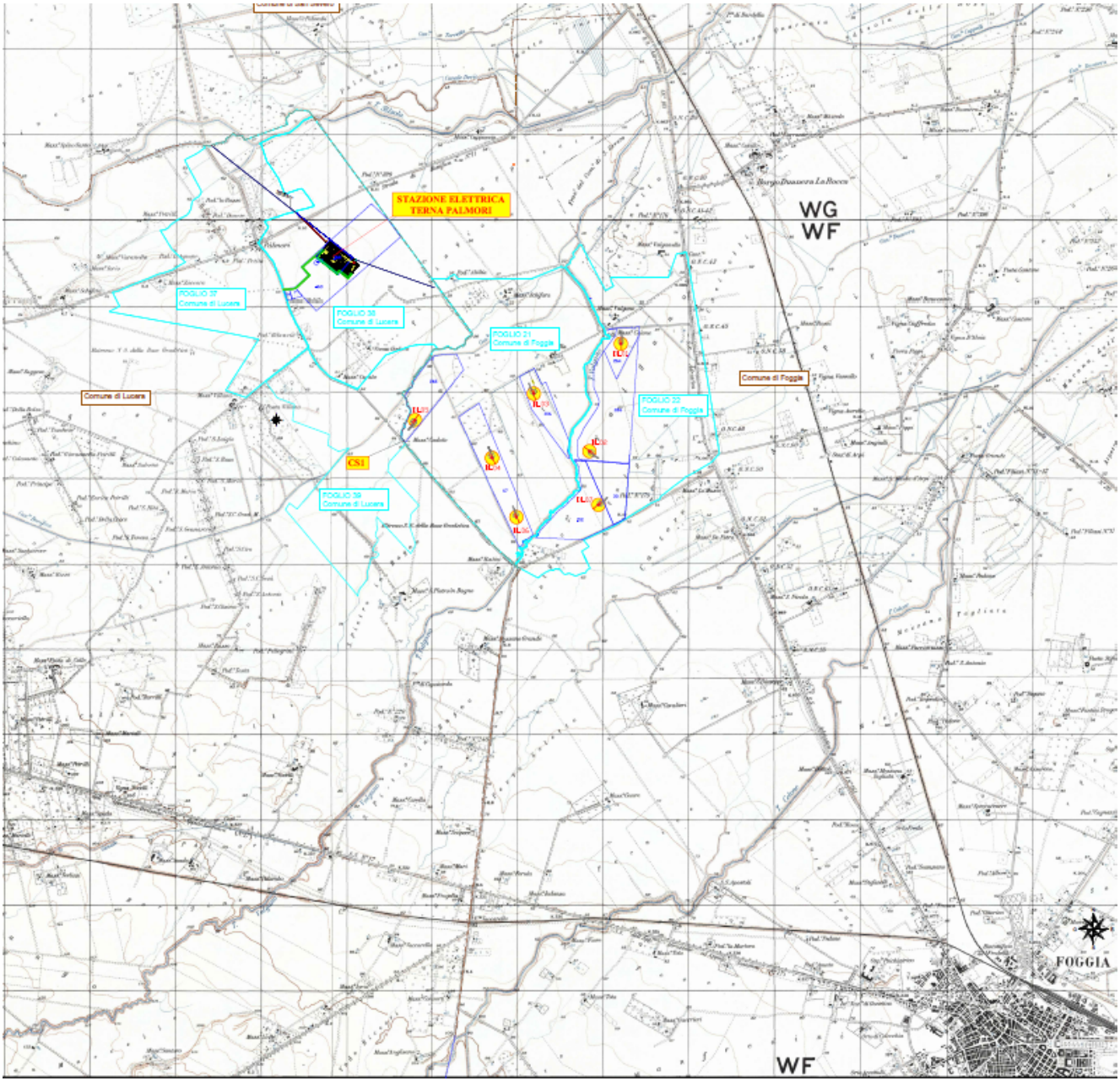
Tali aerogeneratori saranno installati su fondazioni di tipo a plinto superficiale di forma tronco-conica, realizzati in c.a., di diametro 24,6m (si veda l'elaborato grafico per dettagli)

La connessione tramite aerogeneratori e fondazione avviene tramite collegamento bullonato, a mezzo di apposita "anchor cage" annegata nel colletto del plinto.

La quota d'imposta delle fondazioni si attesta a circa -2,77/-3,10 m dall'attuale piano di campagna, e la configurazione finale prevede il parziale reinterro del plinto con terreno derivante dagli scavi di fondazione, allo scopo di protezione del plinto e di zavorra anti-ribaltamento.

La fondazione viene realizzata con calcestruzzo C30/37 per la parte del plinto tronco-conico ed in calcestruzzo C45/55 per la porzione del colletto.


+0.33
-0.27
-1.82
309.8
95
250
-2.768
-3.098
C45/55
Max 0.5%
>=2%
C30/37
22.8
44.9
66.9
-2.768
-3.098
50.0
226.8
275.3
308.3



LEGENDA

- Aerogeneratori
- Cabina di smistamento (CS1)
- Confine Comunale
- Particelle catastali
- Limite catastale
- Cavidotto MT da realizzare

Figura 1 - Ubicazione degli interventi - Inquadramento topografico

2 Riferimenti normativi

1. Legge 05/11/1971 n° 1086 “Norme per la disciplina delle opere in conglomerato cementizio armato e precompresso ad a struttura metallica”
2. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
   Circolare del Ministero delle Infrastrutture e dei Trasporti n. 7 del 21/01/2009 “Istruzioni per l’applicazione dell’«Aggiornamento delle “Norme tecniche per le costruzioni”» di cui al decreto ministeriale 17 gennaio 2018.”
3. Norma UNI EN 1992-1-1 “Eurocodice 2” – Progettazione delle strutture in calcestruzzo
4. IEC61400-1 Edition 3: “Wind energy generation systems - Part 3-1: Design requirements for fixed offshore wind turbines”

3 Materiali

3.1 Calcestruzzo

❖ **Calcestruzzo C30/37:** per plinto fondazione

- Produzione calcestruzzo: Ordinaria
- Valore di fbd riferito a barre $\Phi \leq 32$mm

Classe	fck [MPa]	αcc	γcls	Ecm [MPa]	fcd [MPa]	fctm [MPa]	fctk [MPa]	fctd [MPa]	fcfm [MPa]	fbk [MPa]	fbd [MPa]	εc2	εcu	σc,Rara [MPa]	σc,QP [MPa]
C30/37	30,00	0,85	1,50	32.837	17,00	2,90	2,03	1,35	3,48	4,57	3,04	0,00200	0,00350	18,00	13,50

Calcestruzzo a prestazione garantita secondo UNI EN 206-1

- Cemento conforme alla norma EN 197-1
- Diametro massimo barre di armatura, Φmax = 14 mm
- Aggregati normali conformi alla norma UNI EN 12620, Dmax = 20 mm
- Interferro minimo dbars = 25 mm
- Acqua di impasto conforme alla norma EN 1008
- Additivi conformi alla norma EN 934-2

Classe esposizione	Minima classe di resistenza	Rapporto (A/C)max	Slump	Quantità minima cemento [kg/m3]	Contenuto minimo aria	Altro
XC2	C25/30	0.60	S4	300	-	

❖ **Calcestruzzo C40/45: per colletto**

- Produzione calcestruzzo: Ordinaria
- Valore di fbd riferito a barre $\Phi \leq 32$mm

Classe	fck [MPa]	αcc	γcls	Ecm [MPa]	fcd [MPa]	fctm [MPa]	fctk [MPa]	fctd [MPa]	fcfm [MPa]	fbk [MPa]	fbd [MPa]	εc2	εcu	σc,Rara [MPa]	σc,QP [MPa]
C45/55	45,00	0,85	1,50	36.283	25,50	3,80	2,66	1,77	4,56	5,99	3,99	0,00200	0,00350	27,00	20,25

Calcestruzzo a prestazione garantita secondo UNI EN 206-1

- Cemento conforme alla norma EN 197-1

- Diametro massimo barre di armatura, Φmax = 14 mm
- Aggregati normali conformi alla norma UNI EN 12620, Dmax = 20 mm
- Interferro minimo dbars = 25 mm
- Acqua di impasto conforme alla norma EN 1008
- Additivi conformi alla norma EN 934-2

Classe esposizione	Minima classe di resistenza	Rapporto (A/C)max	Slump	Quantità minima cemento [kg/m3]	Contenuto minimo aria	Altro
XC4	C32/40	0.50	S4	340	-	-

3.2 Acciaio in barre

Acciaio B450C

Classe acciaio	f_{yk}	γ_s	f_{tk}	E_s	f_{yd}	ε_{yd}	ε_{uk}	$(f_y/f_{y,nom})_k$	ε_{ud}	$k = (f_t/f_y)_k$	$\sigma_{s,Rara}$	Diametro minimo mandrino di piegatura	
	[MPa]		[MPa]	[MPa]	[MPa]					[MPa]	[MPa]	Φ≤16mm	Φ>16mm
B450C	450,00	1,15	540,00	210.000	391,30	0,00186	0,07500	≤ 1,25	0,06750	1,15 - 1,35	360,00	4Φ	7Φ

4 Strumenti di calcolo utilizzati

1)

5 CARATTERISTICHE GEOLOGICHE E GEOMECCANICHE DEL TERRENO

L'intervento è da realizzarsi in agro nel comune di FOGGIA , in aree pianeggianti poste a circa +20/+30 m s.l.m.

Le indagini geologiche (vedasi "Relazione Geologica", elaborato RG1) hanno permesso di identificare la stratigrafia indicativa dei siti di realizzazione delle fondazioni degli aerogeneratori e di stimarne le caratteristiche geomeccaniche principali.

STRATIGRAFIA

Progr	Da profondità (m)	A profondità (m)	Spessore (m)	Età geologica	Descrizione litologica
1	0,00	2,00	2,00		TERRENO VEGETALE
2	2,00	18,00	16,00		ARGILLA LIMO-SABBIOSO (COLOR GIALLO)
3	18,00	21,00	3,00		BRECCIA ACQUIFERA
4	21,00	39,00	18,00		ARGILLA GIALLA
5	39,00	43,00	4,00		SABBIA ACQUIFERA
6	43,00	49,00	6,00		ARGILLA BLU

Orizzonte A

Condizioni non drenate:

Coesione non drenata.....Cu = 0.2 – 0.3 Kg/cmq

Angolo di attrito interno..... .....ϕ = 0°

Condizioni drenate:

Coesione efficace..... c' = 0.08 – 0.1 Kg/cmq

Angolo di attrito interno efficace..... .....ϕ = 19 - 21°

Peso di volume.....γ = 1.8 – 1.9 T/mc

Orizzonte B

Orizzonte a comportamento prevalentemente granulare

Condizioni drenate:

Coesione efficace..... c' = 0.1 – 0.13 Kg/cmq

Angolo di attrito interno efficace..... .....ϕ = 22 - 24°

Peso di volume.....γ = 1.9 – 2.1 T/mc

Modulo di Young ..... E = 750 Kg/cmq

Orizzonte C

Prevalente comportamento coesivo.

Condizioni non drenate:

Coesione non drenata.....Cu = 0.6 – 0.8 Kg/cmq

Angolo di attrito interno..... .....ϕ = 0°

Condizioni drenate:

Coesione efficace..... c' = 0.13 – 0.16 Kg/cmq

Angolo di attrito interno efficace..... .....ϕ = 23 - 25°

Peso di volume.....γ = 2.0- 2.2T/mc

Sulla base di indagini svolte in prossimità dei siti di interesse è stata individuata la Categoria del sottosuolo, in accordo con le NTC2018, corrispondente a **Categoria C**

6 PROCEDURA DI CALCOLO E VERIFICA

Le verifiche delle strutture vengono svolte in accordo con le NTC2018 tramite metodo semiprobabilistico agli Stati Limite.

In particolare si considerano, per gli STATI LIMITE ULTIMI:

- lo stato limite di equilibrio come corpo rigido: EQU
- lo stato limite di resistenza della struttura compresi gli elementi di fondazione: STR
- lo stato limite di resistenza del terreno: GEO

Mentre per gli STATI LIMITE DI ESERCIZIO:

- Stato limite di fessurazione delle strutture in c.a.
- Stato limite di cedimento delle fondazioni

Nei calcoli delle strutture e nelle verifiche di interazione terreno-strutture si considerano i dati più gravosi.

6.1 Parametri di progetto

- Sito in esame: **Aerogeneratore 1**

Classe d'uso: II
Vita nominale: 50 [anni]
Tipo di interpolazione: Media ponderata
Categoria sottosuolo: C
Categoria topografica: T1
Periodo di riferimento: 50 anni
Coefficiente cu: 1

	Prob. superamento [%]	Tr [anni]	ag [g]	Fo [-]	Tc* [s]
Operatività (SLO)	81	30	0,044	2,466	0,290
Danno (SLD)	63	50	0,055	2,541	0,327
Salvaguardia della vita (SLV)	10	475	0,132	2,607	0,435
Prevenzione dal collasso (SLC)	5	975	0,169	2,622	0,448

- Sito in esame: **Aerogeneratore 2**

Classe d'uso: II
Vita nominale: 50 [anni]
Tipo di interpolazione: Media ponderata
Categoria sottosuolo: C
Categoria topografica: T1
Periodo di riferimento: 50 anni
Coefficiente cu: 1

	Prob. superamento [%]	Tr [anni]	ag [g]	Fo [-]	Tc* [s]
Operatività (SLO)	81	30	0,044	2,476	0,288
Danno (SLD)	63	50	0,055	2,542	0,326
Salvaguardia della vita (SLV)	10	475	0,132	2,608	0,434
Prevenzione dal collasso (SLC)	5	975	0,168	2,619	0,447

6.2 Analisi dei carichi

G1: peso proprio elementi strutturali

Materiale calcestruzzo= 2500 kg/mc

G2: peso proprio terreno zavorra

Terreno in situ: 1800 kg/mc

Plinto: diametro= 24,6m; Hmin = 0.95m; Hmax = 2,6m;
Colletto: diametro= 5,42m ; h = 60cm

Volume totale fondazione = circa 777 mc
Pfond = circa 777 x 2500 =1942,5 ton = = 19425 kN

6.3 Azioni di progetto

Le azioni di progetto sulle fondazioni sono fornite dalla società realizzatrice degli aerogeneratori, "VESTAS Wind Systems" (DK), nel documento 0068-5792 "Preliminary foundation loads"

Le azioni derivano dalle massime condizioni di carico, date le caratteristiche geometriche e meccaniche dei generatori, le condizioni di utilizzo, l'azione del vento nel sito di interesse e le azioni sismiche riferite ai parametri di progetto.

Le azioni prese in considerazione per il calcolo delle fondazioni sono quelle che massimizzano l'effetto delle sollecitazioni sulle strutture e sul terreno di fondazione.
Si considera l'azione del vento estremo come condizione di stato limite ultime, e si deriva la condizione di vento medio (come aliquota indicativa pari al 50% di quella agli SLU) per lo stato limite di esercizio in condizioni rare.

Dati di input da fornitore:

SLU + sisma

Characteristic Extreme							
Lead	LC/Family	PLF	Type	Mbt1	Mzt1	FndFr	Fzt1
Sensor	[-]	[-]	[-]	[kNm]	[kNm]	[kN]	[kN]
Mbt1	14EcdVrpa00(fam60)	1.35	Abs	**103200**	2353	986.2	-5191
Mzt1	21RPY10HWO2a00(fam126)	1.35	Abs	25260	**-10380**	260.0	-5022
FndFr	14EcdVrpa00(fam60)	1.35	Abs	102500	2354	**996.2**	-5187
Fzt1	12IceUVo100(fam30)	1.35	Abs	38070	1356	355.0	**-5317**

Table 2-1 Characteristic Extreme (excl. PLF). Load cases sorted with PLF.

Characteristic Extreme							
Lead	LC/Family	PLF	Type	Mbt1	Mzt1	FndFr	Fzt1
Sensor	[-]	[-]	[-]	[kNm]	[kNm]	[kN]	[kN]
Mbt1	23CoEogVra5(fam187)	1.10	Abs	**120500**	-765.9	1138	-5183
Mzt1	21RPY10HWO2a00(fam126)	1.35	Abs	25260	**-10380**	260.0	-5022
FndFr	23CoEogVra5(fam187)	1.10	Abs	120500	-891.6	**1150**	-5176
Fzt1	12IceUVo100(fam30)	1.35	Abs	38070	1356	355.0	**-5317**

Table 2-2 Characteristic Extreme (excl. PLF). Load cases sorted without PLF.

Characteristic Extreme							
Lead	LC/Family	PLF	Type	Mbt1	Mzt1	FndFr	Fzt1
Sensor	[-]	[-]	[-]	[kNm]	[kNm]	[kN]	[kN]
Mbt1	23CoEogVra5(fam187)	1.10	Abs	**120500**	-765.9	1138	-5183
Mzt1	22VOGHWO300(fam174)	1.10	Abs	25930	**-10310**	249.8	-4996
FndFr	23CoEogVra5(fam187)	1.10	Abs	120500	-891.6	**1150**	-5176
Fzt1	22VOGHWO300(fam174)	1.10	Abs	33990	-2127	336.8	**-5272**

Table 2-3 Characteristic Extreme (excl. PLF). Only load cases with PLF = 1.10.

Characteristic Extreme							
Lead	LC/Family	PLF	Type	Mbt1	Mzt1	FndFr	Fzt1
Sensor	[-]	[-]	[-]	[kNm]	[kNm]	[kN]	[kN]
Mbt1	14EcdVrpa00(fam60)	1.35	Abs	**103200**	2353	986.2	-5191
Mzt1	21RPY10HWO2a00(fam126)	1.35	Abs	25260	**-10380**	260.0	-5022
FndFr	14EcdVrpa00(fam60)	1.35	Abs	102500	2354	**996.2**	-5187
Fzt1	12IceUVo100(fam30)	1.35	Abs	38070	1356	355.0	**-5317**

Table 2-4 Characteristic Extreme (excl. PLF). Only load cases with PLF = 1.35.

SLE

Production loads				
		Char. load	Prob.:1e-2	Prob.:1e-4
M_{res}	[kNm]	103200	74216	82470
M_z	[kNm]	-10377.95	-4061.73	-6888.80
F_{res}	[kN]	996.24	685.44	787.15
F_z	[kN]	-5316.69	-5203.15	-5233.54

Table 3-1 Service Limit State (SLS) loads, in accordance with DiBt 2012.

Modellazione delle azioni in fase di calcolo:

Tipo	carico concentrato nodale						
Id	**Tipo**	**Fx**	**Fy**	**Fz**	**Mx**	**My**	**Mz**
		kN	kN	kN	kN m	kN m	kN m
1	Peso proprio -CN:Fz=-5.317e+05	0.0	0.0	-5317.00	0.0	0.0	0.0
3	Vento Estremo SLU-CN:Fx= 1.150e+05 Fz=-5.187e+05 My= 1.205e+09 Mz=-1.038e+08	1150.00	0.0	-5187.00	0.0	1.205e+05	-1.038e+04
4	Vento SLE r-CN:Fx= 9.962e+04 Fz=-5.317e+05 My= 1.032e+09 Mz=-1.038e+08	996.24	0.0	-5317.00	0.0	1.032e+05	-1.038e+04
5	Vento SLE f-CN:Fx= 7.872e+04 Fz=-5.234e+05 My= 8.247e+08 Mz=-6.889e+07	787.15	0.0	-5233.54	0.0	8.247e+04	-6888.80
6	Vento SLE p-CN:Fx= 6.854e+04 Fz=-5.203e+05 My= 7.422e+08 Mz=-4.062e+07	685.44	0.0	-5203.15	0.0	7.422e+04	-4061.73
7	SLO-CN:Fx=695.00 Fy=2318.00 Fz=-5.187e+05 Mx=-1.634e+07 My= 4.903e+06 Mz=-1.640e+04	6.95	23.18	-5187.00	-1634.30	490.29	-1.64
8	SLD-CN:Fx=990.00 Fy=3299.00 Mx=-2.326e+07 My= 6.978e+06 Mz=-2.330e+04	9.90	32.99	0.0	-2325.96	697.79	-2.33
9	SLV-CN:Fx=2246.00 Fy=7487.00 Fz=-5.187e+05 Mx=-5.278e+07 My= 1.583e+07 Mz=-5.300e+04	22.46	74.87	-5187.00	-5278.20	1583.46	-5.30
10	SLC-CN:Fx=3028.00 Fy= 1.009e+04 Fz=-5.187e+05 Mx=-7.115e+07 My= 2.135e+07 Mz=-7.140e+04	30.28	100.93	-5187.00	-7115.16	2134.55	-7.14

Tipo	carico variabile generale				
Id	**Tipo**	**ascissa**	**valore**	**ascissa**	**valore**
		m	kN/ m2	m	kN/ m2
2	Terreno esterno-QV:var R - Qz - Pres.				
	R - R Qz Pres. L2=0.0	0.0	0.0	12.30	38.00

Schematizzazione dei casi di carico:

CDC	Tipo	Sigla Id	Note
1	Gk	CDC=G1k	Azioni applicate:
2	Gk	Vento medio	Azioni applicate:
3	Gk	Vento estremo	Azioni applicate:
4	Gk	SLO	Azioni applicate:
5	Gk	SLD	Azioni applicate:
6	Gk	SLV	Azioni applicate:
7	Gk	SLC	Azioni applicate:
8	Gk	Terreno	Azioni applicate:
			D3 :da 1 a 384 Azione : Terreno esterno-QV:var R - Qz - Pres.

Definizione delle combinazioni

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*

$\gamma_{G1} \cdot G_1 + \gamma_{G2} \cdot G_2 + \gamma_P \cdot P + \gamma_{Q1} \cdot Q_{k1} + \gamma_{Q2} \cdot \psi_{02} \cdot Q_{k2} + \gamma_{Q3} \cdot \psi_{03} \cdot Q_{k3} + \ldots$

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

$G_1 + G_2 + P + Q_{k1} + \psi_{02} \cdot Q_{k2} + \psi_{03} \cdot Q_{k3} + \ldots$

***Combinazione frequente** SLE*

$G_1 + G_2 + P + \psi_{11} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \ldots$

***Combinazione quasi permanente** SLE*

$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \ldots$

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

$E + G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \ldots$

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

$G_1 + G_2 + A_d + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \ldots$

Dove:

NTC 2018 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 2018 Tabella 2.6.I

		Coefficiente γf	***EQU***	***A1***	***A2***
Carichi permanenti	*Favorevoli* *Sfavorevoli*	*γG1*	*0,9* *1,1*	*1,0* *1,3*	*1,0* *1,0*
Carichi permanenti non strutturali *(Non compiutamente definiti)*	*Favorevoli* *Sfavorevoli*	*γG2*	*0,8* *1,5*	*0,8* *1,5*	*0,8* *1,3*
Carichi variabili	*Favorevoli* *Sfavorevoli*	*γQi*	*0,0* *1,5*	*0,0* *1,5*	*0,0* *1,3*

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	SLU	
2	SLE(r)	SLE r	
3	SLE(p)	SLE p	
4	SLU	SLO	
5	SLU	SLD	
6	SLU	SLV	
7	SLE(r)	SLC	

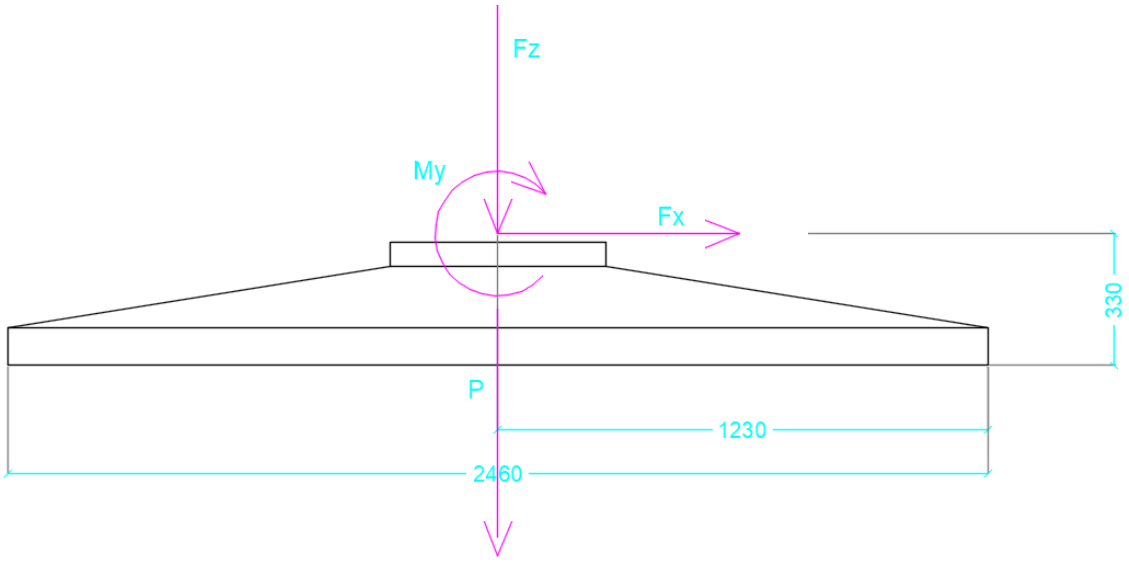
Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...
1	1.30	0.0	0.0	0.0	0.0	0.0	0.0	1.30
2	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00
3	0.0	1.00	0.0	0.0	1.00	0.0	0.0	1.00
4	0.0	0.0	0.0	1.00	0.0	1.00	0.0	1.00
5	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00
6	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.00
7	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00

7 VERIFICA STATICA (EQU)

Si considera l'equilibrio al ribaltamento della fondazione, date le azioni di carico più gravose.
Per i carichi favorevoli (peso proprio fondazione) si considera un coefficiente parziale pari a 0,9 (vedi Tab 2.3.I NTC2018), mentre per i carichi (seppure forniti in forma aggregata e quindi comprensivi di azioni variabili e permanenti) si considera a favore di sicurezza un coefficiente parziale pari a 1,5

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

		Coefficiente γ_F	EQU	A1	A2
Carichi permanenti G_1	Favorevoli	γ_{G1}	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali G_2[1]	Favorevoli	γ_{G2}	0,8	0,8	0,8
	Sfavorevoli		1,5	1,5	1,3
Azioni variabili Q	Favorevoli	γ_{Qi}	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3



Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
		kN	kN	kN	kN m	kN m	kN m
3	Vento Estremo SLU-CN:Fx= 1.150e+05 Fz=-5.187e+05 My= 1.205e+09 Mz=-1.038e+08	1150.00	0.0	-5187.00	0.0	1.205e+05	-1.038e+04

Fx = 1150 kN

Fz= -5187 kN

My = 120500 kN

P = 19425 kN

Mr = 1,5 (1150 x 3.3 + 120500) – 0,9x 5187*12.3 = 186442.5 – 57420 = 129022.4 kNm

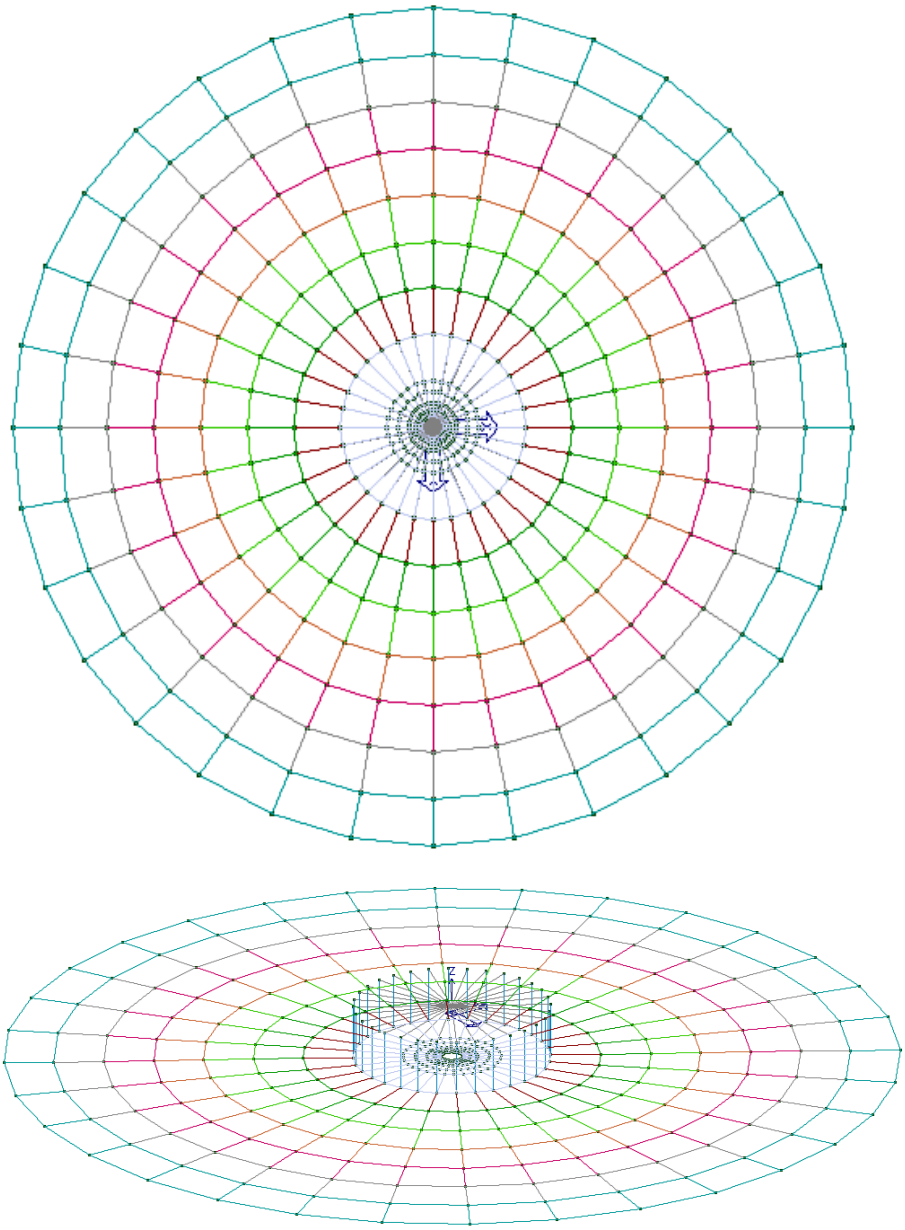
Ms = 0.9x19425x 12.3= 215034.75 kNm

FS = Ms /Mr = 21034.75/129022.4 = 1.66 > 1.5

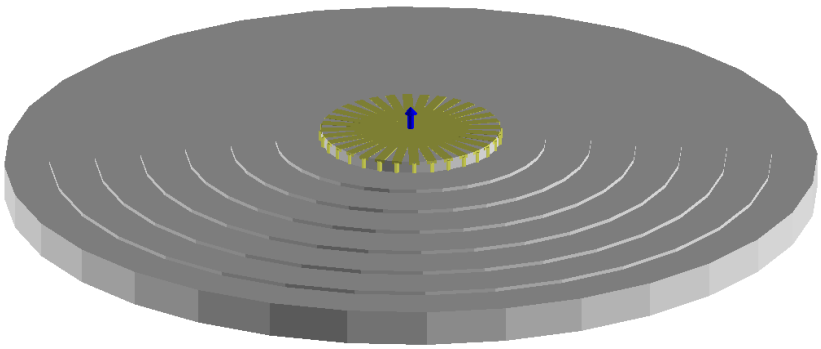
(Nel calcolo a favore di sicurezza non si tiene conto del contributo positivo del terreno di zavorra)

8 Modellazione

La modellazione delle strutture è stata eseguita con software ProSap utilizzando elementi finiti
Per il plinto di fondazione si sono utilizzati degli elemento tipo “D3”, come piastra su suolo alla Winkler.
Le azioni principali trasmesse dall’aerogeneratore sono state assegnate come carichi nodali ad un punto posto a +20cm al di sopra del colletto di fondazione. Il nodo è stato collegato tramite elementi ausiliari a rigidezza infinita alla corona centrale del plinto (funzione che simula il meccanismo di trasmissione degli sforzi dell’anchor cage)
Il terreno è stato modellato come da stratigrafia derivante dalle indagini geomeccaniche, con attribuzione del Kw calcolate in base alla solleciazioni/deformazioni derivanti dall’analisi in condizioni SLE.



Modellazione della struttura, vista “filo di ferro” degli elementi finiti



Modellazione della struttura, vista solida degli elementi finiti

9 Principali risultati di calcolo

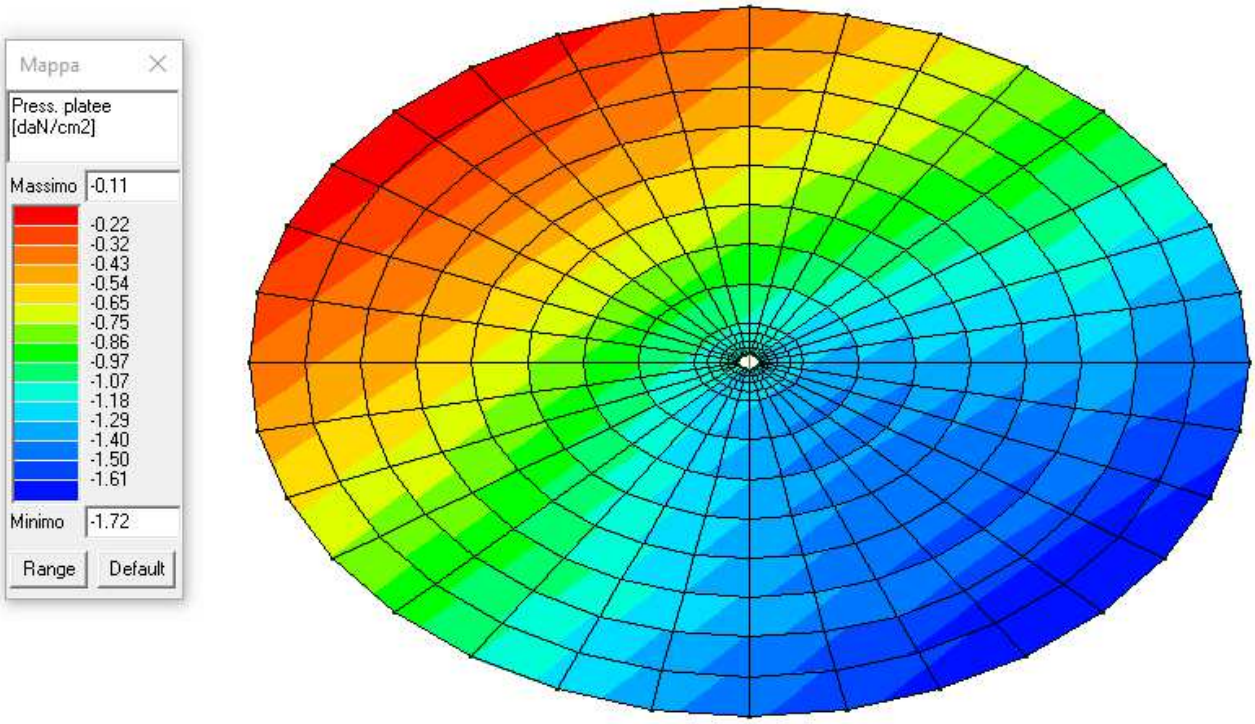


Figura 2 - Pressioni platea - CMB 2 (SLU vento)

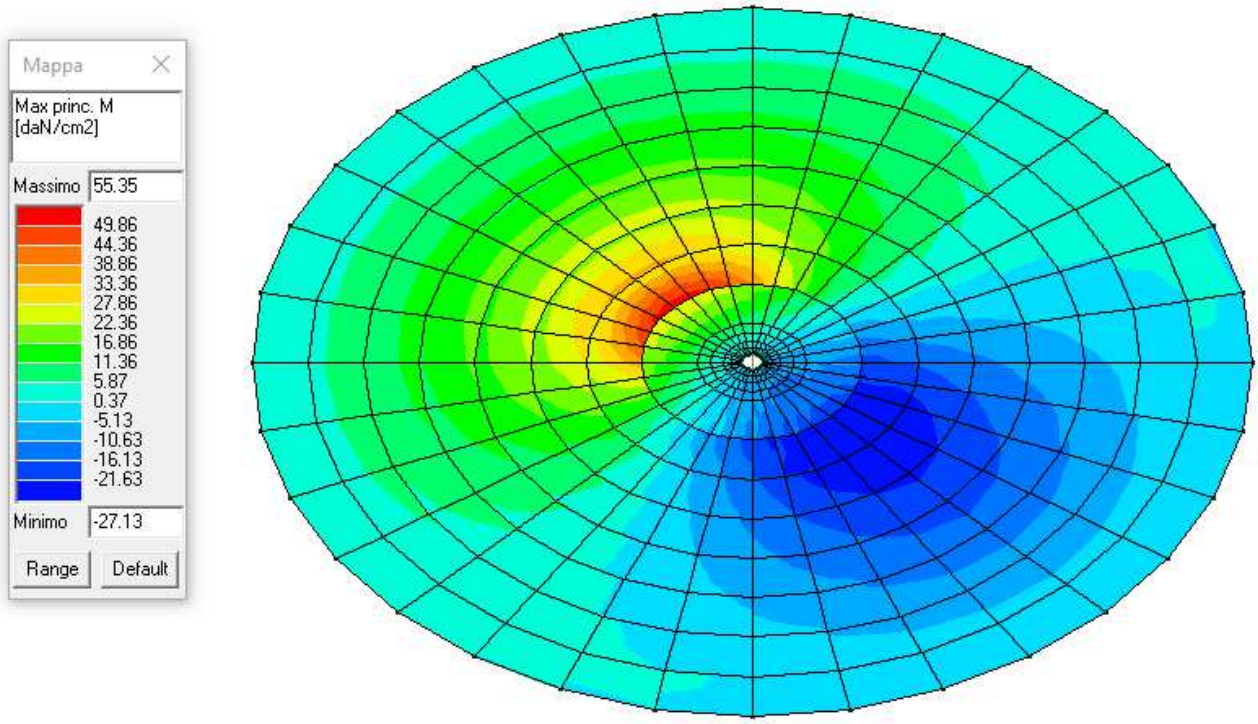


Figura 3 - Tensione Max principale M -CMB 2 (SLU vento)

10 Verifiche

10.1 Verifica fondazione

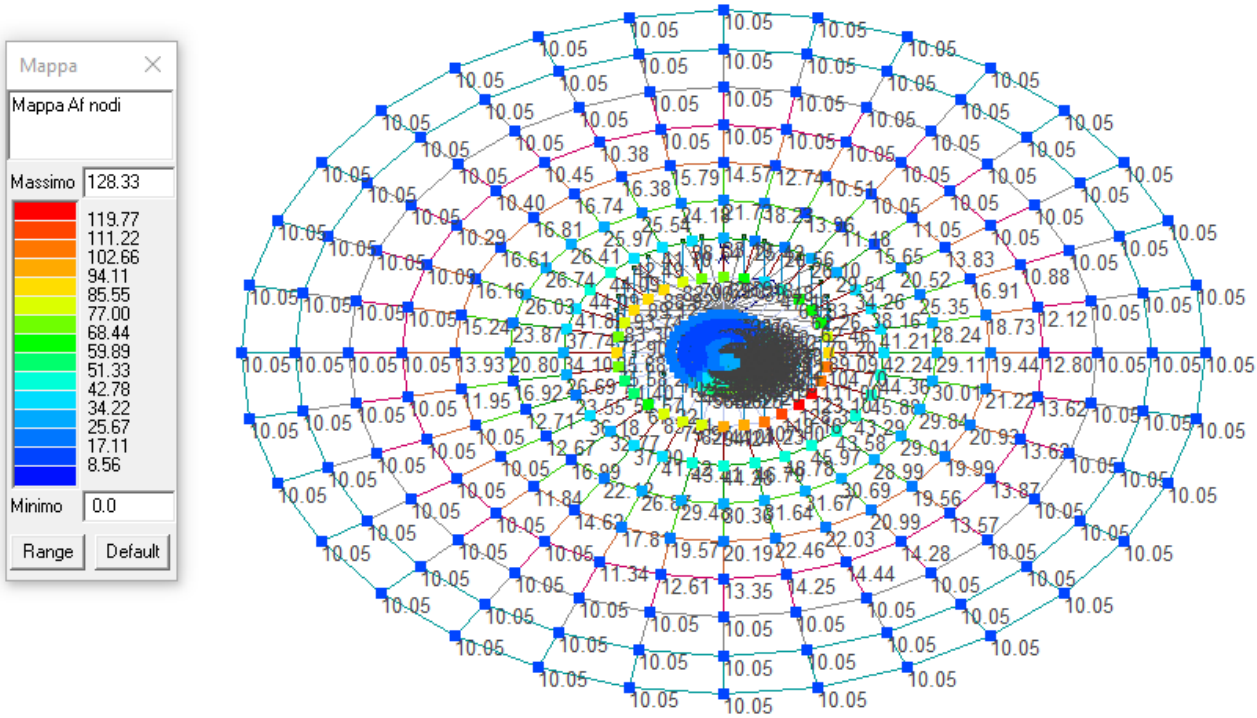


Figura 4 - Mappa armatura di verifica dei nodi (armatura max nella direzione più sollecitata)

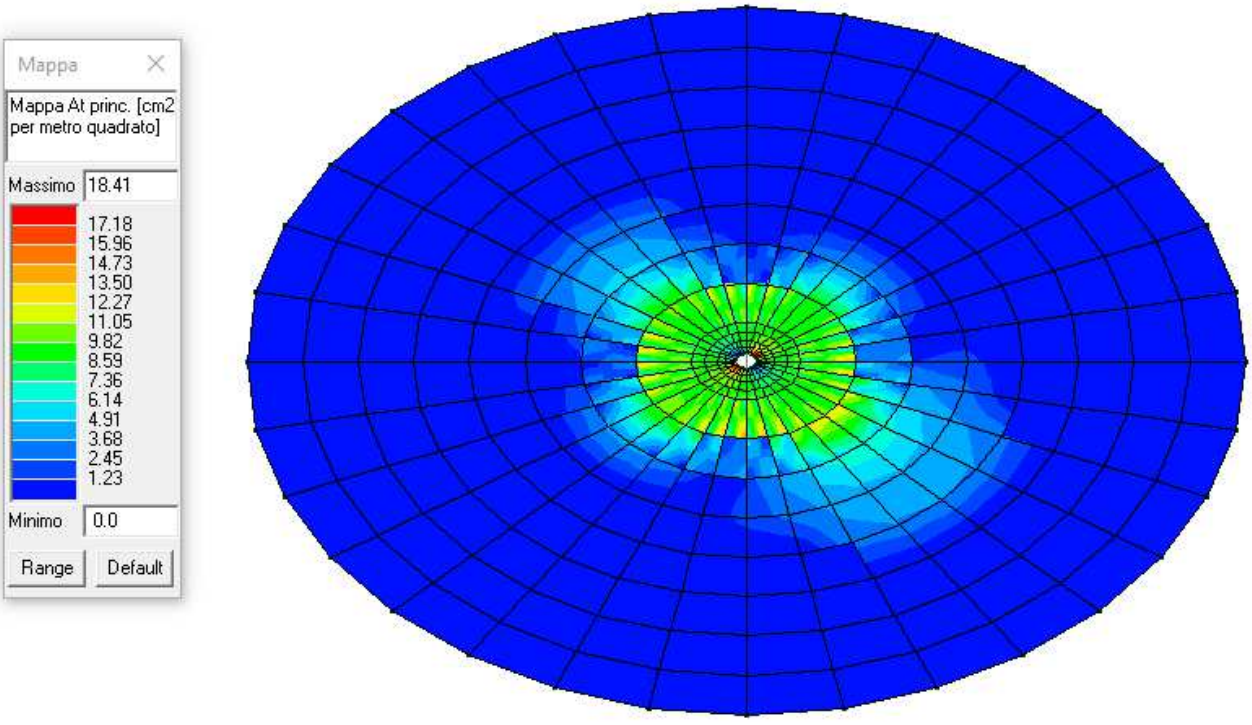
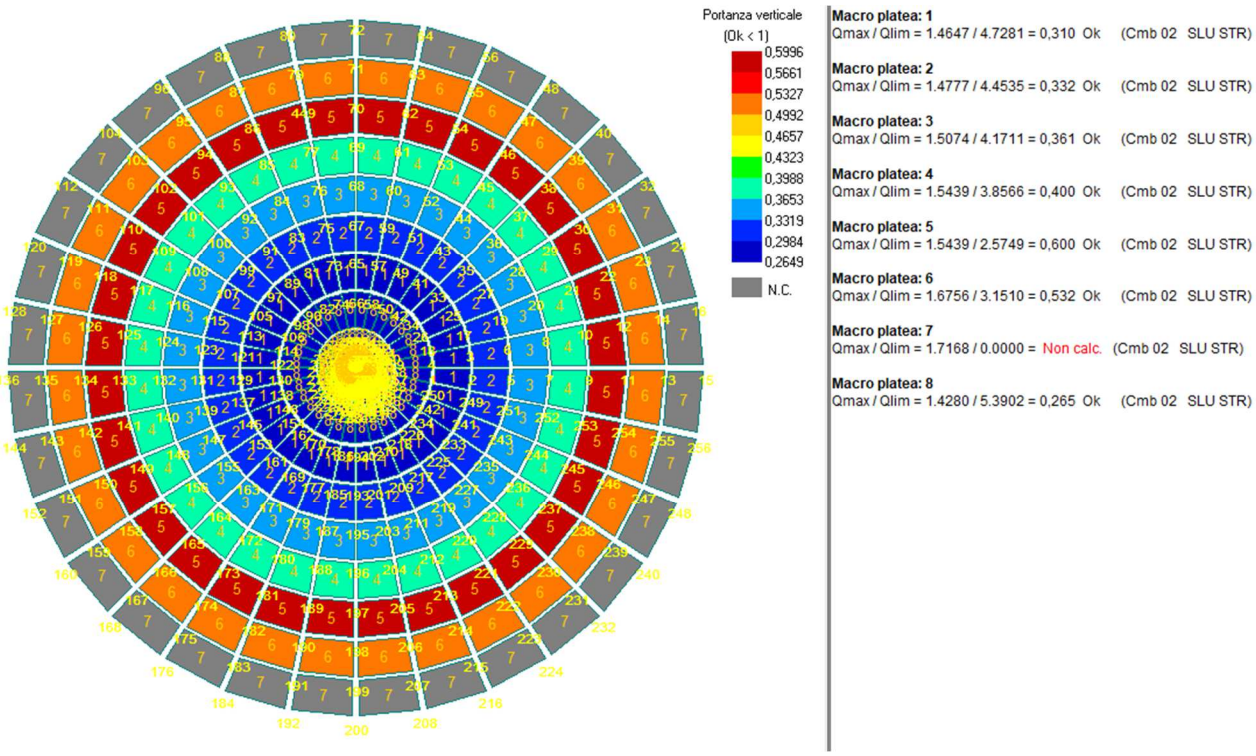
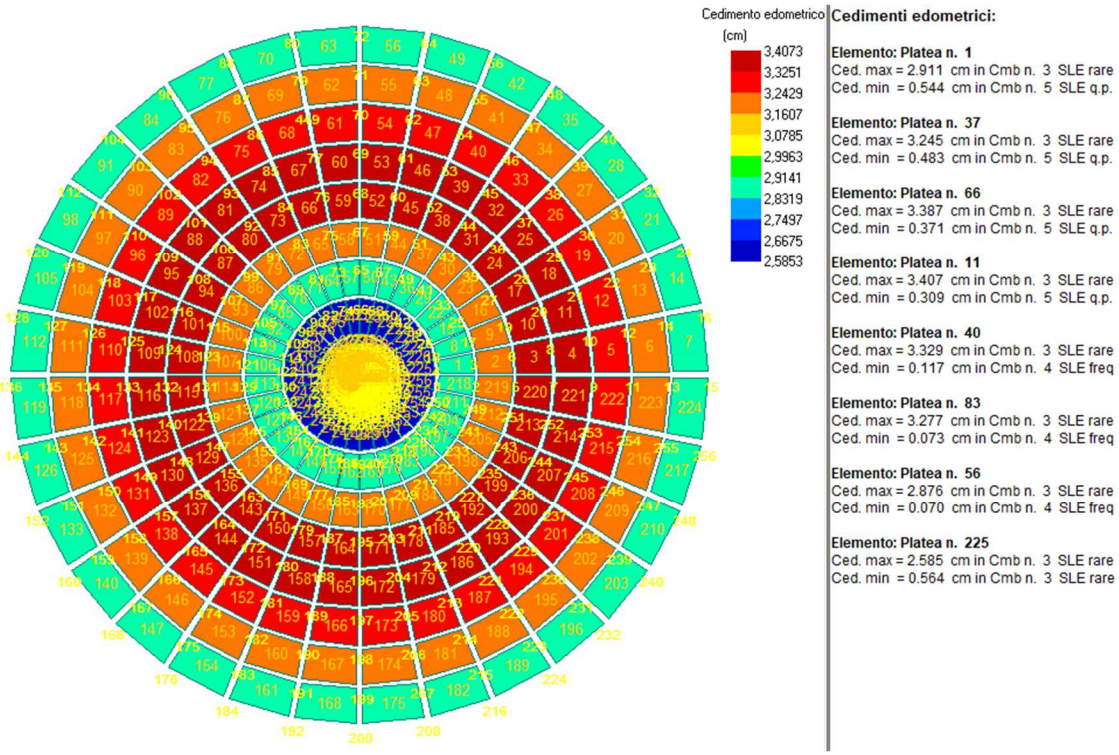


Figura 5 - Mappa max armatura a taglio di verifica dei nodi

10.2 Verifica geotecnica terreno



Portanza verificata (tutti i valori <1)



Cedimenti attesi compatibili con la destinazione d'uso della struttura

COMUNE di FOGGIA

Progetto definitivo per la realizzazione di un Parco Eolico

"Adeguato alle prescrizioni formulate in Conferenza dei Servizi"

COMMITTENTE	**DESE SRL** Via Mario Forcella, 14 - 71121 Foggia
PROGETTO DEFINITIVO	COMUNE: **FOGGIA** LOCALITA': **" Stella-Vulgano "**

Calcoli preliminari delle strutture e degli impianti del progetto definitivo

ELABORATO

CPS

Scala:

Data: 03-05-2021

Rev: 01

REV1 03-03-2024

Progettazione:

Tecnico incaricato:

ING. LUIGI FIORE

Relazione di calcolo strutturale impostata e redatta secondo le modalità previste nel D.M. 17 Gennaio 2018 cap. 10 “Redazione dei progetti strutturali esecutivi e delle relazioni di calcolo”.

INTESTAZIONE E CONTENUTI DELLA RELAZIONE

Progetto
Parco Eolico località Stella-Vulgano Fondazione tipo aerogeneratori

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

RELAZIONE DI CALCOLO STRUTTURALE

Premessa

La presente relazione di calcolo strutturale, in conformità al §10.1 del DM 17/01/18, 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.

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.

Progetto-verifica degli elementi	
Progetto cemento armato	D.M. 17-01-2018
Progetto acciaio	D.M. 17-01-2018
Progetto legno	D.M. 17-01-2018
Progetto muratura	D.M. 17-01-2018
Azione sismica	
Norma applicata per l' azione sismica	D.M. 17-01-2018

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)

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 e relativi sottoparagrafi delle NTC-18, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

Tipo di analisi strutturale	
Carichi verticali	SI
Statica non lineare	NO
Sismica statica lineare	NO
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:

Informazioni sul codice di calcolo	
Titolo:	
Versione:	
Dati utente finale:	
Codice Utente:	
Codice Licenza:	

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:

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. E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: https://www.2si.it/it/prodotti/affidabilita/

Modellazione della geometria e proprietà meccaniche:	
nodi	449
elementi D2 (per aste, travi, pilastri…)	64
elementi D3 (per pareti, platee, gusci…)	384
elementi solaio	0
elementi solidi	0
Dimensione del modello strutturale [cm]:	
X min =	-1230.00
Xmax =	1230.00
Ymin =	-1230.00
Ymax =	1230.00
Zmin =	-125.00
Zmax =	25.00
Strutture verticali:	
Elementi di tipo asta	NO
Pilastri	SI
Pareti	NO
Setti (a comportamento membranale)	NO
Strutture non verticali:	
Elementi di tipo asta	NO
Travi	SI
Gusci	NO
Membrane	NO
Orizzontamenti:	
Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	NO
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

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*".

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.

Combinazioni dei casi di carico	
APPROCCIO PROGETTUALE	Approccio 2
Tensioni ammissibili	NO
SLU	SI
SLV (SLU con sisma)	NO
SLC	NO
SLD	NO
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

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.) .

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 fatica, di duttilità, di degrado.

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.

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.

NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. 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".
5. 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>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. 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.
8. 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.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. 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".
11. 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".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. 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.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. 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.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
21. 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.
22. 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.
23. 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.
24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
25. 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.

26. 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.
27. 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.
28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
29. 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.
30. 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.
31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
32. 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.
33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
34. 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 il 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 17.01.18 è dovuto o a progettazione simulata di edifico esistente.

CARATTERISTICHE MATERIALI UTILIZZATI

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.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
4	Calcestruzzo Classe C30/37			3.302e+05	0.20	1.376e+05	2.50e-03	1.00e-05	
	Resistenza Rc	370.0							
	Resistenza fctm		29.4						
	Rapporto Rfessurata								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
75	Materiale inf. rigido no peso E = 1.000e+09			1.000e+09	0.0	5.000e+08	0.0	1.20e-05	
	Rapporto HRDb								1.00e-05

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
	Rapporto HRDv								1.00e-05

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Armatura						
Inclinazione Ax [gradi]	0.0	0.0				
Angolo Ax-Ay [gradi]	90.00	90.00				
Minima tesa	0.31	1.000e-03				
Massima tesa	0.78	0.78				
Maglia unica centrale	No	No				
Copriferro [cm]	2.00	5.00				
Maglia x						
diametro	10	16				
passo	20	20				
diametro aggiuntivi	12	20				
Maglia y						
diametro	10	16				
passo	20	20				
diametro aggiuntivi	12	20				
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00				
Tipo acciaio	tipo C	tipo C				
Coefficiente gamma s	1.15	1.15				
Coefficiente gamma c	1.50	1.50				
Verifiche con N costante	Si	Si				
Applica SLU da DIN	No	No				
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50	97.50				
Tensione amm. acciaio [daN/cm2]	2600.00	2600.00				
Rapporto omogeneizzazione N	15.00	15.00				
Massimo rapporto area compressa/tesa	1.00	1.00				
Resistenza al fuoco						
3- intradosso	No	No				
3+ estradosso	No	No				
Tempo di esposizione R	15	15				

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

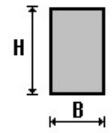
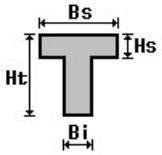
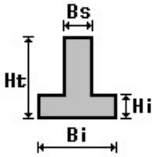
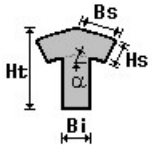
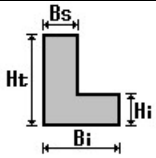
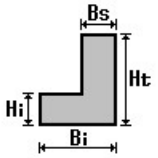
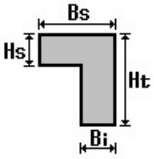
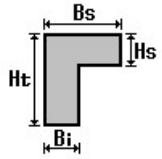
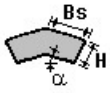
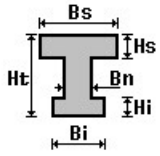
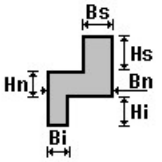
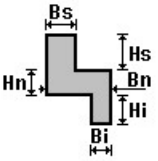
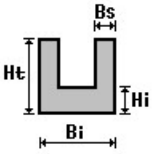
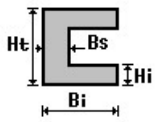
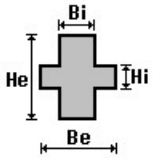
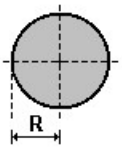
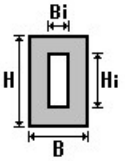
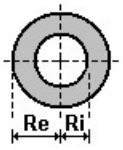
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

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

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
1	Aux Inf. Rigido-Rettangolare: b=30 h=10	300.00	250.00	250.00	7900.00	2.250e+04	2500.00	1500.00	500.00	2250.00	750.00
2	Rettangolare: b=10 h=10	100.00	83.33	83.33	1405.68	833.33	833.33	166.67	166.67	250.00	250.00

MODELLAZIONE STRUTTURA: NODI

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. (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. 17/01/18

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	271.0	0.0	-125.0	2	408.0	0.0	-125.0	3	400.2	79.6	-125.0
4	265.8	52.9	-125.0	5	545.0	0.0	-125.0	6	534.5	106.3	-125.0
7	682.0	0.0	-125.0	8	668.9	133.1	-125.0	9	819.0	0.0	-125.0
10	803.3	159.8	-125.0	11	956.0	0.0	-125.0	12	937.6	186.5	-125.0
13	1093.0	0.0	-125.0	14	1072.0	213.2	-125.0	15	1230.0	0.0	-125.0
16	1206.4	240.0	-125.0	17	376.9	156.1	-125.0	18	250.4	103.7	-125.0
19	503.5	208.6	-125.0	20	630.1	261.0	-125.0	21	756.7	313.4	-125.0
22	883.2	365.8	-125.0	23	1009.8	418.3	-125.0	24	1136.4	470.7	-125.0
25	339.2	226.7	-125.0	26	225.3	150.6	-125.0	27	453.2	302.8	-125.0
28	567.1	378.9	-125.0	29	681.0	455.0	-125.0	30	794.9	531.1	-125.0
31	908.8	607.2	-125.0	32	1022.7	683.4	-125.0	33	288.5	288.5	-125.0
34	191.6	191.6	-125.0	35	385.4	385.4	-125.0	36	482.2	482.2	-125.0
37	579.1	579.1	-125.0	38	676.0	676.0	-125.0	39	772.9	772.9	-125.0
40	869.7	869.7	-125.0	41	226.7	339.2	-125.0	42	150.6	225.3	-125.0
43	302.8	453.2	-125.0	44	378.9	567.1	-125.0	45	455.0	681.0	-125.0
46	531.1	794.9	-125.0	47	607.2	908.8	-125.0	48	683.4	1022.7	-125.0

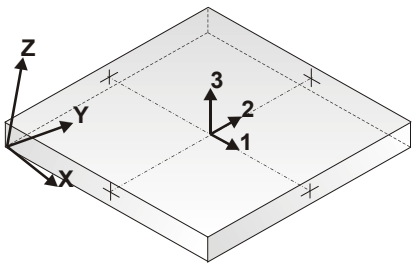
49	156.1	376.9	-125.0	50	103.7	250.4	-125.0	51	208.6	503.5	-125.0
52	261.0	630.1	-125.0	53	313.4	756.7	-125.0	54	365.8	883.2	-125.0
55	418.3	1009.8	-125.0	56	470.7	1136.4	-125.0	57	79.6	400.2	-125.0
58	52.9	265.8	-125.0	59	106.3	534.5	-125.0	60	133.1	668.9	-125.0
61	159.8	803.3	-125.0	62	186.5	937.6	-125.0	63	213.2	1072.0	-125.0
64	240.0	1206.4	-125.0	65	0.0	408.0	-125.0	66	0.0	271.0	-125.0
67	0.0	545.0	-125.0	68	0.0	682.0	-125.0	69	0.0	819.0	-125.0
70	0.0	956.0	-125.0	71	0.0	1093.0	-125.0	72	0.0	1230.0	-125.0
73	-79.6	400.2	-125.0	74	-52.9	265.8	-125.0	75	-106.3	534.5	-125.0
76	-133.1	668.9	-125.0	77	-159.8	803.3	-125.0	78	29.4	-5.9	-125.0
79	-213.2	1072.0	-125.0	80	-240.0	1206.4	-125.0	81	-156.1	376.9	-125.0
82	-103.7	250.4	-125.0	83	-208.6	503.5	-125.0	84	-261.0	630.1	-125.0
85	-313.4	756.7	-125.0	86	-365.8	883.2	-125.0	87	-418.3	1009.8	-125.0
88	-470.7	1136.4	-125.0	89	-226.7	339.2	-125.0	90	-150.6	225.3	-125.0
91	-302.8	453.2	-125.0	92	-378.9	567.1	-125.0	93	-455.0	681.0	-125.0
94	-531.1	794.9	-125.0	95	-607.2	908.8	-125.0	96	-683.4	1022.7	-125.0
97	-288.5	288.5	-125.0	98	-191.6	191.6	-125.0	99	-385.4	385.4	-125.0
100	-482.2	482.2	-125.0	101	-579.1	579.1	-125.0	102	-676.0	676.0	-125.0
103	-772.9	772.9	-125.0	104	-869.7	869.7	-125.0	105	-339.2	226.7	-125.0
106	-225.3	150.6	-125.0	107	-453.2	302.8	-125.0	108	-567.1	378.9	-125.0
109	-681.0	455.0	-125.0	110	-794.9	531.1	-125.0	111	-908.8	607.2	-125.0
112	-1022.7	683.4	-125.0	113	-376.9	156.1	-125.0	114	-250.4	103.7	-125.0
115	-503.5	208.6	-125.0	116	-630.1	261.0	-125.0	117	-756.7	313.4	-125.0
118	-883.2	365.8	-125.0	119	-1009.8	418.3	-125.0	120	-1136.4	470.7	-125.0
121	-400.2	79.6	-125.0	122	-265.8	52.9	-125.0	123	-534.5	106.3	-125.0
124	-668.9	133.1	-125.0	125	-803.3	159.8	-125.0	126	-937.6	186.5	-125.0
127	-1072.0	213.2	-125.0	128	-1206.4	240.0	-125.0	129	-408.0	0.0	-125.0
130	-271.0	0.0	-125.0	131	-545.0	0.0	-125.0	132	-682.0	0.0	-125.0
133	-819.0	0.0	-125.0	134	-956.0	0.0	-125.0	135	-1093.0	0.0	-125.0
136	-1230.0	0.0	-125.0	137	-400.2	-79.6	-125.0	138	-265.8	-52.9	-125.0
139	-534.5	-106.3	-125.0	140	-668.9	-133.1	-125.0	141	-803.3	-159.8	-125.0
142	-937.6	-186.5	-125.0	143	-1072.0	-213.2	-125.0	144	-1206.4	-240.0	-125.0
145	-376.9	-156.1	-125.0	146	-250.4	-103.7	-125.0	147	-503.5	-208.6	-125.0
148	-630.1	-261.0	-125.0	149	-756.7	-313.4	-125.0	150	-883.2	-365.8	-125.0
151	-1009.8	-418.3	-125.0	152	-1136.4	-470.7	-125.0	153	-339.2	-226.7	-125.0
154	-225.3	-150.6	-125.0	155	-453.2	-302.8	-125.0	156	-567.1	-378.9	-125.0
157	-681.0	-455.0	-125.0	158	-794.9	-531.1	-125.0	159	-908.8	-607.2	-125.0
160	-1022.7	-683.4	-125.0	161	-288.5	-288.5	-125.0	162	-191.6	-191.6	-125.0
163	-385.4	-385.4	-125.0	164	-482.2	-482.2	-125.0	165	-579.1	-579.1	-125.0
166	-676.0	-676.0	-125.0	167	-772.9	-772.9	-125.0	168	-869.7	-869.7	-125.0
169	-226.7	-339.2	-125.0	170	-150.6	-225.3	-125.0	171	-302.8	-453.2	-125.0
172	-378.9	-567.1	-125.0	173	-455.0	-681.0	-125.0	174	-531.1	-794.9	-125.0
175	-607.2	-908.8	-125.0	176	-683.4	-1022.7	-125.0	177	-156.1	-376.9	-125.0
178	-103.7	-250.4	-125.0	179	-208.6	-503.5	-125.0	180	-261.0	-630.1	-125.0
181	-313.4	-756.7	-125.0	182	-365.8	-883.2	-125.0	183	-418.3	-1009.8	-125.0
184	-470.7	-1136.4	-125.0	185	-79.6	-400.2	-125.0	186	-52.9	-265.8	-125.0
187	-106.3	-534.5	-125.0	188	-133.1	-668.9	-125.0	189	-159.8	-803.3	-125.0
190	-186.5	-937.6	-125.0	191	-213.2	-1072.0	-125.0	192	-240.0	-1206.4	-125.0
193	0.0	-408.0	-125.0	194	0.0	-271.0	-125.0	195	0.0	-545.0	-125.0
196	0.0	-682.0	-125.0	197	0.0	-819.0	-125.0	198	0.0	-956.0	-125.0
199	0.0	-1093.0	-125.0	200	0.0	-1230.0	-125.0	201	79.6	-400.2	-125.0
202	52.9	-265.8	-125.0	203	106.3	-534.5	-125.0	204	133.1	-668.9	-125.0
205	159.8	-803.3	-125.0	206	186.5	-937.6	-125.0	207	213.2	-1072.0	-125.0
208	240.0	-1206.4	-125.0	209	156.1	-376.9	-125.0	210	103.7	-250.4	-125.0
211	208.6	-503.5	-125.0	212	261.0	-630.1	-125.0	213	313.4	-756.7	-125.0
214	365.8	-883.2	-125.0	215	418.3	-1009.8	-125.0	216	470.7	-1136.4	-125.0
217	226.7	-339.2	-125.0	218	150.6	-225.3	-125.0	219	302.8	-453.2	-125.0
220	378.9	-567.1	-125.0	221	455.0	-681.0	-125.0	222	531.1	-794.9	-125.0
223	607.2	-908.8	-125.0	224	683.4	-1022.7	-125.0	225	288.5	-288.5	-125.0
226	191.6	-191.6	-125.0	227	385.4	-385.4	-125.0	228	482.2	-482.2	-125.0
229	579.1	-579.1	-125.0	230	676.0	-676.0	-125.0	231	772.9	-772.9	-125.0
232	869.7	-869.7	-125.0	233	339.2	-226.7	-125.0	234	225.3	-150.6	-125.0
235	453.2	-302.8	-125.0	236	567.1	-378.9	-125.0	237	681.0	-455.0	-125.0
238	794.9	-531.1	-125.0	239	908.8	-607.2	-125.0	240	1022.7	-683.4	-125.0
241	376.9	-156.1	-125.0	242	250.4	-103.7	-125.0	243	503.5	-208.6	-125.0
244	630.1	-261.0	-125.0	245	756.7	-313.4	-125.0	246	883.2	-365.8	-125.0
247	1009.8	-418.3	-125.0	248	1136.4	-470.7	-125.0	249	400.2	-79.6	-125.0
250	265.8	-52.9	-125.0	251	534.5	-106.3	-125.0	252	668.9	-133.1	-125.0
253	803.3	-159.8	-125.0	254	937.6	-186.5	-125.0	255	1072.0	-213.2	-125.0
256	1206.4	-240.0	-125.0	257	134.0	0.0	-125.0	258	131.4	26.1	-125.0
259	123.8	51.3	-125.0	260	111.4	74.4	-125.0	261	94.8	94.8	-125.0
262	74.4	111.4	-125.0	263	51.3	123.8	-125.0	264	26.1	131.4	-125.0
265	0.0	134.0	-125.0	266	-26.1	131.4	-125.0	267	-51.3	123.8	-125.0
268	-74.4	111.4	-125.0	269	-94.8	94.8	-125.0	270	-111.4	74.4	-125.0
271	-123.8	51.3	-125.0	272	-131.4	26.1	-125.0	273	-134.0	0.0	-125.0
274	-131.4	-26.1	-125.0	275	-123.8	-51.3	-125.0	276	-111.4	-74.4	-125.0
277	-94.8	-94.8	-125.0	278	-74.4	-111.4	-125.0	279	-51.3	-123.8	-125.0

280	-26.1	-131.4	-125.0	281	0.0	-134.0	-125.0	282	26.1	-131.4	-125.0
283	51.3	-123.8	-125.0	284	74.4	-111.4	-125.0	285	94.8	-94.8	-125.0
286	111.4	-74.4	-125.0	287	123.8	-51.3	-125.0	288	131.4	-26.1	-125.0
289	0.0	0.0	25.0	290	70.0	0.0	-125.0	291	102.0	0.0	-125.0
292	100.0	19.9	-125.0	293	68.7	13.7	-125.0	294	94.2	39.0	-125.0
295	64.7	26.8	-125.0	296	84.8	56.7	-125.0	297	58.2	38.9	-125.0
298	72.1	72.1	-125.0	299	49.5	49.5	-125.0	300	56.7	84.8	-125.0
301	38.9	58.2	-125.0	302	39.0	94.2	-125.0	303	26.8	64.7	-125.0
304	19.9	100.0	-125.0	305	13.7	68.7	-125.0	306	0.0	102.0	-125.0
307	0.0	70.0	-125.0	308	-19.9	100.0	-125.0	309	-13.7	68.7	-125.0
310	-39.0	94.2	-125.0	311	-26.8	64.7	-125.0	312	-56.7	84.8	-125.0
313	-38.9	58.2	-125.0	314	-72.1	72.1	-125.0	315	-49.5	49.5	-125.0
316	-84.8	56.7	-125.0	317	-58.2	38.9	-125.0	318	-94.2	39.0	-125.0
319	-64.7	26.8	-125.0	320	-100.0	19.9	-125.0	321	-68.7	13.7	-125.0
322	-102.0	0.0	-125.0	323	-70.0	0.0	-125.0	324	-100.0	-19.9	-125.0
325	-68.7	-13.7	-125.0	326	-94.2	-39.0	-125.0	327	-64.7	-26.8	-125.0
328	-84.8	-56.7	-125.0	329	-58.2	-38.9	-125.0	330	-72.1	-72.1	-125.0
331	-49.5	-49.5	-125.0	332	-56.7	-84.8	-125.0	333	-38.9	-58.2	-125.0
334	-39.0	-94.2	-125.0	335	-26.8	-64.7	-125.0	336	-19.9	-100.0	-125.0
337	-13.7	-68.7	-125.0	338	0.0	-102.0	-125.0	339	0.0	-70.0	-125.0
340	19.9	-100.0	-125.0	341	13.7	-68.7	-125.0	342	39.0	-94.2	-125.0
343	26.8	-64.7	-125.0	344	56.7	-84.8	-125.0	345	38.9	-58.2	-125.0
346	72.1	-72.1	-125.0	347	49.5	-49.5	-125.0	348	84.8	-56.7	-125.0
349	58.2	-38.9	-125.0	350	94.2	-39.0	-125.0	351	64.7	-26.8	-125.0
352	100.0	-19.9	-125.0	353	68.7	-13.7	-125.0	354	30.0	0.0	-125.0
355	50.0	0.0	-125.0	356	49.0	9.8	-125.0	357	29.4	5.9	-125.0
358	46.2	19.1	-125.0	359	27.7	11.5	-125.0	360	41.6	27.8	-125.0
361	24.9	16.7	-125.0	362	35.4	35.4	-125.0	363	21.2	21.2	-125.0
364	27.8	41.6	-125.0	365	16.7	24.9	-125.0	366	19.1	46.2	-125.0
367	11.5	27.7	-125.0	368	9.8	49.0	-125.0	369	5.9	29.4	-125.0
370	0.0	50.0	-125.0	371	0.0	30.0	-125.0	372	-9.8	49.0	-125.0
373	-5.9	29.4	-125.0	374	-19.1	46.2	-125.0	375	-11.5	27.7	-125.0
376	-27.8	41.6	-125.0	377	-16.7	24.9	-125.0	378	-35.4	35.4	-125.0
379	-21.2	21.2	-125.0	380	-41.6	27.8	-125.0	381	-24.9	16.7	-125.0
382	-46.2	19.1	-125.0	383	-27.7	11.5	-125.0	384	-49.0	9.8	-125.0
385	-29.4	5.9	-125.0	386	-50.0	0.0	-125.0	387	-30.0	0.0	-125.0
388	-49.0	-9.8	-125.0	389	-29.4	-5.9	-125.0	390	-46.2	-19.1	-125.0
391	-27.7	-11.5	-125.0	392	-41.6	-27.8	-125.0	393	-24.9	-16.7	-125.0
394	-35.4	-35.4	-125.0	395	-21.2	-21.2	-125.0	396	-27.8	-41.6	-125.0
397	-16.7	-24.9	-125.0	398	-19.1	-46.2	-125.0	399	-11.5	-27.7	-125.0
400	-9.8	-49.0	-125.0	401	-5.9	-29.4	-125.0	402	0.0	-50.0	-125.0
403	0.0	-30.0	-125.0	404	9.8	-49.0	-125.0	405	5.9	-29.4	-125.0
406	19.1	-46.2	-125.0	407	11.5	-27.7	-125.0	408	27.8	-41.6	-125.0
409	16.7	-24.9	-125.0	410	35.4	-35.4	-125.0	411	21.2	-21.2	-125.0
412	41.6	-27.8	-125.0	413	24.9	-16.7	-125.0	414	46.2	-19.1	-125.0
415	27.7	-11.5	-125.0	416	49.0	-9.8	-125.0	417	271.0	0.0	25.0
418	265.8	52.9	25.0	419	250.4	103.7	25.0	420	225.3	150.6	25.0
421	191.6	191.6	25.0	422	150.6	225.3	25.0	423	103.7	250.4	25.0
424	52.9	265.8	25.0	425	0.0	271.0	25.0	426	-52.9	265.8	25.0
427	-103.7	250.4	25.0	428	-150.6	225.3	25.0	429	-191.6	191.6	25.0
430	-225.3	150.6	25.0	431	-250.4	103.7	25.0	432	-265.8	52.9	25.0
433	-271.0	0.0	25.0	434	-265.8	-52.9	25.0	435	-250.4	-103.7	25.0
436	-225.3	-150.6	25.0	437	-191.6	-191.6	25.0	438	-150.6	-225.3	25.0
439	-103.7	-250.4	25.0	440	-52.9	-265.8	25.0	441	0.0	-271.0	25.0
442	52.9	-265.8	25.0	443	103.7	-250.4	25.0	444	150.6	-225.3	25.0
445	191.6	-191.6	25.0	446	225.3	-150.6	25.0	447	250.4	-103.7	25.0
448	265.8	-52.9	25.0	449	-186.5	937.6	-125.0				

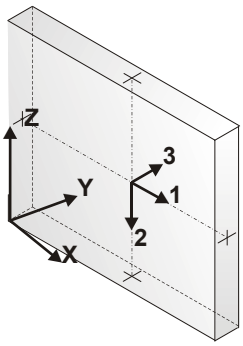
MODELLAZIONE STRUTTURA: ELEMENTI SHELL

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: *Guscio* (elemento guscio in elevazione non verticale) *Guscio fond.* (elemento guscio su suolo elastico) *Setto* (elemento guscio in elevazione verticale) *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)
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	Svincolo	Wink V	Wink O
							cm		daN/cm3	daN/cm3
1	Guscio fond.	1	2	3	4	4	239.0		0.21	0.13
2	Guscio fond.	2	5	6	3	4	216.8		0.19	0.12
3	Guscio fond.	5	7	8	6	4	194.7		0.19	0.11
4	Guscio fond.	7	9	10	8	4	172.5		0.18	0.11
5	Guscio fond.	9	11	12	10	4	150.4		0.17	0.10
6	Guscio fond.	11	13	14	12	4	128.2		0.18	0.11
7	Guscio fond.	13	15	16	14	4	106.0		0.17	0.10
8	Guscio fond.	4	3	17	18	4	239.0		0.21	0.13
9	Guscio fond.	3	6	19	17	4	216.8		0.19	0.12
10	Guscio fond.	6	8	20	19	4	194.7		0.19	0.11
11	Guscio fond.	8	10	21	20	4	172.5		0.18	0.11
12	Guscio fond.	10	12	22	21	4	150.4		0.17	0.10
13	Guscio fond.	12	14	23	22	4	128.2		0.18	0.11
14	Guscio fond.	14	16	24	23	4	106.0		0.17	0.10
15	Guscio fond.	18	17	25	26	4	239.0		0.21	0.13

16	Guscio fond.	17	19	27	25	4	216.8	0.19	0.12
17	Guscio fond.	19	20	28	27	4	194.7	0.19	0.11
18	Guscio fond.	20	21	29	28	4	172.5	0.18	0.11
19	Guscio fond.	21	22	30	29	4	150.4	0.17	0.10
20	Guscio fond.	22	23	31	30	4	128.2	0.18	0.11
21	Guscio fond.	23	24	32	31	4	106.0	0.17	0.10
22	Guscio fond.	26	25	33	34	4	239.0	0.21	0.13
23	Guscio fond.	25	27	35	33	4	216.8	0.19	0.12
24	Guscio fond.	27	28	36	35	4	194.7	0.19	0.11
25	Guscio fond.	28	29	37	36	4	172.5	0.18	0.11
26	Guscio fond.	29	30	38	37	4	150.4	0.17	0.10
27	Guscio fond.	30	31	39	38	4	128.2	0.18	0.11
28	Guscio fond.	31	32	40	39	4	106.0	0.17	0.10
29	Guscio fond.	42	34	33	41	4	239.0	0.21	0.13
30	Guscio fond.	41	33	35	43	4	216.8	0.19	0.12
31	Guscio fond.	43	35	36	44	4	194.7	0.19	0.11
32	Guscio fond.	44	36	37	45	4	172.5	0.18	0.11
33	Guscio fond.	45	37	38	46	4	150.4	0.17	0.10
34	Guscio fond.	46	38	39	47	4	128.2	0.18	0.11
35	Guscio fond.	47	39	40	48	4	106.0	0.17	0.10
36	Guscio fond.	50	42	41	49	4	239.0	0.21	0.13
37	Guscio fond.	49	41	43	51	4	216.8	0.19	0.12
38	Guscio fond.	51	43	44	52	4	194.7	0.19	0.11
39	Guscio fond.	52	44	45	53	4	172.5	0.18	0.11
40	Guscio fond.	53	45	46	54	4	150.4	0.17	0.10
41	Guscio fond.	54	46	47	55	4	128.2	0.18	0.11
42	Guscio fond.	55	47	48	56	4	106.0	0.17	0.10
43	Guscio fond.	58	50	49	57	4	239.0	0.21	0.13
44	Guscio fond.	57	49	51	59	4	216.8	0.19	0.12
45	Guscio fond.	59	51	52	60	4	194.7	0.19	0.11
46	Guscio fond.	60	52	53	61	4	172.5	0.18	0.11
47	Guscio fond.	61	53	54	62	4	150.4	0.17	0.10
48	Guscio fond.	62	54	55	63	4	128.2	0.18	0.11
49	Guscio fond.	63	55	56	64	4	106.0	0.17	0.10
50	Guscio fond.	66	58	57	65	4	239.0	0.21	0.13
51	Guscio fond.	65	57	59	67	4	216.8	0.19	0.12
52	Guscio fond.	67	59	60	68	4	194.7	0.19	0.11
53	Guscio fond.	68	60	61	69	4	172.5	0.18	0.11
54	Guscio fond.	69	61	62	70	4	150.4	0.17	0.10
55	Guscio fond.	70	62	63	71	4	128.2	0.18	0.11
56	Guscio fond.	71	63	64	72	4	106.0	0.17	0.10
57	Guscio fond.	74	66	65	73	4	239.0	0.21	0.13
58	Guscio fond.	73	65	67	75	4	216.8	0.19	0.12
59	Guscio fond.	75	67	68	76	4	194.7	0.19	0.11
60	Guscio fond.	76	68	69	77	4	172.5	0.18	0.11
61	Guscio fond.	77	69	70	449	4	150.4	0.17	0.10
62	Guscio fond.	449	70	71	79	4	128.2	0.18	0.11
63	Guscio fond.	79	71	72	80	4	106.0	0.17	0.10
64	Guscio fond.	82	74	73	81	4	239.0	0.21	0.13
65	Guscio fond.	81	73	75	83	4	216.8	0.19	0.12
66	Guscio fond.	83	75	76	84	4	194.7	0.19	0.11
67	Guscio fond.	84	76	77	85	4	172.5	0.18	0.11
68	Guscio fond.	85	77	449	86	4	150.4	0.17	0.10
69	Guscio fond.	86	449	79	87	4	128.2	0.18	0.11
70	Guscio fond.	87	79	80	88	4	106.0	0.17	0.10
71	Guscio fond.	90	82	81	89	4	239.0	0.21	0.13
72	Guscio fond.	89	81	83	91	4	216.8	0.19	0.12
73	Guscio fond.	91	83	84	92	4	194.7	0.19	0.11
74	Guscio fond.	92	84	85	93	4	172.5	0.18	0.11
75	Guscio fond.	93	85	86	94	4	150.4	0.17	0.10
76	Guscio fond.	94	86	87	95	4	128.2	0.18	0.11
77	Guscio fond.	95	87	88	96	4	106.0	0.17	0.10
78	Guscio fond.	98	90	89	97	4	239.0	0.21	0.13
79	Guscio fond.	97	89	91	99	4	216.8	0.19	0.12
80	Guscio fond.	99	91	92	100	4	194.7	0.19	0.11
81	Guscio fond.	100	92	93	101	4	172.5	0.18	0.11
82	Guscio fond.	101	93	94	102	4	150.4	0.17	0.10
83	Guscio fond.	102	94	95	103	4	128.2	0.18	0.11
84	Guscio fond.	103	95	96	104	4	106.0	0.17	0.10
85	Guscio fond.	105	106	98	97	4	239.0	0.21	0.13
86	Guscio fond.	107	105	97	99	4	216.8	0.19	0.12
87	Guscio fond.	108	107	99	100	4	194.7	0.19	0.11
88	Guscio fond.	109	108	100	101	4	172.5	0.18	0.11
89	Guscio fond.	110	109	101	102	4	150.4	0.17	0.10
90	Guscio fond.	111	110	102	103	4	128.2	0.18	0.11
91	Guscio fond.	112	111	103	104	4	106.0	0.17	0.10
92	Guscio fond.	113	114	106	105	4	239.0	0.21	0.13

93	Guscio fond.	115	113	105	107	4	216.8	0.19	0.12
94	Guscio fond.	116	115	107	108	4	194.7	0.19	0.11
95	Guscio fond.	117	116	108	109	4	172.5	0.18	0.11
96	Guscio fond.	118	117	109	110	4	150.4	0.17	0.10
97	Guscio fond.	119	118	110	111	4	128.2	0.18	0.11
98	Guscio fond.	120	119	111	112	4	106.0	0.17	0.10
99	Guscio fond.	121	122	114	113	4	239.0	0.21	0.13
100	Guscio fond.	123	121	113	115	4	216.8	0.19	0.12
101	Guscio fond.	124	123	115	116	4	194.7	0.19	0.11
102	Guscio fond.	125	124	116	117	4	172.5	0.18	0.11
103	Guscio fond.	126	125	117	118	4	150.4	0.17	0.10
104	Guscio fond.	127	126	118	119	4	128.2	0.18	0.11
105	Guscio fond.	128	127	119	120	4	106.0	0.17	0.10
106	Guscio fond.	129	130	122	121	4	239.0	0.21	0.13
107	Guscio fond.	131	129	121	123	4	216.8	0.19	0.12
108	Guscio fond.	132	131	123	124	4	194.7	0.19	0.11
109	Guscio fond.	133	132	124	125	4	172.5	0.18	0.11
110	Guscio fond.	134	133	125	126	4	150.4	0.17	0.10
111	Guscio fond.	135	134	126	127	4	128.2	0.18	0.11
112	Guscio fond.	136	135	127	128	4	106.0	0.17	0.10
113	Guscio fond.	137	138	130	129	4	239.0	0.21	0.13
114	Guscio fond.	139	137	129	131	4	216.8	0.19	0.12
115	Guscio fond.	140	139	131	132	4	194.7	0.19	0.11
116	Guscio fond.	141	140	132	133	4	172.5	0.18	0.11
117	Guscio fond.	142	141	133	134	4	150.4	0.17	0.10
118	Guscio fond.	143	142	134	135	4	128.2	0.18	0.11
119	Guscio fond.	144	143	135	136	4	106.0	0.17	0.10
120	Guscio fond.	145	146	138	137	4	239.0	0.21	0.13
121	Guscio fond.	147	145	137	139	4	216.8	0.19	0.12
122	Guscio fond.	148	147	139	140	4	194.7	0.19	0.11
123	Guscio fond.	149	148	140	141	4	172.5	0.18	0.11
124	Guscio fond.	150	149	141	142	4	150.4	0.17	0.10
125	Guscio fond.	151	150	142	143	4	128.2	0.18	0.11
126	Guscio fond.	152	151	143	144	4	106.0	0.17	0.10
127	Guscio fond.	153	154	146	145	4	239.0	0.21	0.13
128	Guscio fond.	155	153	145	147	4	216.8	0.19	0.12
129	Guscio fond.	156	155	147	148	4	194.7	0.19	0.11
130	Guscio fond.	157	156	148	149	4	172.5	0.18	0.11
131	Guscio fond.	158	157	149	150	4	150.4	0.17	0.10
132	Guscio fond.	159	158	150	151	4	128.2	0.18	0.11
133	Guscio fond.	160	159	151	152	4	106.0	0.17	0.10
134	Guscio fond.	161	162	154	153	4	239.0	0.21	0.13
135	Guscio fond.	163	161	153	155	4	216.8	0.19	0.12
136	Guscio fond.	164	163	155	156	4	194.7	0.19	0.11
137	Guscio fond.	165	164	156	157	4	172.5	0.18	0.11
138	Guscio fond.	166	165	157	158	4	150.4	0.17	0.10
139	Guscio fond.	167	166	158	159	4	128.2	0.18	0.11
140	Guscio fond.	168	167	159	160	4	106.0	0.17	0.10
141	Guscio fond.	161	169	170	162	4	239.0	0.21	0.13
142	Guscio fond.	163	171	169	161	4	216.8	0.19	0.12
143	Guscio fond.	164	172	171	163	4	194.7	0.19	0.11
144	Guscio fond.	165	173	172	164	4	172.5	0.18	0.11
145	Guscio fond.	166	174	173	165	4	150.4	0.17	0.10
146	Guscio fond.	167	175	174	166	4	128.2	0.18	0.11
147	Guscio fond.	168	176	175	167	4	106.0	0.17	0.10
148	Guscio fond.	169	177	178	170	4	239.0	0.21	0.13
149	Guscio fond.	171	179	177	169	4	216.8	0.19	0.12
150	Guscio fond.	172	180	179	171	4	194.7	0.19	0.11
151	Guscio fond.	173	181	180	172	4	172.5	0.18	0.11
152	Guscio fond.	174	182	181	173	4	150.4	0.17	0.10
153	Guscio fond.	175	183	182	174	4	128.2	0.18	0.11
154	Guscio fond.	176	184	183	175	4	106.0	0.17	0.10
155	Guscio fond.	177	185	186	178	4	239.0	0.21	0.13
156	Guscio fond.	179	187	185	177	4	216.8	0.19	0.12
157	Guscio fond.	180	188	187	179	4	194.7	0.19	0.11
158	Guscio fond.	181	189	188	180	4	172.5	0.18	0.11
159	Guscio fond.	182	190	189	181	4	150.4	0.17	0.10
160	Guscio fond.	183	191	190	182	4	128.2	0.18	0.11
161	Guscio fond.	184	192	191	183	4	106.0	0.17	0.10
162	Guscio fond.	185	193	194	186	4	239.0	0.21	0.13
163	Guscio fond.	187	195	193	185	4	216.8	0.19	0.12
164	Guscio fond.	188	196	195	187	4	194.7	0.19	0.11
165	Guscio fond.	189	197	196	188	4	172.5	0.18	0.11
166	Guscio fond.	190	198	197	189	4	150.4	0.17	0.10
167	Guscio fond.	191	199	198	190	4	128.2	0.18	0.11
168	Guscio fond.	192	200	199	191	4	106.0	0.17	0.10
169	Guscio fond.	193	201	202	194	4	239.0	0.21	0.13

170	Guscio fond.	195	203	201	193	4	216.8	0.19	0.12
171	Guscio fond.	196	204	203	195	4	194.7	0.19	0.11
172	Guscio fond.	197	205	204	196	4	172.5	0.18	0.11
173	Guscio fond.	198	206	205	197	4	150.4	0.17	0.10
174	Guscio fond.	199	207	206	198	4	128.2	0.18	0.11
175	Guscio fond.	200	208	207	199	4	106.0	0.17	0.10
176	Guscio fond.	201	209	210	202	4	239.0	0.21	0.13
177	Guscio fond.	203	211	209	201	4	216.8	0.19	0.12
178	Guscio fond.	204	212	211	203	4	194.7	0.19	0.11
179	Guscio fond.	205	213	212	204	4	172.5	0.18	0.11
180	Guscio fond.	206	214	213	205	4	150.4	0.17	0.10
181	Guscio fond.	207	215	214	206	4	128.2	0.18	0.11
182	Guscio fond.	208	216	215	207	4	106.0	0.17	0.10
183	Guscio fond.	209	217	218	210	4	239.0	0.21	0.13
184	Guscio fond.	211	219	217	209	4	216.8	0.19	0.12
185	Guscio fond.	212	220	219	211	4	194.7	0.19	0.11
186	Guscio fond.	213	221	220	212	4	172.5	0.18	0.11
187	Guscio fond.	214	222	221	213	4	150.4	0.17	0.10
188	Guscio fond.	215	223	222	214	4	128.2	0.18	0.11
189	Guscio fond.	216	224	223	215	4	106.0	0.17	0.10
190	Guscio fond.	217	225	226	218	4	239.0	0.21	0.13
191	Guscio fond.	219	227	225	217	4	216.8	0.19	0.12
192	Guscio fond.	220	228	227	219	4	194.7	0.19	0.11
193	Guscio fond.	221	229	228	220	4	172.5	0.18	0.11
194	Guscio fond.	222	230	229	221	4	150.4	0.17	0.10
195	Guscio fond.	223	231	230	222	4	128.2	0.18	0.11
196	Guscio fond.	224	232	231	223	4	106.0	0.17	0.10
197	Guscio fond.	226	225	233	234	4	239.0	0.21	0.13
198	Guscio fond.	225	227	235	233	4	216.8	0.19	0.12
199	Guscio fond.	227	228	236	235	4	194.7	0.19	0.11
200	Guscio fond.	228	229	237	236	4	172.5	0.18	0.11
201	Guscio fond.	229	230	238	237	4	150.4	0.17	0.10
202	Guscio fond.	230	231	239	238	4	128.2	0.18	0.11
203	Guscio fond.	231	232	240	239	4	106.0	0.17	0.10
204	Guscio fond.	234	233	241	242	4	239.0	0.21	0.13
205	Guscio fond.	233	235	243	241	4	216.8	0.19	0.12
206	Guscio fond.	235	236	244	243	4	194.7	0.19	0.11
207	Guscio fond.	236	237	245	244	4	172.5	0.18	0.11
208	Guscio fond.	237	238	246	245	4	150.4	0.17	0.10
209	Guscio fond.	238	239	247	246	4	128.2	0.18	0.11
210	Guscio fond.	239	240	248	247	4	106.0	0.17	0.10
211	Guscio fond.	242	241	249	250	4	239.0	0.21	0.13
212	Guscio fond.	241	243	251	249	4	216.8	0.19	0.12
213	Guscio fond.	243	244	252	251	4	194.7	0.19	0.11
214	Guscio fond.	244	245	253	252	4	172.5	0.18	0.11
215	Guscio fond.	245	246	254	253	4	150.4	0.17	0.10
216	Guscio fond.	246	247	255	254	4	128.2	0.18	0.11
217	Guscio fond.	247	248	256	255	4	106.0	0.17	0.10
218	Guscio fond.	250	249	2	1	4	239.0	0.21	0.13
219	Guscio fond.	249	251	5	2	4	216.8	0.19	0.12
220	Guscio fond.	251	252	7	5	4	194.7	0.19	0.11
221	Guscio fond.	252	253	9	7	4	172.5	0.18	0.11
222	Guscio fond.	253	254	11	9	4	150.4	0.17	0.10
223	Guscio fond.	254	255	13	11	4	128.2	0.18	0.11
224	Guscio fond.	255	256	15	13	4	106.0	0.17	0.10
225	Guscio fond.	257	1	4	258	4	310.0	0.22	0.13
226	Guscio fond.	258	4	18	259	4	310.0	0.22	0.13
227	Guscio fond.	259	18	26	260	4	310.0	0.22	0.13
228	Guscio fond.	260	26	34	261	4	310.0	0.22	0.13
229	Guscio fond.	262	261	34	42	4	310.0	0.22	0.13
230	Guscio fond.	263	262	42	50	4	310.0	0.22	0.13
231	Guscio fond.	264	263	50	58	4	310.0	0.22	0.13
232	Guscio fond.	265	264	58	66	4	310.0	0.22	0.13
233	Guscio fond.	266	265	66	74	4	310.0	0.22	0.13
234	Guscio fond.	267	266	74	82	4	310.0	0.22	0.13
235	Guscio fond.	268	267	82	90	4	310.0	0.22	0.13
236	Guscio fond.	269	268	90	98	4	310.0	0.22	0.13
237	Guscio fond.	106	270	269	98	4	310.0	0.22	0.13
238	Guscio fond.	114	271	270	106	4	310.0	0.22	0.13
239	Guscio fond.	122	272	271	114	4	310.0	0.22	0.13
240	Guscio fond.	130	273	272	122	4	310.0	0.22	0.13
241	Guscio fond.	138	274	273	130	4	310.0	0.22	0.13
242	Guscio fond.	146	275	274	138	4	310.0	0.22	0.13
243	Guscio fond.	154	276	275	146	4	310.0	0.22	0.13
244	Guscio fond.	162	277	276	154	4	310.0	0.22	0.13
245	Guscio fond.	162	170	278	277	4	310.0	0.22	0.13
246	Guscio fond.	170	178	279	278	4	310.0	0.22	0.13

247	Guscio fond.	178	186	280	279	4	310.0	0.22	0.13
248	Guscio fond.	186	194	281	280	4	310.0	0.22	0.13
249	Guscio fond.	194	202	282	281	4	310.0	0.22	0.13
250	Guscio fond.	202	210	283	282	4	310.0	0.22	0.13
251	Guscio fond.	210	218	284	283	4	310.0	0.22	0.13
252	Guscio fond.	218	226	285	284	4	310.0	0.22	0.13
253	Guscio fond.	285	226	234	286	4	310.0	0.22	0.13
254	Guscio fond.	286	234	242	287	4	310.0	0.22	0.13
255	Guscio fond.	287	242	250	288	4	310.0	0.22	0.13
256	Guscio fond.	288	250	1	257	4	310.0	0.22	0.13
257	Guscio fond.	290	291	292	293	4	310.0	0.22	0.13
258	Guscio fond.	291	257	258	292	4	310.0	0.22	0.13
259	Guscio fond.	293	292	294	295	4	310.0	0.22	0.13
260	Guscio fond.	292	258	259	294	4	310.0	0.22	0.13
261	Guscio fond.	295	294	296	297	4	310.0	0.22	0.13
262	Guscio fond.	294	259	260	296	4	310.0	0.22	0.13
263	Guscio fond.	297	296	298	299	4	310.0	0.22	0.13
264	Guscio fond.	296	260	261	298	4	310.0	0.22	0.13
265	Guscio fond.	301	299	298	300	4	310.0	0.22	0.13
266	Guscio fond.	300	298	261	262	4	310.0	0.22	0.13
267	Guscio fond.	303	301	300	302	4	310.0	0.22	0.13
268	Guscio fond.	302	300	262	263	4	310.0	0.22	0.13
269	Guscio fond.	305	303	302	304	4	310.0	0.22	0.13
270	Guscio fond.	304	302	263	264	4	310.0	0.22	0.13
271	Guscio fond.	307	305	304	306	4	310.0	0.22	0.13
272	Guscio fond.	306	304	264	265	4	310.0	0.22	0.13
273	Guscio fond.	309	307	306	308	4	310.0	0.22	0.13
274	Guscio fond.	308	306	265	266	4	310.0	0.22	0.13
275	Guscio fond.	311	309	308	310	4	310.0	0.22	0.13
276	Guscio fond.	310	308	266	267	4	310.0	0.22	0.13
277	Guscio fond.	313	311	310	312	4	310.0	0.22	0.13
278	Guscio fond.	312	310	267	268	4	310.0	0.22	0.13
279	Guscio fond.	315	313	312	314	4	310.0	0.22	0.13
280	Guscio fond.	314	312	268	269	4	310.0	0.22	0.13
281	Guscio fond.	316	317	315	314	4	310.0	0.22	0.13
282	Guscio fond.	270	316	314	269	4	310.0	0.22	0.13
283	Guscio fond.	318	319	317	316	4	310.0	0.22	0.13
284	Guscio fond.	271	318	316	270	4	310.0	0.22	0.13
285	Guscio fond.	320	321	319	318	4	310.0	0.22	0.13
286	Guscio fond.	272	320	318	271	4	310.0	0.22	0.13
287	Guscio fond.	322	323	321	320	4	310.0	0.22	0.13
288	Guscio fond.	273	322	320	272	4	310.0	0.22	0.13
289	Guscio fond.	324	325	323	322	4	310.0	0.22	0.13
290	Guscio fond.	274	324	322	273	4	310.0	0.22	0.13
291	Guscio fond.	326	327	325	324	4	310.0	0.22	0.13
292	Guscio fond.	275	326	324	274	4	310.0	0.22	0.13
293	Guscio fond.	328	329	327	326	4	310.0	0.22	0.13
294	Guscio fond.	276	328	326	275	4	310.0	0.22	0.13
295	Guscio fond.	330	331	329	328	4	310.0	0.22	0.13
296	Guscio fond.	277	330	328	276	4	310.0	0.22	0.13
297	Guscio fond.	330	332	333	331	4	310.0	0.22	0.13
298	Guscio fond.	277	278	332	330	4	310.0	0.22	0.13
299	Guscio fond.	332	334	335	333	4	310.0	0.22	0.13
300	Guscio fond.	278	279	334	332	4	310.0	0.22	0.13
301	Guscio fond.	334	336	337	335	4	310.0	0.22	0.13
302	Guscio fond.	279	280	336	334	4	310.0	0.22	0.13
303	Guscio fond.	336	338	339	337	4	310.0	0.22	0.13
304	Guscio fond.	280	281	338	336	4	310.0	0.22	0.13
305	Guscio fond.	338	340	341	339	4	310.0	0.22	0.13
306	Guscio fond.	281	282	340	338	4	310.0	0.22	0.13
307	Guscio fond.	340	342	343	341	4	310.0	0.22	0.13
308	Guscio fond.	282	283	342	340	4	310.0	0.22	0.13
309	Guscio fond.	342	344	345	343	4	310.0	0.22	0.13
310	Guscio fond.	283	284	344	342	4	310.0	0.22	0.13
311	Guscio fond.	344	346	347	345	4	310.0	0.22	0.13
312	Guscio fond.	284	285	346	344	4	310.0	0.22	0.13
313	Guscio fond.	347	346	348	349	4	310.0	0.22	0.13
314	Guscio fond.	346	285	286	348	4	310.0	0.22	0.13
315	Guscio fond.	349	348	350	351	4	310.0	0.22	0.13
316	Guscio fond.	348	286	287	350	4	310.0	0.22	0.13
317	Guscio fond.	351	350	352	353	4	310.0	0.22	0.13
318	Guscio fond.	350	287	288	352	4	310.0	0.22	0.13
319	Guscio fond.	353	352	291	290	4	310.0	0.22	0.13
320	Guscio fond.	352	288	257	291	4	310.0	0.22	0.13
321	Guscio fond.	354	355	356	357	4	310.0	0.22	0.13
322	Guscio fond.	355	290	293	356	4	310.0	0.22	0.13
323	Guscio fond.	357	356	358	359	4	310.0	0.22	0.13

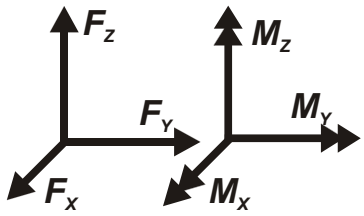
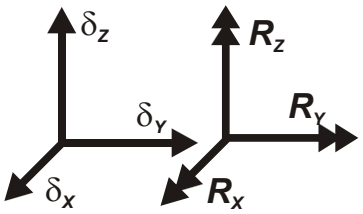
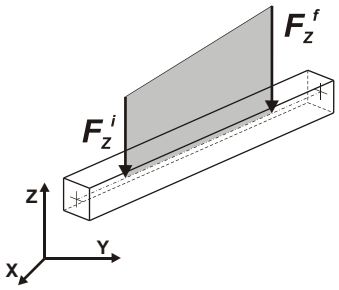
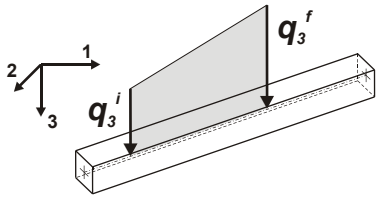
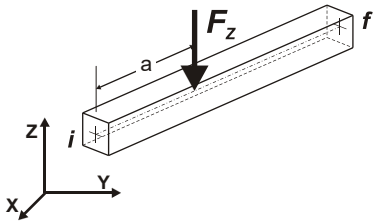
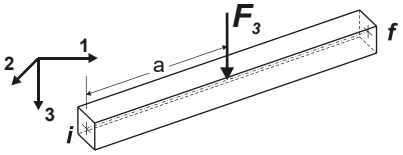
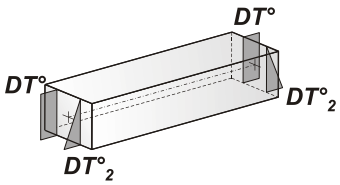
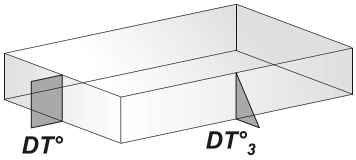
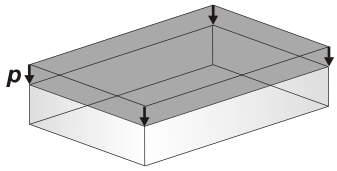
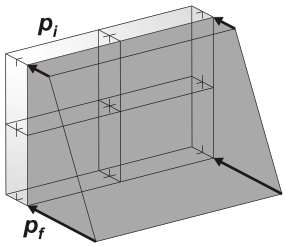
324	Guscio fond.	356	293	295	358	4	310.0	0.22	0.13
325	Guscio fond.	359	358	360	361	4	310.0	0.22	0.13
326	Guscio fond.	358	295	297	360	4	310.0	0.22	0.13
327	Guscio fond.	361	360	362	363	4	310.0	0.22	0.13
328	Guscio fond.	360	297	299	362	4	310.0	0.22	0.13
329	Guscio fond.	365	363	362	364	4	310.0	0.22	0.13
330	Guscio fond.	364	362	299	301	4	310.0	0.22	0.13
331	Guscio fond.	367	365	364	366	4	310.0	0.22	0.13
332	Guscio fond.	366	364	301	303	4	310.0	0.22	0.13
333	Guscio fond.	369	367	366	368	4	310.0	0.22	0.13
334	Guscio fond.	368	366	303	305	4	310.0	0.22	0.13
335	Guscio fond.	371	369	368	370	4	310.0	0.22	0.13
336	Guscio fond.	370	368	305	307	4	310.0	0.22	0.13
337	Guscio fond.	373	371	370	372	4	310.0	0.22	0.13
338	Guscio fond.	372	370	307	309	4	310.0	0.22	0.13
339	Guscio fond.	375	373	372	374	4	310.0	0.22	0.13
340	Guscio fond.	374	372	309	311	4	310.0	0.22	0.13
341	Guscio fond.	377	375	374	376	4	310.0	0.22	0.13
342	Guscio fond.	376	374	311	313	4	310.0	0.22	0.13
343	Guscio fond.	379	377	376	378	4	310.0	0.22	0.13
344	Guscio fond.	378	376	313	315	4	310.0	0.22	0.13
345	Guscio fond.	380	381	379	378	4	310.0	0.22	0.13
346	Guscio fond.	317	380	378	315	4	310.0	0.22	0.13
347	Guscio fond.	382	383	381	380	4	310.0	0.22	0.13
348	Guscio fond.	319	382	380	317	4	310.0	0.22	0.13
349	Guscio fond.	384	385	383	382	4	310.0	0.22	0.13
350	Guscio fond.	321	384	382	319	4	310.0	0.22	0.13
351	Guscio fond.	386	387	385	384	4	310.0	0.22	0.13
352	Guscio fond.	323	386	384	321	4	310.0	0.22	0.13
353	Guscio fond.	388	389	387	386	4	310.0	0.22	0.13
354	Guscio fond.	325	388	386	323	4	310.0	0.22	0.13
355	Guscio fond.	390	391	389	388	4	310.0	0.22	0.13
356	Guscio fond.	327	390	388	325	4	310.0	0.22	0.13
357	Guscio fond.	392	393	391	390	4	310.0	0.22	0.13
358	Guscio fond.	329	392	390	327	4	310.0	0.22	0.13
359	Guscio fond.	394	395	393	392	4	310.0	0.22	0.13
360	Guscio fond.	331	394	392	329	4	310.0	0.22	0.13
361	Guscio fond.	394	396	397	395	4	310.0	0.22	0.13
362	Guscio fond.	331	333	396	394	4	310.0	0.22	0.13
363	Guscio fond.	396	398	399	397	4	310.0	0.22	0.13
364	Guscio fond.	333	335	398	396	4	310.0	0.22	0.13
365	Guscio fond.	398	400	401	399	4	310.0	0.22	0.13
366	Guscio fond.	335	337	400	398	4	310.0	0.22	0.13
367	Guscio fond.	400	402	403	401	4	310.0	0.22	0.13
368	Guscio fond.	337	339	402	400	4	310.0	0.22	0.13
369	Guscio fond.	402	404	405	403	4	310.0	0.22	0.13
370	Guscio fond.	339	341	404	402	4	310.0	0.22	0.13
371	Guscio fond.	404	406	407	405	4	310.0	0.22	0.13
372	Guscio fond.	341	343	406	404	4	310.0	0.22	0.13
373	Guscio fond.	406	408	409	407	4	310.0	0.22	0.13
374	Guscio fond.	343	345	408	406	4	310.0	0.22	0.13
375	Guscio fond.	408	410	411	409	4	310.0	0.22	0.13
376	Guscio fond.	345	347	410	408	4	310.0	0.22	0.13
377	Guscio fond.	411	410	412	413	4	310.0	0.22	0.13
378	Guscio fond.	410	347	349	412	4	310.0	0.22	0.13
379	Guscio fond.	413	412	414	415	4	310.0	0.22	0.13
380	Guscio fond.	412	349	351	414	4	310.0	0.22	0.13
381	Guscio fond.	415	414	416	78	4	310.0	0.22	0.13
382	Guscio fond.	414	351	353	416	4	310.0	0.22	0.13
383	Guscio fond.	78	416	355	354	4	310.0	0.22	0.13
384	Guscio fond.	416	353	290	355	4	310.0	0.22	0.13

MODELLAZIONE DELLE AZIONI

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** 6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz)
2	**spostamento nodale impresso** 6 dati (spostamento Tx,Ty,Tz, rotazione Rx,Ry,Rz)
3	**carico distribuito globale su elemento tipo trave** 7 dati (fx,fy,fz,mx,my,mz,ascissa di inizio carico) 7 dati (fx,fy,fz,mx,my,mz,ascissa di fine carico)
4	**carico distribuito locale su elemento tipo trave** 7 dati (f1,f2,f3,m1,m2,m3,ascissa di inizio carico) 7 dati (f1,f2,f3,m1,m2,m3,ascissa di fine carico)
5	**carico concentrato globale su elemento tipo trave** 7 dati (Fx,Fy,Fz,Mx,My,Mz,ascissa di carico)
6	**carico concentrato locale su elemento tipo trave** 7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico)
7	**variazione termica applicata ad elemento tipo trave** 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** 1 dato (pressione)
9	**carico di pressione variabile su elemento tipo piastra** 4 dati (pressione, quota, pressione, quota)
10	**variazione termica applicata ad elemento tipo piastra** 2 dati (variazioni termiche: media e differenza nello spessore)
11	**carico variabile generale su elementi tipo trave e piastra** 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) 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** 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 concentrato nodale

Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
		kN	kN	kN	kN m	kN m	kN m
1	Peso proprio -CN:Fz=-5.317e+05	0.0	0.0	-5317.00	0.0	0.0	0.0
3	Vento Estremo SLU-CN:Fx= 1.150e+05 Fz=-5.187e+05 My= 1.205e+09 Mz=-1.038e+08	1150.00	0.0	-5187.00	0.0	1.205e+05	-1.038e+04
4	Vento SLE r-CN:Fx= 9.962e+04 Fz=-5.317e+05 My= 1.032e+09 Mz=-1.038e+08	996.24	0.0	-5317.00	0.0	1.032e+05	-1.038e+04
5	Vento SLE f-CN:Fx= 7.872e+04 Fz=-5.234e+05 My= 8.247e+08 Mz=-6.889e+07	787.15	0.0	-5233.54	0.0	8.247e+04	-6888.80
6	Vento SLE p-CN:Fx= 6.854e+04 Fz=-5.203e+05 My= 7.422e+08 Mz=-4.062e+07	685.44	0.0	-5203.15	0.0	7.422e+04	-4061.73
7	SLO-CN:Fx=695.00 Fy=2318.00 Fz=-5.187e+05 Mx=-1.634e+07 My=4.903e+06 Mz=-1.640e+04	6.95	23.18	-5187.00	-1634.30	490.29	-1.64
8	SLD-CN:Fx=990.00 Fy=3299.00 Mx=-2.326e+07 My= 6.978e+06 Mz=-2.330e+04	9.90	32.99	0.0	-2325.96	697.79	-2.33
9	SLV-CN:Fx=2246.00 Fy=7487.00 Fz=-5.187e+05 Mx=-5.278e+07 My=1.583e+07 Mz=-5.300e+04	22.46	74.87	-5187.00	-5278.20	1583.46	-5.30

Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
10	SLC-CN:Fx=3028.00 Fy= 1.009e+04 Fz=-5.187e+05 Mx=-7.115e+07 My= 2.135e+07 Mz=-7.140e+04	30.28	100.93	-5187.00	-7115.16	2134.55	-7.14

Tipo	carico variabile generale

Id	Tipo	ascissa	valore	ascissa	valore
		m	kN/ m2	m	kN/ m2
2	Terreno esterno-QV:var R - Qz - Pres.				
	R - R Qz Pres. L2=0.0	0.0	0.0	12.30	38.00

SCHEMATIZZAZIONE DEI CASI DI CARICO

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	Gk	PP	Azioni applicate:
			Nodo: 289 Azione : Peso proprio -CN:Fz=-5.317e+05
2	Gk	Terreno	Azioni applicate:
			D3 :da 1 a 384 Azione : Terreno esterno-QV:var R - Qz - Pres.
3	Gk	Vento SLU	Azioni applicate:
			Nodo: 289 Azione : Vento Estremo SLU-CN:Fx= 1.150e+05 Fz=-5.187e+05 My= 1.205e+09 Mz=-1.038e+08
4	Gk	Vento SLE r	Azioni applicate:
			Nodo: 289 Azione : Vento SLE r-CN:Fx= 9.962e+04 Fz=-5.317e+05 My= 1.032e+09 Mz=-1.038e+08
5	Gk	Vento SLE f	Azioni applicate:
			Nodo: 289 Azione : Vento SLE f-CN:Fx= 7.872e+04 Fz=-5.234e+05 My= 8.247e+08 Mz=-6.889e+07
6	Gk	Vento SLE p	Azioni applicate:
			Nodo: 289 Azione : Vento SLE p-CN:Fx= 6.854e+04 Fz=-5.203e+05 My= 7.422e+08 Mz=-4.062e+07
7	Gk	SLO	Azioni applicate:
			Nodo: 289 Azione : SLO-CN:Fx=695.00 Fy=2318.00 Fz=-5.187e+05 Mx=-1.634e+07 My= 4.903e+06 Mz=-1.640e+04
8	Gk	SLD	Azioni applicate:
			Nodo: 289 Azione : SLD-CN:Fx=990.00 Fy=3299.00 Mx=-2.326e+07 My= 6.978e+06 Mz=-2.330e+04
9	Gk	SLV	Azioni applicate:
			Nodo: 289 Azione : SLV-CN:Fx=2246.00 Fy=7487.00 Fz=-5.187e+05 Mx=-5.278e+07 My= 1.583e+07 Mz=-5.300e+04
10	Gk	SLC	Azioni applicate:
			Nodo: 289 Azione : SLC-CN:Fx=3028.00 Fy= 1.009e+04 Fz=-5.187e+05 Mx=-7.115e+07 My= 2.135e+07 Mz=-7.140e+04
11	Ggk	CDC=Ggk (peso proprio della struttura)	

DEFINIZIONE DELLE COMBINAZIONI

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*

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

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

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

***Combinazione frequente** SLE*

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

***Combinazione quasi permanente** SLE*

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

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

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

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

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

Dove:

NTC 2018 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 2018 Tabella 2.6.I

		Coefficiente γf	***EQU***	***A1***	***A2***
Carichi permanenti	*Favorevoli* *Sfavorevoli*	*γG1*	*0,9* *1,1*	*1,0* *1,3*	*1,0* *1,0*
Carichi permanenti non strutturali *(Non compiutamente definiti)*	*Favorevoli* *Sfavorevoli*	*γG2*	*0,8* *1,5*	*0,8* *1,5*	*0,8* *1,3*
Carichi variabili	*Favorevoli* *Sfavorevoli*	*γQi*	*0,0* *1,5*	*0,0* *1,5*	*0,0* *1,3*

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	SLU PP	
2	SLU	SLU vento	
3	SLE(r)	SLE r	
4	SLE(f)	SLE f	
5	SLE(p)	SLE p	
6	SLU	SLO	
7	SLU	SLD	
8	SLU	SLV	

Cmb	Tipo	Sigla Id	effetto P-delta
9	SLU	SLC	

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	1.30	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30			
2	0.0	1.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30			
3	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00			
4	0.0	1.00	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00			
5	0.0	1.00	0.0	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00			
6	0.0	1.00	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00			
7	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00			
8	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.00			
9	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00			

RISULTATI NODALI

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	2	0.23	-0.07	-6.54	4.60e-06	4.07e-03	-2.96e-04
1	3	0.20	-0.07	-5.29	4.60e-06	3.48e-03	-2.96e-04
1	4	0.15	-0.05	-5.08	3.06e-06	2.78e-03	-1.96e-04
1	5	0.13	-0.03	-5.00	1.80e-06	2.50e-03	-1.16e-04
2	2	0.22	-0.11	-7.07	0.0	3.90e-03	0.0
2	3	0.19	-0.11	-5.75	0.0	3.33e-03	0.0
2	4	0.15	-0.07	-5.45	0.0	2.65e-03	0.0
2	5	0.13	-0.04	-5.33	0.0	2.38e-03	0.0
3	2	0.24	-0.11	-7.04	3.71e-05	3.90e-03	0.0
3	3	0.21	-0.11	-5.72	3.32e-05	3.34e-03	0.0
3	4	0.17	-0.07	-5.43	2.79e-05	2.66e-03	0.0
3	5	0.14	-0.04	-5.31	2.56e-05	2.39e-03	0.0
4	2	0.24	-0.07	-6.51	1.65e-05	4.07e-03	-3.33e-04
4	3	0.21	-0.07	-5.27	1.54e-05	3.49e-03	-3.28e-04
4	4	0.16	-0.05	-5.07	1.23e-05	2.78e-03	-2.22e-04
4	5	0.14	-0.03	-4.99	1.05e-05	2.50e-03	-1.39e-04
5	2	0.22	-0.15	-7.59	0.0	3.77e-03	0.0
5	3	0.19	-0.15	-6.19	0.0	3.22e-03	0.0
5	4	0.15	-0.10	-5.80	0.0	2.56e-03	0.0
5	5	0.13	-0.06	-5.64	0.0	2.30e-03	0.0
6	2	0.25	-0.14	-7.54	5.03e-05	3.78e-03	0.0
6	3	0.22	-0.14	-6.15	4.50e-05	3.23e-03	0.0
6	4	0.17	-0.10	-5.77	3.78e-05	2.57e-03	0.0
6	5	0.14	-0.06	-5.62	3.50e-05	2.31e-03	0.0
7	2	0.22	-0.18	-8.09	0.0	3.67e-03	0.0
7	3	0.19	-0.18	-6.62	0.0	3.13e-03	0.0
7	4	0.15	-0.12	-6.14	0.0	2.49e-03	0.0
7	5	0.13	-0.07	-5.95	0.0	2.24e-03	0.0
8	2	0.26	-0.18	-8.04	5.95e-05	3.68e-03	0.0
8	3	0.23	-0.18	-6.58	5.33e-05	3.14e-03	0.0
8	4	0.18	-0.12	-6.11	4.49e-05	2.50e-03	0.0
8	5	0.15	-0.07	-5.92	4.16e-05	2.24e-03	0.0
9	2	0.22	-0.22	-8.59	0.0	3.59e-03	0.0
9	3	0.19	-0.22	-7.04	0.0	3.06e-03	0.0
9	4	0.15	-0.15	-6.48	0.0	2.43e-03	0.0
9	5	0.13	-0.09	-6.25	0.0	2.18e-03	0.0
10	2	0.26	-0.22	-8.52	6.57e-05	3.60e-03	0.0
10	3	0.24	-0.22	-6.99	5.89e-05	3.07e-03	0.0
10	4	0.18	-0.14	-6.43	4.97e-05	2.44e-03	0.0
10	5	0.15	-0.08	-6.21	4.60e-05	2.19e-03	0.0
11	2	0.22	-0.26	-9.07	0.0	3.53e-03	0.0
11	3	0.19	-0.26	-7.45	0.0	3.01e-03	0.0
11	4	0.15	-0.17	-6.81	0.0	2.39e-03	0.0
11	5	0.13	-0.10	-6.55	0.0	2.14e-03	0.0
12	2	0.27	-0.25	-9.00	6.86e-05	3.55e-03	0.0
12	3	0.24	-0.25	-7.39	6.16e-05	3.02e-03	0.0
12	4	0.19	-0.17	-6.76	5.20e-05	2.40e-03	0.0
12	5	0.15	-0.10	-6.50	4.82e-05	2.15e-03	0.0
13	2	0.22	-0.30	-9.55	0.0	3.50e-03	0.0
13	3	0.19	-0.30	-7.86	0.0	2.99e-03	0.0
13	4	0.15	-0.20	-7.13	0.0	2.37e-03	0.0
13	5	0.13	-0.12	-6.84	0.0	2.12e-03	0.0
14	2	0.28	-0.29	-9.47	6.75e-05	3.51e-03	0.0
14	3	0.25	-0.29	-7.79	6.07e-05	3.00e-03	0.0
14	4	0.19	-0.19	-7.07	5.14e-05	2.38e-03	0.0
14	5	0.15	-0.11	-6.79	4.77e-05	2.13e-03	0.0
15	2	0.22	-0.33	-10.03	0.0	3.49e-03	0.0

15	3	0.19	-0.33	-8.27	0.0	2.97e-03	0.0
15	4	0.15	-0.22	-7.45	0.0	2.36e-03	0.0
15	5	0.13	-0.13	-7.13	0.0	2.12e-03	0.0
16	2	0.29	-0.33	-9.94	6.57e-05	3.50e-03	0.0
16	3	0.26	-0.33	-8.19	5.92e-05	2.99e-03	0.0
16	4	0.19	-0.22	-7.39	5.02e-05	2.37e-03	0.0
16	5	0.16	-0.13	-7.07	4.66e-05	2.12e-03	0.0
17	2	0.27	-0.10	-6.94	6.87e-05	3.92e-03	0.0
17	3	0.24	-0.10	-5.64	6.16e-05	3.35e-03	0.0
17	4	0.18	-0.07	-5.36	5.19e-05	2.67e-03	0.0
17	5	0.15	-0.04	-5.25	4.79e-05	2.40e-03	0.0
18	2	0.25	-0.07	-6.45	2.67e-05	4.08e-03	-3.69e-04
18	3	0.22	-0.07	-5.22	2.47e-05	3.49e-03	-3.59e-04
18	4	0.17	-0.04	-5.02	2.05e-05	2.79e-03	-2.46e-04
18	5	0.15	-0.03	-4.95	1.82e-05	2.51e-03	-1.61e-04
19	2	0.28	-0.14	-7.42	9.40e-05	3.81e-03	0.0
19	3	0.25	-0.14	-6.05	8.42e-05	3.25e-03	0.0
19	4	0.19	-0.09	-5.68	7.10e-05	2.59e-03	0.0
19	5	0.15	-0.05	-5.54	6.58e-05	2.32e-03	0.0
20	2	0.29	-0.17	-7.89	1.11e-04	3.71e-03	0.0
20	3	0.26	-0.17	-6.44	9.98e-05	3.17e-03	0.0
20	4	0.20	-0.11	-6.00	8.44e-05	2.52e-03	0.0
20	5	0.16	-0.07	-5.82	7.82e-05	2.26e-03	0.0
21	2	0.31	-0.20	-8.34	1.23e-04	3.64e-03	0.0
21	3	0.28	-0.20	-6.83	1.10e-04	3.10e-03	0.0
21	4	0.21	-0.14	-6.31	9.34e-05	2.47e-03	0.0
21	5	0.17	-0.08	-6.10	8.66e-05	2.21e-03	0.0
22	2	0.32	-0.24	-8.79	1.28e-04	3.58e-03	0.0
22	3	0.29	-0.24	-7.21	1.16e-04	3.05e-03	0.0
22	4	0.22	-0.16	-6.61	9.79e-05	2.43e-03	0.0
22	5	0.17	-0.09	-6.37	9.08e-05	2.18e-03	0.0
23	2	0.33	-0.27	-9.23	1.26e-04	3.55e-03	0.0
23	3	0.30	-0.27	-7.59	1.14e-04	3.03e-03	0.0
23	4	0.23	-0.18	-6.91	9.68e-05	2.40e-03	0.0
23	5	0.18	-0.11	-6.64	9.00e-05	2.16e-03	0.0
24	2	0.35	-0.31	-9.67	1.23e-04	3.54e-03	0.0
24	3	0.32	-0.31	-7.96	1.11e-04	3.01e-03	0.0
24	4	0.24	-0.20	-7.21	9.46e-05	2.39e-03	0.0
24	5	0.18	-0.12	-6.91	8.79e-05	2.15e-03	0.0
25	2	0.28	-0.09	-6.79	9.16e-05	3.95e-03	0.0
25	3	0.25	-0.09	-5.50	8.24e-05	3.38e-03	0.0
25	4	0.19	-0.06	-5.25	6.97e-05	2.69e-03	0.0
25	5	0.16	-0.03	-5.15	6.46e-05	2.42e-03	0.0
26	2	0.26	-0.06	-6.34	3.42e-05	4.09e-03	-4.02e-04
26	3	0.23	-0.06	-5.13	3.16e-05	3.50e-03	-3.87e-04
26	4	0.18	-0.04	-4.95	2.66e-05	2.79e-03	-2.69e-04
26	5	0.15	-0.02	-4.88	2.40e-05	2.51e-03	-1.81e-04
27	2	0.30	-0.12	-7.22	1.26e-04	3.85e-03	0.0
27	3	0.27	-0.12	-5.87	1.13e-04	3.29e-03	0.0
27	4	0.21	-0.08	-5.55	9.57e-05	2.62e-03	0.0
27	5	0.16	-0.05	-5.42	8.89e-05	2.35e-03	0.0
28	2	0.32	-0.15	-7.63	1.49e-04	3.76e-03	0.0
28	3	0.29	-0.15	-6.23	1.34e-04	3.21e-03	0.0
28	4	0.22	-0.10	-5.83	1.14e-04	2.56e-03	0.0
28	5	0.17	-0.06	-5.67	1.06e-04	2.29e-03	0.0
29	2	0.34	-0.18	-8.04	1.64e-04	3.69e-03	0.0
29	3	0.31	-0.18	-6.58	1.48e-04	3.15e-03	0.0
29	4	0.23	-0.12	-6.11	1.26e-04	2.50e-03	0.0
29	5	0.18	-0.07	-5.92	1.17e-04	2.25e-03	0.0
30	2	0.36	-0.21	-8.44	1.72e-04	3.63e-03	0.0
30	3	0.34	-0.21	-6.92	1.55e-04	3.10e-03	0.0
30	4	0.25	-0.14	-6.38	1.32e-04	2.47e-03	0.0
30	5	0.19	-0.08	-6.16	1.23e-04	2.21e-03	0.0
31	2	0.39	-0.24	-8.84	1.70e-04	3.60e-03	0.0
31	3	0.36	-0.24	-7.26	1.53e-04	3.07e-03	0.0
31	4	0.26	-0.16	-6.64	1.31e-04	2.44e-03	0.0
31	5	0.20	-0.10	-6.40	1.22e-04	2.19e-03	0.0
32	2	0.41	-0.28	-9.24	1.65e-04	3.59e-03	0.0
32	3	0.38	-0.28	-7.59	1.50e-04	3.06e-03	0.0
32	4	0.27	-0.18	-6.91	1.28e-04	2.43e-03	0.0
32	5	0.20	-0.11	-6.64	1.19e-04	2.18e-03	0.0
33	2	0.30	-0.08	-6.58	1.03e-04	3.98e-03	0.0
33	3	0.27	-0.08	-5.33	9.32e-05	3.41e-03	0.0
33	4	0.20	-0.05	-5.11	7.94e-05	2.72e-03	0.0
33	5	0.16	-0.03	-5.03	7.39e-05	2.44e-03	0.0
34	2	0.27	-0.05	-6.20	3.79e-05	4.10e-03	-4.31e-04
34	3	0.24	-0.05	-5.00	3.52e-05	3.51e-03	-4.12e-04

34	4	0.19	-0.03	-4.86	3.00e-05	2.80e-03	-2.89e-04
34	5	0.15	-0.02	-4.80	2.75e-05	2.52e-03	-1.99e-04
35	2	0.33	-0.10	-6.94	1.41e-04	3.89e-03	0.0
35	3	0.30	-0.10	-5.64	1.28e-04	3.33e-03	0.0
35	4	0.22	-0.07	-5.36	1.09e-04	2.65e-03	0.0
35	5	0.17	-0.04	-5.25	1.02e-04	2.38e-03	0.0
36	2	0.35	-0.13	-7.30	1.68e-04	3.81e-03	0.0
36	3	0.32	-0.13	-5.94	1.52e-04	3.26e-03	0.0
36	4	0.24	-0.09	-5.60	1.30e-04	2.60e-03	0.0
36	5	0.18	-0.05	-5.46	1.21e-04	2.33e-03	0.0
37	2	0.38	-0.16	-7.64	1.85e-04	3.75e-03	0.0
37	3	0.35	-0.16	-6.23	1.68e-04	3.20e-03	0.0
37	4	0.26	-0.10	-5.83	1.44e-04	2.55e-03	0.0
37	5	0.19	-0.06	-5.67	1.34e-04	2.29e-03	0.0
38	2	0.40	-0.18	-7.98	1.94e-04	3.70e-03	0.0
38	3	0.37	-0.18	-6.52	1.76e-04	3.16e-03	0.0
38	4	0.27	-0.12	-6.06	1.51e-04	2.51e-03	0.0
38	5	0.20	-0.07	-5.88	1.41e-04	2.25e-03	0.0
39	2	0.43	-0.21	-8.32	1.92e-04	3.66e-03	0.0
39	3	0.40	-0.21	-6.81	1.75e-04	3.13e-03	0.0
39	4	0.29	-0.14	-6.29	1.50e-04	2.49e-03	0.0
39	5	0.21	-0.08	-6.08	1.40e-04	2.23e-03	0.0
40	2	0.46	-0.23	-8.65	1.87e-04	3.65e-03	0.0
40	3	0.43	-0.23	-7.09	1.71e-04	3.11e-03	0.0
40	4	0.31	-0.16	-6.51	1.47e-04	2.48e-03	0.0
40	5	0.22	-0.09	-6.28	1.37e-04	2.22e-03	0.0
41	2	0.31	-0.06	-6.32	1.02e-04	4.02e-03	0.0
41	3	0.28	-0.06	-5.11	9.29e-05	3.44e-03	0.0
41	4	0.21	-0.04	-4.94	8.02e-05	2.74e-03	0.0
41	5	0.17	-0.02	-4.87	7.50e-05	2.47e-03	0.0
42	2	0.28	-0.04	-6.03	3.76e-05	4.11e-03	-4.55e-04
42	3	0.25	-0.04	-4.86	3.53e-05	3.52e-03	-4.32e-04
42	4	0.19	-0.02	-4.74	3.06e-05	2.81e-03	-3.05e-04
42	5	0.16	-0.01	-4.69	2.84e-05	2.53e-03	-2.14e-04
43	2	0.34	-0.08	-6.61	1.40e-04	3.94e-03	0.0
43	3	0.31	-0.08	-5.35	1.28e-04	3.37e-03	0.0
43	4	0.23	-0.05	-5.13	1.10e-04	2.69e-03	0.0
43	5	0.18	-0.03	-5.04	1.03e-04	2.41e-03	0.0
44	2	0.37	-0.10	-6.88	1.66e-04	3.87e-03	0.0
44	3	0.34	-0.10	-5.59	1.52e-04	3.31e-03	0.0
44	4	0.25	-0.07	-5.32	1.31e-04	2.64e-03	0.0
44	5	0.19	-0.04	-5.21	1.23e-04	2.37e-03	0.0
45	2	0.40	-0.12	-7.15	1.84e-04	3.81e-03	0.0
45	3	0.38	-0.12	-5.81	1.69e-04	3.26e-03	0.0
45	4	0.27	-0.08	-5.50	1.46e-04	2.60e-03	0.0
45	5	0.20	-0.05	-5.37	1.37e-04	2.33e-03	0.0
46	2	0.44	-0.14	-7.42	1.93e-04	3.76e-03	0.0
46	3	0.41	-0.14	-6.04	1.77e-04	3.21e-03	0.0
46	4	0.29	-0.09	-5.67	1.54e-04	2.56e-03	0.0
46	5	0.22	-0.06	-5.53	1.44e-04	2.30e-03	0.0
47	2	0.47	-0.16	-7.68	1.91e-04	3.73e-03	0.0
47	3	0.44	-0.16	-6.26	1.76e-04	3.18e-03	0.0
47	4	0.31	-0.11	-5.85	1.53e-04	2.54e-03	0.0
47	5	0.23	-0.06	-5.69	1.44e-04	2.28e-03	0.0
48	2	0.50	-0.18	-7.94	1.87e-04	3.71e-03	0.0
48	3	0.47	-0.18	-6.48	1.72e-04	3.17e-03	0.0
48	4	0.33	-0.12	-6.03	1.50e-04	2.52e-03	0.0
48	5	0.24	-0.07	-5.84	1.41e-04	2.27e-03	0.0
49	2	0.32	-0.04	-6.03	8.85e-05	4.05e-03	0.0
49	3	0.29	-0.04	-4.86	8.23e-05	3.47e-03	0.0
49	4	0.22	-0.03	-4.74	7.23e-05	2.77e-03	0.0
49	5	0.17	-0.02	-4.69	6.83e-05	2.49e-03	0.0
50	2	0.29	-0.03	-5.83	3.36e-05	4.12e-03	-4.73e-04
50	3	0.26	-0.03	-4.69	3.19e-05	3.53e-03	-4.47e-04
50	4	0.20	-0.02	-4.60	2.83e-05	2.82e-03	-3.17e-04
50	5	0.16	-9.08e-03	-4.57	2.67e-05	2.54e-03	-2.25e-04
51	2	0.36	-0.06	-6.23	1.22e-04	3.98e-03	0.0
51	3	0.33	-0.06	-5.02	1.13e-04	3.41e-03	0.0
51	4	0.24	-0.04	-4.87	9.95e-05	2.72e-03	0.0
51	5	0.18	-0.02	-4.81	9.41e-05	2.44e-03	0.0
52	2	0.39	-0.07	-6.41	1.45e-04	3.92e-03	0.0
52	3	0.36	-0.07	-5.18	1.35e-04	3.36e-03	0.0
52	4	0.26	-0.05	-4.99	1.19e-04	2.68e-03	0.0
52	5	0.20	-0.03	-4.92	1.13e-04	2.40e-03	0.0
53	2	0.42	-0.08	-6.60	1.61e-04	3.87e-03	0.0
53	3	0.40	-0.08	-5.34	1.50e-04	3.31e-03	0.0
53	4	0.29	-0.06	-5.12	1.32e-04	2.64e-03	0.0

53	5	0.21	-0.03	-5.03	1.25e-04	2.37e-03	0.0
54	2	0.46	-0.10	-6.78	1.69e-04	3.82e-03	0.0
54	3	0.43	-0.10	-5.49	1.58e-04	3.27e-03	0.0
54	4	0.31	-0.07	-5.24	1.40e-04	2.61e-03	0.0
54	5	0.22	-0.04	-5.13	1.33e-04	2.34e-03	0.0
55	2	0.49	-0.11	-6.95	1.68e-04	3.78e-03	0.0
55	3	0.46	-0.11	-5.64	1.58e-04	3.24e-03	0.0
55	4	0.33	-0.07	-5.35	1.40e-04	2.58e-03	0.0
55	5	0.24	-0.04	-5.24	1.33e-04	2.32e-03	0.0
56	2	0.53	-0.13	-7.13	1.65e-04	3.76e-03	0.0
56	3	0.50	-0.13	-5.79	1.55e-04	3.22e-03	0.0
56	4	0.35	-0.08	-5.47	1.38e-04	2.57e-03	0.0
56	5	0.25	-0.05	-5.34	1.31e-04	2.31e-03	0.0
57	2	0.33	-0.02	-5.72	6.58e-05	4.07e-03	0.0
57	3	0.30	-0.02	-4.59	6.32e-05	3.49e-03	0.0
57	4	0.22	-0.01	-4.52	5.75e-05	2.79e-03	0.0
57	5	0.17	-7.71e-03	-4.50	5.52e-05	2.50e-03	0.0
58	2	0.29	-0.01	-5.62	2.64e-05	4.13e-03	-4.84e-04
58	3	0.26	-0.01	-4.50	2.59e-05	3.54e-03	-4.57e-04
58	4	0.20	-8.14e-03	-4.46	2.38e-05	2.83e-03	-3.25e-04
58	5	0.16	-4.30e-03	-4.44	2.28e-05	2.54e-03	-2.32e-04
58	9	6.01e-03	0.02	-4.37	-2.26e-04	6.98e-05	-1.31e-06
59	2	0.36	-0.03	-5.81	9.06e-05	4.02e-03	0.0
59	3	0.34	-0.03	-4.67	8.70e-05	3.44e-03	0.0
59	4	0.25	-0.02	-4.59	7.92e-05	2.74e-03	0.0
59	5	0.19	-0.01	-4.55	7.62e-05	2.47e-03	0.0
60	2	0.40	-0.04	-5.90	1.08e-04	3.96e-03	0.0
60	3	0.37	-0.04	-4.75	1.04e-04	3.39e-03	0.0
60	4	0.27	-0.02	-4.65	9.50e-05	2.71e-03	0.0
60	5	0.20	-0.01	-4.61	9.14e-05	2.43e-03	0.0
61	2	0.44	-0.04	-5.99	1.21e-04	3.91e-03	0.0
61	3	0.41	-0.04	-4.82	1.16e-04	3.35e-03	0.0
61	4	0.29	-0.03	-4.70	1.06e-04	2.67e-03	0.0
61	5	0.22	-0.02	-4.66	1.02e-04	2.40e-03	0.0
62	2	0.47	-0.05	-6.08	1.28e-04	3.87e-03	0.0
62	3	0.44	-0.05	-4.89	1.24e-04	3.31e-03	0.0
62	4	0.32	-0.03	-4.76	1.13e-04	2.64e-03	0.0
62	5	0.23	-0.02	-4.70	1.09e-04	2.37e-03	0.0
63	2	0.51	-0.06	-6.16	1.28e-04	3.83e-03	0.0
63	3	0.48	-0.06	-4.96	1.24e-04	3.28e-03	0.0
63	4	0.34	-0.04	-4.81	1.14e-04	2.61e-03	0.0
63	5	0.24	-0.02	-4.75	1.10e-04	2.35e-03	0.0
64	2	0.55	-0.06	-6.25	1.26e-04	3.81e-03	0.0
64	3	0.52	-0.06	-5.03	1.23e-04	3.26e-03	0.0
64	4	0.37	-0.04	-4.87	1.13e-04	2.60e-03	0.0
64	5	0.26	-0.02	-4.80	1.09e-04	2.34e-03	0.0
65	1	0.0	4.94e-04	-5.60	5.05e-05	0.0	0.0
65	2	0.33	3.70e-04	-5.39	3.73e-05	4.09e-03	0.0
65	3	0.30	3.80e-04	-4.31	3.88e-05	3.50e-03	0.0
65	4	0.22	3.74e-04	-4.30	3.82e-05	2.80e-03	0.0
65	5	0.17	3.72e-04	-4.29	3.80e-05	2.52e-03	0.0
65	9	5.87e-03	0.02	-4.39	-1.96e-04	7.29e-05	0.0
66	1	0.0	7.51e-04	-5.61	2.33e-05	0.0	0.0
66	2	0.29	5.62e-04	-5.39	1.72e-05	4.14e-03	-4.87e-04
66	3	0.26	5.78e-04	-4.31	1.79e-05	3.54e-03	-4.60e-04
66	4	0.20	5.69e-04	-4.30	1.76e-05	2.83e-03	-3.27e-04
66	5	0.16	5.65e-04	-4.30	1.75e-05	2.55e-03	-2.34e-04
66	9	5.82e-03	0.02	-4.37	-2.26e-04	7.37e-05	-3.56e-06
67	1	0.0	3.85e-04	-5.59	6.97e-05	0.0	0.0
67	2	0.37	2.88e-04	-5.38	5.14e-05	4.03e-03	0.0
67	3	0.34	2.96e-04	-4.30	5.36e-05	3.45e-03	0.0
67	4	0.25	2.92e-04	-4.29	5.28e-05	2.76e-03	0.0
67	5	0.19	2.90e-04	-4.29	5.24e-05	2.48e-03	0.0
67	9	5.90e-03	0.02	-4.42	-1.75e-04	7.19e-05	0.0
68	1	0.0	3.32e-04	-5.58	8.44e-05	0.0	0.0
68	2	0.40	2.48e-04	-5.37	6.21e-05	3.98e-03	0.0
68	3	0.38	2.55e-04	-4.29	6.49e-05	3.41e-03	0.0
68	4	0.27	2.51e-04	-4.28	6.39e-05	2.73e-03	0.0
68	5	0.20	2.50e-04	-4.28	6.35e-05	2.45e-03	0.0
68	9	5.92e-03	0.02	-4.44	-1.59e-04	7.10e-05	0.0
69	1	0.0	3.01e-04	-5.57	9.54e-05	0.0	0.0
69	2	0.44	2.25e-04	-5.36	7.01e-05	3.93e-03	0.0
69	3	0.41	2.31e-04	-4.28	7.34e-05	3.37e-03	0.0
69	4	0.30	2.28e-04	-4.27	7.21e-05	2.69e-03	0.0
69	5	0.22	2.26e-04	-4.27	7.17e-05	2.42e-03	0.0
69	9	5.95e-03	0.02	-4.46	-1.46e-04	7.02e-05	0.0
70	1	0.0	2.81e-04	-5.55	1.03e-04	0.0	0.0

70	2	0.48	2.10e-04	-5.35	7.55e-05	3.89e-03	0.0
70	3	0.45	2.16e-04	-4.27	7.90e-05	3.33e-03	0.0
70	4	0.32	2.13e-04	-4.26	7.77e-05	2.66e-03	0.0
70	5	0.23	2.11e-04	-4.26	7.72e-05	2.40e-03	0.0
70	9	5.97e-03	0.02	-4.48	-1.38e-04	6.94e-05	0.0
71	1	0.0	2.68e-04	-5.54	1.05e-04	0.0	0.0
71	2	0.52	2.01e-04	-5.34	7.75e-05	3.85e-03	0.0
71	3	0.49	2.06e-04	-4.26	8.12e-05	3.30e-03	0.0
71	4	0.35	2.03e-04	-4.25	7.98e-05	2.64e-03	0.0
71	5	0.25	2.02e-04	-4.25	7.93e-05	2.37e-03	0.0
71	9	5.99e-03	0.02	-4.50	-1.34e-04	6.87e-05	0.0
72	1	0.0	2.60e-04	-5.52	1.05e-04	0.0	0.0
72	2	0.55	1.95e-04	-5.33	7.72e-05	3.83e-03	0.0
72	3	0.52	2.00e-04	-4.25	8.10e-05	3.28e-03	0.0
72	4	0.37	1.97e-04	-4.24	7.96e-05	2.62e-03	0.0
72	5	0.26	1.96e-04	-4.24	7.91e-05	2.36e-03	0.0
72	9	6.01e-03	0.02	-4.51	-1.33e-04	6.84e-05	0.0
73	1	-9.65e-05	4.85e-04	-5.60	4.95e-05	9.85e-06	0.0
73	2	0.33	0.02	-5.06	7.28e-06	4.09e-03	0.0
73	3	0.30	0.02	-4.03	1.30e-05	3.50e-03	0.0
73	4	0.22	0.01	-4.07	1.74e-05	2.80e-03	0.0
73	5	0.17	8.44e-03	-4.09	1.92e-05	2.52e-03	0.0
74	1	-1.47e-04	7.37e-04	-5.61	2.29e-05	4.55e-06	0.0
74	2	0.29	0.01	-5.17	7.37e-06	4.14e-03	-4.84e-04
74	3	0.26	0.01	-4.12	9.32e-06	3.55e-03	-4.57e-04
74	4	0.20	9.26e-03	-4.15	1.08e-05	2.83e-03	-3.25e-04
74	5	0.16	5.40e-03	-4.16	1.15e-05	2.55e-03	-2.32e-04
74	9	5.63e-03	0.02	-4.36	-2.26e-04	7.76e-05	-5.68e-06
75	1	-7.51e-05	3.78e-04	-5.59	6.84e-05	1.36e-05	0.0
75	2	0.36	0.03	-4.95	1.02e-05	4.04e-03	0.0
75	3	0.34	0.03	-3.93	1.82e-05	3.46e-03	0.0
75	4	0.25	0.02	-4.00	2.42e-05	2.77e-03	0.0
75	5	0.19	0.01	-4.02	2.67e-05	2.49e-03	0.0
76	1	-6.47e-05	3.25e-04	-5.58	8.28e-05	1.65e-05	0.0
76	2	0.40	0.04	-4.84	1.35e-05	3.98e-03	0.0
76	3	0.37	0.04	-3.84	2.31e-05	3.42e-03	0.0
76	4	0.27	0.02	-3.92	3.02e-05	2.73e-03	0.0
76	5	0.20	0.01	-3.95	3.31e-05	2.46e-03	0.0
77	1	-5.87e-05	2.95e-04	-5.57	9.35e-05	1.86e-05	0.0
77	2	0.44	0.04	-4.74	1.68e-05	3.94e-03	0.0
77	3	0.41	0.04	-3.74	2.74e-05	3.38e-03	0.0
77	4	0.29	0.03	-3.84	3.52e-05	2.70e-03	0.0
77	5	0.22	0.02	-3.88	3.83e-05	2.43e-03	0.0
78	1	1.72e-04	-3.42e-05	-5.61	-1.25e-06	-6.27e-06	0.0
78	2	0.22	-8.10e-03	-5.52	-1.30e-06	4.15e-03	0.0
78	3	0.19	-8.10e-03	-4.42	-1.25e-06	3.56e-03	0.0
78	4	0.15	-5.39e-03	-4.39	-1.21e-06	2.84e-03	0.0
78	5	0.13	-3.19e-03	-4.38	-1.22e-06	2.55e-03	0.0
78	9	6.00e-03	0.02	-4.30	-2.48e-04	6.95e-05	0.0
79	1	-5.23e-05	2.63e-04	-5.54	1.03e-04	2.06e-05	0.0
79	2	0.51	0.06	-4.52	2.36e-05	3.86e-03	0.0
79	3	0.48	0.06	-3.56	3.47e-05	3.31e-03	0.0
79	4	0.34	0.04	-3.69	4.24e-05	2.65e-03	0.0
79	5	0.24	0.02	-3.74	4.55e-05	2.38e-03	0.0
80	1	-5.07e-05	2.55e-04	-5.52	1.03e-04	2.05e-05	0.0
80	2	0.55	0.06	-4.42	2.50e-05	3.84e-03	0.0
80	3	0.52	0.06	-3.46	3.60e-05	3.29e-03	0.0
80	4	0.37	0.04	-3.61	4.34e-05	2.63e-03	0.0
80	5	0.26	0.03	-3.67	4.64e-05	2.37e-03	0.0
81	1	-1.89e-04	4.57e-04	-5.60	4.66e-05	1.93e-05	0.0
81	2	0.32	0.04	-4.75	-1.97e-05	4.08e-03	0.0
81	3	0.29	0.04	-3.76	-1.05e-05	3.50e-03	0.0
81	4	0.22	0.03	-3.86	-1.73e-06	2.80e-03	0.0
81	5	0.17	0.02	-3.90	1.83e-06	2.52e-03	0.0
82	1	-2.87e-04	6.94e-04	-5.61	2.15e-05	8.92e-06	0.0
82	2	0.29	0.03	-4.96	-1.77e-06	4.14e-03	-4.73e-04
82	3	0.26	0.03	-3.94	1.18e-06	3.55e-03	-4.47e-04
82	4	0.20	0.02	-4.00	4.24e-06	2.83e-03	-3.17e-04
82	5	0.16	0.01	-4.03	5.71e-06	2.55e-03	-2.25e-04
83	1	-1.47e-04	3.56e-04	-5.59	6.44e-05	2.67e-05	0.0
83	2	0.36	0.06	-4.54	-2.68e-05	4.02e-03	0.0
83	3	0.33	0.06	-3.58	-1.40e-05	3.45e-03	0.0
83	4	0.24	0.04	-3.71	-2.08e-06	2.76e-03	0.0
83	5	0.18	0.02	-3.77	2.74e-06	2.48e-03	0.0
84	1	-1.27e-04	3.06e-04	-5.58	7.80e-05	3.23e-05	0.0
84	2	0.39	0.07	-4.33	-3.02e-05	3.97e-03	0.0
84	3	0.36	0.07	-3.40	-1.50e-05	3.40e-03	0.0

84	4	0.26	0.05	-3.57	0.0	2.72e-03	0.0
84	5	0.20	0.03	-3.64	4.73e-06	2.45e-03	0.0
85	1	-1.15e-04	2.78e-04	-5.57	8.81e-05	3.65e-05	0.0
85	2	0.42	0.08	-4.13	-3.13e-05	3.92e-03	0.0
85	3	0.40	0.08	-3.23	-1.45e-05	3.36e-03	0.0
85	4	0.29	0.06	-3.43	0.0	2.69e-03	0.0
85	5	0.21	0.03	-3.51	7.10e-06	2.43e-03	0.0
86	1	-1.07e-04	2.59e-04	-5.55	9.49e-05	3.93e-05	0.0
86	2	0.46	0.10	-3.93	-2.98e-05	3.88e-03	0.0
86	3	0.43	0.10	-3.05	-1.23e-05	3.33e-03	0.0
86	4	0.31	0.07	-3.29	3.62e-06	2.66e-03	0.0
86	5	0.22	0.04	-3.38	1.00e-05	2.40e-03	0.0
87	1	-1.03e-04	2.48e-04	-5.54	9.75e-05	4.04e-05	0.0
87	2	0.49	0.11	-3.73	-2.53e-05	3.84e-03	0.0
87	3	0.46	0.11	-2.88	-7.97e-06	3.30e-03	0.0
87	4	0.33	0.07	-3.15	7.45e-06	2.64e-03	0.0
87	5	0.24	0.04	-3.26	1.37e-05	2.38e-03	0.0
88	1	-9.95e-05	2.40e-04	-5.52	9.73e-05	4.03e-05	0.0
88	2	0.53	0.13	-3.54	-2.23e-05	3.82e-03	0.0
88	3	0.50	0.13	-2.71	-5.38e-06	3.28e-03	0.0
88	4	0.35	0.08	-3.01	9.49e-06	2.63e-03	0.0
88	5	0.25	0.05	-3.13	1.55e-05	2.37e-03	0.0
89	1	-2.75e-04	4.11e-04	-5.60	4.20e-05	2.81e-05	0.0
89	2	0.31	0.06	-4.46	-3.97e-05	4.06e-03	0.0
89	3	0.28	0.06	-3.51	-2.83e-05	3.48e-03	0.0
89	4	0.21	0.04	-3.66	-1.66e-05	2.79e-03	0.0
89	5	0.17	0.02	-3.72	-1.19e-05	2.51e-03	0.0
90	1	-4.17e-04	6.24e-04	-5.61	1.94e-05	1.30e-05	0.0
90	2	0.28	0.04	-4.76	-9.03e-06	4.13e-03	-4.55e-04
90	3	0.25	0.04	-3.77	-5.44e-06	3.54e-03	-4.32e-04
90	4	0.19	0.03	-3.87	-1.25e-06	2.83e-03	-3.05e-04
90	5	0.16	0.01	-3.91	0.0	2.55e-03	-2.14e-04
91	1	-2.14e-04	3.20e-04	-5.59	5.80e-05	3.87e-05	0.0
91	2	0.34	0.08	-4.16	-5.43e-05	4.00e-03	0.0
91	3	0.31	0.08	-3.25	-3.85e-05	3.43e-03	0.0
91	4	0.23	0.05	-3.45	-2.25e-05	2.75e-03	0.0
91	5	0.18	0.03	-3.53	-1.61e-05	2.47e-03	0.0
92	1	-1.84e-04	2.76e-04	-5.58	7.02e-05	4.69e-05	0.0
92	2	0.37	0.10	-3.86	-6.28e-05	3.94e-03	0.0
92	3	0.34	0.10	-3.00	-4.40e-05	3.38e-03	0.0
92	4	0.25	0.07	-3.25	-2.52e-05	2.71e-03	0.0
92	5	0.19	0.04	-3.35	-1.77e-05	2.44e-03	0.0
93	1	-1.67e-04	2.50e-04	-5.57	7.93e-05	5.30e-05	0.0
93	2	0.40	0.12	-3.58	-6.72e-05	3.89e-03	0.0
93	3	0.37	0.12	-2.75	-4.65e-05	3.34e-03	0.0
93	4	0.27	0.08	-3.05	-2.59e-05	2.68e-03	0.0
93	5	0.20	0.05	-3.17	-1.77e-05	2.41e-03	0.0
94	1	-1.56e-04	2.33e-04	-5.55	8.54e-05	5.71e-05	0.0
94	2	0.44	0.14	-3.29	-6.73e-05	3.85e-03	0.0
94	3	0.41	0.14	-2.50	-4.58e-05	3.30e-03	0.0
94	4	0.29	0.10	-2.85	-2.45e-05	2.65e-03	0.0
94	5	0.22	0.06	-2.99	-1.59e-05	2.38e-03	0.0
95	1	-1.49e-04	2.23e-04	-5.54	8.77e-05	5.86e-05	0.0
95	2	0.47	0.16	-3.01	-6.21e-05	3.81e-03	0.0
95	3	0.44	0.16	-2.26	-4.09e-05	3.27e-03	0.0
95	4	0.31	0.11	-2.65	-2.02e-05	2.62e-03	0.0
95	5	0.23	0.06	-2.81	-1.19e-05	2.36e-03	0.0
96	1	-1.45e-04	2.16e-04	-5.52	8.75e-05	5.85e-05	0.0
96	2	0.50	0.18	-2.72	-5.81e-05	3.79e-03	0.0
96	3	0.47	0.18	-2.01	-3.74e-05	3.26e-03	0.0
96	4	0.33	0.12	-2.45	-1.75e-05	2.61e-03	0.0
96	5	0.24	0.07	-2.63	-9.51e-06	2.35e-03	0.0
97	1	-3.50e-04	3.50e-04	-5.60	3.57e-05	3.57e-05	0.0
97	2	0.30	0.08	-4.20	-5.03e-05	4.04e-03	0.0
97	3	0.27	0.08	-3.29	-3.82e-05	3.46e-03	0.0
97	4	0.20	0.05	-3.49	-2.54e-05	2.77e-03	0.0
97	5	0.16	0.03	-3.56	-2.02e-05	2.50e-03	0.0
98	1	-5.31e-04	5.31e-04	-5.61	1.65e-05	1.65e-05	0.0
98	2	0.27	0.05	-4.59	-1.36e-05	4.13e-03	-4.31e-04
98	3	0.24	0.05	-3.62	-9.84e-06	3.54e-03	-4.12e-04
98	4	0.19	0.03	-3.75	-5.08e-06	2.83e-03	-2.89e-04
98	5	0.15	0.02	-3.80	-2.73e-06	2.54e-03	-1.99e-04
99	1	-2.72e-04	2.72e-04	-5.59	4.93e-05	4.93e-05	0.0
99	2	0.33	0.10	-3.82	-6.87e-05	3.96e-03	0.0
99	3	0.30	0.10	-2.97	-5.20e-05	3.40e-03	0.0
99	4	0.22	0.07	-3.22	-3.46e-05	2.73e-03	0.0
99	5	0.17	0.04	-3.33	-2.76e-05	2.46e-03	0.0

100	1	-2.35e-04	2.35e-04	-5.58	5.97e-05	5.97e-05	0.0
100	2	0.35	0.13	-3.45	-7.99e-05	3.90e-03	0.0
100	3	0.32	0.13	-2.65	-6.01e-05	3.35e-03	0.0
100	4	0.24	0.09	-2.97	-3.96e-05	2.69e-03	0.0
100	5	0.18	0.05	-3.10	-3.13e-05	2.42e-03	0.0
101	1	-2.13e-04	2.13e-04	-5.57	6.74e-05	6.74e-05	0.0
101	2	0.38	0.16	-3.09	-8.63e-05	3.85e-03	0.0
101	3	0.35	0.16	-2.33	-6.45e-05	3.31e-03	0.0
101	4	0.25	0.10	-2.71	-4.20e-05	2.65e-03	0.0
101	5	0.19	0.06	-2.87	-3.29e-05	2.39e-03	0.0
102	1	-1.99e-04	1.99e-04	-5.55	7.26e-05	7.26e-05	0.0
102	2	0.40	0.18	-2.73	-8.74e-05	3.80e-03	0.0
102	3	0.37	0.18	-2.02	-6.48e-05	3.27e-03	0.0
102	4	0.27	0.12	-2.46	-4.14e-05	2.62e-03	0.0
102	5	0.20	0.07	-2.64	-3.21e-05	2.36e-03	0.0
103	1	-1.89e-04	1.89e-04	-5.54	7.46e-05	7.46e-05	0.0
103	2	0.43	0.21	-2.37	-8.22e-05	3.77e-03	0.0
103	3	0.40	0.21	-1.71	-5.99e-05	3.24e-03	0.0
103	4	0.29	0.14	-2.22	-3.73e-05	2.60e-03	0.0
103	5	0.21	0.08	-2.42	-2.82e-05	2.34e-03	0.0
104	1	-1.84e-04	1.84e-04	-5.52	7.44e-05	7.44e-05	0.0
104	2	0.46	0.23	-2.01	-7.78e-05	3.75e-03	0.0
104	3	0.43	0.23	-1.41	-5.62e-05	3.23e-03	0.0
104	4	0.31	0.16	-1.97	-3.43e-05	2.59e-03	0.0
104	5	0.22	0.09	-2.19	-2.56e-05	2.33e-03	0.0
105	1	-4.11e-04	2.75e-04	-5.60	2.81e-05	4.20e-05	0.0
105	2	0.28	0.09	-3.99	-5.02e-05	4.01e-03	0.0
105	3	0.25	0.09	-3.11	-3.92e-05	3.44e-03	0.0
105	4	0.19	0.06	-3.34	-2.73e-05	2.76e-03	0.0
105	5	0.16	0.04	-3.43	-2.24e-05	2.48e-03	0.0
106	1	-6.24e-04	4.17e-04	-5.61	1.30e-05	1.94e-05	0.0
106	2	0.26	0.06	-4.45	-1.50e-05	4.12e-03	-4.02e-04
106	3	0.23	0.06	-3.50	-1.17e-05	3.53e-03	-3.87e-04
106	4	0.18	0.04	-3.65	-6.96e-06	2.82e-03	-2.69e-04
106	5	0.15	0.02	-3.72	-4.55e-06	2.54e-03	-1.81e-04
107	1	-3.20e-04	2.14e-04	-5.59	3.87e-05	5.80e-05	0.0
107	2	0.30	0.12	-3.55	-6.85e-05	3.93e-03	0.0
107	3	0.27	0.12	-2.73	-5.33e-05	3.38e-03	0.0
107	4	0.21	0.08	-3.04	-3.71e-05	2.70e-03	0.0
107	5	0.16	0.05	-3.16	-3.06e-05	2.44e-03	0.0
108	1	-2.76e-04	1.84e-04	-5.58	4.69e-05	7.02e-05	0.0
108	2	0.32	0.15	-3.12	-7.99e-05	3.86e-03	0.0
108	3	0.29	0.15	-2.36	-6.19e-05	3.32e-03	0.0
108	4	0.22	0.10	-2.74	-4.28e-05	2.66e-03	0.0
108	5	0.17	0.06	-2.89	-3.52e-05	2.40e-03	0.0
109	1	-2.50e-04	1.67e-04	-5.57	5.30e-05	7.93e-05	0.0
109	2	0.34	0.18	-2.69	-8.66e-05	3.81e-03	0.0
109	3	0.31	0.18	-1.99	-6.68e-05	3.27e-03	0.0
109	4	0.23	0.12	-2.44	-4.58e-05	2.62e-03	0.0
109	5	0.18	0.07	-2.62	-3.74e-05	2.37e-03	0.0
110	1	-2.33e-04	1.56e-04	-5.55	5.71e-05	8.54e-05	0.0
110	2	0.36	0.21	-2.26	-8.82e-05	3.76e-03	0.0
110	3	0.33	0.21	-1.63	-6.75e-05	3.23e-03	0.0
110	4	0.25	0.14	-2.15	-4.59e-05	2.59e-03	0.0
110	5	0.19	0.08	-2.36	-3.72e-05	2.34e-03	0.0
111	1	-2.23e-04	1.49e-04	-5.54	5.86e-05	8.77e-05	0.0
111	2	0.38	0.25	-1.85	-8.35e-05	3.73e-03	0.0
111	3	0.36	0.25	-1.26	-6.33e-05	3.21e-03	0.0
111	4	0.26	0.16	-1.86	-4.23e-05	2.57e-03	0.0
111	5	0.20	0.10	-2.09	-3.38e-05	2.32e-03	0.0
112	1	-2.16e-04	1.45e-04	-5.52	5.85e-05	8.75e-05	0.0
112	2	0.41	0.28	-1.43	-7.94e-05	3.71e-03	0.0
112	3	0.38	0.28	-0.91	-5.98e-05	3.19e-03	0.0
112	4	0.27	0.18	-1.57	-3.95e-05	2.56e-03	0.0
112	5	0.20	0.11	-1.83	-3.13e-05	2.31e-03	0.0
113	1	-4.57e-04	1.89e-04	-5.60	1.93e-05	4.66e-05	0.0
113	2	0.26	0.10	-3.84	-4.02e-05	3.99e-03	0.0
113	3	0.23	0.10	-2.98	-3.19e-05	3.42e-03	0.0
113	4	0.18	0.07	-3.24	-2.27e-05	2.74e-03	0.0
113	5	0.15	0.04	-3.34	-1.89e-05	2.47e-03	0.0
114	1	-6.94e-04	2.87e-04	-5.61	8.92e-06	2.15e-05	0.0
114	2	0.25	0.07	-4.34	-1.36e-05	4.11e-03	-3.69e-04
114	3	0.22	0.07	-3.41	-1.10e-05	3.53e-03	-3.59e-04
114	4	0.17	0.04	-3.58	-6.96e-06	2.82e-03	-2.46e-04
114	5	0.14	0.03	-3.65	-4.75e-06	2.54e-03	-1.61e-04
115	1	-3.56e-04	1.47e-04	-5.59	2.67e-05	6.44e-05	0.0
115	2	0.28	0.14	-3.35	-5.46e-05	3.90e-03	0.0

115	3	0.25	0.14	-2.56	-4.31e-05	3.35e-03	0.0
115	4	0.19	0.09	-2.90	-3.07e-05	2.69e-03	0.0
115	5	0.15	0.05	-3.03	-2.57e-05	2.42e-03	0.0
116	1	-3.06e-04	1.27e-04	-5.58	3.23e-05	7.80e-05	0.0
116	2	0.29	0.17	-2.86	-6.38e-05	3.83e-03	0.0
116	3	0.26	0.17	-2.14	-5.01e-05	3.29e-03	0.0
116	4	0.20	0.11	-2.56	-3.55e-05	2.64e-03	0.0
116	5	0.16	0.07	-2.73	-2.96e-05	2.38e-03	0.0
117	1	-2.78e-04	1.15e-04	-5.57	3.65e-05	8.81e-05	0.0
117	2	0.31	0.20	-2.39	-6.92e-05	3.77e-03	0.0
117	3	0.28	0.20	-1.73	-5.42e-05	3.24e-03	0.0
117	4	0.21	0.14	-2.24	-3.81e-05	2.60e-03	0.0
117	5	0.16	0.08	-2.44	-3.17e-05	2.35e-03	0.0
118	1	-2.59e-04	1.07e-04	-5.55	3.93e-05	9.49e-05	0.0
118	2	0.32	0.24	-1.92	-7.07e-05	3.72e-03	0.0
118	3	0.29	0.24	-1.33	-5.51e-05	3.20e-03	0.0
118	4	0.22	0.16	-1.91	-3.84e-05	2.57e-03	0.0
118	5	0.17	0.09	-2.15	-3.18e-05	2.32e-03	0.0
119	1	-2.48e-04	1.03e-04	-5.54	4.04e-05	9.75e-05	0.0
119	2	0.33	0.27	-1.46	-6.72e-05	3.69e-03	0.0
119	3	0.30	0.27	-0.93	-5.19e-05	3.18e-03	0.0
119	4	0.23	0.18	-1.59	-3.57e-05	2.55e-03	0.0
119	5	0.18	0.11	-1.86	-2.93e-05	2.30e-03	0.0
120	1	-2.40e-04	9.95e-05	-5.52	4.03e-05	9.73e-05	0.0
120	2	0.35	0.31	-1.00	-6.41e-05	3.68e-03	0.0
120	3	0.32	0.31	-0.53	-4.92e-05	3.16e-03	0.0
120	4	0.24	0.20	-1.27	-3.36e-05	2.54e-03	0.0
120	5	0.18	0.12	-1.57	-2.74e-05	2.29e-03	0.0
121	1	-4.85e-04	9.65e-05	-5.60	9.85e-06	4.95e-05	0.0
121	2	0.24	0.11	-3.74	-2.26e-05	3.98e-03	0.0
121	3	0.21	0.11	-2.90	-1.81e-05	3.41e-03	0.0
121	4	0.17	0.07	-3.17	-1.29e-05	2.73e-03	0.0
121	5	0.14	0.04	-3.28	-1.08e-05	2.46e-03	0.0
122	1	-7.37e-04	1.47e-04	-5.61	4.55e-06	2.29e-05	0.0
122	2	0.24	0.07	-4.28	-9.76e-06	4.11e-03	-3.33e-04
122	3	0.21	0.07	-3.36	-8.39e-06	3.52e-03	-3.28e-04
122	4	0.16	0.05	-3.54	-5.45e-06	2.82e-03	-2.22e-04
122	5	0.14	0.03	-3.61	-3.65e-06	2.54e-03	-1.39e-04
123	1	-3.78e-04	7.51e-05	-5.59	1.36e-05	6.84e-05	0.0
123	2	0.25	0.14	-3.22	-3.02e-05	3.88e-03	0.0
123	3	0.22	0.14	-2.45	-2.40e-05	3.33e-03	0.0
123	4	0.17	0.10	-2.81	-1.73e-05	2.67e-03	0.0
123	5	0.14	0.06	-2.96	-1.45e-05	2.41e-03	0.0
124	1	-3.25e-04	6.47e-05	-5.58	1.65e-05	8.28e-05	0.0
124	2	0.26	0.18	-2.71	-3.53e-05	3.80e-03	0.0
124	3	0.23	0.18	-2.01	-2.79e-05	3.27e-03	0.0
124	4	0.18	0.12	-2.46	-2.00e-05	2.62e-03	0.0
124	5	0.15	0.07	-2.64	-1.68e-05	2.37e-03	0.0
125	1	-2.95e-04	5.87e-05	-5.57	1.86e-05	9.35e-05	0.0
125	2	0.26	0.22	-2.21	-3.83e-05	3.74e-03	0.0
125	3	0.23	0.22	-1.58	-3.02e-05	3.22e-03	0.0
125	4	0.18	0.14	-2.11	-2.15e-05	2.58e-03	0.0
125	5	0.15	0.08	-2.32	-1.80e-05	2.33e-03	0.0
126	1	-2.75e-04	5.48e-05	-5.55	2.00e-05	1.01e-04	0.0
126	2	0.27	0.25	-1.71	-3.92e-05	3.69e-03	0.0
126	3	0.24	0.25	-1.15	-3.07e-05	3.18e-03	0.0
126	4	0.18	0.17	-1.77	-2.17e-05	2.55e-03	0.0
126	5	0.15	0.10	-2.01	-1.81e-05	2.30e-03	0.0
127	1	-2.63e-04	5.23e-05	-5.54	2.06e-05	1.03e-04	0.0
127	2	0.28	0.29	-1.22	-3.73e-05	3.67e-03	0.0
127	3	0.25	0.29	-0.73	-2.91e-05	3.16e-03	0.0
127	4	0.19	0.19	-1.43	-2.03e-05	2.54e-03	0.0
127	5	0.15	0.11	-1.71	-1.68e-05	2.29e-03	0.0
128	1	-2.55e-04	5.07e-05	-5.52	2.05e-05	1.03e-04	0.0
128	2	0.29	0.33	-0.73	-3.56e-05	3.65e-03	0.0
128	3	0.26	0.33	-0.30	-2.76e-05	3.14e-03	0.0
128	4	0.19	0.22	-1.09	-1.91e-05	2.53e-03	0.0
128	5	0.16	0.13	-1.40	-1.58e-05	2.28e-03	0.0
129	1	-4.94e-04	0.0	-5.60	0.0	5.05e-05	0.0
129	2	0.22	0.11	-3.71	0.0	3.97e-03	0.0
129	3	0.19	0.11	-2.87	0.0	3.41e-03	0.0
129	4	0.15	0.07	-3.15	0.0	2.73e-03	0.0
129	5	0.13	0.04	-3.26	0.0	2.46e-03	0.0
130	1	-7.51e-04	0.0	-5.61	0.0	2.33e-05	0.0
130	2	0.22	0.07	-4.25	-4.60e-06	4.11e-03	-2.96e-04
130	3	0.19	0.07	-3.34	-4.60e-06	3.52e-03	-2.96e-04
130	4	0.15	0.05	-3.52	-3.06e-06	2.82e-03	-1.96e-04

130	5	0.13	0.03	-3.60	-1.80e-06	2.53e-03	-1.16e-04
131	1	-3.85e-04	0.0	-5.59	0.0	6.97e-05	0.0
131	2	0.22	0.15	-3.18	0.0	3.87e-03	0.0
131	3	0.19	0.15	-2.41	0.0	3.33e-03	0.0
131	4	0.15	0.10	-2.78	0.0	2.67e-03	0.0
131	5	0.13	0.06	-2.93	0.0	2.41e-03	0.0
132	1	-3.32e-04	0.0	-5.58	0.0	8.44e-05	0.0
132	2	0.22	0.18	-2.66	0.0	3.80e-03	0.0
132	3	0.19	0.18	-1.96	0.0	3.26e-03	0.0
132	4	0.15	0.12	-2.42	0.0	2.62e-03	0.0
132	5	0.13	0.07	-2.61	0.0	2.36e-03	0.0
133	1	-3.01e-04	0.0	-5.57	0.0	9.54e-05	0.0
133	2	0.22	0.22	-2.14	0.0	3.73e-03	0.0
133	3	0.19	0.22	-1.52	0.0	3.21e-03	0.0
133	4	0.15	0.15	-2.07	0.0	2.58e-03	0.0
133	5	0.13	0.09	-2.29	0.0	2.33e-03	0.0
134	1	-2.81e-04	0.0	-5.55	0.0	1.03e-04	0.0
134	2	0.22	0.26	-1.64	0.0	3.69e-03	0.0
134	3	0.19	0.26	-1.09	0.0	3.17e-03	0.0
134	4	0.15	0.17	-1.72	0.0	2.55e-03	0.0
134	5	0.13	0.10	-1.97	0.0	2.30e-03	0.0
135	1	-2.68e-04	0.0	-5.54	0.0	1.05e-04	0.0
135	2	0.22	0.30	-1.14	0.0	3.66e-03	0.0
135	3	0.19	0.30	-0.66	0.0	3.15e-03	0.0
135	4	0.15	0.20	-1.37	0.0	2.53e-03	0.0
135	5	0.13	0.12	-1.66	0.0	2.28e-03	0.0
136	1	-2.60e-04	0.0	-5.52	0.0	1.05e-04	0.0
136	2	0.22	0.33	-0.64	0.0	3.64e-03	0.0
136	3	0.19	0.33	-0.23	0.0	3.14e-03	0.0
136	4	0.15	0.22	-1.03	0.0	2.52e-03	0.0
136	5	0.13	0.13	-1.35	0.0	2.28e-03	0.0
137	1	-4.85e-04	-9.65e-05	-5.60	-9.85e-06	4.95e-05	0.0
137	2	0.20	0.11	-3.74	2.12e-05	3.98e-03	0.0
137	3	0.17	0.11	-2.90	1.67e-05	3.41e-03	0.0
137	4	0.14	0.07	-3.17	1.20e-05	2.73e-03	0.0
137	5	0.12	0.04	-3.28	1.03e-05	2.46e-03	0.0
138	1	-7.37e-04	-1.47e-04	-5.61	-4.55e-06	2.29e-05	0.0
138	2	0.21	0.07	-4.28	0.0	4.11e-03	-2.58e-04
138	3	0.18	0.07	-3.36	0.0	3.52e-03	-2.64e-04
138	4	0.14	0.05	-3.54	0.0	2.82e-03	-1.71e-04
138	5	0.13	0.03	-3.61	0.0	2.53e-03	-9.27e-05
139	1	-3.78e-04	-7.51e-05	-5.59	-1.36e-05	6.84e-05	0.0
139	2	0.19	0.15	-3.22	3.00e-05	3.88e-03	0.0
139	3	0.16	0.15	-2.45	2.38e-05	3.33e-03	0.0
139	4	0.13	0.10	-2.81	1.71e-05	2.67e-03	0.0
139	5	0.12	0.06	-2.96	1.45e-05	2.41e-03	0.0
140	1	-3.25e-04	-6.47e-05	-5.58	-1.65e-05	8.28e-05	0.0
140	2	0.19	0.18	-2.71	3.52e-05	3.80e-03	0.0
140	3	0.16	0.18	-2.01	2.79e-05	3.27e-03	0.0
140	4	0.13	0.12	-2.46	2.00e-05	2.62e-03	0.0
140	5	0.12	0.07	-2.64	1.68e-05	2.37e-03	0.0
141	1	-2.95e-04	-5.87e-05	-5.57	-1.86e-05	9.35e-05	0.0
141	2	0.18	0.22	-2.21	3.83e-05	3.74e-03	0.0
141	3	0.15	0.22	-1.58	3.02e-05	3.22e-03	0.0
141	4	0.12	0.14	-2.11	2.15e-05	2.58e-03	0.0
141	5	0.11	0.09	-2.32	1.80e-05	2.33e-03	0.0
142	1	-2.75e-04	-5.48e-05	-5.55	-2.00e-05	1.01e-04	0.0
142	2	0.17	0.25	-1.71	3.92e-05	3.69e-03	0.0
142	3	0.14	0.25	-1.15	3.07e-05	3.18e-03	0.0
142	4	0.12	0.17	-1.77	2.17e-05	2.55e-03	0.0
142	5	0.11	0.10	-2.01	1.81e-05	2.30e-03	0.0
143	1	-2.63e-04	-5.23e-05	-5.54	-2.06e-05	1.03e-04	0.0
143	2	0.16	0.29	-1.22	3.73e-05	3.67e-03	0.0
143	3	0.13	0.29	-0.73	2.91e-05	3.16e-03	0.0
143	4	0.11	0.19	-1.43	2.03e-05	2.54e-03	0.0
143	5	0.11	0.11	-1.71	1.68e-05	2.29e-03	0.0
144	1	-2.55e-04	-5.07e-05	-5.52	-2.05e-05	1.03e-04	0.0
144	2	0.16	0.33	-0.73	3.56e-05	3.65e-03	0.0
144	3	0.13	0.33	-0.30	2.76e-05	3.14e-03	0.0
144	4	0.11	0.22	-1.09	1.91e-05	2.53e-03	0.0
144	5	0.11	0.13	-1.40	1.58e-05	2.28e-03	0.0
145	1	-4.57e-04	-1.89e-04	-5.60	-1.93e-05	4.66e-05	0.0
145	2	0.18	0.10	-3.84	3.89e-05	3.99e-03	0.0
145	3	0.15	0.10	-2.98	3.06e-05	3.42e-03	0.0
145	4	0.12	0.07	-3.24	2.18e-05	2.74e-03	0.0
145	5	0.12	0.04	-3.34	1.84e-05	2.47e-03	0.0
146	1	-6.94e-04	-2.87e-04	-5.61	-8.92e-06	2.15e-05	0.0

146	2	0.20	0.07	-4.34	5.06e-06	4.11e-03	-2.22e-04
146	3	0.17	0.07	-3.41	2.51e-06	3.52e-03	-2.33e-04
146	4	0.13	0.05	-3.58	1.31e-06	2.82e-03	-1.46e-04
146	5	0.12	0.03	-3.65	1.42e-06	2.54e-03	-7.06e-05
147	1	-3.56e-04	-1.47e-04	-5.59	-2.67e-05	6.44e-05	0.0
147	2	0.16	0.14	-3.35	5.45e-05	3.90e-03	0.0
147	3	0.14	0.14	-2.56	4.29e-05	3.35e-03	0.0
147	4	0.11	0.09	-2.90	3.05e-05	2.69e-03	0.0
147	5	0.11	0.05	-3.03	2.56e-05	2.42e-03	0.0
148	1	-3.06e-04	-1.27e-04	-5.58	-3.23e-05	7.80e-05	0.0
148	2	0.15	0.17	-2.86	6.38e-05	3.83e-03	0.0
148	3	0.12	0.17	-2.14	5.01e-05	3.29e-03	0.0
148	4	0.10	0.11	-2.56	3.55e-05	2.64e-03	0.0
148	5	0.10	0.07	-2.73	2.96e-05	2.38e-03	0.0
149	1	-2.78e-04	-1.15e-04	-5.57	-3.65e-05	8.81e-05	0.0
149	2	0.14	0.21	-2.39	6.92e-05	3.77e-03	0.0
149	3	0.11	0.21	-1.73	5.42e-05	3.24e-03	0.0
149	4	0.09	0.14	-2.24	3.81e-05	2.60e-03	0.0
149	5	0.10	0.08	-2.44	3.17e-05	2.35e-03	0.0
150	1	-2.59e-04	-1.07e-04	-5.55	-3.93e-05	9.49e-05	0.0
150	2	0.12	0.24	-1.92	7.07e-05	3.72e-03	0.0
150	3	0.09	0.24	-1.33	5.51e-05	3.20e-03	0.0
150	4	0.09	0.16	-1.91	3.84e-05	2.57e-03	0.0
150	5	0.09	0.09	-2.15	3.18e-05	2.32e-03	0.0
151	1	-2.48e-04	-1.03e-04	-5.54	-4.04e-05	9.75e-05	0.0
151	2	0.11	0.27	-1.46	6.72e-05	3.69e-03	0.0
151	3	0.08	0.27	-0.93	5.19e-05	3.18e-03	0.0
151	4	0.08	0.18	-1.59	3.57e-05	2.55e-03	0.0
151	5	0.09	0.11	-1.86	2.93e-05	2.30e-03	0.0
152	1	-2.40e-04	-9.95e-05	-5.52	-4.03e-05	9.73e-05	0.0
152	2	0.09	0.31	-1.00	6.41e-05	3.68e-03	0.0
152	3	0.06	0.31	-0.53	4.92e-05	3.16e-03	0.0
152	4	0.07	0.20	-1.27	3.36e-05	2.54e-03	0.0
152	5	0.08	0.12	-1.57	2.74e-05	2.29e-03	0.0
153	1	-4.11e-04	-2.75e-04	-5.60	-2.81e-05	4.20e-05	0.0
153	2	0.16	0.09	-3.99	4.90e-05	4.01e-03	0.0
153	3	0.13	0.09	-3.11	3.81e-05	3.44e-03	0.0
153	4	0.11	0.06	-3.34	2.65e-05	2.76e-03	0.0
153	5	0.11	0.04	-3.43	2.20e-05	2.48e-03	0.0
154	1	-6.24e-04	-4.17e-04	-5.61	-1.30e-05	1.94e-05	0.0
154	2	0.18	0.06	-4.45	7.39e-06	4.11e-03	-1.89e-04
154	3	0.15	0.06	-3.50	4.01e-06	3.53e-03	-2.05e-04
154	4	0.12	0.04	-3.65	1.88e-06	2.82e-03	-1.23e-04
154	5	0.12	0.03	-3.72	1.56e-06	2.54e-03	-5.02e-05
155	1	-3.20e-04	-2.14e-04	-5.59	-3.87e-05	5.80e-05	0.0
155	2	0.14	0.12	-3.55	6.83e-05	3.93e-03	0.0
155	3	0.11	0.12	-2.73	5.32e-05	3.38e-03	0.0
155	4	0.10	0.08	-3.04	3.70e-05	2.70e-03	0.0
155	5	0.10	0.05	-3.16	3.05e-05	2.44e-03	0.0
156	1	-2.76e-04	-1.84e-04	-5.58	-4.69e-05	7.02e-05	0.0
156	2	0.12	0.15	-3.12	7.99e-05	3.86e-03	0.0
156	3	0.09	0.15	-2.36	6.19e-05	3.32e-03	0.0
156	4	0.08	0.10	-2.74	4.28e-05	2.66e-03	0.0
156	5	0.09	0.06	-2.89	3.52e-05	2.40e-03	0.0
157	1	-2.50e-04	-1.67e-04	-5.57	-5.30e-05	7.93e-05	0.0
157	2	0.10	0.18	-2.69	8.66e-05	3.81e-03	0.0
157	3	0.07	0.18	-1.99	6.68e-05	3.27e-03	0.0
157	4	0.07	0.12	-2.44	4.58e-05	2.62e-03	0.0
157	5	0.08	0.07	-2.62	3.74e-05	2.37e-03	0.0
158	1	-2.33e-04	-1.56e-04	-5.55	-5.71e-05	8.54e-05	0.0
158	2	0.08	0.22	-2.26	8.82e-05	3.76e-03	0.0
158	3	0.05	0.22	-1.63	6.75e-05	3.23e-03	0.0
158	4	0.06	0.14	-2.15	4.59e-05	2.59e-03	0.0
158	5	0.08	0.08	-2.36	3.72e-05	2.34e-03	0.0
159	1	-2.23e-04	-1.49e-04	-5.54	-5.86e-05	8.77e-05	0.0
159	2	0.06	0.25	-1.85	8.35e-05	3.73e-03	0.0
159	3	0.03	0.25	-1.26	6.33e-05	3.21e-03	0.0
159	4	0.04	0.16	-1.86	4.23e-05	2.57e-03	0.0
159	5	0.07	0.10	-2.09	3.38e-05	2.32e-03	0.0
160	1	-2.16e-04	-1.45e-04	-5.52	-5.85e-05	8.75e-05	0.0
160	2	0.04	0.28	-1.43	7.94e-05	3.71e-03	0.0
160	3	6.08e-03	0.28	-0.91	5.98e-05	3.19e-03	0.0
160	4	0.03	0.18	-1.57	3.95e-05	2.56e-03	0.0
160	5	0.06	0.11	-1.83	3.13e-05	2.31e-03	0.0
161	1	-3.50e-04	-3.50e-04	-5.60	-3.57e-05	3.57e-05	0.0
161	2	0.14	0.08	-4.20	4.93e-05	4.04e-03	0.0
161	3	0.11	0.08	-3.29	3.72e-05	3.46e-03	0.0

161	4	0.10	0.05	-3.49	2.48e-05	2.77e-03	0.0
161	5	0.10	0.03	-3.56	1.98e-05	2.50e-03	0.0
162	1	-5.31e-04	-5.31e-04	-5.61	-1.65e-05	1.65e-05	0.0
162	2	0.17	0.06	-4.59	7.07e-06	4.12e-03	-1.60e-04
162	3	0.14	0.06	-3.62	3.33e-06	3.53e-03	-1.80e-04
162	4	0.12	0.04	-3.75	0.0	2.82e-03	-1.04e-04
162	5	0.11	0.02	-3.80	0.0	2.54e-03	-3.23e-05
163	1	-2.72e-04	-2.72e-04	-5.59	-4.93e-05	4.93e-05	0.0
163	2	0.12	0.11	-3.82	6.85e-05	3.96e-03	0.0
163	3	0.09	0.11	-2.97	5.19e-05	3.40e-03	0.0
163	4	0.08	0.07	-3.22	3.45e-05	2.73e-03	0.0
163	5	0.09	0.04	-3.33	2.75e-05	2.46e-03	0.0
164	1	-2.35e-04	-2.35e-04	-5.58	-5.97e-05	5.97e-05	0.0
164	2	0.09	0.13	-3.45	7.99e-05	3.90e-03	0.0
164	3	0.06	0.13	-2.65	6.01e-05	3.35e-03	0.0
164	4	0.06	0.09	-2.97	3.96e-05	2.69e-03	0.0
164	5	0.08	0.05	-3.10	3.13e-05	2.42e-03	0.0
165	1	-2.13e-04	-2.13e-04	-5.57	-6.74e-05	6.74e-05	0.0
165	2	0.06	0.16	-3.09	8.63e-05	3.85e-03	0.0
165	3	0.03	0.16	-2.33	6.45e-05	3.31e-03	0.0
165	4	0.05	0.10	-2.71	4.20e-05	2.65e-03	0.0
165	5	0.07	0.06	-2.87	3.29e-05	2.39e-03	0.0
166	1	-1.99e-04	-1.99e-04	-5.55	-7.26e-05	7.26e-05	0.0
166	2	0.04	0.18	-2.73	8.74e-05	3.80e-03	0.0
166	3	7.95e-03	0.18	-2.02	6.48e-05	3.27e-03	0.0
166	4	0.03	0.12	-2.46	4.14e-05	2.62e-03	0.0
166	5	0.06	0.07	-2.64	3.21e-05	2.36e-03	0.0
167	1	-1.89e-04	-1.89e-04	-5.54	-7.46e-05	7.46e-05	0.0
167	2	0.01	0.21	-2.37	8.22e-05	3.77e-03	0.0
167	3	-0.02	0.21	-1.71	5.99e-05	3.24e-03	0.0
167	4	0.01	0.14	-2.22	3.73e-05	2.60e-03	0.0
167	5	0.05	0.08	-2.42	2.82e-05	2.34e-03	0.0
168	1	-1.84e-04	-1.84e-04	-5.52	-7.44e-05	7.44e-05	0.0
168	2	-0.02	0.24	-2.01	7.78e-05	3.75e-03	0.0
168	3	-0.04	0.24	-1.41	5.62e-05	3.23e-03	0.0
168	4	-5.56e-03	0.16	-1.97	3.43e-05	2.59e-03	0.0
168	5	0.04	0.09	-2.19	2.56e-05	2.33e-03	0.0
169	1	-2.75e-04	-4.11e-04	-5.60	-4.20e-05	2.81e-05	0.0
169	2	0.13	0.06	-4.46	3.89e-05	4.06e-03	0.0
169	3	0.10	0.06	-3.51	2.75e-05	3.48e-03	0.0
169	4	0.09	0.04	-3.66	1.61e-05	2.78e-03	0.0
169	5	0.10	0.02	-3.72	1.16e-05	2.51e-03	0.0
170	1	-4.17e-04	-6.24e-04	-5.61	-1.94e-05	1.30e-05	0.0
170	2	0.16	0.04	-4.76	3.91e-06	4.12e-03	-1.37e-04
170	3	0.13	0.04	-3.77	0.0	3.53e-03	-1.59e-04
170	4	0.11	0.03	-3.87	-2.14e-06	2.83e-03	-8.73e-05
170	5	0.11	0.02	-3.91	-2.78e-06	2.54e-03	-1.76e-05
171	1	-2.14e-04	-3.20e-04	-5.59	-5.80e-05	3.87e-05	0.0
171	2	0.10	0.08	-4.16	5.42e-05	4.00e-03	0.0
171	3	0.07	0.08	-3.25	3.84e-05	3.43e-03	0.0
171	4	0.07	0.05	-3.45	2.25e-05	2.75e-03	0.0
171	5	0.08	0.03	-3.53	1.61e-05	2.47e-03	0.0
172	1	-1.84e-04	-2.76e-04	-5.58	-7.02e-05	4.69e-05	0.0
172	2	0.07	0.10	-3.86	6.27e-05	3.94e-03	0.0
172	3	0.04	0.10	-3.00	4.40e-05	3.38e-03	0.0
172	4	0.05	0.07	-3.25	2.52e-05	2.71e-03	0.0
172	5	0.07	0.04	-3.35	1.76e-05	2.44e-03	0.0
173	1	-1.67e-04	-2.50e-04	-5.57	-7.93e-05	5.30e-05	0.0
173	2	0.04	0.12	-3.58	6.72e-05	3.89e-03	0.0
173	3	6.40e-03	0.12	-2.75	4.65e-05	3.34e-03	0.0
173	4	0.03	0.08	-3.05	2.59e-05	2.68e-03	0.0
173	5	0.06	0.05	-3.17	1.77e-05	2.41e-03	0.0
174	1	-1.56e-04	-2.33e-04	-5.55	-8.54e-05	5.71e-05	0.0
174	2	4.94e-03	0.14	-3.29	6.73e-05	3.85e-03	0.0
174	3	-0.02	0.14	-2.50	4.58e-05	3.30e-03	0.0
174	4	7.82e-03	0.10	-2.85	2.45e-05	2.65e-03	0.0
174	5	0.05	0.06	-2.99	1.59e-05	2.38e-03	0.0
174	9	5.58e-03	0.02	-4.04	-2.81e-04	1.03e-04	0.0
175	1	-1.49e-04	-2.23e-04	-5.54	-8.77e-05	5.86e-05	0.0
175	2	-0.03	0.16	-3.01	6.21e-05	3.81e-03	0.0
175	3	-0.06	0.16	-2.26	4.09e-05	3.27e-03	0.0
175	4	-0.01	0.11	-2.65	2.02e-05	2.62e-03	0.0
175	5	0.03	0.06	-2.81	1.19e-05	2.36e-03	0.0
176	1	-1.45e-04	-2.16e-04	-5.52	-8.75e-05	5.85e-05	0.0
176	2	-0.06	0.19	-2.72	5.81e-05	3.79e-03	0.0
176	3	-0.09	0.19	-2.01	3.74e-05	3.26e-03	0.0
176	4	-0.03	0.12	-2.45	1.75e-05	2.61e-03	0.0

176	5	0.02	0.07	-2.63	9.51e-06	2.35e-03	0.0
177	1	-1.89e-04	-4.57e-04	-5.60	-4.66e-05	1.93e-05	0.0
177	2	0.12	0.04	-4.75	1.91e-05	4.08e-03	0.0
177	3	0.09	0.04	-3.76	9.95e-06	3.49e-03	0.0
177	4	0.08	0.03	-3.86	1.37e-06	2.80e-03	0.0
177	5	0.09	0.02	-3.90	-2.04e-06	2.52e-03	0.0
178	1	-2.87e-04	-6.94e-04	-5.61	-2.15e-05	8.92e-06	0.0
178	2	0.15	0.03	-4.96	-1.76e-06	4.13e-03	-1.19e-04
178	3	0.12	0.03	-3.94	-4.71e-06	3.54e-03	-1.44e-04
178	4	0.10	0.02	-4.00	-6.58e-06	2.83e-03	-7.52e-05
178	5	0.10	0.01	-4.03	-7.09e-06	2.55e-03	-6.67e-06
179	1	-1.47e-04	-3.56e-04	-5.59	-6.44e-05	2.67e-05	0.0
179	2	0.08	0.06	-4.54	2.67e-05	4.02e-03	0.0
179	3	0.05	0.06	-3.58	1.40e-05	3.45e-03	0.0
179	4	0.06	0.04	-3.71	2.02e-06	2.76e-03	0.0
179	5	0.08	0.02	-3.77	-2.77e-06	2.48e-03	0.0
180	1	-1.27e-04	-3.06e-04	-5.58	-7.80e-05	3.23e-05	0.0
180	2	0.05	0.07	-4.33	3.02e-05	3.97e-03	0.0
180	3	0.02	0.07	-3.40	1.50e-05	3.40e-03	0.0
180	4	0.04	0.05	-3.57	0.0	2.72e-03	0.0
180	5	0.06	0.03	-3.64	-4.74e-06	2.45e-03	0.0
181	1	-1.15e-04	-2.78e-04	-5.57	-8.81e-05	3.65e-05	0.0
181	2	0.02	0.09	-4.13	3.13e-05	3.92e-03	0.0
181	3	-0.01	0.09	-3.23	1.45e-05	3.36e-03	0.0
181	4	0.01	0.06	-3.43	0.0	2.69e-03	0.0
181	5	0.05	0.03	-3.51	-7.10e-06	2.43e-03	0.0
182	1	-1.07e-04	-2.59e-04	-5.55	-9.49e-05	3.93e-05	0.0
182	2	-0.02	0.10	-3.93	2.98e-05	3.88e-03	0.0
182	3	-0.05	0.10	-3.05	1.23e-05	3.33e-03	0.0
182	4	-8.18e-03	0.07	-3.29	-3.62e-06	2.66e-03	0.0
182	5	0.04	0.04	-3.38	-1.00e-05	2.40e-03	0.0
183	1	-1.03e-04	-2.48e-04	-5.54	-9.75e-05	4.04e-05	0.0
183	2	-0.05	0.11	-3.73	2.53e-05	3.84e-03	0.0
183	3	-0.08	0.11	-2.88	7.97e-06	3.30e-03	0.0
183	4	-0.03	0.08	-3.15	-7.45e-06	2.64e-03	0.0
183	5	0.02	0.04	-3.26	-1.37e-05	2.38e-03	0.0
184	1	-9.95e-05	-2.40e-04	-5.52	-9.73e-05	4.03e-05	0.0
184	2	-0.09	0.13	-3.54	2.23e-05	3.82e-03	0.0
184	3	-0.12	0.13	-2.71	5.38e-06	3.28e-03	0.0
184	4	-0.05	0.08	-3.01	-9.49e-06	2.63e-03	0.0
184	5	0.01	0.05	-3.13	-1.55e-05	2.37e-03	0.0
185	1	-9.65e-05	-4.85e-04	-5.60	-4.95e-05	9.85e-06	0.0
185	2	0.11	0.02	-5.06	-7.56e-06	4.09e-03	0.0
185	3	0.08	0.02	-4.03	-1.33e-05	3.50e-03	0.0
185	4	0.08	0.01	-4.07	-1.76e-05	2.80e-03	0.0
185	5	0.09	8.50e-03	-4.09	-1.94e-05	2.52e-03	0.0
186	1	-1.47e-04	-7.37e-04	-5.61	-2.29e-05	4.55e-06	0.0
186	2	0.15	0.02	-5.17	-9.17e-06	4.13e-03	-1.08e-04
186	3	0.12	0.02	-4.12	-1.11e-05	3.54e-03	-1.35e-04
186	4	0.10	9.96e-03	-4.15	-1.20e-05	2.83e-03	-6.77e-05
186	5	0.10	5.93e-03	-4.16	-1.22e-05	2.54e-03	0.0
186	9	5.69e-03	0.02	-4.23	-2.60e-04	7.66e-05	0.0
187	1	-7.51e-05	-3.78e-04	-5.59	-6.84e-05	1.36e-05	0.0
187	2	0.07	0.03	-4.95	-1.02e-05	4.04e-03	0.0
187	3	0.05	0.03	-3.93	-1.82e-05	3.46e-03	0.0
187	4	0.05	0.02	-4.00	-2.43e-05	2.77e-03	0.0
187	5	0.07	0.01	-4.02	-2.67e-05	2.49e-03	0.0
188	1	-6.47e-05	-3.25e-04	-5.58	-8.28e-05	1.65e-05	0.0
188	2	0.04	0.04	-4.84	-1.35e-05	3.98e-03	0.0
188	3	9.31e-03	0.04	-3.84	-2.31e-05	3.42e-03	0.0
188	4	0.03	0.02	-3.92	-3.02e-05	2.73e-03	0.0
188	5	0.06	0.01	-3.95	-3.31e-05	2.46e-03	0.0
189	1	-5.87e-05	-2.95e-04	-5.57	-9.35e-05	1.86e-05	0.0
189	2	2.35e-03	0.04	-4.74	-1.68e-05	3.94e-03	0.0
189	3	-0.03	0.04	-3.74	-2.74e-05	3.38e-03	0.0
189	4	6.12e-03	0.03	-3.84	-3.52e-05	2.70e-03	0.0
189	5	0.05	0.02	-3.88	-3.83e-05	2.43e-03	0.0
189	9	5.62e-03	0.02	-4.07	-2.88e-04	8.08e-05	0.0
190	1	-5.48e-05	-2.75e-04	-5.55	-1.01e-04	2.00e-05	0.0
190	2	-0.03	0.05	-4.63	-2.01e-05	3.90e-03	0.0
190	3	-0.06	0.05	-3.65	-3.13e-05	3.34e-03	0.0
190	4	-0.02	0.03	-3.77	-3.93e-05	2.67e-03	0.0
190	5	0.03	0.02	-3.81	-4.25e-05	2.40e-03	0.0
191	1	-5.23e-05	-2.63e-04	-5.54	-1.03e-04	2.06e-05	0.0
191	2	-0.07	0.06	-4.52	-2.36e-05	3.86e-03	0.0
191	3	-0.10	0.06	-3.56	-3.47e-05	3.31e-03	0.0
191	4	-0.04	0.04	-3.69	-4.24e-05	2.65e-03	0.0

191	5	0.02	0.02	-3.74	-4.55e-05	2.38e-03	0.0
192	1	-5.07e-05	-2.55e-04	-5.52	-1.03e-04	2.05e-05	0.0
192	2	-0.11	0.07	-4.42	-2.50e-05	3.84e-03	0.0
192	3	-0.14	0.06	-3.46	-3.60e-05	3.29e-03	0.0
192	4	-0.07	0.04	-3.61	-4.34e-05	2.63e-03	0.0
192	5	2.98e-03	0.03	-3.67	-4.64e-05	2.37e-03	0.0
193	1	0.0	-4.94e-04	-5.60	-5.05e-05	0.0	0.0
193	2	0.11	-3.70e-04	-5.39	-3.73e-05	4.09e-03	0.0
193	3	0.08	-3.80e-04	-4.31	-3.88e-05	3.50e-03	0.0
193	4	0.08	-3.74e-04	-4.30	-3.82e-05	2.80e-03	0.0
193	5	0.09	-3.72e-04	-4.29	-3.80e-05	2.51e-03	0.0
193	9	5.71e-03	0.02	-4.19	-2.72e-04	7.29e-05	0.0
194	1	0.0	-7.51e-04	-5.61	-2.33e-05	0.0	0.0
194	2	0.14	-5.62e-04	-5.39	-1.72e-05	4.13e-03	-1.04e-04
194	3	0.11	-5.78e-04	-4.31	-1.79e-05	3.54e-03	-1.32e-04
194	4	0.10	-5.69e-04	-4.30	-1.76e-05	2.83e-03	-6.52e-05
194	5	0.10	-5.65e-04	-4.30	-1.75e-05	2.54e-03	2.32e-06
194	9	5.72e-03	0.02	-4.23	-2.61e-04	7.37e-05	3.15e-06
195	1	0.0	-3.85e-04	-5.59	-6.97e-05	0.0	0.0
195	2	0.07	-2.88e-04	-5.38	-5.14e-05	4.03e-03	0.0
195	3	0.04	-2.96e-04	-4.30	-5.36e-05	3.45e-03	0.0
195	4	0.05	-2.92e-04	-4.29	-5.28e-05	2.76e-03	0.0
195	5	0.07	-2.90e-04	-4.29	-5.24e-05	2.48e-03	0.0
195	9	5.69e-03	0.02	-4.15	-2.80e-04	7.19e-05	0.0
196	1	0.0	-3.32e-04	-5.58	-8.44e-05	0.0	0.0
196	2	0.04	-2.48e-04	-5.37	-6.21e-05	3.98e-03	0.0
196	3	5.75e-03	-2.55e-04	-4.29	-6.49e-05	3.41e-03	0.0
196	4	0.03	-2.51e-04	-4.28	-6.39e-05	2.73e-03	0.0
196	5	0.06	-2.50e-04	-4.28	-6.35e-05	2.45e-03	0.0
196	9	5.67e-03	0.02	-4.12	-2.85e-04	7.10e-05	0.0
197	1	0.0	-3.01e-04	-5.57	-9.54e-05	0.0	0.0
197	3	-0.03	-2.31e-04	-4.28	-7.34e-05	3.37e-03	0.0
197	4	3.30e-03	-2.28e-04	-4.27	-7.21e-05	2.69e-03	0.0
197	5	0.04	-2.26e-04	-4.27	-7.17e-05	2.42e-03	0.0
197	9	5.64e-03	0.02	-4.08	-2.89e-04	7.02e-05	0.0
198	1	0.0	-2.81e-04	-5.55	-1.03e-04	0.0	0.0
198	2	-0.04	-2.10e-04	-5.35	-7.55e-05	3.89e-03	0.0
198	3	-0.07	-2.16e-04	-4.27	-7.90e-05	3.33e-03	0.0
198	4	-0.02	-2.13e-04	-4.26	-7.77e-05	2.66e-03	0.0
198	5	0.03	-2.11e-04	-4.26	-7.72e-05	2.40e-03	0.0
198	9	5.61e-03	0.02	-4.04	-2.92e-04	6.94e-05	0.0
199	1	0.0	-2.68e-04	-5.54	-1.05e-04	0.0	0.0
199	2	-0.08	-2.01e-04	-5.34	-7.75e-05	3.85e-03	0.0
199	3	-0.11	-2.06e-04	-4.26	-8.12e-05	3.30e-03	0.0
199	4	-0.05	-2.03e-04	-4.25	-7.98e-05	2.64e-03	0.0
199	5	0.02	-2.02e-04	-4.25	-7.93e-05	2.37e-03	0.0
199	9	5.58e-03	0.02	-4.00	-2.92e-04	6.87e-05	0.0
200	1	0.0	-2.60e-04	-5.52	-1.05e-04	0.0	0.0
200	2	-0.11	-1.95e-04	-5.33	-7.72e-05	3.83e-03	0.0
200	3	-0.14	-2.00e-04	-4.25	-8.10e-05	3.28e-03	0.0
200	4	-0.07	-1.97e-04	-4.24	-7.96e-05	2.62e-03	0.0
200	5	4.78e-04	-1.96e-04	-4.24	-7.91e-05	2.36e-03	0.0
200	9	5.55e-03	0.02	-3.96	-2.91e-04	6.84e-05	0.0
201	2	0.11	-0.02	-5.72	-6.55e-05	4.07e-03	0.0
201	3	0.08	-0.02	-4.59	-6.29e-05	3.49e-03	0.0
201	4	0.08	-0.02	-4.52	-5.73e-05	2.78e-03	0.0
201	5	0.09	-9.23e-03	-4.50	-5.51e-05	2.50e-03	0.0
202	2	0.15	-0.02	-5.62	-2.46e-05	4.12e-03	-1.08e-04
202	3	0.12	-0.02	-4.50	-2.41e-05	3.53e-03	-1.35e-04
202	4	0.10	-0.01	-4.46	-2.26e-05	2.82e-03	-6.77e-05
202	5	0.10	-7.04e-03	-4.44	-2.21e-05	2.54e-03	0.0
202	9	5.75e-03	0.02	-4.24	-2.60e-04	7.08e-05	5.27e-06
203	2	0.07	-0.03	-5.81	-9.05e-05	4.02e-03	0.0
203	3	0.05	-0.03	-4.67	-8.70e-05	3.44e-03	0.0
203	4	0.05	-0.02	-4.59	-7.92e-05	2.74e-03	0.0
203	5	0.07	-0.01	-4.55	-7.61e-05	2.47e-03	0.0
204	2	0.04	-0.04	-5.90	-1.08e-04	3.96e-03	0.0
204	3	9.41e-03	-0.04	-4.75	-1.04e-04	3.39e-03	0.0
204	4	0.03	-0.02	-4.65	-9.50e-05	2.71e-03	0.0
204	5	0.06	-0.01	-4.61	-9.14e-05	2.43e-03	0.0
205	2	2.44e-03	-0.04	-5.99	-1.21e-04	3.91e-03	0.0
205	3	-0.03	-0.04	-4.82	-1.16e-04	3.35e-03	0.0
205	4	6.21e-03	-0.03	-4.70	-1.06e-04	2.67e-03	0.0
205	5	0.05	-0.02	-4.66	-1.02e-04	2.40e-03	0.0
205	9	5.67e-03	0.02	-4.09	-2.89e-04	5.91e-05	0.0
206	2	-0.03	-0.05	-6.08	-1.28e-04	3.87e-03	0.0
206	3	-0.06	-0.05	-4.89	-1.24e-04	3.31e-03	0.0

206	4	-0.02	-0.03	-4.76	-1.13e-04	2.64e-03	0.0
206	5	0.03	-0.02	-4.70	-1.09e-04	2.37e-03	0.0
207	2	-0.07	-0.06	-6.16	-1.28e-04	3.83e-03	0.0
207	3	-0.10	-0.06	-4.96	-1.24e-04	3.28e-03	0.0
207	4	-0.04	-0.04	-4.81	-1.14e-04	2.61e-03	0.0
207	5	0.02	-0.02	-4.75	-1.10e-04	2.35e-03	0.0
208	2	-0.11	-0.07	-6.25	-1.26e-04	3.81e-03	0.0
208	3	-0.14	-0.07	-5.03	-1.23e-04	3.26e-03	0.0
208	4	-0.07	-0.04	-4.87	-1.13e-04	2.60e-03	0.0
208	5	3.06e-03	-0.03	-4.80	-1.09e-04	2.34e-03	0.0
209	2	0.12	-0.04	-6.03	-8.80e-05	4.05e-03	0.0
209	3	0.09	-0.04	-4.86	-8.17e-05	3.47e-03	0.0
209	4	0.08	-0.03	-4.74	-7.19e-05	2.77e-03	0.0
209	5	0.09	-0.02	-4.69	-6.81e-05	2.49e-03	0.0
210	2	0.15	-0.03	-5.83	-3.00e-05	4.12e-03	-1.19e-04
210	3	0.12	-0.03	-4.69	-2.84e-05	3.52e-03	-1.44e-04
210	4	0.10	-0.02	-4.60	-2.60e-05	2.81e-03	-7.52e-05
210	5	0.10	-0.01	-4.57	-2.53e-05	2.53e-03	-6.67e-06
211	2	0.08	-0.06	-6.23	-1.22e-04	3.98e-03	0.0
211	3	0.05	-0.06	-5.02	-1.13e-04	3.41e-03	0.0
211	4	0.06	-0.04	-4.87	-9.95e-05	2.72e-03	0.0
211	5	0.08	-0.02	-4.81	-9.41e-05	2.44e-03	0.0
212	2	0.05	-0.07	-6.41	-1.45e-04	3.92e-03	0.0
212	3	0.02	-0.07	-5.18	-1.35e-04	3.36e-03	0.0
212	4	0.04	-0.05	-4.99	-1.19e-04	2.68e-03	0.0
212	5	0.06	-0.03	-4.92	-1.13e-04	2.40e-03	0.0
213	2	0.02	-0.09	-6.60	-1.61e-04	3.87e-03	0.0
213	3	-0.01	-0.09	-5.34	-1.50e-04	3.31e-03	0.0
213	4	0.01	-0.06	-5.12	-1.32e-04	2.64e-03	0.0
213	5	0.05	-0.03	-5.03	-1.25e-04	2.37e-03	0.0
214	2	-0.02	-0.10	-6.78	-1.69e-04	3.82e-03	0.0
214	3	-0.05	-0.10	-5.49	-1.58e-04	3.27e-03	0.0
214	4	-8.02e-03	-0.07	-5.24	-1.40e-04	2.61e-03	0.0
214	5	0.04	-0.04	-5.13	-1.33e-04	2.34e-03	0.0
215	2	-0.05	-0.11	-6.95	-1.68e-04	3.78e-03	0.0
215	3	-0.08	-0.11	-5.64	-1.58e-04	3.24e-03	0.0
215	4	-0.03	-0.08	-5.35	-1.40e-04	2.58e-03	0.0
215	5	0.02	-0.04	-5.24	-1.33e-04	2.32e-03	0.0
216	2	-0.09	-0.13	-7.13	-1.65e-04	3.76e-03	0.0
216	3	-0.12	-0.13	-5.79	-1.55e-04	3.22e-03	0.0
216	4	-0.05	-0.09	-5.47	-1.38e-04	2.57e-03	0.0
216	5	0.01	-0.05	-5.34	-1.31e-04	2.31e-03	0.0
217	2	0.13	-0.06	-6.32	-1.01e-04	4.02e-03	0.0
217	3	0.10	-0.06	-5.11	-9.21e-05	3.44e-03	0.0
217	4	0.09	-0.04	-4.94	-7.96e-05	2.74e-03	0.0
217	5	0.10	-0.03	-4.87	-7.47e-05	2.46e-03	0.0
218	2	0.16	-0.04	-6.03	-3.25e-05	4.11e-03	-1.37e-04
218	3	0.13	-0.04	-4.86	-3.01e-05	3.51e-03	-1.59e-04
218	4	0.11	-0.03	-4.74	-2.72e-05	2.81e-03	-8.73e-05
218	5	0.11	-0.02	-4.69	-2.64e-05	2.52e-03	-1.76e-05
219	2	0.10	-0.08	-6.61	-1.40e-04	3.94e-03	0.0
219	3	0.07	-0.08	-5.35	-1.28e-04	3.37e-03	0.0
219	4	0.07	-0.06	-5.13	-1.10e-04	2.69e-03	0.0
219	5	0.08	-0.03	-5.04	-1.03e-04	2.41e-03	0.0
220	2	0.07	-0.10	-6.88	-1.66e-04	3.87e-03	0.0
220	3	0.04	-0.10	-5.59	-1.52e-04	3.31e-03	0.0
220	4	0.05	-0.07	-5.32	-1.31e-04	2.64e-03	0.0
220	5	0.07	-0.04	-5.21	-1.23e-04	2.37e-03	0.0
221	2	0.04	-0.12	-7.15	-1.84e-04	3.81e-03	0.0
221	3	6.66e-03	-0.12	-5.81	-1.69e-04	3.26e-03	0.0
221	4	0.03	-0.08	-5.50	-1.46e-04	2.60e-03	0.0
221	5	0.06	-0.05	-5.37	-1.37e-04	2.33e-03	0.0
222	2	5.18e-03	-0.14	-7.42	-1.93e-04	3.76e-03	0.0
222	3	-0.02	-0.14	-6.04	-1.77e-04	3.21e-03	0.0
222	4	8.06e-03	-0.10	-5.67	-1.54e-04	2.56e-03	0.0
222	5	0.05	-0.06	-5.53	-1.44e-04	2.30e-03	0.0
222	9	5.72e-03	0.02	-4.11	-2.86e-04	3.28e-05	0.0
223	2	-0.03	-0.17	-7.68	-1.91e-04	3.73e-03	0.0
223	3	-0.06	-0.17	-6.26	-1.76e-04	3.18e-03	0.0
223	4	-0.01	-0.11	-5.85	-1.53e-04	2.54e-03	0.0
223	5	0.04	-0.06	-5.69	-1.44e-04	2.28e-03	0.0
224	2	-0.06	-0.19	-7.94	-1.87e-04	3.71e-03	0.0
224	3	-0.09	-0.19	-6.48	-1.72e-04	3.17e-03	0.0
224	4	-0.03	-0.12	-6.03	-1.50e-04	2.52e-03	0.0
224	5	0.02	-0.07	-5.84	-1.41e-04	2.27e-03	0.0
225	2	0.14	-0.08	-6.58	-1.02e-04	3.98e-03	0.0
225	3	0.11	-0.08	-5.33	-9.22e-05	3.41e-03	0.0

225	4	0.10	-0.05	-5.11	-7.88e-05	2.72e-03	0.0
225	5	0.10	-0.03	-5.03	-7.35e-05	2.44e-03	0.0
226	2	0.17	-0.06	-6.20	-3.14e-05	4.09e-03	-1.60e-04
226	3	0.14	-0.06	-5.00	-2.87e-05	3.50e-03	-1.80e-04
226	4	0.12	-0.04	-4.86	-2.57e-05	2.80e-03	-1.04e-04
226	5	0.11	-0.02	-4.80	-2.50e-05	2.52e-03	-3.23e-05
227	2	0.12	-0.11	-6.94	-1.41e-04	3.89e-03	0.0
227	3	0.09	-0.11	-5.64	-1.28e-04	3.33e-03	0.0
227	4	0.08	-0.07	-5.36	-1.09e-04	2.65e-03	0.0
227	5	0.09	-0.04	-5.25	-1.02e-04	2.38e-03	0.0
228	2	0.09	-0.13	-7.30	-1.68e-04	3.81e-03	0.0
228	3	0.06	-0.13	-5.94	-1.52e-04	3.26e-03	0.0
228	4	0.06	-0.09	-5.60	-1.30e-04	2.60e-03	0.0
228	5	0.08	-0.05	-5.46	-1.21e-04	2.33e-03	0.0
229	2	0.06	-0.16	-7.64	-1.85e-04	3.75e-03	0.0
229	3	0.03	-0.16	-6.23	-1.68e-04	3.20e-03	0.0
229	4	0.05	-0.10	-5.83	-1.44e-04	2.55e-03	0.0
229	5	0.07	-0.06	-5.67	-1.34e-04	2.29e-03	0.0
230	2	0.04	-0.18	-7.98	-1.94e-04	3.70e-03	0.0
230	3	8.26e-03	-0.18	-6.52	-1.76e-04	3.16e-03	0.0
230	4	0.03	-0.12	-6.06	-1.51e-04	2.51e-03	0.0
230	5	0.06	-0.07	-5.88	-1.41e-04	2.25e-03	0.0
231	2	0.01	-0.21	-8.32	-1.92e-04	3.66e-03	0.0
231	3	-0.02	-0.21	-6.81	-1.75e-04	3.13e-03	0.0
231	4	0.01	-0.14	-6.29	-1.50e-04	2.49e-03	0.0
231	5	0.05	-0.08	-6.08	-1.40e-04	2.23e-03	0.0
232	2	-0.01	-0.24	-8.65	-1.87e-04	3.65e-03	0.0
232	3	-0.04	-0.24	-7.09	-1.71e-04	3.11e-03	0.0
232	4	-5.28e-03	-0.16	-6.51	-1.47e-04	2.48e-03	0.0
232	5	0.04	-0.09	-6.28	-1.37e-04	2.22e-03	0.0
233	2	0.16	-0.09	-6.79	-9.04e-05	3.95e-03	0.0
233	3	0.13	-0.09	-5.50	-8.12e-05	3.38e-03	0.0
233	4	0.11	-0.06	-5.25	-6.90e-05	2.69e-03	0.0
233	5	0.11	-0.04	-5.15	-6.42e-05	2.42e-03	0.0
234	2	0.18	-0.07	-6.34	-2.65e-05	4.08e-03	-1.89e-04
234	3	0.15	-0.06	-5.13	-2.39e-05	3.50e-03	-2.05e-04
234	4	0.13	-0.04	-4.95	-2.15e-05	2.79e-03	-1.23e-04
234	5	0.12	-0.03	-4.88	-2.10e-05	2.51e-03	-5.02e-05
235	2	0.14	-0.12	-7.22	-1.25e-04	3.85e-03	0.0
235	3	0.11	-0.12	-5.87	-1.13e-04	3.29e-03	0.0
235	4	0.10	-0.08	-5.55	-9.56e-05	2.62e-03	0.0
235	5	0.10	-0.05	-5.42	-8.88e-05	2.35e-03	0.0
236	2	0.12	-0.15	-7.63	-1.49e-04	3.76e-03	0.0
236	3	0.09	-0.15	-6.23	-1.34e-04	3.21e-03	0.0
236	4	0.08	-0.10	-5.83	-1.14e-04	2.56e-03	0.0
236	5	0.09	-0.06	-5.67	-1.06e-04	2.29e-03	0.0
237	2	0.10	-0.19	-8.04	-1.64e-04	3.69e-03	0.0
237	3	0.07	-0.19	-6.58	-1.48e-04	3.15e-03	0.0
237	4	0.07	-0.12	-6.11	-1.26e-04	2.50e-03	0.0
237	5	0.08	-0.07	-5.92	-1.17e-04	2.25e-03	0.0
238	2	0.08	-0.22	-8.44	-1.72e-04	3.63e-03	0.0
238	3	0.05	-0.22	-6.92	-1.55e-04	3.10e-03	0.0
238	4	0.06	-0.14	-6.38	-1.32e-04	2.47e-03	0.0
238	5	0.08	-0.08	-6.16	-1.23e-04	2.21e-03	0.0
239	2	0.06	-0.25	-8.84	-1.70e-04	3.60e-03	0.0
239	3	0.03	-0.25	-7.26	-1.53e-04	3.07e-03	0.0
239	4	0.04	-0.16	-6.64	-1.31e-04	2.44e-03	0.0
239	5	0.07	-0.10	-6.40	-1.22e-04	2.19e-03	0.0
240	2	0.04	-0.28	-9.24	-1.65e-04	3.59e-03	0.0
240	3	6.42e-03	-0.28	-7.59	-1.50e-04	3.06e-03	0.0
240	4	0.03	-0.18	-6.91	-1.28e-04	2.43e-03	0.0
240	5	0.06	-0.11	-6.64	-1.19e-04	2.18e-03	0.0
241	2	0.18	-0.10	-6.94	-6.74e-05	3.92e-03	0.0
241	3	0.15	-0.10	-5.64	-6.03e-05	3.35e-03	0.0
241	4	0.12	-0.07	-5.36	-5.10e-05	2.67e-03	0.0
241	5	0.12	-0.04	-5.25	-4.74e-05	2.40e-03	0.0
242	2	0.20	-0.07	-6.45	-1.82e-05	4.08e-03	-2.22e-04
242	3	0.17	-0.07	-5.22	-1.62e-05	3.49e-03	-2.33e-04
242	4	0.13	-0.05	-5.02	-1.48e-05	2.78e-03	-1.46e-04
242	5	0.12	-0.03	-4.95	-1.48e-05	2.50e-03	-7.06e-05
243	2	0.17	-0.14	-7.42	-9.38e-05	3.81e-03	0.0
243	3	0.14	-0.14	-6.05	-8.40e-05	3.25e-03	0.0
243	4	0.11	-0.09	-5.68	-7.09e-05	2.59e-03	0.0
243	5	0.11	-0.05	-5.54	-6.57e-05	2.32e-03	0.0
244	2	0.15	-0.17	-7.89	-1.11e-04	3.71e-03	0.0
244	3	0.12	-0.17	-6.44	-9.98e-05	3.17e-03	0.0
244	4	0.10	-0.11	-6.00	-8.43e-05	2.52e-03	0.0

244	5	0.10	-0.07	-5.82	-7.82e-05	2.26e-03	0.0
245	2	0.14	-0.21	-8.34	-1.23e-04	3.64e-03	0.0
245	3	0.11	-0.21	-6.83	-1.10e-04	3.10e-03	0.0
245	4	0.10	-0.14	-6.31	-9.34e-05	2.47e-03	0.0
245	5	0.10	-0.08	-6.10	-8.66e-05	2.21e-03	0.0
246	2	0.12	-0.24	-8.79	-1.28e-04	3.58e-03	0.0
246	3	0.09	-0.24	-7.21	-1.16e-04	3.05e-03	0.0
246	4	0.09	-0.16	-6.61	-9.79e-05	2.43e-03	0.0
246	5	0.09	-0.09	-6.37	-9.08e-05	2.18e-03	0.0
247	2	0.11	-0.27	-9.23	-1.26e-04	3.55e-03	0.0
247	3	0.08	-0.27	-7.59	-1.14e-04	3.03e-03	0.0
247	4	0.08	-0.18	-6.91	-9.68e-05	2.40e-03	0.0
247	5	0.09	-0.11	-6.64	-9.00e-05	2.16e-03	0.0
248	2	0.09	-0.31	-9.67	-1.23e-04	3.54e-03	0.0
248	3	0.06	-0.31	-7.96	-1.11e-04	3.01e-03	0.0
248	4	0.07	-0.20	-7.21	-9.46e-05	2.39e-03	0.0
248	5	0.08	-0.12	-6.91	-8.79e-05	2.15e-03	0.0
249	2	0.20	-0.11	-7.04	-3.57e-05	3.90e-03	0.0
249	3	0.17	-0.11	-5.72	-3.18e-05	3.34e-03	0.0
249	4	0.14	-0.07	-5.43	-2.69e-05	2.66e-03	0.0
249	5	0.12	-0.04	-5.31	-2.51e-05	2.39e-03	0.0
250	2	0.21	-0.07	-6.51	-7.45e-06	4.07e-03	-2.58e-04
250	3	0.18	-0.07	-5.27	-6.36e-06	3.48e-03	-2.64e-04
250	4	0.14	-0.05	-5.07	-6.33e-06	2.78e-03	-1.71e-04
250	5	0.13	-0.03	-4.99	-6.95e-06	2.50e-03	-9.27e-05
251	2	0.19	-0.15	-7.54	-5.01e-05	3.78e-03	0.0
251	3	0.16	-0.15	-6.15	-4.48e-05	3.23e-03	0.0
251	4	0.13	-0.10	-5.77	-3.77e-05	2.57e-03	0.0
251	5	0.12	-0.06	-5.62	-3.49e-05	2.31e-03	0.0
252	2	0.19	-0.18	-8.04	-5.95e-05	3.68e-03	0.0
252	3	0.16	-0.18	-6.58	-5.32e-05	3.14e-03	0.0
252	4	0.13	-0.12	-6.11	-4.49e-05	2.50e-03	0.0
252	5	0.12	-0.07	-5.92	-4.15e-05	2.24e-03	0.0
253	2	0.18	-0.22	-8.52	-6.57e-05	3.60e-03	0.0
253	3	0.15	-0.22	-6.99	-5.88e-05	3.07e-03	0.0
253	4	0.12	-0.14	-6.43	-4.97e-05	2.44e-03	0.0
253	5	0.12	-0.09	-6.21	-4.60e-05	2.19e-03	0.0
254	2	0.17	-0.25	-9.00	-6.86e-05	3.55e-03	0.0
254	3	0.14	-0.25	-7.39	-6.16e-05	3.02e-03	0.0
254	4	0.12	-0.17	-6.76	-5.20e-05	2.40e-03	0.0
254	5	0.11	-0.10	-6.50	-4.82e-05	2.15e-03	0.0
255	2	0.16	-0.29	-9.47	-6.75e-05	3.51e-03	0.0
255	3	0.13	-0.29	-7.79	-6.07e-05	3.00e-03	0.0
255	4	0.11	-0.19	-7.07	-5.14e-05	2.38e-03	0.0
255	5	0.11	-0.11	-6.79	-4.77e-05	2.13e-03	0.0
256	2	0.16	-0.33	-9.94	-6.57e-05	3.50e-03	0.0
256	3	0.13	-0.33	-8.19	-5.92e-05	2.99e-03	0.0
256	4	0.11	-0.22	-7.39	-5.02e-05	2.37e-03	0.0
256	5	0.11	-0.13	-7.07	-4.66e-05	2.12e-03	0.0
257	2	0.22	-0.04	-5.96	1.23e-06	4.13e-03	0.0
257	3	0.19	-0.04	-4.80	1.23e-06	3.54e-03	0.0
257	4	0.15	-0.02	-4.69	0.0	2.83e-03	0.0
257	5	0.13	-0.01	-4.65	0.0	2.54e-03	0.0
258	2	0.23	-0.04	-5.95	5.53e-06	4.13e-03	0.0
258	3	0.20	-0.04	-4.79	5.24e-06	3.54e-03	0.0
258	4	0.16	-0.02	-4.69	4.36e-06	2.83e-03	0.0
258	5	0.14	-0.01	-4.64	3.85e-06	2.54e-03	0.0
259	2	0.24	-0.03	-5.92	9.34e-06	4.14e-03	0.0
259	3	0.21	-0.03	-4.76	8.80e-06	3.54e-03	0.0
259	4	0.16	-0.02	-4.66	7.55e-06	2.83e-03	0.0
259	5	0.14	-0.01	-4.62	6.89e-06	2.54e-03	0.0
260	2	0.24	-0.03	-5.87	1.22e-05	4.14e-03	0.0
260	3	0.21	-0.03	-4.72	1.16e-05	3.55e-03	0.0
260	4	0.17	-0.02	-4.63	1.01e-05	2.83e-03	0.0
260	5	0.14	-0.01	-4.59	9.33e-06	2.55e-03	0.0
261	2	0.25	-0.02	-5.80	1.40e-05	4.14e-03	0.0
261	3	0.22	-0.02	-4.66	1.33e-05	3.55e-03	0.0
261	4	0.17	-0.02	-4.58	1.17e-05	2.83e-03	0.0
261	5	0.14	-9.42e-03	-4.55	1.10e-05	2.55e-03	0.0
262	2	0.25	-0.02	-5.71	1.44e-05	4.15e-03	0.0
262	3	0.22	-0.02	-4.59	1.38e-05	3.55e-03	0.0
262	4	0.17	-0.01	-4.52	1.24e-05	2.84e-03	0.0
262	5	0.15	-7.25e-03	-4.50	1.17e-05	2.55e-03	0.0
262	9	6.08e-03	0.02	-4.33	-2.39e-04	6.86e-05	0.0
263	2	0.26	-0.01	-5.61	1.36e-05	4.15e-03	0.0
263	3	0.23	-0.01	-4.50	1.32e-05	3.56e-03	0.0
263	4	0.18	-8.64e-03	-4.45	1.21e-05	2.84e-03	0.0

263	5	0.15	-4.86e-03	-4.43	1.16e-05	2.55e-03	0.0
263	9	6.02e-03	0.02	-4.33	-2.38e-04	7.03e-05	0.0
264	1	7.27e-05	3.66e-04	-5.61	1.20e-05	-2.39e-06	0.0
264	2	0.26	-6.55e-03	-5.51	1.17e-05	4.16e-03	0.0
264	3	0.23	-6.59e-03	-4.41	1.17e-05	3.56e-03	0.0
264	4	0.18	-4.25e-03	-4.38	1.10e-05	2.84e-03	0.0
264	5	0.15	-2.32e-03	-4.37	1.07e-05	2.56e-03	0.0
264	9	5.95e-03	0.02	-4.33	-2.37e-04	7.22e-05	0.0
265	1	0.0	3.73e-04	-5.61	1.23e-05	0.0	0.0
265	2	0.26	2.79e-04	-5.40	9.05e-06	4.16e-03	0.0
265	3	0.23	2.87e-04	-4.32	9.43e-06	3.56e-03	0.0
265	4	0.18	2.82e-04	-4.31	9.27e-06	2.85e-03	0.0
265	5	0.15	2.81e-04	-4.30	9.22e-06	2.56e-03	0.0
265	9	5.87e-03	0.02	-4.33	-2.37e-04	7.41e-05	0.0
266	1	-7.27e-05	3.66e-04	-5.61	1.20e-05	2.39e-06	0.0
266	2	0.26	7.10e-03	-5.29	6.07e-06	4.16e-03	0.0
266	3	0.23	7.15e-03	-4.22	6.81e-06	3.56e-03	0.0
266	4	0.18	4.80e-03	-4.23	7.18e-06	2.85e-03	0.0
266	5	0.15	2.87e-03	-4.23	7.37e-06	2.56e-03	0.0
266	9	5.80e-03	0.02	-4.33	-2.37e-04	7.61e-05	0.0
267	1	-1.43e-04	3.44e-04	-5.61	1.13e-05	4.69e-06	0.0
267	2	0.26	0.01	-5.18	3.15e-06	4.16e-03	0.0
267	3	0.23	0.01	-4.13	4.18e-06	3.56e-03	0.0
267	4	0.17	9.16e-03	-4.16	5.01e-06	2.85e-03	0.0
267	5	0.15	5.38e-03	-4.17	5.41e-06	2.56e-03	0.0
267	9	5.73e-03	0.02	-4.33	-2.38e-04	7.79e-05	0.0
268	1	-2.07e-04	3.10e-04	-5.61	1.02e-05	6.81e-06	0.0
268	2	0.25	0.02	-5.08	0.0	4.16e-03	0.0
268	3	0.22	0.02	-4.05	1.85e-06	3.56e-03	0.0
268	4	0.17	0.01	-4.09	3.02e-06	2.85e-03	0.0
268	5	0.14	7.72e-03	-4.11	3.58e-06	2.56e-03	0.0
269	1	-2.64e-04	2.64e-04	-5.61	8.67e-06	8.67e-06	0.0
269	2	0.25	0.03	-5.00	-1.17e-06	4.16e-03	0.0
269	3	0.22	0.03	-3.97	0.0	3.56e-03	0.0
269	4	0.17	0.02	-4.03	1.39e-06	2.85e-03	0.0
269	5	0.14	9.82e-03	-4.05	2.05e-06	2.56e-03	0.0
270	1	-3.10e-04	2.07e-04	-5.61	6.81e-06	1.02e-05	0.0
270	2	0.24	0.03	-4.93	-2.19e-06	4.16e-03	0.0
270	3	0.21	0.03	-3.91	-1.09e-06	3.56e-03	0.0
270	4	0.17	0.02	-3.98	0.0	2.85e-03	0.0
270	5	0.14	0.01	-4.01	0.0	2.56e-03	0.0
271	1	-3.44e-04	1.43e-04	-5.61	4.69e-06	1.13e-05	0.0
271	2	0.24	0.03	-4.87	-2.41e-06	4.15e-03	0.0
271	3	0.21	0.03	-3.87	-1.58e-06	3.56e-03	0.0
271	4	0.16	0.02	-3.95	0.0	2.85e-03	0.0
271	5	0.14	0.01	-3.98	0.0	2.56e-03	0.0
272	1	-3.66e-04	7.27e-05	-5.61	2.39e-06	1.20e-05	0.0
272	2	0.23	0.04	-4.84	-2.00e-06	4.15e-03	0.0
272	3	0.20	0.04	-3.84	-1.56e-06	3.56e-03	0.0
272	4	0.16	0.02	-3.92	0.0	2.85e-03	0.0
272	5	0.14	0.01	-3.96	0.0	2.56e-03	0.0
273	1	-3.73e-04	0.0	-5.61	0.0	1.23e-05	0.0
273	2	0.22	0.04	-4.83	-1.23e-06	4.15e-03	0.0
273	3	0.19	0.04	-3.83	-1.23e-06	3.56e-03	0.0
273	4	0.15	0.02	-3.92	0.0	2.84e-03	0.0
273	5	0.13	0.01	-3.95	0.0	2.56e-03	0.0
274	1	-3.66e-04	-7.27e-05	-5.61	-2.39e-06	1.20e-05	0.0
274	2	0.22	0.04	-4.84	0.0	4.15e-03	0.0
274	3	0.19	0.04	-3.84	0.0	3.56e-03	0.0
274	4	0.15	0.02	-3.92	0.0	2.84e-03	0.0
274	5	0.13	0.01	-3.96	0.0	2.56e-03	0.0
275	1	-3.44e-04	-1.43e-04	-5.61	-4.69e-06	1.13e-05	0.0
275	2	0.21	0.03	-4.87	0.0	4.15e-03	0.0
275	3	0.18	0.03	-3.87	0.0	3.56e-03	0.0
275	4	0.14	0.02	-3.95	-1.06e-06	2.85e-03	0.0
275	5	0.13	0.01	-3.98	-1.05e-06	2.56e-03	0.0
276	1	-3.10e-04	-2.07e-04	-5.61	-6.81e-06	1.02e-05	0.0
276	2	0.20	0.03	-4.93	0.0	4.15e-03	0.0
276	3	0.17	0.03	-3.91	0.0	3.56e-03	0.0
276	4	0.14	0.02	-3.98	-1.59e-06	2.85e-03	0.0
276	5	0.13	0.01	-4.01	-1.71e-06	2.56e-03	0.0
277	1	-2.64e-04	-2.64e-04	-5.61	-8.67e-06	8.67e-06	0.0
277	2	0.20	0.03	-5.00	0.0	4.16e-03	0.0
277	3	0.17	0.03	-3.97	-1.79e-06	3.56e-03	0.0
277	4	0.14	0.02	-4.03	-2.54e-06	2.85e-03	0.0
277	5	0.12	0.01	-4.05	-2.73e-06	2.56e-03	0.0
278	1	-2.07e-04	-3.10e-04	-5.61	-1.02e-05	6.81e-06	0.0

278	2	0.19	0.02	-5.08	-2.01e-06	4.16e-03	0.0
278	3	0.16	0.02	-4.05	-3.22e-06	3.56e-03	0.0
278	4	0.13	0.01	-4.09	-3.92e-06	2.85e-03	0.0
278	5	0.12	8.24e-03	-4.11	-4.12e-06	2.56e-03	0.0
279	1	-1.43e-04	-3.44e-04	-5.61	-1.13e-05	4.69e-06	0.0
279	2	0.19	0.01	-5.18	-4.09e-06	4.16e-03	0.0
279	3	0.16	0.01	-4.13	-5.12e-06	3.56e-03	0.0
279	4	0.13	9.48e-03	-4.16	-5.63e-06	2.85e-03	0.0
279	5	0.12	5.62e-03	-4.17	-5.78e-06	2.56e-03	0.0
279	9	5.76e-03	0.02	-4.26	-2.55e-04	7.73e-05	0.0
280	1	-7.27e-05	-3.66e-04	-5.61	-1.20e-05	2.39e-06	0.0
280	2	0.19	7.22e-03	-5.29	-6.55e-06	4.16e-03	0.0
280	3	0.16	7.16e-03	-4.22	-7.29e-06	3.56e-03	0.0
280	4	0.13	4.70e-03	-4.23	-7.50e-06	2.85e-03	0.0
280	5	0.12	2.73e-03	-4.23	-7.55e-06	2.56e-03	0.0
280	9	5.79e-03	0.02	-4.26	-2.55e-04	7.58e-05	0.0
281	1	0.0	-3.73e-04	-5.61	-1.23e-05	0.0	0.0
281	2	0.19	-2.79e-04	-5.40	-9.05e-06	4.16e-03	0.0
281	3	0.16	-2.87e-04	-4.32	-9.43e-06	3.56e-03	0.0
281	4	0.13	-2.82e-04	-4.31	-9.27e-06	2.84e-03	0.0
281	5	0.12	-2.81e-04	-4.30	-9.22e-06	2.56e-03	0.0
281	9	5.82e-03	0.02	-4.27	-2.55e-04	7.41e-05	0.0
282	1	7.27e-05	-3.66e-04	-5.61	-1.20e-05	-2.39e-06	0.0
282	2	0.19	-7.77e-03	-5.51	-1.12e-05	4.15e-03	0.0
282	3	0.16	-7.72e-03	-4.41	-1.12e-05	3.56e-03	0.0
282	4	0.13	-5.26e-03	-4.38	-1.07e-05	2.84e-03	0.0
282	5	0.12	-3.28e-03	-4.37	-1.05e-05	2.56e-03	0.0
282	9	5.86e-03	0.02	-4.27	-2.55e-04	7.25e-05	0.0
283	2	0.19	-0.01	-5.61	-1.26e-05	4.15e-03	0.0
283	3	0.16	-0.01	-4.50	-1.23e-05	3.55e-03	0.0
283	4	0.13	-0.01	-4.45	-1.15e-05	2.84e-03	0.0
283	5	0.12	-6.13e-03	-4.43	-1.13e-05	2.55e-03	0.0
283	9	5.90e-03	0.02	-4.27	-2.55e-04	7.09e-05	0.0
284	2	0.19	-0.02	-5.71	-1.30e-05	4.15e-03	0.0
284	3	0.16	-0.02	-4.59	-1.25e-05	3.55e-03	0.0
284	4	0.13	-0.01	-4.52	-1.15e-05	2.84e-03	0.0
284	5	0.12	-8.71e-03	-4.50	-1.12e-05	2.55e-03	0.0
285	2	0.20	-0.03	-5.80	-1.22e-05	4.14e-03	0.0
285	3	0.17	-0.03	-4.66	-1.15e-05	3.55e-03	0.0
285	4	0.14	-0.02	-4.58	-1.06e-05	2.83e-03	0.0
285	5	0.12	-0.01	-4.55	-1.03e-05	2.55e-03	0.0
286	2	0.20	-0.03	-5.87	-1.02e-05	4.14e-03	0.0
286	3	0.17	-0.03	-4.72	-9.52e-06	3.54e-03	0.0
286	4	0.14	-0.02	-4.63	-8.72e-06	2.83e-03	0.0
286	5	0.13	-0.01	-4.59	-8.54e-06	2.55e-03	0.0
287	2	0.21	-0.03	-5.92	-7.07e-06	4.14e-03	0.0
287	3	0.18	-0.03	-4.76	-6.54e-06	3.54e-03	0.0
287	4	0.14	-0.02	-4.66	-6.04e-06	2.83e-03	0.0
287	5	0.13	-0.01	-4.62	-6.00e-06	2.54e-03	0.0
288	2	0.22	-0.04	-5.95	-3.13e-06	4.13e-03	0.0
288	3	0.19	-0.04	-4.79	-2.84e-06	3.54e-03	0.0
288	4	0.15	-0.02	-4.69	-2.77e-06	2.83e-03	0.0
288	5	0.13	-0.01	-4.64	-2.91e-06	2.54e-03	0.0
289	1	0.0	0.0	-5.63	0.0	0.0	0.0
289	2	0.84	0.0	-5.41	0.0	6.18e-03	-3.16e-04
289	3	0.72	0.0	-4.33	0.0	5.30e-03	-3.16e-04
289	4	0.58	0.0	-4.32	0.0	4.23e-03	-2.10e-04
289	5	0.51	0.0	-4.32	0.0	3.81e-03	-1.24e-04
289	9	0.02	0.06	-4.32	-3.67e-04	1.10e-04	0.0
290	2	0.22	-0.02	-5.69	0.0	4.15e-03	0.0
290	3	0.19	-0.02	-4.57	0.0	3.55e-03	0.0
290	4	0.15	-0.01	-4.51	0.0	2.84e-03	0.0
290	5	0.13	-7.50e-03	-4.48	0.0	2.55e-03	0.0
290	9	6.03e-03	0.02	-4.31	-2.47e-04	6.84e-05	0.0
291	2	0.22	-0.03	-5.83	0.0	4.14e-03	0.0
291	3	0.19	-0.03	-4.69	0.0	3.55e-03	0.0
291	4	0.15	-0.02	-4.60	0.0	2.83e-03	0.0
291	5	0.13	-0.01	-4.57	0.0	2.55e-03	0.0
292	2	0.23	-0.03	-5.82	4.01e-06	4.14e-03	0.0
292	3	0.20	-0.03	-4.68	3.81e-06	3.55e-03	0.0
292	4	0.16	-0.02	-4.60	3.21e-06	2.83e-03	0.0
292	5	0.14	-0.01	-4.56	2.86e-06	2.55e-03	0.0
293	2	0.23	-0.02	-5.69	2.76e-06	4.15e-03	0.0
293	3	0.20	-0.02	-4.57	2.64e-06	3.55e-03	0.0
293	4	0.16	-0.01	-4.50	2.25e-06	2.84e-03	0.0
293	5	0.14	-7.28e-03	-4.48	2.02e-06	2.55e-03	0.0
293	9	6.04e-03	0.02	-4.31	-2.46e-04	6.84e-05	0.0

294	2	0.23	-0.03	-5.80	6.83e-06	4.14e-03	0.0
294	3	0.20	-0.03	-4.66	6.48e-06	3.55e-03	0.0
294	4	0.16	-0.02	-4.58	5.61e-06	2.83e-03	0.0
294	5	0.14	-9.82e-03	-4.55	5.16e-06	2.55e-03	0.0
295	2	0.23	-0.02	-5.67	4.75e-06	4.15e-03	0.0
295	3	0.20	-0.02	-4.55	4.54e-06	3.55e-03	0.0
295	4	0.16	-0.01	-4.49	3.97e-06	2.84e-03	0.0
295	5	0.14	-6.78e-03	-4.47	3.68e-06	2.55e-03	0.0
295	9	6.03e-03	0.02	-4.31	-2.45e-04	6.87e-05	0.0
296	2	0.24	-0.02	-5.76	9.02e-06	4.15e-03	0.0
296	3	0.21	-0.02	-4.62	8.58e-06	3.55e-03	0.0
296	4	0.16	-0.02	-4.55	7.54e-06	2.84e-03	0.0
296	5	0.14	-8.71e-03	-4.52	7.03e-06	2.55e-03	0.0
297	2	0.23	-0.02	-5.64	6.32e-06	4.15e-03	0.0
297	3	0.20	-0.02	-4.53	6.06e-06	3.56e-03	0.0
297	4	0.16	-0.01	-4.47	5.38e-06	2.84e-03	0.0
297	5	0.14	-6.03e-03	-4.45	5.06e-06	2.55e-03	0.0
297	9	6.02e-03	0.02	-4.31	-2.44e-04	6.92e-05	0.0
298	2	0.24	-0.02	-5.70	1.04e-05	4.15e-03	0.0
298	3	0.21	-0.02	-4.58	9.93e-06	3.55e-03	0.0
298	4	0.17	-0.01	-4.51	8.84e-06	2.84e-03	0.0
298	5	0.14	-7.30e-03	-4.49	8.33e-06	2.55e-03	0.0
298	9	6.05e-03	0.02	-4.32	-2.42e-04	6.86e-05	0.0
299	1	1.49e-04	1.49e-04	-5.61	5.40e-06	-5.40e-06	0.0
299	2	0.24	-0.01	-5.61	7.34e-06	4.15e-03	0.0
299	3	0.21	-0.01	-4.50	7.08e-06	3.56e-03	0.0
299	4	0.16	-8.74e-03	-4.45	6.37e-06	2.84e-03	0.0
299	5	0.14	-5.06e-03	-4.43	6.04e-06	2.56e-03	0.0
299	9	6.00e-03	0.02	-4.32	-2.43e-04	6.99e-05	0.0
300	2	0.25	-0.01	-5.64	1.08e-05	4.15e-03	0.0
300	3	0.22	-0.01	-4.52	1.04e-05	3.56e-03	0.0
300	4	0.17	-9.84e-03	-4.47	9.44e-06	2.84e-03	0.0
300	5	0.14	-5.64e-03	-4.45	8.99e-06	2.55e-03	0.0
300	9	6.02e-03	0.02	-4.33	-2.41e-04	6.98e-05	0.0
301	1	1.17e-04	1.75e-04	-5.61	6.35e-06	-4.24e-06	0.0
301	2	0.24	-0.01	-5.56	7.73e-06	4.16e-03	0.0
301	3	0.21	-0.01	-4.46	7.53e-06	3.56e-03	0.0
301	4	0.16	-6.80e-03	-4.42	6.88e-06	2.84e-03	0.0
301	5	0.14	-3.91e-03	-4.40	6.58e-06	2.56e-03	0.0
301	9	5.98e-03	0.02	-4.32	-2.42e-04	7.08e-05	0.0
302	1	1.05e-04	2.54e-04	-5.61	9.11e-06	-3.77e-06	0.0
302	2	0.25	-0.01	-5.56	1.03e-05	4.16e-03	0.0
302	3	0.22	-0.01	-4.46	1.01e-05	3.56e-03	0.0
302	4	0.17	-6.68e-03	-4.42	9.35e-06	2.84e-03	0.0
302	5	0.14	-3.79e-03	-4.40	9.00e-06	2.56e-03	0.0
302	9	5.98e-03	0.02	-4.33	-2.40e-04	7.11e-05	0.0
303	1	8.05e-05	1.94e-04	-5.61	7.05e-06	-2.92e-06	0.0
303	2	0.24	-7.04e-03	-5.51	7.52e-06	4.16e-03	0.0
303	3	0.21	-7.05e-03	-4.41	7.43e-06	3.56e-03	0.0
303	4	0.16	-4.62e-03	-4.38	6.91e-06	2.84e-03	0.0
303	5	0.14	-2.63e-03	-4.37	6.68e-06	2.56e-03	0.0
303	9	5.95e-03	0.02	-4.32	-2.42e-04	7.19e-05	0.0
304	1	5.37e-05	2.70e-04	-5.61	9.67e-06	-1.92e-06	0.0
304	2	0.25	-5.07e-03	-5.48	9.08e-06	4.16e-03	0.0
304	3	0.22	-5.09e-03	-4.39	9.12e-06	3.56e-03	0.0
304	4	0.17	-3.29e-03	-4.36	8.64e-06	2.85e-03	0.0
304	5	0.14	-1.82e-03	-4.35	8.43e-06	2.56e-03	0.0
304	9	5.93e-03	0.02	-4.33	-2.39e-04	7.26e-05	0.0
305	1	4.10e-05	2.06e-04	-5.61	7.49e-06	-1.49e-06	0.0
305	2	0.24	-3.50e-03	-5.46	6.77e-06	4.16e-03	0.0
305	3	0.21	-3.51e-03	-4.37	6.84e-06	3.56e-03	0.0
305	4	0.17	-2.27e-03	-4.35	6.51e-06	2.85e-03	0.0
305	5	0.14	-1.26e-03	-4.34	6.37e-06	2.56e-03	0.0
305	9	5.92e-03	0.02	-4.32	-2.41e-04	7.30e-05	0.0
306	1	0.0	2.75e-04	-5.61	9.86e-06	0.0	0.0
306	2	0.25	2.06e-04	-5.40	7.28e-06	4.16e-03	0.0
306	3	0.22	2.12e-04	-4.32	7.58e-06	3.56e-03	0.0
306	4	0.17	2.08e-04	-4.31	7.46e-06	2.85e-03	0.0
306	5	0.14	2.07e-04	-4.30	7.41e-06	2.56e-03	0.0
306	9	5.88e-03	0.02	-4.33	-2.39e-04	7.42e-05	0.0
307	1	0.0	2.10e-04	-5.61	7.63e-06	0.0	0.0
307	2	0.24	1.57e-04	-5.40	5.64e-06	4.16e-03	0.0
307	3	0.21	1.62e-04	-4.32	5.87e-06	3.56e-03	0.0
307	4	0.17	1.59e-04	-4.31	5.77e-06	2.85e-03	0.0
307	5	0.14	1.58e-04	-4.30	5.74e-06	2.56e-03	0.0
307	9	5.88e-03	0.02	-4.32	-2.41e-04	7.42e-05	0.0
308	1	-5.37e-05	2.70e-04	-5.61	9.67e-06	1.92e-06	0.0

308	2	0.25	5.48e-03	-5.31	5.20e-06	4.16e-03	0.0
308	3	0.22	5.51e-03	-4.24	5.76e-06	3.56e-03	0.0
308	4	0.17	3.70e-03	-4.25	5.99e-06	2.85e-03	0.0
308	5	0.14	2.23e-03	-4.25	6.11e-06	2.56e-03	0.0
308	9	5.83e-03	0.02	-4.32	-2.40e-04	7.57e-05	0.0
309	1	-4.10e-05	2.06e-04	-5.61	7.49e-06	1.49e-06	0.0
309	2	0.24	3.81e-03	-5.34	4.28e-06	4.16e-03	0.0
309	3	0.21	3.83e-03	-4.27	4.68e-06	3.57e-03	0.0
309	4	0.17	2.58e-03	-4.27	4.82e-06	2.85e-03	0.0
309	5	0.14	1.57e-03	-4.27	4.89e-06	2.56e-03	0.0
309	9	5.84e-03	0.02	-4.32	-2.41e-04	7.54e-05	0.0
310	1	-1.05e-04	2.54e-04	-5.61	9.11e-06	3.77e-06	0.0
310	2	0.25	0.01	-5.23	3.13e-06	4.16e-03	0.0
310	3	0.22	0.01	-4.17	3.88e-06	3.57e-03	0.0
310	4	0.17	7.06e-03	-4.19	4.43e-06	2.85e-03	0.0
310	5	0.14	4.17e-03	-4.20	4.70e-06	2.56e-03	0.0
310	9	5.78e-03	0.02	-4.32	-2.40e-04	7.72e-05	0.0
311	1	-8.05e-05	1.94e-04	-5.61	7.05e-06	2.92e-06	0.0
311	2	0.24	7.33e-03	-5.28	2.90e-06	4.16e-03	0.0
311	3	0.21	7.35e-03	-4.22	3.42e-06	3.57e-03	0.0
311	4	0.16	4.91e-03	-4.23	3.76e-06	2.85e-03	0.0
311	5	0.14	2.92e-03	-4.23	3.93e-06	2.56e-03	0.0
311	9	5.81e-03	0.02	-4.31	-2.42e-04	7.65e-05	0.0
312	1	-1.53e-04	2.29e-04	-5.61	8.20e-06	5.48e-06	0.0
312	2	0.25	0.02	-5.16	1.30e-06	4.16e-03	0.0
312	3	0.22	0.02	-4.11	2.17e-06	3.57e-03	0.0
312	4	0.17	0.01	-4.14	2.96e-06	2.85e-03	0.0
312	5	0.14	5.98e-03	-4.15	3.34e-06	2.56e-03	0.0
312	9	5.74e-03	0.02	-4.32	-2.41e-04	7.85e-05	0.0
313	1	-1.17e-04	1.75e-04	-5.61	6.35e-06	4.24e-06	0.0
313	2	0.24	0.01	-5.23	1.64e-06	4.16e-03	0.0
313	3	0.21	0.01	-4.17	2.23e-06	3.57e-03	0.0
313	4	0.16	7.06e-03	-4.19	2.72e-06	2.85e-03	0.0
313	5	0.14	4.18e-03	-4.20	2.96e-06	2.56e-03	0.0
313	9	5.78e-03	0.02	-4.31	-2.42e-04	7.75e-05	0.0
314	1	-1.95e-04	1.95e-04	-5.61	6.97e-06	6.97e-06	0.0
314	2	0.24	0.02	-5.09	0.0	4.16e-03	0.0
314	3	0.21	0.02	-4.05	0.0	3.56e-03	0.0
314	4	0.17	0.01	-4.10	1.71e-06	2.85e-03	0.0
314	5	0.14	7.59e-03	-4.11	2.15e-06	2.56e-03	0.0
314	9	5.71e-03	0.02	-4.31	-2.42e-04	7.96e-05	0.0
315	1	-1.49e-04	1.49e-04	-5.61	5.40e-06	5.40e-06	0.0
315	2	0.24	0.01	-5.19	0.0	4.16e-03	0.0
315	3	0.21	0.01	-4.14	1.23e-06	3.57e-03	0.0
315	4	0.16	8.96e-03	-4.16	1.80e-06	2.85e-03	0.0
315	5	0.14	5.28e-03	-4.17	2.08e-06	2.56e-03	0.0
315	9	5.76e-03	0.02	-4.31	-2.43e-04	7.84e-05	0.0
316	1	-2.29e-04	1.53e-04	-5.61	5.48e-06	8.20e-06	0.0
316	2	0.24	0.02	-5.04	0.0	4.16e-03	0.0
316	3	0.21	0.02	-4.01	0.0	3.56e-03	0.0
316	4	0.16	0.02	-4.06	0.0	2.85e-03	0.0
316	5	0.14	8.94e-03	-4.08	1.21e-06	2.56e-03	0.0
317	1	-1.75e-04	1.17e-04	-5.61	4.24e-06	6.35e-06	0.0
317	2	0.23	0.02	-5.15	0.0	4.16e-03	0.0
317	3	0.20	0.02	-4.10	0.0	3.57e-03	0.0
317	4	0.16	0.01	-4.14	1.03e-06	2.85e-03	0.0
317	5	0.14	6.20e-03	-4.15	1.32e-06	2.56e-03	0.0
317	9	5.74e-03	0.02	-4.31	-2.44e-04	7.91e-05	0.0
318	1	-2.54e-04	1.05e-04	-5.61	3.77e-06	9.11e-06	0.0
318	2	0.23	0.03	-5.00	-1.26e-06	4.16e-03	0.0
318	3	0.20	0.03	-3.97	0.0	3.56e-03	0.0
318	4	0.16	0.02	-4.03	0.0	2.85e-03	0.0
318	5	0.14	9.98e-03	-4.06	0.0	2.56e-03	0.0
319	1	-1.94e-04	8.05e-05	-5.61	2.92e-06	7.05e-06	0.0
319	2	0.23	0.02	-5.12	0.0	4.16e-03	0.0
319	3	0.20	0.02	-4.08	0.0	3.57e-03	0.0
319	4	0.16	0.01	-4.12	0.0	2.85e-03	0.0
319	5	0.14	6.90e-03	-4.13	0.0	2.56e-03	0.0
319	9	5.72e-03	0.02	-4.30	-2.45e-04	7.95e-05	0.0
320	1	-2.70e-04	5.37e-05	-5.61	1.92e-06	9.67e-06	0.0
320	2	0.23	0.03	-4.97	-1.17e-06	4.16e-03	0.0
320	3	0.20	0.03	-3.95	0.0	3.56e-03	0.0
320	4	0.16	0.02	-4.02	0.0	2.85e-03	0.0
320	5	0.14	0.01	-4.04	0.0	2.56e-03	0.0
321	1	-2.06e-04	4.10e-05	-5.61	1.49e-06	7.49e-06	0.0
321	2	0.23	0.02	-5.11	0.0	4.16e-03	0.0
321	3	0.20	0.02	-4.07	0.0	3.56e-03	0.0

321	4	0.16	0.01	-4.11	0.0	2.85e-03	0.0
321	5	0.13	7.34e-03	-4.12	0.0	2.56e-03	0.0
321	9	5.72e-03	0.02	-4.30	-2.46e-04	7.98e-05	0.0
322	1	-2.75e-04	0.0	-5.61	0.0	9.86e-06	0.0
322	2	0.22	0.03	-4.97	0.0	4.16e-03	0.0
322	3	0.19	0.03	-3.95	0.0	3.56e-03	0.0
322	4	0.15	0.02	-4.01	0.0	2.85e-03	0.0
322	5	0.13	0.01	-4.04	0.0	2.56e-03	0.0
323	1	-2.10e-04	0.0	-5.61	0.0	7.63e-06	0.0
323	2	0.22	0.02	-5.10	0.0	4.16e-03	0.0
323	3	0.19	0.02	-4.06	0.0	3.56e-03	0.0
323	4	0.15	0.01	-4.10	0.0	2.85e-03	0.0
323	5	0.13	7.50e-03	-4.12	0.0	2.56e-03	0.0
323	9	5.72e-03	0.02	-4.29	-2.47e-04	7.98e-05	0.0
324	1	-2.70e-04	-5.37e-05	-5.61	-1.92e-06	9.67e-06	0.0
324	2	0.22	0.03	-4.97	0.0	4.16e-03	0.0
324	3	0.19	0.03	-3.95	0.0	3.56e-03	0.0
324	4	0.15	0.02	-4.02	0.0	2.85e-03	0.0
324	5	0.13	0.01	-4.04	0.0	2.56e-03	0.0
325	1	-2.06e-04	-4.10e-05	-5.61	-1.49e-06	7.49e-06	0.0
325	2	0.22	0.02	-5.11	0.0	4.16e-03	0.0
325	3	0.19	0.02	-4.07	0.0	3.56e-03	0.0
325	4	0.15	0.01	-4.11	0.0	2.85e-03	0.0
325	5	0.13	7.38e-03	-4.12	0.0	2.56e-03	0.0
325	9	5.72e-03	0.02	-4.29	-2.48e-04	7.96e-05	0.0
326	1	-2.54e-04	-1.05e-04	-5.61	-3.77e-06	9.11e-06	0.0
326	2	0.21	0.03	-5.00	0.0	4.16e-03	0.0
326	3	0.18	0.03	-3.97	0.0	3.56e-03	0.0
326	4	0.15	0.02	-4.03	-1.11e-06	2.85e-03	0.0
326	5	0.13	0.01	-4.06	-1.11e-06	2.56e-03	0.0
327	1	-1.94e-04	-8.05e-05	-5.61	-2.92e-06	7.05e-06	0.0
327	2	0.22	0.02	-5.12	0.0	4.16e-03	0.0
327	3	0.19	0.02	-4.08	0.0	3.56e-03	0.0
327	4	0.15	0.01	-4.12	-1.09e-06	2.85e-03	0.0
327	5	0.13	6.96e-03	-4.13	-1.09e-06	2.56e-03	0.0
327	9	5.73e-03	0.02	-4.29	-2.49e-04	7.93e-05	0.0
328	1	-2.29e-04	-1.53e-04	-5.61	-5.48e-06	8.20e-06	0.0
328	2	0.21	0.02	-5.04	0.0	4.16e-03	0.0
328	3	0.18	0.02	-4.01	-1.22e-06	3.56e-03	0.0
328	4	0.14	0.02	-4.06	-1.66e-06	2.85e-03	0.0
328	5	0.13	9.23e-03	-4.08	-1.74e-06	2.56e-03	0.0
329	1	-1.75e-04	-1.17e-04	-5.61	-4.24e-06	6.35e-06	0.0
329	2	0.21	0.02	-5.15	0.0	4.16e-03	0.0
329	3	0.18	0.02	-4.10	-1.34e-06	3.56e-03	0.0
329	4	0.15	0.01	-4.14	-1.61e-06	2.85e-03	0.0
329	5	0.13	6.27e-03	-4.15	-1.66e-06	2.56e-03	0.0
329	9	5.75e-03	0.02	-4.29	-2.50e-04	7.87e-05	0.0
330	1	-1.95e-04	-1.95e-04	-5.61	-6.97e-06	6.97e-06	0.0
330	2	0.20	0.02	-5.09	-1.09e-06	4.16e-03	0.0
330	3	0.17	0.02	-4.05	-1.97e-06	3.56e-03	0.0
330	4	0.14	0.01	-4.10	-2.48e-06	2.85e-03	0.0
330	5	0.13	7.86e-03	-4.11	-2.61e-06	2.56e-03	0.0
331	1	-1.49e-04	-1.49e-04	-5.61	-5.40e-06	5.40e-06	0.0
331	2	0.21	0.01	-5.19	-1.38e-06	4.16e-03	0.0
331	3	0.18	0.01	-4.14	-1.97e-06	3.57e-03	0.0
331	4	0.14	9.03e-03	-4.16	-2.29e-06	2.85e-03	0.0
331	5	0.13	5.32e-03	-4.17	-2.37e-06	2.56e-03	0.0
331	9	5.76e-03	0.02	-4.28	-2.51e-04	7.80e-05	0.0
332	1	-1.53e-04	-2.29e-04	-5.61	-8.20e-06	5.48e-06	0.0
332	2	0.20	0.02	-5.16	-2.22e-06	4.16e-03	0.0
332	3	0.17	0.02	-4.11	-3.09e-06	3.56e-03	0.0
332	4	0.14	0.01	-4.14	-3.57e-06	2.85e-03	0.0
332	5	0.12	6.16e-03	-4.15	-3.70e-06	2.56e-03	0.0
332	9	5.76e-03	0.02	-4.27	-2.53e-04	7.80e-05	0.0
333	1	-1.17e-04	-1.75e-04	-5.61	-6.35e-06	4.24e-06	0.0
333	2	0.21	0.01	-5.23	-2.22e-06	4.16e-03	0.0
333	3	0.18	0.01	-4.17	-2.82e-06	3.57e-03	0.0
333	4	0.14	7.07e-03	-4.19	-3.11e-06	2.85e-03	0.0
333	5	0.13	4.16e-03	-4.20	-3.19e-06	2.56e-03	0.0
333	9	5.78e-03	0.02	-4.28	-2.52e-04	7.72e-05	0.0
334	1	-1.05e-04	-2.54e-04	-5.61	-9.11e-06	3.77e-06	0.0
334	2	0.20	0.01	-5.23	-3.76e-06	4.16e-03	0.0
334	3	0.17	0.01	-4.17	-4.51e-06	3.56e-03	0.0
334	4	0.14	7.12e-03	-4.19	-4.85e-06	2.85e-03	0.0
334	5	0.12	4.19e-03	-4.20	-4.95e-06	2.56e-03	0.0
334	9	5.78e-03	0.02	-4.27	-2.54e-04	7.68e-05	0.0
335	1	-8.05e-05	-1.94e-04	-5.61	-7.05e-06	2.92e-06	0.0

335	2	0.21	7.34e-03	-5.28	-3.30e-06	4.16e-03	0.0
335	3	0.18	7.31e-03	-4.22	-3.82e-06	3.56e-03	0.0
335	4	0.14	4.82e-03	-4.23	-4.03e-06	2.85e-03	0.0
335	5	0.13	2.82e-03	-4.23	-4.08e-06	2.56e-03	0.0
335	9	5.80e-03	0.02	-4.28	-2.52e-04	7.63e-05	0.0
336	1	-5.37e-05	-2.70e-04	-5.61	-9.67e-06	1.92e-06	0.0
336	2	0.20	5.42e-03	-5.31	-5.52e-06	4.16e-03	0.0
336	3	0.17	5.39e-03	-4.24	-6.08e-06	3.56e-03	0.0
336	4	0.13	3.53e-03	-4.25	-6.21e-06	2.85e-03	0.0
336	5	0.12	2.04e-03	-4.25	-6.24e-06	2.56e-03	0.0
336	9	5.81e-03	0.02	-4.27	-2.54e-04	7.55e-05	0.0
337	1	-4.10e-05	-2.06e-04	-5.61	-7.49e-06	1.49e-06	0.0
337	2	0.20	3.67e-03	-5.34	-4.49e-06	4.16e-03	0.0
337	3	0.17	3.65e-03	-4.27	-4.88e-06	3.56e-03	0.0
337	4	0.14	2.38e-03	-4.27	-4.95e-06	2.85e-03	0.0
337	5	0.13	1.36e-03	-4.27	-4.97e-06	2.56e-03	0.0
337	9	5.83e-03	0.02	-4.28	-2.53e-04	7.52e-05	0.0
338	1	0.0	-2.75e-04	-5.61	-9.86e-06	0.0	0.0
338	2	0.20	-2.06e-04	-5.40	-7.28e-06	4.16e-03	0.0
338	3	0.17	-2.12e-04	-4.32	-7.58e-06	3.56e-03	0.0
338	4	0.13	-2.08e-04	-4.31	-7.46e-06	2.85e-03	0.0
338	5	0.12	-2.07e-04	-4.30	-7.41e-06	2.56e-03	0.0
338	9	5.84e-03	0.02	-4.27	-2.54e-04	7.42e-05	0.0
339	1	0.0	-2.10e-04	-5.61	-7.63e-06	0.0	0.0
339	2	0.20	-1.57e-04	-5.40	-5.64e-06	4.16e-03	0.0
339	3	0.17	-1.62e-04	-4.32	-5.87e-06	3.56e-03	0.0
339	4	0.14	-1.59e-04	-4.31	-5.77e-06	2.85e-03	0.0
339	5	0.13	-1.58e-04	-4.30	-5.74e-06	2.56e-03	0.0
339	9	5.85e-03	0.02	-4.28	-2.53e-04	7.42e-05	0.0
340	1	5.37e-05	-2.70e-04	-5.61	-9.67e-06	-1.92e-06	0.0
340	2	0.20	-5.83e-03	-5.48	-8.76e-06	4.16e-03	0.0
340	3	0.17	-5.81e-03	-4.39	-8.80e-06	3.56e-03	0.0
340	4	0.13	-3.94e-03	-4.36	-8.43e-06	2.84e-03	0.0
340	5	0.12	-2.44e-03	-4.35	-8.30e-06	2.56e-03	0.0
340	9	5.87e-03	0.02	-4.28	-2.54e-04	7.28e-05	0.0
341	1	4.10e-05	-2.06e-04	-5.61	-7.49e-06	-1.49e-06	0.0
341	2	0.20	-3.98e-03	-5.46	-6.57e-06	4.16e-03	0.0
341	3	0.17	-3.97e-03	-4.37	-6.63e-06	3.56e-03	0.0
341	4	0.14	-2.69e-03	-4.35	-6.38e-06	2.85e-03	0.0
341	5	0.13	-1.67e-03	-4.34	-6.29e-06	2.56e-03	0.0
341	9	5.88e-03	0.02	-4.28	-2.53e-04	7.32e-05	0.0
342	1	1.05e-04	-2.54e-04	-5.61	-9.11e-06	-3.77e-06	0.0
342	2	0.20	-0.01	-5.56	-9.70e-06	4.15e-03	0.0
342	3	0.17	-0.01	-4.46	-9.51e-06	3.56e-03	0.0
342	4	0.14	-7.51e-03	-4.42	-8.93e-06	2.84e-03	0.0
342	5	0.12	-4.57e-03	-4.40	-8.75e-06	2.56e-03	0.0
342	9	5.90e-03	0.02	-4.28	-2.54e-04	7.15e-05	0.0
343	1	8.05e-05	-1.94e-04	-5.61	-7.05e-06	-2.92e-06	0.0
343	2	0.21	-7.63e-03	-5.51	-7.11e-06	4.16e-03	0.0
343	3	0.18	-7.61e-03	-4.41	-7.03e-06	3.56e-03	0.0
343	4	0.14	-5.12e-03	-4.38	-6.64e-06	2.84e-03	0.0
343	5	0.13	-3.11e-03	-4.37	-6.52e-06	2.56e-03	0.0
343	9	5.91e-03	0.02	-4.29	-2.52e-04	7.21e-05	0.0
344	2	0.20	-0.02	-5.64	-9.89e-06	4.15e-03	0.0
344	3	0.17	-0.02	-4.52	-9.53e-06	3.56e-03	0.0
344	4	0.14	-0.01	-4.47	-8.84e-06	2.84e-03	0.0
344	5	0.12	-6.50e-03	-4.45	-8.63e-06	2.55e-03	0.0
344	9	5.94e-03	0.02	-4.28	-2.53e-04	7.03e-05	0.0
345	1	1.17e-04	-1.75e-04	-5.61	-6.35e-06	-4.24e-06	0.0
345	2	0.21	-0.01	-5.56	-7.15e-06	4.16e-03	0.0
345	3	0.18	-0.01	-4.46	-6.95e-06	3.56e-03	0.0
345	4	0.14	-7.34e-03	-4.42	-6.49e-06	2.84e-03	0.0
345	5	0.13	-4.42e-03	-4.40	-6.35e-06	2.56e-03	0.0
345	9	5.93e-03	0.02	-4.29	-2.52e-04	7.12e-05	0.0
346	2	0.20	-0.02	-5.70	-9.21e-06	4.15e-03	0.0
346	3	0.17	-0.02	-4.58	-8.76e-06	3.55e-03	0.0
346	4	0.14	-0.01	-4.51	-8.07e-06	2.84e-03	0.0
346	5	0.13	-8.16e-03	-4.49	-7.88e-06	2.55e-03	0.0
347	1	1.49e-04	-1.49e-04	-5.61	-5.40e-06	-5.40e-06	0.0
347	2	0.21	-0.01	-5.61	-6.59e-06	4.15e-03	0.0
347	3	0.18	-0.01	-4.50	-6.33e-06	3.56e-03	0.0
347	4	0.14	-9.25e-03	-4.45	-5.88e-06	2.84e-03	0.0
347	5	0.13	-5.55e-03	-4.43	-5.75e-06	2.56e-03	0.0
347	9	5.96e-03	0.02	-4.29	-2.51e-04	7.03e-05	0.0
348	2	0.21	-0.02	-5.76	-7.65e-06	4.15e-03	0.0
348	3	0.18	-0.02	-4.62	-7.20e-06	3.55e-03	0.0
348	4	0.14	-0.02	-4.55	-6.63e-06	2.84e-03	0.0

348	5	0.13	-9.46e-03	-4.52	-6.49e-06	2.55e-03	0.0
349	2	0.21	-0.02	-5.64	-5.45e-06	4.15e-03	0.0
349	3	0.18	-0.02	-4.53	-5.18e-06	3.56e-03	0.0
349	4	0.15	-0.01	-4.47	-4.80e-06	2.84e-03	0.0
349	5	0.13	-6.45e-03	-4.45	-4.71e-06	2.55e-03	0.0
349	9	5.98e-03	0.02	-4.29	-2.50e-04	6.95e-05	0.0
350	2	0.21	-0.03	-5.80	-5.31e-06	4.14e-03	0.0
350	3	0.18	-0.03	-4.66	-4.95e-06	3.55e-03	0.0
350	4	0.15	-0.02	-4.58	-4.60e-06	2.83e-03	0.0
350	5	0.13	-0.01	-4.55	-4.56e-06	2.55e-03	0.0
351	2	0.22	-0.02	-5.67	-3.78e-06	4.15e-03	0.0
351	3	0.19	-0.02	-4.55	-3.57e-06	3.55e-03	0.0
351	4	0.15	-0.01	-4.49	-3.33e-06	2.84e-03	0.0
351	5	0.13	-7.08e-03	-4.47	-3.30e-06	2.55e-03	0.0
351	9	6.00e-03	0.02	-4.30	-2.50e-04	6.90e-05	0.0
352	2	0.22	-0.03	-5.82	-2.39e-06	4.14e-03	0.0
352	3	0.19	-0.03	-4.68	-2.19e-06	3.55e-03	0.0
352	4	0.15	-0.02	-4.60	-2.14e-06	2.83e-03	0.0
352	5	0.13	-0.01	-4.56	-2.22e-06	2.55e-03	0.0
353	2	0.22	-0.02	-5.69	-1.72e-06	4.15e-03	0.0
353	3	0.19	-0.02	-4.57	-1.61e-06	3.55e-03	0.0
353	4	0.15	-0.01	-4.50	-1.57e-06	2.84e-03	0.0
353	5	0.13	-7.44e-03	-4.48	-1.62e-06	2.55e-03	0.0
353	9	6.02e-03	0.02	-4.30	-2.48e-04	6.86e-05	0.0
354	1	1.75e-04	0.0	-5.61	0.0	-6.39e-06	0.0
354	2	0.22	-8.21e-03	-5.53	0.0	4.15e-03	0.0
354	3	0.19	-8.21e-03	-4.43	0.0	3.56e-03	0.0
354	4	0.15	-5.45e-03	-4.39	0.0	2.84e-03	0.0
354	5	0.13	-3.21e-03	-4.38	0.0	2.55e-03	0.0
354	9	6.01e-03	0.02	-4.30	-2.47e-04	6.93e-05	0.0
355	1	1.80e-04	0.0	-5.61	0.0	-6.58e-06	0.0
355	2	0.22	-0.01	-5.61	0.0	4.15e-03	0.0
355	3	0.19	-0.01	-4.50	0.0	3.56e-03	0.0
355	4	0.15	-9.09e-03	-4.45	0.0	2.84e-03	0.0
355	5	0.13	-5.36e-03	-4.43	0.0	2.55e-03	0.0
355	9	6.01e-03	0.02	-4.30	-2.47e-04	6.92e-05	0.0
356	1	1.77e-04	3.52e-05	-5.61	1.28e-06	-6.45e-06	0.0
356	2	0.23	-0.01	-5.61	2.16e-06	4.15e-03	0.0
356	3	0.20	-0.01	-4.49	2.07e-06	3.56e-03	0.0
356	4	0.16	-8.86e-03	-4.45	1.79e-06	2.84e-03	0.0
356	5	0.13	-5.20e-03	-4.43	1.63e-06	2.55e-03	0.0
356	9	6.01e-03	0.02	-4.31	-2.46e-04	6.92e-05	0.0
357	1	1.72e-04	3.42e-05	-5.61	1.25e-06	-6.27e-06	0.0
357	2	0.23	-8.01e-03	-5.52	1.72e-06	4.15e-03	0.0
357	3	0.20	-8.01e-03	-4.42	1.68e-06	3.56e-03	0.0
357	4	0.15	-5.31e-03	-4.39	1.49e-06	2.84e-03	0.0
357	5	0.13	-3.11e-03	-4.38	1.38e-06	2.55e-03	0.0
357	9	6.01e-03	0.02	-4.30	-2.46e-04	6.94e-05	0.0
358	1	1.67e-04	6.90e-05	-5.61	2.52e-06	-6.07e-06	0.0
358	2	0.23	-0.01	-5.59	3.77e-06	4.15e-03	0.0
358	3	0.20	-0.01	-4.48	3.62e-06	3.56e-03	0.0
358	4	0.16	-8.29e-03	-4.44	3.20e-06	2.84e-03	0.0
358	5	0.14	-4.85e-03	-4.42	2.99e-06	2.55e-03	0.0
358	9	6.01e-03	0.02	-4.31	-2.45e-04	6.95e-05	0.0
359	1	1.62e-04	6.70e-05	-5.61	2.45e-06	-5.90e-06	0.0
359	2	0.23	-7.50e-03	-5.52	3.10e-06	4.15e-03	0.0
359	3	0.20	-7.50e-03	-4.42	3.02e-06	3.56e-03	0.0
359	4	0.16	-4.96e-03	-4.39	2.73e-06	2.84e-03	0.0
359	5	0.13	-2.90e-03	-4.38	2.59e-06	2.55e-03	0.0
359	9	6.00e-03	0.02	-4.31	-2.45e-04	6.96e-05	0.0
360	1	1.50e-04	1.00e-04	-5.61	3.65e-06	-5.47e-06	0.0
360	2	0.23	-0.01	-5.57	5.06e-06	4.15e-03	0.0
360	3	0.20	-0.01	-4.47	4.87e-06	3.56e-03	0.0
360	4	0.16	-7.41e-03	-4.43	4.37e-06	2.84e-03	0.0
360	5	0.14	-4.32e-03	-4.41	4.13e-06	2.56e-03	0.0
360	9	6.00e-03	0.02	-4.31	-2.44e-04	6.99e-05	0.0
361	1	1.46e-04	9.73e-05	-5.61	3.55e-06	-5.31e-06	0.0
361	2	0.23	-6.71e-03	-5.50	4.23e-06	4.15e-03	0.0
361	3	0.20	-6.71e-03	-4.41	4.13e-06	3.56e-03	0.0
361	4	0.16	-4.43e-03	-4.38	3.78e-06	2.84e-03	0.0
361	5	0.14	-2.57e-03	-4.37	3.62e-06	2.56e-03	0.0
361	9	5.99e-03	0.02	-4.31	-2.45e-04	7.01e-05	0.0
362	1	1.28e-04	1.28e-04	-5.61	4.65e-06	-4.65e-06	0.0
362	2	0.23	-9.47e-03	-5.55	5.92e-06	4.16e-03	0.0
362	3	0.20	-9.49e-03	-4.44	5.74e-06	3.56e-03	0.0
362	4	0.16	-6.25e-03	-4.41	5.21e-06	2.84e-03	0.0
362	5	0.14	-3.62e-03	-4.39	4.97e-06	2.56e-03	0.0

362	9	5.98e-03	0.02	-4.31	-2.44e-04	7.05e-05	0.0
363	1	1.24e-04	1.24e-04	-5.61	4.52e-06	-4.52e-06	0.0
363	2	0.23	-5.66e-03	-5.49	5.04e-06	4.15e-03	0.0
363	3	0.20	-5.67e-03	-4.39	4.95e-06	3.56e-03	0.0
363	4	0.16	-3.72e-03	-4.37	4.58e-06	2.84e-03	0.0
363	5	0.14	-2.15e-03	-4.36	4.41e-06	2.56e-03	0.0
363	9	5.97e-03	0.02	-4.31	-2.44e-04	7.07e-05	0.0
364	1	1.00e-04	1.50e-04	-5.61	5.47e-06	-3.65e-06	0.0
364	2	0.24	-7.39e-03	-5.52	6.30e-06	4.16e-03	0.0
364	3	0.21	-7.40e-03	-4.42	6.17e-06	3.56e-03	0.0
364	4	0.16	-4.86e-03	-4.39	5.68e-06	2.84e-03	0.0
364	5	0.14	-2.80e-03	-4.37	5.46e-06	2.56e-03	0.0
364	9	5.96e-03	0.02	-4.31	-2.43e-04	7.13e-05	0.0
365	1	9.73e-05	1.46e-04	-5.61	5.31e-06	-3.55e-06	0.0
365	2	0.23	-4.40e-03	-5.47	5.47e-06	4.16e-03	0.0
365	3	0.20	-4.41e-03	-4.38	5.43e-06	3.56e-03	0.0
365	4	0.16	-2.88e-03	-4.35	5.08e-06	2.84e-03	0.0
365	5	0.14	-1.65e-03	-4.35	4.92e-06	2.56e-03	0.0
365	9	5.95e-03	0.02	-4.31	-2.43e-04	7.14e-05	0.0
366	1	6.90e-05	1.67e-04	-5.61	6.07e-06	-2.52e-06	0.0
366	2	0.24	-5.04e-03	-5.48	6.20e-06	4.16e-03	0.0
366	3	0.21	-5.04e-03	-4.39	6.16e-06	3.56e-03	0.0
366	4	0.16	-3.30e-03	-4.36	5.77e-06	2.85e-03	0.0
366	5	0.14	-1.88e-03	-4.35	5.59e-06	2.56e-03	0.0
366	9	5.94e-03	0.02	-4.31	-2.43e-04	7.22e-05	0.0
367	1	6.70e-05	1.62e-04	-5.61	5.90e-06	-2.45e-06	0.0
367	2	0.23	-2.98e-03	-5.45	5.54e-06	4.16e-03	0.0
367	3	0.20	-2.99e-03	-4.36	5.56e-06	3.56e-03	0.0
367	4	0.16	-1.94e-03	-4.34	5.27e-06	2.84e-03	0.0
367	5	0.14	-1.08e-03	-4.33	5.15e-06	2.56e-03	0.0
367	9	5.93e-03	0.02	-4.31	-2.43e-04	7.23e-05	0.0
368	1	3.52e-05	1.77e-04	-5.61	6.45e-06	-1.28e-06	0.0
368	2	0.24	-2.50e-03	-5.44	5.68e-06	4.16e-03	0.0
368	3	0.21	-2.50e-03	-4.35	5.76e-06	3.56e-03	0.0
368	4	0.16	-1.61e-03	-4.33	5.51e-06	2.85e-03	0.0
368	5	0.14	-8.86e-04	-4.33	5.40e-06	2.56e-03	0.0
368	9	5.91e-03	0.02	-4.31	-2.42e-04	7.32e-05	0.0
369	1	3.42e-05	1.72e-04	-5.61	6.27e-06	-1.25e-06	0.0
369	2	0.23	-1.45e-03	-5.42	5.26e-06	4.16e-03	0.0
369	3	0.20	-1.45e-03	-4.34	5.37e-06	3.56e-03	0.0
369	4	0.16	-9.19e-04	-4.32	5.18e-06	2.85e-03	0.0
369	5	0.14	-4.85e-04	-4.32	5.09e-06	2.56e-03	0.0
369	9	5.90e-03	0.02	-4.31	-2.42e-04	7.32e-05	0.0
370	1	0.0	1.80e-04	-5.61	6.58e-06	0.0	0.0
370	2	0.24	1.35e-04	-5.40	4.86e-06	4.16e-03	0.0
370	3	0.21	1.39e-04	-4.32	5.06e-06	3.56e-03	0.0
370	4	0.16	1.37e-04	-4.31	4.97e-06	2.85e-03	0.0
370	5	0.14	1.36e-04	-4.30	4.94e-06	2.56e-03	0.0
370	9	5.88e-03	0.02	-4.31	-2.42e-04	7.42e-05	0.0
371	1	0.0	1.75e-04	-5.61	6.39e-06	0.0	0.0
371	2	0.23	1.31e-04	-5.40	4.72e-06	4.16e-03	0.0
371	3	0.20	1.35e-04	-4.32	4.92e-06	3.56e-03	0.0
371	4	0.16	1.33e-04	-4.31	4.84e-06	2.85e-03	0.0
371	5	0.14	1.32e-04	-4.30	4.81e-06	2.56e-03	0.0
371	9	5.88e-03	0.02	-4.31	-2.42e-04	7.42e-05	0.0
372	1	-3.52e-05	1.77e-04	-5.61	6.45e-06	1.28e-06	0.0
372	2	0.24	2.76e-03	-5.36	3.84e-06	4.16e-03	0.0
372	3	0.21	2.77e-03	-4.28	4.16e-06	3.57e-03	0.0
372	4	0.16	1.88e-03	-4.28	4.25e-06	2.85e-03	0.0
372	5	0.14	1.15e-03	-4.28	4.30e-06	2.56e-03	0.0
372	9	5.85e-03	0.02	-4.31	-2.42e-04	7.52e-05	0.0
373	1	-3.42e-05	1.72e-04	-5.61	6.27e-06	1.25e-06	0.0
373	2	0.23	1.71e-03	-5.37	3.99e-06	4.16e-03	0.0
373	3	0.20	1.72e-03	-4.29	4.27e-06	3.56e-03	0.0
373	4	0.16	1.18e-03	-4.29	4.31e-06	2.85e-03	0.0
373	5	0.14	7.44e-04	-4.29	4.33e-06	2.56e-03	0.0
373	9	5.85e-03	0.02	-4.31	-2.42e-04	7.52e-05	0.0
374	1	-6.90e-05	1.67e-04	-5.61	6.07e-06	2.52e-06	0.0
374	2	0.24	5.28e-03	-5.32	2.77e-06	4.16e-03	0.0
374	3	0.21	5.30e-03	-4.25	3.19e-06	3.57e-03	0.0
374	4	0.16	3.55e-03	-4.25	3.43e-06	2.85e-03	0.0
374	5	0.14	2.13e-03	-4.25	3.54e-06	2.56e-03	0.0
374	9	5.82e-03	0.02	-4.31	-2.43e-04	7.62e-05	0.0
375	1	-6.70e-05	1.62e-04	-5.61	5.90e-06	2.45e-06	0.0
375	2	0.23	3.23e-03	-5.35	3.18e-06	4.16e-03	0.0
375	3	0.20	3.23e-03	-4.27	3.52e-06	3.56e-03	0.0
375	4	0.16	2.18e-03	-4.27	3.66e-06	2.85e-03	0.0

375	5	0.14	1.33e-03	-4.27	3.73e-06	2.56e-03	0.0
375	9	5.82e-03	0.02	-4.31	-2.43e-04	7.61e-05	0.0
376	1	-1.00e-04	1.50e-04	-5.61	5.47e-06	3.65e-06	0.0
376	2	0.24	7.62e-03	-5.28	1.78e-06	4.16e-03	0.0
376	3	0.21	7.63e-03	-4.21	2.24e-06	3.57e-03	0.0
376	4	0.16	5.09e-03	-4.22	2.59e-06	2.85e-03	0.0
376	5	0.14	3.03e-03	-4.23	2.77e-06	2.56e-03	0.0
376	9	5.80e-03	0.02	-4.31	-2.43e-04	7.70e-05	0.0
377	1	-9.73e-05	1.46e-04	-5.61	5.31e-06	3.55e-06	0.0
377	2	0.23	4.62e-03	-5.33	2.38e-06	4.16e-03	0.0
377	3	0.20	4.63e-03	-4.25	2.74e-06	3.57e-03	0.0
377	4	0.16	3.10e-03	-4.26	2.96e-06	2.85e-03	0.0
377	5	0.14	1.86e-03	-4.26	3.07e-06	2.56e-03	0.0
377	9	5.80e-03	0.02	-4.31	-2.43e-04	7.69e-05	0.0
378	1	-1.28e-04	1.28e-04	-5.61	4.65e-06	4.65e-06	0.0
378	2	0.23	9.66e-03	-5.25	0.0	4.16e-03	0.0
378	3	0.20	9.68e-03	-4.19	1.41e-06	3.57e-03	0.0
378	4	0.16	6.44e-03	-4.20	1.82e-06	2.85e-03	0.0
378	5	0.14	3.82e-03	-4.21	2.03e-06	2.56e-03	0.0
378	9	5.78e-03	0.02	-4.31	-2.44e-04	7.78e-05	0.0
379	1	-1.24e-04	1.24e-04	-5.61	4.52e-06	4.52e-06	0.0
379	2	0.23	5.85e-03	-5.31	1.64e-06	4.16e-03	0.0
379	3	0.20	5.86e-03	-4.24	2.00e-06	3.57e-03	0.0
379	4	0.16	3.91e-03	-4.24	2.26e-06	2.85e-03	0.0
379	5	0.14	2.33e-03	-4.25	2.39e-06	2.56e-03	0.0
379	9	5.78e-03	0.02	-4.30	-2.44e-04	7.76e-05	0.0
380	1	-1.50e-04	1.00e-04	-5.61	3.65e-06	5.47e-06	0.0
380	2	0.23	0.01	-5.22	0.0	4.16e-03	0.0
380	3	0.20	0.01	-4.16	0.0	3.57e-03	0.0
380	4	0.16	7.56e-03	-4.18	1.16e-06	2.85e-03	0.0
380	5	0.14	4.47e-03	-4.19	1.36e-06	2.56e-03	0.0
380	9	5.76e-03	0.02	-4.30	-2.45e-04	7.84e-05	0.0
381	1	-1.46e-04	9.73e-05	-5.61	3.55e-06	5.31e-06	0.0
381	2	0.23	6.85e-03	-5.29	1.01e-06	4.16e-03	0.0
381	3	0.20	6.86e-03	-4.22	1.33e-06	3.57e-03	0.0
381	4	0.16	4.57e-03	-4.23	1.59e-06	2.85e-03	0.0
381	5	0.14	2.71e-03	-4.24	1.72e-06	2.56e-03	0.0
381	9	5.76e-03	0.02	-4.30	-2.45e-04	7.82e-05	0.0
382	1	-1.67e-04	6.90e-05	-5.61	2.52e-06	6.07e-06	0.0
382	2	0.23	0.01	-5.20	0.0	4.16e-03	0.0
382	3	0.20	0.01	-4.15	0.0	3.57e-03	0.0
382	4	0.16	8.39e-03	-4.17	0.0	2.85e-03	0.0
382	5	0.14	4.95e-03	-4.18	0.0	2.56e-03	0.0
382	9	5.75e-03	0.02	-4.30	-2.45e-04	7.88e-05	0.0
383	1	-1.62e-04	6.70e-05	-5.61	2.45e-06	5.90e-06	0.0
383	2	0.23	7.60e-03	-5.28	0.0	4.16e-03	0.0
383	3	0.20	7.61e-03	-4.21	0.0	3.57e-03	0.0
383	4	0.16	5.06e-03	-4.22	0.0	2.85e-03	0.0
383	5	0.13	3.00e-03	-4.23	1.09e-06	2.56e-03	0.0
383	9	5.75e-03	0.02	-4.30	-2.45e-04	7.86e-05	0.0
384	1	-1.77e-04	3.52e-05	-5.61	1.28e-06	6.45e-06	0.0
384	2	0.23	0.01	-5.19	0.0	4.16e-03	0.0
384	3	0.20	0.01	-4.14	0.0	3.57e-03	0.0
384	4	0.15	8.91e-03	-4.16	0.0	2.85e-03	0.0
384	5	0.13	5.25e-03	-4.17	0.0	2.56e-03	0.0
384	9	5.74e-03	0.02	-4.30	-2.46e-04	7.90e-05	0.0
385	1	-1.72e-04	3.42e-05	-5.61	1.25e-06	6.27e-06	0.0
385	2	0.23	8.06e-03	-5.27	0.0	4.16e-03	0.0
385	3	0.20	8.06e-03	-4.21	0.0	3.57e-03	0.0
385	4	0.15	5.36e-03	-4.22	0.0	2.85e-03	0.0
385	5	0.13	3.17e-03	-4.22	0.0	2.56e-03	0.0
385	9	5.74e-03	0.02	-4.30	-2.46e-04	7.89e-05	0.0
386	1	-1.80e-04	0.0	-5.61	0.0	6.58e-06	0.0
386	2	0.22	0.01	-5.18	0.0	4.16e-03	0.0
386	3	0.19	0.01	-4.13	0.0	3.57e-03	0.0
386	4	0.15	9.09e-03	-4.16	0.0	2.85e-03	0.0
386	5	0.13	5.36e-03	-4.17	0.0	2.56e-03	0.0
386	9	5.74e-03	0.02	-4.30	-2.47e-04	7.91e-05	0.0
387	1	-1.75e-04	0.0	-5.61	0.0	6.39e-06	0.0
387	2	0.22	8.21e-03	-5.27	0.0	4.16e-03	0.0
387	3	0.19	8.21e-03	-4.21	0.0	3.57e-03	0.0
387	4	0.15	5.45e-03	-4.22	0.0	2.85e-03	0.0
387	5	0.13	3.21e-03	-4.22	0.0	2.56e-03	0.0
387	9	5.74e-03	0.02	-4.30	-2.47e-04	7.89e-05	0.0
388	1	-1.77e-04	-3.52e-05	-5.61	-1.28e-06	6.45e-06	0.0
388	2	0.22	0.01	-5.19	0.0	4.16e-03	0.0
388	3	0.19	0.01	-4.14	0.0	3.57e-03	0.0

388	4	0.15	8.91e-03	-4.16	0.0	2.85e-03	0.0
388	5	0.13	5.25e-03	-4.17	0.0	2.56e-03	0.0
388	9	5.74e-03	0.02	-4.29	-2.48e-04	7.89e-05	0.0
389	1	-1.72e-04	-3.42e-05	-5.61	-1.25e-06	6.27e-06	0.0
389	2	0.22	8.05e-03	-5.27	0.0	4.16e-03	0.0
389	3	0.19	8.05e-03	-4.21	0.0	3.57e-03	0.0
389	4	0.15	5.34e-03	-4.22	0.0	2.85e-03	0.0
389	5	0.13	3.14e-03	-4.22	0.0	2.56e-03	0.0
389	9	5.75e-03	0.02	-4.30	-2.48e-04	7.88e-05	0.0
390	1	-1.67e-04	-6.90e-05	-5.61	-2.52e-06	6.07e-06	0.0
390	2	0.22	0.01	-5.20	0.0	4.16e-03	0.0
390	3	0.19	0.01	-4.15	0.0	3.57e-03	0.0
390	4	0.15	8.40e-03	-4.17	-1.05e-06	2.85e-03	0.0
390	5	0.13	4.95e-03	-4.18	-1.05e-06	2.56e-03	0.0
390	9	5.75e-03	0.02	-4.29	-2.49e-04	7.86e-05	0.0
391	1	-1.62e-04	-6.70e-05	-5.61	-2.45e-06	5.90e-06	0.0
391	2	0.22	7.58e-03	-5.28	0.0	4.16e-03	0.0
391	3	0.19	7.57e-03	-4.21	-1.14e-06	3.57e-03	0.0
391	4	0.15	5.01e-03	-4.22	-1.23e-06	2.85e-03	0.0
391	5	0.13	2.94e-03	-4.23	-1.24e-06	2.56e-03	0.0
391	9	5.75e-03	0.02	-4.29	-2.49e-04	7.85e-05	0.0
392	1	-1.50e-04	-1.00e-04	-5.61	-3.65e-06	5.47e-06	0.0
392	2	0.22	0.01	-5.22	0.0	4.16e-03	0.0
392	3	0.19	0.01	-4.16	-1.35e-06	3.57e-03	0.0
392	4	0.15	7.55e-03	-4.18	-1.56e-06	2.85e-03	0.0
392	5	0.13	4.44e-03	-4.19	-1.60e-06	2.56e-03	0.0
392	9	5.76e-03	0.02	-4.29	-2.50e-04	7.81e-05	0.0
393	1	-1.46e-04	-9.73e-05	-5.61	-3.55e-06	5.31e-06	0.0
393	2	0.22	6.81e-03	-5.29	-1.37e-06	4.16e-03	0.0
393	3	0.19	6.80e-03	-4.22	-1.69e-06	3.57e-03	0.0
393	4	0.15	4.49e-03	-4.23	-1.83e-06	2.85e-03	0.0
393	5	0.13	2.63e-03	-4.24	-1.86e-06	2.56e-03	0.0
393	9	5.76e-03	0.02	-4.29	-2.50e-04	7.80e-05	0.0
394	1	-1.28e-04	-1.28e-04	-5.61	-4.65e-06	4.65e-06	0.0
394	2	0.21	9.70e-03	-5.25	-1.47e-06	4.16e-03	0.0
394	3	0.18	9.68e-03	-4.19	-1.93e-06	3.57e-03	0.0
394	4	0.15	6.41e-03	-4.20	-2.17e-06	2.85e-03	0.0
394	5	0.13	3.76e-03	-4.21	-2.23e-06	2.56e-03	0.0
394	9	5.78e-03	0.02	-4.29	-2.51e-04	7.75e-05	0.0
395	1	-1.24e-04	-1.24e-04	-5.61	-4.52e-06	4.52e-06	0.0
395	2	0.22	5.77e-03	-5.31	-1.94e-06	4.16e-03	0.0
395	3	0.19	5.76e-03	-4.24	-2.30e-06	3.56e-03	0.0
395	4	0.15	3.80e-03	-4.24	-2.46e-06	2.85e-03	0.0
395	5	0.13	2.21e-03	-4.25	-2.51e-06	2.56e-03	0.0
395	9	5.78e-03	0.02	-4.29	-2.51e-04	7.75e-05	0.0
396	1	-1.00e-04	-1.50e-04	-5.61	-5.47e-06	3.65e-06	0.0
396	2	0.21	7.60e-03	-5.28	-2.18e-06	4.16e-03	0.0
396	3	0.18	7.58e-03	-4.21	-2.65e-06	3.57e-03	0.0
396	4	0.15	5.01e-03	-4.22	-2.86e-06	2.85e-03	0.0
396	5	0.13	2.93e-03	-4.23	-2.92e-06	2.56e-03	0.0
396	9	5.79e-03	0.02	-4.29	-2.51e-04	7.68e-05	0.0
397	1	-9.73e-05	-1.46e-04	-5.61	-5.31e-06	3.55e-06	0.0
397	2	0.22	4.51e-03	-5.33	-2.62e-06	4.16e-03	0.0
397	3	0.19	4.49e-03	-4.25	-2.98e-06	3.56e-03	0.0
397	4	0.15	2.95e-03	-4.26	-3.12e-06	2.85e-03	0.0
397	5	0.13	1.71e-03	-4.26	-3.16e-06	2.56e-03	0.0
397	9	5.80e-03	0.02	-4.29	-2.51e-04	7.67e-05	0.0
398	1	-6.90e-05	-1.67e-04	-5.61	-6.07e-06	2.52e-06	0.0
398	2	0.21	5.19e-03	-5.32	-3.05e-06	4.16e-03	0.0
398	3	0.18	5.18e-03	-4.25	-3.46e-06	3.56e-03	0.0
398	4	0.14	3.41e-03	-4.25	-3.61e-06	2.85e-03	0.0
398	5	0.13	1.97e-03	-4.25	-3.65e-06	2.56e-03	0.0
398	9	5.81e-03	0.02	-4.29	-2.52e-04	7.60e-05	0.0
399	1	-6.70e-05	-1.62e-04	-5.61	-5.90e-06	2.45e-06	0.0
399	2	0.22	3.06e-03	-5.35	-3.35e-06	4.16e-03	0.0
399	3	0.19	3.05e-03	-4.27	-3.69e-06	3.56e-03	0.0
399	4	0.15	1.99e-03	-4.27	-3.77e-06	2.85e-03	0.0
399	5	0.13	1.13e-03	-4.27	-3.80e-06	2.56e-03	0.0
399	9	5.82e-03	0.02	-4.29	-2.52e-04	7.59e-05	0.0
400	1	-3.52e-05	-1.77e-04	-5.61	-6.45e-06	1.28e-06	0.0
400	2	0.21	2.58e-03	-5.36	-3.98e-06	4.16e-03	0.0
400	3	0.18	2.57e-03	-4.28	-4.30e-06	3.56e-03	0.0
400	4	0.14	1.67e-03	-4.28	-4.34e-06	2.85e-03	0.0
400	5	0.13	9.39e-04	-4.28	-4.35e-06	2.56e-03	0.0
400	9	5.84e-03	0.02	-4.29	-2.52e-04	7.51e-05	0.0
401	1	-3.42e-05	-1.72e-04	-5.61	-6.27e-06	1.25e-06	0.0
401	2	0.22	1.49e-03	-5.37	-4.08e-06	4.16e-03	0.0

401	3	0.19	1.49e-03	-4.29	-4.36e-06	3.56e-03	0.0
401	4	0.15	9.48e-04	-4.29	-4.37e-06	2.85e-03	0.0
401	5	0.13	5.11e-04	-4.29	-4.37e-06	2.56e-03	0.0
401	9	5.84e-03	0.02	-4.29	-2.52e-04	7.51e-05	0.0
402	1	0.0	-1.80e-04	-5.61	-6.58e-06	0.0	0.0
402	2	0.21	-1.35e-04	-5.40	-4.86e-06	4.16e-03	0.0
402	3	0.18	-1.39e-04	-4.32	-5.06e-06	3.56e-03	0.0
402	4	0.14	-1.37e-04	-4.31	-4.97e-06	2.85e-03	0.0
402	5	0.13	-1.36e-04	-4.30	-4.94e-06	2.56e-03	0.0
402	9	5.86e-03	0.02	-4.29	-2.52e-04	7.42e-05	0.0
403	1	0.0	-1.75e-04	-5.61	-6.39e-06	0.0	0.0
403	2	0.22	-1.31e-04	-5.40	-4.72e-06	4.16e-03	0.0
403	3	0.19	-1.35e-04	-4.32	-4.92e-06	3.56e-03	0.0
403	4	0.15	-1.33e-04	-4.31	-4.84e-06	2.85e-03	0.0
403	5	0.13	-1.32e-04	-4.30	-4.81e-06	2.56e-03	0.0
403	9	5.87e-03	0.02	-4.29	-2.52e-04	7.42e-05	0.0
404	1	3.52e-05	-1.77e-04	-5.61	-6.45e-06	-1.28e-06	0.0
404	2	0.21	-2.85e-03	-5.44	-5.54e-06	4.16e-03	0.0
404	3	0.18	-2.84e-03	-4.35	-5.62e-06	3.56e-03	0.0
404	4	0.14	-1.94e-03	-4.33	-5.41e-06	2.85e-03	0.0
404	5	0.13	-1.20e-03	-4.33	-5.35e-06	2.56e-03	0.0
404	9	5.88e-03	0.02	-4.29	-2.52e-04	7.33e-05	0.0
405	1	3.42e-05	-1.72e-04	-5.61	-6.27e-06	-1.25e-06	0.0
405	2	0.22	-1.75e-03	-5.42	-5.18e-06	4.16e-03	0.0
405	3	0.19	-1.75e-03	-4.34	-5.29e-06	3.56e-03	0.0
405	4	0.15	-1.21e-03	-4.32	-5.12e-06	2.85e-03	0.0
405	5	0.13	-7.69e-04	-4.32	-5.06e-06	2.56e-03	0.0
405	9	5.89e-03	0.02	-4.29	-2.52e-04	7.33e-05	0.0
406	1	6.90e-05	-1.67e-04	-5.61	-6.07e-06	-2.52e-06	0.0
406	2	0.21	-5.44e-03	-5.48	-5.92e-06	4.16e-03	0.0
406	3	0.18	-5.43e-03	-4.39	-5.88e-06	3.56e-03	0.0
406	4	0.14	-3.66e-03	-4.36	-5.58e-06	2.84e-03	0.0
406	5	0.13	-2.22e-03	-4.35	-5.48e-06	2.56e-03	0.0
406	9	5.91e-03	0.02	-4.29	-2.52e-04	7.24e-05	0.0
407	1	6.70e-05	-1.62e-04	-5.61	-5.90e-06	-2.45e-06	0.0
407	2	0.22	-3.30e-03	-5.45	-5.37e-06	4.16e-03	0.0
407	3	0.19	-3.30e-03	-4.36	-5.40e-06	3.56e-03	0.0
407	4	0.15	-2.24e-03	-4.34	-5.16e-06	2.84e-03	0.0
407	5	0.13	-1.38e-03	-4.33	-5.08e-06	2.56e-03	0.0
407	9	5.92e-03	0.02	-4.29	-2.52e-04	7.24e-05	0.0
408	1	1.00e-04	-1.50e-04	-5.61	-5.47e-06	-3.65e-06	0.0
408	2	0.21	-7.82e-03	-5.52	-5.89e-06	4.16e-03	0.0
408	3	0.18	-7.81e-03	-4.42	-5.76e-06	3.56e-03	0.0
408	4	0.15	-5.23e-03	-4.39	-5.41e-06	2.84e-03	0.0
408	5	0.13	-3.15e-03	-4.37	-5.30e-06	2.56e-03	0.0
408	9	5.93e-03	0.02	-4.29	-2.51e-04	7.16e-05	0.0
409	1	9.73e-05	-1.46e-04	-5.61	-5.31e-06	-3.55e-06	0.0
409	2	0.22	-4.72e-03	-5.47	-5.23e-06	4.16e-03	0.0
409	3	0.19	-4.72e-03	-4.38	-5.19e-06	3.56e-03	0.0
409	4	0.15	-3.17e-03	-4.35	-4.92e-06	2.84e-03	0.0
409	5	0.13	-1.93e-03	-4.35	-4.83e-06	2.56e-03	0.0
409	9	5.94e-03	0.02	-4.29	-2.51e-04	7.16e-05	0.0
410	1	1.28e-04	-1.28e-04	-5.61	-4.65e-06	-4.65e-06	0.0
410	2	0.21	-9.89e-03	-5.55	-5.40e-06	4.15e-03	0.0
410	3	0.18	-9.87e-03	-4.44	-5.23e-06	3.56e-03	0.0
410	4	0.15	-6.60e-03	-4.41	-4.87e-06	2.84e-03	0.0
410	5	0.13	-3.95e-03	-4.39	-4.77e-06	2.56e-03	0.0
410	9	5.95e-03	0.02	-4.29	-2.51e-04	7.08e-05	0.0
411	1	1.24e-04	-1.24e-04	-5.61	-4.52e-06	-4.52e-06	0.0
411	2	0.22	-5.96e-03	-5.49	-4.73e-06	4.15e-03	0.0
411	3	0.19	-5.95e-03	-4.39	-4.65e-06	3.56e-03	0.0
411	4	0.15	-3.99e-03	-4.37	-4.38e-06	2.84e-03	0.0
411	5	0.13	-2.40e-03	-4.36	-4.29e-06	2.56e-03	0.0
411	9	5.96e-03	0.02	-4.30	-2.51e-04	7.09e-05	0.0
412	1	1.50e-04	-1.00e-04	-5.61	-3.65e-06	-5.47e-06	0.0
412	2	0.22	-0.01	-5.57	-4.45e-06	4.15e-03	0.0
412	3	0.19	-0.01	-4.47	-4.27e-06	3.56e-03	0.0
412	4	0.15	-7.70e-03	-4.43	-3.97e-06	2.84e-03	0.0
412	5	0.13	-4.59e-03	-4.41	-3.89e-06	2.56e-03	0.0
412	9	5.97e-03	0.02	-4.30	-2.50e-04	7.02e-05	0.0
413	1	1.46e-04	-9.73e-05	-5.61	-3.55e-06	-5.31e-06	0.0
413	2	0.22	-6.95e-03	-5.50	-3.87e-06	4.15e-03	0.0
413	3	0.19	-6.95e-03	-4.41	-3.78e-06	3.56e-03	0.0
413	4	0.15	-4.64e-03	-4.38	-3.54e-06	2.84e-03	0.0
413	5	0.13	-2.78e-03	-4.37	-3.48e-06	2.56e-03	0.0
413	9	5.98e-03	0.02	-4.30	-2.50e-04	7.03e-05	0.0
414	1	1.67e-04	-6.90e-05	-5.61	-2.52e-06	-6.07e-06	0.0

414	2	0.22	-0.01	-5.59	-3.10e-06	4.15e-03	0.0
414	3	0.19	-0.01	-4.48	-2.95e-06	3.56e-03	0.0
414	4	0.15	-8.50e-03	-4.44	-2.76e-06	2.84e-03	0.0
414	5	0.13	-5.05e-03	-4.42	-2.73e-06	2.55e-03	0.0
414	9	5.99e-03	0.02	-4.30	-2.49e-04	6.97e-05	0.0
415	1	1.62e-04	-6.70e-05	-5.61	-2.45e-06	-5.90e-06	0.0
415	2	0.22	-7.68e-03	-5.52	-2.70e-06	4.15e-03	0.0
415	3	0.19	-7.67e-03	-4.42	-2.62e-06	3.56e-03	0.0
415	4	0.15	-5.11e-03	-4.39	-2.47e-06	2.84e-03	0.0
415	5	0.13	-3.04e-03	-4.38	-2.43e-06	2.55e-03	0.0
415	9	5.99e-03	0.02	-4.30	-2.49e-04	6.98e-05	0.0
416	1	1.77e-04	-3.52e-05	-5.61	-1.28e-06	-6.45e-06	0.0
416	2	0.22	-0.01	-5.61	-1.44e-06	4.15e-03	0.0
416	3	0.19	-0.01	-4.49	-1.36e-06	3.56e-03	0.0
416	4	0.15	-8.97e-03	-4.45	-1.32e-06	2.84e-03	0.0
416	5	0.13	-5.31e-03	-4.43	-1.35e-06	2.55e-03	0.0
416	9	6.00e-03	0.02	-4.30	-2.48e-04	6.93e-05	0.0
417	2	0.84	-0.08	-6.54	4.58e-05	3.49e-03	-2.96e-04
417	3	0.72	-0.08	-5.29	4.58e-05	2.98e-03	-2.96e-04
417	4	0.58	-0.05	-5.08	3.04e-05	2.37e-03	-1.97e-04
417	5	0.51	-0.03	-5.00	1.79e-05	2.12e-03	-1.16e-04
418	2	0.86	-0.09	-6.51	3.68e-04	3.57e-03	-3.34e-04
418	3	0.74	-0.09	-5.27	3.24e-04	3.04e-03	-3.28e-04
418	4	0.59	-0.06	-5.07	2.55e-04	2.42e-03	-2.22e-04
418	5	0.52	-0.04	-4.99	2.22e-04	2.17e-03	-1.39e-04
419	2	0.88	-0.09	-6.45	6.41e-04	3.75e-03	-3.70e-04
419	3	0.76	-0.09	-5.22	5.59e-04	3.21e-03	-3.59e-04
419	4	0.60	-0.06	-5.03	4.46e-04	2.55e-03	-2.47e-04
419	5	0.53	-0.04	-4.95	3.95e-04	2.28e-03	-1.61e-04
420	2	0.90	-0.08	-6.34	8.23e-04	4.03e-03	-4.03e-04
420	3	0.78	-0.08	-5.13	7.17e-04	3.45e-03	-3.88e-04
420	4	0.61	-0.06	-4.95	5.75e-04	2.74e-03	-2.70e-04
420	5	0.54	-0.04	-4.88	5.13e-04	2.45e-03	-1.82e-04
421	2	0.92	-0.08	-6.20	8.90e-04	4.35e-03	-4.32e-04
421	3	0.80	-0.07	-5.01	7.75e-04	3.73e-03	-4.13e-04
421	4	0.63	-0.05	-4.86	6.24e-04	2.96e-03	-2.90e-04
421	5	0.55	-0.03	-4.80	5.59e-04	2.65e-03	-2.00e-04
422	2	0.93	-0.06	-6.03	8.30e-04	4.68e-03	-4.56e-04
422	3	0.81	-0.06	-4.86	7.24e-04	4.01e-03	-4.33e-04
422	4	0.64	-0.04	-4.74	5.86e-04	3.19e-03	-3.06e-04
422	5	0.56	-0.03	-4.69	5.27e-04	2.86e-03	-2.14e-04
423	2	0.95	-0.04	-5.83	6.53e-04	4.96e-03	-4.74e-04
423	3	0.82	-0.04	-4.69	5.72e-04	4.25e-03	-4.48e-04
423	4	0.65	-0.03	-4.60	4.67e-04	3.38e-03	-3.18e-04
423	5	0.56	-0.02	-4.57	4.22e-04	3.03e-03	-2.25e-04
423	9	0.02	0.06	-4.37	-1.53e-04	2.83e-05	0.0
424	2	0.96	-0.02	-5.62	3.85e-04	5.15e-03	-4.85e-04
424	3	0.83	-0.02	-4.50	3.43e-04	4.42e-03	-4.58e-04
424	4	0.65	-0.02	-4.46	2.85e-04	3.52e-03	-3.26e-04
424	5	0.57	-0.01	-4.44	2.61e-04	3.16e-03	-2.32e-04
424	9	0.02	0.06	-4.37	-1.44e-04	5.97e-05	-1.32e-06
425	1	0.0	-2.06e-05	-5.61	9.09e-05	0.0	0.0
425	2	0.96	-1.54e-05	-5.39	6.83e-05	5.23e-03	-4.88e-04
425	3	0.83	-1.59e-05	-4.31	6.99e-05	4.48e-03	-4.61e-04
425	4	0.65	-1.56e-05	-4.30	6.88e-05	3.58e-03	-3.28e-04
425	5	0.57	-1.55e-05	-4.30	6.84e-05	3.21e-03	-2.34e-04
425	9	0.02	0.06	-4.37	-1.44e-04	9.24e-05	-3.57e-06
426	1	4.03e-06	-2.02e-05	-5.61	8.91e-05	1.77e-05	0.0
426	2	0.96	0.02	-5.17	-2.52e-04	5.18e-03	-4.85e-04
426	3	0.83	0.02	-4.12	-2.06e-04	4.44e-03	-4.58e-04
426	4	0.65	0.02	-4.15	-1.50e-04	3.55e-03	-3.26e-04
426	5	0.57	0.01	-4.16	-1.27e-04	3.18e-03	-2.32e-04
426	9	0.02	0.06	-4.36	-1.54e-04	1.23e-04	-5.69e-06
427	1	7.90e-06	-1.91e-05	-5.61	8.40e-05	3.48e-05	0.0
427	2	0.95	0.04	-4.96	-5.26e-04	5.01e-03	-4.74e-04
427	3	0.82	0.04	-3.94	-4.43e-04	4.30e-03	-4.48e-04
427	4	0.65	0.03	-4.00	-3.40e-04	3.44e-03	-3.18e-04
427	5	0.56	0.02	-4.03	-2.96e-04	3.09e-03	-2.25e-04
427	9	0.02	0.06	-4.35	-1.73e-04	1.48e-04	-7.61e-06
428	1	1.15e-05	-1.72e-05	-5.61	7.56e-05	5.05e-05	0.0
428	2	0.93	0.06	-4.76	-7.16e-04	4.76e-03	-4.56e-04
428	3	0.81	0.06	-3.77	-6.07e-04	4.09e-03	-4.33e-04
428	4	0.64	0.04	-3.87	-4.71e-04	3.27e-03	-3.06e-04
428	5	0.56	0.03	-3.91	-4.13e-04	2.93e-03	-2.14e-04
429	1	1.46e-05	-1.46e-05	-5.61	6.43e-05	6.43e-05	0.0
429	2	0.92	0.08	-4.59	-7.93e-04	4.45e-03	-4.32e-04
429	3	0.80	0.07	-3.62	-6.76e-04	3.83e-03	-4.13e-04

429	4	0.63	0.05	-3.75	-5.27e-04	3.06e-03	-2.90e-04
429	5	0.55	0.03	-3.80	-4.63e-04	2.75e-03	-2.00e-04
430	1	1.72e-05	-1.15e-05	-5.61	5.05e-05	7.56e-05	0.0
430	2	0.90	0.08	-4.45	-7.48e-04	4.14e-03	-4.03e-04
430	3	0.78	0.08	-3.50	-6.39e-04	3.56e-03	-3.88e-04
430	4	0.61	0.06	-3.65	-4.99e-04	2.85e-03	-2.70e-04
430	5	0.54	0.04	-3.72	-4.37e-04	2.57e-03	-1.82e-04
431	1	1.91e-05	-7.90e-06	-5.61	3.48e-05	8.40e-05	0.0
431	2	0.88	0.09	-4.34	-5.88e-04	3.88e-03	-3.70e-04
431	3	0.76	0.09	-3.41	-5.05e-04	3.34e-03	-3.59e-04
431	4	0.60	0.06	-3.58	-3.93e-04	2.68e-03	-2.47e-04
431	5	0.53	0.04	-3.65	-3.43e-04	2.41e-03	-1.61e-04
432	1	2.02e-05	-4.03e-06	-5.61	1.77e-05	8.91e-05	0.0
432	2	0.86	0.09	-4.28	-3.41e-04	3.70e-03	-3.34e-04
432	3	0.74	0.09	-3.35	-2.96e-04	3.18e-03	-3.28e-04
432	4	0.59	0.06	-3.54	-2.28e-04	2.55e-03	-2.22e-04
432	5	0.52	0.04	-3.61	-1.95e-04	2.30e-03	-1.39e-04
433	1	2.06e-05	0.0	-5.61	0.0	9.09e-05	0.0
433	2	0.84	0.08	-4.25	-4.58e-05	3.63e-03	-2.96e-04
433	3	0.72	0.08	-3.34	-4.58e-05	3.12e-03	-2.96e-04
433	4	0.58	0.05	-3.52	-3.04e-05	2.51e-03	-1.97e-04
433	5	0.51	0.03	-3.60	-1.79e-05	2.26e-03	-1.16e-04
434	1	2.02e-05	4.03e-06	-5.61	-1.77e-05	8.91e-05	0.0
434	2	0.83	0.07	-4.28	2.51e-04	3.68e-03	-2.59e-04
434	3	0.71	0.07	-3.35	2.07e-04	3.16e-03	-2.64e-04
434	4	0.57	0.05	-3.54	1.69e-04	2.54e-03	-1.71e-04
434	5	0.51	0.03	-3.61	1.60e-04	2.29e-03	-9.29e-05
435	1	1.91e-05	7.90e-06	-5.61	-3.48e-05	8.40e-05	0.0
435	2	0.82	0.06	-4.34	5.04e-04	3.84e-03	-2.23e-04
435	3	0.70	0.07	-3.41	4.21e-04	3.30e-03	-2.34e-04
435	4	0.56	0.04	-3.58	3.37e-04	2.65e-03	-1.46e-04
435	5	0.50	0.02	-3.65	3.10e-04	2.39e-03	-7.07e-05
436	1	1.72e-05	1.15e-05	-5.61	-5.05e-05	7.56e-05	0.0
436	2	0.81	0.05	-4.45	6.71e-04	4.09e-03	-1.90e-04
436	3	0.69	0.05	-3.50	5.63e-04	3.51e-03	-2.05e-04
436	4	0.55	0.03	-3.65	4.48e-04	2.82e-03	-1.24e-04
436	5	0.50	0.02	-3.72	4.07e-04	2.55e-03	-5.03e-05
436	9	0.02	0.06	-4.24	-3.03e-04	8.51e-05	-7.66e-06
437	1	1.46e-05	1.46e-05	-5.61	-6.43e-05	6.43e-05	0.0
437	2	0.80	0.04	-4.59	7.28e-04	4.39e-03	-1.61e-04
437	3	0.68	0.04	-3.62	6.11e-04	3.76e-03	-1.80e-04
437	4	0.55	0.03	-3.75	4.84e-04	3.02e-03	-1.04e-04
437	5	0.50	0.01	-3.80	4.37e-04	2.73e-03	-3.23e-05
437	9	0.02	0.06	-4.24	-2.94e-04	7.84e-05	-5.76e-06
438	1	1.15e-05	1.72e-05	-5.61	-7.56e-05	5.05e-05	0.0
438	2	0.80	0.03	-4.76	6.65e-04	4.68e-03	-1.37e-04
438	3	0.68	0.03	-3.77	5.57e-04	4.01e-03	-1.60e-04
438	4	0.55	0.02	-3.87	4.37e-04	3.22e-03	-8.75e-05
438	5	0.50	7.88e-03	-3.91	3.93e-04	2.90e-03	-1.76e-05
438	9	0.02	0.06	-4.23	-2.85e-04	7.72e-05	-3.64e-06
439	1	7.90e-06	1.91e-05	-5.61	-8.40e-05	3.48e-05	0.0
439	2	0.80	0.02	-4.96	4.91e-04	4.93e-03	-1.19e-04
439	3	0.67	0.02	-3.94	4.08e-04	4.22e-03	-1.45e-04
439	4	0.55	0.01	-4.00	3.16e-04	3.38e-03	-7.54e-05
439	5	0.50	4.67e-03	-4.03	2.82e-04	3.05e-03	-6.68e-06
439	9	0.02	0.06	-4.23	-2.79e-04	8.04e-05	-1.39e-06
440	1	4.03e-06	2.02e-05	-5.61	-8.91e-05	1.77e-05	0.0
440	2	0.79	9.32e-03	-5.17	2.34e-04	5.09e-03	-1.08e-04
440	3	0.67	0.01	-4.12	1.88e-04	4.35e-03	-1.35e-04
440	4	0.55	6.05e-03	-4.15	1.38e-04	3.49e-03	-6.79e-05
440	5	0.50	2.15e-03	-4.16	1.20e-04	3.15e-03	0.0
440	9	0.02	0.06	-4.23	-2.77e-04	8.62e-05	0.0
441	1	0.0	2.06e-05	-5.61	-9.09e-05	0.0	0.0
441	2	0.79	1.54e-05	-5.39	-6.83e-05	5.13e-03	-1.04e-04
441	3	0.67	1.59e-05	-4.31	-6.99e-05	4.39e-03	-1.32e-04
441	4	0.55	1.56e-05	-4.30	-6.88e-05	3.51e-03	-6.54e-05
441	5	0.50	1.55e-05	-4.30	-6.84e-05	3.17e-03	2.33e-06
441	9	0.02	0.06	-4.23	-2.80e-04	9.23e-05	3.16e-06
442	2	0.79	-9.29e-03	-5.62	-3.68e-04	5.06e-03	-1.08e-04
442	3	0.67	-0.01	-4.50	-3.25e-04	4.33e-03	-1.35e-04
442	4	0.55	-6.02e-03	-4.46	-2.73e-04	3.46e-03	-6.79e-05
442	5	0.50	-2.12e-03	-4.44	-2.54e-04	3.12e-03	0.0
442	9	0.02	0.06	-4.24	-2.88e-04	9.62e-05	5.29e-06
443	2	0.80	-0.02	-5.83	-6.18e-04	4.87e-03	-1.19e-04
443	3	0.67	-0.02	-4.69	-5.37e-04	4.16e-03	-1.45e-04
443	4	0.55	-0.01	-4.60	-4.43e-04	3.33e-03	-7.54e-05
443	5	0.50	-4.64e-03	-4.57	-4.09e-04	3.00e-03	-6.68e-06

443	9	0.02	0.06	-4.24	-2.99e-04	9.58e-05	7.20e-06
444	2	0.80	-0.03	-6.03	-7.79e-04	4.60e-03	-1.37e-04
444	3	0.68	-0.03	-4.86	-6.73e-04	3.93e-03	-1.60e-04
444	4	0.55	-0.02	-4.74	-5.52e-04	3.14e-03	-8.75e-05
444	5	0.50	-7.85e-03	-4.69	-5.07e-04	2.83e-03	-1.76e-05
444	9	0.02	0.06	-4.25	-3.12e-04	8.97e-05	8.83e-06
445	2	0.80	-0.04	-6.20	-8.25e-04	4.29e-03	-1.61e-04
445	3	0.68	-0.04	-5.01	-7.10e-04	3.66e-03	-1.80e-04
445	4	0.55	-0.03	-4.86	-5.81e-04	2.92e-03	-1.04e-04
445	5	0.50	-0.01	-4.80	-5.34e-04	2.63e-03	-3.23e-05
445	9	0.02	0.06	-4.26	-3.23e-04	7.75e-05	1.01e-05
446	2	0.81	-0.05	-6.34	-7.47e-04	3.98e-03	-1.90e-04
446	3	0.69	-0.05	-5.13	-6.41e-04	3.40e-03	-2.05e-04
446	4	0.55	-0.03	-4.95	-5.24e-04	2.71e-03	-1.24e-04
446	5	0.50	-0.02	-4.88	-4.83e-04	2.43e-03	-5.03e-05
446	9	0.02	0.06	-4.28	-3.29e-04	5.99e-05	1.10e-05
447	2	0.82	-0.06	-6.45	-5.56e-04	3.72e-03	-2.23e-04
447	3	0.70	-0.07	-5.22	-4.74e-04	3.17e-03	-2.34e-04
447	4	0.56	-0.04	-5.03	-3.90e-04	2.52e-03	-1.46e-04
447	5	0.50	-0.02	-4.95	-3.62e-04	2.27e-03	-7.07e-05
448	2	0.83	-0.07	-6.51	-2.78e-04	3.55e-03	-2.59e-04
448	3	0.71	-0.07	-5.27	-2.34e-04	3.03e-03	-2.64e-04
448	4	0.57	-0.05	-5.07	-1.95e-04	2.41e-03	-1.71e-04
448	5	0.51	-0.03	-4.99	-1.86e-04	2.16e-03	-9.29e-05
449	1	-5.48e-05	2.75e-04	-5.55	1.01e-04	2.00e-05	0.0
449	2	0.47	0.05	-4.63	2.01e-05	3.90e-03	0.0
449	3	0.44	0.05	-3.65	3.13e-05	3.34e-03	0.0
449	4	0.32	0.03	-3.77	3.93e-05	2.67e-03	0.0
449	5	0.23	0.02	-3.81	4.25e-05	2.40e-03	0.0

Nodo	**Traslazione X**	**Traslazione Y**	**Traslazione Z**	**Rotazione X**	**Rotazione Y**	**Rotazione Z**
	-0.14	-0.33	-10.03	-8.25e-04	-6.58e-06	-4.88e-04
	0.96	0.33	-0.23	8.90e-04	6.18e-03	1.10e-05

Nodo	**Cmb**	**Azione X**	**Azione Y**	**Azione Z**	**Azione RX**	**Azione RY**	**Azione RZ**
		daN	daN	daN	daN cm	daN cm	daN cm

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**
		daN	daN	daN	daN cm	daN cm	daN cm

RISULTATI OPERE DI FONDAZIONE

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: 3) palo singolo (*PALO*) 4) plinto su palo 5) plinto su due pali (*PL.2P*) 6) plinto su tre pali (*PL.3P*) 7) plinto su quattro pali (*PL.4P*) 8) plinto rettangolare su cinque pali (*PL.5P.R*) 9) plinto pentagonale su cinque pali (*PL.5P*) 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...**					
	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2
1	-1.43	-1.16	-1.11	-1.09					
2	-1.46	-1.19	-1.13	-1.10					
3	-1.46	-1.19	-1.12	-1.10					
4	-1.42	-1.15	-1.11	-1.09					
5	-1.48	-1.21	-1.13	-1.10					
6	-1.47	-1.20	-1.12	-1.09					
7	-1.51	-1.23	-1.14	-1.11					
8	-1.50	-1.22	-1.14	-1.10					
9	-1.54	-1.27	-1.16	-1.12					
10	-1.53	-1.26	-1.16	-1.12					
11	-1.59	-1.31	-1.19	-1.15					
12	-1.58	-1.30	-1.19	-1.14					
13	-1.68	-1.38	-1.25	-1.20					
14	-1.66	-1.37	-1.24	-1.19					
15	-1.72	-1.42	-1.28	-1.22					
16	-1.70	-1.40	-1.27	-1.21					
17	-1.44	-1.17	-1.11	-1.09					
18	-1.41	-1.14	-1.10	-1.08					
19	-1.45	-1.18	-1.11	-1.08					
20	-1.47	-1.20	-1.12	-1.08					
21	-1.50	-1.23	-1.13	-1.10					
22	-1.54	-1.27	-1.16	-1.12					
23	-1.62	-1.33	-1.21	-1.17					
24	-1.66	-1.36	-1.23	-1.18					
25	-1.41	-1.14	-1.09	-1.07					
26	-1.39	-1.12	-1.08	-1.07					
27	-1.41	-1.14	-1.08	-1.05					
28	-1.42	-1.16	-1.09	-1.06					
29	-1.45	-1.18	-1.10	-1.06					
30	-1.48	-1.21	-1.12	-1.08					
31	-1.55	-1.27	-1.17	-1.12					
32	-1.58	-1.30	-1.18	-1.14					
33	-1.36	-1.10	-1.06	-1.04					

34	-1.36	-1.09	-1.06	-1.05
35	-1.35	-1.10	-1.04	-1.02
36	-1.36	-1.11	-1.04	-1.02
37	-1.37	-1.12	-1.05	-1.02
38	-1.40	-1.14	-1.06	-1.03
39	-1.46	-1.19	-1.10	-1.07
40	-1.48	-1.21	-1.11	-1.08
41	-1.31	-1.06	-1.02	-1.01
42	-1.32	-1.06	-1.04	-1.02
43	-1.29	-1.04	-1.00	-0.98
44	-1.28	-1.04	-0.99	-0.97
45	-1.29	-1.05	-0.99	-0.97
46	-1.30	-1.06	-1.00	-0.97
47	-1.35	-1.10	-1.03	-1.00
48	-1.36	-1.11	-1.03	-1.00
49	-1.25	-1.01	-0.98	-0.97
50	-1.27	-1.02	-1.01	-1.00
51	-1.21	-0.98	-0.95	-0.94
52	-1.19	-0.97	-0.93	-0.92
53	-1.19	-0.96	-0.92	-0.90
54	-1.19	-0.96	-0.92	-0.90
55	-1.22	-0.99	-0.94	-0.92
56	-1.22	-0.99	-0.94	-0.91
57	-1.18	-0.95	-0.94	-0.93
58	-1.23	-0.98	-0.97	-0.97
59	-1.13	-0.91	-0.89	-0.89
60	-1.10	-0.88	-0.87	-0.86
61	-1.08	-0.87	-0.85	-0.84
62	-1.07	-0.86	-0.83	-0.83
63	-1.08	-0.87	-0.84	-0.83
64	-1.07	-0.86	-0.83	-0.82
65	-1.16	-0.89	-0.89	-0.89
66	-1.23	-0.94	-0.94	-0.94
67	-1.09	-0.84	-0.84	-0.84
68	-1.04	-0.80	-0.80	-0.80
69	-1.00	-0.77	-0.77	-0.77
70	-0.97	-0.75	-0.75	-0.75
71	-0.97	-0.75	-0.75	-0.75
72	-0.95	-0.73	-0.73	-0.73
73	-1.16	-0.83	-0.84	-0.85
74	-1.23	-0.90	-0.91	-0.91
75	-1.09	-0.77	-0.78	-0.78
76	-1.04	-0.71	-0.73	-0.74
77	-1.00	-0.67	-0.69	-0.70
78	-1.23	-0.97	-0.96	-0.96
79	-0.97	-0.62	-0.65	-0.66
80	-0.95	-0.59	-0.62	-0.63
81	-1.16	-0.78	-0.80	-0.81
82	-1.23	-0.86	-0.87	-0.88
83	-1.09	-0.70	-0.72	-0.73
84	-1.04	-0.63	-0.67	-0.68
85	-1.00	-0.58	-0.62	-0.63
86	-0.97	-0.54	-0.58	-0.59
87	-0.97	-0.51	-0.55	-0.57
88	-0.95	-0.46	-0.52	-0.54
89	-1.16	-0.73	-0.76	-0.77
90	-1.23	-0.82	-0.85	-0.85
91	-1.09	-0.63	-0.67	-0.69
92	-1.04	-0.56	-0.61	-0.62
93	-1.00	-0.49	-0.55	-0.57
94	-0.97	-0.44	-0.50	-0.52
95	-0.97	-0.40	-0.47	-0.49
96	-0.95	-0.34	-0.42	-0.45
97	-1.16	-0.68	-0.72	-0.74
98	-1.23	-0.79	-0.82	-0.83
99	-1.09	-0.58	-0.63	-0.65
100	-1.04	-0.49	-0.55	-0.58
101	-1.00	-0.42	-0.49	-0.52
102	-0.97	-0.35	-0.43	-0.46
103	-0.97	-0.30	-0.39	-0.42
104	-0.95	-0.24	-0.34	-0.38
105	-1.16	-0.64	-0.69	-0.71
106	-1.23	-0.76	-0.80	-0.81
107	-1.09	-0.53	-0.59	-0.62
108	-1.04	-0.44	-0.51	-0.54
109	-1.00	-0.36	-0.44	-0.47
110	-0.97	-0.29	-0.38	-0.41

111	-0.97	-0.22	-0.33	-0.37
112	-0.95	-0.15	-0.27	-0.31
113	-1.16	-0.62	-0.67	-0.69
114	-1.23	-0.75	-0.78	-0.80
115	-1.09	-0.50	-0.56	-0.59
116	-1.04	-0.40	-0.48	-0.51
117	-1.00	-0.31	-0.40	-0.44
118	-0.97	-0.23	-0.34	-0.38
119	-0.97	-0.16	-0.28	-0.33
120	-0.95	-0.09	-0.22	-0.27
121	-1.16	-0.60	-0.66	-0.68
122	-1.23	-0.73	-0.77	-0.79
123	-1.09	-0.48	-0.55	-0.58
124	-1.04	-0.37	-0.46	-0.49
125	-1.00	-0.28	-0.38	-0.42
126	-0.97	-0.20	-0.31	-0.35
127	-0.97	-0.13	-0.25	-0.30
128	-0.95	-0.05	-0.19	-0.24
129	-1.16	-0.59	-0.65	-0.68
130	-1.23	-0.73	-0.77	-0.79
131	-1.09	-0.47	-0.54	-0.57
132	-1.04	-0.37	-0.45	-0.49
133	-1.00	-0.27	-0.37	-0.41
134	-0.97	-0.19	-0.30	-0.35
135	-0.97	-0.12	-0.24	-0.29
136	-0.95	-0.04	-0.18	-0.23
137	-1.16	-0.60	-0.66	-0.68
138	-1.23	-0.73	-0.77	-0.79
139	-1.09	-0.48	-0.55	-0.58
140	-1.04	-0.37	-0.46	-0.49
141	-1.00	-0.28	-0.38	-0.42
142	-0.97	-0.20	-0.31	-0.35
143	-0.97	-0.13	-0.25	-0.30
144	-0.95	-0.05	-0.19	-0.24
145	-1.16	-0.62	-0.67	-0.69
146	-1.23	-0.75	-0.78	-0.80
147	-1.09	-0.50	-0.56	-0.59
148	-1.04	-0.40	-0.48	-0.51
149	-1.00	-0.31	-0.40	-0.44
150	-0.97	-0.23	-0.34	-0.38
151	-0.97	-0.16	-0.28	-0.33
152	-0.95	-0.09	-0.22	-0.27
153	-1.16	-0.64	-0.69	-0.71
154	-1.23	-0.76	-0.80	-0.81
155	-1.09	-0.53	-0.59	-0.62
156	-1.04	-0.44	-0.51	-0.54
157	-1.00	-0.36	-0.44	-0.47
158	-0.97	-0.29	-0.38	-0.41
159	-0.97	-0.22	-0.33	-0.37
160	-0.95	-0.15	-0.27	-0.31
161	-1.16	-0.68	-0.72	-0.74
162	-1.23	-0.79	-0.82	-0.83
163	-1.09	-0.58	-0.63	-0.65
164	-1.04	-0.49	-0.55	-0.58
165	-1.00	-0.42	-0.49	-0.52
166	-0.97	-0.35	-0.43	-0.46
167	-0.97	-0.30	-0.39	-0.42
168	-0.95	-0.24	-0.34	-0.38
169	-1.16	-0.73	-0.76	-0.77
170	-1.23	-0.82	-0.85	-0.85
171	-1.09	-0.63	-0.67	-0.69
172	-1.04	-0.56	-0.61	-0.62
173	-1.00	-0.49	-0.55	-0.57
174	-0.97	-0.44	-0.50	-0.52
175	-0.97	-0.40	-0.47	-0.49
176	-0.95	-0.34	-0.42	-0.45
177	-1.16	-0.78	-0.80	-0.81
178	-1.23	-0.86	-0.87	-0.88
179	-1.09	-0.70	-0.72	-0.73
180	-1.04	-0.63	-0.67	-0.68
181	-1.00	-0.58	-0.62	-0.63
182	-0.97	-0.54	-0.58	-0.59
183	-0.97	-0.51	-0.55	-0.57
184	-0.95	-0.46	-0.52	-0.54
185	-1.16	-0.83	-0.84	-0.85
186	-1.23	-0.90	-0.91	-0.91
187	-1.09	-0.77	-0.78	-0.78

188	-1.04	-0.71	-0.73	-0.74
189	-1.00	-0.67	-0.69	-0.70
190	-0.97	-0.64	-0.66	-0.67
191	-0.97	-0.62	-0.65	-0.66
192	-0.95	-0.59	-0.62	-0.63
193	-1.16	-0.89	-0.89	-0.89
194	-1.23	-0.94	-0.94	-0.94
195	-1.09	-0.84	-0.84	-0.84
196	-1.04	-0.80	-0.80	-0.80
197	-1.00	-0.77	-0.77	-0.77
198	-0.97	-0.75	-0.75	-0.75
199	-0.97	-0.75	-0.75	-0.75
200	-0.95	-0.73	-0.73	-0.73
201	-1.18	-0.95	-0.94	-0.93
202	-1.23	-0.98	-0.97	-0.97
203	-1.13	-0.91	-0.89	-0.89
204	-1.10	-0.88	-0.87	-0.86
205	-1.08	-0.87	-0.85	-0.84
206	-1.07	-0.86	-0.83	-0.83
207	-1.08	-0.87	-0.84	-0.83
208	-1.07	-0.86	-0.83	-0.82
209	-1.25	-1.01	-0.98	-0.97
210	-1.27	-1.02	-1.01	-1.00
211	-1.21	-0.98	-0.95	-0.94
212	-1.19	-0.97	-0.93	-0.92
213	-1.19	-0.96	-0.92	-0.90
214	-1.19	-0.96	-0.92	-0.90
215	-1.22	-0.99	-0.94	-0.92
216	-1.22	-0.99	-0.94	-0.91
217	-1.31	-1.06	-1.02	-1.01
218	-1.32	-1.06	-1.04	-1.02
219	-1.29	-1.04	-1.00	-0.98
220	-1.28	-1.04	-0.99	-0.97
221	-1.29	-1.05	-0.99	-0.97
222	-1.30	-1.06	-1.00	-0.97
223	-1.35	-1.10	-1.03	-1.00
224	-1.36	-1.11	-1.03	-1.00
225	-1.36	-1.10	-1.06	-1.04
226	-1.36	-1.09	-1.06	-1.05
227	-1.35	-1.10	-1.04	-1.02
228	-1.36	-1.11	-1.04	-1.02
229	-1.37	-1.12	-1.05	-1.02
230	-1.40	-1.14	-1.06	-1.03
231	-1.46	-1.19	-1.10	-1.07
232	-1.48	-1.21	-1.11	-1.08
233	-1.41	-1.14	-1.09	-1.07
234	-1.39	-1.12	-1.08	-1.07
235	-1.41	-1.14	-1.08	-1.05
236	-1.42	-1.16	-1.09	-1.06
237	-1.45	-1.18	-1.10	-1.06
238	-1.48	-1.21	-1.12	-1.08
239	-1.55	-1.27	-1.17	-1.12
240	-1.58	-1.30	-1.18	-1.14
241	-1.44	-1.17	-1.11	-1.09
242	-1.41	-1.14	-1.10	-1.08
243	-1.45	-1.18	-1.11	-1.08
244	-1.47	-1.20	-1.12	-1.08
245	-1.50	-1.23	-1.13	-1.10
246	-1.54	-1.27	-1.16	-1.12
247	-1.62	-1.33	-1.21	-1.17
248	-1.66	-1.36	-1.23	-1.18
249	-1.46	-1.19	-1.12	-1.10
250	-1.42	-1.15	-1.11	-1.09
251	-1.47	-1.20	-1.12	-1.09
252	-1.50	-1.22	-1.14	-1.10
253	-1.53	-1.26	-1.16	-1.12
254	-1.58	-1.30	-1.19	-1.14
255	-1.66	-1.37	-1.24	-1.19
256	-1.70	-1.40	-1.27	-1.21
257	-1.30	-1.05	-1.03	-1.02
258	-1.30	-1.05	-1.02	-1.01
259	-1.29	-1.04	-1.02	-1.01
260	-1.28	-1.03	-1.01	-1.00
261	-1.27	-1.02	-1.00	-0.99
262	-1.25	-1.00	-0.99	-0.98
263	-1.23	-0.98	-0.97	-0.97
264	-1.23	-0.96	-0.96	-0.95

265	-1.23	-0.94	-0.94	-0.94
266	-1.23	-0.92	-0.92	-0.92
267	-1.23	-0.90	-0.91	-0.91
268	-1.23	-0.88	-0.89	-0.90
269	-1.23	-0.87	-0.88	-0.89
270	-1.23	-0.85	-0.87	-0.88
271	-1.23	-0.84	-0.86	-0.87
272	-1.23	-0.84	-0.86	-0.87
273	-1.23	-0.84	-0.86	-0.86
274	-1.23	-0.84	-0.86	-0.87
275	-1.23	-0.84	-0.86	-0.87
276	-1.23	-0.85	-0.87	-0.88
277	-1.23	-0.87	-0.88	-0.89
278	-1.23	-0.88	-0.89	-0.90
279	-1.23	-0.90	-0.91	-0.91
280	-1.23	-0.92	-0.92	-0.92
281	-1.23	-0.94	-0.94	-0.94
282	-1.23	-0.96	-0.96	-0.95
283	-1.23	-0.98	-0.97	-0.97
284	-1.25	-1.00	-0.99	-0.98
285	-1.27	-1.02	-1.00	-0.99
286	-1.28	-1.03	-1.01	-1.00
287	-1.29	-1.04	-1.02	-1.01
288	-1.30	-1.05	-1.02	-1.01
290	-1.24	-1.00	-0.99	-0.98
291	-1.27	-1.02	-1.01	-1.00
292	-1.27	-1.02	-1.00	-1.00
293	-1.24	-1.00	-0.98	-0.98
294	-1.27	-1.02	-1.00	-0.99
295	-1.24	-0.99	-0.98	-0.98
296	-1.26	-1.01	-0.99	-0.99
297	-1.23	-0.99	-0.98	-0.97
298	-1.25	-1.00	-0.99	-0.98
299	-1.23	-0.98	-0.97	-0.97
300	-1.23	-0.99	-0.98	-0.97
301	-1.23	-0.97	-0.97	-0.96
302	-1.23	-0.97	-0.97	-0.96
303	-1.23	-0.96	-0.96	-0.96
304	-1.23	-0.96	-0.95	-0.95
305	-1.23	-0.95	-0.95	-0.95
306	-1.23	-0.94	-0.94	-0.94
307	-1.23	-0.94	-0.94	-0.94
308	-1.23	-0.93	-0.93	-0.93
309	-1.23	-0.93	-0.93	-0.93
310	-1.23	-0.91	-0.92	-0.92
311	-1.23	-0.92	-0.92	-0.92
312	-1.23	-0.90	-0.90	-0.91
313	-1.23	-0.91	-0.92	-0.92
314	-1.23	-0.89	-0.90	-0.90
315	-1.23	-0.90	-0.91	-0.91
316	-1.23	-0.88	-0.89	-0.89
317	-1.23	-0.90	-0.90	-0.91
318	-1.23	-0.87	-0.88	-0.89
319	-1.23	-0.89	-0.90	-0.90
320	-1.23	-0.86	-0.88	-0.88
321	-1.23	-0.89	-0.90	-0.90
322	-1.23	-0.86	-0.88	-0.88
323	-1.23	-0.89	-0.90	-0.90
324	-1.23	-0.86	-0.88	-0.88
325	-1.23	-0.89	-0.90	-0.90
326	-1.23	-0.87	-0.88	-0.89
327	-1.23	-0.89	-0.90	-0.90
328	-1.23	-0.88	-0.89	-0.89
329	-1.23	-0.90	-0.90	-0.91
330	-1.23	-0.89	-0.90	-0.90
331	-1.23	-0.90	-0.91	-0.91
332	-1.23	-0.90	-0.90	-0.91
333	-1.23	-0.91	-0.92	-0.92
334	-1.23	-0.91	-0.92	-0.92
335	-1.23	-0.92	-0.92	-0.92
336	-1.23	-0.93	-0.93	-0.93
337	-1.23	-0.93	-0.93	-0.93
338	-1.23	-0.94	-0.94	-0.94
339	-1.23	-0.94	-0.94	-0.94
340	-1.23	-0.96	-0.95	-0.95
341	-1.23	-0.95	-0.95	-0.95
342	-1.23	-0.97	-0.97	-0.96

343	-1.23	-0.96	-0.96	-0.96
344	-1.23	-0.99	-0.98	-0.97
345	-1.23	-0.97	-0.97	-0.96
346	-1.25	-1.00	-0.99	-0.98
347	-1.23	-0.98	-0.97	-0.97
348	-1.26	-1.01	-0.99	-0.99
349	-1.23	-0.99	-0.98	-0.97
350	-1.27	-1.02	-1.00	-0.99
351	-1.24	-0.99	-0.98	-0.98
352	-1.27	-1.02	-1.00	-1.00
353	-1.24	-1.00	-0.98	-0.98
354	-1.23	-0.97	-0.96	-0.96
355	-1.23	-0.98	-0.97	-0.97
356	-1.23	-0.98	-0.97	-0.97
357	-1.23	-0.97	-0.96	-0.96
358	-1.23	-0.98	-0.97	-0.97
359	-1.23	-0.97	-0.96	-0.96
360	-1.23	-0.98	-0.97	-0.96
361	-1.23	-0.96	-0.96	-0.95
362	-1.23	-0.97	-0.96	-0.96
363	-1.23	-0.96	-0.95	-0.95
364	-1.23	-0.97	-0.96	-0.96
365	-1.23	-0.96	-0.95	-0.95
366	-1.23	-0.96	-0.95	-0.95
367	-1.23	-0.95	-0.95	-0.95
368	-1.23	-0.95	-0.95	-0.95
369	-1.23	-0.95	-0.94	-0.94
370	-1.23	-0.94	-0.94	-0.94
371	-1.23	-0.94	-0.94	-0.94
372	-1.23	-0.94	-0.93	-0.93
373	-1.23	-0.94	-0.94	-0.94
374	-1.23	-0.93	-0.93	-0.93
375	-1.23	-0.93	-0.93	-0.93
376	-1.23	-0.92	-0.92	-0.92
377	-1.23	-0.93	-0.93	-0.93
378	-1.23	-0.91	-0.92	-0.92
379	-1.23	-0.93	-0.93	-0.93
380	-1.23	-0.91	-0.91	-0.92
381	-1.23	-0.92	-0.92	-0.93
382	-1.23	-0.91	-0.91	-0.91
383	-1.23	-0.92	-0.92	-0.92
384	-1.23	-0.90	-0.91	-0.91
385	-1.23	-0.92	-0.92	-0.92
386	-1.23	-0.90	-0.91	-0.91
387	-1.23	-0.92	-0.92	-0.92
388	-1.23	-0.90	-0.91	-0.91
389	-1.23	-0.92	-0.92	-0.92
390	-1.23	-0.91	-0.91	-0.91
391	-1.23	-0.92	-0.92	-0.92
392	-1.23	-0.91	-0.91	-0.92
393	-1.23	-0.92	-0.92	-0.93
394	-1.23	-0.91	-0.92	-0.92
395	-1.23	-0.93	-0.93	-0.93
396	-1.23	-0.92	-0.92	-0.92
397	-1.23	-0.93	-0.93	-0.93
398	-1.23	-0.93	-0.93	-0.93
399	-1.23	-0.93	-0.93	-0.93
400	-1.23	-0.94	-0.93	-0.93
401	-1.23	-0.94	-0.94	-0.94
402	-1.23	-0.94	-0.94	-0.94
403	-1.23	-0.94	-0.94	-0.94
404	-1.23	-0.95	-0.95	-0.95
405	-1.23	-0.95	-0.94	-0.94
406	-1.23	-0.96	-0.95	-0.95
407	-1.23	-0.95	-0.95	-0.95
408	-1.23	-0.97	-0.96	-0.96
409	-1.23	-0.96	-0.95	-0.95
410	-1.23	-0.97	-0.96	-0.96
411	-1.23	-0.96	-0.95	-0.95
412	-1.23	-0.98	-0.97	-0.96
413	-1.23	-0.96	-0.96	-0.95
414	-1.23	-0.98	-0.97	-0.97
415	-1.23	-0.97	-0.96	-0.96
416	-1.23	-0.98	-0.97	-0.97
449	-0.97	-0.64	-0.66	-0.67

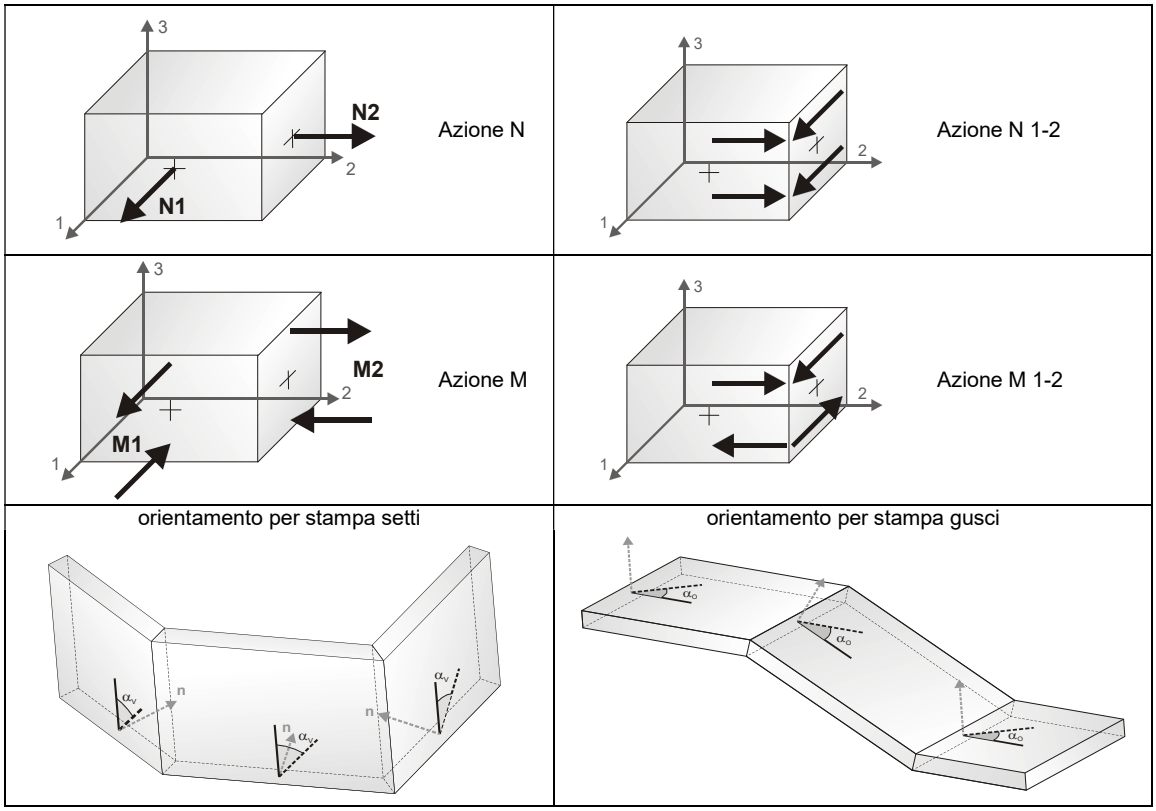
Nodo (G)	**Pt 1/12**	**Pt 2/13**	**Pt 3...**	**Pt 4...**

-1.72
-0.04

RISULTATI ELEMENTI TIPO SHELL

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**	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)
N1-2	**M1**	
M2	**M1-2**	

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 α_O attorno all'asse Z per i gusci e ruotata di α_V attorno alla normale (che per definizione è orizzontale) al piano del setto.
Per i setti, in particolare, se α_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-X (gradi)
1	**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
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
1	2	1	1391.48	-1335.05	-1319.77	1376.21	203.49	-2.500e+05	-6.826e+05	-6.823e+05	-2.502e+05	1.016e+04
1	2	2	573.55	-500.19	-491.66	565.01	95.33	-2.577e+05	-3.533e+05	-3.533e+05	-2.577e+05	-66.01
1	2	3	555.93	-483.67	-452.92	525.19	-176.12	-2.488e+05	-3.522e+05	-3.521e+05	-2.489e+05	2075.85
1	2	4	1351.88	-1295.89	-1189.04	1245.02	-521.07	-2.443e+05	-6.728e+05	-6.657e+05	-2.513e+05	-5.434e+04
1	2	17	528.71	-459.69	-282.65	351.66	-379.00	-2.243e+05	-3.470e+05	-3.470e+05	-2.243e+05	-1121.22
1	2	18	1299.75	-1245.10	-697.96	752.62	-1045.48	-2.290e+05	-6.420e+05	-6.111e+05	-2.599e+05	-1.087e+05
1	2	25	492.82	-429.07	-41.30	105.04	-455.10	-1.880e+05	-3.350e+05	-3.338e+05	-1.892e+05	-1.303e+04
1	2	26	1237.37	-1184.87	-19.78	72.27	-1210.25	-2.044e+05	-5.918e+05	-5.273e+05	-2.689e+05	-1.443e+05
1	2	33	450.05	-393.39	189.96	-133.30	-389.52	-1.433e+05	-3.146e+05	-3.077e+05	-1.503e+05	-3.374e+04
1	2	34	1168.37	-1118.77	615.65	-566.05	-979.10	-1.710e+05	-5.245e+05	-4.266e+05	-2.690e+05	-1.582e+05
1	2	41	403.10	-355.08	336.66	-288.65	-214.37	-9.309e+04	-2.857e+05	-2.648e+05	-1.140e+05	-5.987e+04
1	2	42	1097.76	-1051.71	999.63	-953.57	-448.68	-1.293e+05	-4.437e+05	-3.213e+05	-2.516e+05	-1.533e+05
1	2	49	355.79	-317.64	355.78	-317.62	3.28	-3.973e+04	-2.487e+05	-2.041e+05	-8.427e+04	-8.557e+04
1	2	50	1031.78	-989.76	1014.41	-972.39	186.58	-7.930e+04	-3.538e+05	-2.206e+05	-2.125e+05	-1.372e+05
1	2	57	313.28	-285.82	249.32	-221.86	185.01	1.443e+04	-2.048e+05	-1.285e+05	-6.180e+04	-1.044e+05
1	2	58	977.28	-939.65	671.38	-633.74	702.01	-2.079e+04	-2.605e+05	-1.282e+05	-1.531e+05	-1.192e+05
1	2	65	281.69	-265.36	62.56	-46.23	268.06	6.718e+04	-1.555e+05	-4.443e+04	-4.392e+04	-1.114e+05
1	2	66	940.67	-907.59	105.07	-71.99	919.88	4.712e+04	-1.706e+05	-4.313e+04	-8.030e+04	-1.072e+05
1	2	73	266.44	-261.24	-132.48	137.68	226.64	1.165e+05	-1.028e+05	3.971e+04	-2.608e+04	-1.046e+05
1	2	74	926.20	-897.68	-474.72	503.23	769.77	1.245e+05	-9.003e+04	3.912e+04	-4691.77	-1.050e+05
1	2	81	269.13	-274.62	-262.52	257.03	80.21	1.604e+05	-4.871e+04	1.154e+05	-3711.77	-8.593e+04
1	2	82	934.55	-910.41	-856.13	880.26	311.78	2.081e+05	-2.186e+04	1.234e+05	6.279e+04	-1.109e+05
1	2	89	286.29	-301.64	-278.70	263.35	-113.86	1.974e+05	4600.96	1.762e+05	2.581e+04	-6.034e+04
1	2	90	962.55	-942.46	-898.79	918.89	-285.09	2.917e+05	3.436e+04	2.121e+05	1.140e+05	-1.190e+05
1	2	97	311.94	-335.93	-173.62	149.63	-280.73	2.265e+05	5.478e+04	2.194e+05	6.191e+04	-3.425e+04
1	2	98	1004.46	-987.90	-582.57	599.13	-802.04	3.688e+05	7.993e+04	3.032e+05	1.456e+05	-1.210e+05
1	2	105	340.45	-371.53	16.00	-47.08	-354.59	2.469e+05	9.936e+04	2.457e+05	1.006e+05	-1.350e+04
1	2	106	1053.71	-1040.06	-14.91	28.56	-1046.66	4.338e+05	1.156e+05	3.896e+05	1.597e+05	-1.100e+05
1	2	113	367.78	-404.13	222.05	-258.41	-302.08	2.590e+05	1.356e+05	2.590e+05	1.356e+05	-1483.51
1	2	114	1104.39	-1092.89	605.84	-594.34	-920.27	4.826e+05	1.415e+05	4.614e+05	1.628e+05	-8.240e+04
1	2	121	391.36	-430.96	368.75	-408.34	-134.49	2.643e+05	1.600e+05	2.642e+05	1.601e+05	1879.78
1	2	122	1151.92	-1141.75	1058.53	-1048.36	-453.31	5.126e+05	1.576e+05	5.080e+05	1.622e+05	-4.012e+04
1	2	129	409.89	-450.58	399.20	-439.89	95.33	2.655e+05	1.688e+05	2.655e+05	1.688e+05	-66.01
1	2	130	1193.34	-1183.62	1175.79	-1166.07	203.49	5.220e+05	1.637e+05	5.217e+05	1.640e+05	1.016e+04
1	2	137	423.02	-462.62	295.78	-335.38	310.64	2.643e+05	1.600e+05	2.643e+05	1.600e+05	-2001.75
1	2	138	1227.22	-1217.06	902.78	-892.62	829.31	5.104e+05	1.598e+05	5.002e+05	1.700e+05	5.889e+04
1	2	145	431.26	-467.61	87.23	-123.58	436.90	2.591e+05	1.355e+05	2.591e+05	1.355e+05	1390.16
1	2	146	1253.52	-1242.02	318.06	-306.56	1208.05	4.781e+05	1.460e+05	4.470e+05	1.771e+05	9.677e+04
1	2	153	435.81	-466.89	-160.15	129.07	427.56	2.470e+05	9.925e+04	2.458e+05	1.005e+05	1.345e+04
1	2	154	1273.31	-1259.66	-390.91	404.57	1202.41	4.267e+05	1.226e+05	3.708e+05	1.785e+05	1.178e+05
1	2	161	438.47	-462.46	-364.29	340.30	280.73	2.266e+05	5.466e+04	2.195e+05	6.178e+04	3.425e+04
1	2	162	1288.49	-1271.94	-989.56	1006.12	802.04	3.588e+05	8.993e+04	2.829e+05	1.659e+05	1.210e+05
1	2	169	441.37	-456.72	-454.85	439.50	40.90	1.976e+05	4474.21	1.764e+05	2.569e+04	6.039e+04
1	2	170	1301.39	-1281.29	-1274.80	1294.89	129.35	2.783e+05	4.781e+04	1.934e+05	1.327e+05	1.112e+05
1	2	177	446.63	-452.12	-397.34	391.85	-215.03	1.605e+05	-4.884e+04	1.155e+05	-3805.13	8.603e+04
1	2	178	1314.28	-1290.15	-1143.91	1168.05	-599.57	1.909e+05	-4730.67	1.091e+05	7.716e+04	9.653e+04
1	2	185	455.95	-450.74	-205.44	210.65	-402.79	1.166e+05	-1.030e+05	3.976e+04	-2.613e+04	1.047e+05
1	2	186	1328.97	-1300.45	-630.46	658.98	-1145.77	1.046e+05	-7.015e+04	3.135e+04	3082.44	8.621e+04
1	2	193	470.11	-453.78	62.56	-46.23	-458.73	6.731e+04	-1.557e+05	-4.443e+04	-4.392e+04	1.115e+05
1	2	194	1346.36	-1313.28	105.07	-71.99	-1326.87	2.718e+04	-1.506e+05	-4.313e+04	-8.030e+04	8.693e+04
1	2	201	488.75	-461.29	322.28	-294.82	-361.16	1.456e+04	-2.049e+05	-1.286e+05	-6.174e+04	1.045e+05
1	2	202	1366.21	-1328.58	827.12	-789.49	-1078.01	-3.819e+04	-2.431e+05	-1.204e+05	-1.609e+05	1.004e+05
1	2	209	510.41	-472.25	490.60	-452.44	-138.10	-3.960e+04	-2.488e+05	-2.042e+05	-8.418e+04	8.566e+04
1	2	210	1387.19	-1345.17	1302.19	-1260.17	-474.36	-9.329e+04	-3.398e+05	-2.062e+05	-2.269e+05	1.228e+05
1	2	217	532.86	-484.84	512.81	-464.80	141.41	-9.296e+04	-2.858e+05	-2.649e+05	-1.138e+05	5.992e+04
1	2	218	1406.99	-1360.93	1375.63	-1329.58	292.93	-1.401e+05	-4.329e+05	-3.026e+05	-2.704e+05	1.455e+05
1	2	225	553.53	-496.87	380.62	-323.96	389.52	-1.432e+05	-3.147e+05	-3.078e+05	-1.501e+05	3.374e+04
1	2	226	1422.77	-1373.17	1022.63	-973.04	979.10	-1.791e+05	-5.165e+05	-4.063e+05	-2.893e+05	1.582e+05
1	2	233	569.89	-506.14	134.85	-71.11	528.07	-1.879e+05	-3.351e+05	-3.339e+05	-1.890e+05	1.298e+04
1	2	234	1431.53	-1379.04	356.23	-303.73	1365.99	-2.102e+05	-5.860e+05	-5.085e+05	-2.877e+05	1.521e+05
1	2	241	579.73	-510.71	-147.83	216.84	513.82	-2.242e+05	-3.471e+05	-3.471e+05	-2.242e+05	1027.86
1	2	242	1430.54	-1375.88	-410.18	464.84	1333.26	-2.327e+05	-6.383e+05	-5.967e+05	-2.743e+05	1.231e+05
1	2	249	581.32	-509.06	-379.96	452.22	352.27	-2.488e+05	-3.522e+05	-3.522e+05	-2.488e+05	-2197.82
1	2	250	1417.62	-1361.63	-1033.29	1089.28	897.07	-2.461e+05	-6.709e+05	-6.580e+05	-2.591e+05	7.311e+04
1	3	1	1214.21	-1160.81	-1143.26	1196.65	203.45	-2.220e+05	-5.994e+05	-5.992e+05	-2.223e+05	1.016e+04
1	3	2	504.54	-439.28	-429.55	494.82	95.31	-2.290e+05	-3.111e+05	-3.111e+05	-2.290e+05	-66.00
1	3	3	487.86	-423.53	-400.88	465.21	-141.87	-2.214e+05	-3.100e+05	-3.100e+05	-2.215e+05	1745.79
1	3	4	1175.84	-1122.82	-1041.30	1094.32	-425.14	-2.170e+05	-5.911e+05	-5.853e+05	-2.229e+05	-4.650e+04

1	3	17	462.69	-401.12	-257.40	318.98	-321.70	-2.004e+05	-3.056e+05	-3.056e+05	-2.004e+05	-1010.12
1	3	18	1126.15	-1074.24	-626.90	678.81	-885.55	-2.038e+05	-5.649e+05	-5.382e+05	-2.305e+05	-9.446e+04
1	3	25	429.80	-372.71	-50.56	107.65	-393.38	-1.693e+05	-2.953e+05	-2.943e+05	-1.703e+05	-1.122e+04
1	3	26	1067.07	-1016.95	-47.46	97.58	-1039.48	-1.827e+05	-5.219e+05	-4.656e+05	-2.390e+05	-1.262e+05
1	3	33	390.63	-339.56	150.11	-99.05	-343.18	-1.311e+05	-2.778e+05	-2.719e+05	-1.371e+05	-2.896e+04
1	3	34	1001.73	-954.02	500.36	-452.65	-853.92	-1.541e+05	-4.643e+05	-3.782e+05	-2.403e+05	-1.389e+05
1	3	41	347.37	-303.65	280.45	-236.74	-197.70	-8.807e+04	-2.530e+05	-2.351e+05	-1.060e+05	-5.133e+04
1	3	42	934.53	-889.76	837.32	-792.55	-409.74	-1.184e+05	-3.950e+05	-2.866e+05	-2.268e+05	-1.350e+05
1	3	49	303.22	-267.88	302.89	-267.55	-13.70	-4.237e+04	-2.213e+05	-1.831e+05	-8.057e+04	-7.333e+04
1	3	50	871.03	-829.62	861.34	-819.93	128.05	-7.584e+04	-3.178e+05	-1.989e+05	-1.947e+05	-1.209e+05
1	3	57	262.59	-236.35	218.23	-191.99	142.01	4016.55	-1.837e+05	-1.184e+05	-6.132e+04	-8.943e+04
1	3	58	817.64	-779.87	580.46	-542.69	568.01	-2.619e+04	-2.374e+05	-1.186e+05	-1.450e+05	-1.048e+05
1	3	65	231.18	-214.40	64.28	-47.50	215.66	4.919e+04	-1.415e+05	-4.634e+04	-4.601e+04	-9.537e+04
1	3	66	780.59	-746.60	107.95	-73.97	758.16	3.112e+04	-1.595e+05	-4.488e+04	-8.349e+04	-9.333e+04
1	3	73	214.65	-207.33	-98.18	105.50	184.78	9.139e+04	-9.639e+04	2.572e+04	-3.072e+04	-8.955e+04
1	3	74	764.38	-734.18	-378.41	408.61	637.63	9.617e+04	-8.932e+04	2.588e+04	-1.903e+04	-8.999e+04
1	3	81	215.40	-217.18	-207.07	205.30	65.33	1.290e+05	-5.004e+04	9.053e+04	-1.154e+04	-7.356e+04
1	3	82	770.13	-743.58	-698.72	725.27	256.68	1.666e+05	-2.971e+04	9.783e+04	3.903e+04	-9.363e+04
1	3	89	230.50	-240.66	-220.90	210.75	-94.44	1.608e+05	-4369.14	1.426e+05	1.377e+04	-5.163e+04
1	3	90	795.12	-771.92	-733.72	756.92	-241.68	2.373e+05	1.942e+04	1.730e+05	8.364e+04	-9.933e+04
1	3	97	254.06	-271.57	-133.33	115.83	-231.41	1.856e+05	3.862e+04	1.795e+05	4.470e+04	-2.929e+04
1	3	98	833.93	-813.68	-466.38	486.64	-672.01	3.026e+05	5.914e+04	2.498e+05	1.119e+05	-1.003e+05
1	3	105	280.62	-304.15	24.57	-48.10	-290.12	2.031e+05	7.681e+04	2.021e+05	7.787e+04	-1.153e+04
1	3	106	880.34	-862.50	11.83	6.01	-871.41	3.577e+05	9.017e+04	3.225e+05	1.255e+05	-9.052e+04
1	3	113	306.36	-334.37	195.15	-223.16	-242.66	2.135e+05	1.078e+05	2.134e+05	1.078e+05	-1244.65
1	3	114	928.75	-912.70	532.25	-516.20	-756.92	3.992e+05	1.127e+05	3.825e+05	1.294e+05	-6.716e+04
1	3	121	328.97	-359.74	314.40	-345.17	-99.10	2.180e+05	1.288e+05	2.180e+05	1.288e+05	1618.86
1	3	122	974.91	-959.96	907.21	-892.27	-355.53	4.246e+05	1.268e+05	4.212e+05	1.302e+05	-3.172e+04
1	3	129	347.29	-379.00	334.56	-366.26	95.31	2.190e+05	1.363e+05	2.190e+05	1.363e+05	-66.00
1	3	130	1016.05	-1001.48	995.32	-980.75	203.45	4.325e+05	1.322e+05	4.322e+05	1.325e+05	1.016e+04
1	3	137	361.06	-391.83	241.45	-272.22	275.22	2.180e+05	1.287e+05	2.180e+05	1.288e+05	-1740.81
1	3	138	1050.83	-1035.89	751.50	-736.55	731.46	4.224e+05	1.290e+05	4.134e+05	1.380e+05	5.049e+04
1	3	145	370.71	-398.72	60.36	-88.37	377.46	2.136e+05	1.077e+05	2.135e+05	1.078e+05	1151.31
1	3	146	1079.10	-1063.05	244.52	-228.47	1044.64	3.946e+05	1.173e+05	3.682e+05	1.438e+05	8.152e+04
1	3	153	377.28	-400.81	-151.55	128.02	363.07	2.032e+05	7.670e+04	2.022e+05	7.775e+04	1.147e+04
1	3	154	1101.69	-1083.85	-364.10	381.94	1027.13	3.505e+05	9.738e+04	3.037e+05	1.442e+05	9.830e+04
1	3	161	382.28	-399.79	-323.96	306.46	231.41	1.857e+05	3.850e+04	1.797e+05	4.457e+04	2.929e+04
1	3	162	1120.09	-1099.83	-873.28	893.54	672.01	2.923e+05	6.939e+04	2.295e+05	1.322e+05	1.003e+05
1	3	169	387.45	-397.61	-397.02	386.86	21.49	1.609e+05	-4495.90	1.427e+05	1.365e+04	5.168e+04
1	3	170	1136.14	-1112.94	-1109.65	1132.85	85.96	2.235e+05	3.318e+04	1.543e+05	1.024e+05	9.156e+04
1	3	177	394.48	-396.26	-341.87	340.09	-200.13	1.292e+05	-5.017e+04	9.062e+04	-1.164e+04	7.365e+04
1	3	178	1151.62	-1125.07	-986.45	1013.00	-544.41	1.491e+05	-1.225e+04	8.347e+04	5.339e+04	7.927e+04
1	3	185	404.66	-397.34	-171.13	178.45	-360.90	9.152e+04	-9.653e+04	2.577e+04	-3.077e+04	8.968e+04
1	3	186	1167.90	-1137.70	-534.13	564.32	-1013.56	7.615e+04	-6.930e+04	1.811e+04	-1.126e+04	7.122e+04
1	3	193	418.51	-401.73	64.28	-47.50	-406.29	4.933e+04	-1.417e+05	-4.634e+04	-4.601e+04	9.550e+04
1	3	194	1185.60	-1151.62	107.95	-73.97	-1165.06	1.135e+04	-1.397e+05	-4.488e+04	-8.349e+04	7.302e+04
1	3	201	435.63	-409.40	291.18	-264.94	-318.12	4148.09	-1.838e+05	-1.184e+05	-6.127e+04	8.955e+04
1	3	202	1204.44	-1166.67	736.17	-698.41	-943.94	-4.326e+04	-2.203e+05	-1.108e+05	-1.528e+05	8.600e+04
1	3	209	454.79	-419.45	437.68	-402.35	-121.09	-4.224e+04	-2.214e+05	-1.832e+05	-8.048e+04	7.342e+04
1	3	210	1223.23	-1181.82	1149.06	-1107.65	-415.77	-8.952e+04	-3.041e+05	-1.845e+05	-2.091e+05	1.066e+05
1	3	217	474.12	-430.40	456.57	-412.85	124.75	-8.795e+04	-2.531e+05	-2.352e+05	-1.059e+05	5.138e+04
1	3	218	1240.04	-1195.27	1213.25	-1168.48	254.03	-1.290e+05	-3.844e+05	-2.679e+05	-2.455e+05	1.272e+05
1	3	225	491.50	-440.44	340.74	-289.68	343.18	-1.310e+05	-2.780e+05	-2.720e+05	-1.369e+05	2.896e+04
1	3	226	1252.51	-1204.80	907.27	-859.56	853.92	-1.620e+05	-4.564e+05	-3.579e+05	-2.606e+05	1.389e+05
1	3	233	504.86	-447.77	125.56	-68.46	466.33	-1.692e+05	-2.954e+05	-2.944e+05	-1.702e+05	1.117e+04
1	3	234	1258.17	-1208.05	328.47	-278.35	1195.20	-1.884e+05	-5.163e+05	-4.468e+05	-2.578e+05	1.340e+05
1	3	241	512.36	-450.79	-122.61	184.18	456.49	-2.003e+05	-3.057e+05	-3.057e+05	-2.003e+05	916.77
1	3	242	1254.74	-1202.82	-339.18	391.09	1173.28	-2.074e+05	-5.613e+05	-5.238e+05	-2.449e+05	1.088e+05
1	3	249	512.57	-448.24	-327.93	392.26	317.99	-2.214e+05	-3.101e+05	-3.101e+05	-2.214e+05	-1867.73
1	3	250	1240.44	-1187.42	-885.58	938.60	801.07	-2.188e+05	-5.894e+05	-5.775e+05	-2.306e+05	6.526e+04
1	4	1	985.75	-936.32	-926.78	976.21	135.05	-1.857e+05	-4.943e+05	-4.942e+05	-1.859e+05	6741.14
1	4	2	412.38	-356.84	-351.60	407.14	63.27	-1.915e+05	-2.570e+05	-2.570e+05	-1.915e+05	-43.81
1	4	3	400.82	-346.03	-322.98	377.77	-129.17	-1.855e+05	-2.562e+05	-2.562e+05	-1.855e+05	1419.07
1	4	4	959.61	-910.49	-833.49	882.61	-371.59	-1.819e+05	-4.875e+05	-4.822e+05	-1.872e+05	-3.979e+04
1	4	17	382.40	-329.83	-201.95	254.52	-273.36	-1.687e+05	-2.526e+05	-2.526e+05	-1.687e+05	-771.75
1	4	18	924.17	-875.96	-489.76	537.97	-738.96	-1.715e+05	-4.663e+05	-4.434e+05	-1.945e+05	-7.897e+04
1	4	25	357.71	-308.75	-30.57	79.54	-328.65	-1.438e+05	-2.444e+05	-2.436e+05	-1.446e+05	-8923.63
1	4	26	880.87	-834.14	-15.31	62.04	-856.63	-1.549e+05	-4.318e+05	-3.840e+05	-2.028e+05	-1.047e+05
1	4	33	327.90	-283.79	134.65	-90.54	-284.36	-1.133e+05	-2.305e+05	-2.258e+05	-1.180e+05	-2.310e+04
1	4	34	832.06	-787.31	430.97	-386.22	-699.03	-1.324e+05	-3.854e+05	-3.126e+05	-2.052e+05	-1.146e+05
1	4	41	294.64	-256.44	241.71	-203.51	-162.38	-7.888e+04	-2.107e+05	-1.964e+05	-9.318e+04	-4.098e+04
1	4	42	780.98	-738.65	704.51	-662.19	-332.19	-1.043e+05	-3.296e+05	-2.382e+05	-1.957e+05	-1.106e+05
1	4	49	260.29	-228.84	260.13	-228.68	-8.93	-4.236e+04	-1.854e+05	-1.549e+05	-7.286e+04	-5.857e+04
1	4	50	731.68	-692.12	723.10	-683.54	110.22	-7.090e+04	-2.673e+05	-1.673e+05	-1.709e+05	-9.817e+04
1	4	57	228.00	-203.87	190.48	-166.35	121.64	-5295.19	-1.553e+05	-1.031e+05	-5.747e+04	-7.145e+04
1	4	58	688.78	-652.22	493.23	-456.67	473.28	-3.213e+04	-2.022e+05	-1.028e+05	-1.315e+05	-8.379e+04
1	4	65	201.68	-185.16	63.26	-46.75	185.44	3.080e+04	-1.216e+05	-4.558e+04	-4.524e+04	-7.621e+04

1	4	66	656.80	-623.35	106.24	-72.80	633.78	1.248e+04	-1.387e+05	-4.414e+04	-8.212e+04	-7.318e+04
1	4	73	185.30	-176.40	-72.33	81.23	163.74	6.452e+04	-8.555e+04	1.201e+04	-3.303e+04	-7.158e+04
1	4	74	639.15	-608.82	-294.38	324.70	541.79	6.317e+04	-8.140e+04	1.159e+04	-2.982e+04	-6.926e+04
1	4	81	181.07	-179.49	-165.83	167.41	68.86	9.460e+04	-4.851e+04	6.381e+04	-1.772e+04	-5.881e+04
1	4	82	637.11	-609.78	-563.05	590.38	236.82	1.184e+05	-3.275e+04	6.786e+04	1.780e+04	-7.131e+04
1	4	89	187.88	-193.04	-183.09	177.93	-60.75	1.200e+05	-1.203e+04	1.054e+05	2487.78	-4.129e+04
1	4	90	649.33	-624.77	-602.55	627.12	-166.78	1.743e+05	7102.84	1.265e+05	5.490e+04	-7.554e+04
1	4	97	202.01	-213.09	-118.13	107.05	-174.36	1.398e+05	2.232e+04	1.349e+05	2.719e+04	-2.343e+04
1	4	98	672.39	-650.24	-397.52	419.67	-519.99	2.262e+05	3.912e+04	1.864e+05	7.893e+04	-7.657e+04
1	4	105	219.42	-235.36	4.99	-20.93	-227.02	1.538e+05	5.283e+04	1.530e+05	5.368e+04	-9233.69
1	4	106	701.94	-681.79	-19.76	39.92	-691.22	2.702e+05	6.402e+04	2.432e+05	9.103e+04	-6.956e+04
1	4	113	236.97	-256.51	140.68	-160.22	-195.57	1.621e+05	7.762e+04	1.621e+05	7.763e+04	-1009.07
1	4	114	733.88	-715.20	396.60	-377.92	-612.36	3.033e+05	8.204e+04	2.903e+05	9.508e+04	-5.211e+04
1	4	121	252.66	-274.42	237.86	-259.63	-87.07	1.657e+05	9.436e+04	1.657e+05	9.438e+04	1290.64
1	4	122	764.93	-747.16	701.52	-683.75	-303.07	3.237e+05	9.319e+04	3.209e+05	9.599e+04	-2.525e+04
1	4	129	265.44	-287.95	258.11	-280.62	63.27	1.665e+05	1.004e+05	1.665e+05	1.004e+05	-43.81
1	4	130	792.90	-775.44	781.19	-763.72	135.05	3.301e+05	9.741e+04	3.299e+05	9.761e+04	6741.14
1	4	137	275.01	-296.77	189.44	-211.20	203.97	1.657e+05	9.432e+04	1.657e+05	9.435e+04	-1371.59
1	4	138	816.74	-798.97	598.16	-580.39	552.61	3.222e+05	9.471e+04	3.157e+05	1.011e+05	3.771e+04
1	4	145	281.72	-301.27	51.20	-70.74	285.05	1.621e+05	7.756e+04	1.621e+05	7.757e+04	947.11
1	4	146	836.32	-817.64	205.61	-186.93	803.35	3.002e+05	8.518e+04	2.808e+05	1.046e+05	6.164e+04
1	4	153	286.44	-302.37	-111.91	95.98	275.44	1.539e+05	5.276e+04	1.530e+05	5.360e+04	9200.16
1	4	154	852.35	-832.19	-269.30	289.46	794.59	2.652e+05	6.896e+04	2.307e+05	1.035e+05	7.472e+04
1	4	161	290.41	-301.49	-244.67	233.59	174.36	1.399e+05	2.224e+04	1.350e+05	2.711e+04	2.343e+04
1	4	162	866.07	-843.92	-667.62	689.77	519.99	2.192e+05	4.616e+04	1.729e+05	9.242e+04	7.657e+04
1	4	169	295.09	-300.25	-300.00	294.83	12.33	1.200e+05	-1.211e+04	1.055e+05	2406.83	4.132e+04
1	4	170	878.98	-854.42	-852.09	876.66	63.41	1.649e+05	1.655e+04	1.140e+05	6.735e+04	7.038e+04
1	4	177	301.87	-300.29	-255.30	256.88	-158.33	9.468e+04	-4.860e+04	6.387e+04	-1.778e+04	5.887e+04
1	4	178	892.53	-865.20	-754.04	781.37	-427.81	1.065e+05	-2.087e+04	5.833e+04	2.733e+04	6.178e+04
1	4	185	311.76	-302.86	-120.76	129.66	-280.64	6.461e+04	-8.564e+04	1.204e+04	-3.307e+04	7.166e+04
1	4	186	907.74	-877.42	-397.74	428.07	-791.33	4.978e+04	-6.800e+04	6433.42	-2.466e+04	5.680e+04
1	4	193	325.04	-308.53	63.26	-46.75	-311.97	3.089e+04	-1.217e+05	-4.558e+04	-4.524e+04	7.630e+04
1	4	194	925.03	-891.58	106.24	-72.80	-903.88	-481.32	-1.258e+05	-4.414e+04	-8.212e+04	5.970e+04
1	4	201	341.24	-317.12	238.90	-214.77	-238.55	-5207.88	-1.554e+05	-1.032e+05	-5.744e+04	7.153e+04
1	4	202	943.98	-907.42	596.60	-560.03	-722.82	-4.318e+04	-1.911e+05	-9.760e+04	-1.367e+05	7.134e+04
1	4	209	359.18	-327.73	349.60	-318.15	-80.55	-4.228e+04	-1.854e+05	-1.549e+05	-7.279e+04	5.863e+04
1	4	210	963.45	-923.89	914.09	-874.53	-301.21	-7.973e+04	-2.585e+05	-1.577e+05	-1.805e+05	8.864e+04
1	4	217	377.23	-339.03	358.61	-320.41	113.96	-7.880e+04	-2.108e+05	-1.965e+05	-9.309e+04	4.101e+04
1	4	218	981.71	-939.38	954.05	-911.73	228.83	-1.111e+05	-3.228e+05	-2.258e+05	-2.082e+05	1.055e+05
1	4	225	393.60	-349.49	261.19	-217.07	284.36	-1.132e+05	-2.306e+05	-2.259e+05	-1.179e+05	2.310e+04
1	4	226	996.68	-951.93	701.07	-656.32	699.03	-1.375e+05	-3.803e+05	-2.992e+05	-2.187e+05	1.146e+05
1	4	233	406.60	-357.63	86.33	-37.37	377.08	-1.438e+05	-2.445e+05	-2.437e+05	-1.445e+05	8890.11
1	4	234	1006.25	-959.52	234.23	-187.50	960.00	-1.586e+05	-4.281e+05	-3.715e+05	-2.152e+05	1.098e+05
1	4	241	414.75	-362.17	-112.47	165.04	362.83	-1.686e+05	-2.527e+05	-2.527e+05	-1.686e+05	709.80
1	4	242	1008.51	-960.30	-298.77	346.98	929.95	-1.739e+05	-4.640e+05	-4.339e+05	-2.040e+05	8.850e+04
1	4	249	416.92	-362.13	-274.56	329.35	246.07	-1.854e+05	-2.562e+05	-2.562e+05	-1.855e+05	-1500.02
1	4	250	1001.98	-952.86	-730.12	779.25	621.13	-1.830e+05	-4.864e+05	-4.771e+05	-1.923e+05	5.224e+04
1	5	1	892.07	-843.23	-839.57	888.41	79.63	-1.713e+05	-4.523e+05	-4.523e+05	-1.714e+05	3974.67
1	5	2	373.91	-321.65	-319.64	371.90	37.30	-1.766e+05	-2.354e+05	-2.354e+05	-1.766e+05	-25.83
1	5	3	366.02	-314.46	-286.03	337.60	-136.15	-1.711e+05	-2.347e+05	-2.347e+05	-1.712e+05	1301.96
1	5	4	875.18	-826.64	-738.94	787.48	-376.25	-1.680e+05	-4.460e+05	-4.406e+05	-1.735e+05	-3.841e+04
1	5	17	352.00	-302.47	-169.75	219.27	-263.15	-1.560e+05	-2.315e+05	-2.315e+05	-1.560e+05	-661.81
1	5	18	849.92	-802.27	-414.21	461.86	-700.40	-1.590e+05	-4.268e+05	-4.046e+05	-1.811e+05	-7.379e+04
1	5	25	332.40	-286.19	-9.77	55.99	-307.54	-1.337e+05	-2.242e+05	-2.234e+05	-1.344e+05	-7994.39
1	5	26	817.49	-771.28	24.52	21.69	-794.39	-1.443e+05	-3.954e+05	-3.501e+05	-1.896e+05	-9.660e+04
1	5	33	308.25	-266.49	142.19	-100.43	-260.51	-1.062e+05	-2.116e+05	-2.074e+05	-1.104e+05	-2.075e+04
1	5	34	779.84	-735.56	432.43	-388.16	-637.00	-1.243e+05	-3.534e+05	-2.851e+05	-1.927e+05	-1.048e+05
1	5	41	281.02	-244.69	238.82	-202.49	-142.83	-7.523e+04	-1.938e+05	-1.810e+05	-8.807e+04	-3.685e+04
1	5	42	739.58	-697.67	678.45	-636.54	-290.02	-9.941e+04	-3.028e+05	-2.176e+05	-1.846e+05	-1.004e+05
1	5	49	252.68	-222.54	252.66	-222.53	2.72	-4.237e+04	-1.710e+05	-1.436e+05	-6.979e+04	-5.269e+04
1	5	50	699.91	-660.70	688.57	-649.36	123.69	-6.988e+04	-2.462e+05	-1.537e+05	-1.625e+05	-8.808e+04
1	5	57	225.72	-202.31	184.60	-161.19	126.13	-9025.17	-1.440e+05	-9.708e+04	-5.596e+04	-6.428e+04
1	5	58	664.36	-628.07	469.63	-433.34	462.34	-3.566e+04	-1.870e+05	-9.593e+04	-1.267e+05	-7.410e+04
1	5	65	203.04	-186.63	62.89	-46.47	187.00	2.345e+04	-1.137e+05	-4.530e+04	-4.496e+04	-6.858e+04
1	5	66	636.28	-603.03	105.62	-72.37	613.23	3696.71	-1.292e+05	-4.387e+04	-8.163e+04	-6.371e+04
1	5	73	187.42	-177.99	-67.15	76.57	167.98	5.378e+04	-8.126e+04	6512.15	-3.399e+04	-6.441e+04
1	5	74	618.24	-588.03	-271.94	302.15	530.45	4.859e+04	-7.691e+04	5312.43	-3.363e+04	-5.965e+04
1	5	81	180.50	-177.79	-158.91	161.61	80.06	8.083e+04	-4.795e+04	5.312e+04	-2.023e+04	-5.292e+04
1	5	82	611.34	-584.05	-529.47	556.75	249.55	9.787e+04	-3.274e+04	5.485e+04	1.028e+04	-6.138e+04
1	5	89	181.88	-185.37	-180.55	177.06	-41.79	1.036e+05	-1.512e+04	9.058e+04	-2060.88	-3.716e+04
1	5	90	614.91	-590.32	-577.09	601.68	-125.58	1.480e+05	3202.84	1.066e+05	4.469e+04	-6.548e+04
1	5	97	189.35	-198.27	-125.77	116.84	-151.15	1.215e+05	1.577e+04	1.171e+05	2.016e+04	-2.109e+04
1	5	98	626.77	-604.54	-399.18	421.41	-459.00	1.948e+05	3.191e+04	1.596e+05	6.716e+04	-6.708e+04
1	5	105	200.01	-213.39	-15.66	2.28	-206.50	1.341e+05	4.322e+04	1.333e+05	4.399e+04	-8305.77
1	5	106	643.91	-623.62	-59.38	79.67	-629.94	2.346e+05	5.414e+04	2.101e+05	7.856e+04	-6.172e+04
1	5	113	211.33	-228.03	108.83	-125.53	-185.82	1.415e+05	6.552e+04	1.415e+05	6.553e+04	-900.13
1	5	114	663.30	-644.45	321.60	-302.75	-574.54	2.646e+05	7.015e+04	2.524e+05	8.232e+04	-4.709e+04

1	5	121	221.54	-240.27	201.41	-220.14	-94.29	1.448e+05	8.058e+04	1.448e+05	8.060e+04	1172.98
1	5	122	682.38	-664.42	607.74	-589.78	-308.13	2.831e+05	7.997e+04	2.802e+05	8.284e+04	-2.396e+04
1	5	129	229.62	-249.04	226.70	-246.12	37.30	1.455e+05	8.602e+04	1.455e+05	8.602e+04	-25.83
1	5	130	699.43	-681.77	694.83	-677.16	79.63	2.891e+05	8.356e+04	2.890e+05	8.363e+04	3974.67
1	5	137	235.27	-254.00	172.86	-191.59	163.22	1.448e+05	8.056e+04	1.448e+05	8.058e+04	-1220.71
1	5	138	713.62	-695.66	546.80	-528.84	455.27	2.822e+05	8.089e+04	2.772e+05	8.588e+04	3.131e+04
1	5	145	238.77	-255.47	56.08	-72.77	238.57	1.416e+05	6.548e+04	1.415e+05	6.549e+04	863.60
1	5	146	724.97	-706.12	208.99	-190.14	687.15	2.627e+05	7.204e+04	2.468e+05	8.794e+04	5.271e+04
1	5	153	240.94	-254.32	-84.59	71.21	235.06	1.341e+05	4.318e+04	1.334e+05	4.394e+04	8286.00
1	5	154	734.21	-713.92	-206.51	226.81	690.89	2.316e+05	5.711e+04	2.028e+05	8.590e+04	6.476e+04
1	5	161	242.98	-251.91	-200.38	191.45	151.15	1.216e+05	1.572e+04	1.172e+05	2.011e+04	2.109e+04
1	5	162	742.60	-720.37	-558.44	580.67	459.00	1.906e+05	3.614e+04	1.516e+05	7.511e+04	6.708e+04
1	5	169	246.34	-249.84	-249.48	245.99	13.24	1.037e+05	-1.517e+04	9.063e+04	-2108.61	3.718e+04
1	5	170	751.64	-727.05	-724.22	748.81	64.63	1.424e+05	8876.60	9.922e+04	5.203e+04	6.244e+04
1	5	177	252.38	-249.68	-211.67	214.37	-132.81	8.088e+04	-4.800e+04	5.316e+04	-2.027e+04	5.296e+04
1	5	178	762.72	-735.44	-642.08	669.36	-362.16	9.076e+04	-2.563e+04	4.923e+04	1.590e+04	5.576e+04
1	5	185	262.02	-252.60	-95.70	105.13	-236.91	5.383e+04	-8.131e+04	6531.92	-3.401e+04	6.446e+04
1	5	186	776.82	-746.61	-332.88	363.09	-677.58	4.067e+04	-6.898e+04	2270.36	-3.059e+04	5.231e+04
1	5	193	275.48	-259.06	62.89	-46.47	-261.61	2.350e+04	-1.138e+05	-4.530e+04	-4.496e+04	6.863e+04
1	5	194	794.22	-760.97	105.62	-72.37	-772.49	-3881.73	-1.216e+05	-4.387e+04	-8.163e+04	5.576e+04
1	5	201	292.12	-268.71	213.16	-189.75	-195.06	-8973.69	-1.441e+05	-9.710e+04	-5.594e+04	6.433e+04
1	5	202	814.41	-778.12	530.57	-494.28	-609.47	-4.208e+04	-1.806e+05	-9.289e+04	-1.298e+05	6.675e+04
1	5	209	310.67	-280.54	305.42	-275.28	-55.48	-4.232e+04	-1.711e+05	-1.437e+05	-6.975e+04	5.272e+04
1	5	210	836.12	-796.91	801.18	-761.97	-236.30	-7.500e+04	-2.411e+05	-1.480e+05	-1.681e+05	8.245e+04
1	5	217	329.48	-293.16	307.75	-271.42	114.28	-7.518e+04	-1.939e+05	-1.810e+05	-8.802e+04	3.687e+04
1	5	218	857.56	-815.65	825.59	-783.68	229.08	-1.034e+05	-2.989e+05	-2.103e+05	-1.920e+05	9.732e+04
1	5	225	346.84	-305.08	216.79	-175.03	260.51	-1.061e+05	-2.117e+05	-2.074e+05	-1.104e+05	2.075e+04
1	5	226	876.63	-832.36	591.69	-547.42	637.00	-1.273e+05	-3.505e+05	-2.771e+05	-2.006e+05	1.048e+05
1	5	233	361.13	-314.91	59.16	-12.94	336.09	-1.336e+05	-2.242e+05	-2.235e+05	-1.343e+05	7974.62
1	5	234	891.24	-845.03	171.65	-125.44	855.33	-1.464e+05	-3.933e+05	-3.427e+05	-1.969e+05	9.964e+04
1	5	241	371.02	-321.49	-116.99	166.52	315.90	-1.560e+05	-2.316e+05	-2.316e+05	-1.560e+05	625.28
1	5	242	899.54	-851.90	-301.60	349.25	813.01	-1.603e+05	-4.254e+05	-3.990e+05	-1.867e+05	7.941e+04
1	5	249	375.49	-323.92	-257.48	309.05	205.07	-1.711e+05	-2.347e+05	-2.347e+05	-1.712e+05	-1349.69
1	5	250	900.11	-851.58	-677.99	726.53	523.38	-1.687e+05	-4.453e+05	-4.376e+05	-1.765e+05	4.576e+04

M_G	**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
		-1379.04	-1319.77	-1329.58	-1326.87		-6.826e+05	-6.823e+05	-2.893e+05	-1.582e+05
	1431.53		1375.63	1376.21	1365.99	5.220e+05		5.217e+05	1.785e+05	1.582e+05

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**
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
2	2	2	497.57	-455.15	-445.85	488.27	93.62	-2.082e+05	-3.680e+05	-3.680e+05	-2.082e+05	1092.21
2	2	3	480.67	-438.71	-413.35	455.32	-150.56	-2.020e+05	-3.646e+05	-3.639e+05	-2.027e+05	-1.048e+04
2	2	5	288.01	-215.48	-209.75	282.28	53.40	-1.810e+05	-2.170e+05	-2.170e+05	-1.810e+05	-17.45
2	2	6	279.01	-207.57	-197.96	269.40	-67.68	-1.723e+05	-2.191e+05	-2.179e+05	-1.735e+05	7517.96
2	2	17	456.55	-415.94	-261.01	301.62	-333.42	-1.847e+05	-3.537e+05	-3.503e+05	-1.881e+05	-2.385e+04
2	2	19	263.41	-195.19	-129.02	197.24	-161.14	-1.516e+05	-2.205e+05	-2.190e+05	-1.530e+05	9811.66
2	2	25	426.02	-387.61	-43.60	82.01	-401.94	-1.573e+05	-3.352e+05	-3.258e+05	-1.667e+05	-3.985e+04
2	2	27	241.66	-178.66	-28.07	91.07	-201.54	-1.240e+05	-2.166e+05	-2.165e+05	-1.242e+05	3466.12
2	2	33	390.60	-355.15	165.18	-129.74	-342.48	-1.216e+05	-3.093e+05	-2.893e+05	-1.416e+05	-5.792e+04
2	2	35	214.61	-158.64	70.66	-14.69	-181.68	-9.200e+04	-2.064e+05	-2.052e+05	-9.324e+04	-1.184e+04
2	2	41	352.58	-320.74	297.72	-265.88	-184.20	-7.952e+04	-2.762e+05	-2.401e+05	-1.157e+05	-7.616e+04
2	2	43	183.61	-136.21	135.53	-88.13	-114.30	-5.709e+04	-1.898e+05	-1.809e+05	-6.598e+04	-3.318e+04
2	2	49	315.21	-287.50	314.97	-287.26	11.94	-3.316e+04	-2.368e+05	-1.792e+05	-9.077e+04	-9.172e+04
2	2	51	150.70	-113.08	147.90	-110.27	-27.07	-2.080e+04	-1.674e+05	-1.422e+05	-4.594e+04	-5.525e+04
2	2	57	282.76	-259.51	218.95	-195.71	174.73	1.536e+04	-1.923e+05	-1.095e+05	-6.747e+04	-1.017e+05
2	2	59	119.19	-92.17	108.02	-81.00	47.30	1.541e+04	-1.398e+05	-9.092e+04	-3.352e+04	-7.213e+04
2	2	65	260.11	-241.51	51.00	-32.40	247.32	6.398e+04	-1.441e+05	-3.520e+04	-4.497e+04	-1.039e+05
2	2	67	94.58	-78.59	34.35	-18.36	82.48	5.012e+04	-1.083e+05	-3.210e+04	-2.606e+04	-7.914e+04
2	2	73	251.26	-237.30	-123.31	137.26	206.64	1.107e+05	-9.414e+04	3.831e+04	-2.172e+04	-9.794e+04
2	2	75	84.03	-79.07	-43.32	48.28	67.47	8.201e+04	-7.388e+04	2.719e+04	-1.907e+04	-7.444e+04
2	2	81	257.06	-247.57	-237.41	246.89	70.91	1.538e+05	-4.421e+04	1.059e+05	3697.29	-8.481e+04
2	2	83	89.55	-95.20	-94.63	88.98	10.21	1.099e+05	-3.802e+04	7.981e+04	-7949.69	-5.952e+04
2	2	89	274.57	-269.21	-247.20	252.57	-107.15	1.918e+05	3587.05	1.636e+05	3.175e+04	-6.714e+04
2	2	91	105.00	-120.42	-99.37	83.95	-65.59	1.327e+05	-2122.74	1.205e+05	1.013e+04	-3.876e+04
2	2	97	298.98	-297.23	-146.58	148.34	-259.08	2.234e+05	4.713e+04	2.091e+05	6.145e+04	-4.816e+04
2	2	99	123.85	-147.84	-54.67	30.69	-128.96	1.498e+05	3.230e+04	1.470e+05	3.509e+04	-1.788e+04
2	2	105	325.75	-326.96	30.29	-31.49	-324.89	2.479e+05	8.428e+04	2.419e+05	9.031e+04	-3.083e+04
2	2	107	142.32	-173.34	23.89	-54.91	-152.84	1.607e+05	6.367e+04	1.606e+05	6.371e+04	-2110.35

2	2	113	351.51	-354.92	220.64	-224.05	-274.46	2.651e+05	1.130e+05	2.632e+05	1.149e+05	-1.695e+04
2	2	115	158.46	-194.71	107.73	-143.97	-123.87	1.655e+05	9.018e+04	1.651e+05	9.059e+04	5543.61
2	2	121	374.09	-378.86	354.91	-359.67	-118.65	2.750e+05	1.313e+05	2.747e+05	1.316e+05	-6738.16
2	2	123	171.25	-210.71	165.25	-204.71	-47.51	1.658e+05	1.093e+05	1.653e+05	1.098e+05	5208.11
2	2	129	392.32	-397.54	381.06	-386.28	93.62	2.780e+05	1.378e+05	2.780e+05	1.378e+05	1092.21
2	2	131	180.27	-220.81	173.03	-213.57	53.40	1.648e+05	1.168e+05	1.648e+05	1.168e+05	-17.45
2	2	137	405.84	-410.60	283.25	-288.01	291.65	2.744e+05	1.319e+05	2.739e+05	1.324e+05	8756.29
2	2	139	185.54	-225.00	124.37	-163.83	146.19	1.658e+05	1.093e+05	1.653e+05	1.098e+05	-5240.36
2	2	145	414.98	-418.39	88.24	-91.64	406.86	2.640e+05	1.141e+05	2.616e+05	1.164e+05	1.849e+04
2	2	147	187.53	-223.77	32.21	-68.45	199.39	1.656e+05	9.016e+04	1.652e+05	9.057e+04	-5568.30
2	2	153	420.64	-421.85	-142.71	141.50	396.55	2.464e+05	8.582e+04	2.399e+05	9.233e+04	3.166e+04
2	2	155	187.07	-218.09	-74.79	43.77	193.71	1.607e+05	6.363e+04	1.607e+05	6.368e+04	2097.00
2	2	161	424.14	-422.39	-333.83	335.59	259.08	2.216e+05	4.895e+04	2.069e+05	6.363e+04	4.816e+04
2	2	163	185.44	-209.42	-161.48	137.49	128.96	1.498e+05	3.226e+04	1.470e+05	3.505e+04	1.788e+04
2	2	169	427.05	-421.69	-420.20	425.56	35.50	1.898e+05	5593.63	1.616e+05	3.377e+04	6.630e+04
2	2	171	184.22	-199.64	-198.05	182.63	24.72	1.328e+05	-2156.81	1.205e+05	1.010e+04	3.877e+04
2	2	177	430.92	-421.44	-369.81	379.30	-203.32	1.517e+05	-4.209e+04	1.044e+05	5241.91	8.327e+04
2	2	179	185.19	-190.84	-170.16	164.51	-85.73	1.099e+05	-3.805e+04	7.983e+04	-7974.38	5.955e+04
2	2	185	436.98	-423.03	-194.96	208.92	-379.64	1.086e+05	-9.197e+04	3.748e+04	-2.088e+04	9.592e+04
2	2	187	189.88	-184.92	-84.20	89.16	-166.15	8.204e+04	-7.392e+04	2.720e+04	-1.908e+04	7.447e+04
2	2	193	445.86	-427.26	51.00	-32.40	-434.57	6.180e+04	-1.420e+05	-3.520e+04	-4.497e+04	1.018e+05
2	2	195	199.11	-183.12	34.35	-18.36	-189.29	5.016e+04	-1.083e+05	-3.210e+04	-2.606e+04	7.918e+04
2	2	201	457.43	-434.18	290.61	-267.36	-347.72	1.322e+04	-1.901e+05	-1.086e+05	-6.831e+04	9.966e+04
2	2	203	212.60	-185.58	148.89	-121.87	-145.98	1.544e+04	-1.399e+05	-9.094e+04	-3.350e+04	7.216e+04
2	2	209	470.78	-443.06	447.38	-419.66	-144.35	-3.522e+04	-2.347e+05	-1.777e+05	-9.231e+04	9.017e+04
2	2	211	229.08	-191.46	223.42	-185.80	-48.46	-2.076e+04	-1.674e+05	-1.423e+05	-4.592e+04	5.528e+04
2	2	217	484.43	-452.60	470.71	-438.88	112.54	-8.144e+04	-2.743e+05	-2.380e+05	-1.177e+05	7.532e+04
2	2	219	246.65	-199.25	234.21	-186.81	73.42	-5.705e+04	-1.899e+05	-1.810e+05	-6.595e+04	3.319e+04
2	2	225	496.60	-461.15	352.43	-316.99	342.48	-1.233e+05	-3.076e+05	-2.871e+05	-1.438e+05	5.792e+04
2	2	227	263.26	-207.29	177.47	-121.50	181.68	-9.197e+04	-2.064e+05	-2.052e+05	-9.321e+04	1.184e+04
2	2	233	505.45	-467.04	129.40	-90.99	473.60	-1.587e+05	-3.338e+05	-3.238e+05	-1.688e+05	4.068e+04
2	2	235	277.05	-214.05	70.60	-7.61	242.41	-1.240e+05	-2.166e+05	-2.165e+05	-1.241e+05	-3479.47
2	2	241	509.36	-468.75	-128.60	169.21	465.83	-1.857e+05	-3.527e+05	-3.487e+05	-1.897e+05	2.540e+04
2	2	243	286.47	-218.25	-53.49	121.72	236.67	-1.516e+05	-2.205e+05	-2.191e+05	-1.530e+05	-9836.34
2	2	249	507.01	-465.05	-341.70	383.66	323.56	-2.026e+05	-3.640e+05	-3.630e+05	-2.036e+05	1.249e+04
2	2	251	290.38	-218.94	-157.09	228.53	166.36	-1.723e+05	-2.191e+05	-2.179e+05	-1.735e+05	-7550.21
2	3	2	437.67	-398.49	-387.88	427.06	93.61	-1.849e+05	-3.238e+05	-3.238e+05	-1.849e+05	1091.99
2	3	3	421.54	-382.74	-364.62	403.42	-119.36	-1.796e+05	-3.208e+05	-3.202e+05	-1.802e+05	-9209.87
2	3	5	254.34	-189.68	-183.17	247.83	53.39	-1.611e+05	-1.909e+05	-1.909e+05	-1.611e+05	-17.45
2	3	6	245.96	-182.22	-175.64	239.37	-52.70	-1.535e+05	-1.929e+05	-1.917e+05	-1.547e+05	6624.40
2	3	17	398.97	-361.31	-236.91	274.56	-281.26	-1.648e+05	-3.115e+05	-3.084e+05	-1.679e+05	-2.103e+04
2	3	19	231.85	-170.86	-118.05	179.04	-135.93	-1.356e+05	-1.942e+05	-1.928e+05	-1.370e+05	8748.41
2	3	25	370.63	-334.83	-51.24	87.04	-345.89	-1.415e+05	-2.956e+05	-2.872e+05	-1.499e+05	-3.499e+04
2	3	27	212.35	-155.82	-31.73	88.26	-174.03	-1.120e+05	-1.910e+05	-1.908e+05	-1.121e+05	3420.20
2	3	33	337.75	-304.45	129.36	-96.05	-300.67	-1.110e+05	-2.732e+05	-2.555e+05	-1.287e+05	-5.061e+04
2	3	35	188.14	-137.61	54.04	-3.51	-160.31	-8.448e+04	-1.823e+05	-1.813e+05	-8.544e+04	-9655.10
2	3	41	302.23	-271.97	246.70	-216.43	-169.72	-7.507e+04	-2.448e+05	-2.130e+05	-1.069e+05	-6.621e+04
2	3	43	160.28	-117.06	111.97	-68.75	-105.19	-5.453e+04	-1.681e+05	-1.607e+05	-6.190e+04	-2.797e+04
2	3	49	266.81	-240.02	266.77	-239.98	-4.54	-3.550e+04	-2.109e+05	-1.605e+05	-8.591e+04	-7.938e+04
2	3	51	130.36	-95.47	125.74	-90.85	-31.97	-2.342e+04	-1.489e+05	-1.277e+05	-4.457e+04	-4.698e+04
2	3	57	235.27	-212.25	190.50	-167.47	134.28	5932.51	-1.726e+05	-1.005e+05	-6.622e+04	-8.762e+04
2	3	59	100.93	-75.09	95.08	-69.24	31.54	7621.97	-1.253e+05	-8.390e+04	-3.382e+04	-6.159e+04
2	3	65	212.29	-193.18	52.39	-33.28	198.16	4.744e+04	-1.312e+05	-3.673e+04	-4.708e+04	-8.919e+04
2	3	67	76.62	-60.19	35.29	-18.87	62.81	3.738e+04	-9.833e+04	-3.355e+04	-2.740e+04	-6.779e+04
2	3	73	202.22	-187.03	-92.23	107.43	167.07	8.735e+04	-8.827e+04	2.622e+04	-2.715e+04	-8.366e+04
2	3	75	64.86	-57.84	-28.62	35.63	52.27	6.472e+04	-6.890e+04	1.727e+04	-2.144e+04	-6.394e+04
2	3	81	206.49	-195.06	-187.08	198.51	56.04	1.241e+05	-4.536e+04	8.399e+04	-5213.85	-7.206e+04
2	3	83	69.27	-71.30	-71.01	68.98	6.33	8.862e+04	-3.820e+04	6.244e+04	-1.203e+04	-5.133e+04
2	3	89	222.41	-214.46	-194.80	202.75	-90.56	1.565e+05	-4258.03	1.331e+05	1.910e+04	-5.665e+04
2	3	91	83.64	-94.01	-74.82	64.45	-55.15	1.082e+05	-7491.75	9.743e+04	3301.34	-3.365e+04
2	3	97	245.20	-240.29	-110.25	115.16	-214.99	1.834e+05	3.320e+04	1.717e+05	4.491e+04	-4.026e+04
2	3	99	101.14	-118.82	-37.62	19.94	-106.15	1.229e+05	2.195e+04	1.203e+05	2.449e+04	-1.581e+04
2	3	105	270.40	-267.99	37.56	-35.14	-266.73	2.042e+05	6.520e+04	1.994e+05	7.002e+04	-2.543e+04
2	3	107	118.22	-141.90	27.43	-51.11	-123.99	1.323e+05	4.876e+04	1.322e+05	4.882e+04	-2264.07
2	3	113	294.87	-294.31	195.43	-194.87	-220.67	2.188e+05	8.994e+04	2.173e+05	9.142e+04	-1.371e+04
2	3	115	133.20	-161.33	96.18	-124.32	-97.63	1.365e+05	7.139e+04	1.362e+05	7.169e+04	4397.86
2	3	121	316.62	-317.20	304.57	-305.15	-86.57	2.271e+05	1.058e+05	2.269e+05	1.060e+05	-5248.44
2	3	123	145.24	-176.12	142.03	-172.91	-31.97	1.368e+05	8.765e+04	1.365e+05	8.803e+04	4269.90
2	3	129	334.64	-335.61	321.31	-322.27	93.61	2.296e+05	1.114e+05	2.296e+05	1.114e+05	1091.99
2	3	131	154.04	-185.84	145.43	-177.24	53.39	1.361e+05	9.395e+04	1.361e+05	9.395e+04	-17.45
2	3	137	348.63	-349.21	232.93	-233.51	259.53	2.265e+05	1.064e+05	2.260e+05	1.068e+05	7266.18
2	3	139	159.66	-190.54	101.16	-132.04	130.63	1.368e+05	8.763e+04	1.365e+05	8.801e+04	-4302.15
2	3	145	358.87	-358.31	63.05	-62.49	353.05	2.176e+05	9.109e+04	2.157e+05	9.296e+04	1.525e+04
2	3	147	162.53	-190.66	20.67	-48.81	173.14	1.366e+05	7.136e+04	1.363e+05	7.166e+04	-4422.54
2	3	153	366.12	-363.70	-135.40	137.82	338.37	2.027e+05	6.676e+04	1.974e+05	7.204e+04	2.627e+04
2	3	155	163.39	-187.07	-71.23	47.55	164.86	1.323e+05	4.873e+04	1.322e+05	4.879e+04	2250.71
2	3	161	371.47	-366.56	-297.46	302.37	214.99	1.816e+05	3.504e+04	1.695e+05	4.709e+04	4.026e+04

2	3	163	163.34	-181.02	-144.40	126.73	106.15	1.229e+05	2.192e+04	1.204e+05	2.445e+04	1.581e+04
2	3	169	376.20	-368.24	-367.76	375.72	18.92	1.545e+05	-2242.08	1.311e+05	2.112e+04	5.582e+04
2	3	171	163.71	-174.08	-173.48	163.11	14.28	1.083e+05	-7525.74	9.746e+04	3269.09	3.366e+04
2	3	177	381.53	-370.10	-319.46	330.88	-188.42	1.220e+05	-4.323e+04	8.244e+04	-3669.54	7.051e+04
2	3	179	165.93	-167.96	-146.52	144.49	-81.84	8.866e+04	-3.824e+04	6.247e+04	-1.205e+04	5.136e+04
2	3	185	388.42	-373.22	-163.88	179.07	-340.03	8.517e+04	-8.610e+04	2.539e+04	-2.631e+04	8.164e+04
2	3	187	171.16	-164.14	-69.48	76.50	-150.93	6.476e+04	-6.893e+04	1.728e+04	-2.146e+04	6.398e+04
2	3	193	397.30	-378.19	52.39	-33.28	-385.37	4.526e+04	-1.291e+05	-3.673e+04	-4.708e+04	8.701e+04
2	3	195	179.97	-163.54	35.29	-18.87	-169.60	3.742e+04	-9.837e+04	-3.355e+04	-2.740e+04	6.782e+04
2	3	201	408.01	-384.99	262.14	-239.12	-307.24	3793.01	-1.705e+05	-9.963e+04	-6.706e+04	8.560e+04
2	3	203	192.05	-166.21	135.95	-110.11	-130.20	7656.86	-1.254e+05	-8.392e+04	-3.381e+04	6.162e+04
2	3	209	419.78	-392.99	399.15	-372.36	-127.84	-3.755e+04	-2.088e+05	-1.589e+05	-8.746e+04	7.783e+04
2	3	211	206.34	-171.45	201.25	-166.36	-43.54	-2.338e+04	-1.489e+05	-1.278e+05	-4.455e+04	4.700e+04
2	3	217	431.38	-401.11	419.66	-389.39	98.08	-7.698e+04	-2.429e+05	-2.109e+05	-1.089e+05	6.538e+04
2	3	219	221.28	-178.05	210.63	-167.41	64.32	-5.450e+04	-1.681e+05	-1.608e+05	-6.187e+04	2.798e+04
2	3	225	441.33	-408.03	316.57	-283.26	300.67	-1.127e+05	-2.715e+05	-2.533e+05	-1.309e+05	5.061e+04
2	3	227	235.21	-184.68	160.83	-110.30	160.31	-8.444e+04	-1.823e+05	-1.813e+05	-8.541e+04	9655.10
2	3	233	448.15	-412.35	121.73	-85.92	417.53	-1.429e+05	-2.942e+05	-2.852e+05	-1.519e+05	3.583e+04
2	3	235	246.61	-190.08	66.93	-10.40	214.90	-1.119e+05	-1.910e+05	-1.908e+05	-1.121e+05	-3433.56
2	3	241	450.47	-412.81	-104.53	142.18	413.64	-1.658e+05	-3.105e+05	-3.069e+05	-1.694e+05	2.257e+04
2	3	243	254.19	-193.20	-42.54	103.53	211.44	-1.356e+05	-1.942e+05	-1.929e+05	-1.370e+05	-8773.09
2	3	249	447.22	-408.42	-292.97	331.77	292.32	-1.802e+05	-3.203e+05	-3.194e+05	-1.811e+05	1.123e+04
2	3	251	256.98	-193.25	-134.77	198.51	151.36	-1.535e+05	-1.929e+05	-1.917e+05	-1.546e+05	-6656.65
2	4	2	356.58	-321.47	-315.73	350.84	62.14	-1.545e+05	-2.674e+05	-2.674e+05	-1.545e+05	724.86
2	4	3	345.51	-310.72	-291.71	326.50	-110.05	-1.504e+05	-2.650e+05	-2.644e+05	-1.509e+05	-7857.88
2	4	5	207.93	-153.07	-149.56	204.42	35.44	-1.349e+05	-1.576e+05	-1.576e+05	-1.349e+05	-11.58
2	4	6	202.02	-147.90	-140.41	194.53	-50.64	-1.287e+05	-1.593e+05	-1.583e+05	-1.297e+05	5514.27
2	4	17	329.24	-295.38	-183.86	217.73	-239.20	-1.387e+05	-2.574e+05	-2.547e+05	-1.413e+05	-1.757e+04
2	4	19	191.50	-139.59	-91.00	142.91	-117.16	-1.143e+05	-1.605e+05	-1.593e+05	-1.155e+05	7396.52
2	4	25	308.31	-275.95	-30.22	62.58	-288.42	-1.201e+05	-2.445e+05	-2.374e+05	-1.272e+05	-2.889e+04
2	4	27	176.69	-128.35	-18.88	67.22	-146.32	-9.525e+04	-1.580e+05	-1.579e+05	-9.542e+04	3262.34
2	4	33	283.67	-253.33	118.03	-87.69	-248.02	-9.592e+04	-2.265e+05	-2.117e+05	-1.107e+05	-4.139e+04
2	4	35	158.13	-114.60	52.08	-8.55	-132.96	-7.322e+04	-1.511e+05	-1.505e+05	-7.388e+04	-7142.63
2	4	41	256.77	-228.90	213.80	-185.94	-137.91	-6.738e+04	-2.036e+05	-1.774e+05	-9.362e+04	-5.373e+04
2	4	43	136.70	-99.03	99.69	-62.02	-85.76	-4.925e+04	-1.399e+05	-1.343e+05	-5.485e+04	-2.182e+04
2	4	49	229.61	-204.57	229.61	-204.57	-9.11e-02	-3.590e+04	-1.764e+05	-1.352e+05	-7.715e+04	-6.399e+04
2	4	51	113.64	-82.67	110.71	-79.73	-23.84	-2.436e+04	-1.246e+05	-1.081e+05	-4.082e+04	-3.714e+04
2	4	57	204.87	-182.88	166.22	-144.23	116.16	-2934.72	-1.457e+05	-8.706e+04	-6.157e+04	-7.024e+04
2	4	59	90.88	-67.16	84.92	-61.20	30.10	477.12	-1.058e+05	-7.318e+04	-3.211e+04	-4.900e+04
2	4	65	185.72	-166.92	51.57	-32.76	171.20	3.009e+04	-1.125e+05	-3.612e+04	-4.629e+04	-7.112e+04
2	4	67	71.51	-55.34	34.74	-18.57	57.55	2.428e+04	-8.422e+04	-3.299e+04	-2.694e+04	-5.417e+04
2	4	73	175.17	-159.55	-69.51	85.13	148.43	6.185e+04	-7.804e+04	1.405e+04	-3.024e+04	-6.634e+04
2	4	75	60.14	-51.52	-19.50	28.12	50.50	4.616e+04	-6.073e+04	7654.88	-2.222e+04	-5.131e+04
2	4	81	174.63	-162.06	-151.18	163.75	59.54	9.110e+04	-4.361e+04	5.995e+04	-1.246e+04	-5.680e+04
2	4	83	59.85	-58.49	-56.84	58.21	13.86	6.529e+04	-3.624e+04	4.388e+04	-1.482e+04	-4.142e+04
2	4	89	182.89	-173.14	-162.72	172.48	-60.01	1.168e+05	-1.064e+04	9.886e+04	7308.98	-4.433e+04
2	4	91	67.96	-73.29	-63.12	57.79	-36.51	8.099e+04	-1.174e+04	7.202e+04	-2762.77	-2.742e+04
2	4	97	196.97	-189.69	-99.22	106.50	-163.69	1.382e+05	1.944e+04	1.293e+05	2.830e+04	-3.122e+04
2	4	99	79.63	-90.82	-35.91	24.72	-79.65	9.275e+04	1.174e+04	9.054e+04	1.395e+04	-1.320e+04
2	4	105	213.61	-208.36	16.76	-11.51	-210.51	1.547e+05	4.514e+04	1.511e+05	4.872e+04	-1.949e+04
2	4	107	91.68	-107.68	14.65	-30.65	-97.07	1.003e+05	3.309e+04	1.002e+05	3.317e+04	-2334.21
2	4	113	230.29	-226.55	143.04	-139.29	-179.58	1.662e+05	6.502e+04	1.651e+05	6.609e+04	-1.038e+04
2	4	115	102.45	-122.03	69.47	-89.05	-79.47	1.038e+05	5.107e+04	1.036e+05	5.126e+04	3113.11
2	4	121	245.34	-242.52	232.61	-229.79	-77.78	1.728e+05	7.774e+04	1.726e+05	7.790e+04	-3964.80
2	4	123	111.14	-132.92	107.33	-129.11	-30.24	1.042e+05	6.394e+04	1.039e+05	6.419e+04	3196.10
2	4	129	257.85	-255.34	250.21	-247.71	62.14	1.748e+05	8.226e+04	1.748e+05	8.226e+04	724.86
2	4	131	117.40	-139.92	112.42	-134.94	35.44	1.037e+05	6.888e+04	1.037e+05	6.888e+04	-11.58
2	4	137	267.53	-264.71	185.05	-182.23	192.59	1.724e+05	7.816e+04	1.721e+05	7.846e+04	5304.16
2	4	139	121.26	-143.04	80.20	-101.98	95.73	1.042e+05	6.392e+04	1.039e+05	6.418e+04	-3217.50
2	4	145	274.58	-270.83	55.17	-51.42	267.45	1.654e+05	6.579e+04	1.641e+05	6.712e+04	1.141e+04
2	4	147	123.04	-142.62	19.35	-38.93	129.59	1.038e+05	5.105e+04	1.037e+05	5.124e+04	-3129.49
2	4	153	279.64	-274.38	-98.05	103.30	258.07	1.536e+05	4.618e+04	1.498e+05	5.006e+04	2.005e+04
2	4	155	123.38	-139.38	-50.84	34.84	124.20	1.003e+05	3.307e+04	1.003e+05	3.315e+04	2325.34
2	4	161	283.61	-276.33	-223.49	230.77	163.69	1.369e+05	2.066e+04	1.279e+05	2.975e+04	3.122e+04
2	4	163	123.19	-134.38	-106.80	95.61	79.65	9.278e+04	1.171e+04	9.057e+04	1.392e+04	1.320e+04
2	4	169	287.56	-277.81	-277.54	287.29	12.45	1.155e+05	-9290.39	9.752e+04	8648.34	4.377e+04
2	4	171	123.63	-128.96	-128.61	123.28	9.39	8.101e+04	-1.176e+04	7.204e+04	-2784.18	2.742e+04
2	4	177	292.50	-279.93	-239.05	251.62	-147.41	8.968e+04	-4.220e+04	5.892e+04	-1.144e+04	5.577e+04
2	4	179	125.91	-124.55	-106.97	108.33	-63.98	6.531e+04	-3.626e+04	4.389e+04	-1.484e+04	4.144e+04
2	4	185	299.17	-283.54	-117.06	132.69	-263.24	6.040e+04	-7.659e+04	1.349e+04	-2.969e+04	6.500e+04
2	4	187	130.99	-122.37	-46.63	55.25	-115.99	4.618e+04	-6.075e+04	7663.75	-2.223e+04	5.134e+04
2	4	193	307.87	-289.06	51.57	-32.76	-295.47	2.865e+04	-1.111e+05	-3.612e+04	-4.629e+04	6.967e+04
2	4	195	139.26	-123.09	34.74	-18.57	-128.44	2.431e+04	-8.424e+04	-3.299e+04	-2.694e+04	5.419e+04
2	4	201	318.35	-296.36	213.78	-191.79	-230.97	-4350.95	-1.443e+05	-8.651e+04	-6.213e+04	6.890e+04
2	4	203	150.33	-126.61	112.05	-88.33	-95.59	500.29	-1.058e+05	-7.319e+04	-3.210e+04	4.902e+04
2	4	209	329.87	-304.82	317.49	-292.44	-87.78	-3.725e+04	-1.751e+05	-1.341e+05	-7.817e+04	6.296e+04
2	4	211	163.19	-132.21	160.83	-129.85	-26.29	-2.433e+04	-1.246e+05	-1.081e+05	-4.081e+04	3.715e+04

2	4	217	341.33	-313.46	328.61	-300.75	90.36	-6.863e+04	-2.024e+05	-1.760e+05	-9.495e+04	5.317e+04
2	4	219	176.49	-138.82	165.18	-127.51	58.63	-4.923e+04	-1.399e+05	-1.343e+05	-5.483e+04	2.183e+04
2	4	225	351.47	-321.14	242.30	-211.96	248.02	-9.704e+04	-2.254e+05	-2.103e+05	-1.122e+05	4.139e+04
2	4	227	188.85	-145.33	122.96	-79.44	132.96	-7.320e+04	-1.512e+05	-1.505e+05	-7.386e+04	7142.63
2	4	233	359.05	-326.69	84.59	-52.23	335.98	-1.210e+05	-2.436e+05	-2.361e+05	-1.286e+05	2.945e+04
2	4	235	199.06	-150.72	46.61	1.73	173.44	-9.523e+04	-1.580e+05	-1.579e+05	-9.540e+04	-3271.21
2	4	241	362.95	-329.09	-95.99	129.86	327.08	-1.393e+05	-2.567e+05	-2.537e+05	-1.423e+05	1.860e+04
2	4	243	206.10	-154.18	-40.87	92.79	167.28	-1.142e+05	-1.605e+05	-1.593e+05	-1.155e+05	-7412.90
2	4	249	362.32	-327.53	-244.15	278.95	224.86	-1.507e+05	-2.646e+05	-2.639e+05	-1.515e+05	9197.24
2	4	251	209.22	-155.10	-113.28	167.40	116.13	-1.287e+05	-1.593e+05	-1.583e+05	-1.297e+05	-5535.67
2	5	2	322.45	-288.43	-286.22	320.25	36.64	-1.424e+05	-2.448e+05	-2.448e+05	-1.424e+05	427.39
2	5	3	315.11	-281.38	-256.96	290.69	-118.20	-1.387e+05	-2.426e+05	-2.421e+05	-1.393e+05	-7455.95
2	5	5	188.18	-136.91	-135.56	186.83	20.90	-1.244e+05	-1.443e+05	-1.443e+05	-1.244e+05	-6.83
2	5	6	183.96	-133.37	-122.96	173.55	-56.53	-1.188e+05	-1.459e+05	-1.449e+05	-1.198e+05	5075.16
2	5	17	303.15	-270.30	-152.89	185.74	-231.39	-1.283e+05	-2.357e+05	-2.332e+05	-1.308e+05	-1.630e+04
2	5	19	175.65	-127.06	-74.47	123.07	-114.69	-1.057e+05	-1.471e+05	-1.459e+05	-1.069e+05	6861.86
2	5	25	287.06	-255.62	-9.30	40.74	-270.19	-1.117e+05	-2.241e+05	-2.174e+05	-1.184e+05	-2.651e+04
2	5	27	163.54	-118.20	-6.51	51.85	-137.82	-8.858e+04	-1.449e+05	-1.447e+05	-8.876e+04	3204.40
2	5	33	267.70	-238.16	126.94	-97.40	-226.70	-9.004e+04	-2.078e+05	-1.941e+05	-1.037e+05	-3.770e+04
2	5	35	148.17	-107.21	59.00	-18.03	-121.74	-6.873e+04	-1.387e+05	-1.382e+05	-6.928e+04	-6135.37
2	5	41	246.29	-219.08	213.02	-185.80	-119.91	-6.445e+04	-1.871e+05	-1.631e+05	-8.848e+04	-4.868e+04
2	5	43	130.35	-94.73	101.83	-66.20	-74.88	-4.715e+04	-1.286e+05	-1.237e+05	-5.205e+04	-1.936e+04
2	5	49	224.50	-199.94	224.21	-199.64	11.22	-3.622e+04	-1.625e+05	-1.250e+05	-7.377e+04	-5.774e+04
2	5	51	111.25	-81.71	110.07	-80.53	-15.07	-2.474e+04	-1.149e+05	-1.003e+05	-3.934e+04	-3.320e+04
2	5	57	204.36	-182.68	161.63	-139.95	121.29	-6640.96	-1.348e+05	-8.168e+04	-5.980e+04	-6.316e+04
2	5	59	92.52	-69.58	83.77	-60.83	36.63	-2387.76	-9.798e+04	-6.892e+04	-3.144e+04	-4.397e+04
2	5	65	188.14	-169.44	51.26	-32.57	173.81	2.300e+04	-1.049e+05	-3.590e+04	-4.601e+04	-6.375e+04
2	5	67	76.50	-60.42	34.53	-18.46	63.13	1.904e+04	-7.860e+04	-3.279e+04	-2.677e+04	-4.873e+04
2	5	73	177.86	-162.15	-65.49	81.19	153.37	5.149e+04	-7.383e+04	9108.72	-3.145e+04	-5.929e+04
2	5	75	66.11	-56.91	-18.73	27.94	56.91	3.873e+04	-5.749e+04	3798.06	-2.255e+04	-4.627e+04
2	5	81	174.56	-161.72	-146.23	159.06	70.50	7.774e+04	-4.280e+04	5.022e+04	-1.528e+04	-5.059e+04
2	5	83	63.32	-60.71	-56.52	59.13	22.40	5.596e+04	-3.548e+04	3.644e+04	-1.596e+04	-3.746e+04
2	5	89	177.72	-167.54	-162.24	172.42	-42.46	1.008e+05	-1.307e+04	8.502e+04	2708.00	-3.934e+04
2	5	91	67.06	-70.54	-65.47	62.00	-25.92	7.010e+04	-1.346e+04	6.185e+04	-5207.11	-2.493e+04
2	5	97	185.57	-177.71	-108.24	116.10	-142.86	1.200e+05	1.404e+04	1.122e+05	2.179e+04	-2.760e+04
2	5	99	74.39	-83.21	-42.92	34.11	-68.75	8.071e+04	7632.55	7.862e+04	9714.88	-1.216e+04
2	5	105	195.84	-189.89	-4.08	10.04	-192.74	1.348e+05	3.721e+04	1.316e+05	4.033e+04	-1.717e+04
2	5	107	82.71	-95.90	2.30	-15.49	-88.86	8.754e+04	2.681e+04	8.745e+04	2.690e+04	-2360.20
2	5	113	206.55	-202.01	112.30	-107.77	-172.12	1.451e+05	5.512e+04	1.441e+05	5.607e+04	-9152.83
2	5	115	90.37	-106.81	53.08	-69.52	-77.22	9.075e+04	4.293e+04	9.060e+04	4.308e+04	2602.89
2	5	121	216.26	-212.59	198.20	-194.54	-86.12	1.510e+05	6.657e+04	1.508e+05	6.672e+04	-3587.76
2	5	123	96.48	-114.93	90.07	-108.52	-36.25	9.114e+04	5.444e+04	9.093e+04	5.465e+04	2770.23
2	5	129	224.13	-220.75	221.09	-217.72	36.64	1.528e+05	7.059e+04	1.528e+05	7.059e+04	427.39
2	5	131	100.64	-119.76	98.64	-117.76	20.90	9.075e+04	5.885e+04	9.075e+04	5.885e+04	-6.83
2	5	137	229.86	-226.19	170.16	-166.50	153.82	1.507e+05	6.682e+04	1.505e+05	6.705e+04	4377.47
2	5	139	102.78	-121.22	74.08	-92.52	74.87	9.115e+04	5.443e+04	9.094e+04	5.465e+04	-2782.85
2	5	145	233.64	-229.10	60.49	-55.96	223.93	1.446e+05	5.559e+04	1.435e+05	5.667e+04	9757.24
2	5	147	103.17	-119.61	23.52	-39.97	106.77	9.076e+04	4.292e+04	9.061e+04	4.307e+04	-2612.55
2	5	153	236.07	-230.11	-71.78	77.73	220.78	1.341e+05	3.783e+04	1.309e+05	4.112e+04	1.750e+04
2	5	155	102.39	-115.58	-36.31	23.12	104.85	8.756e+04	2.679e+04	8.747e+04	2.689e+04	2354.98
2	5	161	238.02	-230.16	-181.51	189.37	142.86	1.192e+05	1.477e+04	1.113e+05	2.265e+04	2.760e+04
2	5	163	101.31	-110.12	-84.72	75.90	68.75	8.072e+04	7619.67	7.864e+04	9701.22	1.216e+04
2	5	169	240.56	-230.37	-229.93	240.11	14.42	1.000e+05	-1.228e+04	8.423e+04	3497.70	3.902e+04
2	5	171	101.09	-104.57	-104.09	100.61	9.92	7.011e+04	-1.347e+04	6.186e+04	-5219.73	2.493e+04
2	5	177	244.67	-231.83	-198.04	210.87	-122.31	7.690e+04	-4.196e+04	4.962e+04	-1.468e+04	4.999e+04
2	5	179	102.96	-100.36	-86.08	88.68	-51.95	5.597e+04	-3.549e+04	3.645e+04	-1.597e+04	3.747e+04
2	5	185	251.06	-235.35	-93.53	109.23	-221.07	5.064e+04	-7.298e+04	8781.62	-3.112e+04	5.850e+04
2	5	187	107.91	-98.70	-34.73	43.93	-95.53	3.875e+04	-5.750e+04	3803.28	-2.256e+04	4.629e+04
2	5	193	259.96	-241.26	51.26	-32.57	-247.08	2.215e+04	-1.041e+05	-3.590e+04	-4.601e+04	6.290e+04
2	5	195	116.25	-100.18	34.53	-18.46	-104.92	1.906e+04	-7.862e+04	-3.279e+04	-2.677e+04	4.874e+04
2	5	201	271.03	-249.34	189.67	-167.99	-188.99	-7474.62	-1.340e+05	-8.135e+04	-6.012e+04	6.237e+04
2	5	203	127.48	-104.53	99.76	-76.82	-75.25	-2374.10	-9.799e+04	-6.893e+04	-3.144e+04	4.398e+04
2	5	209	283.44	-258.88	276.02	-251.45	-63.03	-3.701e+04	-1.617e+05	-1.244e+05	-7.438e+04	5.713e+04
2	5	211	140.46	-110.92	139.62	-110.08	-14.48	-2.473e+04	-1.149e+05	-1.003e+05	-3.933e+04	3.321e+04
2	5	217	296.07	-268.86	280.71	-253.50	91.87	-6.519e+04	-1.864e+05	-1.623e+05	-8.927e+04	4.835e+04
2	5	219	153.85	-118.22	140.44	-104.81	58.88	-4.714e+04	-1.286e+05	-1.237e+05	-5.204e+04	1.937e+04
2	5	225	307.65	-278.11	200.21	-170.67	226.70	-9.070e+04	-2.071e+05	-1.933e+05	-1.046e+05	3.770e+04
2	5	227	166.32	-125.36	100.79	-59.83	121.74	-6.872e+04	-1.387e+05	-1.382e+05	-6.926e+04	6135.37
2	5	233	316.98	-285.54	58.39	-26.95	298.23	-1.123e+05	-2.235e+05	-2.166e+05	-1.192e+05	2.684e+04
2	5	235	176.77	-131.43	32.10	13.23	153.81	-8.857e+04	-1.449e+05	-1.447e+05	-8.875e+04	-3209.63
2	5	241	323.04	-290.19	-101.08	133.93	283.20	-1.287e+05	-2.353e+05	-2.326e+05	-1.314e+05	1.690e+04
2	5	243	184.29	-135.69	-44.92	93.51	144.24	-1.057e+05	-1.471e+05	-1.459e+05	-1.069e+05	-6871.52
2	5	249	325.03	-291.30	-228.92	262.65	185.90	-1.390e+05	-2.424e+05	-2.418e+05	-1.396e+05	8245.66
2	5	251	188.22	-137.63	-106.96	157.56	95.15	-1.188e+05	-1.459e+05	-1.449e+05	-1.198e+05	-5087.79

M_G			N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
				-468.75	-445.85	-438.88	-434.57		-3.680e+05	-3.680e+05	-2.082e+05	-1.039e+05

			509.36		470.71	488.27	473.60	2.780e+05		2.780e+05	1.378e+05	1.018e+05

Macro	Tipo	Angolo 1-X (gradi)
3	**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
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
3	2	5	253.24	-207.36	-201.57	247.44	51.33	-1.429e+05	-2.197e+05	-2.197e+05	-1.429e+05	108.40
3	2	6	244.65	-199.40	-190.70	235.96	-61.53	-1.378e+05	-2.188e+05	-2.188e+05	-1.378e+05	-659.66
3	2	7	174.36	-107.79	-103.85	170.42	33.12	-1.194e+05	-1.284e+05	-1.284e+05	-1.194e+05	-5.01
3	2	8	169.36	-103.81	-100.20	165.74	-31.20	-1.107e+05	-1.331e+05	-1.298e+05	-1.139e+05	7837.88
3	2	19	230.88	-187.48	-125.69	169.10	-148.43	-1.235e+05	-2.154e+05	-2.152e+05	-1.237e+05	-4547.42
3	2	20	159.60	-97.11	-67.23	129.73	-82.32	-9.534e+04	-1.364e+05	-1.329e+05	-9.887e+04	1.151e+04
3	2	27	212.31	-171.90	-30.32	70.73	-185.34	-1.020e+05	-2.081e+05	-2.063e+05	-1.038e+05	-1.347e+04
3	2	28	145.36	-87.80	-17.34	74.89	-107.07	-7.666e+04	-1.356e+05	-1.344e+05	-7.785e+04	8289.98
3	2	35	189.69	-153.31	63.05	-26.67	-165.53	-7.539e+04	-1.959e+05	-1.894e+05	-8.197e+04	-2.740e+04
3	2	36	127.08	-76.18	32.40	18.49	-101.39	-5.563e+04	-1.303e+05	-1.303e+05	-5.570e+04	-2174.53
3	2	43	164.21	-132.74	124.48	-93.01	-101.09	-4.531e+04	-1.788e+05	-1.621e+05	-6.204e+04	-4.420e+04
3	2	44	105.47	-62.68	66.05	-23.27	-71.23	-3.312e+04	-1.208e+05	-1.171e+05	-3.684e+04	-1.768e+04
3	2	51	137.70	-111.84	136.36	-110.49	-18.28	-1.336e+04	-1.569e+05	-1.239e+05	-4.628e+04	-6.034e+04
3	2	52	81.49	-47.96	74.07	-40.53	-30.09	-9989.18	-1.074e+05	-9.342e+04	-2.398e+04	-3.416e+04
3	2	59	113.02	-93.24	98.98	-79.19	51.96	1.901e+04	-1.308e+05	-7.682e+04	-3.492e+04	-7.189e+04
3	2	60	56.67	-33.18	56.29	-32.79	5.87	1.286e+04	-9.063e+04	-6.041e+04	-1.736e+04	-4.706e+04
3	2	67	94.54	-81.08	29.87	-16.41	84.71	5.043e+04	-1.014e+05	-2.464e+04	-2.630e+04	-7.589e+04
3	2	68	34.50	-21.45	21.63	-8.57	23.55	3.457e+04	-7.110e+04	-2.169e+04	-1.484e+04	-5.272e+04
3	2	75	87.23	-80.10	-42.76	49.90	69.66	7.965e+04	-6.978e+04	2.741e+04	-1.754e+04	-7.126e+04
3	2	76	25.40	-22.79	-15.34	17.95	17.42	5.429e+04	-4.961e+04	1.754e+04	-1.285e+04	-4.968e+04
3	2	83	92.37	-91.32	-90.17	91.23	14.45	1.056e+05	-3.725e+04	7.417e+04	-5829.23	-5.917e+04
3	2	84	33.29	-40.71	-39.66	32.24	-8.74	7.130e+04	-2.697e+04	5.204e+04	-7715.71	-3.901e+04
3	2	91	105.85	-110.40	-93.31	88.76	-58.34	1.273e+05	-5110.56	1.118e+05	1.047e+04	-4.268e+04
3	2	92	46.20	-62.87	-41.44	24.77	-43.33	8.496e+04	-4100.94	7.794e+04	2923.03	-2.400e+04
3	2	99	122.68	-132.14	-49.59	40.13	-119.25	1.443e+05	2.519e+04	1.384e+05	3.104e+04	-2.574e+04
3	2	100	59.14	-83.93	-19.35	-5.44	-71.20	9.480e+04	1.808e+04	9.372e+04	1.916e+04	-9024.26
3	2	107	139.57	-153.06	26.07	-39.56	-142.59	1.561e+05	5.209e+04	1.548e+05	5.348e+04	-1.195e+04
3	2	108	70.67	-102.11	18.84	-50.28	-79.17	1.005e+05	3.863e+04	1.005e+05	3.869e+04	1961.65
3	2	115	154.66	-171.14	106.43	-122.91	-115.70	1.632e+05	7.384e+04	1.631e+05	7.397e+04	-3378.24
3	2	116	80.13	-116.51	58.94	-95.33	-60.97	1.022e+05	5.649e+04	1.012e+05	5.748e+04	6670.11
3	2	123	166.95	-185.28	161.41	-179.74	-43.82	1.664e+05	8.840e+04	1.664e+05	8.840e+04	-26.91
3	2	124	87.18	-126.61	85.36	-124.79	-19.64	1.006e+05	7.016e+04	9.963e+04	7.108e+04	5216.60
3	2	131	176.00	-194.95	168.75	-187.70	51.33	1.671e+05	9.363e+04	1.671e+05	9.363e+04	108.40
3	2	132	91.72	-132.18	86.71	-127.17	33.12	9.873e+04	7.604e+04	9.873e+04	7.604e+04	-5.01
3	2	139	181.79	-200.12	122.12	-140.45	138.67	1.663e+05	8.849e+04	1.663e+05	8.849e+04	227.20
3	2	140	93.83	-133.26	60.02	-99.44	80.84	1.006e+05	7.015e+04	9.963e+04	7.108e+04	-5225.86
3	2	147	184.70	-201.18	33.84	-50.32	188.30	1.630e+05	7.398e+04	1.629e+05	7.412e+04	3531.54
3	2	148	93.79	-130.17	12.10	-48.49	107.80	1.022e+05	5.648e+04	1.012e+05	5.748e+04	-6677.20
3	2	155	185.42	-198.91	-68.78	55.29	181.87	1.560e+05	5.226e+04	1.546e+05	5.368e+04	1.203e+04
3	2	156	92.14	-123.58	-42.35	10.91	104.52	1.005e+05	3.862e+04	1.005e+05	3.868e+04	-1965.49
3	2	163	184.97	-194.42	-152.25	142.80	119.25	1.441e+05	2.538e+04	1.382e+05	3.125e+04	2.574e+04
3	2	164	89.72	-114.50	-85.58	60.80	71.20	9.481e+04	1.807e+04	9.373e+04	1.915e+04	9024.26
3	2	171	184.58	-189.13	-188.16	183.61	19.05	1.271e+05	-4903.98	1.116e+05	1.067e+04	4.259e+04
3	2	172	87.66	-104.34	-102.64	85.96	17.99	8.497e+04	-4110.80	7.795e+04	2913.78	2.401e+04
3	2	179	185.57	-184.52	-162.77	163.82	-87.04	1.054e+05	-3.703e+04	7.402e+04	-5675.94	5.901e+04
3	2	180	87.42	-94.84	-86.50	79.08	-38.09	7.131e+04	-2.698e+04	5.205e+04	-7722.80	3.902e+04
3	2	187	189.03	-181.89	-82.05	89.19	-164.51	7.944e+04	-6.957e+04	2.733e+04	-1.746e+04	7.106e+04
3	2	188	90.44	-87.82	-40.68	43.30	-78.62	5.430e+04	-4.962e+04	1.754e+04	-1.286e+04	4.969e+04
3	2	195	195.52	-182.06	29.87	-16.41	-187.37	5.021e+04	-1.011e+05	-2.464e+04	-2.630e+04	7.567e+04
3	2	196	97.58	-84.52	21.63	-8.57	-89.79	3.458e+04	-7.111e+04	-2.169e+04	-1.484e+04	5.273e+04
3	2	203	204.91	-185.12	138.27	-118.48	-146.80	1.879e+04	-1.305e+05	-7.674e+04	-3.501e+04	7.169e+04
3	2	204	108.61	-85.11	81.64	-58.14	-67.06	1.287e+04	-9.064e+04	-6.041e+04	-1.735e+04	4.707e+04
3	2	211	216.34	-190.47	208.95	-183.09	-54.32	-1.357e+04	-1.566e+05	-1.238e+05	-4.643e+04	6.018e+04
3	2	212	122.25	-88.71	120.91	-87.37	-16.74	-9979.17	-1.074e+05	-9.343e+04	-2.397e+04	3.417e+04
3	2	219	228.50	-197.03	219.33	-187.86	61.81	-4.551e+04	-1.786e+05	-1.619e+05	-6.224e+04	4.412e+04
3	2	220	136.76	-93.98	127.25	-84.46	45.88	-3.311e+04	-1.208e+05	-1.171e+05	-3.683e+04	1.768e+04
3	2	227	239.92	-203.54	165.72	-129.33	165.53	-7.558e+04	-1.958e+05	-1.891e+05	-8.219e+04	2.740e+04
3	2	228	150.50	-99.60	98.64	-47.74	101.39	-5.562e+04	-1.303e+05	-1.303e+05	-5.569e+04	2174.53
3	2	235	249.17	-208.75	64.53	-24.12	224.63	-1.022e+05	-2.079e+05	-2.061e+05	-1.040e+05	1.356e+04
3	2	236	162.05	-104.50	43.85	13.70	132.42	-7.665e+04	-1.356e+05	-1.344e+05	-7.784e+04	-8293.81
3	2	243	255.04	-211.63	-53.10	96.51	221.02	-1.237e+05	-2.153e+05	-2.150e+05	-1.239e+05	4700.71
3	2	244	170.35	-107.85	-20.40	82.90	129.15	-9.533e+04	-1.364e+05	-1.329e+05	-9.886e+04	-1.152e+04
3	2	251	256.60	-211.35	-151.42	196.67	156.38	-1.379e+05	-2.188e+05	-2.187e+05	-1.379e+05	859.95
3	2	252	174.62	-109.07	-74.85	140.40	92.39	-1.107e+05	-1.331e+05	-1.298e+05	-1.139e+05	-7847.14
3	3	5	223.79	-182.37	-175.78	217.20	51.32	-1.271e+05	-1.933e+05	-1.933e+05	-1.271e+05	108.37

3	3	6	215.73	-174.84	-168.97	209.86	-47.48	-1.227e+05	-1.926e+05	-1.926e+05	-1.227e+05	-638.71
3	3	7	154.31	-95.15	-90.67	149.83	33.11	-1.064e+05	-1.129e+05	-1.129e+05	-1.064e+05	-5.01
3	3	8	149.73	-91.45	-89.16	147.44	-23.38	-9.858e+04	-1.173e+05	-1.142e+05	-1.017e+05	6946.58
3	3	19	203.13	-163.81	-114.78	154.10	-124.84	-1.105e+05	-1.896e+05	-1.894e+05	-1.107e+05	-4046.68
3	3	20	141.06	-85.38	-61.87	117.55	-69.08	-8.528e+04	-1.203e+05	-1.169e+05	-8.863e+04	1.029e+04
3	3	27	186.30	-149.53	-33.35	70.12	-159.74	-9.214e+04	-1.833e+05	-1.817e+05	-9.368e+04	-1.175e+04
3	3	28	128.52	-77.06	-19.28	70.73	-92.41	-6.923e+04	-1.196e+05	-1.184e+05	-7.043e+04	7664.75
3	3	35	165.82	-132.48	47.64	-14.30	-145.90	-6.935e+04	-1.728e+05	-1.671e+05	-7.509e+04	-2.369e+04
3	3	36	112.46	-66.70	24.01	21.76	-89.58	-5.120e+04	-1.151e+05	-1.151e+05	-5.122e+04	-1251.86
3	3	43	142.64	-113.48	102.38	-73.22	-93.23	-4.361e+04	-1.581e+05	-1.436e+05	-5.811e+04	-3.808e+04
3	3	44	93.46	-54.63	54.22	-15.39	-65.36	-3.189e+04	-1.070e+05	-1.040e+05	-3.483e+04	-1.458e+04
3	3	51	118.19	-93.80	115.48	-91.09	-23.81	-1.627e+04	-1.393e+05	-1.109e+05	-4.468e+04	-5.185e+04
3	3	52	72.26	-41.33	62.99	-32.07	-31.09	-1.206e+04	-9.553e+04	-8.397e+04	-2.362e+04	-2.883e+04
3	3	59	94.74	-75.53	86.74	-67.53	36.04	1.143e+04	-1.169e+05	-7.049e+04	-3.501e+04	-6.168e+04
3	3	60	49.88	-27.54	49.88	-27.54	-0.47	7533.07	-8.116e+04	-5.582e+04	-1.781e+04	-4.007e+04
3	3	67	76.18	-62.34	30.69	-16.86	65.05	3.832e+04	-9.173e+04	-2.577e+04	-2.764e+04	-6.502e+04
3	3	68	28.50	-15.08	22.22	-8.80	15.31	2.614e+04	-6.446e+04	-2.270e+04	-1.562e+04	-4.516e+04
3	3	75	67.82	-59.37	-28.98	37.43	54.24	6.334e+04	-6.466e+04	1.881e+04	-2.013e+04	-6.096e+04
3	3	76	17.44	-12.95	-7.81	12.30	11.40	4.306e+04	-4.606e+04	1.095e+04	-1.396e+04	-4.278e+04
3	3	83	71.99	-68.71	-68.03	71.30	9.81	8.553e+04	-3.677e+04	5.882e+04	-1.005e+04	-5.053e+04
3	3	84	25.14	-29.23	-27.64	23.55	-9.16	5.765e+04	-2.670e+04	4.063e+04	-9687.00	-3.384e+04
3	3	91	84.55	-86.04	-70.35	68.86	-49.30	1.041e+05	-9211.58	9.094e+04	3982.26	-3.635e+04
3	3	92	37.28	-49.28	-28.94	16.94	-36.70	6.937e+04	-7134.99	6.301e+04	-772.31	-2.113e+04
3	3	99	100.28	-105.96	-33.81	28.13	-98.36	1.186e+05	1.677e+04	1.137e+05	2.168e+04	-2.182e+04
3	3	100	49.10	-68.03	-10.59	-8.34	-58.55	7.784e+04	1.183e+04	7.677e+04	1.290e+04	-8341.59
3	3	107	116.02	-125.13	28.99	-38.10	-115.82	1.287e+05	3.985e+04	1.276e+05	4.099e+04	-1.002e+04
3	3	108	59.54	-84.16	20.82	-45.44	-63.75	8.281e+04	2.937e+04	8.278e+04	2.940e+04	1114.70
3	3	115	130.14	-141.80	94.99	-106.65	-91.22	1.347e+05	5.853e+04	1.346e+05	5.862e+04	-2722.71
3	3	116	68.13	-96.98	53.35	-82.20	-47.15	8.432e+04	4.458e+04	8.361e+04	4.530e+04	5280.13
3	3	123	141.80	-155.03	138.88	-152.11	-29.29	1.374e+05	7.104e+04	1.374e+05	7.104e+04	77.82
3	3	124	74.65	-106.10	73.91	-105.36	-11.51	8.308e+04	5.613e+04	8.239e+04	5.681e+04	4233.47
3	3	131	150.66	-164.42	142.07	-155.82	51.32	1.380e+05	7.554e+04	1.380e+05	7.554e+04	108.37
3	3	132	79.01	-111.34	73.07	-105.40	33.11	8.167e+04	6.101e+04	8.167e+04	6.101e+04	-5.01
3	3	139	156.75	-169.97	99.60	-112.83	124.12	1.373e+05	7.112e+04	1.373e+05	7.112e+04	122.43
3	3	140	81.32	-112.78	48.57	-80.02	72.70	8.308e+04	5.612e+04	8.240e+04	5.681e+04	-4242.72
3	3	147	160.39	-172.05	22.41	-34.07	163.80	1.346e+05	5.867e+04	1.345e+05	5.878e+04	2875.97
3	3	148	81.86	-110.71	6.52	-35.37	93.98	8.433e+04	4.457e+04	8.362e+04	4.529e+04	-5287.21
3	3	155	162.21	-171.32	-65.84	56.73	155.10	1.286e+05	4.002e+04	1.274e+05	4.119e+04	1.010e+04
3	3	156	81.10	-105.72	-40.36	15.74	89.10	8.281e+04	2.936e+04	8.279e+04	2.939e+04	-1118.53
3	3	163	163.07	-168.75	-136.45	130.77	98.36	1.184e+05	1.697e+04	1.135e+05	2.190e+04	2.182e+04
3	3	164	79.78	-98.71	-76.81	57.88	58.55	7.785e+04	1.182e+04	7.678e+04	1.289e+04	8341.59
3	3	171	163.99	-165.49	-165.18	163.69	10.02	1.039e+05	-9004.78	9.074e+04	4182.52	3.627e+04
3	3	172	78.88	-90.88	-90.12	78.12	11.36	6.938e+04	-7144.82	6.302e+04	-781.56	2.113e+04
3	3	179	166.01	-162.74	-140.61	143.88	-82.39	8.532e+04	-3.655e+04	5.866e+04	-9899.52	5.038e+04
3	3	180	79.59	-83.68	-74.47	70.38	-37.67	5.766e+04	-2.671e+04	4.064e+04	-9694.08	3.385e+04
3	3	187	169.98	-161.53	-68.26	76.71	-149.07	6.312e+04	-6.444e+04	1.872e+04	-2.005e+04	6.076e+04
3	3	188	83.00	-78.50	-33.15	37.64	-72.58	4.307e+04	-4.607e+04	1.095e+04	-1.396e+04	4.279e+04
3	3	195	176.29	-162.46	30.69	-16.86	-167.69	3.811e+04	-9.151e+04	-2.577e+04	-2.764e+04	6.480e+04
3	3	196	89.70	-76.28	22.22	-8.80	-81.53	2.615e+04	-6.447e+04	-2.270e+04	-1.562e+04	4.517e+04
3	3	203	184.76	-165.55	126.02	-106.81	-130.87	1.122e+04	-1.167e+05	-7.040e+04	-3.509e+04	6.148e+04
3	3	204	99.42	-77.08	75.22	-52.88	-60.71	7543.07	-8.117e+04	-5.582e+04	-1.781e+04	4.008e+04
3	3	211	194.69	-170.30	188.06	-163.67	-48.77	-1.648e+04	-1.391e+05	-1.107e+05	-4.483e+04	5.170e+04
3	3	212	111.12	-80.20	109.82	-78.89	-15.73	-1.205e+04	-9.554e+04	-8.397e+04	-2.361e+04	2.884e+04
3	3	219	205.01	-175.85	197.21	-168.05	53.95	-4.381e+04	-1.579e+05	-1.434e+05	-5.831e+04	3.800e+04
3	3	220	123.41	-84.58	115.41	-76.58	40.01	-3.188e+04	-1.070e+05	-1.041e+05	-3.483e+04	1.458e+04
3	3	227	214.51	-181.17	150.28	-116.94	145.90	-6.954e+04	-1.727e+05	-1.669e+05	-7.531e+04	2.369e+04
3	3	228	134.95	-89.19	90.23	-44.47	89.58	-5.119e+04	-1.151e+05	-1.151e+05	-5.121e+04	1251.86
3	3	235	222.02	-185.25	61.48	-24.71	199.02	-9.231e+04	-1.831e+05	-1.815e+05	-9.388e+04	1.183e+04
3	3	236	144.59	-93.14	41.91	9.55	117.76	-6.922e+04	-1.196e+05	-1.184e+05	-7.042e+04	-7668.58
3	3	243	226.55	-187.23	-42.20	81.52	197.42	-1.106e+05	-1.894e+05	-1.892e+05	-1.109e+05	4199.94
3	3	244	151.43	-95.75	-15.04	70.72	115.91	-8.527e+04	-1.203e+05	-1.169e+05	-8.862e+04	-1.030e+04
3	3	251	227.31	-186.42	-129.69	170.58	142.31	-1.228e+05	-1.925e+05	-1.925e+05	-1.228e+05	838.96
3	3	252	154.81	-96.53	-63.81	122.10	84.57	-9.857e+04	-1.173e+05	-1.142e+05	-1.017e+05	-6955.84
3	4	5	182.67	-146.88	-143.32	179.11	34.07	-1.063e+05	-1.596e+05	-1.596e+05	-1.063e+05	71.94
3	4	6	177.05	-141.68	-134.90	170.27	-45.99	-1.028e+05	-1.589e+05	-1.589e+05	-1.028e+05	-588.07
3	4	7	126.12	-76.29	-73.88	123.70	21.98	-8.922e+04	-9.308e+04	-9.308e+04	-8.922e+04	-3.32
3	4	8	122.81	-73.69	-70.74	119.86	-23.88	-8.249e+04	-9.703e+04	-9.414e+04	-8.538e+04	5801.98
3	4	19	167.79	-133.68	-88.42	122.53	-107.68	-9.309e+04	-1.565e+05	-1.563e+05	-9.327e+04	-3362.39
3	4	20	116.23	-69.19	-46.89	93.93	-60.31	-7.175e+04	-9.954e+04	-9.648e+04	-7.481e+04	8688.65
3	4	27	155.14	-123.09	-20.46	52.52	-134.24	-7.845e+04	-1.514e+05	-1.502e+05	-7.972e+04	-9546.87
3	4	28	106.54	-62.89	-10.99	54.64	-78.10	-5.889e+04	-9.903e+04	-9.787e+04	-6.005e+04	6730.27
3	4	35	139.60	-110.31	46.42	-17.12	-120.85	-6.026e+04	-1.431e+05	-1.384e+05	-6.493e+04	-1.910e+04
3	4	36	94.08	-54.97	25.00	14.10	-74.33	-4.445e+04	-9.549e+04	-9.548e+04	-4.446e+04	-344.62
3	4	43	121.93	-95.99	91.27	-65.33	-75.77	-3.972e+04	-1.313e+05	-1.196e+05	-5.142e+04	-3.058e+04
3	4	44	79.29	-45.74	49.86	-16.31	-53.04	-2.901e+04	-8.902e+04	-8.691e+04	-3.111e+04	-1.104e+04
3	4	51	103.22	-81.12	101.62	-79.52	-17.10	-1.789e+04	-1.163e+05	-9.340e+04	-4.075e+04	-4.154e+04
3	4	52	62.83	-35.61	56.80	-29.58	-23.60	-1.314e+04	-7.988e+04	-7.108e+04	-2.194e+04	-2.257e+04

3	4	59	85.17	-67.23	77.33	-59.39	33.65	4219.78	-9.835e+04	-6.108e+04	-3.305e+04	-4.933e+04
3	4	60	45.59	-25.24	45.48	-25.13	2.76	2528.97	-6.842e+04	-4.873e+04	-1.716e+04	-3.177e+04
3	4	67	70.31	-56.70	30.20	-16.59	59.04	2.569e+04	-7.820e+04	-2.534e+04	-2.717e+04	-5.194e+04
3	4	68	29.31	-16.10	21.87	-8.66	16.81	1.741e+04	-5.509e+04	-2.233e+04	-1.535e+04	-3.608e+04
3	4	75	62.00	-52.71	-20.49	29.77	51.55	4.566e+04	-5.655e+04	1.026e+04	-2.115e+04	-4.863e+04
3	4	76	19.12	-13.06	-4.07	10.13	14.44	3.095e+04	-4.041e+04	4613.11	-1.408e+04	-3.444e+04
3	4	83	62.23	-57.10	-54.92	60.04	15.98	6.337e+04	-3.425e+04	4.218e+04	-1.306e+04	-4.024e+04
3	4	84	21.29	-22.10	-22.01	21.20	-2.01	4.263e+04	-2.497e+04	2.847e+04	-1.081e+04	-2.751e+04
3	4	91	69.24	-67.96	-59.75	61.04	-32.53	7.822e+04	-1.222e+04	6.779e+04	-1790.56	-2.888e+04
3	4	92	29.22	-36.36	-24.98	17.83	-24.84	5.203e+04	-9363.75	4.657e+04	-3897.31	-1.749e+04
3	4	99	79.54	-81.62	-32.80	30.73	-74.05	8.977e+04	8564.09	8.591e+04	1.242e+04	-1.727e+04
3	4	100	37.79	-50.48	-11.79	-0.90	-43.80	5.884e+04	5748.48	5.781e+04	6777.70	-7319.83
3	4	107	90.47	-95.30	16.17	-21.00	-91.01	9.783e+04	2.703e+04	9.695e+04	2.791e+04	-7851.91
3	4	108	45.56	-62.81	12.51	-29.76	-49.89	6.287e+04	1.970e+04	6.286e+04	1.971e+04	286.01
3	4	115	100.50	-107.38	68.94	-75.83	-74.59	1.026e+05	4.198e+04	1.025e+05	4.205e+04	-2065.13
3	4	116	51.99	-72.63	38.50	-59.13	-38.72	6.418e+04	3.176e+04	6.374e+04	3.220e+04	3756.42
3	4	123	108.83	-116.97	105.28	-113.42	-28.08	1.047e+05	5.200e+04	1.047e+05	5.200e+04	114.01
3	4	124	56.84	-79.55	55.74	-78.46	-12.19	6.335e+04	4.081e+04	6.291e+04	4.126e+04	3132.68
3	4	131	115.10	-123.67	110.13	-118.71	34.07	1.052e+05	5.561e+04	1.052e+05	5.561e+04	71.94
3	4	132	60.00	-83.42	56.55	-79.97	21.98	6.238e+04	4.456e+04	6.238e+04	4.456e+04	-3.32
3	4	139	119.30	-127.45	79.20	-87.35	91.03	1.047e+05	5.206e+04	1.047e+05	5.206e+04	18.92
3	4	140	61.55	-84.27	38.92	-61.63	52.80	6.336e+04	4.081e+04	6.291e+04	4.125e+04	-3138.83
3	4	147	121.69	-128.58	20.77	-27.65	122.77	1.025e+05	4.207e+04	1.024e+05	4.215e+04	2166.86
3	4	148	61.71	-82.34	7.42	-28.05	69.81	6.418e+04	3.175e+04	6.374e+04	3.219e+04	-3761.12
3	4	155	122.79	-127.62	-46.78	41.95	117.08	9.771e+04	2.715e+04	9.682e+04	2.804e+04	7906.97
3	4	156	60.88	-78.13	-28.10	10.85	66.72	6.287e+04	1.970e+04	6.287e+04	1.970e+04	-288.56
3	4	163	123.32	-125.39	-100.94	98.86	74.05	8.964e+04	8694.26	8.577e+04	1.256e+04	1.727e+04
3	4	164	59.68	-72.37	-55.75	43.06	43.80	5.884e+04	5742.09	5.781e+04	6771.05	7319.84
3	4	171	124.15	-122.87	-122.70	123.98	6.46	7.808e+04	-1.208e+04	6.766e+04	-1657.64	2.883e+04
3	4	172	58.96	-66.10	-65.59	58.44	8.02	5.204e+04	-9370.25	4.657e+04	-3903.45	1.749e+04
3	4	179	126.18	-121.05	-103.10	108.22	-64.16	6.323e+04	-3.411e+04	4.208e+04	-1.296e+04	4.014e+04
3	4	180	59.77	-60.58	-53.09	52.28	-29.07	4.264e+04	-2.497e+04	2.848e+04	-1.081e+04	2.751e+04
3	4	187	130.07	-120.79	-46.56	55.85	-114.50	4.551e+04	-5.641e+04	1.020e+04	-2.110e+04	4.850e+04
3	4	188	63.06	-57.00	-20.89	26.95	-55.06	3.096e+04	-4.042e+04	4615.66	-1.408e+04	3.444e+04
3	4	195	136.11	-122.50	30.20	-16.59	-127.17	2.554e+04	-7.806e+04	-2.534e+04	-2.717e+04	5.179e+04
3	4	196	69.25	-56.05	21.87	-8.66	-60.76	1.742e+04	-5.510e+04	-2.233e+04	-1.535e+04	3.609e+04
3	4	203	144.06	-126.12	103.41	-85.47	-96.59	4076.87	-9.821e+04	-6.102e+04	-3.311e+04	4.920e+04
3	4	204	77.99	-57.64	62.30	-41.95	-43.37	2535.60	-6.843e+04	-4.874e+04	-1.715e+04	3.177e+04
3	4	211	153.24	-131.14	149.80	-127.70	-31.07	-1.803e+04	-1.161e+05	-9.330e+04	-4.085e+04	4.144e+04
3	4	212	88.26	-61.04	87.88	-60.67	-7.48	-1.314e+04	-7.989e+04	-7.109e+04	-2.193e+04	2.258e+04
3	4	219	162.70	-136.77	154.22	-128.28	49.69	-3.986e+04	-1.312e+05	-1.195e+05	-5.156e+04	3.052e+04
3	4	220	98.90	-65.34	90.48	-56.92	36.22	-2.900e+04	-8.903e+04	-8.692e+04	-3.110e+04	1.104e+04
3	4	227	171.44	-142.15	114.55	-85.25	120.85	-6.039e+04	-1.430e+05	-1.383e+05	-6.508e+04	1.910e+04
3	4	228	108.80	-69.70	68.96	-29.85	74.33	-4.445e+04	-9.549e+04	-9.549e+04	-4.445e+04	344.62
3	4	235	178.51	-146.46	42.48	-10.43	160.32	-7.856e+04	-1.513e+05	-1.500e+05	-7.985e+04	9601.93
3	4	236	117.07	-73.41	29.62	14.03	94.92	-5.888e+04	-9.904e+04	-9.788e+04	-6.005e+04	-6732.81
3	4	243	183.11	-149.00	-40.24	74.35	155.86	-9.318e+04	-1.564e+05	-1.562e+05	-9.337e+04	3464.13
3	4	244	123.02	-75.98	-15.80	62.84	91.40	-7.175e+04	-9.954e+04	-9.649e+04	-7.480e+04	-8693.35
3	4	251	184.63	-149.26	-108.82	144.19	108.94	-1.029e+05	-1.589e+05	-1.589e+05	-1.029e+05	720.99
3	4	252	126.14	-77.01	-53.92	103.04	64.49	-8.248e+04	-9.704e+04	-9.414e+04	-8.538e+04	-5808.13
3	5	5	165.05	-131.21	-129.84	163.68	20.09	-9.800e+04	-1.461e+05	-1.461e+05	-9.800e+04	42.42
3	5	6	161.16	-127.71	-118.08	151.53	-51.85	-9.489e+04	-1.455e+05	-1.455e+05	-9.490e+04	-580.72
3	5	7	113.94	-67.68	-66.75	113.01	12.96	-8.236e+04	-8.517e+04	-8.517e+04	-8.236e+04	-1.96
3	5	8	111.47	-65.85	-61.24	106.86	-28.21	-7.605e+04	-8.898e+04	-8.615e+04	-7.888e+04	5346.73
3	5	19	154.03	-121.74	-72.44	104.73	-105.67	-8.616e+04	-1.433e+05	-1.431e+05	-8.633e+04	-3098.09
3	5	20	106.07	-62.33	-37.32	81.06	-59.88	-6.635e+04	-9.128e+04	-8.833e+04	-6.930e+04	8050.49
3	5	27	143.93	-113.52	-8.40	38.82	-126.54	-7.301e+04	-1.387e+05	-1.376e+05	-7.417e+04	-8672.18
3	5	28	97.91	-57.23	-3.18	43.85	-73.92	-5.476e+04	-9.085e+04	-8.969e+04	-5.592e+04	6360.11
3	5	35	131.32	-103.43	53.30	-25.40	-110.59	-5.666e+04	-1.312e+05	-1.270e+05	-6.090e+04	-1.726e+04
3	5	36	87.31	-50.76	30.17	6.39	-68.00	-4.176e+04	-8.767e+04	-8.767e+04	-4.176e+04	20.55
3	5	43	116.91	-92.10	93.58	-68.76	-65.82	-3.820e+04	-1.206e+05	-1.100e+05	-4.878e+04	-2.757e+04
3	5	44	74.73	-43.20	52.48	-20.95	-46.14	-2.786e+04	-8.186e+04	-8.008e+04	-2.963e+04	-9627.27
3	5	51	101.69	-80.38	101.23	-79.92	-9.16	-1.857e+04	-1.070e+05	-8.642e+04	-3.920e+04	-3.741e+04
3	5	52	60.82	-35.01	57.64	-31.84	-17.15	-1.358e+04	-7.365e+04	-6.595e+04	-2.127e+04	-2.007e+04
3	5	59	87.04	-69.55	76.36	-58.86	39.49	1310.32	-9.093e+04	-5.733e+04	-3.229e+04	-4.439e+04
3	5	60	46.50	-26.91	45.51	-25.92	8.48	525.09	-6.335e+04	-4.592e+04	-1.690e+04	-2.845e+04
3	5	67	74.83	-61.30	30.03	-16.49	63.97	2.061e+04	-7.280e+04	-2.518e+04	-2.700e+04	-4.670e+04
3	5	68	33.44	-20.31	21.74	-8.61	22.18	1.392e+04	-5.137e+04	-2.219e+04	-1.526e+04	-3.246e+04
3	5	75	67.14	-57.57	-19.85	29.42	57.29	3.857e+04	-5.332e+04	6823.86	-2.158e+04	-4.369e+04
3	5	76	24.85	-18.18	-4.34	11.01	20.10	2.611e+04	-3.817e+04	2069.92	-1.413e+04	-3.110e+04
3	5	83	65.25	-59.49	-54.80	60.56	23.74	5.449e+04	-3.325e+04	3.552e+04	-1.427e+04	-3.612e+04
3	5	84	23.90	-23.45	-23.05	23.50	4.31	3.663e+04	-2.429e+04	2.361e+04	-1.127e+04	-2.498e+04
3	5	91	68.48	-66.23	-62.24	64.49	-22.84	6.784e+04	-1.342e+04	5.852e+04	-4100.96	-2.589e+04
3	5	92	28.30	-33.59	-27.74	22.46	-18.10	4.510e+04	-1.027e+04	3.999e+04	-5157.74	-1.603e+04
3	5	99	74.77	-75.60	-39.76	38.94	-64.07	7.821e+04	5283.30	7.478e+04	8715.20	-1.544e+04
3	5	100	34.33	-44.63	-17.04	6.74	-37.65	5.124e+04	3300.23	5.022e+04	4318.67	-6912.97
3	5	107	82.09	-85.44	4.13	-7.48	-83.56	8.546e+04	2.190e+04	8.468e+04	2.268e+04	-6989.93

3	5	108	40.19	-54.61	4.69	-19.11	-45.88	5.490e+04	1.582e+04	5.490e+04	1.582e+04	-45.63
3	5	115	89.02	-94.25	53.07	-58.30	-72.77	8.973e+04	3.537e+04	8.967e+04	3.543e+04	-1810.55
3	5	116	45.10	-62.59	28.99	-46.47	-38.42	5.613e+04	2.661e+04	5.579e+04	2.695e+04	3147.75
3	5	123	94.74	-101.13	88.63	-95.02	-34.04	9.162e+04	4.439e+04	9.162e+04	4.439e+04	116.09
3	5	124	48.73	-68.10	46.32	-65.69	-16.59	5.547e+04	3.468e+04	5.511e+04	3.503e+04	2693.38
3	5	131	98.84	-105.62	96.85	-103.62	20.09	9.207e+04	4.763e+04	9.207e+04	4.763e+04	42.42
3	5	132	50.92	-70.93	49.53	-69.53	12.96	5.466e+04	3.798e+04	5.466e+04	3.798e+04	-1.96
3	5	139	101.25	-107.64	73.26	-79.65	71.16	9.159e+04	4.442e+04	9.159e+04	4.442e+04	-37.72
3	5	140	51.70	-71.07	36.41	-55.77	40.54	5.547e+04	3.467e+04	5.512e+04	3.503e+04	-2697.01
3	5	147	102.18	-107.41	24.67	-29.90	101.18	8.967e+04	3.542e+04	8.961e+04	3.549e+04	1870.54
3	5	148	51.23	-68.71	10.66	-28.14	56.75	5.613e+04	2.661e+04	5.579e+04	2.695e+04	-3150.52
3	5	155	102.09	-105.45	-32.98	29.63	98.94	8.539e+04	2.197e+04	8.460e+04	2.276e+04	7022.39
3	5	156	49.87	-64.29	-19.26	4.84	55.80	5.490e+04	1.582e+04	5.490e+04	1.582e+04	44.12
3	5	163	101.70	-102.53	-79.94	79.11	64.07	7.814e+04	5360.13	7.470e+04	8800.03	1.544e+04
3	5	164	48.21	-58.51	-42.96	32.66	37.65	5.125e+04	3296.48	5.023e+04	4314.75	6912.97
3	5	171	101.88	-99.63	-99.36	101.61	7.47	6.776e+04	-1.334e+04	5.844e+04	-4022.59	2.586e+04
3	5	172	47.08	-52.36	-51.68	46.40	8.18	4.511e+04	-1.028e+04	3.999e+04	-5161.36	1.603e+04
3	5	179	103.53	-97.77	-83.20	88.97	-52.14	5.441e+04	-3.317e+04	3.546e+04	-1.421e+04	3.606e+04
3	5	180	47.59	-47.14	-41.38	41.83	-22.64	3.663e+04	-2.429e+04	2.361e+04	-1.127e+04	2.498e+04
3	5	187	107.31	-97.74	-35.22	44.79	-94.40	3.848e+04	-5.323e+04	6791.40	-2.154e+04	4.362e+04
3	5	188	50.76	-44.10	-14.26	20.92	-44.05	2.611e+04	-3.818e+04	2071.43	-1.414e+04	3.111e+04
3	5	195	113.47	-99.94	30.03	-16.49	-104.14	2.053e+04	-7.272e+04	-2.518e+04	-2.700e+04	4.661e+04
3	5	196	57.00	-43.87	21.74	-8.61	-48.10	1.393e+04	-5.137e+04	-2.219e+04	-1.526e+04	3.246e+04
3	5	203	121.68	-104.19	91.73	-74.24	-76.60	1226.08	-9.085e+04	-5.730e+04	-3.233e+04	4.431e+04
3	5	204	65.78	-46.19	55.43	-35.84	-32.43	529.00	-6.335e+04	-4.592e+04	-1.690e+04	2.845e+04
3	5	211	131.18	-109.88	129.63	-108.33	-19.25	-1.866e+04	-1.070e+05	-8.636e+04	-3.926e+04	3.735e+04
3	5	212	75.98	-50.18	75.97	-50.16	-1.17	-1.358e+04	-7.365e+04	-6.595e+04	-2.127e+04	2.008e+04
3	5	219	141.00	-116.19	130.69	-105.88	50.45	-3.828e+04	-1.205e+05	-1.099e+05	-4.886e+04	2.754e+04
3	5	220	86.42	-54.89	76.42	-44.89	36.23	-2.785e+04	-8.186e+04	-8.009e+04	-2.963e+04	9628.77
3	5	227	150.16	-122.26	93.47	-65.58	110.59	-5.674e+04	-1.311e+05	-1.269e+05	-6.099e+04	1.726e+04
3	5	228	96.08	-59.53	56.08	-19.53	68.00	-4.176e+04	-8.767e+04	-8.767e+04	-4.176e+04	-20.55
3	5	235	157.76	-127.35	28.71	1.70	141.92	-7.308e+04	-1.387e+05	-1.375e+05	-7.425e+04	8704.64
3	5	236	104.18	-63.50	20.77	19.91	83.84	-5.476e+04	-9.085e+04	-8.969e+04	-5.592e+04	-6361.61
3	5	243	163.11	-130.81	-44.03	76.33	134.07	-8.621e+04	-1.433e+05	-1.431e+05	-8.639e+04	3158.08
3	5	244	110.11	-66.37	-18.99	62.73	78.21	-6.635e+04	-9.128e+04	-8.833e+04	-6.930e+04	-8053.26
3	5	251	165.65	-132.20	-102.71	136.16	88.96	-9.492e+04	-1.455e+05	-1.455e+05	-9.493e+04	659.09
3	5	252	113.45	-67.83	-51.32	96.94	52.15	-7.605e+04	-8.899e+04	-8.615e+04	-7.888e+04	-5350.35

M_G			**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
				-211.63	-201.57	-187.86	-187.37		-2.197e+05	-2.197e+05	-1.429e+05	-7.589e+04
			256.60		219.33	247.44	224.63	1.671e+05		1.671e+05	9.363e+04	7.567e+04

Macro	Tipo	Angolo 1-X (gradi)
4	**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**
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
4	2	7	154.51	-105.33	-101.76	150.94	30.24	-9.094e+04	-1.290e+05	-1.290e+05	-9.094e+04	8.95
4	2	8	149.76	-101.32	-97.55	146.00	-30.52	-8.706e+04	-1.292e+05	-1.291e+05	-8.715e+04	1960.86
4	2	9	121.81	-58.15	-55.59	119.25	21.32	-6.857e+04	-7.364e+04	-6.857e+04	-7.364e+04	-0.79
4	2	10	118.83	-56.19	-54.41	117.05	-17.56	-6.309e+04	-7.680e+04	-7.003e+04	-6.986e+04	6853.04
4	2	20	141.11	-94.86	-65.12	111.36	-78.32	-7.668e+04	-1.288e+05	-1.288e+05	-7.672e+04	1252.93
4	2	21	112.18	-52.56	-36.31	95.93	-49.12	-5.376e+04	-7.925e+04	-7.352e+04	-5.950e+04	1.065e+04
4	2	28	128.77	-86.09	-16.53	59.21	-100.53	-6.190e+04	-1.262e+05	-1.259e+05	-6.212e+04	-3804.53
4	2	29	102.05	-47.35	-8.30	63.01	-65.64	-4.261e+04	-7.924e+04	-7.667e+04	-4.519e+04	9358.28
4	2	36	113.17	-75.29	31.62	6.26	-93.37	-4.422e+04	-1.203e+05	-1.179e+05	-4.661e+04	-1.329e+04
4	2	37	88.79	-40.69	19.91	28.18	-64.61	-3.019e+04	-7.664e+04	-7.649e+04	-3.035e+04	2686.88
4	2	44	94.96	-62.93	63.91	-31.87	-62.76	-2.477e+04	-1.111e+05	-1.027e+05	-3.316e+04	-2.559e+04
4	2	45	72.84	-32.79	39.20	0.84	-49.21	-1.700e+04	-7.154e+04	-7.039e+04	-1.815e+04	-7825.11
4	2	52	75.13	-49.76	71.15	-45.78	-21.92	-4506.20	-9.873e+04	-7.965e+04	-2.358e+04	-3.786e+04
4	2	53	54.79	-23.93	44.05	-13.19	-27.02	-3552.75	-6.411e+04	-5.716e+04	-1.050e+04	-1.929e+04
4	2	60	55.26	-37.13	53.28	-35.15	13.39	1.569e+04	-8.346e+04	-4.979e+04	-1.798e+04	-4.695e+04
4	2	61	35.30	-14.41	34.26	-13.37	-7.14	9632.12	-5.464e+04	-3.748e+04	-7526.62	-2.843e+04
4	2	68	38.73	-28.12	19.06	-8.45	30.46	3.499e+04	-6.589e+04	-1.599e+04	-1.491e+04	-5.043e+04
4	2	69	15.26	-4.73	14.80	-4.28	2.98	2.205e+04	-4.349e+04	-1.378e+04	-7664.59	-3.262e+04
4	2	76	31.96	-28.88	-17.26	20.34	23.92	5.265e+04	-4.667e+04	1.789e+04	-1.191e+04	-4.737e+04
4	2	77	6.27	-6.11	-6.11	6.27	0.16	3.321e+04	-3.110e+04	1.038e+04	-8268.07	-3.077e+04
4	2	84	37.01	-41.17	-41.09	36.93	-2.47	6.800e+04	-2.656e+04	4.799e+04	-6551.58	-3.863e+04
4	2	85	15.39	-25.20	-20.04	10.23	-13.53	4.270e+04	-1.793e+04	3.139e+04	-6624.45	-2.362e+04
4	2	92	47.41	-58.24	-42.78	31.95	-37.34	8.052e+04	-6404.20	7.143e+04	2681.34	-2.659e+04
4	2	93	24.25	-43.25	-21.38	2.38	-31.59	5.016e+04	-4508.50	4.660e+04	-956.06	-1.347e+04
4	2	100	58.73	-75.41	-21.02	4.34	-65.86	8.983e+04	1.292e+04	8.704e+04	1.571e+04	-1.438e+04

4	2	101	32.19	-59.24	-9.39	-17.66	-45.53	5.530e+04	8651.53	5.504e+04	8904.91	-3428.48
4	2	108	69.20	-90.67	16.61	-38.08	-75.12	9.581e+04	3.045e+04	9.546e+04	3.081e+04	-4808.22
4	2	109	38.94	-72.60	11.53	-45.18	-48.02	5.794e+04	2.102e+04	5.757e+04	2.140e+04	3708.42
4	2	116	78.02	-103.06	56.27	-81.31	-58.87	9.869e+04	4.504e+04	9.868e+04	4.505e+04	484.74
4	2	117	44.28	-82.84	33.35	-71.92	-35.63	5.804e+04	3.209e+04	5.640e+04	3.373e+04	6323.22
4	2	124	84.80	-112.03	82.74	-109.97	-20.00	9.930e+04	5.519e+04	9.924e+04	5.524e+04	1545.12
4	2	125	48.08	-89.67	47.31	-88.90	-10.26	5.580e+04	4.120e+04	5.423e+04	4.276e+04	4512.79
4	2	132	89.38	-117.35	84.85	-112.82	30.24	9.917e+04	5.895e+04	9.917e+04	5.895e+04	8.95
4	2	133	50.28	-92.90	47.04	-89.65	21.32	5.324e+04	4.608e+04	5.324e+04	4.608e+04	-0.79
4	2	140	91.82	-119.05	59.59	-86.82	75.88	9.929e+04	5.520e+04	9.924e+04	5.525e+04	-1528.58
4	2	141	50.95	-92.54	30.99	-72.58	49.66	5.580e+04	4.120e+04	5.424e+04	4.276e+04	-4514.25
4	2	148	92.40	-117.44	13.50	-38.53	101.64	9.868e+04	4.506e+04	9.867e+04	4.506e+04	-472.07
4	2	149	50.24	-88.81	3.19	-41.76	65.79	5.804e+04	3.208e+04	5.640e+04	3.373e+04	-6324.34
4	2	156	91.59	-113.06	-39.27	17.80	98.26	9.580e+04	3.047e+04	9.544e+04	3.082e+04	4815.07
4	2	157	48.45	-82.11	-27.88	-5.78	64.34	5.794e+04	2.102e+04	5.757e+04	2.140e+04	-3709.02
4	2	164	90.11	-106.78	-81.51	64.83	65.86	8.982e+04	1.294e+04	8.703e+04	1.573e+04	1.438e+04
4	2	165	46.11	-73.16	-52.04	24.99	45.53	5.530e+04	8649.97	5.504e+04	8903.33	3428.48
4	2	172	88.91	-99.74	-98.66	87.84	14.19	8.050e+04	-6386.92	7.142e+04	2697.88	2.659e+04
4	2	173	44.01	-63.00	-60.78	41.78	15.27	5.016e+04	-4510.07	4.661e+04	-957.52	1.348e+04
4	2	180	89.10	-93.25	-83.86	79.71	-40.30	6.798e+04	-2.655e+04	4.797e+04	-6538.92	3.861e+04
4	2	181	43.34	-53.15	-50.19	40.38	-16.63	4.270e+04	-1.793e+04	3.140e+04	-6625.57	2.362e+04
4	2	188	91.70	-88.62	-40.40	43.48	-79.81	5.263e+04	-4.665e+04	1.788e+04	-1.191e+04	4.735e+04
4	2	189	45.60	-45.44	-22.43	22.59	-39.56	3.321e+04	-3.110e+04	1.038e+04	-8268.68	3.077e+04
4	2	196	97.29	-86.68	19.06	-8.45	-90.95	3.497e+04	-6.587e+04	-1.599e+04	-1.491e+04	5.042e+04
4	2	197	51.88	-41.36	14.80	-4.28	-45.63	2.205e+04	-4.349e+04	-1.378e+04	-7664.59	3.263e+04
4	2	204	105.69	-87.56	76.43	-58.29	-69.28	1.567e+04	-8.344e+04	-4.979e+04	-1.799e+04	4.694e+04
4	2	205	61.94	-41.05	50.58	-29.69	-32.26	9633.69	-5.464e+04	-3.748e+04	-7526.01	2.843e+04
4	2	212	116.05	-90.68	113.92	-88.55	-20.85	-4523.91	-9.871e+04	-7.964e+04	-2.359e+04	3.785e+04
4	2	213	74.29	-43.43	74.21	-43.35	-3.14	-3551.18	-6.411e+04	-5.716e+04	-1.049e+04	1.929e+04
4	2	220	127.10	-95.06	119.80	-87.76	39.61	-2.478e+04	-1.111e+05	-1.027e+05	-3.318e+04	2.558e+04
4	2	221	87.21	-47.16	78.60	-38.56	32.89	-1.700e+04	-7.154e+04	-7.039e+04	-1.815e+04	7825.71
4	2	228	137.57	-99.68	92.11	-54.23	93.37	-4.423e+04	-1.203e+05	-1.179e+05	-4.663e+04	1.329e+04
4	2	229	99.26	-51.17	62.56	-14.46	64.61	-3.019e+04	-7.665e+04	-7.649e+04	-3.035e+04	-2686.88
4	2	236	146.33	-103.64	39.35	3.33	123.68	-6.191e+04	-1.261e+05	-1.259e+05	-6.214e+04	3811.38
4	2	237	109.40	-54.70	31.10	23.60	81.97	-4.261e+04	-7.924e+04	-7.667e+04	-4.518e+04	-9358.88
4	2	244	152.47	-106.23	-22.35	68.59	121.09	-7.670e+04	-1.288e+05	-1.288e+05	-7.673e+04	-1240.27
4	2	245	116.86	-57.25	-6.16	65.77	79.28	-5.376e+04	-7.926e+04	-7.352e+04	-5.950e+04	-1.065e+04
4	2	252	155.35	-106.90	-74.40	122.85	86.41	-8.706e+04	-1.292e+05	-1.291e+05	-8.715e+04	-1944.32
4	2	253	121.11	-58.47	-38.09	100.72	56.96	-6.309e+04	-7.680e+04	-7.003e+04	-6.986e+04	-6854.50
4	3	7	136.75	-92.88	-88.83	132.69	30.24	-8.094e+04	-1.134e+05	-1.134e+05	-8.094e+04	8.95
4	3	8	132.36	-89.13	-86.69	129.93	-23.09	-7.760e+04	-1.136e+05	-1.135e+05	-7.768e+04	1705.77
4	3	9	107.73	-51.43	-48.52	104.82	21.32	-6.020e+04	-6.569e+04	-6.020e+04	-6.569e+04	-0.79
4	3	10	105.06	-49.63	-48.55	103.97	-12.89	-5.585e+04	-6.806e+04	-6.150e+04	-6.241e+04	6090.11
4	3	20	124.60	-83.25	-59.78	101.13	-65.78	-6.871e+04	-1.133e+05	-1.133e+05	-6.873e+04	1120.32
4	3	21	99.24	-46.40	-33.66	86.50	-41.15	-4.796e+04	-7.006e+04	-6.461e+04	-5.342e+04	9526.91
4	3	28	113.64	-75.33	-18.29	56.60	-86.75	-5.603e+04	-1.110e+05	-1.108e+05	-5.621e+04	-3197.87
4	3	29	90.45	-41.81	-9.77	58.40	-56.67	-3.845e+04	-7.001e+04	-6.750e+04	-4.097e+04	8547.44
4	3	36	99.82	-65.61	23.57	10.64	-82.46	-4.087e+04	-1.060e+05	-1.040e+05	-4.290e+04	-1.132e+04
4	3	37	78.96	-35.98	14.83	28.15	-57.09	-2.783e+04	-6.777e+04	-6.756e+04	-2.804e+04	2876.83
4	3	44	83.64	-54.43	52.50	-23.28	-57.71	-2.421e+04	-9.817e+04	-9.101e+04	-3.136e+04	-2.186e+04
4	3	45	65.17	-29.09	32.24	3.85	-44.94	-1.654e+04	-6.338e+04	-6.256e+04	-1.737e+04	-6171.05
4	3	52	65.85	-42.34	60.42	-36.91	-23.61	-6846.32	-8.754e+04	-7.125e+04	-2.313e+04	-3.238e+04
4	3	53	49.57	-21.35	37.60	-9.38	-26.56	-5026.51	-5.702e+04	-5.141e+04	-1.063e+04	-1.612e+04
4	3	60	47.59	-30.26	47.05	-29.72	6.47	1.046e+04	-7.446e+04	-4.569e+04	-1.832e+04	-4.019e+04
4	3	61	32.71	-13.02	30.57	-10.89	-9.65	6265.50	-4.890e+04	-3.468e+04	-7959.16	-2.413e+04
4	3	68	31.32	-20.42	19.58	-8.68	21.67	2.699e+04	-5.942e+04	-1.674e+04	-1.568e+04	-4.320e+04
4	3	69	15.22	-4.41	15.21	-4.39	-0.59	1.690e+04	-3.936e+04	-1.442e+04	-8033.36	-2.795e+04
4	3	76	23.44	-18.97	-10.04	14.50	17.29	4.212e+04	-4.296e+04	1.229e+04	-1.312e+04	-4.060e+04
4	3	77	4.36	-2.42	-1.65	3.59	-2.15	2.647e+04	-2.874e+04	6318.48	-8593.92	-2.658e+04
4	3	84	28.05	-29.77	-29.54	27.82	-3.63	5.528e+04	-2.574e+04	3.808e+04	-8543.11	-3.313e+04
4	3	85	12.64	-19.24	-12.93	6.34	-12.70	3.460e+04	-1.747e+04	2.444e+04	-7310.69	-2.064e+04
4	3	92	37.90	-45.32	-30.78	23.36	-31.60	6.601e+04	-8481.42	5.819e+04	-656.14	-2.284e+04
4	3	93	20.43	-34.89	-13.93	-0.53	-26.83	4.100e+04	-5982.68	3.766e+04	-2642.00	-1.207e+04
4	3	100	48.37	-60.79	-12.67	0.26	-54.19	7.400e+04	8067.54	7.158e+04	1.048e+04	-1.238e+04
4	3	101	27.40	-48.75	-4.02	-17.34	-37.49	4.541e+04	5274.54	4.510e+04	5584.29	-3512.44
4	3	108	57.97	-74.48	18.37	-34.89	-60.64	7.913e+04	2.307e+04	7.881e+04	2.339e+04	-4179.61
4	3	109	33.34	-60.35	13.08	-40.09	-38.57	4.771e+04	1.585e+04	4.749e+04	1.607e+04	2644.51
4	3	116	66.07	-85.63	50.69	-70.25	-45.80	8.160e+04	3.556e+04	8.160e+04	3.556e+04	368.93
4	3	117	38.07	-69.29	30.62	-61.83	-27.29	4.784e+04	2.527e+04	4.667e+04	2.644e+04	5009.01
4	3	124	72.39	-93.83	71.48	-92.92	-12.28	8.214e+04	4.424e+04	8.209e+04	4.428e+04	1299.12
4	3	125	41.50	-75.30	41.25	-75.06	-5.39	4.605e+04	3.295e+04	4.494e+04	3.405e+04	3645.03
4	3	132	76.83	-98.90	71.46	-93.53	30.24	8.203e+04	4.745e+04	8.203e+04	4.745e+04	8.95
4	3	133	43.59	-78.27	39.74	-74.41	21.32	4.414e+04	3.685e+04	4.414e+04	3.685e+04	-0.79
4	3	140	79.46	-100.90	48.34	-69.77	68.15	8.213e+04	4.424e+04	8.209e+04	4.429e+04	-1282.58
4	3	141	44.38	-78.19	24.93	-58.74	44.78	4.605e+04	3.295e+04	4.494e+04	3.405e+04	-3646.49
4	3	148	80.53	-100.09	7.92	-27.49	88.56	8.159e+04	3.557e+04	8.159e+04	3.557e+04	-356.27
4	3	149	44.04	-75.26	0.46	-31.68	57.44	4.784e+04	2.527e+04	4.667e+04	2.644e+04	-5010.13

4	3	156	80.48	-96.99	-37.50	20.98	83.78	7.911e+04	2.309e+04	7.880e+04	2.340e+04	4186.46
4	3	157	42.85	-69.87	-26.32	-0.69	54.88	4.771e+04	1.584e+04	4.749e+04	1.607e+04	-2645.11
4	3	164	79.92	-92.34	-73.15	60.73	54.19	7.398e+04	8084.13	7.156e+04	1.050e+04	1.238e+04
4	3	165	41.28	-62.64	-46.66	25.30	37.49	4.542e+04	5272.98	4.511e+04	5582.71	3512.44
4	3	172	79.67	-87.08	-86.65	79.24	8.45	6.599e+04	-8464.15	5.817e+04	-639.59	2.283e+04
4	3	173	40.05	-54.51	-53.32	38.86	10.52	4.100e+04	-5984.25	3.766e+04	-2643.46	1.207e+04
4	3	180	80.60	-82.32	-72.30	70.59	-39.14	5.526e+04	-2.573e+04	3.807e+04	-8530.45	3.312e+04
4	3	181	40.15	-46.75	-43.09	36.49	-17.45	3.460e+04	-1.747e+04	2.444e+04	-7311.80	2.064e+04
4	3	188	83.52	-79.05	-33.18	37.65	-73.16	4.211e+04	-4.294e+04	1.228e+04	-1.311e+04	4.058e+04
4	3	189	42.75	-40.81	-17.97	19.91	-37.24	2.647e+04	-2.874e+04	6319.08	-8594.53	2.658e+04
4	3	196	88.80	-77.90	19.58	-8.68	-82.14	2.698e+04	-5.940e+04	-1.674e+04	-1.568e+04	4.318e+04
4	3	197	48.59	-37.77	15.21	-4.39	-42.05	1.690e+04	-3.936e+04	-1.442e+04	-8033.36	2.795e+04
4	3	204	96.26	-78.93	70.19	-52.86	-62.35	1.044e+04	-7.445e+04	-4.568e+04	-1.833e+04	4.018e+04
4	3	205	57.35	-37.67	46.89	-27.20	-29.74	6267.07	-4.890e+04	-3.468e+04	-7958.55	2.413e+04
4	3	212	105.17	-81.66	103.19	-79.67	-19.15	-6864.04	-8.752e+04	-7.124e+04	-2.314e+04	3.237e+04
4	3	213	67.88	-39.66	67.76	-39.54	-3.60	-5024.94	-5.702e+04	-5.142e+04	-1.063e+04	1.612e+04
4	3	220	114.54	-85.32	108.37	-79.15	34.57	-2.422e+04	-9.815e+04	-9.100e+04	-3.138e+04	2.185e+04
4	3	221	78.80	-42.71	71.64	-35.55	28.62	-1.654e+04	-6.339e+04	-6.256e+04	-1.737e+04	6171.65
4	3	228	123.31	-89.11	84.05	-49.84	82.46	-4.089e+04	-1.060e+05	-1.040e+05	-4.292e+04	1.132e+04
4	3	229	88.97	-45.99	57.47	-14.49	57.09	-2.783e+04	-6.777e+04	-6.756e+04	-2.804e+04	-2876.83
4	3	236	130.58	-92.27	37.58	0.73	109.89	-5.604e+04	-1.110e+05	-1.108e+05	-5.623e+04	3204.72
4	3	237	97.50	-48.87	29.63	19.01	72.99	-3.845e+04	-7.001e+04	-6.750e+04	-4.097e+04	-8548.04
4	3	244	135.58	-94.23	-17.01	58.37	108.55	-6.872e+04	-1.133e+05	-1.133e+05	-6.875e+04	-1107.66
4	3	245	103.75	-50.91	-3.51	56.35	71.30	-4.796e+04	-7.006e+04	-6.461e+04	-5.341e+04	-9528.03
4	3	252	137.76	-94.53	-63.55	106.78	78.97	-7.761e+04	-1.136e+05	-1.135e+05	-7.769e+04	-1689.23
4	3	253	107.26	-51.83	-32.23	87.66	52.28	-5.585e+04	-6.806e+04	-6.150e+04	-6.241e+04	-6091.57
4	4	7	111.72	-74.59	-72.41	109.53	20.07	-6.775e+04	-9.349e+04	-9.349e+04	-6.775e+04	5.94
4	4	8	108.60	-71.98	-68.95	105.57	-23.19	-6.508e+04	-9.368e+04	-9.361e+04	-6.515e+04	1400.17
4	4	9	88.02	-41.01	-39.44	86.45	14.15	-4.958e+04	-5.515e+04	-4.958e+04	-5.515e+04	-0.52
4	4	10	86.03	-39.72	-38.23	84.54	-13.62	-4.640e+04	-5.674e+04	-5.066e+04	-5.248e+04	5091.66
4	4	20	102.76	-67.65	-45.57	80.69	-57.23	-5.795e+04	-9.344e+04	-9.342e+04	-5.798e+04	965.14
4	4	21	81.52	-37.28	-25.03	69.27	-36.13	-4.023e+04	-5.821e+04	-5.327e+04	-4.517e+04	8028.85
4	4	28	94.38	-61.70	-10.72	43.40	-73.20	-4.780e+04	-9.164e+04	-9.150e+04	-4.794e+04	-2463.08
4	4	29	74.63	-33.75	-4.75	45.63	-47.98	-3.267e+04	-5.813e+04	-5.577e+04	-3.503e+04	7373.93
4	4	36	83.73	-54.33	24.00	5.39	-68.40	-3.568e+04	-8.767e+04	-8.608e+04	-3.727e+04	-8944.91
4	4	37	65.57	-29.22	15.79	20.57	-47.33	-2.421e+04	-5.631e+04	-5.605e+04	-2.447e+04	2887.87
4	4	44	71.24	-45.84	47.77	-22.38	-46.87	-2.235e+04	-8.140e+04	-7.574e+04	-2.800e+04	-1.737e+04
4	4	45	54.68	-23.84	30.15	0.70	-36.39	-1.520e+04	-5.280e+04	-5.228e+04	-1.572e+04	-4386.38
4	4	52	57.52	-36.69	54.05	-33.22	-17.74	-8471.67	-7.291e+04	-5.999e+04	-2.140e+04	-2.580e+04
4	4	53	42.35	-17.79	34.38	-9.82	-20.38	-6008.58	-4.770e+04	-4.357e+04	-1.014e+04	-1.246e+04
4	4	60	43.51	-27.63	42.59	-26.71	8.03	5360.37	-6.248e+04	-3.958e+04	-1.753e+04	-3.208e+04
4	4	61	29.03	-11.29	28.21	-10.48	-5.67	3011.13	-4.122e+04	-3.032e+04	-7884.34	-1.906e+04
4	4	68	30.95	-20.22	19.27	-8.55	21.47	1.858e+04	-5.046e+04	-1.646e+04	-1.541e+04	-3.452e+04
4	4	69	15.28	-4.64	14.97	-4.32	2.48	1.151e+04	-3.359e+04	-1.418e+04	-7898.93	-2.233e+04
4	4	76	23.49	-17.92	-6.16	11.74	18.67	3.068e+04	-3.732e+04	6737.33	-1.338e+04	-3.248e+04
4	4	77	4.07	-0.52	0.25	3.30	1.71	1.916e+04	-2.511e+04	2434.95	-8391.80	-2.146e+04
4	4	84	24.35	-23.73	-23.65	24.28	1.93	4.120e+04	-2.357e+04	2.737e+04	-9741.31	-2.654e+04
4	4	85	9.18	-12.46	-10.10	6.83	-6.74	2.566e+04	-1.611e+04	1.704e+04	-7494.30	-1.691e+04
4	4	92	30.35	-34.30	-26.40	22.46	-21.17	4.978e+04	-9788.56	4.346e+04	-3471.71	-1.834e+04
4	4	93	15.19	-24.75	-12.13	2.56	-18.57	3.078e+04	-6945.17	2.779e+04	-3955.17	-1.019e+04
4	4	100	37.66	-45.61	-13.28	5.33	-40.58	5.617e+04	3423.02	5.421e+04	5389.49	-9993.26
4	4	101	20.61	-35.68	-5.15	-9.93	-28.05	3.433e+04	2031.27	3.397e+04	2392.25	-3395.43
4	4	108	44.64	-55.87	10.80	-22.03	-47.50	6.029e+04	1.540e+04	6.002e+04	1.566e+04	-3431.63
4	4	109	25.22	-44.82	8.01	-27.60	-30.16	3.619e+04	1.045e+04	3.610e+04	1.054e+04	1568.92
4	4	116	50.60	-64.27	36.62	-50.29	-37.56	6.228e+04	2.536e+04	6.228e+04	2.536e+04	223.85
4	4	117	28.88	-51.84	22.03	-44.98	-22.50	3.636e+04	1.792e+04	3.564e+04	1.864e+04	3585.89
4	4	124	55.24	-70.41	53.97	-69.14	-12.54	6.273e+04	3.227e+04	6.270e+04	3.230e+04	998.98
4	4	125	31.49	-56.52	31.05	-56.07	-6.24	3.507e+04	2.391e+04	3.439e+04	2.460e+04	2687.14
4	4	132	58.43	-74.10	55.31	-70.99	20.07	6.266e+04	3.483e+04	6.266e+04	3.483e+04	5.94
4	4	133	33.03	-58.76	30.80	-56.52	14.15	3.379e+04	2.678e+04	3.379e+04	2.678e+04	-0.52
4	4	140	60.22	-75.39	38.61	-53.78	49.63	6.273e+04	3.228e+04	6.269e+04	3.231e+04	-988.00
4	4	141	33.53	-58.56	20.22	-45.24	32.39	3.508e+04	2.391e+04	3.439e+04	2.460e+04	-2688.11
4	4	148	60.81	-74.48	8.24	-21.91	65.94	6.227e+04	2.537e+04	6.227e+04	2.537e+04	-215.44
4	4	149	33.12	-56.08	2.01	-24.97	42.51	3.636e+04	1.791e+04	3.564e+04	1.864e+04	-3586.63
4	4	156	60.56	-71.79	-26.29	15.06	62.86	6.028e+04	1.541e+04	6.001e+04	1.567e+04	3436.18
4	4	157	32.03	-51.63	-18.14	-1.45	40.99	3.619e+04	1.045e+04	3.610e+04	1.054e+04	-1569.32
4	4	164	60.00	-67.94	-53.42	45.48	40.58	5.616e+04	3434.02	5.420e+04	5401.37	9993.26
4	4	165	30.65	-45.72	-33.45	18.38	28.05	3.433e+04	2030.24	3.397e+04	2391.20	3395.43
4	4	172	59.82	-63.76	-63.49	59.55	5.80	4.977e+04	-9777.11	4.345e+04	-3460.73	1.834e+04
4	4	173	29.60	-39.16	-38.28	28.71	7.74	3.078e+04	-6946.20	2.779e+04	-3956.14	1.019e+04
4	4	180	60.81	-60.19	-52.04	52.66	-30.32	4.119e+04	-2.356e+04	2.736e+04	-9732.91	2.654e+04
4	4	181	29.78	-33.06	-30.12	26.84	-13.27	2.566e+04	-1.611e+04	1.704e+04	-7495.04	1.691e+04
4	4	188	63.62	-58.04	-21.53	27.10	-55.76	3.067e+04	-3.731e+04	6732.78	-1.337e+04	3.247e+04
4	4	189	32.25	-28.70	-10.58	14.13	-27.86	1.916e+04	-2.511e+04	2435.35	-8392.20	2.146e+04
4	4	196	68.53	-57.81	19.27	-8.55	-61.62	1.857e+04	-5.045e+04	-1.646e+04	-1.541e+04	3.450e+04
4	4	197	37.58	-26.94	14.97	-4.32	-30.79	1.151e+04	-3.359e+04	-1.418e+04	-7898.93	2.233e+04
4	4	204	75.29	-59.42	57.95	-42.08	-45.11	5348.51	-6.246e+04	-3.958e+04	-1.754e+04	3.206e+04

4	4	205	45.34	-27.60	39.05	-21.31	-20.48	3012.17	-4.122e+04	-3.032e+04	-7883.94	1.906e+04
4	4	212	83.22	-62.39	82.44	-61.61	-10.65	-8483.43	-7.290e+04	-5.998e+04	-2.140e+04	2.579e+04
4	4	213	54.40	-29.84	54.40	-29.84	0.37	-6007.54	-4.770e+04	-4.357e+04	-1.014e+04	1.246e+04
4	4	220	91.44	-66.04	84.86	-59.47	31.50	-2.236e+04	-8.138e+04	-7.573e+04	-2.802e+04	1.737e+04
4	4	221	63.63	-32.79	56.30	-25.45	25.56	-1.520e+04	-5.280e+04	-5.228e+04	-1.572e+04	4386.78
4	4	228	99.10	-69.70	64.15	-34.75	68.40	-3.569e+04	-8.766e+04	-8.607e+04	-3.728e+04	8944.91
4	4	229	72.14	-35.79	44.09	-7.74	47.33	-2.421e+04	-5.631e+04	-5.605e+04	-2.447e+04	-2887.87
4	4	236	105.46	-72.79	26.36	6.31	88.56	-4.781e+04	-9.163e+04	-9.149e+04	-4.795e+04	2467.63
4	4	237	79.26	-38.38	21.40	19.48	58.81	-3.267e+04	-5.813e+04	-5.577e+04	-3.503e+04	-7374.33
4	4	244	109.95	-74.83	-17.18	52.30	85.61	-5.796e+04	-9.344e+04	-9.341e+04	-5.799e+04	-956.74
4	4	245	84.48	-40.24	-5.01	49.25	56.15	-4.022e+04	-5.822e+04	-5.328e+04	-4.516e+04	-8029.59
4	4	252	112.13	-75.51	-53.58	90.20	60.28	-6.509e+04	-9.367e+04	-9.360e+04	-6.515e+04	-1389.19
4	4	253	87.47	-41.16	-27.40	73.70	39.77	-4.640e+04	-5.675e+04	-5.066e+04	-5.248e+04	-5092.63
4	5	7	100.90	-66.33	-65.49	100.06	11.83	-6.250e+04	-8.554e+04	-8.554e+04	-6.250e+04	3.50
4	5	8	98.63	-64.52	-59.92	94.03	-27.00	-6.009e+04	-8.572e+04	-8.565e+04	-6.015e+04	1277.53
4	5	9	79.48	-36.13	-35.53	78.87	8.34	-4.534e+04	-5.094e+04	-4.534e+04	-5.094e+04	-0.31
4	5	10	77.90	-35.19	-32.71	75.42	-16.56	-4.261e+04	-5.225e+04	-4.634e+04	-4.852e+04	4693.85
4	5	20	93.94	-61.19	-36.65	69.40	-56.61	-5.366e+04	-8.552e+04	-8.550e+04	-5.369e+04	903.27
4	5	21	74.06	-33.21	-19.26	60.11	-36.08	-3.713e+04	-5.350e+04	-4.875e+04	-4.188e+04	7432.20
4	5	28	86.99	-56.45	-3.62	34.15	-69.19	-4.453e+04	-8.391e+04	-8.379e+04	-4.465e+04	-2168.94
4	5	29	68.09	-30.27	0.15	37.67	-45.46	-3.036e+04	-5.340e+04	-5.110e+04	-3.266e+04	6907.33
4	5	36	78.07	-50.50	28.51	-0.94	-62.58	-3.362e+04	-8.035e+04	-7.894e+04	-3.503e+04	-7995.19
4	5	37	60.19	-26.45	19.23	14.51	-43.25	-2.276e+04	-5.175e+04	-5.146e+04	-2.305e+04	2894.45
4	5	44	67.59	-43.65	49.84	-25.90	-40.74	-2.162e+04	-7.471e+04	-6.965e+04	-2.667e+04	-1.558e+04
4	5	45	50.68	-21.90	32.10	-3.32	-31.67	-1.467e+04	-4.858e+04	-4.818e+04	-1.507e+04	-3671.67
4	5	52	56.16	-36.35	54.51	-34.70	-12.27	-9130.88	-6.708e+04	-5.550e+04	-2.071e+04	-2.317e+04
4	5	53	39.93	-16.82	35.21	-12.10	-15.67	-6400.41	-4.399e+04	-4.044e+04	-9955.62	-1.100e+04
4	5	60	44.66	-29.34	42.43	-27.11	12.66	3315.30	-5.770e+04	-3.715e+04	-1.723e+04	-2.883e+04
4	5	61	28.45	-11.48	28.41	-11.44	-1.21	1711.25	-3.816e+04	-2.859e+04	-7859.10	-1.703e+04
4	5	68	34.53	-23.87	19.16	-8.50	25.72	1.521e+04	-4.689e+04	-1.636e+04	-1.532e+04	-3.105e+04
4	5	69	17.04	-6.46	14.88	-4.30	6.80	9354.25	-3.130e+04	-1.409e+04	-7849.97	-2.009e+04
4	5	76	28.00	-22.00	-6.22	12.22	23.24	2.610e+04	-3.508e+04	4511.29	-1.349e+04	-2.923e+04
4	5	77	8.61	-4.42	-0.12	4.31	6.12	1.623e+04	-2.368e+04	875.51	-8316.20	-1.942e+04
4	5	84	26.84	-25.33	-24.29	25.80	7.29	3.557e+04	-2.271e+04	2.308e+04	-1.023e+04	-2.391e+04
4	5	85	9.33	-11.29	-11.07	9.12	-2.11	2.209e+04	-1.559e+04	1.408e+04	-7573.36	-1.542e+04
4	5	92	29.92	-32.54	-28.59	25.97	-15.19	4.329e+04	-1.032e+04	3.757e+04	-4605.75	-1.654e+04
4	5	93	13.58	-21.20	-14.19	6.56	-13.96	2.670e+04	-7343.91	2.385e+04	-4486.09	-9441.03
4	5	100	34.78	-41.02	-17.84	11.60	-34.92	4.904e+04	1558.58	4.726e+04	3346.24	-9038.34
4	5	101	17.90	-30.49	-8.65	-3.93	-24.08	2.990e+04	720.36	2.951e+04	1110.17	-3350.25
4	5	108	39.82	-49.03	3.70	-12.91	-43.64	5.275e+04	1.232e+04	5.251e+04	1.257e+04	-3132.68
4	5	109	21.67	-38.33	3.09	-19.75	-27.74	3.160e+04	8273.07	3.154e+04	8328.73	1137.97
4	5	116	44.22	-55.64	27.76	-39.18	-37.06	5.455e+04	2.127e+04	5.455e+04	2.127e+04	165.65
4	5	117	24.65	-44.34	16.28	-35.97	-22.52	3.178e+04	1.496e+04	3.122e+04	1.552e+04	3016.52
4	5	124	47.59	-60.37	45.03	-57.81	-16.42	5.497e+04	2.748e+04	5.494e+04	2.751e+04	878.33
4	5	125	26.72	-48.27	25.57	-47.12	-9.22	3.070e+04	2.027e+04	3.016e+04	2.081e+04	2304.11
4	5	132	49.75	-62.99	48.50	-61.74	11.83	5.491e+04	2.978e+04	5.491e+04	2.978e+04	3.50
4	5	133	27.84	-50.02	26.93	-49.11	8.34	2.964e+04	2.276e+04	2.964e+04	2.276e+04	-0.31
4	5	140	50.71	-63.49	35.97	-48.76	38.29	5.496e+04	2.748e+04	5.494e+04	2.751e+04	-871.86
4	5	141	28.01	-49.57	19.18	-40.74	24.64	3.070e+04	2.027e+04	3.016e+04	2.081e+04	-2304.68
4	5	148	50.62	-62.05	11.02	-22.44	53.79	5.455e+04	2.128e+04	5.455e+04	2.128e+04	-160.69
4	5	149	27.35	-47.04	4.48	-24.17	34.32	3.178e+04	1.496e+04	3.122e+04	1.552e+04	-3016.96
4	5	156	49.81	-59.03	-18.17	8.96	52.70	5.274e+04	1.233e+04	5.250e+04	1.257e+04	3135.37
4	5	157	26.03	-42.69	-12.33	-4.33	34.13	3.160e+04	8272.48	3.154e+04	8328.15	-1138.21
4	5	164	48.78	-55.02	-41.51	35.27	34.92	4.904e+04	1565.06	4.725e+04	3353.24	9038.34
4	5	165	24.41	-37.00	-25.34	12.76	24.08	2.991e+04	719.76	2.952e+04	1109.55	3350.25
4	5	172	48.22	-50.84	-50.46	47.84	6.13	4.328e+04	-1.031e+04	3.757e+04	-4599.27	1.654e+04
4	5	173	23.07	-30.69	-29.60	21.98	7.57	2.670e+04	-7344.52	2.385e+04	-4486.66	9441.27
4	5	180	48.95	-47.44	-41.03	42.54	-24.03	3.556e+04	-2.271e+04	2.308e+04	-1.022e+04	2.391e+04
4	5	181	22.96	-24.92	-22.87	20.92	-9.69	2.209e+04	-1.559e+04	1.408e+04	-7573.80	1.542e+04
4	5	188	51.67	-45.67	-15.28	21.28	-45.11	2.609e+04	-3.507e+04	4508.61	-1.349e+04	2.923e+04
4	5	189	25.29	-21.10	-6.51	10.69	-21.54	1.624e+04	-2.368e+04	875.75	-8316.44	1.942e+04
4	5	196	56.62	-45.96	19.16	-8.50	-49.39	1.521e+04	-4.688e+04	-1.636e+04	-1.532e+04	3.104e+04
4	5	197	30.66	-20.08	14.88	-4.30	-23.49	9354.86	-3.130e+04	-1.409e+04	-7849.97	2.009e+04
4	5	204	63.46	-48.13	51.49	-36.16	-34.53	3308.31	-5.769e+04	-3.715e+04	-1.723e+04	2.883e+04
4	5	205	38.39	-21.42	34.80	-17.83	-14.20	1711.86	-3.816e+04	-2.859e+04	-7858.86	1.703e+04
4	5	212	71.41	-51.60	71.24	-51.43	-4.47	-9137.82	-6.707e+04	-5.549e+04	-2.072e+04	2.317e+04
4	5	213	47.22	-24.11	47.01	-23.90	3.87	-6399.80	-4.400e+04	-4.044e+04	-9955.19	1.100e+04
4	5	220	79.59	-55.65	71.71	-47.76	31.68	-2.163e+04	-7.470e+04	-6.965e+04	-2.668e+04	1.558e+04
4	5	221	56.07	-27.29	47.52	-18.74	25.29	-1.467e+04	-4.858e+04	-4.818e+04	-1.507e+04	3671.91
4	5	228	87.20	-59.63	52.17	-24.61	62.58	-3.362e+04	-8.034e+04	-7.893e+04	-3.503e+04	7995.18
4	5	229	64.14	-30.39	35.92	-2.18	43.25	-2.276e+04	-5.175e+04	-5.146e+04	-2.305e+04	-2894.45
4	5	236	93.58	-63.04	18.25	12.29	78.25	-4.453e+04	-8.390e+04	-8.378e+04	-4.465e+04	2171.62
4	5	237	70.86	-33.04	15.57	22.25	51.84	-3.036e+04	-5.340e+04	-5.110e+04	-3.266e+04	-6907.57
4	5	244	98.21	-65.46	-19.91	52.66	73.35	-5.367e+04	-8.552e+04	-8.549e+04	-5.370e+04	-898.31
4	5	245	75.83	-34.99	-7.46	48.31	47.88	-3.713e+04	-5.350e+04	-4.875e+04	-4.188e+04	-7432.63
4	5	252	100.72	-66.62	-50.86	84.97	48.87	-6.009e+04	-8.572e+04	-8.565e+04	-6.016e+04	-1271.06
4	5	253	78.76	-36.05	-26.32	69.03	31.98	-4.261e+04	-5.225e+04	-4.634e+04	-4.852e+04	-4694.42

M_G		N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
			-119.05	-101.76	-112.82	-100.53		-1.292e+05	-1.291e+05	-9.094e+04	-5.043e+04
		155.35		119.80	150.94	123.68	9.930e+04		9.924e+04	5.895e+04	5.042e+04

Macro	Tipo	Angolo 1-X (gradi)
5	**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
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
5	2	9	106.17	-55.51	-53.50	104.15	17.93	-5.341e+04	-6.969e+04	-6.969e+04	-5.341e+04	0.57
5	2	10	103.38	-53.54	-51.40	101.25	-18.18	-5.052e+04	-7.055e+04	-7.022e+04	-5.085e+04	2558.98
5	2	11	92.18	-30.92	-29.39	90.65	13.63	-2.932e+04	-4.122e+04	-2.932e+04	-4.122e+04	-8.08e-02
5	2	12	90.29	-30.04	-28.89	89.14	-11.66	-2.777e+04	-4.163e+04	-3.066e+04	-3.874e+04	5627.45
5	2	21	97.54	-50.10	-33.25	80.70	-46.94	-4.348e+04	-7.158e+04	-7.122e+04	-4.384e+04	3149.43
5	2	22	85.46	-28.21	-18.04	75.29	-32.44	-2.386e+04	-4.216e+04	-3.405e+04	-3.196e+04	9090.20
5	2	29	88.80	-45.25	-5.90	49.45	-61.05	-3.414e+04	-7.115e+04	-7.115e+04	-3.415e+04	502.53
5	2	30	77.85	-25.48	-1.13	53.50	-43.85	-1.855e+04	-4.197e+04	-3.782e+04	-2.271e+04	8943.21
5	2	37	77.45	-39.13	21.24	17.07	-58.26	-2.340e+04	-6.875e+04	-6.807e+04	-2.408e+04	-5489.91
5	2	38	67.75	-21.94	15.86	29.95	-44.29	-1.243e+04	-4.070e+04	-3.981e+04	-1.333e+04	4941.93
5	2	45	63.91	-31.97	39.37	-7.43	-41.84	-1.187e+04	-6.426e+04	-6.039e+04	-1.574e+04	-1.370e+04
5	2	46	55.53	-17.71	27.31	10.51	-35.65	-5877.92	-3.825e+04	-3.814e+04	-5986.95	-1875.46
5	2	53	48.74	-24.09	43.22	-18.57	-19.27	-76.60	-5.779e+04	-4.745e+04	-1.041e+04	-2.213e+04
5	2	54	41.67	-12.98	29.79	-1.09	-22.54	792.72	-3.464e+04	-3.186e+04	-1988.46	-9530.04
5	2	61	32.75	-15.99	32.74	-15.99	0.55	1.150e+04	-4.955e+04	-2.991e+04	-8133.63	-2.852e+04
5	2	62	26.77	-7.97	23.18	-4.38	-10.57	7288.37	-2.999e+04	-2.131e+04	-1387.40	-1.575e+04
5	2	69	17.74	-9.21	12.87	-4.33	10.38	2.241e+04	-3.984e+04	-9623.93	-7801.43	-3.111e+04
5	2	70	11.89	-3.38	10.55	-2.04	-4.31	1.334e+04	-2.445e+04	-8057.80	-3049.20	-1.873e+04
5	2	77	11.24	-10.92	-8.32	8.64	7.13	3.223e+04	-2.904e+04	1.080e+04	-7607.95	-2.922e+04
5	2	85	16.25	-23.83	-22.53	14.94	-7.11	4.058e+04	-1.757e+04	2.874e+04	-5722.87	-2.342e+04
5	2	86	9.28	-20.96	-12.37	0.69	-13.64	2.316e+04	-1.152e+04	1.721e+04	-5576.92	-1.307e+04
5	2	93	23.50	-38.36	-24.25	9.39	-25.96	4.718e+04	-5898.87	4.227e+04	-983.02	-1.539e+04
5	2	94	13.87	-34.67	-13.98	-6.82	-24.01	2.654e+04	-4625.14	2.512e+04	-3203.34	-6502.80
5	2	101	30.49	-51.74	-12.71	-8.54	-41.06	5.183e+04	5467.08	5.065e+04	6650.54	-7312.40
5	2	102	18.06	-46.86	-7.36	-21.44	-31.69	2.870e+04	2217.96	2.870e+04	2218.13	-66.67
5	2	109	36.60	-63.08	7.85	-34.34	-45.16	5.446e+04	1.599e+04	5.442e+04	1.602e+04	-1181.24
5	2	110	21.61	-56.97	4.81	-40.17	-32.22	2.957e+04	8745.32	2.863e+04	9682.11	4315.87
5	2	117	41.54	-71.92	29.63	-60.01	-34.78	5.520e+04	2.501e+04	5.508e+04	2.513e+04	1860.74
5	2	118	24.37	-64.60	17.64	-57.87	-23.53	2.910e+04	1.470e+04	2.649e+04	1.732e+04	5548.59
5	2	125	45.15	-77.93	44.05	-76.83	-11.60	5.463e+04	3.159e+04	5.448e+04	3.174e+04	1861.54
5	2	126	26.26	-69.49	25.76	-69.00	-6.84	2.735e+04	1.984e+04	2.418e+04	2.300e+04	3710.74
5	2	133	47.39	-80.98	44.83	-78.42	17.93	5.409e+04	3.416e+04	5.409e+04	3.416e+04	0.57
5	2	134	27.22	-71.47	25.30	-69.55	13.63	2.511e+04	2.322e+04	2.322e+04	2.511e+04	-8.07e-02
5	2	141	48.29	-81.07	30.33	-63.10	44.74	5.463e+04	3.159e+04	5.448e+04	3.174e+04	-1860.48
5	2	142	27.28	-70.51	15.33	-58.57	32.02	2.735e+04	1.984e+04	2.418e+04	2.300e+04	-3710.89
5	2	149	48.02	-78.40	4.27	-34.64	60.14	5.520e+04	2.501e+04	5.508e+04	2.513e+04	-1859.93
5	2	150	26.50	-66.74	-1.63	-38.60	42.80	2.910e+04	1.470e+04	2.649e+04	1.732e+04	-5548.70
5	2	157	46.86	-73.35	-25.29	-1.20	58.88	5.445e+04	1.599e+04	5.442e+04	1.602e+04	1181.67
5	2	158	25.05	-60.41	-20.36	-14.99	42.64	2.957e+04	8745.16	2.863e+04	9681.96	-4315.93
5	2	165	45.29	-66.54	-48.58	27.33	41.06	5.183e+04	5468.17	5.065e+04	6651.68	7312.40
5	2	166	23.19	-51.98	-34.61	5.81	31.69	2.870e+04	2217.80	2.870e+04	2217.97	66.67
5	2	173	44.00	-58.86	-57.39	42.52	12.23	4.718e+04	-5897.75	4.227e+04	-981.97	1.539e+04
5	2	174	21.40	-42.20	-39.15	18.35	13.58	2.654e+04	-4625.30	2.512e+04	-3203.49	6502.86
5	2	181	43.93	-51.52	-47.89	40.31	-18.25	4.058e+04	-1.757e+04	2.874e+04	-5722.06	2.342e+04
5	2	182	20.57	-32.25	-31.64	19.96	-5.63	2.316e+04	-1.152e+04	1.721e+04	-5577.03	1.307e+04
5	2	189	46.14	-45.82	-22.04	22.36	-40.27	3.223e+04	-2.903e+04	1.080e+04	-7607.52	2.921e+04
5	2	190	22.25	-24.03	-13.47	11.68	-19.43	1.870e+04	-1.821e+04	5580.40	-5092.31	1.767e+04
5	2	197	51.30	-42.77	12.87	-4.33	-46.24	2.241e+04	-3.984e+04	-9623.93	-7801.43	3.111e+04
5	2	198	28.04	-19.53	10.55	-2.04	-22.94	1.334e+04	-2.445e+04	-8057.80	-3049.20	1.873e+04
5	2	205	59.23	-42.47	46.47	-29.71	-33.69	1.150e+04	-4.955e+04	-2.991e+04	-8134.07	2.852e+04
5	2	206	37.68	-18.88	33.61	-14.81	-14.60	7288.53	-2.999e+04	-2.131e+04	-1387.33	1.575e+04
5	2	213	68.91	-44.26	68.58	-43.93	-6.09	-77.74	-5.779e+04	-4.745e+04	-1.041e+04	2.213e+04
5	2	214	49.21	-20.51	49.06	-20.36	3.27	792.87	-3.464e+04	-3.186e+04	-1988.35	9530.15
5	2	221	79.11	-47.17	72.50	-40.57	28.12	-1.188e+04	-6.426e+04	-6.039e+04	-1.575e+04	1.370e+04
5	2	222	60.90	-23.08	52.48	-14.67	25.22	-5877.77	-3.825e+04	-3.814e+04	-5986.80	1875.52
5	2	229	88.69	-50.37	57.11	-18.79	58.26	-2.340e+04	-6.875e+04	-6.807e+04	-2.408e+04	5489.91
5	2	230	71.59	-25.77	43.12	2.70	44.29	-1.243e+04	-4.070e+04	-3.981e+04	-1.332e+04	-4941.93
5	2	237	96.75	-53.19	27.24	16.31	74.77	-3.414e+04	-7.115e+04	-7.115e+04	-3.415e+04	-502.09
5	2	238	80.51	-28.14	24.05	28.32	54.28	-1.855e+04	-4.197e+04	-3.782e+04	-2.271e+04	-8943.27
5	2	245	102.63	-55.18	-7.89	55.34	72.30	-4.348e+04	-7.157e+04	-7.122e+04	-4.384e+04	-3148.63
5	2	246	87.14	-29.89	1.23	56.02	51.71	-2.386e+04	-4.216e+04	-3.405e+04	-3.196e+04	-9090.31
5	2	253	105.87	-56.02	-37.68	87.52	51.32	-5.052e+04	-7.055e+04	-7.022e+04	-5.085e+04	-2557.92

5	2	254	91.10	-30.85	-18.46	78.72	36.84	-2.777e+04	-4.163e+04	-3.066e+04	-3.874e+04	-5627.60
5	2	449	5.25	-7.03	-3.04	1.25	-5.75	1.870e+04	-1.821e+04	5580.34	-5092.25	-1.767e+04
5	3	9	93.83	-49.00	-46.71	91.55	17.93	-4.758e+04	-6.119e+04	-6.119e+04	-4.758e+04	0.57
5	3	10	91.31	-47.17	-45.78	89.92	-13.81	-4.507e+04	-6.196e+04	-6.166e+04	-4.538e+04	2255.89
5	3	11	81.33	-27.37	-25.64	79.59	13.62	-2.571e+04	-3.685e+04	-2.571e+04	-3.685e+04	-8.06e-02
5	3	12	79.66	-26.58	-25.87	78.96	-8.64	-2.445e+04	-3.713e+04	-2.690e+04	-3.468e+04	4999.59
5	3	21	86.16	-44.07	-30.72	72.81	-39.50	-3.900e+04	-6.288e+04	-6.255e+04	-3.933e+04	2815.81
5	3	22	75.49	-24.98	-16.96	67.47	-27.23	-2.120e+04	-3.748e+04	-2.990e+04	-2.878e+04	8117.68
5	3	29	78.52	-39.76	-7.33	46.09	-52.76	-3.096e+04	-6.255e+04	-6.254e+04	-3.097e+04	584.77
5	3	30	68.95	-22.61	-2.52	48.85	-37.90	-1.674e+04	-3.724e+04	-3.328e+04	-2.070e+04	8093.37
5	3	37	68.61	-34.34	16.31	17.96	-51.47	-2.175e+04	-6.051e+04	-5.997e+04	-2.229e+04	-4535.41
5	3	38	60.27	-19.56	12.33	28.38	-39.10	-1.154e+04	-3.610e+04	-3.517e+04	-1.248e+04	4701.70
5	3	45	56.79	-27.98	32.62	-3.82	-38.27	-1.186e+04	-5.668e+04	-5.346e+04	-1.509e+04	-1.158e+04
5	3	46	49.80	-15.94	22.71	11.15	-32.36	-5966.42	-3.396e+04	-3.392e+04	-6015.69	-1173.49
5	3	53	43.50	-20.93	36.97	-14.40	-19.44	-1742.53	-5.115e+04	-4.243e+04	-1.046e+04	-1.884e+04
5	3	54	37.96	-11.92	25.62	0.42	-21.52	-279.81	-3.085e+04	-2.869e+04	-2438.66	-7831.70
5	3	61	29.30	-13.49	29.15	-13.35	-2.52	8187.80	-4.410e+04	-2.744e+04	-8475.17	-2.436e+04
5	3	62	25.33	-7.77	20.83	-3.27	-11.34	5262.70	-2.684e+04	-1.976e+04	-1822.18	-1.331e+04
5	3	69	15.21	-6.44	13.22	-4.45	6.26	1.754e+04	-3.579e+04	-1.007e+04	-8177.79	-2.665e+04
5	3	70	13.00	-4.26	10.84	-2.10	-5.71	1.043e+04	-2.208e+04	-8437.45	-3209.89	-1.604e+04
5	3	77	7.36	-5.63	-4.06	5.79	4.24	2.596e+04	-2.655e+04	7433.17	-8024.70	-2.509e+04
5	3	85	12.39	-17.43	-15.71	10.68	-6.94	3.312e+04	-1.674e+04	2.284e+04	-6446.18	-2.018e+04
5	3	86	8.56	-17.13	-7.73	-0.83	-12.37	1.881e+04	-1.098e+04	1.335e+04	-5512.24	-1.153e+04
5	3	93	19.13	-30.40	-17.09	5.82	-21.95	3.879e+04	-6753.26	3.448e+04	-2440.43	-1.334e+04
5	3	94	12.23	-28.61	-9.02	-7.36	-20.40	2.169e+04	-5054.32	2.027e+04	-3631.16	-6003.11
5	3	101	25.44	-42.18	-7.54	-9.19	-33.80	4.279e+04	2967.05	4.172e+04	4034.19	-6430.95
5	3	102	15.75	-38.98	-3.59	-19.64	-26.16	2.353e+04	821.14	2.352e+04	833.33	-525.85
5	3	109	30.93	-52.15	9.34	-30.56	-36.44	4.506e+04	1.196e+04	4.502e+04	1.200e+04	-1166.48
5	3	110	18.78	-47.63	6.30	-35.16	-25.94	2.425e+04	6428.28	2.364e+04	7047.34	3263.74
5	3	117	35.39	-59.94	27.00	-51.55	-27.01	4.572e+04	1.966e+04	4.564e+04	1.974e+04	1475.46
5	3	118	21.17	-54.20	16.55	-49.58	-18.08	2.383e+04	1.155e+04	2.195e+04	1.343e+04	4421.25
5	3	125	38.70	-65.31	38.23	-64.83	-7.05	4.527e+04	2.526e+04	4.516e+04	2.537e+04	1530.50
5	3	126	22.82	-58.43	22.66	-58.26	-3.68	2.228e+04	1.600e+04	2.008e+04	1.821e+04	2999.09
5	3	133	40.85	-68.14	37.81	-65.11	17.93	4.484e+04	2.743e+04	4.484e+04	2.743e+04	0.57
5	3	134	23.71	-60.18	21.44	-57.91	13.62	1.997e+04	1.929e+04	1.929e+04	1.997e+04	-8.07e-02
5	3	141	41.86	-68.47	24.50	-51.11	40.18	4.527e+04	2.526e+04	4.516e+04	2.537e+04	-1529.44
5	3	142	23.85	-59.45	12.23	-47.83	28.86	2.228e+04	1.600e+04	2.008e+04	1.821e+04	-2999.23
5	3	149	41.91	-66.46	1.64	-26.19	52.37	4.572e+04	1.966e+04	4.564e+04	1.974e+04	-1474.65
5	3	150	23.30	-56.33	-2.72	-30.31	37.35	2.383e+04	1.155e+04	2.195e+04	1.343e+04	-4421.36
5	3	157	41.25	-62.47	-23.79	2.57	50.16	4.506e+04	1.196e+04	4.501e+04	1.200e+04	1166.92
5	3	158	22.21	-51.06	-18.87	-9.98	36.37	2.425e+04	6428.12	2.364e+04	7047.19	-3263.80
5	3	165	40.32	-57.05	-43.41	26.67	33.80	4.279e+04	2968.13	4.172e+04	4035.34	6430.95
5	3	166	20.85	-44.08	-30.83	7.61	26.16	2.353e+04	820.98	2.352e+04	833.17	525.85
5	3	173	39.71	-50.98	-50.22	38.95	8.23	3.879e+04	-6752.15	3.448e+04	-2439.37	1.333e+04
5	3	174	19.66	-36.04	-34.19	17.81	9.97	2.169e+04	-5054.48	2.027e+04	-3631.31	6003.18
5	3	181	40.21	-45.24	-41.07	36.04	-18.41	3.312e+04	-1.673e+04	2.283e+04	-6445.37	2.018e+04
5	3	182	19.46	-28.02	-27.00	18.43	-6.89	1.881e+04	-1.098e+04	1.335e+04	-5512.36	1.153e+04
5	3	189	42.63	-40.90	-17.78	19.51	-37.37	2.596e+04	-2.655e+04	7432.73	-8024.26	2.509e+04
5	3	190	21.50	-21.58	-10.56	10.48	-18.79	1.501e+04	-1.672e+04	3280.23	-4995.60	1.531e+04
5	3	197	47.42	-38.66	13.22	-4.45	-42.12	1.754e+04	-3.579e+04	-1.007e+04	-8177.79	2.665e+04
5	3	198	26.86	-18.12	10.84	-2.10	-21.54	1.043e+04	-2.208e+04	-8437.45	-3209.90	1.604e+04
5	3	205	54.38	-38.57	42.87	-27.07	-30.61	8186.66	-4.410e+04	-2.744e+04	-8475.61	2.436e+04
5	3	206	35.18	-17.62	31.26	-13.70	-13.84	5262.86	-2.684e+04	-1.976e+04	-1822.12	1.331e+04
5	3	213	62.67	-40.10	62.33	-39.76	-5.92	-1743.67	-5.115e+04	-4.243e+04	-1.047e+04	1.884e+04
5	3	214	44.97	-18.93	44.89	-18.85	2.26	-279.65	-3.085e+04	-2.869e+04	-2438.55	7831.81
5	3	221	71.32	-42.51	65.75	-36.95	24.55	-1.186e+04	-5.668e+04	-5.346e+04	-1.509e+04	1.158e+04
5	3	222	54.87	-21.01	47.88	-14.02	21.93	-5966.27	-3.396e+04	-3.392e+04	-6015.55	1173.55
5	3	229	79.40	-45.13	52.17	-17.90	51.47	-2.175e+04	-6.051e+04	-5.997e+04	-2.229e+04	4535.41
5	3	230	63.93	-23.21	39.58	1.14	39.10	-1.154e+04	-3.610e+04	-3.517e+04	-1.248e+04	-4701.70
5	3	237	86.17	-47.41	25.80	12.96	66.48	-3.096e+04	-6.255e+04	-6.254e+04	-3.098e+04	-584.33
5	3	238	71.49	-25.16	22.66	23.68	48.32	-1.674e+04	-3.724e+04	-3.328e+04	-2.070e+04	-8093.43
5	3	245	91.08	-48.99	-5.36	47.46	64.86	-3.900e+04	-6.288e+04	-6.255e+04	-3.933e+04	-2815.00
5	3	246	77.11	-26.59	2.31	48.20	46.50	-2.120e+04	-3.748e+04	-2.990e+04	-2.878e+04	-8117.80
5	3	253	93.72	-49.57	-32.06	76.20	46.94	-4.507e+04	-6.196e+04	-6.166e+04	-4.538e+04	-2254.83
5	3	254	80.45	-27.37	-15.45	68.53	33.81	-2.445e+04	-3.713e+04	-2.690e+04	-3.468e+04	-4999.73
5	3	449	6.34	-6.42	-0.14	5.67e-02	-6.38	1.501e+04	-1.672e+04	3280.17	-4995.54	-1.531e+04
5	4	9	76.72	-39.26	-38.03	75.49	11.90	-3.987e+04	-5.040e+04	-5.040e+04	-3.987e+04	0.38
5	4	10	74.87	-37.97	-36.24	73.14	-13.86	-3.783e+04	-5.105e+04	-5.078e+04	-3.810e+04	1869.44
5	4	11	66.43	-21.72	-20.78	65.49	9.04	-2.113e+04	-3.099e+04	-2.113e+04	-3.099e+04	-5.35e-02
5	4	12	65.15	-21.13	-20.18	64.20	-9.03	-2.019e+04	-3.116e+04	-2.212e+04	-2.923e+04	4179.23
5	4	21	70.92	-35.66	-23.09	58.35	-34.37	-3.293e+04	-5.184e+04	-5.153e+04	-3.323e+04	2373.67
5	4	22	61.86	-19.90	-12.21	54.18	-23.85	-1.769e+04	-3.134e+04	-2.463e+04	-2.441e+04	6827.04
5	4	29	64.97	-32.37	-3.37	35.97	-44.52	-2.648e+04	-5.160e+04	-5.159e+04	-2.650e+04	629.03
5	4	30	56.66	-18.04	9.15e-02	38.53	-32.02	-1.420e+04	-3.108e+04	-2.748e+04	-1.779e+04	6912.13
5	4	37	57.22	-28.21	16.30	12.71	-42.68	-1.910e+04	-4.999e+04	-4.960e+04	-1.949e+04	-3448.70
5	4	38	49.75	-15.62	12.53	21.60	-32.37	-1.010e+04	-3.011e+04	-2.917e+04	-1.104e+04	4238.86
5	4	45	47.97	-23.32	29.76	-5.11	-31.09	-1.118e+04	-4.695e+04	-4.446e+04	-1.367e+04	-9093.95

5	4	46	41.39	-12.73	21.13	7.54	-26.19	-5684.24	-2.837e+04	-2.836e+04	-5694.92	-492.17
5	4	53	37.57	-17.91	33.23	-13.56	-14.91	-3087.53	-4.254e+04	-3.570e+04	-9919.18	-1.493e+04
5	4	54	31.89	-9.47	23.43	-1.01	-16.68	-1169.50	-2.585e+04	-2.434e+04	-2680.46	-5916.64
5	4	61	26.54	-12.29	26.54	-12.29	-0.36	4857.30	-3.691e+04	-2.376e+04	-8291.75	-1.940e+04
5	4	62	21.65	-6.00	19.27	-3.62	-7.76	3236.47	-2.262e+04	-1.730e+04	-2083.40	-1.045e+04
5	4	69	15.78	-7.15	13.01	-4.38	7.47	1.234e+04	-3.029e+04	-9905.39	-8040.89	-2.129e+04
5	4	70	11.21	-2.60	10.67	-2.07	-2.67	7345.58	-1.880e+04	-8296.62	-3155.53	-1.282e+04
5	4	77	8.64	-5.63	-1.84	4.85	6.30	1.907e+04	-2.291e+04	4095.70	-7931.96	-2.011e+04
5	4	85	10.20	-12.60	-12.30	9.90	-2.62	2.481e+04	-1.508e+04	1.644e+04	-6708.70	-1.625e+04
5	4	86	5.72	-10.93	-5.82	0.61	-7.68	1.401e+04	-9900.57	9250.62	-5136.40	-9551.94
5	4	93	14.80	-22.19	-14.47	7.09	-15.03	2.935e+04	-7118.91	2.580e+04	-3564.86	-1.082e+04
5	4	94	8.82	-20.28	-7.65	-3.81	-14.42	1.630e+04	-5157.29	1.494e+04	-3789.83	-5241.91
5	4	101	19.48	-31.23	-7.67	-4.08	-25.29	3.256e+04	631.47	3.165e+04	1541.45	-5313.19
5	4	102	11.68	-28.61	-3.93	-13.00	-19.63	1.776e+04	-451.98	1.772e+04	-407.18	-902.23
5	4	109	23.62	-38.96	5.35	-20.69	-28.45	3.440e+04	7792.67	3.435e+04	7837.69	-1093.55
5	4	110	14.11	-35.53	3.64	-25.06	-20.26	1.833e+04	4038.35	1.800e+04	4373.35	2162.38
5	4	117	26.99	-44.99	19.42	-37.43	-22.08	3.496e+04	1.392e+04	3.491e+04	1.397e+04	1055.27
5	4	118	16.00	-40.76	11.81	-36.56	-14.85	1.798e+04	8144.06	1.681e+04	9319.80	3191.74
5	4	125	29.47	-49.12	28.81	-48.45	-7.21	3.464e+04	1.835e+04	3.456e+04	1.843e+04	1155.93
5	4	126	17.30	-44.11	17.01	-43.82	-4.16	1.674e+04	1.171e+04	1.542e+04	1.303e+04	2211.82
5	4	133	31.03	-51.23	29.27	-49.47	11.90	3.432e+04	2.006e+04	3.432e+04	2.006e+04	0.38
5	4	134	17.97	-45.47	16.65	-44.15	9.04	1.482e+04	1.440e+04	1.482e+04	1.440e+04	-5.36e-02
5	4	141	31.70	-51.34	19.70	-39.34	29.20	3.464e+04	1.835e+04	3.456e+04	1.843e+04	-1155.23
5	4	142	18.02	-44.83	10.09	-36.90	20.87	1.674e+04	1.171e+04	1.542e+04	1.303e+04	-2211.92
5	4	149	31.60	-49.60	2.59	-20.59	38.91	3.496e+04	1.392e+04	3.490e+04	1.397e+04	-1054.73
5	4	150	17.52	-42.27	-0.98	-23.78	27.64	1.798e+04	8143.95	1.681e+04	9319.72	-3191.82
5	4	157	30.95	-46.29	-16.64	1.31	37.56	3.440e+04	7793.34	3.435e+04	7838.39	1093.84
5	4	158	16.57	-37.99	-13.07	-8.35	27.18	1.833e+04	4038.24	1.800e+04	4373.26	-2162.42
5	4	165	30.11	-41.86	-31.48	19.73	25.29	3.256e+04	632.19	3.165e+04	1542.21	5313.19
5	4	166	15.39	-32.32	-22.01	5.08	19.63	1.776e+04	-452.09	1.772e+04	-407.29	902.23
5	4	173	29.61	-36.99	-36.46	29.08	5.92	2.935e+04	-7118.17	2.580e+04	-3564.16	1.082e+04
5	4	174	14.35	-25.81	-24.36	12.90	7.50	1.630e+04	-5157.40	1.494e+04	-3789.93	5241.95
5	4	181	30.14	-32.54	-29.13	26.73	-14.21	2.481e+04	-1.508e+04	1.644e+04	-6708.16	1.625e+04
5	4	182	14.19	-19.41	-18.61	13.40	-5.11	1.401e+04	-9900.68	9250.70	-5136.47	9552.02
5	4	189	32.42	-29.41	-10.95	13.96	-28.29	1.907e+04	-2.291e+04	4095.41	-7931.67	2.011e+04
5	4	190	16.09	-14.53	-5.82	7.38	-13.82	1.099e+04	-1.450e+04	1102.56	-4619.05	1.242e+04
5	4	197	36.78	-28.15	13.01	-4.38	-31.28	1.234e+04	-3.029e+04	-9905.39	-8040.89	2.129e+04
5	4	198	20.98	-12.38	10.67	-2.07	-15.42	7345.68	-1.880e+04	-8296.62	-3155.53	1.282e+04
5	4	205	42.93	-28.67	35.65	-21.39	-21.64	4856.54	-3.691e+04	-2.376e+04	-8292.04	1.940e+04
5	4	206	28.25	-12.60	26.19	-10.54	-8.95	3236.57	-2.262e+04	-1.730e+04	-2083.36	1.045e+04
5	4	213	50.10	-30.44	50.06	-30.40	-1.92	-3088.29	-4.254e+04	-3.570e+04	-9919.72	1.493e+04
5	4	214	36.52	-14.10	36.22	-13.80	3.90	-1169.40	-2.585e+04	-2.434e+04	-2680.38	5916.72
5	4	221	57.46	-32.82	51.75	-27.10	21.98	-1.118e+04	-4.694e+04	-4.446e+04	-1.367e+04	9093.66
5	4	222	44.72	-16.06	37.84	-9.17	19.27	-5684.14	-2.837e+04	-2.836e+04	-5694.82	492.21
5	4	229	64.28	-35.26	40.11	-11.10	42.68	-1.910e+04	-4.999e+04	-4.960e+04	-1.949e+04	3448.70
5	4	230	52.16	-18.02	30.62	3.52	32.37	-1.010e+04	-3.011e+04	-2.917e+04	-1.104e+04	-4238.86
5	4	237	69.98	-37.38	18.62	13.98	53.63	-2.648e+04	-5.160e+04	-5.158e+04	-2.650e+04	-628.74
5	4	238	58.34	-19.71	16.80	21.82	38.95	-1.420e+04	-3.108e+04	-2.748e+04	-1.779e+04	-6912.17
5	4	245	74.13	-38.87	-6.26	41.52	51.21	-3.293e+04	-5.184e+04	-5.153e+04	-3.323e+04	-2373.13
5	4	246	62.92	-20.96	0.57	41.39	36.64	-1.769e+04	-3.134e+04	-2.463e+04	-2.441e+04	-6827.11
5	4	253	76.45	-39.54	-27.13	64.03	35.85	-3.783e+04	-5.105e+04	-5.078e+04	-3.810e+04	-1868.74
5	4	254	65.67	-21.65	-13.26	57.27	25.74	-2.019e+04	-3.116e+04	-2.212e+04	-2.923e+04	-4179.33
5	4	449	3.69	-2.13	1.11	0.45	-2.89	1.099e+04	-1.450e+04	1102.52	-4619.00	-1.242e+04
5	5	9	69.33	-34.80	-34.33	68.86	7.02	-3.680e+04	-4.609e+04	-4.609e+04	-3.680e+04	0.22
5	5	10	67.91	-33.88	-31.26	65.29	-16.11	-3.494e+04	-4.670e+04	-4.644e+04	-3.520e+04	1715.40
5	5	11	60.00	-19.02	-18.66	59.64	5.33	-1.931e+04	-2.866e+04	-1.931e+04	-2.866e+04	-3.17e-02
5	5	12	58.93	-18.56	-17.01	57.37	-10.87	-1.848e+04	-2.879e+04	-2.021e+04	-2.706e+04	3852.21
5	5	21	64.60	-32.04	-18.11	50.66	-33.95	-3.051e+04	-4.743e+04	-4.714e+04	-3.080e+04	2197.70
5	5	22	56.04	-17.52	-8.84	47.36	-23.73	-1.628e+04	-2.891e+04	-2.252e+04	-2.267e+04	6312.71
5	5	29	59.52	-29.36	0.63	29.53	-42.02	-2.470e+04	-4.723e+04	-4.721e+04	-2.471e+04	647.52
5	5	30	51.44	-15.92	2.97	32.55	-30.26	-1.318e+04	-2.863e+04	-2.517e+04	-1.664e+04	6441.84
5	5	37	52.85	-25.92	18.85	8.08	-39.01	-1.804e+04	-4.579e+04	-4.546e+04	-1.838e+04	-3013.80
5	5	38	45.30	-13.82	14.55	16.94	-29.54	-9521.70	-2.773e+04	-2.678e+04	-1.047e+04	4055.61
5	5	45	44.87	-21.87	30.93	-7.93	-27.13	-1.092e+04	-4.306e+04	-4.087e+04	-1.311e+04	-8098.63
5	5	46	37.85	-11.28	22.26	4.31	-22.87	-5567.18	-2.614e+04	-2.614e+04	-5569.50	-218.55
5	5	53	35.96	-17.45	33.49	-14.97	-11.24	-3629.37	-3.910e+04	-3.303e+04	-9706.01	-1.337e+04
5	5	54	29.37	-8.41	23.89	-2.93	-13.30	-1520.97	-2.386e+04	-2.260e+04	-2779.28	-5150.62
5	5	61	26.66	-13.02	26.45	-12.80	2.90	3522.35	-3.405e+04	-2.230e+04	-8223.17	-1.742e+04
5	5	62	20.18	-5.30	19.36	-4.48	-4.49	2430.78	-2.095e+04	-1.633e+04	-2189.70	-9310.31
5	5	69	17.91	-9.33	12.93	-4.35	10.52	1.026e+04	-2.809e+04	-9844.24	-7991.04	-1.915e+04
5	5	70	10.63	-2.08	10.61	-2.06	0.52	6117.82	-1.750e+04	-8245.34	-3135.74	-1.153e+04
5	5	77	11.95	-8.43	-1.89	5.41	9.51	1.632e+04	-2.146e+04	2756.76	-7899.97	-1.813e+04
5	5	85	11.37	-12.72	-12.68	11.33	0.99	2.149e+04	-1.443e+04	1.388e+04	-6818.86	-1.468e+04
5	5	86	4.30	-8.16	-6.39	2.53	-4.35	1.210e+04	-9482.19	7609.80	-4988.77	-8763.65
5	5	93	14.08	-19.91	-15.73	9.89	-11.16	2.558e+04	-7271.31	2.233e+04	-4019.53	-9810.76
5	5	94	7.18	-16.64	-8.86	-0.61	-11.17	1.416e+04	-5210.52	1.280e+04	-3856.22	-4939.21
5	5	101	17.50	-27.27	-10.27	0.50	-21.73	2.848e+04	-307.88	2.763e+04	540.08	-4866.99

5	5	102	9.73	-24.11	-6.00	-8.38	-16.87	1.547e+04	-974.12	1.540e+04	-906.27	-1053.99
5	5	109	20.70	-33.70	1.34	-14.34	-26.05	3.014e+04	6122.82	3.009e+04	6170.12	-1064.60
5	5	110	11.85	-30.26	0.73	-19.15	-18.56	1.597e+04	3067.38	1.574e+04	3301.14	1721.18
5	5	117	23.34	-38.74	14.46	-29.86	-21.73	3.065e+04	1.161e+04	3.061e+04	1.166e+04	887.30
5	5	118	13.48	-34.89	8.44	-29.85	-14.78	1.566e+04	6759.90	1.475e+04	7671.93	2699.67
5	5	125	25.23	-42.11	23.87	-40.74	-9.49	3.039e+04	1.558e+04	3.032e+04	1.565e+04	1006.21
5	5	126	14.56	-37.82	13.86	-37.12	-6.02	1.455e+04	9954.25	1.355e+04	1.095e+04	1896.85
5	5	133	26.33	-43.70	25.62	-42.99	7.02	3.011e+04	1.711e+04	3.011e+04	1.711e+04	0.22
5	5	134	15.08	-38.96	14.55	-38.42	5.33	1.304e+04	1.217e+04	1.304e+04	1.217e+04	-3.16e-02
5	5	141	26.63	-43.51	18.50	-35.37	22.46	3.039e+04	1.558e+04	3.032e+04	1.565e+04	-1005.80
5	5	142	15.03	-38.28	9.78	-33.04	15.88	1.455e+04	9954.18	1.355e+04	1.095e+04	-1896.91
5	5	149	26.24	-41.64	4.54	-19.94	31.65	3.065e+04	1.162e+04	3.061e+04	1.166e+04	-886.98
5	5	150	14.45	-35.86	0.90	-22.31	22.32	1.566e+04	6759.84	1.475e+04	7671.89	-2699.72
5	5	157	25.34	-38.34	-11.63	-1.37	31.42	3.013e+04	6123.22	3.009e+04	6170.53	1064.77
5	5	158	13.44	-31.85	-9.12	-9.30	22.64	1.597e+04	3067.32	1.574e+04	3301.08	-1721.20
5	5	165	24.25	-34.03	-24.31	14.53	21.73	2.847e+04	-307.46	2.763e+04	540.52	4866.99
5	5	166	12.16	-26.54	-16.66	2.28	16.87	1.547e+04	-974.19	1.540e+04	-906.33	1053.99
5	5	173	23.50	-29.34	-28.70	22.86	5.79	2.558e+04	-7270.87	2.233e+04	-4019.11	9810.59
5	5	174	10.94	-20.41	-18.71	9.24	7.09	1.416e+04	-5210.58	1.280e+04	-3856.28	4939.24
5	5	181	23.82	-25.17	-22.61	21.25	-10.91	2.149e+04	-1.443e+04	1.388e+04	-6818.55	1.468e+04
5	5	182	10.49	-14.34	-13.93	10.07	-3.19	1.210e+04	-9482.26	7609.85	-4988.81	8763.70
5	5	189	25.98	-22.46	-7.27	10.78	-22.48	1.632e+04	-2.146e+04	2756.59	-7899.80	1.813e+04
5	5	190	12.19	-9.96	-3.19	5.42	-10.20	9386.65	-1.363e+04	227.87	-4470.74	1.127e+04
5	5	197	30.32	-21.74	12.93	-4.35	-24.56	1.026e+04	-2.809e+04	-9844.24	-7991.04	1.915e+04
5	5	198	17.13	-8.58	10.61	-2.06	-11.19	6117.88	-1.750e+04	-8245.34	-3135.74	1.153e+04
5	5	205	36.42	-22.78	31.82	-18.17	-15.86	3521.90	-3.405e+04	-2.230e+04	-8223.35	1.742e+04
5	5	206	24.32	-9.44	23.44	-8.56	-5.36	2430.84	-2.095e+04	-1.633e+04	-2189.68	9310.37
5	5	213	43.43	-24.92	43.41	-24.90	1.31	-3629.82	-3.910e+04	-3.303e+04	-9706.33	1.336e+04
5	5	214	32.21	-11.25	31.43	-10.47	5.76	-1520.91	-2.386e+04	-2.260e+04	-2779.23	5150.66
5	5	221	50.53	-27.53	43.89	-20.90	21.76	-1.092e+04	-4.306e+04	-4.087e+04	-1.311e+04	8098.46
5	5	222	39.88	-13.31	32.11	-5.54	18.79	-5567.12	-2.614e+04	-2.614e+04	-5569.45	218.58
5	5	229	57.04	-30.11	32.89	-5.95	39.01	-1.804e+04	-4.579e+04	-4.546e+04	-1.838e+04	3013.80
5	5	230	46.76	-15.28	25.21	6.27	29.54	-9521.64	-2.773e+04	-2.678e+04	-1.047e+04	-4055.61
5	5	237	62.49	-32.34	13.59	16.57	47.39	-2.470e+04	-4.723e+04	-4.721e+04	-2.471e+04	-647.35
5	5	238	52.46	-16.94	12.82	22.69	34.34	-1.318e+04	-2.863e+04	-2.517e+04	-1.664e+04	-6441.86
5	5	245	66.51	-33.96	-8.18	40.74	43.88	-3.051e+04	-4.743e+04	-4.714e+04	-3.080e+04	-2197.38
5	5	246	56.68	-18.17	-1.30	39.82	31.27	-1.628e+04	-2.891e+04	-2.252e+04	-2.267e+04	-6312.75
5	5	253	68.84	-34.81	-25.89	59.92	29.07	-3.494e+04	-4.670e+04	-4.644e+04	-3.520e+04	-1714.99
5	5	254	59.24	-18.88	-12.93	53.29	20.72	-1.848e+04	-2.879e+04	-2.021e+04	-2.706e+04	-3852.27
5	5	449	1.53	0.70	0.89	1.33	0.35	9386.59	-1.363e+04	227.85	-4470.72	-1.127e+04

M_G			**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
				-81.07	-57.39	-78.42	-61.05		-7.158e+04	-7.122e+04	-5.341e+04	-3.111e+04
			106.17		72.50	104.15	74.77	5.520e+04		5.508e+04	3.416e+04	3.111e+04

Macro	Tipo	Angolo 1-X (gradi)
6	**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**
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
6	2	11	78.45	-27.36	-26.51	77.60	9.43	-2.778e+04	-2.946e+04	-2.946e+04	-2.778e+04	2.54e-02
6	2	12	76.75	-26.51	-24.80	75.03	-13.19	-2.467e+04	-3.163e+04	-3.019e+04	-2.611e+04	2822.62
6	2	13	72.76	-13.71	-13.00	72.05	7.79	-6629.05	-2.013e+04	-6629.05	-2.013e+04	-5.07e-03
6	2	14	71.47	-13.42	-12.43	70.47	-9.13	-6263.34	-2.007e+04	-7719.03	-1.862e+04	4240.51
6	2	22	72.58	-24.86	-13.62	61.35	-31.12	-2.008e+04	-3.344e+04	-3.195e+04	-2.157e+04	4208.09
6	2	23	67.77	-12.70	-5.47	60.55	-23.00	-5218.21	-1.986e+04	-1.057e+04	-1.451e+04	7052.77
6	2	30	66.09	-22.45	2.80	40.84	-39.98	-1.483e+04	-3.416e+04	-3.361e+04	-1.538e+04	3213.76
6	2	31	61.82	-11.57	5.09	45.17	-30.74	-3623.80	-1.942e+04	-1.408e+04	-8969.75	7474.81
6	2	38	57.50	-19.35	18.76	19.39	-38.42	-9170.84	-3.374e+04	-3.373e+04	-9174.03	-279.93
6	2	39	53.85	-10.08	15.42	28.36	-31.30	-1640.27	-1.866e+04	-1.679e+04	-3509.89	5322.89
6	2	46	47.13	-15.67	28.92	2.53	-28.49	-3306.51	-3.219e+04	-3.109e+04	-4401.83	-5516.54
6	2	47	44.19	-8.31	21.93	13.94	-25.94	573.92	-1.754e+04	-1.745e+04	487.74	1246.42
6	2	54	35.36	-11.55	30.15	-6.34	-14.74	2532.15	-2.956e+04	-2.510e+04	-1929.79	-1.110e+04
6	2	55	33.25	-6.40	22.48	4.37	-17.64	2873.09	-1.603e+04	-1.536e+04	2204.75	-3490.90
6	2	62	22.71	-7.18	22.48	-6.95	-2.62	8121.19	-2.597e+04	-1.609e+04	-1761.28	-1.547e+04
6	2	63	21.66	-4.58	17.05	2.13e-02	-9.98	5126.35	-1.415e+04	-1.065e+04	1627.07	-7429.90
6	2	70	9.97	-3.05	8.97	-2.06	3.46	1.325e+04	-2.155e+04	-5225.28	-3079.36	-1.737e+04
6	2	71	10.72	-3.82	7.66	-0.76	-5.92	7217.80	-1.194e+04	-4238.58	-484.76	-9393.80
6	2	79	5.16	-8.43	-2.37	-0.90	-6.76	9047.50	-9471.98	2457.86	-2882.34	-8866.42
6	2	86	7.55	-17.54	-15.44	5.45	-6.94	2.136e+04	-1.093e+04	1.528e+04	-4857.46	-1.262e+04
6	2	87	5.56	-18.61	-9.63	-3.43	-11.68	1.053e+04	-6824.15	7982.94	-4273.74	-6145.26
6	2	94	11.57	-29.20	-17.79	0.16	-18.30	2.404e+04	-5155.25	2.196e+04	-3081.61	-7499.11

6	2	95	7.14	-29.21	-11.80	-10.26	-18.16	1.161e+04	-4095.30	1.129e+04	-3774.56	-2221.65
6	2	102	15.24	-39.56	-11.85	-12.48	-27.40	2.567e+04	632.08	2.543e+04	869.39	-2425.85
6	2	103	8.79	-38.76	-8.51	-21.45	-22.88	1.225e+04	-1396.26	1.207e+04	-1213.45	1569.06
6	2	110	18.36	-48.17	-0.11	-29.70	-29.79	2.620e+04	6182.98	2.613e+04	6258.99	1231.19
6	2	111	10.23	-46.68	-1.41	-35.04	-22.96	1.245e+04	1145.10	1.079e+04	2809.88	4006.74
6	2	118	20.81	-54.70	12.74	-46.64	-23.33	2.568e+04	1.123e+04	2.516e+04	1.175e+04	2690.70
6	2	119	11.34	-52.61	6.42	-47.69	-17.05	1.227e+04	3365.79	8502.75	7131.85	4398.42
6	2	126	22.52	-58.93	21.52	-57.93	-8.97	2.434e+04	1.535e+04	2.387e+04	1.582e+04	2001.41
6	2	127	12.06	-56.30	11.55	-55.79	-5.91	1.188e+04	5011.38	6463.76	1.042e+04	2803.98
6	2	134	23.47	-60.73	22.40	-59.66	9.43	2.330e+04	1.733e+04	2.330e+04	1.733e+04	2.54e-02
6	2	135	12.36	-57.60	11.48	-56.72	7.79	1.165e+04	5659.52	5659.52	1.165e+04	-5.14e-03
6	2	142	23.67	-60.08	14.30	-50.71	26.40	2.434e+04	1.535e+04	2.387e+04	1.582e+04	-2001.36
6	2	143	12.23	-56.47	5.59	-49.82	20.30	1.188e+04	5011.37	6463.76	1.042e+04	-2803.99
6	2	150	23.20	-57.09	-0.60	-33.30	36.67	2.568e+04	1.123e+04	2.516e+04	1.175e+04	-2690.66
6	2	151	11.69	-52.96	-4.60	-36.67	28.06	1.227e+04	3365.78	8502.75	7131.84	-4398.43
6	2	158	22.20	-52.01	-17.54	-12.28	37.01	2.620e+04	6183.03	2.613e+04	6259.04	-1231.17
6	2	159	10.79	-47.25	-15.80	-20.65	28.92	1.245e+04	1145.10	1.079e+04	2809.87	-4006.74
6	2	166	20.93	-45.25	-30.71	6.39	27.40	2.567e+04	632.13	2.543e+04	869.44	2425.85
6	2	167	9.64	-39.61	-24.09	-5.87	22.88	1.225e+04	-1396.27	1.207e+04	-1213.47	-1569.06
6	2	174	19.82	-37.45	-35.22	17.59	11.08	2.404e+04	-5155.20	2.196e+04	-3081.56	7499.09
6	2	175	8.43	-30.50	-26.20	4.13	12.20	1.161e+04	-4095.31	1.129e+04	-3774.57	2221.66
6	2	182	19.64	-29.63	-28.78	18.79	-6.40	2.136e+04	-1.093e+04	1.528e+04	-4857.42	1.262e+04
6	2	183	7.61	-20.66	-20.64	7.59	0.66	1.053e+04	-6824.16	7982.95	-4273.75	6145.26
6	2	190	21.51	-23.22	-12.60	10.89	-19.03	1.772e+04	-1.647e+04	5803.11	-4560.77	1.629e+04
6	2	191	8.52	-11.79	-8.33	5.06	-7.64	9047.51	-9471.99	2457.87	-2882.34	8866.43
6	2	198	26.45	-19.54	8.97	-2.06	-22.33	1.325e+04	-2.155e+04	-5225.28	-3079.36	1.737e+04
6	2	199	13.99	-7.08	7.66	-0.76	-9.66	7217.81	-1.194e+04	-4238.58	-484.76	9393.81
6	2	206	34.23	-18.70	29.70	-14.17	-14.81	8121.14	-2.597e+04	-1.609e+04	-1761.30	1.547e+04
6	2	207	23.67	-6.60	23.02	-5.94	-4.42	5126.36	-1.415e+04	-1.065e+04	1627.08	7429.90
6	2	214	43.53	-19.71	43.49	-19.68	1.40	2532.10	-2.956e+04	-2.510e+04	-1929.83	1.110e+04
6	2	215	34.56	-7.71	33.50	-6.65	6.62	2873.10	-1.603e+04	-1.536e+04	2204.75	3490.91
6	2	222	53.01	-21.56	46.35	-14.90	21.27	-3306.56	-3.219e+04	-3.109e+04	-4401.87	5516.52
6	2	223	45.09	-9.22	36.32	-0.45	19.98	573.93	-1.754e+04	-1.745e+04	487.75	-1246.42
6	2	230	61.74	-23.59	37.62	0.53	38.42	-9170.89	-3.374e+04	-3.373e+04	-9174.08	279.93
6	2	231	54.49	-10.72	31.00	12.78	31.30	-1640.26	-1.866e+04	-1.679e+04	-3509.88	-5322.89
6	2	238	69.05	-25.40	20.23	23.41	47.20	-1.483e+04	-3.416e+04	-3.361e+04	-1.538e+04	-3213.74
6	2	239	62.26	-12.00	19.48	30.78	36.70	-3623.79	-1.942e+04	-1.408e+04	-8969.74	-7474.81
6	2	246	74.46	-26.73	-0.28	48.01	44.46	-2.008e+04	-3.344e+04	-3.195e+04	-2.157e+04	-4208.05
6	2	247	68.05	-12.97	5.54	49.53	34.02	-5218.20	-1.986e+04	-1.057e+04	-1.451e+04	-7052.78
6	2	254	77.66	-27.42	-17.58	67.81	30.62	-2.467e+04	-3.163e+04	-3.019e+04	-2.611e+04	-2822.57
6	2	255	71.60	-13.56	-6.47	64.51	23.53	-6263.34	-2.007e+04	-7719.03	-1.862e+04	-4240.52
6	2	449	3.95	-5.65	-5.38	3.67	1.60	1.772e+04	-1.647e+04	5803.13	-4560.79	-1.629e+04
6	3	11	69.09	-24.11	-23.15	68.12	9.43	-2.479e+04	-2.584e+04	-2.584e+04	-2.479e+04	2.56e-02
6	3	12	67.58	-23.33	-22.11	66.36	-10.44	-2.197e+04	-2.786e+04	-2.648e+04	-2.335e+04	2493.03
6	3	13	63.95	-12.14	-11.33	63.15	7.79	-5815.03	-1.806e+04	-5815.03	-1.806e+04	-5.12e-03
6	3	14	62.84	-11.89	-11.21	62.16	-7.09	-5513.35	-1.800e+04	-6774.62	-1.674e+04	3762.72
6	3	22	63.96	-21.86	-12.76	54.85	-26.43	-1.801e+04	-2.943e+04	-2.803e+04	-1.941e+04	3743.60
6	3	23	59.68	-11.27	-5.44	53.85	-19.48	-4648.32	-1.779e+04	-9292.04	-1.315e+04	6282.19
6	3	30	58.34	-19.74	1.35	37.24	-34.67	-1.352e+04	-3.005e+04	-2.951e+04	-1.405e+04	2934.54
6	3	31	54.58	-10.30	3.62	40.66	-26.63	-3322.23	-1.737e+04	-1.240e+04	-8291.30	6717.59
6	3	38	50.91	-17.03	15.30	18.58	-33.93	-8658.50	-2.970e+04	-2.970e+04	-8658.58	-43.05
6	3	39	47.76	-9.04	12.67	26.04	-27.60	-1664.80	-1.668e+04	-1.486e+04	-3484.13	4900.27
6	3	46	41.95	-13.80	24.49	3.66	-25.85	-3630.95	-2.837e+04	-2.751e+04	-4495.57	-4543.50
6	3	47	39.49	-7.56	18.63	13.31	-23.38	191.92	-1.568e+04	-1.556e+04	70.55	1382.57
6	3	54	31.77	-10.18	26.15	-4.55	-14.29	1374.14	-2.613e+04	-2.244e+04	-2314.25	-9372.27
6	3	55	30.18	-5.97	19.58	4.63	-16.45	2124.23	-1.435e+04	-1.388e+04	1651.88	-2749.15
6	3	62	20.78	-6.29	20.21	-5.72	-3.88	6165.35	-2.306e+04	-1.476e+04	-2127.22	-1.317e+04
6	3	63	20.35	-4.53	15.44	0.37	-9.89	4019.75	-1.270e+04	-9914.42	1230.96	-6233.74
6	3	70	9.43	-2.33	9.22	-2.11	1.59	1.056e+04	-1.927e+04	-5472.93	-3241.22	-1.488e+04
6	3	71	11.13	-4.04	7.87	-0.78	-6.23	5778.40	-1.078e+04	-4449.17	-552.00	-8046.40
6	3	79	5.78	-7.42	-0.36	-1.28	-6.58	7313.43	-8632.34	1312.72	-2631.63	-7725.12
6	3	86	5.97	-13.36	-11.03	3.64	-6.28	1.752e+04	-1.019e+04	1.215e+04	-4821.84	-1.095e+04
6	3	87	5.41	-15.43	-6.37	-3.65	-10.33	8553.14	-6331.26	6119.21	-3897.34	-5504.86
6	3	94	9.57	-23.51	-13.05	-0.89	-15.39	1.982e+04	-5246.40	1.794e+04	-3364.54	-6605.33
6	3	95	6.52	-24.27	-8.22	-9.53	-15.38	9443.11	-3958.07	9065.38	-3580.35	-2217.94
6	3	102	12.82	-32.50	-8.20	-11.48	-22.60	2.122e+04	-298.72	2.098e+04	-55.56	-2274.76
6	3	103	7.82	-32.36	-5.58	-18.95	-18.94	9950.03	-1604.79	9862.28	-1517.04	1003.10
6	3	110	15.57	-39.96	1.41	-25.80	-24.20	2.170e+04	4441.40	2.165e+04	4485.65	872.71
6	3	111	9.01	-39.10	0.16	-30.26	-18.64	1.007e+04	623.87	8893.79	1798.75	3117.08
6	3	118	17.75	-45.64	11.85	-39.74	-18.42	2.128e+04	8735.42	2.089e+04	9121.21	2165.55
6	3	119	9.94	-44.17	6.41	-40.64	-13.36	9840.81	2595.97	7046.58	5390.20	3526.48
6	3	126	19.30	-49.34	18.75	-48.79	-6.11	2.018e+04	1.222e+04	1.983e+04	1.257e+04	1639.00
6	3	127	10.55	-47.32	10.30	-47.07	-3.78	9413.90	4096.96	5373.95	8136.91	2271.34
6	3	134	20.19	-50.97	18.92	-49.69	9.43	1.936e+04	1.385e+04	1.936e+04	1.385e+04	2.53e-02
6	3	135	10.81	-48.44	9.77	-47.40	7.79	9162.48	4711.02	4711.02	9162.48	-5.18e-03
6	3	142	20.46	-50.50	11.53	-41.58	23.53	2.018e+04	1.222e+04	1.983e+04	1.257e+04	-1638.95
6	3	143	10.71	-47.49	4.34	-41.11	18.17	9413.91	4096.96	5373.96	8136.91	-2271.34

6	3	150	20.17	-48.06	-1.49	-26.40	31.76	2.128e+04	8735.47	2.089e+04	9121.25	-2165.51
6	3	151	10.28	-44.51	-4.60	-29.62	24.37	9840.82	2595.96	7046.58	5390.19	-3526.49
6	3	158	19.46	-43.85	-16.01	-8.38	31.42	2.170e+04	4441.45	2.165e+04	4485.70	-872.69
6	3	159	9.56	-39.66	-14.23	-15.87	24.60	1.007e+04	623.86	8893.80	1798.74	-3117.08
6	3	166	18.57	-38.25	-27.06	7.38	22.60	2.122e+04	-298.67	2.098e+04	-55.51	2274.76
6	3	167	8.66	-33.19	-21.16	-3.37	18.94	9950.04	-1604.80	9862.30	-1517.06	-1003.10
6	3	174	17.92	-31.85	-30.48	16.54	8.17	1.982e+04	-5246.35	1.794e+04	-3364.49	6605.31
6	3	175	7.78	-25.53	-22.61	4.86	9.42	9443.12	-3958.08	9065.39	-3580.35	2217.94
6	3	182	18.15	-25.54	-24.37	16.98	-7.05	1.752e+04	-1.019e+04	1.215e+04	-4821.80	1.095e+04
6	3	183	7.38	-17.40	-17.38	7.36	-0.68	8553.15	-6331.27	6119.22	-3897.35	5504.87
6	3	190	20.20	-20.49	-9.86	9.57	-17.88	1.439e+04	-1.493e+04	3988.58	-4525.08	1.403e+04
6	3	191	8.74	-10.37	-6.32	4.68	-7.81	7313.44	-8632.35	1312.72	-2631.63	7725.13
6	3	198	24.77	-17.67	9.22	-2.11	-20.45	1.056e+04	-1.927e+04	-5472.93	-3241.22	1.488e+04
6	3	199	13.85	-6.76	7.87	-0.78	-9.35	5778.41	-1.078e+04	-4449.17	-552.00	8046.41
6	3	206	31.55	-17.06	27.43	-12.94	-13.54	6165.30	-2.306e+04	-1.476e+04	-2127.24	1.317e+04
6	3	207	22.13	-6.32	21.40	-5.59	-4.50	4019.76	-1.270e+04	-9914.42	1230.97	6233.75
6	3	214	39.50	-17.90	39.49	-17.89	0.96	1374.09	-2.613e+04	-2.244e+04	-2314.29	9372.23
6	3	215	31.38	-7.17	30.60	-6.39	5.44	2124.24	-1.435e+04	-1.388e+04	1651.88	2749.16
6	3	222	47.58	-19.43	41.91	-13.77	18.64	-3631.00	-2.837e+04	-2.751e+04	-4495.62	4543.48
6	3	223	40.34	-8.40	33.02	-1.08	17.41	191.93	-1.568e+04	-1.556e+04	70.56	-1382.57
6	3	230	54.99	-21.11	34.16	-0.28	33.93	-8658.55	-2.970e+04	-2.970e+04	-8658.64	43.05
6	3	231	48.35	-9.64	28.25	10.47	27.60	-1664.80	-1.668e+04	-1.486e+04	-3484.12	-4900.27
6	3	238	61.19	-22.60	18.78	19.82	41.89	-1.352e+04	-3.005e+04	-2.951e+04	-1.405e+04	-2934.52
6	3	239	54.99	-10.71	18.01	26.27	32.59	-3322.22	-1.737e+04	-1.240e+04	-8291.29	-6717.59
6	3	246	65.77	-23.68	0.58	41.52	39.77	-1.801e+04	-2.943e+04	-2.803e+04	-1.941e+04	-3743.56
6	3	247	59.94	-11.53	5.57	42.84	30.49	-4648.32	-1.779e+04	-9292.04	-1.315e+04	-6282.19
6	3	254	68.46	-24.21	-14.90	59.15	27.87	-2.197e+04	-2.786e+04	-2.648e+04	-2.335e+04	-2492.98
6	3	255	62.97	-12.01	-5.25	56.20	21.49	-5513.35	-1.800e+04	-6774.62	-1.674e+04	-3762.73
6	3	449	2.39	-2.68	-2.64	2.35	0.45	1.439e+04	-1.493e+04	3988.60	-4525.10	-1.403e+04
6	4	11	56.56	-19.34	-18.82	56.04	6.26	-2.082e+04	-2.124e+04	-2.124e+04	-2.082e+04	1.68e-02
6	4	12	55.42	-18.78	-17.43	54.07	-9.90	-1.838e+04	-2.303e+04	-2.177e+04	-1.965e+04	2070.81
6	4	13	52.25	-9.58	-9.15	51.81	5.17	-4745.88	-1.525e+04	-4745.88	-1.525e+04	-3.48e-03
6	4	14	51.37	-9.39	-8.59	50.57	-6.93	-4515.64	-1.519e+04	-5540.00	-1.417e+04	3144.16
6	4	22	52.58	-17.66	-9.33	44.25	-22.71	-1.521e+04	-2.430e+04	-2.305e+04	-1.646e+04	3136.87
6	4	23	48.84	-8.89	-3.48	43.43	-16.83	-3853.09	-1.500e+04	-7629.45	-1.122e+04	5274.00
6	4	30	48.15	-16.03	2.54	29.59	-29.10	-1.160e+04	-2.481e+04	-2.430e+04	-1.211e+04	2535.09
6	4	31	44.77	-8.12	4.23	32.42	-22.37	-2831.95	-1.462e+04	-1.023e+04	-7222.10	5699.90
6	4	38	42.28	-13.92	14.16	14.20	-28.10	-7719.03	-2.453e+04	-2.453e+04	-7720.79	171.66
6	4	39	39.30	-7.09	11.84	20.37	-22.80	-1548.92	-1.403e+04	-1.234e+04	-3243.41	4275.26
6	4	46	35.19	-11.40	21.79	1.99	-21.09	-3698.13	-2.348e+04	-2.286e+04	-4315.68	-3439.92
6	4	47	32.67	-5.87	16.81	9.99	-18.97	-105.64	-1.319e+04	-1.303e+04	-265.48	1437.20
6	4	54	27.15	-8.59	23.18	-4.62	-11.22	304.63	-2.169e+04	-1.888e+04	-2505.98	-7342.80
6	4	55	25.16	-4.52	17.60	3.03	-12.93	1400.47	-1.209e+04	-1.180e+04	1114.77	-1942.08
6	4	62	18.47	-5.59	18.25	-5.36	-2.30	4136.60	-1.924e+04	-1.279e+04	-2311.90	-1.045e+04
6	4	63	17.13	-3.19	14.13	-0.19	-7.21	2879.62	-1.074e+04	-8713.77	856.47	-4843.05
6	4	70	9.63	-2.64	9.07	-2.08	2.56	7652.14	-1.622e+04	-5381.51	-3186.35	-1.189e+04
6	4	71	9.26	-2.28	7.75	-0.77	-3.89	4251.21	-9166.35	-4374.41	-540.74	-6429.11
6	4	79	4.02	-4.00	0.72	-0.70	-3.95	5444.94	-7417.95	256.76	-2229.77	-6310.13
6	4	86	4.59	-9.17	-8.31	3.73	-3.34	1.322e+04	-8972.06	8758.62	-4509.67	-8895.02
6	4	87	3.68	-10.36	-4.60	-2.08	-6.91	6402.20	-5546.12	4175.19	-3319.11	-4652.90
6	4	94	7.27	-17.07	-10.54	0.73	-10.79	1.507e+04	-5029.92	1.345e+04	-3412.12	-5467.99
6	4	95	4.67	-17.52	-6.57	-6.27	-11.10	7077.67	-3614.31	6645.95	-3182.59	-2104.65
6	4	102	9.76	-24.14	-7.17	-7.21	-16.95	1.620e+04	-1087.24	1.596e+04	-847.07	-2023.50
6	4	103	5.78	-24.03	-4.86	-13.39	-14.28	7441.80	-1693.13	7420.40	-1671.73	441.59
6	4	110	11.88	-30.03	0.18	-18.33	-18.80	1.660e+04	2684.05	1.658e+04	2702.56	507.03
6	4	111	6.76	-29.45	-0.51	-22.18	-14.50	7485.13	139.04	6784.29	839.87	2158.06
6	4	118	13.56	-34.50	8.44	-29.38	-14.83	1.629e+04	6087.15	1.604e+04	6339.58	1584.66
6	4	119	7.51	-33.50	4.43	-30.42	-10.81	7230.92	1786.89	5425.12	3592.70	2563.19
6	4	126	14.74	-37.40	14.12	-36.78	-5.63	1.546e+04	8816.12	1.523e+04	9052.35	1230.75
6	4	127	8.01	-36.03	7.70	-35.72	-3.67	6783.95	3092.06	4166.70	5709.32	1677.08
6	4	134	15.39	-38.64	14.66	-37.90	6.26	1.487e+04	1.005e+04	1.487e+04	1.005e+04	1.68e-02
6	4	135	8.21	-36.92	7.61	-36.32	5.17	6501.35	3664.41	3664.41	6501.35	-3.42e-03
6	4	142	15.55	-38.21	9.33	-31.99	17.20	1.546e+04	8816.14	1.523e+04	9052.37	-1230.72
6	4	143	8.12	-36.14	3.74	-31.76	13.22	6783.96	3092.05	4166.70	5709.31	-1677.09
6	4	150	15.26	-36.20	-0.42	-20.52	23.68	1.629e+04	6087.18	1.604e+04	6339.60	-1584.63
6	4	151	7.76	-33.75	-2.88	-23.11	18.12	7230.93	1786.88	5425.12	3592.69	-2563.19
6	4	158	14.63	-32.78	-11.38	-6.76	23.59	1.660e+04	2684.08	1.658e+04	2702.59	-507.02
6	4	159	7.16	-29.85	-10.06	-12.63	18.46	7485.14	139.03	6784.30	839.87	-2158.06
6	4	166	13.87	-28.25	-19.69	5.31	16.95	1.620e+04	-1087.20	1.596e+04	-847.04	2023.50
6	4	167	6.39	-24.65	-15.20	-3.05	14.28	7441.81	-1693.14	7420.41	-1671.74	-441.59
6	4	174	13.31	-23.12	-22.10	12.30	6.00	1.507e+04	-5029.88	1.345e+04	-3412.09	5467.97
6	4	175	5.62	-18.47	-16.13	3.28	7.14	7077.67	-3614.31	6645.96	-3182.60	2104.65
6	4	182	13.57	-18.15	-17.16	12.58	-5.51	1.322e+04	-8972.03	8758.59	-4509.64	8894.99
6	4	183	5.24	-11.92	-11.91	5.24	-0.41	6402.21	-5546.12	4175.19	-3319.11	4652.90
6	4	190	15.47	-14.38	-5.75	6.84	-13.53	1.072e+04	-1.275e+04	2193.96	-4227.87	1.129e+04
6	4	191	6.49	-6.47	-3.24	3.26	-5.61	5444.95	-7417.96	256.76	-2229.77	6310.14
6	4	198	19.58	-12.59	9.07	-2.08	-15.08	7652.11	-1.622e+04	-5381.51	-3186.35	1.189e+04

6	4	199	11.22	-4.24	7.75	-0.77	-6.45	4251.21	-9166.36	-4374.41	-540.74	6429.12
6	4	206	25.46	-12.57	23.04	-10.16	-9.27	4136.57	-1.924e+04	-1.279e+04	-2311.92	1.045e+04
6	4	207	18.33	-4.39	18.09	-4.15	-2.35	2879.63	-1.074e+04	-8713.77	856.47	4843.06
6	4	214	32.16	-13.60	32.03	-13.47	2.37	304.60	-2.169e+04	-1.888e+04	-2506.00	7342.78
6	4	215	25.96	-5.32	24.92	-4.28	5.62	1400.47	-1.209e+04	-1.180e+04	1114.77	1942.09
6	4	222	38.85	-15.06	33.36	-9.57	16.30	-3698.16	-2.348e+04	-2.286e+04	-4315.72	3439.91
6	4	223	33.23	-6.43	26.36	0.44	15.01	-105.63	-1.319e+04	-1.303e+04	-265.47	-1437.20
6	4	230	44.94	-16.57	26.68	1.68	28.10	-7719.07	-2.453e+04	-2.453e+04	-7720.82	-171.66
6	4	231	39.70	-7.49	22.18	10.03	22.80	-1548.92	-1.403e+04	-1.234e+04	-3243.41	-4275.26
6	4	238	50.01	-17.88	14.11	18.02	33.89	-1.160e+04	-2.481e+04	-2.430e+04	-1.211e+04	-2535.08
6	4	239	45.04	-8.39	13.78	22.87	26.33	-2831.94	-1.462e+04	-1.023e+04	-7222.09	-5699.91
6	4	246	53.77	-18.85	-0.48	35.40	31.57	-1.521e+04	-2.430e+04	-2.305e+04	-1.646e+04	-3136.84
6	4	247	49.02	-9.07	3.83	36.12	24.14	-3853.09	-1.500e+04	-7629.45	-1.122e+04	-5274.00
6	4	254	55.99	-19.35	-12.64	49.28	21.46	-1.838e+04	-2.303e+04	-2.177e+04	-1.965e+04	-2070.77
6	4	255	51.45	-9.47	-4.63	46.61	16.48	-4515.64	-1.519e+04	-5540.00	-1.417e+04	-3144.17
6	4	449	3.02	-1.93	-0.96	2.05	1.97	1.072e+04	-1.275e+04	2193.97	-4227.88	-1.129e+04
6	5	11	51.22	-17.15	-16.95	51.02	3.69	-1.923e+04	-1.941e+04	-1.941e+04	-1.923e+04	9.84e-03
6	5	12	50.28	-16.73	-14.94	48.48	-10.83	-1.694e+04	-2.112e+04	-1.989e+04	-1.817e+04	1902.46
6	5	13	47.26	-8.34	-8.17	47.09	3.05	-4319.16	-1.413e+04	-4319.16	-1.413e+04	-2.03e-03
6	5	14	46.48	-8.18	-7.04	45.34	-7.81	-4116.94	-1.407e+04	-5047.26	-1.314e+04	2897.54
6	5	22	47.83	-15.83	-6.95	38.95	-22.05	-1.408e+04	-2.227e+04	-2.106e+04	-1.528e+04	2895.08
6	5	23	44.22	-7.74	-1.86	38.35	-16.45	-3534.08	-1.388e+04	-6966.03	-1.045e+04	4872.11
6	5	30	43.95	-14.45	4.27	25.23	-27.26	-1.084e+04	-2.272e+04	-2.223e+04	-1.134e+04	2376.26
6	5	31	40.57	-7.04	5.51	28.02	-20.98	-2633.46	-1.353e+04	-9366.15	-6796.94	5294.47
6	5	38	38.79	-12.67	15.02	11.10	-25.65	-7344.24	-2.247e+04	-2.247e+04	-7348.64	258.17
6	5	39	35.67	-6.12	12.59	16.96	-20.78	-1498.96	-1.298e+04	-1.133e+04	-3148.75	4026.75
6	5	46	32.56	-10.54	21.91	0.11	-18.59	-3725.72	-2.153e+04	-2.101e+04	-4246.02	-2998.45
6	5	47	29.71	-5.00	17.07	7.63	-16.70	-220.08	-1.220e+04	-1.202e+04	-400.75	1460.07
6	5	54	25.50	-8.17	22.89	-5.56	-9.00	-123.51	-1.992e+04	-1.746e+04	-2584.56	-6531.69
6	5	55	22.92	-3.74	17.56	1.62	-10.68	1116.30	-1.119e+04	-1.097e+04	899.53	-1618.92
6	5	62	17.96	-5.72	17.95	-5.71	-0.41	3325.19	-1.772e+04	-1.200e+04	-2387.59	-9358.11
6	5	63	15.58	-2.40	14.01	-0.83	-5.08	2429.56	-9959.89	-8236.74	706.42	-4287.14
6	5	70	10.49	-3.54	9.02	-2.07	4.30	6489.50	-1.500e+04	-5348.23	-3166.36	-1.069e+04
6	5	71	8.08	-1.14	7.70	-0.76	-1.83	3646.97	-8530.79	-4347.18	-536.64	-5783.12
6	5	79	2.23	-1.53	0.75	-5.22e-02	-1.83	4704.90	-6942.23	-167.58	-2069.75	-5745.37
6	5	86	4.78	-8.21	-8.10	4.67	-1.17	1.150e+04	-8489.93	7401.45	-4387.23	-8074.50
6	5	87	2.44	-7.74	-4.63	-0.67	-4.69	5550.02	-5242.55	3396.36	-3088.89	-4313.38
6	5	94	6.62	-14.74	-10.71	2.60	-8.35	1.317e+04	-4947.85	1.166e+04	-3433.62	-5014.23
6	5	95	3.58	-14.41	-6.89	-3.94	-8.88	6140.77	-3488.01	5677.59	-3024.83	-2060.42
6	5	102	8.59	-20.81	-8.07	-4.15	-14.57	1.419e+04	-1406.86	1.395e+04	-1165.95	-1923.69
6	5	103	4.67	-20.34	-5.65	-10.02	-12.31	6449.20	-1740.78	6443.49	-1735.07	216.20
6	5	110	10.32	-25.92	-1.56	-14.04	-17.02	1.456e+04	1977.05	1.455e+04	1987.39	360.48
6	5	111	5.58	-25.23	-1.81	-17.84	-13.16	6464.25	-68.80	5940.56	454.89	1773.99
6	5	118	11.69	-29.80	6.06	-24.16	-14.22	1.429e+04	5023.76	1.409e+04	5225.39	1352.28
6	5	119	6.27	-28.88	2.81	-25.42	-10.47	6201.23	1447.82	4776.67	2872.39	2177.65
6	5	126	12.63	-32.28	11.64	-31.29	-6.59	1.358e+04	7451.27	1.339e+04	7643.16	1067.50
6	5	127	6.71	-31.14	6.15	-30.58	-4.57	5743.11	2677.90	3683.93	4737.09	1439.30
6	5	134	13.11	-33.28	12.82	-32.99	3.69	1.307e+04	8537.19	1.307e+04	8537.19	9.94e-03
6	5	135	6.88	-31.93	6.64	-31.68	3.05	5435.77	3245.88	3245.88	5435.77	-2.02e-03
6	5	142	13.14	-32.79	8.82	-28.47	13.41	1.358e+04	7451.28	1.339e+04	7643.17	-1067.48
6	5	143	6.79	-31.21	3.82	-28.25	10.20	5743.12	2677.90	3683.93	4737.09	-1439.31
6	5	150	12.75	-30.86	0.84	-18.94	19.44	1.429e+04	5023.78	1.409e+04	5225.41	-1352.26
6	5	151	6.43	-29.04	-1.50	-21.11	14.78	6201.24	1447.82	4776.67	2872.38	-2177.65
6	5	158	12.05	-27.65	-8.38	-7.22	19.84	1.456e+04	1977.07	1.455e+04	1987.41	-360.48
6	5	159	5.84	-25.50	-7.45	-12.21	15.49	6464.25	-68.80	5940.57	454.89	-1773.99
6	5	166	11.20	-23.42	-15.46	3.23	14.57	1.419e+04	-1406.84	1.395e+04	-1165.93	1923.69
6	5	167	5.08	-20.75	-11.75	-3.92	12.31	6449.20	-1740.79	6443.49	-1735.08	-216.20
6	5	174	10.51	-18.62	-17.53	9.42	5.52	1.317e+04	-4947.83	1.166e+04	-3433.60	5014.22
6	5	175	4.25	-15.08	-12.52	1.70	6.54	6140.77	-3488.02	5677.59	-3024.84	2060.42
6	5	182	10.58	-14.01	-13.32	9.89	-4.05	1.150e+04	-8489.91	7401.43	-4387.21	8074.49
6	5	183	3.65	-8.95	-8.94	3.64	0.38	5550.03	-5242.55	3396.37	-3088.89	4313.39
6	5	190	12.36	-10.70	-3.59	5.25	-10.65	9250.05	-1.189e+04	1473.96	-4111.22	1.019e+04
6	5	191	4.61	-3.91	-1.58	2.28	-3.80	4704.90	-6942.23	-167.57	-2069.76	5745.38
6	5	198	16.41	-9.46	9.02	-2.07	-11.68	6489.48	-1.500e+04	-5348.22	-3166.36	1.069e+04
6	5	199	9.48	-2.55	7.70	-0.76	-4.27	3646.98	-8530.80	-4347.18	-536.64	5783.12
6	5	206	22.12	-9.88	20.78	-8.54	-6.41	3325.17	-1.772e+04	-1.200e+04	-2387.60	9358.10
6	5	207	16.36	-3.18	16.34	-3.17	-0.56	2429.56	-9959.89	-8236.74	706.42	4287.14
6	5	214	28.48	-11.15	28.11	-10.78	3.78	-123.53	-1.992e+04	-1.746e+04	-2584.57	6531.68
6	5	215	23.42	-4.25	21.87	-2.69	6.37	1116.30	-1.119e+04	-1.097e+04	899.53	1618.92
6	5	222	34.72	-12.71	28.73	-6.71	15.76	-3725.74	-2.153e+04	-2.101e+04	-4246.03	2998.44
6	5	223	30.06	-5.35	22.70	2.00	14.37	-220.08	-1.220e+04	-1.202e+04	-400.75	-1460.07
6	5	230	40.37	-14.24	22.40	3.72	25.65	-7344.25	-2.247e+04	-2.247e+04	-7348.66	-258.17
6	5	231	35.92	-6.37	18.69	10.86	20.78	-1498.96	-1.298e+04	-1.133e+04	-3148.75	-4026.75
6	5	238	45.05	-15.55	11.09	18.41	30.08	-1.084e+04	-2.272e+04	-2.223e+04	-1.134e+04	-2376.25
6	5	239	40.74	-7.22	11.14	22.39	23.31	-2633.46	-1.353e+04	-9366.15	-6796.94	-5294.47
6	5	246	48.53	-16.53	-1.73	33.73	27.27	-1.408e+04	-2.227e+04	-2.106e+04	-1.528e+04	-2895.07
6	5	247	44.33	-7.85	2.45	34.03	20.77	-3534.07	-1.388e+04	-6966.03	-1.045e+04	-4872.11

6	5	254	50.62	-17.08	-12.11	45.66	17.65	-1.694e+04	-2.112e+04	-1.989e+04	-1.817e+04	-1902.44
6	5	255	46.53	-8.23	-4.70	43.01	13.44	-4116.94	-1.407e+04	-5047.27	-1.314e+04	-2897.54
6	5	449	4.98	-3.32	-0.76	2.42	3.83	9250.07	-1.189e+04	1473.97	-4111.23	-1.019e+04

M_G	**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
		-60.73	-35.22	-59.66	-39.98		-3.416e+04	-3.373e+04	-2.778e+04	-1.737e+04
	78.45		46.35	77.60	47.20	2.620e+04		2.613e+04	1.733e+04	1.737e+04

Macro	Tipo	Angolo 1-X (gradi)
7	**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**
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
7	2	13	60.28	-10.12	-9.99	60.16	2.98	-6767.40	-1.196e+04	-6767.40	-1.196e+04	7.20e-04
7	2	14	59.18	-9.87	-7.93	57.24	-11.41	-6099.28	-1.233e+04	-7517.76	-1.091e+04	2612.61
7	2	15	58.30	-2.17	-2.03	58.16	2.91	-481.52	-8643.40	-481.52	-8643.40	-2.38e-04
7	2	16	57.32	-2.17	-0.98	56.13	-8.33	-458.87	-8530.36	-907.02	-8082.21	1848.35
7	2	23	56.07	-9.30	-0.37	47.14	-22.46	-4510.76	-1.302e+04	-9462.95	-8068.12	4197.22
7	2	24	54.38	-2.10	3.82	48.45	-17.31	-391.26	-8196.15	-2037.91	-6549.50	3184.41
7	2	31	51.09	-8.44	9.95	32.70	-27.50	-2500.24	-1.357e+04	-1.179e+04	-4283.72	4070.20
7	2	32	49.58	-1.98	10.51	37.09	-22.09	-279.54	-7655.32	-3484.81	-4450.05	3656.18
7	2	39	44.40	-7.30	19.38	17.72	-25.84	-317.27	-1.379e+04	-1.345e+04	-660.07	2121.80
7	2	40	43.13	-1.81	16.58	24.73	-22.10	-124.71	-6932.03	-4741.65	-2315.08	3180.07
7	2	47	36.29	-5.94	24.62	5.72	-18.88	1890.51	-1.361e+04	-1.352e+04	1805.41	-1145.37
7	2	48	35.29	-1.64	19.74	13.91	-18.23	72.76	-6059.42	-5349.97	-636.69	1961.41
7	2	55	27.05	-4.42	23.77	-1.14	-9.62	4010.68	-1.300e+04	-1.153e+04	2539.61	-4781.49
7	2	56	26.42	-1.51	18.68	6.23	-12.50	314.27	-5080.17	-5046.93	281.03	422.13
7	2	63	17.10	-2.83	16.97	-2.71	-1.58	5947.85	-1.198e+04	-7600.18	1569.13	-7702.15
7	2	64	17.01	-1.58	13.48	1.94	-7.29	605.04	-4046.30	-3847.66	406.40	-940.48
7	2	71	7.07	-1.51	6.33	-0.76	2.41	7619.74	-1.057e+04	-2446.85	-505.73	-9044.10
7	2	72	8.13	-2.57	5.57	-1.52e-02	-4.56	956.73	-3020.41	-2037.00	-26.68	-1715.83
7	2	79	1.91	-5.05	-4.86	1.72	1.13	8957.26	-8831.39	2854.23	-2728.36	-8444.98
7	2	80	3.03	-7.34	-2.76	-1.55	-5.15	1387.89	-2073.98	-73.31	-612.78	-1709.79
7	2	87	3.00	-14.51	-13.19	1.69	-4.61	9905.90	-6819.88	7205.64	-4119.62	-6154.06
7	2	88	1.95	-15.74	-9.17	-4.62	-8.55	1913.79	-1275.25	1561.74	-923.20	-999.38
7	2	95	4.45	-23.66	-16.34	-2.87	-12.33	1.043e+04	-4613.13	9829.25	-4015.16	-2938.73
7	2	96	1.82	-24.36	-12.05	-10.49	-13.07	2520.40	-661.08	2516.99	-657.67	104.13
7	2	103	5.78	-31.76	-13.82	-12.15	-18.75	1.050e+04	-2295.06	1.050e+04	-2292.51	180.69
7	2	104	1.91	-32.10	-11.02	-19.17	-16.51	3150.03	-220.65	2677.97	251.40	1169.75
7	2	111	6.91	-38.43	-7.10	-24.42	-20.95	1.012e+04	44.61	9579.36	588.31	2276.84
7	2	112	2.03	-38.51	-7.09	-29.39	-16.92	3725.35	82.17	2190.44	1617.08	1798.89
7	2	119	7.78	-43.42	0.92	-36.56	-17.44	9314.87	2311.02	7882.93	3742.95	2824.64
7	2	120	2.13	-43.28	-2.22	-38.94	-13.35	4180.37	279.68	1395.73	3064.32	1762.90
7	2	127	8.36	-46.54	6.94	-45.12	-8.70	8134.19	4389.65	6358.53	6165.31	1869.77
7	2	128	2.18	-46.21	1.37	-45.41	-6.19	4470.12	391.75	700.63	4161.24	1079.04
7	2	135	8.63	-47.66	8.47	-47.51	2.98	7071.07	5755.94	5755.94	7071.07	7.43e-04
7	2	136	2.17	-47.18	2.00	-47.01	2.91	4569.40	428.15	428.15	4569.40	-2.85e-04
7	2	143	8.59	-46.77	4.66	-42.84	14.20	8134.19	4389.65	6358.53	6165.31	-1869.77
7	2	144	2.10	-46.14	-0.85	-43.18	11.57	4470.12	391.75	700.63	4161.24	-1079.04
7	2	151	8.26	-43.90	-3.29	-32.35	21.66	9314.87	2311.02	7882.93	3742.96	-2824.64
7	2	152	1.96	-43.12	-6.33	-34.83	17.47	4180.37	279.68	1395.73	3064.32	-1762.90
7	2	159	7.69	-39.21	-12.60	-18.92	23.23	1.012e+04	44.62	9579.36	588.31	-2276.84
7	2	160	1.76	-38.24	-12.47	-24.02	19.15	3725.35	82.17	2190.44	1617.07	-1798.89
7	2	167	6.96	-32.93	-19.78	-6.19	18.75	1.050e+04	-2295.06	1.050e+04	-2292.51	-180.69
7	2	168	1.50	-31.70	-16.84	-13.35	16.51	3150.03	-220.65	2677.97	251.40	-1169.75
7	2	175	6.23	-25.45	-21.85	2.63	10.05	1.043e+04	-4613.13	9829.24	-4015.16	2938.73
7	2	176	1.20	-23.73	-17.42	-5.11	10.84	2520.40	-661.08	2516.99	-657.67	-104.13
7	2	183	5.91	-17.41	-17.41	5.90	0.40	9905.90	-6819.88	7205.64	-4119.62	6154.06
7	2	184	0.88	-14.67	-13.29	-0.50	4.43	1913.79	-1275.25	1561.74	-923.20	999.38
7	2	191	7.10	-10.24	-7.14	4.00	-6.64	8957.26	-8831.39	2854.23	-2728.36	8444.98
7	2	192	0.69	-4.99	-4.99	0.68	-0.22	1387.89	-2073.98	-73.31	-612.79	1709.79
7	2	199	11.87	-6.31	6.33	-0.76	-8.37	7619.74	-1.057e+04	-2446.85	-505.73	9044.10
7	2	200	5.85	-0.29	5.57	-1.52e-02	-1.26	956.73	-3020.41	-2037.00	-26.68	1715.83
7	2	207	19.87	-5.61	19.25	-4.99	-3.93	5947.85	-1.198e+04	-7600.18	1569.13	7702.15
7	2	208	15.93	-0.51	15.71	-0.28	1.91	605.04	-4046.30	-3847.66	406.40	940.48
7	2	215	28.84	-6.21	27.98	-5.35	5.41	4010.68	-1.300e+04	-1.153e+04	2539.61	4781.49
7	2	216	25.77	-0.86	22.80	2.11	8.38	314.27	-5080.17	-5046.93	281.03	-422.13
7	2	223	37.52	-7.17	30.13	0.22	16.60	1890.51	-1.361e+04	-1.352e+04	1805.41	1145.37
7	2	224	34.85	-1.20	25.12	8.53	16.01	72.76	-6059.42	-5349.97	-636.69	-1961.41
7	2	231	45.27	-8.17	25.34	11.76	25.84	-317.27	-1.379e+04	-1.345e+04	-660.07	-2121.80
7	2	232	42.82	-1.51	22.40	18.91	22.10	-124.71	-6932.03	-4741.65	-2315.08	-3180.07
7	2	239	51.68	-9.03	15.45	27.19	29.78	-2500.24	-1.357e+04	-1.179e+04	-4283.72	-4070.19

7	2	240	49.37	-1.77	15.89	31.72	24.31	-279.54	-7655.32	-3484.81	-4450.05	-3656.18
7	2	247	56.45	-9.68	3.85	42.92	26.67	-4510.77	-1.302e+04	-9462.95	-8068.12	-4197.22
7	2	248	54.25	-1.97	7.94	44.34	21.42	-391.26	-8196.15	-2037.91	-6549.50	-3184.41
7	2	255	59.36	-10.05	-5.65	54.96	16.92	-6099.28	-1.233e+04	-7517.76	-1.091e+04	-2612.61
7	2	256	57.26	-2.11	1.25	53.90	13.71	-458.87	-8530.36	-907.02	-8082.21	-1848.35
7	3	13	52.86	-8.87	-8.72	52.72	2.98	-5937.35	-1.072e+04	-5937.35	-1.072e+04	7.20e-04
7	3	14	51.90	-8.64	-7.07	50.33	-9.64	-5392.96	-1.101e+04	-6592.85	-9809.67	2302.08
7	3	15	51.03	-1.92	-1.76	50.87	2.91	-419.25	-7794.06	-419.25	-7794.06	-2.38e-04
7	3	16	50.20	-1.92	-0.98	49.26	-6.95	-400.48	-7696.61	-798.33	-7298.76	1656.64
7	3	23	49.23	-8.15	-0.58	41.66	-19.41	-4072.11	-1.156e+04	-8295.41	-7337.96	3713.85
7	3	24	47.68	-1.87	3.11	42.69	-14.90	-344.52	-7408.37	-1808.58	-5944.32	2863.29
7	3	31	44.93	-7.39	8.38	29.17	-24.01	-2377.19	-1.201e+04	-1.034e+04	-4041.93	3641.42
7	3	32	43.57	-1.77	8.92	32.88	-19.25	-252.39	-6941.56	-3110.17	-4083.78	3308.96
7	3	39	39.18	-6.40	16.68	16.11	-22.79	-525.16	-1.218e+04	-1.183e+04	-873.82	1985.27
7	3	40	38.04	-1.64	14.28	22.12	-19.45	-125.46	-6316.31	-4260.15	-2181.63	2915.75
7	3	47	32.20	-5.22	21.43	5.55	-16.94	1353.51	-1.201e+04	-1.196e+04	1302.25	-826.05
7	3	48	31.33	-1.51	17.21	12.61	-16.25	34.92	-5560.11	-4854.62	-670.57	1857.29
7	3	55	24.25	-3.88	20.99	-0.63	-8.99	3160.29	-1.148e+04	-1.030e+04	1985.59	-3976.99
7	3	56	23.74	-1.42	16.54	5.78	-11.36	228.34	-4707.87	-4657.27	177.74	497.22
7	3	63	15.65	-2.47	15.43	-2.25	-1.99	4812.22	-1.060e+04	-6973.51	1190.70	-6533.17
7	3	64	15.69	-1.51	12.32	1.86	-6.83	456.57	-3801.45	-3671.59	326.71	-732.18
7	3	71	6.85	-1.13	6.50	-0.78	1.64	6238.09	-9383.98	-2572.11	-573.78	-7746.86
7	3	72	8.06	-2.35	5.73	-1.56e-02	-4.34	725.44	-2890.34	-2135.24	-29.65	-1469.72
7	3	79	1.38	-3.13	-2.98	1.23	0.80	7378.23	-7887.22	1981.38	-2490.37	-7297.90
7	3	80	3.26	-6.01	-1.30	-1.45	-4.63	1046.44	-2031.34	-438.61	-546.29	-1537.95
7	3	87	2.38	-11.31	-10.13	1.19	-3.84	8185.59	-6159.00	5745.03	-3718.45	-5390.03
7	3	88	1.97	-12.87	-6.77	-4.12	-7.30	1433.45	-1283.71	1003.49	-853.76	-991.66
7	3	95	3.66	-19.21	-12.93	-2.62	-10.21	8626.86	-4263.50	8046.77	-3683.41	-2672.27
7	3	96	1.75	-20.15	-9.30	-9.10	-10.95	1886.96	-691.55	1883.95	-688.54	-88.02
7	3	103	4.83	-26.18	-10.96	-10.39	-15.51	8683.67	-2272.09	8683.65	-2272.07	-13.06
7	3	104	1.77	-26.75	-8.57	-16.41	-13.71	2373.71	-261.74	2095.24	16.73	810.15
7	3	111	5.82	-31.93	-5.45	-20.66	-17.28	8353.16	-260.66	7961.19	131.31	1795.20
7	3	112	1.84	-32.22	-5.40	-24.97	-13.94	2832.55	31.62	1751.05	1113.12	1363.65
7	3	119	6.59	-36.24	1.15	-30.80	-14.26	7649.46	1692.11	6562.55	2779.02	2300.81
7	3	120	1.91	-36.30	-1.46	-32.92	-10.84	3202.94	220.17	1132.56	2290.54	1374.41
7	3	127	7.10	-38.92	6.06	-37.88	-6.85	6611.00	3499.73	5293.18	4817.55	1537.35
7	3	128	1.95	-38.80	1.39	-38.24	-4.76	3441.45	325.85	578.74	3188.55	850.86
7	3	135	7.35	-39.91	7.16	-39.72	2.98	5580.61	4789.80	4789.80	5580.61	7.51e-04
7	3	136	1.94	-39.62	1.73	-39.42	2.91	3523.57	359.95	359.95	3523.57	-3.33e-04
7	3	143	7.33	-39.16	3.78	-35.60	12.35	6611.00	3499.73	5293.18	4817.55	-1537.35
7	3	144	1.87	-38.72	-0.84	-36.01	10.13	3441.45	325.85	578.74	3188.55	-850.86
7	3	151	7.07	-36.72	-3.06	-26.58	18.47	7649.46	1692.12	6562.55	2779.02	-2300.81
7	3	152	1.75	-36.13	-5.58	-28.81	14.96	3202.94	220.17	1132.56	2290.54	-1374.41
7	3	159	6.62	-32.73	-10.95	-15.16	19.56	8353.16	-260.66	7961.19	131.32	-1795.20
7	3	160	1.57	-31.94	-10.78	-19.60	16.17	2832.55	31.62	1751.05	1113.12	-1363.65
7	3	167	6.04	-27.39	-16.92	-4.43	15.51	8683.67	-2272.09	8683.65	-2272.07	13.06
7	3	168	1.35	-26.33	-14.39	-10.59	13.71	2373.71	-261.74	2095.24	16.73	-810.15
7	3	175	5.51	-21.06	-18.44	2.89	7.93	8626.86	-4263.50	8046.77	-3683.41	2672.27
7	3	176	1.10	-19.50	-14.68	-3.72	8.72	1886.96	-691.55	1883.95	-688.54	88.02
7	3	183	5.41	-14.35	-14.34	5.41	-0.37	8185.58	-6159.00	5745.03	-3718.45	5390.03
7	3	184	0.86	-11.75	-10.89	-1.13e-02	3.19	1433.45	-1283.71	1003.49	-853.76	991.66
7	3	191	6.81	-8.56	-5.26	3.51	-6.31	7378.23	-7887.21	1981.38	-2490.37	7297.90
7	3	192	0.90	-3.65	-3.53	0.77	-0.74	1046.44	-2031.34	-438.61	-546.29	1537.95
7	3	199	11.28	-5.56	6.50	-0.78	-7.59	6238.08	-9383.98	-2572.11	-573.78	7746.86
7	3	200	6.09	-0.37	5.73	-1.56e-02	-1.48	725.44	-2890.34	-2135.24	-29.65	1469.72
7	3	207	18.25	-5.07	17.71	-4.53	-3.52	4812.22	-1.060e+04	-6973.51	1190.69	6533.17
7	3	208	14.69	-0.51	14.54	-0.37	1.46	456.57	-3801.45	-3671.59	326.71	732.18
7	3	215	25.95	-5.58	25.21	-4.84	4.78	3160.29	-1.148e+04	-1.030e+04	1985.59	3976.99
7	3	216	23.11	-0.79	20.66	1.66	7.25	228.34	-4707.87	-4657.27	177.74	-497.22
7	3	223	33.38	-6.40	26.94	4.28e-02	14.66	1353.51	-1.201e+04	-1.196e+04	1302.25	826.05
7	3	224	30.90	-1.08	22.58	7.24	14.03	34.92	-5560.11	-4854.62	-670.57	-1857.29
7	3	231	40.02	-7.24	22.63	10.15	22.79	-525.17	-1.218e+04	-1.183e+04	-873.82	-1985.27
7	3	232	37.74	-1.34	20.10	16.30	19.45	-125.46	-6316.31	-4260.15	-2181.63	-2915.75
7	3	239	45.51	-7.97	13.88	23.66	26.29	-2377.19	-1.201e+04	-1.034e+04	-4041.93	-3641.42
7	3	240	43.36	-1.57	14.29	27.50	21.47	-252.39	-6941.56	-3110.17	-4083.77	-3308.96
7	3	247	49.59	-8.51	3.63	37.45	23.62	-4072.11	-1.156e+04	-8295.41	-7337.96	-3713.85
7	3	248	47.55	-1.74	7.23	38.58	19.02	-344.52	-7408.37	-1808.58	-5944.32	-2863.29
7	3	255	52.08	-8.82	-4.79	48.05	15.14	-5392.96	-1.101e+04	-6592.85	-9809.67	-2302.08
7	3	256	50.14	-1.86	1.25	47.03	12.33	-400.48	-7696.61	-798.33	-7298.76	-1656.64
7	4	13	43.32	-7.17	-7.09	43.24	1.98	-4847.64	-9042.78	-4847.64	-9042.78	3.67e-04
7	4	14	42.56	-7.00	-5.57	41.13	-8.31	-4439.67	-9243.27	-5385.47	-8297.48	1910.16
7	4	15	41.71	-1.48	-1.40	41.62	1.93	-340.37	-6620.92	-340.37	-6620.92	-1.73e-04
7	4	16	41.04	-1.48	-0.58	40.15	-6.11	-325.93	-6542.49	-658.02	-6210.40	1397.91
7	4	23	40.44	-6.62	-0.12	33.95	-16.23	-3425.82	-9642.57	-6785.92	-6282.47	3098.17
7	4	24	39.02	-1.43	2.92	34.67	-12.53	-282.98	-6310.44	-1507.27	-5086.14	2424.97
7	4	31	37.03	-6.02	7.33	23.67	-19.92	-2101.62	-9968.76	-8481.44	-3588.93	3080.39
7	4	32	35.74	-1.34	7.81	26.59	-15.98	-212.53	-5934.28	-2610.20	-3536.61	2823.13

7	4	39	32.46	-5.25	14.24	12.97	-18.84	-642.02	-1.009e+04	-9740.50	-986.82	1771.20
7	4	40	31.31	-1.22	12.32	17.77	-16.04	-116.09	-5429.73	-3603.28	-1942.54	2523.72
7	4	47	26.90	-4.32	18.26	4.32	-13.97	844.88	-9935.66	-9913.42	822.64	-489.14
7	4	48	25.94	-1.09	14.83	10.02	-13.30	4.51	-4817.98	-4152.52	-660.95	1663.24
7	4	55	20.58	-3.28	18.04	-0.73	-7.36	2277.95	-9501.66	-8652.33	1428.63	-3046.86
7	4	56	19.84	-0.98	14.38	4.48	-9.16	147.73	-4125.70	-4057.78	79.80	534.47
7	4	63	13.76	-2.17	13.62	-2.04	-1.47	3589.55	-8787.33	-6031.38	833.59	-5149.26
7	4	64	13.33	-0.96	11.00	1.37	-5.28	312.85	-3384.25	-3312.28	240.89	-510.76
7	4	71	6.79	-1.16	6.40	-0.77	1.71	4721.95	-7812.83	-2528.72	-562.16	-6189.78
7	4	72	6.98	-1.35	5.64	-1.53e-02	-3.06	501.17	-2629.75	-2099.50	-29.08	-1174.31
7	4	79	1.59	-1.92	-1.37	1.04	1.28	5626.97	-6610.96	1123.62	-2107.61	-5901.83
7	4	80	2.58	-3.71	-0.16	-0.97	-3.12	717.30	-1903.06	-729.12	-456.64	-1303.08
7	4	87	1.86	-7.92	-7.35	1.29	-2.29	6266.63	-5224.70	4170.88	-3128.94	-4437.43
7	4	88	1.44	-9.06	-4.77	-2.86	-5.16	969.37	-1248.55	465.19	-744.37	-929.54
7	4	95	2.81	-14.14	-9.89	-1.44	-7.35	6613.99	-3704.97	6069.97	-3160.95	-2306.01
7	4	96	1.28	-14.88	-7.04	-6.56	-8.08	1263.75	-707.43	1231.63	-675.31	-249.58
7	4	103	3.71	-19.67	-8.61	-7.35	-11.68	6653.97	-2108.42	6649.61	-2104.06	-195.37
7	4	104	1.31	-20.16	-6.70	-12.15	-10.39	1590.37	-301.71	1474.70	-186.04	453.29
7	4	111	4.48	-24.24	-4.45	-15.31	-13.29	6383.63	-495.02	6143.13	-254.52	1263.52
7	4	112	1.39	-24.54	-4.35	-18.80	-10.76	1912.81	-23.14	1273.94	615.73	910.31
7	4	119	5.08	-27.65	0.68	-23.25	-11.16	5812.48	1074.13	5085.60	1801.02	1707.59
7	4	120	1.45	-27.80	-1.30	-25.05	-8.54	2182.70	153.56	842.70	1493.55	960.96
7	4	127	5.47	-29.78	4.57	-28.88	-5.57	4963.11	2538.06	4111.45	3389.72	1157.58
7	4	128	1.49	-29.81	0.98	-29.30	-3.94	2360.22	251.05	442.26	2169.01	605.59
7	4	135	5.66	-30.55	5.55	-30.45	1.98	3985.33	3723.33	3723.33	3985.33	4.89e-04
7	4	136	1.48	-30.47	1.37	-30.35	1.93	2421.92	282.21	282.21	2421.92	-2.08e-04
7	4	143	5.63	-29.94	3.06	-27.37	9.22	4963.11	2538.06	4111.45	3389.72	-1157.58
7	4	144	1.43	-29.75	-0.50	-27.82	7.51	2360.22	251.05	442.26	2169.01	-605.59
7	4	151	5.41	-27.99	-2.12	-20.45	13.96	5812.48	1074.13	5085.60	1801.02	-1707.59
7	4	152	1.34	-27.69	-4.03	-22.32	11.27	2182.70	153.56	842.70	1493.55	-960.96
7	4	159	5.04	-24.79	-8.10	-11.65	14.81	6383.63	-495.02	6143.13	-254.52	-1263.52
7	4	160	1.20	-24.35	-7.92	-15.24	12.24	1912.81	-23.14	1273.94	615.73	-910.31
7	4	167	4.57	-20.52	-12.57	-3.39	11.68	6653.97	-2108.42	6649.61	-2104.06	195.37
7	4	168	1.02	-19.87	-10.56	-8.29	10.39	1590.37	-301.71	1474.70	-186.04	-453.29
7	4	175	4.14	-15.47	-13.54	2.21	5.83	6613.99	-3704.96	6069.97	-3160.95	2306.01
7	4	176	0.82	-14.42	-10.61	-3.00	6.60	1263.75	-707.43	1231.63	-675.31	249.58
7	4	183	4.10	-10.16	-10.14	4.09	-0.50	6266.63	-5224.69	4170.88	-3128.94	4437.43
7	4	184	0.60	-8.23	-7.50	-0.13	2.43	969.37	-1248.55	465.19	-744.37	929.54
7	4	191	5.47	-5.80	-2.88	2.56	-4.93	5626.97	-6610.96	1123.62	-2107.61	5901.83
7	4	192	0.60	-1.73	-1.64	0.51	-0.45	717.30	-1903.06	-729.12	-456.64	1303.08
7	4	199	9.52	-3.89	6.40	-0.77	-5.67	4721.95	-7812.83	-2528.72	-562.16	6189.78
7	4	200	5.75	-0.13	5.64	-1.53e-02	-0.80	501.17	-2629.75	-2099.50	-29.08	1174.31
7	4	207	15.39	-3.81	15.13	-3.55	-2.19	3589.55	-8787.33	-6031.38	833.59	5149.26
7	4	208	12.71	-0.34	12.48	-0.11	1.72	312.85	-3384.25	-3312.28	240.89	510.76
7	4	215	21.66	-4.36	20.84	-3.53	4.57	2277.95	-9501.66	-8652.33	1428.63	3046.86
7	4	216	19.45	-0.58	17.11	1.75	6.43	147.73	-4125.70	-4057.78	79.80	-534.47
7	4	223	27.66	-5.08	21.91	0.67	12.46	844.88	-9935.66	-9913.42	822.64	489.14
7	4	224	25.67	-0.82	18.39	6.45	11.82	4.51	-4817.98	-4152.52	-660.95	-1663.24
7	4	231	33.00	-5.79	18.19	9.02	18.84	-642.02	-1.009e+04	-9740.50	-986.82	-1771.20
7	4	232	31.12	-1.03	16.18	13.91	16.04	-116.09	-5429.73	-3603.28	-1942.54	-2523.72
7	4	239	37.40	-6.40	10.99	20.02	21.43	-2101.62	-9968.75	-8481.44	-3588.93	-3080.39
7	4	240	35.60	-1.21	11.38	23.02	17.46	-212.53	-5934.28	-2610.20	-3536.61	-2823.13
7	4	247	40.68	-6.85	2.68	31.15	19.03	-3425.82	-9642.57	-6785.91	-6282.47	-3098.17
7	4	248	38.94	-1.35	5.65	31.94	15.26	-282.98	-6310.44	-1507.28	-5086.14	-2424.97
7	4	255	42.68	-7.11	-4.05	39.62	11.96	-4439.67	-9243.27	-5385.47	-8297.48	-1910.16
7	4	256	41.00	-1.44	0.90	38.67	9.67	-325.93	-6542.49	-658.02	-6210.40	-1397.91
7	5	13	39.31	-6.41	-6.38	39.28	1.17	-4412.71	-8372.43	-4412.71	-8372.43	2.70e-04
7	5	14	38.66	-6.28	-4.76	37.14	-8.12	-4057.86	-8540.65	-4903.58	-7694.93	1753.83
7	5	15	37.79	-1.25	-1.22	37.76	1.14	-308.87	-6153.59	-308.87	-6153.59	-1.05e-04
7	5	16	37.19	-1.24	-0.25	36.19	-6.11	-296.15	-6082.79	-602.04	-5776.89	1294.81
7	5	23	36.78	-5.95	0.38	30.44	-15.18	-3165.68	-8880.04	-6183.49	-5862.23	2852.66
7	5	24	35.37	-1.19	3.14	31.05	-11.81	-258.31	-5873.25	-1387.12	-4744.43	2250.34
7	5	31	33.75	-5.45	7.28	21.01	-18.35	-1989.57	-9158.42	-7738.85	-3409.14	2856.84
7	5	32	32.42	-1.10	7.72	23.60	-14.76	-196.36	-5533.47	-2410.90	-3318.93	2629.65
7	5	39	29.68	-4.78	13.64	11.26	-17.19	-686.97	-9252.93	-8907.01	-1032.89	1686.27
7	5	40	28.46	-0.98	11.90	15.57	-14.60	-111.84	-5077.39	-3341.55	-1847.68	2367.75
7	5	47	24.74	-3.98	17.32	3.44	-12.57	643.22	-9111.04	-9098.17	630.35	-354.04
7	5	48	23.63	-0.84	14.21	8.58	-11.90	-6.66	-4523.80	-3872.95	-657.51	1586.30
7	5	55	19.12	-3.08	17.10	-1.06	-6.38	1926.85	-8715.22	-7993.98	1205.62	-2674.93
7	5	56	18.13	-0.70	13.77	3.66	-7.95	117.27	-3896.19	-3819.41	40.48	549.79
7	5	63	13.08	-2.16	13.03	-2.11	-0.87	3102.41	-8068.44	-5656.55	690.52	-4596.26
7	5	64	12.23	-0.60	10.61	1.02	-4.26	258.50	-3221.94	-3169.98	206.54	-422.09
7	5	71	6.96	-1.37	6.36	-0.77	2.16	4117.56	-7188.41	-2512.92	-557.93	-5567.83
7	5	72	6.31	-0.73	5.60	-1.52e-02	-2.12	416.86	-2532.21	-2086.48	-28.87	-1056.32
7	5	79	2.24	-1.97	-0.85	1.12	1.86	4928.71	-6104.39	779.51	-1955.19	-5344.41
7	5	80	1.92	-2.37	0.17	-0.62	-2.11	594.43	-1861.70	-846.37	-420.90	-1209.50
7	5	87	1.83	-6.69	-6.47	1.61	-1.35	5501.51	-4854.85	3540.74	-2894.08	-4057.32

7	5	88	0.99	-7.25	-4.21	-2.05	-3.97	796.33	-1248.11	249.10	-700.88	-905.16
7	5	95	2.53	-12.11	-9.00	-0.58	-5.99	5811.61	-3485.48	5279.18	-2953.06	-2160.22
7	5	96	0.94	-12.55	-6.47	-5.14	-6.71	1028.48	-728.72	970.19	-670.43	-314.68
7	5	103	3.27	-16.99	-8.04	-5.67	-10.06	5845.31	-2047.12	5836.15	-2037.96	-268.73
7	5	104	1.02	-17.32	-6.32	-9.98	-8.98	1288.02	-329.50	1226.19	-267.67	310.13
7	5	111	3.92	-21.03	-4.42	-12.69	-11.77	5599.82	-593.53	5416.14	-409.84	1050.65
7	5	112	1.11	-21.26	-4.29	-15.86	-9.57	1550.88	-51.74	1082.96	416.18	728.66
7	5	119	4.42	-24.06	0.17	-19.81	-10.14	5083.34	820.67	4495.02	1408.98	1470.27
7	5	120	1.19	-24.19	-1.52	-21.48	-7.84	1776.67	124.18	726.72	1174.13	795.38
7	5	127	4.75	-25.94	3.77	-24.96	-5.39	4314.65	2142.16	3638.91	2817.90	1005.69
7	5	128	1.23	-26.00	0.64	-25.41	-3.96	1927.72	220.51	387.68	1760.55	507.39
7	5	135	4.89	-26.61	4.85	-26.56	1.17	3346.59	3296.86	3296.86	3346.59	2.83e-04
7	5	136	1.24	-26.60	1.19	-26.55	1.14	1980.62	251.14	251.14	1980.62	-1.11e-04
7	5	143	4.85	-26.04	2.88	-24.07	7.55	4314.65	2142.16	3638.91	2817.90	-1005.69
7	5	144	1.20	-25.97	-0.23	-24.54	6.06	1927.72	220.51	387.68	1760.55	-507.39
7	5	151	4.63	-24.26	-1.47	-18.16	11.79	5083.34	820.67	4495.02	1408.98	-1470.27
7	5	152	1.12	-24.13	-3.13	-19.87	9.45	1776.67	124.18	726.72	1174.13	-795.38
7	5	159	4.26	-21.37	-6.57	-10.54	12.66	5599.82	-593.53	5416.14	-409.84	-1050.65
7	5	160	1.00	-21.15	-6.39	-13.76	10.44	1550.88	-51.74	1082.96	416.18	-728.66
7	5	167	3.80	-17.52	-10.38	-3.34	10.06	5845.31	-2047.12	5836.15	-2037.96	268.73
7	5	168	0.85	-17.14	-8.59	-7.70	8.98	1288.02	-329.50	1226.19	-267.67	-310.13
7	5	175	3.36	-12.94	-11.15	1.58	5.09	5811.61	-3485.48	5279.18	-2953.06	2160.22
7	5	176	0.66	-12.27	-8.57	-3.04	5.84	1028.48	-728.72	970.19	-670.43	314.68
7	5	183	3.27	-8.13	-8.12	3.26	-0.30	5501.51	-4854.85	3540.74	-2894.08	4057.32
7	5	184	0.45	-6.71	-5.82	-0.44	2.36	796.33	-1248.11	249.10	-700.88	905.16
7	5	191	4.57	-4.30	-1.74	2.01	-4.02	4928.71	-6104.39	779.51	-1955.19	5344.41
7	5	192	0.25	-0.70	-0.70	0.25	8.16e-03	594.43	-1861.70	-846.37	-420.90	1209.50
7	5	199	8.53	-2.94	6.36	-0.77	-4.49	4117.56	-7188.41	-2512.92	-557.93	5567.83
7	5	200	5.61	-1.96e-02	5.60	-1.52e-02	-0.16	416.86	-2532.21	-2086.49	-28.87	1056.32
7	5	207	14.02	-3.10	13.92	-3.00	-1.29	3102.41	-8068.44	-5656.55	690.52	4596.26
7	5	208	11.88	-0.25	11.48	0.14	2.16	258.50	-3221.94	-3169.98	206.54	422.09
7	5	215	19.75	-3.71	18.75	-2.71	4.74	1926.85	-8715.22	-7993.98	1205.62	2674.93
7	5	216	17.91	-0.48	15.38	2.05	6.34	117.27	-3896.19	-3819.41	40.48	-549.79
7	5	223	25.18	-4.42	19.47	1.29	11.68	643.22	-9111.04	-9098.17	630.35	354.04
7	5	224	23.47	-0.69	16.31	6.47	11.03	-6.66	-4523.80	-3872.95	-657.51	-1586.30
7	5	231	30.00	-5.09	15.97	8.93	17.19	-686.97	-9252.93	-8907.00	-1032.89	-1686.27
7	5	232	28.35	-0.87	14.18	13.29	14.60	-111.84	-5077.39	-3341.55	-1847.68	-2367.75
7	5	239	33.96	-5.67	9.44	18.86	19.25	-1989.57	-9158.42	-7738.85	-3409.15	-2856.84
7	5	240	32.35	-1.03	9.83	21.50	15.64	-196.36	-5533.47	-2410.90	-3318.93	-2629.65
7	5	247	36.91	-6.09	2.03	28.79	16.83	-3165.68	-8880.04	-6183.49	-5862.23	-2852.66
7	5	248	35.33	-1.14	4.75	29.44	13.42	-258.31	-5873.25	-1387.12	-4744.43	-2250.34
7	5	255	38.72	-6.35	-3.87	36.24	10.27	-4057.87	-8540.65	-4903.58	-7694.93	-1753.83
7	5	256	37.16	-1.22	0.63	35.32	8.21	-296.15	-6082.79	-602.04	-5776.89	-1294.81

M_G	**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
		-47.66	-21.85	-47.51	-27.50		-1.379e+04	-1.352e+04	-1.196e+04	-9044.10
	60.28		30.13	60.16	29.78	1.050e+04		1.050e+04	7071.07	9044.10

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**
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
8	2	1	2512.53	1246.90	1246.94	2512.49	-6.96	-3.261e+05	-5.632e+05	-5.629e+05	-3.264e+05	-8421.62
8	2	4	2495.32	1200.52	1203.88	2491.95	-65.94	-3.195e+05	-5.552e+05	-5.525e+05	-3.222e+05	-2.500e+04
8	2	18	2444.69	1062.79	1079.32	2428.16	-150.25	-2.961e+05	-5.354e+05	-5.277e+05	-3.038e+05	-4.233e+04
8	2	26	2353.34	848.26	900.68	2300.92	-275.95	-2.571e+05	-5.042e+05	-4.877e+05	-2.737e+05	-6.171e+04
8	2	34	2214.92	575.05	704.23	2085.74	-441.76	-2.050e+05	-4.620e+05	-4.316e+05	-2.354e+05	-8.301e+04
8	2	42	2026.99	261.40	523.89	1764.50	-628.13	-1.424e+05	-4.095e+05	-3.591e+05	-1.929e+05	-1.046e+05
8	2	50	1791.54	-75.40	381.16	1334.98	-802.45	-7.243e+04	-3.483e+05	-2.717e+05	-1.490e+05	-1.235e+05
8	2	58	1514.44	-419.22	279.56	815.65	-928.93	1769.23	-2.801e+05	-1.727e+05	-1.057e+05	-1.369e+05
8	2	66	1204.68	-755.21	205.35	244.12	-979.75	7.708e+04	-2.073e+05	-6.716e+04	-6.309e+04	-1.422e+05
8	2	74	873.78	-1070.05	134.09	-330.36	-943.76	1.505e+05	-1.327e+05	3.866e+04	-2.083e+04	-1.385e+05
8	2	78	793.15	36.75	64.59	765.31	142.41	-6231.22	-2.078e+05	-1.415e+04	-1.999e+05	-3.915e+04
8	2	82	535.18	-1352.37	40.90	-858.10	-829.86	2.194e+05	-5.918e+04	1.386e+05	2.166e+04	-1.264e+05
8	2	90	203.84	-1593.28	-89.25	-1300.19	-663.95	2.813e+05	1.013e+04	2.273e+05	6.415e+04	-1.083e+05
8	2	98	-104.06	-1786.97	-254.76	-1636.26	-480.53	3.344e+05	7.207e+04	3.013e+05	1.052e+05	-8.708e+04
8	2	106	-371.35	-1931.30	-436.37	-1866.29	-311.76	3.772e+05	1.236e+05	3.590e+05	1.419e+05	-6.548e+04
8	2	114	-580.30	-2028.23	-602.44	-2006.10	-177.67	4.089e+05	1.621e+05	4.003e+05	1.707e+05	-4.521e+04
8	2	122	-713.81	-2083.07	-718.59	-2078.29	-80.77	4.289e+05	1.853e+05	4.260e+05	1.882e+05	-2.656e+04
8	2	130	-758.67	-2101.82	-758.70	-2101.78	-6.96	4.370e+05	1.918e+05	4.367e+05	1.921e+05	-8421.62
8	2	138	-709.91	-2086.98	-713.27	-2083.62	67.92	4.329e+05	1.813e+05	4.324e+05	1.818e+05	1.100e+04

8	2	146	-573.08	-2035.46	-592.60	-2015.93	167.83	4.165e+05	1.545e+05	4.122e+05	1.588e+05	3.330e+04
8	2	154	-361.64	-1941.02	-423.52	-1879.14	306.44	3.879e+05	1.130e+05	3.746e+05	1.263e+05	5.903e+04
8	2	162	-92.60	-1798.43	-240.84	-1650.18	480.53	3.474e+05	5.904e+04	3.182e+05	8.831e+04	8.708e+04
8	2	170	216.46	-1605.90	-76.40	-1313.04	669.27	2.961e+05	-4626.53	2.428e+05	4.859e+04	1.148e+05
8	2	178	548.52	-1365.72	50.74	-867.94	839.70	2.353e+05	-7.509e+04	1.505e+05	9745.76	1.383e+05
8	2	186	887.54	-1083.81	139.42	-335.69	956.62	1.671e+05	-1.493e+05	4.511e+04	-2.728e+04	1.540e+05
8	2	194	1218.59	-769.12	205.35	244.12	993.67	9.392e+04	-2.242e+05	-6.716e+04	-6.309e+04	1.590e+05
8	2	202	1528.26	-433.05	274.24	820.98	941.78	1.844e+04	-2.968e+05	-1.791e+05	-9.921e+04	1.525e+05
8	2	210	1805.03	-88.89	371.32	1344.82	812.29	-5.637e+04	-3.644e+05	-2.836e+05	-1.371e+05	1.355e+05
8	2	218	2039.83	248.56	511.03	1777.35	633.46	-1.275e+05	-4.245e+05	-3.747e+05	-1.773e+05	1.110e+05
8	2	226	2226.68	563.29	690.32	2099.65	441.76	-1.917e+05	-4.753e+05	-4.484e+05	-2.186e+05	8.301e+04
8	2	234	2363.41	838.19	887.82	2313.78	270.62	-2.462e+05	-5.151e+05	-5.033e+05	-2.581e+05	5.527e+04
8	2	242	2452.25	1055.22	1069.48	2438.00	140.42	-2.882e+05	-5.433e+05	-5.396e+05	-2.919e+05	3.042e+04
8	2	250	2499.44	1196.39	1198.56	2497.28	53.08	-3.154e+05	-5.593e+05	-5.589e+05	-3.158e+05	9436.35
8	2	257	1462.59	690.96	690.96	1462.59	0.20	-2.004e+05	-3.026e+05	-3.025e+05	-2.004e+05	-1127.30
8	2	258	1448.00	672.92	678.93	1441.99	-67.99	-1.963e+05	-2.994e+05	-2.988e+05	-1.969e+05	-7713.10
8	2	259	1404.46	619.84	644.57	1379.73	-137.09	-1.839e+05	-2.906e+05	-2.884e+05	-1.861e+05	-1.527e+04
8	2	260	1332.98	534.41	592.08	1275.31	-206.70	-1.638e+05	-2.762e+05	-2.705e+05	-1.694e+05	-2.448e+04
8	2	261	1235.39	420.84	527.14	1129.09	-274.39	-1.374e+05	-2.562e+05	-2.446e+05	-1.489e+05	-3.524e+04
8	2	262	1114.43	284.50	455.47	943.46	-335.66	-1.059e+05	-2.310e+05	-2.102e+05	-1.267e+05	-4.658e+04
8	2	263	973.85	131.53	381.42	723.96	-384.76	-7.090e+04	-2.014e+05	-1.681e+05	-1.043e+05	-5.693e+04
8	2	264	818.33	-31.47	307.24	479.62	-416.07	-3.394e+04	-1.683e+05	-1.197e+05	-8.256e+04	-6.457e+04
8	2	265	653.39	-197.78	233.17	222.43	-425.55	3463.66	-1.329e+05	-6.770e+04	-6.169e+04	-6.810e+04
8	2	266	485.20	-360.84	158.29	-33.94	-411.96	3.987e+04	-9.639e+04	-1.523e+04	-4.129e+04	-6.687e+04
8	2	267	320.35	-514.51	81.78	-275.95	-377.17	7.392e+04	-6.037e+04	3.444e+04	-2.089e+04	-6.118e+04
8	2	268	165.60	-653.32	4.24	-491.96	-325.73	1.045e+05	-2.633e+04	7.855e+04	-419.44	-5.213e+04
8	2	269	27.60	-772.62	-71.54	-673.48	-263.64	1.305e+05	4218.21	1.152e+05	1.955e+04	-4.125e+04
8	2	270	-87.41	-868.77	-140.58	-815.60	-196.78	1.514e+05	2.981e+04	1.434e+05	3.775e+04	-3.003e+04
8	2	271	-173.98	-939.11	-196.56	-916.52	-129.49	1.666e+05	4.913e+04	1.632e+05	5.247e+04	-1.952e+04
8	2	272	-227.80	-981.91	-233.25	-976.46	-63.88	1.759e+05	6.109e+04	1.750e+05	6.197e+04	-1.001e+04
8	2	273	-246.10	-996.24	-246.10	-996.24	0.20	1.792e+05	6.498e+04	1.792e+05	6.499e+04	-1127.30
8	2	274	-227.89	-981.82	-233.41	-976.30	64.26	1.764e+05	6.056e+04	1.759e+05	6.110e+04	7929.99
8	2	275	-174.15	-938.93	-196.85	-916.24	129.78	1.676e+05	4.812e+04	1.648e+05	5.087e+04	1.793e+04
8	2	276	-87.66	-868.53	-140.96	-815.22	196.93	1.528e+05	2.840e+04	1.455e+05	3.567e+04	2.917e+04
8	2	277	27.30	-772.32	-71.95	-673.07	263.64	1.322e+05	2494.22	1.174e+05	1.729e+04	4.125e+04
8	2	278	165.24	-652.96	3.86	-491.59	325.57	1.064e+05	-2.828e+04	8.064e+04	-2502.42	5.299e+04
8	2	279	319.96	-514.13	81.49	-275.66	376.88	7.604e+04	-6.249e+04	3.604e+04	-2.248e+04	6.278e+04
8	2	280	484.79	-360.44	158.14	-33.78	411.58	4.208e+04	-9.860e+04	-1.437e+04	-4.215e+04	6.895e+04
8	2	281	652.98	-197.38	233.17	222.43	425.14	5716.14	-1.351e+05	-6.770e+04	-6.169e+04	7.035e+04
8	2	282	817.93	-31.07	307.39	479.46	415.69	-3.170e+04	-1.706e+05	-1.206e+05	-8.169e+04	6.665e+04
8	2	283	973.47	131.91	381.71	723.67	384.47	-6.873e+04	-2.036e+05	-1.697e+05	-1.027e+05	5.853e+04
8	2	284	1114.08	284.85	455.85	943.08	335.50	-1.038e+05	-2.331e+05	-2.123e+05	-1.246e+05	4.744e+04
8	2	285	1235.09	421.14	527.55	1128.68	274.39	-1.355e+05	-2.580e+05	-2.468e+05	-1.467e+05	3.524e+04
8	2	286	1332.74	534.65	592.45	1274.94	206.86	-1.623e+05	-2.777e+05	-2.726e+05	-1.674e+05	2.362e+04
8	2	287	1404.29	620.01	644.86	1379.44	137.38	-1.828e+05	-2.917e+05	-2.900e+05	-1.845e+05	1.368e+04
8	2	288	1447.91	673.01	679.09	1441.83	68.37	-1.957e+05	-3.000e+05	-2.997e+05	-1.961e+05	5630.12
8	2	290	926.69	393.58	393.58	926.69	3.95e-02	-1.603e+05	-1.672e+05	-1.603e+05	-1.672e+05	-301.54
8	2	291	1229.41	486.04	486.04	1229.41	0.54	-1.797e+05	-2.373e+05	-2.373e+05	-1.797e+05	-659.45
8	2	292	1215.08	476.04	486.26	1204.86	-86.29	-1.760e+05	-2.356e+05	-2.355e+05	-1.760e+05	-1774.18
8	2	293	917.09	386.47	394.02	909.53	-62.87	-1.541e+05	-1.697e+05	-1.612e+05	-1.625e+05	7797.13
8	2	294	1172.60	446.46	485.74	1133.33	-164.24	-1.648e+05	-2.304e+05	-2.301e+05	-1.651e+05	-4578.63
8	2	295	888.66	365.37	394.53	859.50	-120.04	-1.418e+05	-1.707e+05	-1.632e+05	-1.493e+05	1.270e+04
8	2	296	1104.01	398.04	480.22	1021.84	-226.41	-1.473e+05	-2.213e+05	-2.199e+05	-1.487e+05	-1.023e+04
8	2	297	842.61	330.99	392.81	780.79	-166.75	-1.262e+05	-1.680e+05	-1.641e+05	-1.301e+05	1.219e+04
8	2	298	1012.62	331.96	464.27	880.31	-269.36	-1.249e+05	-2.080e+05	-2.035e+05	-1.294e+05	-1.884e+04
8	2	299	780.87	284.49	385.80	679.55	-200.06	-1.082e+05	-1.614e+05	-1.608e+05	-1.088e+05	5732.86
8	2	300	902.88	249.82	433.28	719.42	-293.52	-9.889e+04	-1.904e+05	-1.798e+05	-1.095e+05	-2.936e+04
8	2	301	706.05	227.42	370.58	562.89	-219.14	-8.842e+04	-1.512e+05	-1.507e+05	-8.887e+04	-5322.51
8	2	302	780.14	153.65	385.15	548.63	-302.39	-7.059e+04	-1.690e+05	-1.487e+05	-9.096e+04	-3.988e+04
8	2	303	621.29	161.71	345.20	437.80	-225.08	-6.766e+04	-1.377e+05	-1.326e+05	-7.277e+04	-1.823e+04
8	2	304	650.31	45.94	321.39	374.86	-301.00	-4.120e+04	-1.445e+05	-1.113e+05	-7.441e+04	-4.825e+04
8	2	305	530.15	89.58	309.36	310.37	-220.28	-4.668e+04	-1.216e+05	-1.070e+05	-6.129e+04	-2.968e+04
8	2	306	519.41	-70.19	246.94	202.28	-293.96	-1.191e+04	-1.178e+05	-7.007e+04	-5.960e+04	-5.267e+04
8	2	307	436.40	13.54	264.51	185.42	-207.70	-2.626e+04	-1.034e+05	-7.607e+04	-5.356e+04	-3.687e+04
8	2	308	393.03	-190.84	169.10	33.10	-283.91	1.619e+04	-8.979e+04	-2.801e+04	-4.559e+04	-5.226e+04
8	2	309	343.83	-63.69	213.64	66.50	-190.02	-7154.18	-8.386e+04	-4.348e+04	-4.753e+04	-3.830e+04
8	2	310	275.89	-311.23	95.65	-130.99	-270.81	4.208e+04	-6.177e+04	1.161e+04	-3.130e+04	-4.728e+04
8	2	311	256.08	-139.21	160.66	-43.79	-169.15	9965.36	-6.384e+04	-1.294e+04	-4.094e+04	-3.415e+04
8	2	312	171.67	-425.93	33.03	-287.29	-252.25	6.491e+04	-3.492e+04	4.611e+04	-1.612e+04	-3.903e+04
8	2	313	176.38	-209.99	109.62	-143.22	-146.07	2.453e+04	-4.418e+04	1.248e+04	-3.214e+04	-2.612e+04
8	2	314	83.13	-529.27	-15.05	-431.08	-224.70	8.401e+04	-1.047e+04	7.382e+04	-278.47	-2.931e+04
8	2	315	107.54	-273.03	64.13	-229.62	-120.97	3.610e+04	-2.576e+04	3.115e+04	-2.081e+04	-1.678e+04
8	2	316	12.28	-615.89	-48.09	-555.52	-185.14	9.896e+04	1.032e+04	9.424e+04	1.504e+04	-1.990e+04
8	2	317	51.77	-325.49	26.86	-300.59	-93.68	4.449e+04	-9528.28	4.307e+04	-8117.41	-8614.91
8	2	318	-39.40	-681.23	-68.10	-652.52	-132.66	1.096e+05	2.625e+04	1.078e+05	2.801e+04	-1.198e+04
8	2	319	10.76	-364.92	-0.52	-353.64	-64.12	4.976e+04	3489.05	4.954e+04	3714.07	-3218.91
8	2	320	-70.86	-721.82	-78.30	-714.38	-69.19	1.159e+05	3.626e+04	1.155e+05	3.668e+04	-5779.44

8	2	321	-14.30	-389.38	-17.16	-386.52	-32.61	5.241e+04	1.210e+04	5.240e+04	1.212e+04	-819.19
8	2	322	-81.48	-735.53	-81.48	-735.53	0.54	1.181e+05	3.957e+04	1.181e+05	3.957e+04	-659.44
8	2	323	-22.74	-397.67	-22.74	-397.67	3.95e-02	5.323e+04	1.508e+04	5.323e+04	1.509e+04	-301.55
8	2	324	-71.05	-721.63	-78.71	-713.96	70.19	1.163e+05	3.591e+04	1.160e+05	3.617e+04	4560.94
8	2	325	-14.32	-389.36	-17.19	-386.49	32.68	5.263e+04	1.188e+04	5.263e+04	1.189e+04	262.01
8	2	326	-39.77	-680.85	-68.86	-651.76	133.42	1.102e+05	2.561e+04	1.088e+05	2.708e+04	1.105e+04
8	2	327	10.73	-364.88	-0.58	-353.58	64.17	5.013e+04	3121.14	4.996e+04	3287.62	2792.46
8	2	328	11.72	-615.33	-49.08	-554.53	185.56	9.983e+04	9446.63	9.546e+04	1.382e+04	1.940e+04
8	2	329	51.72	-325.45	26.78	-300.51	93.71	4.494e+04	-9985.60	4.363e+04	-8674.59	8384.11
8	2	330	82.40	-528.54	-16.13	-430.01	224.70	8.505e+04	-1.151e+04	7.514e+04	-1597.36	2.931e+04
8	2	331	107.48	-272.97	64.05	-229.54	120.97	3.661e+04	-2.627e+04	3.176e+04	-2.142e+04	1.678e+04
8	2	332	170.79	-425.05	32.04	-286.30	251.84	6.606e+04	-3.607e+04	4.733e+04	-1.734e+04	3.953e+04
8	2	333	176.31	-209.92	109.55	-143.15	146.04	2.506e+04	-4.472e+04	1.304e+04	-3.269e+04	2.635e+04
8	2	334	274.89	-310.24	94.89	-130.23	270.05	4.332e+04	-6.301e+04	1.254e+04	-3.224e+04	4.822e+04
8	2	335	256.00	-139.13	160.60	-43.73	169.10	1.052e+04	-6.440e+04	-1.252e+04	-4.136e+04	3.457e+04
8	2	336	391.97	-189.78	168.68	33.51	282.91	1.747e+04	-9.108e+04	-2.751e+04	-4.610e+04	5.347e+04
8	2	337	343.75	-63.61	213.61	66.53	189.94	-6585.05	-8.442e+04	-4.325e+04	-4.776e+04	3.885e+04
8	2	338	518.34	-69.12	246.94	202.28	292.88	-1.059e+04	-1.191e+05	-7.007e+04	-5.960e+04	5.399e+04
8	2	339	436.32	13.62	264.51	185.42	207.62	-2.568e+04	-1.039e+05	-7.607e+04	-5.356e+04	3.748e+04
8	2	340	649.28	46.97	321.80	374.45	300.00	-3.989e+04	-1.458e+05	-1.118e+05	-7.390e+04	4.947e+04
8	2	341	530.07	89.66	309.39	310.34	220.21	-4.609e+04	-1.221e+05	-1.072e+05	-6.106e+04	3.024e+04
8	2	342	779.20	154.58	385.92	547.87	301.63	-6.929e+04	-1.704e+05	-1.496e+05	-9.003e+04	4.082e+04
8	2	343	621.22	161.78	345.26	437.74	225.02	-6.707e+04	-1.383e+05	-1.330e+05	-7.234e+04	1.865e+04
8	2	344	902.07	250.63	434.27	718.43	293.10	-9.763e+04	-1.917e+05	-1.810e+05	-1.083e+05	2.986e+04
8	2	345	705.99	227.48	370.65	562.82	219.11	-8.783e+04	-1.518e+05	-1.513e+05	-8.832e+04	5553.30
8	2	346	1011.97	332.61	465.35	879.23	269.36	-1.237e+05	-2.092e+05	-2.048e+05	-1.281e+05	1.884e+04
8	2	347	780.82	284.54	385.88	679.48	200.06	-1.076e+05	-1.620e+05	-1.614e+05	-1.082e+05	-5732.86
8	2	348	1103.51	398.54	481.21	1020.84	226.82	-1.462e+05	-2.224e+05	-2.211e+05	-1.475e+05	9729.93
8	2	349	842.57	331.03	392.88	780.71	166.78	-1.256e+05	-1.686e+05	-1.646e+05	-1.296e+05	-1.242e+04
8	2	350	1172.27	446.80	486.50	1132.57	165.00	-1.639e+05	-2.312e+05	-2.310e+05	-1.641e+05	3646.04
8	2	351	888.63	365.39	394.59	859.44	120.10	-1.412e+05	-1.713e+05	-1.637e+05	-1.488e+05	-1.313e+04
8	2	352	1214.91	476.21	486.67	1204.45	87.28	-1.755e+05	-2.360e+05	-2.360e+05	-1.755e+05	555.69
8	2	353	917.07	386.48	394.05	909.50	62.94	-1.535e+05	-1.702e+05	-1.615e+05	-1.623e+05	-8354.31
8	2	354	800.14	37.03	37.03	800.14	-8.94e-04	-6233.37	-2.095e+05	-6233.37	-2.095e+05	-1.73
8	2	355	777.04	289.27	289.27	777.04	7.51e-03	-1.003e+05	-1.702e+05	-1.003e+05	-1.702e+05	-136.93
8	2	356	769.32	285.10	294.58	759.84	-67.08	-9.888e+04	-1.689e+05	-1.037e+05	-1.641e+05	1.780e+04
8	2	357	793.15	36.75	64.59	765.31	-142.42	-6231.24	-2.078e+05	-1.414e+04	-1.999e+05	3.915e+04
8	2	358	746.45	272.73	308.85	710.33	-125.72	-9.463e+04	-1.652e+05	-1.128e+05	-1.470e+05	3.085e+04
8	2	359	772.44	35.95	140.36	668.03	-256.90	-6224.89	-2.030e+05	-3.591e+04	-1.733e+05	7.043e+04
8	2	360	709.36	252.59	327.54	634.40	-169.17	-8.779e+04	-1.589e+05	-1.240e+05	-1.227e+05	3.556e+04
8	2	361	738.82	34.64	245.44	528.02	-322.50	-6214.70	-1.952e+05	-6.618e+04	-1.352e+05	8.794e+04
8	2	362	659.55	225.38	344.44	540.48	-193.70	-7.877e+04	-1.504e+05	-1.327e+05	-9.645e+04	3.087e+04
8	2	363	693.58	32.88	354.16	372.29	-330.22	-6201.13	-1.846e+05	-9.766e+04	-9.314e+04	8.917e+04
8	2	364	599.05	192.02	353.24	437.83	-199.07	-6.805e+04	-1.396e+05	-1.346e+05	-7.315e+04	1.841e+04
8	2	365	638.44	30.73	440.95	228.23	-284.63	-6185.34	-1.717e+05	-1.231e+05	-5.484e+04	7.542e+04
8	2	366	530.34	153.65	349.10	334.90	-188.21	-5.618e+04	-1.271e+05	-1.270e+05	-5.623e+04	1869.32
8	2	367	575.54	28.29	486.84	116.99	-201.67	-6168.09	-1.571e+05	-1.370e+05	-2.622e+04	5.122e+04
8	2	368	456.28	111.54	329.78	238.04	-166.15	-4.376e+04	-1.130e+05	-1.099e+05	-4.680e+04	-1.418e+04
8	2	369	507.28	25.64	483.83	49.09	-103.65	-6150.77	-1.411e+05	-1.371e+05	-1.016e+04	2.290e+04
8	2	370	379.94	67.05	296.03	150.97	-138.62	-3.139e+04	-9.774e+04	-8.558e+04	-4.355e+04	-2.567e+04
8	2	371	436.29	22.89	435.89	23.29	-12.82	-6134.91	-1.246e+05	-1.245e+05	-6221.35	-3198.59
8	2	372	304.55	21.62	251.24	74.93	-110.64	-1.965e+04	-8.189e+04	-5.804e+04	-4.350e+04	-3.026e+04
8	2	373	365.29	20.15	356.54	28.90	54.25	-6122.34	-1.080e+05	-1.028e+05	-1.129e+04	-2.236e+04
8	2	374	233.25	-23.26	200.47	9.52	-85.64	-9082.53	-6.592e+04	-3.183e+04	-4.318e+04	-2.785e+04
8	2	375	297.00	17.53	264.09	50.44	90.08	-6115.08	-9.208e+04	-7.733e+04	-2.087e+04	-3.241e+04
8	2	376	168.92	-66.01	149.27	-46.35	-65.05	-166.59	-5.039e+04	-1.066e+04	-3.990e+04	-2.042e+04
8	2	377	234.04	15.14	176.13	73.06	96.56	-6115.34	-7.739e+04	-5.290e+04	-3.061e+04	-3.385e+04
8	2	378	113.96	-104.89	102.55	-93.49	-48.64	6707.94	-3.583e+04	3548.24	-3.267e+04	-1.115e+04
8	2	379	178.82	13.08	105.02	86.89	82.37	-6125.13	-6.450e+04	-3.305e+04	-3.758e+04	-2.910e+04
8	2	380	70.06	-138.02	63.94	-131.90	-35.15	1.127e+04	-2.281e+04	1.096e+04	-2.249e+04	-3269.74
8	2	381	133.44	11.46	55.85	89.05	58.69	-6145.23	-5.392e+04	-1.927e+04	-4.079e+04	-2.133e+04
8	2	382	38.27	-163.46	35.58	-160.76	-23.14	1.345e+04	-1.192e+04	1.340e+04	-1.187e+04	1135.61
8	2	383	99.64	10.33	27.07	82.90	34.85	-6172.70	-4.604e+04	-1.117e+04	-4.104e+04	-1.320e+04
8	2	384	19.07	-179.50	18.40	-178.83	-11.57	1.361e+04	-4033.90	1.344e+04	-3865.39	1716.17
8	2	385	78.73	9.73	13.40	75.06	15.48	-6198.48	-4.117e+04	-7301.63	-4.007e+04	-6112.76
8	2	386	12.66	-184.99	12.66	-184.99	7.51e-03	1.322e+04	-924.56	1.322e+04	-923.23	-136.93
8	2	387	71.64	9.56	9.56	71.64	-8.89e-04	-6209.34	-3.953e+04	-6209.34	-3.953e+04	-1.73
8	2	388	19.07	-179.50	18.39	-178.82	11.58	1.377e+04	-4188.80	1.355e+04	-3970.19	-1969.19
8	2	389	78.73	9.73	13.40	75.06	-15.48	-6198.36	-4.117e+04	-7300.30	-4.007e+04	6109.56
8	2	390	38.26	-163.45	35.57	-160.75	23.16	1.367e+04	-1.213e+04	1.360e+04	-1.207e+04	-1329.26
8	2	391	99.64	10.33	27.07	82.90	-34.85	-6172.49	-4.604e+04	-1.117e+04	-4.104e+04	1.320e+04
8	2	392	70.05	-138.01	63.93	-131.88	35.16	1.150e+04	-2.304e+04	1.121e+04	-2.275e+04	3164.94
8	2	393	133.44	11.46	55.85	89.05	-58.69	-6144.97	-5.392e+04	-1.927e+04	-4.079e+04	2.132e+04
8	2	394	113.94	-104.88	102.54	-93.47	48.64	6941.60	-3.607e+04	3822.11	-3.295e+04	1.115e+04
8	2	395	178.82	13.08	105.02	86.89	-82.37	-6124.86	-6.450e+04	-3.305e+04	-3.758e+04	2.910e+04
8	2	396	168.91	-65.99	149.25	-46.34	65.05	66.34	-5.062e+04	-1.040e+04	-4.015e+04	2.052e+04
8	2	397	234.04	15.14	176.13	73.06	-96.56	-6115.09	-7.739e+04	-5.289e+04	-3.061e+04	3.385e+04

8	2	398	233.23	-23.25	200.46	9.53	85.63	-8853.71	-6.615e+04	-3.163e+04	-4.337e+04	2.804e+04
8	2	399	297.00	17.53	264.09	50.44	-90.07	-6114.84	-9.208e+04	-7.733e+04	-2.087e+04	3.241e+04
8	2	400	304.53	21.63	251.23	74.94	110.63	-1.943e+04	-8.211e+04	-5.793e+04	-4.361e+04	3.051e+04
8	2	401	365.29	20.15	356.54	28.90	-54.24	-6122.13	-1.080e+05	-1.028e+05	-1.129e+04	2.236e+04
8	2	402	379.93	67.06	296.03	150.97	138.60	-3.118e+04	-9.795e+04	-8.558e+04	-4.355e+04	2.594e+04
8	2	403	436.29	22.89	435.89	23.29	12.82	-6134.73	-1.246e+05	-1.245e+05	-6221.35	3202.05
8	2	404	456.27	111.55	329.78	238.04	166.14	-4.356e+04	-1.132e+05	-1.100e+05	-4.669e+04	1.443e+04
8	2	405	507.28	25.64	483.83	49.09	103.65	-6150.61	-1.411e+05	-1.371e+05	-1.015e+04	-2.290e+04
8	2	406	530.33	153.67	349.11	334.89	188.20	-5.600e+04	-1.272e+05	-1.272e+05	-5.604e+04	-1675.66
8	2	407	575.54	28.29	486.84	116.99	201.68	-6167.95	-1.571e+05	-1.370e+05	-2.622e+04	-5.122e+04
8	2	408	599.04	192.03	353.25	437.82	199.06	-6.788e+04	-1.398e+05	-1.348e+05	-7.289e+04	-1.831e+04
8	2	409	638.44	30.73	440.95	228.23	284.63	-6185.23	-1.717e+05	-1.231e+05	-5.484e+04	-7.542e+04
8	2	410	659.54	225.38	344.46	540.47	193.70	-7.863e+04	-1.505e+05	-1.329e+05	-9.618e+04	-3.087e+04
8	2	411	693.58	32.88	354.16	372.29	330.22	-6201.04	-1.846e+05	-9.767e+04	-9.314e+04	-8.917e+04
8	2	412	709.35	252.59	327.55	634.39	169.17	-8.768e+04	-1.590e+05	-1.243e+05	-1.225e+05	-3.566e+04
8	2	413	738.82	34.64	245.44	528.02	322.50	-6214.63	-1.952e+05	-6.618e+04	-1.352e+05	-8.794e+04
8	2	414	746.44	272.73	308.86	710.32	125.73	-9.455e+04	-1.652e+05	-1.130e+05	-1.468e+05	-3.105e+04
8	2	415	772.44	35.95	140.36	668.03	256.90	-6224.85	-2.030e+05	-3.591e+04	-1.733e+05	-7.043e+04
8	2	416	769.32	285.10	294.59	759.83	67.09	-9.885e+04	-1.690e+05	-1.038e+05	-1.640e+05	-1.805e+04
8	3	1	2187.17	1109.80	1109.84	2187.13	-6.96	-2.917e+05	-4.942e+05	-4.938e+05	-2.920e+05	-8419.96
8	3	4	2172.27	1070.22	1073.09	2169.41	-56.12	-2.863e+05	-4.870e+05	-4.845e+05	-2.889e+05	-2.239e+04
8	3	18	2129.04	952.11	965.99	2115.17	-127.03	-2.665e+05	-4.698e+05	-4.629e+05	-2.734e+05	-3.686e+04
8	3	26	2051.12	768.04	812.10	2007.06	-233.65	-2.333e+05	-4.429e+05	-4.285e+05	-2.477e+05	-5.299e+04
8	3	34	1932.95	533.61	642.62	1823.94	-375.04	-1.888e+05	-4.066e+05	-3.805e+05	-2.149e+05	-7.074e+04
8	3	42	1772.40	264.53	486.80	1550.13	-534.55	-1.353e+05	-3.616e+05	-3.187e+05	-1.782e+05	-8.875e+04
8	3	50	1571.15	-24.39	363.24	1183.52	-684.27	-7.539e+04	-3.091e+05	-2.442e+05	-1.403e+05	-1.047e+05
8	3	58	1334.22	-319.32	275.18	739.73	-793.47	-1.183e+04	-2.507e+05	-1.598e+05	-1.027e+05	-1.160e+05
8	3	66	1069.33	-607.54	210.98	250.81	-838.20	5.272e+04	-1.884e+05	-6.996e+04	-6.577e+04	-1.206e+05
8	3	74	786.34	-877.67	149.81	-241.14	-808.71	1.157e+05	-1.246e+05	2.024e+04	-2.915e+04	-1.176e+05
8	3	78	753.84	35.46	61.99	727.31	135.47	-6489.52	-2.011e+05	-1.410e+04	-1.934e+05	-3.772e+04
8	3	82	496.78	-1119.97	70.38	-693.57	-712.43	1.748e+05	-6.175e+04	1.055e+05	7563.83	-1.077e+05
8	3	90	213.48	-1326.83	-40.25	-1073.11	-571.35	2.280e+05	-2540.21	1.813e+05	4.411e+04	-9.262e+04
8	3	98	-49.69	-1493.30	-180.84	-1362.15	-414.87	2.736e+05	5.032e+04	2.448e+05	7.919e+04	-7.492e+04
8	3	106	-278.04	-1617.54	-335.07	-1560.51	-270.44	3.105e+05	9.425e+04	2.944e+05	1.104e+05	-5.685e+04
8	3	114	-456.38	-1701.20	-476.04	-1681.54	-155.20	3.380e+05	1.269e+05	3.302e+05	1.347e+05	-3.982e+04
8	3	122	-570.17	-1748.75	-574.50	-1744.42	-71.36	3.554e+05	1.465e+05	3.526e+05	1.493e+05	-2.399e+04
8	3	130	-608.19	-1765.21	-608.23	-1765.17	-6.96	3.626e+05	1.518e+05	3.623e+05	1.521e+05	-8419.95
8	3	138	-566.29	-1752.63	-569.18	-1749.74	58.51	3.594e+05	1.425e+05	3.590e+05	1.428e+05	8431.11
8	3	146	-449.19	-1708.39	-466.20	-1691.38	145.36	3.456e+05	1.193e+05	3.421e+05	1.228e+05	2.791e+04
8	3	154	-268.36	-1627.22	-322.22	-1573.36	265.12	3.212e+05	8.362e+04	3.100e+05	9.484e+04	5.041e+04
8	3	162	-38.27	-1504.72	-166.93	-1376.07	414.87	2.866e+05	3.732e+04	2.616e+05	6.235e+04	7.492e+04
8	3	170	226.07	-1339.42	-27.40	-1085.96	576.67	2.427e+05	-1.727e+04	1.969e+05	2.856e+04	9.906e+04
8	3	178	510.10	-1133.29	80.22	-703.41	722.27	1.907e+05	-7.764e+04	1.174e+05	-4343.77	1.196e+05
8	3	186	800.08	-891.41	155.14	-246.47	821.56	1.323e+05	-1.412e+05	2.668e+04	-3.559e+04	1.331e+05
8	3	194	1083.23	-621.45	210.98	250.81	852.11	6.955e+04	-2.053e+05	-6.996e+04	-6.577e+04	1.374e+05
8	3	202	1348.05	-333.15	269.85	745.05	806.32	4842.32	-2.674e+05	-1.663e+05	-9.628e+04	1.315e+05
8	3	210	1584.65	-37.89	353.41	1193.36	694.10	-5.932e+04	-3.252e+05	-2.561e+05	-1.284e+05	1.166e+05
8	3	218	1785.26	251.67	473.94	1562.99	539.88	-1.203e+05	-3.766e+05	-3.342e+05	-1.627e+05	9.520e+04
8	3	226	1944.73	521.83	628.71	1837.85	375.04	-1.755e+05	-4.199e+05	-3.973e+05	-1.981e+05	7.074e+04
8	3	234	2061.22	757.94	799.25	2019.91	228.32	-2.224e+05	-4.539e+05	-4.441e+05	-2.322e+05	4.654e+04
8	3	242	2136.64	944.52	956.15	2125.00	117.20	-2.586e+05	-4.777e+05	-4.748e+05	-2.615e+05	2.495e+04
8	3	250	2176.42	1066.08	1067.76	2174.73	43.26	-2.822e+05	-4.911e+05	-4.909e+05	-2.824e+05	6830.52
8	3	257	1292.61	629.89	629.89	1292.61	0.20	-1.842e+05	-2.706e+05	-2.705e+05	-1.842e+05	-1127.08
8	3	258	1280.10	614.45	619.64	1274.90	-58.56	-1.807e+05	-2.679e+05	-2.674e+05	-1.812e+05	-6542.18
8	3	259	1242.75	569.04	590.39	1221.39	-118.04	-1.700e+05	-2.603e+05	-2.585e+05	-1.719e+05	-1.280e+04
8	3	260	1181.43	495.95	545.71	1131.67	-177.87	-1.528e+05	-2.480e+05	-2.433e+05	-1.575e+05	-2.051e+04
8	3	261	1097.72	398.78	490.44	1006.07	-235.92	-1.301e+05	-2.309e+05	-2.213e+05	-1.397e+05	-2.962e+04
8	3	262	993.98	282.13	429.40	846.72	-288.35	-1.031e+05	-2.095e+05	-1.921e+05	-1.204e+05	-3.931e+04
8	3	263	873.42	151.25	366.26	658.40	-330.22	-7.302e+04	-1.842e+05	-1.562e+05	-1.010e+05	-4.825e+04
8	3	264	740.05	11.78	302.92	448.90	-356.75	-4.128e+04	-1.559e+05	-1.150e+05	-8.224e+04	-5.494e+04
8	3	265	598.61	-130.52	239.56	228.53	-364.52	-9154.85	-1.256e+05	-7.053e+04	-6.427e+04	-5.816e+04
8	3	266	454.38	-270.03	175.36	8.99	-352.52	2.211e+04	-9.449e+04	-2.561e+04	-4.677e+04	-5.733e+04
8	3	267	313.01	-401.50	109.63	-198.12	-322.42	5.137e+04	-6.374e+04	1.701e+04	-2.937e+04	-5.268e+04
8	3	268	180.30	-520.24	42.92	-382.85	-278.15	7.763e+04	-3.468e+04	5.493e+04	-1.198e+04	-4.510e+04
8	3	269	61.95	-622.28	-22.35	-537.98	-224.89	1.000e+05	-8611.18	8.651e+04	4922.54	-3.588e+04
8	3	270	-36.70	-704.51	-81.85	-659.36	-167.67	1.180e+05	1.321e+04	1.109e+05	2.029e+04	-2.630e+04
8	3	271	-110.96	-764.65	-130.11	-745.50	-110.24	1.311e+05	2.966e+04	1.281e+05	3.268e+04	-1.722e+04
8	3	272	-157.14	-801.24	-161.75	-796.62	-54.33	1.392e+05	3.983e+04	1.383e+05	4.064e+04	-8937.11
8	3	273	-172.84	-813.48	-172.84	-813.48	0.20	1.420e+05	4.311e+04	1.420e+05	4.312e+04	-1127.08
8	3	274	-157.23	-801.15	-161.91	-796.46	54.71	1.397e+05	3.931e+04	1.392e+05	3.978e+04	6854.55
8	3	275	-111.13	-764.48	-130.40	-745.21	110.53	1.321e+05	2.866e+04	1.297e+05	3.108e+04	1.563e+04
8	3	276	-36.95	-704.26	-82.23	-658.98	167.83	1.194e+05	1.181e+04	1.130e+05	1.820e+04	2.543e+04
8	3	277	61.64	-621.98	-22.76	-537.57	224.89	1.018e+05	-1.032e+04	8.876e+04	2668.39	3.588e+04
8	3	278	179.95	-519.88	42.54	-382.48	277.99	7.957e+04	-3.662e+04	5.701e+04	-1.406e+04	4.596e+04
8	3	279	312.62	-401.11	109.34	-197.83	322.13	5.348e+04	-6.584e+04	1.860e+04	-3.096e+04	5.427e+04
8	3	280	453.97	-269.63	175.20	9.14	352.14	2.432e+04	-9.670e+04	-2.474e+04	-4.763e+04	5.942e+04
8	3	281	598.20	-130.11	239.56	228.53	364.11	-6903.83	-1.279e+05	-7.053e+04	-6.427e+04	6.041e+04

8	3	282	739.65	12.18	303.08	448.75	356.37	-3.904e+04	-1.582e+05	-1.158e+05	-8.138e+04	5.702e+04
8	3	283	873.04	151.63	366.55	658.12	329.93	-7.084e+04	-1.864e+05	-1.578e+05	-9.941e+04	4.985e+04
8	3	284	993.63	282.48	429.77	846.34	288.19	-1.010e+05	-2.115e+05	-1.942e+05	-1.183e+05	4.018e+04
8	3	285	1097.42	399.08	490.85	1005.66	235.92	-1.283e+05	-2.328e+05	-2.236e+05	-1.375e+05	2.962e+04
8	3	286	1181.19	496.19	546.09	1131.29	178.03	-1.513e+05	-2.495e+05	-2.454e+05	-1.554e+05	1.965e+04
8	3	287	1242.58	569.20	590.68	1221.10	118.33	-1.689e+05	-2.614e+05	-2.601e+05	-1.703e+05	1.121e+04
8	3	288	1280.01	614.54	619.80	1274.75	58.93	-1.801e+05	-2.684e+05	-2.682e+05	-1.804e+05	4459.62
8	3	290	838.95	368.81	368.81	838.95	3.95e-02	-1.472e+05	-1.573e+05	-1.472e+05	-1.573e+05	-301.49
8	3	291	1095.24	450.88	450.88	1095.24	0.54	-1.669e+05	-2.143e+05	-2.143e+05	-1.669e+05	-659.32
8	3	292	1082.93	442.35	451.33	1073.95	-75.30	-1.637e+05	-2.128e+05	-2.128e+05	-1.637e+05	-1234.72
8	3	293	830.64	362.79	369.70	823.73	-56.43	-1.428e+05	-1.585e+05	-1.481e+05	-1.532e+05	7436.71
8	3	294	1046.42	417.15	451.69	1011.88	-143.32	-1.539e+05	-2.085e+05	-2.083e+05	-1.541e+05	-3300.59
8	3	295	806.06	344.95	371.60	779.41	-107.59	-1.327e+05	-1.589e+05	-1.503e+05	-1.413e+05	1.232e+04
8	3	296	987.43	375.90	448.18	915.15	-197.43	-1.388e+05	-2.009e+05	-1.999e+05	-1.398e+05	-7903.14
8	3	297	766.22	315.90	372.31	709.81	-149.07	-1.195e+05	-1.564e+05	-1.517e+05	-1.243e+05	1.235e+04
8	3	298	908.81	319.65	435.98	792.47	-234.54	-1.195e+05	-1.896e+05	-1.862e+05	-1.229e+05	-1.516e+04
8	3	299	712.77	276.64	368.90	620.51	-178.12	-1.042e+05	-1.507e+05	-1.497e+05	-1.052e+05	6997.29
8	3	300	814.33	249.77	410.90	653.20	-254.96	-9.707e+04	-1.747e+05	-1.663e+05	-1.055e+05	-2.421e+04
8	3	301	647.93	228.51	358.44	518.00	-193.95	-8.724e+04	-1.420e+05	-1.419e+05	-8.737e+04	-2613.38
8	3	302	708.58	168.01	370.93	505.66	-261.76	-7.270e+04	-1.566e+05	-1.400e+05	-8.929e+04	-3.340e+04
8	3	303	574.40	173.16	338.90	408.65	-197.56	-6.943e+04	-1.305e+05	-1.270e+05	-7.289e+04	-1.410e+04
8	3	304	596.63	76.50	317.16	355.96	-259.34	-4.741e+04	-1.357e+05	-1.082e+05	-7.487e+04	-4.086e+04
8	3	305	495.20	112.50	309.66	298.04	-191.27	-5.142e+04	-1.167e+05	-1.055e+05	-6.259e+04	-2.458e+04
8	3	306	483.66	-22.13	253.71	207.82	-251.85	-2.219e+04	-1.129e+05	-7.299e+04	-6.208e+04	-4.501e+04
8	3	307	413.61	48.65	271.76	190.50	-177.90	-3.387e+04	-1.012e+05	-7.924e+04	-5.579e+04	-3.154e+04
8	3	308	374.52	-124.59	186.76	63.17	-241.78	1993.31	-8.904e+04	-3.693e+04	-5.012e+04	-4.504e+04
8	3	309	332.92	-16.09	227.67	89.15	-160.17	-1.742e+04	-8.454e+04	-5.119e+04	-5.077e+04	-3.356e+04
8	3	310	273.32	-226.85	123.05	-76.58	-229.31	2.429e+04	-6.517e+04	-2816.24	-3.806e+04	-4.112e+04
8	3	311	256.28	-79.31	180.82	-3.85	-140.11	-2646.29	-6.751e+04	-2.459e+04	-4.556e+04	-3.069e+04
8	3	312	183.30	-324.34	68.19	-209.23	-212.56	4.398e+04	-4.230e+04	2.702e+04	-2.535e+04	-3.429e+04
8	3	313	186.60	-138.51	134.92	-86.83	-118.87	9967.27	-5.081e+04	-2153.84	-3.869e+04	-2.428e+04
8	3	314	106.84	-412.23	25.55	-330.94	-188.65	6.048e+04	-2.151e+04	5.112e+04	-1.215e+04	-2.607e+04
8	3	315	126.33	-191.22	93.36	-158.25	-96.86	2.007e+04	-3.522e+04	1.464e+04	-2.979e+04	-1.646e+04
8	3	316	45.67	-485.96	-4.22	-436.07	-155.03	7.343e+04	-3845.02	6.899e+04	593.85	-1.798e+04
8	3	317	77.48	-235.08	58.85	-216.45	-74.00	2.749e+04	-2.155e+04	2.565e+04	-1.971e+04	-9322.18
8	3	318	1.08	-541.59	-22.61	-517.90	-110.87	8.266e+04	9665.10	8.096e+04	1.137e+04	-1.101e+04
8	3	319	41.55	-268.04	33.21	-259.70	-50.14	3.229e+04	-1.069e+04	3.187e+04	-1.027e+04	-4262.58
8	3	320	-26.07	-576.16	-32.20	-570.03	-57.74	8.821e+04	1.813e+04	8.779e+04	1.855e+04	-5408.95
8	3	321	19.59	-288.50	17.49	-286.40	-25.34	3.485e+04	-3598.37	3.478e+04	-3536.59	-1539.89
8	3	322	-35.24	-587.83	-35.24	-587.83	0.54	9.015e+04	2.091e+04	9.014e+04	2.092e+04	-659.32
8	3	323	12.19	-295.43	12.19	-295.43	3.95e-02	3.567e+04	-1169.67	3.567e+04	-1167.20	-301.49
8	3	324	-26.26	-575.97	-32.61	-569.62	58.73	8.854e+04	1.780e+04	8.829e+04	1.804e+04	4190.69
8	3	325	19.57	-288.48	17.46	-286.37	25.41	3.504e+04	-3792.23	3.501e+04	-3767.34	982.82
8	3	326	0.70	-541.21	-23.37	-517.14	111.64	8.329e+04	9039.06	8.189e+04	1.043e+04	1.008e+04
8	3	327	41.52	-268.01	33.15	-259.64	50.19	3.263e+04	-1.103e+04	3.229e+04	-1.069e+04	3836.21
8	3	328	45.11	-485.39	-5.21	-435.07	155.44	7.428e+04	-4701.49	7.021e+04	-624.40	1.748e+04
8	3	329	77.43	-235.03	58.78	-216.38	74.03	2.792e+04	-2.199e+04	2.620e+04	-2.027e+04	9091.44
8	3	330	106.10	-411.50	24.47	-329.87	188.65	6.151e+04	-2.253e+04	5.244e+04	-1.347e+04	2.607e+04
8	3	331	126.27	-191.15	93.28	-158.17	96.86	2.056e+04	-3.571e+04	1.524e+04	-3.039e+04	1.646e+04
8	3	332	182.41	-323.45	67.20	-208.24	212.15	4.513e+04	-4.345e+04	2.824e+04	-2.657e+04	3.479e+04
8	3	333	186.53	-138.44	134.84	-86.76	118.84	1.049e+04	-5.133e+04	-1596.77	-3.924e+04	2.452e+04
8	3	334	272.32	-225.85	122.29	-75.82	228.55	2.552e+04	-6.640e+04	-1883.82	-3.899e+04	4.205e+04
8	3	335	256.21	-79.23	180.76	-3.79	140.05	-2103.94	-6.805e+04	-2.417e+04	-4.598e+04	3.112e+04
8	3	336	373.45	-123.52	186.35	63.58	240.79	3272.93	-9.032e+04	-3.643e+04	-5.062e+04	4.626e+04
8	3	337	332.84	-16.01	227.64	89.18	160.10	-1.686e+04	-8.509e+04	-5.095e+04	-5.100e+04	3.411e+04
8	3	338	482.59	-21.06	253.71	207.82	250.78	-2.088e+04	-1.142e+05	-7.299e+04	-6.208e+04	4.633e+04
8	3	339	413.53	48.73	271.76	190.50	177.82	-3.330e+04	-1.017e+05	-7.924e+04	-5.579e+04	3.214e+04
8	3	340	595.60	77.52	317.57	355.55	258.35	-4.609e+04	-1.370e+05	-1.087e+05	-7.437e+04	4.208e+04
8	3	341	495.13	112.57	309.69	298.01	191.19	-5.085e+04	-1.173e+05	-1.057e+05	-6.236e+04	2.514e+04
8	3	342	707.65	168.93	371.69	504.89	261.00	-7.140e+04	-1.579e+05	-1.409e+05	-8.836e+04	3.434e+04
8	3	343	574.33	173.22	338.95	408.60	197.51	-6.886e+04	-1.311e+05	-1.274e+05	-7.246e+04	1.453e+04
8	3	344	813.53	250.57	411.89	652.21	254.55	-9.581e+04	-1.760e+05	-1.675e+05	-1.043e+05	2.471e+04
8	3	345	647.88	228.56	358.51	517.92	193.92	-8.666e+04	-1.426e+05	-1.424e+05	-8.681e+04	2844.13
8	3	346	908.16	320.30	437.06	791.39	234.54	-1.183e+05	-1.908e+05	-1.875e+05	-1.216e+05	1.516e+04
8	3	347	712.72	276.68	368.98	620.43	178.12	-1.036e+05	-1.513e+05	-1.503e+05	-1.046e+05	-6997.29
8	3	348	986.94	376.40	449.18	914.16	197.84	-1.378e+05	-2.020e+05	-2.011e+05	-1.386e+05	7398.52
8	3	349	766.18	315.94	372.39	709.73	149.10	-1.190e+05	-1.570e+05	-1.523e+05	-1.237e+05	-1.258e+04
8	3	350	1046.09	417.48	452.45	1011.12	144.08	-1.531e+05	-2.093e+05	-2.092e+05	-1.532e+05	2368.18
8	3	351	806.04	344.97	371.65	779.36	107.65	-1.322e+05	-1.595e+05	-1.507e+05	-1.409e+05	-1.275e+04
8	3	352	1082.76	442.52	451.74	1073.54	76.29	-1.632e+05	-2.133e+05	-2.133e+05	-1.632e+05	16.46
8	3	353	830.63	362.80	369.73	823.70	56.51	-1.423e+05	-1.590e+05	-1.484e+05	-1.529e+05	-7993.78
8	3	354	759.83	35.70	35.70	759.83	-8.90e-04	-6491.18	-2.025e+05	-6491.18	-2.025e+05	-1.73
8	3	355	716.15	273.57	273.57	716.15	7.51e-03	-9.399e+04	-1.617e+05	-9.399e+04	-1.617e+05	-136.91
8	3	356	709.46	270.07	279.06	700.47	-62.20	-9.279e+04	-1.605e+05	-9.721e+04	-1.561e+05	1.672e+04
8	3	357	753.84	35.46	61.99	727.31	-135.47	-6489.54	-2.011e+05	-1.410e+04	-1.934e+05	3.772e+04
8	3	358	689.65	259.70	293.97	655.38	-116.44	-8.925e+04	-1.572e+05	-1.058e+05	-1.406e+05	2.916e+04
8	3	359	736.10	34.78	134.53	636.35	-244.97	-6484.67	-1.969e+05	-3.512e+04	-1.683e+05	6.807e+04

8	3	360	657.49	242.83	314.00	586.32	-156.35	-8.355e+04	-1.517e+05	-1.167e+05	-1.186e+05	3.404e+04
8	3	361	707.30	33.66	235.97	504.99	-308.80	-6476.89	-1.902e+05	-6.460e+04	-1.321e+05	8.544e+04
8	3	362	614.25	220.10	333.22	501.13	-178.30	-7.602e+04	-1.441e+05	-1.256e+05	-9.459e+04	3.033e+04
8	3	363	668.54	32.16	342.59	358.11	-318.10	-6466.63	-1.812e+05	-9.575e+04	-9.188e+04	8.733e+04
8	3	364	561.64	192.32	345.50	408.47	-181.96	-6.705e+04	-1.348e+05	-1.287e+05	-7.314e+04	1.937e+04
8	3	365	621.31	30.33	430.41	221.22	-276.36	-6454.93	-1.701e+05	-1.217e+05	-5.489e+04	7.472e+04
8	3	366	501.74	160.51	345.97	316.28	-169.97	-5.709e+04	-1.238e+05	-1.235e+05	-5.738e+04	4368.42
8	3	367	567.42	28.24	481.15	114.51	-197.66	-6442.43	-1.576e+05	-1.372e+05	-2.682e+04	5.161e+04
8	3	368	436.93	125.80	332.10	230.63	-147.06	-4.666e+04	-1.115e+05	-1.097e+05	-4.845e+04	-1.063e+04
8	3	369	508.94	25.99	486.21	48.71	-102.26	-6430.36	-1.439e+05	-1.397e+05	-1.068e+04	2.381e+04
8	3	370	369.80	89.44	304.14	155.10	-118.73	-3.625e+04	-9.827e+04	-8.915e+04	-4.537e+04	-2.196e+04
8	3	371	448.11	23.65	447.83	23.93	-10.98	-6419.96	-1.297e+05	-1.297e+05	-6480.83	-2739.17
8	3	372	303.03	52.71	264.83	90.92	-90.03	-2.634e+04	-8.454e+04	-6.527e+04	-4.561e+04	-2.739e+04
8	3	373	387.28	21.32	377.18	31.42	59.96	-6412.65	-1.156e+05	-1.103e+05	-1.166e+04	-2.334e+04
8	3	374	239.33	16.90	218.65	37.58	-64.59	-1.741e+04	-7.075e+04	-4.199e+04	-4.617e+04	-2.659e+04
8	3	375	328.77	19.09	290.35	57.51	102.08	-6409.78	-1.019e+05	-8.608e+04	-2.223e+04	-3.551e+04
8	3	376	181.23	-16.71	170.78	-6.26	-44.27	-9830.04	-5.739e+04	-2.260e+04	-4.462e+04	-2.107e+04
8	3	377	274.82	17.07	203.57	88.32	115.27	-6412.50	-8.932e+04	-6.160e+04	-3.413e+04	-3.911e+04
8	3	378	130.98	-46.85	126.02	-41.89	-29.27	-3918.44	-4.494e+04	-8940.37	-3.992e+04	-1.345e+04
8	3	379	227.50	15.33	129.17	113.65	105.80	-6421.28	-7.828e+04	-4.042e+04	-4.429e+04	-3.588e+04
8	3	380	90.38	-72.22	88.21	-70.05	-18.66	144.47	-3.394e+04	-1104.55	-3.270e+04	-6404.47
8	3	381	188.63	13.93	73.57	128.99	82.83	-6435.36	-6.922e+04	-2.442e+04	-5.123e+04	-2.839e+04
8	3	382	60.70	-91.56	59.89	-90.76	-11.06	2376.54	-2.498e+04	2258.39	-2.486e+04	-1793.97
8	3	383	159.70	12.94	37.49	135.15	54.77	-6451.69	-6.248e+04	-1.393e+04	-5.500e+04	-1.905e+04
8	3	384	42.67	-103.73	42.49	-103.54	-5.17	3144.58	-1.886e+04	3144.52	-1.886e+04	-38.06
8	3	385	141.86	12.35	18.14	136.08	26.74	-6465.20	-5.832e+04	-8239.97	-5.655e+04	-9427.83
8	3	386	36.63	-107.88	36.63	-107.88	7.51e-03	3256.84	-1.664e+04	3255.90	-1.664e+04	-136.91
8	3	387	135.83	12.16	12.16	135.83	-8.89e-04	-6470.47	-5.692e+04	-6470.47	-5.692e+04	-1.73
8	3	388	42.67	-103.72	42.48	-103.54	5.18	3251.38	-1.897e+04	3249.30	-1.896e+04	-214.91
8	3	389	141.86	12.35	18.14	136.08	-26.75	-6465.13	-5.832e+04	-8238.65	-5.655e+04	9424.63
8	3	390	60.69	-91.56	59.88	-90.75	11.07	2544.79	-2.515e+04	2452.01	-2.506e+04	1600.36
8	3	391	159.70	12.94	37.49	135.15	-54.77	-6451.56	-6.248e+04	-1.393e+04	-5.500e+04	1.905e+04
8	3	392	90.37	-72.21	88.19	-70.04	18.66	340.60	-3.414e+04	-851.58	-3.295e+04	6299.68
8	3	393	188.63	13.93	73.57	128.99	-82.84	-6435.19	-6.922e+04	-2.442e+04	-5.123e+04	2.838e+04
8	3	394	130.96	-46.83	126.01	-41.88	29.27	-3710.88	-4.515e+04	-8666.56	-4.020e+04	1.345e+04
8	3	395	227.50	15.33	129.18	113.65	-105.80	-6421.09	-7.828e+04	-4.041e+04	-4.429e+04	3.588e+04
8	3	396	181.21	-16.70	170.76	-6.25	44.26	-9619.37	-5.760e+04	-2.234e+04	-4.488e+04	2.118e+04
8	3	397	274.82	17.07	203.57	88.32	-115.27	-6412.31	-8.932e+04	-6.160e+04	-3.413e+04	3.911e+04
8	3	398	239.32	16.91	218.64	37.59	64.58	-1.720e+04	-7.096e+04	-4.179e+04	-4.637e+04	2.678e+04
8	3	399	328.77	19.09	290.35	57.51	-102.08	-6409.60	-1.019e+05	-8.608e+04	-2.223e+04	3.551e+04
8	3	400	303.02	52.73	264.82	90.93	90.01	-2.614e+04	-8.474e+04	-6.516e+04	-4.572e+04	2.764e+04
8	3	401	387.28	21.32	377.18	31.42	-59.95	-6412.48	-1.156e+05	-1.103e+05	-1.166e+04	2.334e+04
8	3	402	369.78	89.46	304.14	155.10	118.71	-3.605e+04	-9.846e+04	-8.915e+04	-4.537e+04	2.224e+04
8	3	403	448.11	23.65	447.83	23.93	10.98	-6419.80	-1.297e+05	-1.297e+05	-6480.83	2742.63
8	3	404	436.92	125.81	332.11	230.63	147.04	-4.648e+04	-1.117e+05	-1.098e+05	-4.835e+04	1.088e+04
8	3	405	508.94	25.99	486.21	48.71	102.27	-6430.22	-1.439e+05	-1.397e+05	-1.068e+04	-2.381e+04
8	3	406	501.73	160.52	345.98	316.27	169.96	-5.693e+04	-1.239e+05	-1.237e+05	-5.719e+04	-4174.81
8	3	407	567.42	28.24	481.15	114.51	197.66	-6442.31	-1.576e+05	-1.372e+05	-2.681e+04	-5.161e+04
8	3	408	561.63	192.33	345.51	408.45	181.95	-6.690e+04	-1.349e+05	-1.289e+05	-7.288e+04	-1.927e+04
8	3	409	621.31	30.33	430.41	221.23	276.36	-6454.83	-1.701e+05	-1.217e+05	-5.489e+04	-7.471e+04
8	3	410	614.25	220.10	333.23	501.12	178.30	-7.589e+04	-1.443e+05	-1.258e+05	-9.432e+04	-3.033e+04
8	3	411	668.54	32.16	342.58	358.11	318.10	-6466.55	-1.812e+05	-9.576e+04	-9.188e+04	-8.733e+04
8	3	412	657.48	242.84	314.01	586.31	156.35	-8.346e+04	-1.518e+05	-1.169e+05	-1.183e+05	-3.415e+04
8	3	413	707.30	33.66	235.97	504.99	308.80	-6476.83	-1.902e+05	-6.460e+04	-1.321e+05	-8.544e+04
8	3	414	689.64	259.70	293.98	655.37	116.45	-8.918e+04	-1.572e+05	-1.060e+05	-1.404e+05	-2.936e+04
8	3	415	736.10	34.78	134.53	636.35	244.97	-6484.63	-1.969e+05	-3.512e+04	-1.683e+05	-6.807e+04
8	3	416	709.46	270.07	279.07	700.46	62.21	-9.276e+04	-1.606e+05	-9.731e+04	-1.560e+05	-1.697e+04
8	4	1	1786.67	933.15	933.17	1786.65	-4.62	-2.460e+05	-4.069e+05	-4.067e+05	-2.462e+05	-5589.10
8	4	4	1775.21	901.09	903.17	1773.13	-42.57	-2.415e+05	-4.015e+05	-3.997e+05	-2.433e+05	-1.669e+04
8	4	18	1741.33	806.06	816.50	1730.89	-98.25	-2.253e+05	-3.881e+05	-3.830e+05	-2.305e+05	-2.838e+04
8	4	26	1679.79	658.26	692.15	1645.90	-182.95	-1.986e+05	-3.668e+05	-3.559e+05	-2.096e+05	-4.156e+04
8	4	34	1586.06	470.26	555.27	1501.06	-296.01	-1.628e+05	-3.381e+05	-3.177e+05	-1.831e+05	-5.615e+04
8	4	42	1458.41	254.63	429.43	1283.61	-424.10	-1.198e+05	-3.023e+05	-2.684e+05	-1.537e+05	-7.101e+04
8	4	50	1298.17	23.22	329.72	991.68	-544.82	-7.179e+04	-2.605e+05	-2.087e+05	-1.236e+05	-8.421e+04
8	4	58	1109.38	-212.95	258.86	637.57	-633.47	-2.089e+04	-2.140e+05	-1.410e+05	-9.381e+04	-9.360e+04
8	4	66	898.22	-443.73	207.65	246.84	-670.69	3.076e+04	-1.643e+05	-6.881e+04	-6.469e+04	-9.749e+04
8	4	74	672.58	-660.03	159.41	-146.87	-648.47	8.114e+04	-1.133e+05	3736.82	-3.589e+04	-9.517e+04
8	4	78	685.26	32.77	56.95	661.08	123.27	-6381.27	-1.846e+05	-1.333e+04	-1.776e+05	-3.449e+04
8	4	82	441.68	-854.10	97.05	-509.47	-572.53	1.284e+05	-6.307e+04	7.231e+04	-7007.68	-8.712e+04
8	4	90	215.79	-1019.86	10.06	-814.12	-460.31	1.708e+05	-1.573e+04	1.333e+05	2.183e+04	-7.481e+04
8	4	98	5.98	-1153.32	-100.78	-1046.57	-335.21	2.073e+05	2.658e+04	1.842e+05	4.962e+04	-6.026e+04
8	4	106	-176.04	-1253.03	-222.66	-1206.41	-219.17	2.366e+05	6.181e+04	2.239e+05	7.449e+04	-4.536e+04
8	4	114	-318.20	-1320.21	-334.29	-1304.12	-125.97	2.584e+05	8.809e+04	2.524e+05	9.405e+04	-3.129e+04
8	4	122	-408.96	-1358.36	-412.46	-1354.85	-57.57	2.721e+05	1.039e+05	2.701e+05	1.060e+05	-1.827e+04
8	4	130	-439.46	-1371.38	-439.49	-1371.36	-4.62	2.776e+05	1.084e+05	2.774e+05	1.086e+05	-5589.10
8	4	138	-406.40	-1360.91	-408.93	-1358.39	49.04	2.747e+05	1.013e+05	2.743e+05	1.017e+05	7940.63
8	4	146	-313.46	-1324.95	-327.76	-1310.65	119.44	2.634e+05	8.306e+04	2.603e+05	8.615e+04	2.339e+04

8	4	154	-169.65	-1259.42	-214.13	-1214.94	215.63	2.437e+05	5.477e+04	2.343e+05	6.417e+04	4.108e+04
8	4	162	13.53	-1160.88	-91.54	-1055.80	335.21	2.159e+05	1.797e+04	1.954e+05	3.844e+04	6.026e+04
8	4	170	224.13	-1028.19	18.59	-822.65	463.84	1.806e+05	-2.549e+04	1.436e+05	1.150e+04	7.909e+04
8	4	178	450.51	-862.93	103.58	-516.00	579.06	1.389e+05	-7.361e+04	8.021e+04	-1.491e+04	9.502e+04
8	4	186	681.69	-669.15	162.95	-150.40	657.00	9.214e+04	-1.243e+05	8014.54	-4.017e+04	1.055e+05
8	4	194	907.45	-452.96	207.65	246.84	679.92	4.194e+04	-1.754e+05	-6.881e+04	-6.469e+04	1.087e+05
8	4	202	1118.57	-222.13	255.33	641.11	642.00	-9818.15	-2.250e+05	-1.453e+05	-8.953e+04	1.039e+05
8	4	210	1307.15	14.25	323.19	998.21	551.35	-6.111e+04	-2.712e+05	-2.166e+05	-1.157e+05	9.211e+04
8	4	218	1466.96	246.08	420.90	1292.14	427.63	-1.098e+05	-3.123e+05	-2.787e+05	-1.434e+05	7.529e+04
8	4	226	1593.91	462.41	546.03	1510.29	296.01	-1.539e+05	-3.469e+05	-3.289e+05	-1.719e+05	5.615e+04
8	4	234	1686.52	651.52	683.62	1654.43	179.42	-1.913e+05	-3.741e+05	-3.662e+05	-1.992e+05	3.728e+04
8	4	242	1746.40	800.98	809.97	1737.42	91.72	-2.201e+05	-3.933e+05	-3.909e+05	-2.226e+05	2.047e+04
8	4	250	1777.98	898.32	899.63	1776.66	34.04	-2.387e+05	-4.043e+05	-4.040e+05	-2.390e+05	6365.29
8	4	257	1077.18	545.57	545.57	1077.18	0.14	-1.602e+05	-2.281e+05	-2.280e+05	-1.602e+05	-748.15
8	4	258	1067.16	533.27	537.48	1062.95	-47.21	-1.574e+05	-2.259e+05	-2.256e+05	-1.577e+05	-4866.46
8	4	259	1037.24	497.06	514.34	1019.96	-95.07	-1.487e+05	-2.200e+05	-2.187e+05	-1.501e+05	-9712.81
8	4	260	988.14	438.77	478.99	947.93	-143.09	-1.349e+05	-2.103e+05	-2.068e+05	-1.383e+05	-1.580e+04
8	4	261	921.12	361.28	435.22	847.18	-189.54	-1.166e+05	-1.967e+05	-1.894e+05	-1.239e+05	-2.309e+04
8	4	262	838.07	268.23	386.84	719.46	-231.34	-9.489e+04	-1.797e+05	-1.663e+05	-1.083e+05	-3.094e+04
8	4	263	741.57	163.83	336.72	568.67	-264.57	-7.078e+04	-1.596e+05	-1.378e+05	-9.262e+04	-3.826e+04
8	4	264	634.83	52.57	286.33	401.07	-285.42	-4.532e+04	-1.371e+05	-1.049e+05	-7.756e+04	-4.382e+04
8	4	265	521.64	-60.95	235.78	224.91	-291.24	-1.956e+04	-1.130e+05	-6.936e+04	-6.321e+04	-4.663e+04
8	4	266	406.22	-172.24	184.39	49.59	-281.27	5513.46	-8.821e+04	-3.337e+04	-4.933e+04	-4.618e+04
8	4	267	293.09	-277.11	131.65	-115.66	-256.89	2.898e+04	-6.372e+04	858.58	-3.560e+04	-4.261e+04
8	4	268	186.89	-371.81	78.01	-262.93	-221.31	5.003e+04	-4.057e+04	3.138e+04	-2.193e+04	-3.663e+04
8	4	269	92.17	-453.19	25.47	-386.49	-178.68	6.801e+04	-1.981e+04	5.685e+04	-8652.32	-2.925e+04
8	4	270	13.22	-518.75	-22.45	-483.08	-133.05	8.242e+04	-2429.86	7.658e+04	3415.34	-2.149e+04
8	4	271	-46.22	-566.70	-61.34	-551.59	-87.39	9.294e+04	1.068e+04	9.046e+04	1.316e+04	-1.407e+04
8	4	272	-83.18	-595.87	-86.83	-592.23	-43.05	9.937e+04	1.880e+04	9.872e+04	1.945e+04	-7222.03
8	4	273	-95.75	-605.63	-95.75	-605.63	0.14	1.016e+05	2.144e+04	1.016e+05	2.145e+04	-748.15
8	4	274	-83.24	-595.81	-86.93	-592.12	43.30	9.971e+04	1.846e+04	9.929e+04	1.888e+04	5839.64
8	4	275	-46.34	-566.58	-61.53	-551.40	87.58	9.359e+04	1.003e+04	9.151e+04	1.210e+04	1.301e+04
8	4	276	13.05	-518.59	-22.70	-482.83	133.16	8.334e+04	-3348.20	7.796e+04	2032.95	2.092e+04
8	4	277	91.97	-452.99	25.20	-386.22	178.68	6.914e+04	-2.094e+04	5.835e+04	-1.015e+04	2.925e+04
8	4	278	186.65	-371.58	77.76	-262.68	221.20	5.131e+04	-4.186e+04	3.277e+04	-2.331e+04	3.720e+04
8	4	279	292.84	-276.85	131.46	-115.47	256.70	3.037e+04	-6.511e+04	1916.62	-3.666e+04	4.367e+04
8	4	280	405.95	-171.97	184.29	49.69	281.02	6974.29	-8.967e+04	-3.280e+04	-4.990e+04	4.756e+04
8	4	281	521.37	-60.68	235.78	224.91	290.97	-1.806e+04	-1.145e+05	-6.936e+04	-6.321e+04	4.812e+04
8	4	282	634.56	52.83	286.44	400.96	285.17	-4.383e+04	-1.386e+05	-1.055e+05	-7.698e+04	4.521e+04
8	4	283	741.32	164.08	336.91	568.48	264.38	-6.933e+04	-1.611e+05	-1.388e+05	-9.156e+04	3.932e+04
8	4	284	837.84	268.46	387.09	719.21	231.24	-9.352e+04	-1.811e+05	-1.677e+05	-1.069e+05	3.152e+04
8	4	285	920.92	361.48	435.49	846.91	189.54	-1.154e+05	-1.980e+05	-1.909e+05	-1.224e+05	2.309e+04
8	4	286	987.98	438.93	479.24	947.68	143.19	-1.338e+05	-2.113e+05	-2.082e+05	-1.370e+05	1.523e+04
8	4	287	1037.13	497.17	514.54	1019.77	95.26	-1.480e+05	-2.208e+05	-2.197e+05	-1.490e+05	8654.77
8	4	288	1067.10	533.33	537.58	1062.85	47.46	-1.570e+05	-2.264e+05	-2.262e+05	-1.571e+05	3484.07
8	4	290	720.66	329.96	329.96	720.66	2.62e-02	-1.279e+05	-1.403e+05	-1.280e+05	-1.403e+05	-200.12
8	4	291	922.10	398.74	398.74	922.10	0.36	-1.468e+05	-1.827e+05	-1.827e+05	-1.468e+05	-437.65
8	4	292	912.20	391.99	399.45	904.74	-61.86	-1.442e+05	-1.816e+05	-1.816e+05	-1.442e+05	-519.47
8	4	293	713.94	325.23	331.24	707.93	-47.97	-1.249e+05	-1.407e+05	-1.288e+05	-1.368e+05	6808.07
8	4	294	882.86	372.01	400.68	854.19	-117.57	-1.362e+05	-1.784e+05	-1.783e+05	-1.363e+05	-1863.51
8	4	295	694.06	311.22	334.39	670.88	-91.30	-1.174e+05	-1.406e+05	-1.311e+05	-1.269e+05	1.141e+04
8	4	296	835.46	339.33	399.27	775.52	-161.70	-1.239e+05	-1.725e+05	-1.719e+05	-1.245e+05	-5352.50
8	4	297	661.81	288.42	337.41	612.82	-126.06	-1.071e+05	-1.384e+05	-1.329e+05	-1.126e+05	1.188e+04
8	4	298	772.24	294.77	391.15	675.86	-191.65	-1.083e+05	-1.637e+05	-1.613e+05	-1.106e+05	-1.111e+04
8	4	299	618.51	257.64	337.55	538.60	-149.85	-9.489e+04	-1.337e+05	-1.321e+05	-9.651e+04	7754.26
8	4	300	696.22	239.48	372.73	562.96	-207.62	-9.020e+04	-1.519e+05	-1.458e+05	-9.633e+04	-1.845e+04
8	4	301	565.92	219.96	332.08	453.81	-161.92	-8.140e+04	-1.267e+05	-1.267e+05	-8.140e+04	-106.00
8	4	302	611.03	174.83	342.16	443.71	-212.11	-7.059e+04	-1.375e+05	-1.251e+05	-8.304e+04	-2.605e+04
8	4	303	506.18	176.72	318.90	364.00	-163.18	-6.716e+04	-1.175e+05	-1.155e+05	-6.914e+04	-9769.17
8	4	304	520.75	102.55	300.10	323.20	-208.79	-5.024e+04	-1.210e+05	-9.989e+04	-7.132e+04	-3.235e+04
8	4	305	441.72	129.45	297.17	273.99	-155.70	-5.273e+04	-1.065e+05	-9.878e+04	-6.045e+04	-1.885e+04
8	4	306	429.55	24.68	249.70	204.53	-201.17	-2.997e+04	-1.029e+05	-7.179e+04	-6.106e+04	-3.606e+04
8	4	307	375.14	79.81	267.46	187.49	-142.15	-3.865e+04	-9.416e+04	-7.794e+04	-5.487e+04	-2.524e+04
8	4	308	341.36	-56.19	195.86	89.31	-191.50	-1.052e+04	-8.396e+04	-4.286e+04	-5.161e+04	-3.646e+04
8	4	309	309.13	29.62	231.67	107.08	-125.10	-2.542e+04	-8.095e+04	-5.534e+04	-5.104e+04	-2.768e+04
8	4	310	259.55	-136.95	144.01	-21.41	-180.17	7425.61	-6.501e+04	-1.536e+04	-4.222e+04	-3.363e+04
8	4	311	246.27	-19.26	192.60	34.41	-106.63	-1.351e+04	-6.746e+04	-3.361e+04	-4.736e+04	-2.608e+04
8	4	312	186.77	-214.00	98.78	-126.01	-165.89	2.328e+04	-4.686e+04	8836.29	-3.241e+04	-2.836e+04
8	4	313	188.96	-64.94	153.48	-29.46	-88.03	-3286.86	-5.426e+04	-1.496e+04	-4.258e+04	-2.142e+04
8	4	314	124.99	-283.54	63.08	-221.63	-146.49	3.659e+04	-3.036e+04	2.848e+04	-2.226e+04	-2.184e+04
8	4	315	139.30	-105.54	117.40	-83.64	-69.87	4967.47	-4.198e+04	-717.82	-3.630e+04	-1.532e+04
8	4	316	75.60	-341.92	37.68	-304.00	-119.97	4.705e+04	-1.637e+04	4.314e+04	-1.245e+04	-1.526e+04
8	4	317	98.98	-139.30	86.95	-127.26	-52.18	1.112e+04	-3.129e+04	8905.97	-2.907e+04	-9432.73
8	4	318	39.61	-386.02	21.62	-368.03	-85.64	5.454e+04	-5672.31	5.301e+04	-4150.79	-9449.42
8	4	319	69.30	-164.66	64.02	-159.38	-34.75	1.521e+04	-2.286e+04	1.457e+04	-2.222e+04	-4907.30
8	4	320	17.72	-413.44	13.06	-408.78	-44.57	5.903e+04	1028.66	5.866e+04	1399.84	-4624.95
8	4	321	51.14	-180.40	49.83	-179.09	-17.37	1.747e+04	-1.741e+04	1.736e+04	-1.730e+04	-2020.82

8	4	322	10.33	-422.70	10.33	-422.70	0.36	6.059e+04	3247.60	6.058e+04	3250.94	-437.65
8	4	323	45.03	-185.73	45.03	-185.73	2.62e-02	1.822e+04	-1.555e+04	1.821e+04	-1.555e+04	-200.12
8	4	324	17.59	-413.31	12.78	-408.51	45.23	5.924e+04	814.54	5.899e+04	1064.88	3816.28
8	4	325	51.13	-180.39	49.81	-179.07	17.42	1.759e+04	-1.753e+04	1.751e+04	-1.745e+04	1651.04
8	4	326	39.35	-385.76	21.11	-367.52	86.14	5.494e+04	-6075.70	5.363e+04	-4769.72	8830.50
8	4	327	69.27	-164.64	63.98	-159.34	34.78	1.542e+04	-2.306e+04	1.485e+04	-2.250e+04	4624.29
8	4	328	75.22	-341.54	37.02	-303.34	120.25	4.761e+04	-1.692e+04	4.395e+04	-1.326e+04	1.493e+04
8	4	329	98.95	-139.26	86.90	-127.22	52.20	1.138e+04	-3.155e+04	9275.75	-2.944e+04	9279.57
8	4	330	124.49	-283.04	62.36	-220.91	146.49	3.726e+04	-3.103e+04	2.936e+04	-2.313e+04	2.184e+04
8	4	331	139.26	-105.50	117.35	-83.59	69.87	5272.22	-4.229e+04	-317.57	-3.670e+04	1.532e+04
8	4	332	186.18	-213.40	98.12	-125.35	165.62	2.403e+04	-4.761e+04	9644.95	-3.322e+04	2.870e+04
8	4	333	188.91	-64.89	153.43	-29.41	88.01	-2956.78	-5.459e+04	-1.459e+04	-4.295e+04	2.157e+04
8	4	334	258.88	-136.28	143.50	-20.91	179.67	8231.58	-6.581e+04	-1.474e+04	-4.284e+04	3.425e+04
8	4	335	246.21	-19.21	192.56	34.44	106.59	-1.316e+04	-6.780e+04	-3.332e+04	-4.764e+04	2.637e+04
8	4	336	340.65	-55.48	195.59	89.58	190.84	-9674.19	-8.480e+04	-4.253e+04	-5.195e+04	3.727e+04
8	4	337	309.07	29.67	231.65	107.10	125.05	-2.507e+04	-8.131e+04	-5.519e+04	-5.119e+04	2.805e+04
8	4	338	428.84	25.39	249.70	204.53	200.46	-2.910e+04	-1.037e+05	-7.179e+04	-6.106e+04	3.693e+04
8	4	339	375.09	79.86	267.46	187.49	142.09	-3.829e+04	-9.452e+04	-7.794e+04	-5.487e+04	2.564e+04
8	4	340	520.08	103.22	300.37	322.93	208.13	-4.937e+04	-1.219e+05	-1.002e+05	-7.099e+04	3.316e+04
8	4	341	441.67	129.49	297.19	273.97	155.66	-5.237e+04	-1.069e+05	-9.894e+04	-6.030e+04	1.922e+04
8	4	342	610.43	175.44	342.67	443.20	211.60	-6.972e+04	-1.384e+05	-1.257e+05	-8.242e+04	2.666e+04
8	4	343	506.14	176.76	318.94	363.96	163.14	-6.679e+04	-1.179e+05	-1.158e+05	-6.885e+04	1.005e+04
8	4	344	695.69	240.00	373.39	562.30	207.35	-8.935e+04	-1.528e+05	-1.466e+05	-9.552e+04	1.879e+04
8	4	345	565.89	220.00	332.13	453.76	161.90	-8.103e+04	-1.270e+05	-1.270e+05	-8.103e+04	259.17
8	4	346	771.82	295.20	391.87	675.15	191.65	-1.075e+05	-1.645e+05	-1.622e+05	-1.097e+05	1.111e+04
8	4	347	618.48	257.67	337.61	538.54	149.85	-9.453e+04	-1.341e+05	-1.325e+05	-9.611e+04	-7754.27
8	4	348	835.14	339.65	399.93	774.86	161.97	-1.232e+05	-1.732e+05	-1.727e+05	-1.237e+05	5017.55
8	4	349	661.79	288.44	337.45	612.78	126.08	-1.067e+05	-1.387e+05	-1.333e+05	-1.122e+05	-1.204e+04
8	4	350	882.65	372.23	401.18	853.69	118.08	-1.356e+05	-1.789e+05	-1.789e+05	-1.357e+05	1244.58
8	4	351	694.04	311.23	334.43	670.85	91.33	-1.171e+05	-1.409e+05	-1.313e+05	-1.266e+05	-1.169e+04
8	4	352	912.09	392.10	399.72	904.46	62.52	-1.438e+05	-1.819e+05	-1.819e+05	-1.438e+05	-289.19
8	4	353	713.93	325.24	331.26	707.91	48.02	-1.247e+05	-1.410e+05	-1.290e+05	-1.367e+05	-7177.85
8	4	354	690.04	32.95	32.95	690.04	-5.96e-04	-6382.44	-1.857e+05	-6382.44	-1.857e+05	-1.15
8	4	355	628.54	247.31	247.31	628.54	4.99e-03	-8.347e+04	-1.456e+05	-8.347e+04	-1.456e+05	-90.88
8	4	356	623.12	244.58	252.74	614.96	-54.98	-8.254e+04	-1.447e+05	-8.636e+04	-1.409e+05	1.492e+04
8	4	357	685.26	32.77	56.95	661.08	-123.27	-6381.28	-1.846e+05	-1.333e+04	-1.776e+05	3.449e+04
8	4	358	607.07	236.51	267.65	575.94	-102.80	-7.979e+04	-1.419e+05	-9.412e+04	-1.276e+05	2.617e+04
8	4	359	671.09	32.22	123.42	579.89	-223.49	-6377.84	-1.813e+05	-3.259e+04	-1.551e+05	6.243e+04
8	4	360	581.00	223.41	288.13	516.28	-137.67	-7.536e+04	-1.374e+05	-1.041e+05	-1.087e+05	3.094e+04
8	4	361	648.07	31.33	217.20	462.20	-283.00	-6372.38	-1.759e+05	-5.983e+04	-1.225e+05	7.877e+04
8	4	362	545.91	205.79	308.77	442.93	-156.27	-6.949e+04	-1.312e+05	-1.128e+05	-8.797e+04	2.828e+04
8	4	363	617.09	30.13	317.41	329.82	-293.42	-6365.22	-1.687e+05	-8.907e+04	-8.598e+04	8.115e+04
8	4	364	503.12	184.35	323.86	363.61	-158.14	-6.249e+04	-1.236e+05	-1.168e+05	-6.928e+04	1.920e+04
8	4	365	579.35	28.68	402.60	205.42	-257.08	-6357.24	-1.599e+05	-1.142e+05	-5.207e+04	7.020e+04
8	4	366	454.26	159.93	328.71	285.48	-145.57	-5.471e+04	-1.146e+05	-1.139e+05	-5.539e+04	6332.30
8	4	367	536.28	27.02	455.88	107.42	-185.69	-6348.87	-1.498e+05	-1.302e+05	-2.595e+04	4.928e+04
8	4	368	401.19	133.49	320.62	214.05	-122.78	-4.654e+04	-1.046e+05	-1.038e+05	-4.739e+04	-6968.26
8	4	369	489.55	25.23	468.43	46.34	-96.73	-6341.06	-1.389e+05	-1.347e+05	-1.060e+04	2.337e+04
8	4	370	345.90	106.08	299.33	152.65	-94.87	-3.836e+04	-9.394e+04	-8.768e+04	-4.462e+04	-1.757e+04
8	4	371	440.94	23.37	440.75	23.55	-8.77	-6334.68	-1.276e+05	-1.276e+05	-6374.21	-2189.14
8	4	372	290.49	78.80	266.87	102.42	-66.65	-3.056e+04	-8.286e+04	-6.829e+04	-4.513e+04	-2.345e+04
8	4	373	392.32	21.52	381.31	32.52	62.92	-6330.66	-1.163e+05	-1.112e+05	-1.137e+04	-2.300e+04
8	4	374	237.04	52.74	226.99	62.79	-41.85	-2.349e+04	-7.177e+04	-4.880e+04	-4.646e+04	-2.412e+04
8	4	375	345.55	19.75	303.43	61.88	109.31	-6329.76	-1.053e+05	-8.938e+04	-2.229e+04	-3.641e+04
8	4	376	187.55	28.94	184.26	32.24	-22.63	-1.744e+04	-6.109e+04	-3.199e+04	-4.654e+04	-2.058e+04
8	4	377	302.44	18.14	221.36	99.23	128.36	-6332.41	-9.529e+04	-6.613e+04	-3.548e+04	-4.175e+04
8	4	378	143.90	8.37	143.22	9.05	-9.59	-1.264e+04	-5.122e+04	-1.953e+04	-4.433e+04	-1.478e+04
8	4	379	264.63	16.75	146.89	134.49	123.79	-6338.47	-8.647e+04	-4.485e+04	-4.795e+04	-4.003e+04
8	4	380	107.76	-8.21	107.72	-8.17	-2.16	-9196.25	-4.263e+04	-1.173e+04	-4.010e+04	-8841.32
8	4	381	233.58	15.63	87.45	161.76	102.45	-6347.10	-7.923e+04	-2.773e+04	-5.785e+04	-3.318e+04
8	4	382	80.63	-20.25	80.62	-20.24	0.92	-7081.40	-3.580e+04	-7732.86	-3.514e+04	-4275.72
8	4	383	210.49	14.81	45.88	179.42	71.52	-6356.24	-7.384e+04	-1.565e+04	-6.454e+04	-2.326e+04
8	4	384	63.74	-27.48	63.73	-27.46	1.15	-6058.97	-3.131e+04	-6155.53	-3.121e+04	-1558.55
8	4	385	196.27	14.32	21.91	188.67	36.39	-6363.32	-7.053e+04	-8644.87	-6.824e+04	-1.188e+04
8	4	386	58.00	-29.88	58.00	-29.88	4.99e-03	-5765.92	-2.974e+04	-5766.27	-2.974e+04	-90.88
8	4	387	191.46	14.15	14.15	191.46	-5.89e-04	-6365.98	-6.941e+04	-6365.98	-6.941e+04	-1.15
8	4	388	63.74	-27.47	63.72	-27.46	-1.14	-6009.46	-3.136e+04	-6085.98	-3.128e+04	1390.63
8	4	389	196.27	14.32	21.91	188.67	-36.39	-6363.29	-7.053e+04	-8643.99	-6.824e+04	1.188e+04
8	4	390	80.62	-20.24	80.61	-20.23	-0.91	-6996.09	-3.588e+04	-7604.34	-3.527e+04	4147.20
8	4	391	210.49	14.81	45.88	179.42	-71.52	-6356.18	-7.384e+04	-1.565e+04	-6.454e+04	2.326e+04
8	4	392	107.75	-8.20	107.71	-8.16	2.17	-9089.89	-4.273e+04	-1.156e+04	-4.026e+04	8771.76
8	4	393	233.58	15.63	87.45	161.76	-102.45	-6347.02	-7.923e+04	-2.772e+04	-5.785e+04	3.318e+04
8	4	394	143.89	8.38	143.21	9.06	9.59	-1.252e+04	-5.134e+04	-1.935e+04	-4.451e+04	1.478e+04
8	4	395	264.63	16.75	146.90	134.49	-123.79	-6338.38	-8.647e+04	-4.485e+04	-4.795e+04	4.003e+04
8	4	396	187.54	28.95	184.25	32.25	22.62	-1.731e+04	-6.121e+04	-3.182e+04	-4.670e+04	2.065e+04
8	4	397	302.44	18.14	221.36	99.22	-128.36	-6332.32	-9.529e+04	-6.613e+04	-3.549e+04	4.175e+04
8	4	398	237.03	52.74	226.98	62.79	41.85	-2.336e+04	-7.190e+04	-4.867e+04	-4.659e+04	2.424e+04

8	4	399	345.55	19.75	303.43	61.88	-109.31	-6329.66	-1.053e+05	-8.938e+04	-2.229e+04	3.641e+04
8	4	400	290.48	78.81	266.87	102.42	66.64	-3.044e+04	-8.298e+04	-6.822e+04	-4.520e+04	2.361e+04
8	4	401	392.32	21.52	381.31	32.52	-62.92	-6330.57	-1.163e+05	-1.112e+05	-1.138e+04	2.300e+04
8	4	402	345.89	106.09	299.33	152.65	94.86	-3.824e+04	-9.406e+04	-8.768e+04	-4.462e+04	1.775e+04
8	4	403	440.94	23.37	440.75	23.55	8.77	-6334.59	-1.276e+05	-1.276e+05	-6374.21	2191.45
8	4	404	401.18	133.49	320.63	214.05	122.78	-4.643e+04	-1.048e+05	-1.039e+05	-4.732e+04	7136.18
8	4	405	489.55	25.23	468.43	46.34	96.73	-6340.98	-1.389e+05	-1.347e+05	-1.060e+04	-2.337e+04
8	4	406	454.25	159.93	328.72	285.47	145.56	-5.461e+04	-1.147e+05	-1.141e+05	-5.526e+04	-6203.78
8	4	407	536.28	27.02	455.88	107.42	185.69	-6348.81	-1.498e+05	-1.302e+05	-2.595e+04	-4.928e+04
8	4	408	503.11	184.36	323.87	363.60	158.13	-6.241e+04	-1.237e+05	-1.170e+05	-6.912e+04	-1.913e+04
8	4	409	579.35	28.68	402.60	205.42	257.08	-6357.18	-1.599e+05	-1.142e+05	-5.207e+04	-7.020e+04
8	4	410	545.90	205.80	308.78	442.92	156.27	-6.942e+04	-1.313e+05	-1.129e+05	-8.779e+04	-2.828e+04
8	4	411	617.09	30.13	317.41	329.82	293.42	-6365.18	-1.687e+05	-8.908e+04	-8.598e+04	-8.115e+04
8	4	412	581.00	223.41	288.14	516.28	137.68	-7.530e+04	-1.375e+05	-1.043e+05	-1.085e+05	-3.101e+04
8	4	413	648.07	31.33	217.20	462.20	283.00	-6372.34	-1.759e+05	-5.983e+04	-1.225e+05	-7.878e+04
8	4	414	607.07	236.51	267.65	575.93	102.81	-7.975e+04	-1.420e+05	-9.425e+04	-1.275e+05	-2.630e+04
8	4	415	671.09	32.22	123.42	579.89	223.49	-6377.81	-1.813e+05	-3.259e+04	-1.551e+05	-6.243e+04
8	4	416	623.12	244.58	252.75	614.95	54.99	-8.252e+04	-1.447e+05	-8.643e+04	-1.408e+05	-1.509e+04
8	5	1	1626.92	862.65	862.66	1626.91	-2.72	-2.279e+05	-3.722e+05	-3.721e+05	-2.280e+05	-3295.41
8	5	4	1617.12	833.30	834.99	1615.43	-36.30	-2.234e+05	-3.677e+05	-3.665e+05	-2.247e+05	-1.335e+04
8	5	18	1587.21	747.25	756.18	1578.28	-86.12	-2.085e+05	-3.561e+05	-3.520e+05	-2.125e+05	-2.419e+04
8	5	26	1532.38	613.77	643.44	1502.71	-162.39	-1.840e+05	-3.373e+05	-3.280e+05	-1.933e+05	-3.657e+04
8	5	34	1448.52	444.21	519.52	1373.22	-264.50	-1.515e+05	-3.117e+05	-2.939e+05	-1.693e+05	-5.035e+04
8	5	42	1334.07	249.87	405.74	1178.20	-380.40	-1.126e+05	-2.798e+05	-2.494e+05	-1.429e+05	-6.440e+04
8	5	50	1190.26	41.38	315.77	915.87	-489.85	-6.926e+04	-2.423e+05	-1.955e+05	-1.161e+05	-7.688e+04
8	5	58	1020.71	-171.34	252.10	597.28	-570.49	-2.336e+04	-2.005e+05	-1.340e+05	-8.984e+04	-8.577e+04
8	5	66	831.01	-379.18	206.43	245.40	-604.78	2.316e+04	-1.558e+05	-6.839e+04	-6.430e+04	-8.948e+04
8	5	74	628.27	-573.98	163.73	-109.44	-585.40	6.849e+04	-1.100e+05	-2430.03	-3.906e+04	-8.734e+04
8	5	78	658.13	31.70	54.95	634.87	118.44	-6341.69	-1.781e+05	-1.303e+04	-1.714e+05	-3.322e+04
8	5	82	420.78	-748.76	108.51	-436.48	-517.40	1.109e+05	-6.475e+04	5.988e+04	-1.368e+04	-7.978e+04
8	5	90	217.77	-898.05	31.18	-711.45	-416.40	1.491e+05	-2.205e+04	1.152e+05	1.182e+04	-6.818e+04
8	5	98	29.20	-1018.26	-67.68	-921.38	-303.47	1.817e+05	1.618e+04	1.612e+05	3.662e+04	-5.444e+04
8	5	106	-134.43	-1108.05	-176.69	-1065.79	-198.39	2.079e+05	4.811e+04	1.969e+05	5.905e+04	-4.035e+04
8	5	114	-262.30	-1168.50	-276.79	-1154.00	-113.68	2.271e+05	7.207e+04	2.222e+05	7.696e+04	-2.708e+04
8	5	122	-344.09	-1202.67	-347.15	-1199.60	-51.21	2.391e+05	8.671e+04	2.376e+05	8.819e+04	-1.492e+04
8	5	130	-371.85	-1214.06	-371.86	-1214.05	-2.72	2.436e+05	9.116e+04	2.435e+05	9.123e+04	-3295.41
8	5	138	-342.58	-1204.17	-345.07	-1201.69	46.18	2.406e+05	8.516e+04	2.401e+05	8.567e+04	8828.01
8	5	146	-259.51	-1171.28	-272.94	-1157.85	109.83	2.301e+05	6.911e+04	2.269e+05	7.230e+04	2.242e+04
8	5	154	-130.67	-1111.81	-171.66	-1070.82	196.31	2.120e+05	4.397e+04	2.030e+05	5.296e+04	3.783e+04
8	5	162	33.64	-1022.71	-62.24	-926.83	303.47	1.867e+05	1.111e+04	1.678e+05	3.002e+04	5.444e+04
8	5	170	222.68	-902.96	36.21	-716.48	418.49	1.548e+05	-2.780e+04	1.213e+05	5729.25	7.071e+04
8	5	178	425.98	-753.96	112.36	-440.33	521.25	1.172e+05	-7.096e+04	6.454e+04	-1.834e+04	8.444e+04
8	5	186	633.64	-579.36	165.81	-111.53	590.43	7.498e+04	-1.165e+05	92.18	-4.158e+04	9.343e+04
8	5	194	836.46	-384.62	206.43	245.40	610.23	2.975e+04	-1.624e+05	-6.839e+04	-6.430e+04	9.607e+04
8	5	202	1026.13	-176.76	250.01	599.36	575.52	-1.683e+04	-2.070e+05	-1.366e+05	-8.732e+04	9.186e+04
8	5	210	1195.55	36.09	311.92	919.72	493.70	-6.296e+04	-2.486e+05	-2.001e+05	-1.114e+05	8.154e+04
8	5	218	1339.12	244.82	400.71	1183.23	382.48	-1.067e+05	-2.856e+05	-2.555e+05	-1.368e+05	6.693e+04
8	5	226	1453.16	439.57	514.07	1378.66	264.50	-1.463e+05	-3.169e+05	-3.005e+05	-1.627e+05	5.035e+04
8	5	234	1536.36	609.79	638.41	1507.74	160.31	-1.797e+05	-3.416e+05	-3.341e+05	-1.872e+05	3.404e+04
8	5	242	1590.21	744.25	752.33	1582.13	82.27	-2.054e+05	-3.592e+05	-3.567e+05	-2.079e+05	1.953e+04
8	5	250	1618.76	831.66	832.90	1617.51	31.27	-2.218e+05	-3.694e+05	-3.690e+05	-2.221e+05	7261.85
8	5	257	991.31	511.97	511.97	991.31	7.99e-02	-1.506e+05	-2.112e+05	-2.112e+05	-1.507e+05	-441.12
8	5	258	982.27	500.92	504.74	978.45	-42.72	-1.481e+05	-2.093e+05	-2.091e+05	-1.483e+05	-4054.72
8	5	259	955.32	468.39	484.07	939.65	-85.94	-1.402e+05	-2.041e+05	-2.030e+05	-1.413e+05	-8372.92
8	5	260	911.09	416.03	452.45	874.67	-129.24	-1.276e+05	-1.954e+05	-1.924e+05	-1.306e+05	-1.387e+04
8	5	261	850.72	346.40	413.29	783.83	-171.06	-1.111e+05	-1.833e+05	-1.769e+05	-1.175e+05	-2.050e+04
8	5	262	775.94	262.79	369.98	668.75	-208.60	-9.152e+04	-1.680e+05	-1.562e+05	-1.034e+05	-2.767e+04
8	5	263	689.04	168.97	325.07	532.94	-238.36	-6.976e+04	-1.500e+05	-1.306e+05	-8.921e+04	-3.439e+04
8	5	264	592.94	68.98	279.84	382.08	-256.94	-4.680e+04	-1.298e+05	-1.010e+05	-7.567e+04	-3.954e+04
8	5	265	491.03	-33.04	234.40	223.60	-261.98	-2.358e+04	-1.082e+05	-6.894e+04	-6.282e+04	-4.219e+04
8	5	266	387.12	-133.05	188.13	65.94	-252.81	-979.99	-8.591e+04	-3.644e+04	-5.045e+04	-4.188e+04
8	5	267	285.28	-227.30	140.57	-82.58	-230.73	2.017e+04	-6.390e+04	-5503.68	-3.823e+04	-3.872e+04
8	5	268	189.67	-312.40	92.15	-214.88	-198.62	3.914e+04	-4.310e+04	2.211e+04	-2.607e+04	-3.332e+04
8	5	269	104.40	-385.53	44.70	-325.84	-160.26	5.533e+04	-2.444e+04	4.515e+04	-1.426e+04	-2.661e+04
8	5	270	33.32	-444.44	1.41	-412.54	-119.26	6.830e+04	-8801.57	6.300e+04	-3495.35	-1.952e+04
8	5	271	-20.20	-487.53	-33.71	-474.02	-78.30	7.775e+04	3006.67	7.553e+04	5230.31	-1.270e+04
8	5	272	-53.47	-513.74	-56.73	-510.48	-38.59	8.351e+04	1.034e+04	8.295e+04	1.090e+04	-6395.96
8	5	273	-64.77	-522.52	-64.77	-522.52	7.99e-02	8.551e+04	1.276e+04	8.550e+04	1.277e+04	-441.12
8	5	274	-53.50	-513.70	-56.79	-510.42	38.73	8.371e+04	1.014e+04	8.329e+04	1.056e+04	5580.88
8	5	275	-20.27	-487.46	-33.82	-473.90	78.42	7.814e+04	2623.47	7.615e+04	4606.48	1.208e+04
8	5	276	33.22	-444.35	1.27	-412.40	119.32	6.884e+04	-9339.87	6.381e+04	-4310.43	1.918e+04
8	5	277	104.28	-385.41	44.54	-325.68	160.26	5.599e+04	-2.510e+04	4.604e+04	-1.514e+04	2.661e+04
8	5	278	189.53	-312.26	92.00	-214.74	198.56	3.989e+04	-4.385e+04	2.292e+04	-2.689e+04	3.366e+04
8	5	279	285.13	-227.15	140.45	-82.47	230.61	2.098e+04	-6.472e+04	-4879.85	-3.886e+04	3.934e+04
8	5	280	386.97	-132.90	188.07	66.00	252.66	-119.94	-8.677e+04	-3.610e+04	-5.079e+04	4.270e+04
8	5	281	490.87	-32.88	234.40	223.60	261.82	-2.270e+04	-1.091e+05	-6.894e+04	-6.282e+04	4.308e+04
8	5	282	592.78	69.14	279.91	382.02	256.80	-4.593e+04	-1.307e+05	-1.013e+05	-7.533e+04	4.036e+04

8	5	283	688.89	169.11	325.18	532.83	238.25	-6.891e+04	-1.509e+05	-1.312e+05	-8.859e+04	3.502e+04
8	5	284	775.80	262.92	370.13	668.60	208.54	-9.071e+04	-1.689e+05	-1.570e+05	-1.025e+05	2.801e+04
8	5	285	850.61	346.52	413.45	783.67	171.06	-1.104e+05	-1.840e+05	-1.778e+05	-1.166e+05	2.050e+04
8	5	286	911.00	416.12	452.60	874.52	129.30	-1.270e+05	-1.960e+05	-1.932e+05	-1.298e+05	1.353e+04
8	5	287	955.25	468.46	484.18	939.54	86.05	-1.398e+05	-2.045e+05	-2.036e+05	-1.407e+05	7749.08
8	5	288	982.24	500.96	504.81	978.39	42.87	-1.478e+05	-2.096e+05	-2.094e+05	-1.480e+05	3239.65
8	5	290	673.58	314.53	314.53	673.58	1.55e-02	-1.203e+05	-1.336e+05	-1.203e+05	-1.336e+05	-118.00
8	5	291	853.11	378.02	378.02	853.11	0.21	-1.389e+05	-1.701e+05	-1.701e+05	-1.389e+05	-258.04
8	5	292	844.16	371.99	378.87	837.29	-56.56	-1.364e+05	-1.692e+05	-1.692e+05	-1.364e+05	-149.29
8	5	293	667.50	310.32	315.98	661.84	-44.61	-1.178e+05	-1.338e+05	-1.212e+05	-1.303e+05	6598.39
8	5	294	817.68	354.11	380.47	791.32	-107.35	-1.291e+05	-1.664e+05	-1.664e+05	-1.291e+05	-1224.84
8	5	295	649.50	297.83	319.63	627.69	-84.81	-1.112e+05	-1.334e+05	-1.235e+05	-1.212e+05	1.107e+04
8	5	296	774.90	324.85	379.92	719.84	-147.48	-1.179e+05	-1.613e+05	-1.608e+05	-1.183e+05	-4299.51
8	5	297	620.30	277.52	323.58	574.24	-116.91	-1.020e+05	-1.313e+05	-1.255e+05	-1.079e+05	1.172e+04
8	5	298	717.83	284.98	373.44	629.36	-174.54	-1.037e+05	-1.534e+05	-1.516e+05	-1.056e+05	-9497.13
8	5	299	581.07	250.11	325.16	506.02	-138.59	-9.112e+04	-1.271e+05	-1.252e+05	-9.302e+04	8061.44
8	5	300	649.17	235.51	357.68	527.00	-188.71	-8.740e+04	-1.430e+05	-1.378e+05	-9.260e+04	-1.619e+04
8	5	301	533.39	216.59	321.68	428.30	-149.16	-7.900e+04	-1.207e+05	-1.207e+05	-7.902e+04	881.94
8	5	302	572.20	177.70	330.85	419.05	-192.25	-6.967e+04	-1.301e+05	-1.192e+05	-8.051e+04	-2.318e+04
8	5	303	479.18	178.17	311.06	346.28	-149.47	-6.619e+04	-1.125e+05	-1.110e+05	-6.765e+04	-8068.83
8	5	304	490.57	113.09	293.45	310.21	-188.55	-5.130e+04	-1.153e+05	-9.666e+04	-6.991e+04	-2.905e+04
8	5	305	420.62	136.21	292.34	264.49	-141.52	-5.320e+04	-1.026e+05	-9.616e+04	-5.962e+04	-1.661e+04
8	5	306	408.06	43.52	248.24	203.34	-180.88	-3.300e+04	-9.904e+04	-7.135e+04	-6.069e+04	-3.259e+04
8	5	307	360.06	92.23	265.90	186.40	-127.88	-4.050e+04	-9.150e+04	-7.746e+04	-5.453e+04	-2.278e+04
8	5	308	328.23	-28.73	199.61	99.88	-171.37	-1.544e+04	-8.207e+04	-4.523e+04	-5.228e+04	-3.313e+04
8	5	309	299.92	47.84	233.41	114.35	-111.10	-2.856e+04	-7.966e+04	-5.702e+04	-5.120e+04	-2.538e+04
8	5	310	254.15	-100.90	152.48	0.78	-160.51	760.45	-6.507e+04	-2.033e+04	-4.399e+04	-3.072e+04
8	5	311	242.56	4.68	197.45	49.79	-93.25	-1.779e+04	-6.757e+04	-3.721e+04	-4.814e+04	-2.428e+04
8	5	312	188.26	-169.78	111.08	-92.60	-147.23	1.508e+04	-4.880e+04	1633.78	-3.535e+04	-2.604e+04
8	5	313	190.19	-35.58	161.04	-6.43	-75.71	-8520.71	-5.576e+04	-2.007e+04	-4.421e+04	-2.030e+04
8	5	314	132.33	-231.98	78.14	-177.79	-129.64	2.711e+04	-3.401e+04	1.952e+04	-2.642e+04	-2.016e+04
8	5	315	144.72	-71.31	127.13	-53.72	-59.08	-1008.98	-4.480e+04	-6832.32	-3.897e+04	-1.487e+04
8	5	316	87.65	-284.24	54.48	-251.08	-106.00	3.657e+04	-2.146e+04	3.289e+04	-1.778e+04	-1.415e+04
8	5	317	107.77	-100.99	98.29	-91.52	-43.45	4627.35	-3.528e+04	2237.81	-3.289e+04	-9467.76
8	5	318	55.10	-323.74	39.36	-308.00	-75.60	4.333e+04	-1.187e+04	4.191e+04	-1.044e+04	-8764.50
8	5	319	80.54	-123.27	76.44	-119.18	-28.59	8416.74	-2.780e+04	7671.96	-2.706e+04	-5139.93
8	5	320	35.32	-348.31	31.23	-344.23	-39.38	4.739e+04	-5853.13	4.705e+04	-5514.94	-4229.72
8	5	321	63.87	-137.10	62.86	-136.09	-14.19	1.054e+04	-2.298e+04	1.039e+04	-2.284e+04	-2176.70
8	5	322	28.66	-356.63	28.66	-356.63	0.21	4.877e+04	-3837.07	4.877e+04	-3835.81	-258.04
8	5	323	58.26	-141.78	58.26	-141.78	1.55e-02	1.123e+04	-2.133e+04	1.123e+04	-2.133e+04	-118.00
8	5	324	35.24	-348.24	31.07	-344.07	39.77	4.751e+04	-5977.07	4.724e+04	-5712.43	3752.92
8	5	325	63.86	-137.09	62.85	-136.08	14.22	1.060e+04	-2.305e+04	1.049e+04	-2.293e+04	1958.67
8	5	326	54.95	-323.58	39.06	-307.70	75.90	4.357e+04	-1.211e+04	4.227e+04	-1.081e+04	8399.57
8	5	327	80.52	-123.26	76.42	-119.16	28.61	8530.56	-2.791e+04	7838.84	-2.722e+04	4973.06
8	5	328	87.42	-284.02	54.09	-250.69	106.16	3.689e+04	-2.179e+04	3.336e+04	-1.826e+04	1.395e+04
8	5	329	107.75	-100.97	98.26	-91.49	43.46	4777.24	-3.542e+04	2455.84	-3.310e+04	9377.45
8	5	330	132.04	-231.69	77.72	-177.37	129.64	2.750e+04	-3.440e+04	2.003e+04	-2.693e+04	2.016e+04
8	5	331	144.70	-71.29	127.10	-53.69	59.08	-835.17	-4.497e+04	-6596.33	-3.921e+04	1.487e+04
8	5	332	187.91	-169.43	110.69	-92.21	147.07	1.552e+04	-4.924e+04	2110.59	-3.583e+04	2.624e+04
8	5	333	190.16	-35.55	161.01	-6.40	75.69	-8331.26	-5.595e+04	-1.985e+04	-4.442e+04	2.039e+04
8	5	334	253.76	-100.50	152.18	1.08	160.21	1232.80	-6.555e+04	-1.996e+04	-4.435e+04	3.108e+04
8	5	335	242.53	4.71	197.43	49.82	93.23	-1.759e+04	-6.777e+04	-3.705e+04	-4.831e+04	2.445e+04
8	5	336	327.81	-28.31	199.45	100.04	170.98	-1.495e+04	-8.257e+04	-4.504e+04	-5.248e+04	3.361e+04
8	5	337	299.89	47.87	233.40	114.36	111.07	-2.835e+04	-7.987e+04	-5.693e+04	-5.129e+04	2.560e+04
8	5	338	407.64	43.94	248.24	203.34	180.46	-3.249e+04	-9.955e+04	-7.135e+04	-6.069e+04	3.310e+04
8	5	339	360.03	92.26	265.90	186.40	127.85	-4.029e+04	-9.171e+04	-7.746e+04	-5.453e+04	2.301e+04
8	5	340	490.17	113.49	293.61	310.05	188.16	-5.079e+04	-1.158e+05	-9.685e+04	-6.971e+04	2.952e+04
8	5	341	420.59	136.24	292.35	264.48	141.49	-5.298e+04	-1.028e+05	-9.625e+04	-5.953e+04	1.683e+04
8	5	342	571.84	178.06	331.15	418.75	191.96	-6.916e+04	-1.306e+05	-1.196e+05	-8.015e+04	2.354e+04
8	5	343	479.15	178.19	311.08	346.26	149.45	-6.598e+04	-1.127e+05	-1.112e+05	-6.748e+04	8235.70
8	5	344	648.86	235.81	358.07	526.61	188.55	-8.690e+04	-1.435e+05	-1.382e+05	-9.213e+04	1.639e+04
8	5	345	533.37	216.61	321.71	428.27	149.15	-7.878e+04	-1.209e+05	-1.209e+05	-7.880e+04	-791.63
8	5	346	717.58	285.23	373.86	628.94	174.54	-1.033e+05	-1.539e+05	-1.521e+05	-1.051e+05	9497.13
8	5	347	581.05	250.13	325.19	505.99	138.59	-9.091e+04	-1.273e+05	-1.254e+05	-9.279e+04	-8061.44
8	5	348	774.71	325.04	380.31	719.45	147.64	-1.175e+05	-1.617e+05	-1.613e+05	-1.179e+05	4102.02
8	5	349	620.28	277.53	323.61	574.21	116.92	-1.018e+05	-1.315e+05	-1.257e+05	-1.077e+05	-1.181e+04
8	5	350	817.56	354.23	380.76	791.02	107.65	-1.287e+05	-1.668e+05	-1.668e+05	-1.288e+05	859.92
8	5	351	649.49	297.84	319.66	627.67	84.83	-1.110e+05	-1.336e+05	-1.236e+05	-1.210e+05	-1.124e+04
8	5	352	844.10	372.05	379.03	837.12	56.95	-1.362e+05	-1.694e+05	-1.694e+05	-1.362e+05	-327.51
8	5	353	667.50	310.32	315.99	661.83	44.64	-1.176e+05	-1.339e+05	-1.213e+05	-1.303e+05	-6816.42
8	5	354	662.43	31.86	31.86	662.43	-3.55e-04	-6342.67	-1.791e+05	-6342.67	-1.791e+05	-0.68
8	5	355	593.73	236.90	236.90	593.73	2.94e-03	-7.931e+04	-1.393e+05	-7.931e+04	-1.393e+05	-53.58
8	5	356	588.82	234.48	242.32	580.98	-52.11	-7.848e+04	-1.384e+05	-8.207e+04	-1.348e+05	1.423e+04
8	5	357	658.13	31.70	54.95	634.87	-118.44	-6341.70	-1.781e+05	-1.303e+04	-1.714e+05	3.322e+04
8	5	358	574.29	227.32	257.23	544.38	-97.38	-7.603e+04	-1.359e+05	-8.950e+04	-1.225e+05	2.500e+04
8	5	359	645.38	31.20	119.02	557.56	-214.99	-6338.79	-1.751e+05	-3.159e+04	-1.499e+05	6.020e+04
8	5	360	550.67	215.70	277.90	488.46	-130.26	-7.210e+04	-1.318e+05	-9.914e+04	-1.048e+05	2.972e+04

8	5	361	624.67	30.41	209.79	445.29	-272.80	-6334.18	-1.703e+05	-5.795e+04	-1.187e+05	7.615e+04
8	5	362	518.86	200.10	299.12	419.83	-147.51	-6.688e+04	-1.262e+05	-1.077e+05	-8.535e+04	2.747e+04
8	5	363	596.80	29.33	307.48	318.65	-283.68	-6328.17	-1.638e+05	-8.645e+04	-8.366e+04	7.872e+04
8	5	364	480.03	181.14	315.35	345.82	-148.67	-6.065e+04	-1.192e+05	-1.121e+05	-6.776e+04	1.914e+04
8	5	365	562.85	28.03	391.67	199.20	-249.49	-6321.52	-1.559e+05	-1.112e+05	-5.097e+04	6.844e+04
8	5	366	435.65	159.60	321.97	273.28	-135.86	-5.372e+04	-1.111e+05	-1.102e+05	-5.461e+04	7109.21
8	5	367	524.10	26.54	446.00	104.64	-181.00	-6314.62	-1.468e+05	-1.275e+05	-2.562e+04	4.837e+04
8	5	368	387.35	136.37	316.20	207.52	-113.11	-4.643e+04	-1.021e+05	-1.015e+05	-4.698e+04	-5522.29
8	5	369	482.06	24.93	461.57	45.42	-94.57	-6308.25	-1.370e+05	-1.328e+05	-1.057e+04	2.321e+04
8	5	370	336.92	112.42	297.58	151.76	-85.35	-3.912e+04	-9.237e+04	-8.715e+04	-4.435e+04	-1.584e+04
8	5	371	438.33	23.26	438.18	23.41	-7.90	-6303.17	-1.268e+05	-1.268e+05	-6335.39	-1970.31
8	5	372	286.19	88.76	267.85	107.10	-57.31	-3.214e+04	-8.236e+04	-6.953e+04	-4.497e+04	-2.190e+04
8	5	373	394.59	21.60	383.21	32.98	64.15	-6300.12	-1.166e+05	-1.116e+05	-1.127e+04	-2.288e+04
8	5	374	237.01	66.41	230.48	72.95	-32.75	-2.580e+04	-7.237e+04	-5.155e+04	-4.662e+04	-2.315e+04
8	5	375	352.52	20.02	308.87	63.67	112.28	-6299.64	-1.068e+05	-9.076e+04	-2.233e+04	-3.679e+04
8	5	376	191.14	46.36	189.79	47.72	-13.95	-2.035e+04	-6.276e+04	-3.576e+04	-4.735e+04	-2.040e+04
8	5	377	313.73	18.57	228.64	103.67	133.70	-6302.01	-9.774e+04	-6.799e+04	-3.605e+04	-4.284e+04
8	5	378	150.24	29.49	150.22	29.51	-1.69	-1.598e+04	-5.393e+04	-2.377e+04	-4.614e+04	-1.533e+04
8	5	379	279.72	17.32	154.11	142.94	131.08	-6306.97	-8.980e+04	-4.666e+04	-4.945e+04	-4.173e+04
8	5	380	115.83	16.48	115.63	16.68	4.46	-1.280e+04	-4.629e+04	-1.597e+04	-4.311e+04	-9817.08
8	5	381	251.80	16.31	93.08	175.02	110.38	-6313.79	-8.329e+04	-2.907e+04	-6.054e+04	-3.512e+04
8	5	382	89.41	7.67	89.00	8.07	5.73	-1.076e+04	-4.027e+04	-1.173e+04	-3.930e+04	-5260.37
8	5	383	231.03	15.57	49.29	197.31	78.29	-6320.80	-7.845e+04	-1.636e+04	-6.841e+04	-2.496e+04
8	5	384	72.50	2.88	72.30	3.08	3.69	-9706.46	-3.637e+04	-9881.26	-3.620e+04	-2151.84
8	5	385	218.24	15.12	23.45	209.91	40.28	-6326.12	-7.546e+04	-8812.58	-7.298e+04	-1.287e+04
8	5	386	66.62	1.43	66.62	1.43	2.94e-03	-9387.48	-3.502e+04	-9387.59	-3.502e+04	-53.58
8	5	387	213.92	14.97	14.97	213.92	-3.48e-04	-6328.11	-7.446e+04	-6328.11	-7.446e+04	-0.68
8	5	388	72.49	2.88	72.30	3.08	-3.68	-9681.56	-3.640e+04	-9840.25	-3.624e+04	2052.84
8	5	389	218.24	15.12	23.45	209.91	-40.29	-6326.11	-7.546e+04	-8812.06	-7.298e+04	1.287e+04
8	5	390	89.40	7.67	89.00	8.08	-5.72	-1.072e+04	-4.032e+04	-1.165e+04	-3.938e+04	5184.59
8	5	391	231.03	15.57	49.29	197.31	-78.29	-6320.77	-7.845e+04	-1.636e+04	-6.841e+04	2.496e+04
8	5	392	115.83	16.48	115.63	16.68	-4.46	-1.274e+04	-4.634e+04	-1.588e+04	-4.321e+04	9776.07
8	5	393	251.80	16.31	93.08	175.02	-110.39	-6313.75	-8.329e+04	-2.907e+04	-6.054e+04	3.512e+04
8	5	394	150.23	29.49	150.21	29.52	1.69	-1.592e+04	-5.400e+04	-2.366e+04	-4.625e+04	1.533e+04
8	5	395	279.72	17.32	154.11	142.94	-131.08	-6306.93	-8.980e+04	-4.666e+04	-4.945e+04	4.173e+04
8	5	396	191.14	46.37	189.78	47.73	13.95	-2.028e+04	-6.283e+04	-3.566e+04	-4.745e+04	2.044e+04
8	5	397	313.73	18.57	228.64	103.66	-133.70	-6301.96	-9.774e+04	-6.799e+04	-3.605e+04	4.284e+04
8	5	398	237.01	66.42	230.47	72.95	32.75	-2.573e+04	-7.243e+04	-5.147e+04	-4.670e+04	2.323e+04
8	5	399	352.52	20.02	308.87	63.67	-112.28	-6299.59	-1.068e+05	-9.076e+04	-2.233e+04	3.679e+04
8	5	400	286.19	88.76	267.85	107.10	57.31	-3.208e+04	-8.243e+04	-6.949e+04	-4.501e+04	2.200e+04
8	5	401	394.59	21.60	383.21	32.98	-64.15	-6300.07	-1.166e+05	-1.116e+05	-1.127e+04	2.288e+04
8	5	402	336.92	112.42	297.58	151.76	85.34	-3.906e+04	-9.243e+04	-8.715e+04	-4.435e+04	1.595e+04
8	5	403	438.33	23.26	438.18	23.41	7.90	-6303.12	-1.268e+05	-1.268e+05	-6335.39	1971.67
8	5	404	387.35	136.38	316.21	207.52	113.11	-4.637e+04	-1.021e+05	-1.015e+05	-4.694e+04	5621.29
8	5	405	482.06	24.93	461.57	45.42	94.57	-6308.21	-1.370e+05	-1.328e+05	-1.057e+04	-2.321e+04
8	5	406	435.65	159.60	321.98	273.27	135.86	-5.366e+04	-1.112e+05	-1.103e+05	-5.454e+04	-7033.44
8	5	407	524.10	26.54	446.00	104.64	181.00	-6314.58	-1.468e+05	-1.275e+05	-2.562e+04	-4.837e+04
8	5	408	480.03	181.14	315.36	345.81	148.67	-6.060e+04	-1.193e+05	-1.122e+05	-6.767e+04	-1.910e+04
8	5	409	562.85	28.03	391.67	199.20	249.49	-6321.49	-1.559e+05	-1.112e+05	-5.097e+04	-6.844e+04
8	5	410	518.85	200.10	299.13	419.82	147.51	-6.684e+04	-1.262e+05	-1.078e+05	-8.525e+04	-2.747e+04
8	5	411	596.80	29.33	307.48	318.65	283.68	-6328.14	-1.638e+05	-8.645e+04	-8.366e+04	-7.872e+04
8	5	412	550.67	215.70	277.91	488.46	130.26	-7.206e+04	-1.318e+05	-9.924e+04	-1.047e+05	-2.976e+04
8	5	413	624.67	30.41	209.79	445.29	272.80	-6334.17	-1.703e+05	-5.795e+04	-1.187e+05	-7.615e+04
8	5	414	574.29	227.32	257.23	544.37	97.39	-7.601e+04	-1.359e+05	-8.958e+04	-1.224e+05	-2.508e+04
8	5	415	645.38	31.20	119.02	557.56	214.99	-6338.77	-1.751e+05	-3.159e+04	-1.499e+05	-6.020e+04
8	5	416	588.82	234.48	242.32	580.98	52.12	-7.847e+04	-1.384e+05	-8.211e+04	-1.348e+05	-1.433e+04

M_G	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		-2101.82	-758.70	-2101.78	-979.75		-5.632e+05	-5.629e+05	-3.264e+05	-1.422e+05
	2512.53		1246.94	2512.49	993.67	4.370e+05		4.367e+05	1.921e+05	1.590e+05

VERIFICHE ELEMENTI PARETE E/O GUSCIO IN C.A.

LEGENDA TABELLA VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.

Per le pareti in c.a., in ottemperanza al cap. 7 del DM 17-01-18, viene effettuata una doppia progettazione: sia come *Singolo Elemento* sia come *Parete Sismica* o *Parete Debolmente Armata.*

Per la progettazione come *Singolo Elemento* di ogni elemento vengono riportati il codice dello stato di verifica con le sigle **Ok e NV,** il rapporto x/d, la verifica per sollecitazioni ultime (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti), gli sforzi membranali e flessionali, il quantitativo di armatura nella direzione principale e secondaria sia inferiore che superiore e il quantitativo di armatura a taglio.

Per la progettazione come *Parete Sismica* o *Parete Debolmente Armata* vengono riportate invece le caratteristiche geometriche della parete e delle zone dissipative (quest'ultime solo nel caso di parete sismica), i coefficienti di verifica a compressione assiale, pressoflessione e sollecitazioni taglianti.

Inoltre vengono riportate per ogni quota significativa l'armatura principale e secondaria, l'armatura in zona confinata (solo per parete sismica) e non confinata, l'armatura concentrata all'estremità (per pareti debolmente armate), lo sforzo assiale aggiuntivo per q superiore a 2 e i valori di inviluppo di taglio e momento. Per le pareti debolmente armate viene riportato anche lo stato di verifica relativo alla snellezza.

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

La progettazione nel caso dei gusci viene effettuata una progettazione come *Singolo Elemento,* riportando in tabella il rapporto x/d, la verifica per sollecitazioni ultime, (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti) di ogni elemento.

Per ogni elemento, viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso. 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.

Nel caso dei gusci viene effettuata, inoltre, la verifica a punzonamento, riportando in tabella il codice dello stato di verifica, il coefficiente di verifica per piastre prive di armature a taglio lungo il perimetro resistente e lungo il perimetro del pilastro, coefficiente di incremento dovuto ai momenti flettenti, fattore di amplificazione per le fondazioni, il fattorei di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta, il quantitativo di armatura a punzonamento, il numero di serie di armature, il numero di braccia di armatura ed il riferimento alla combinazione più gravosa.

Simbologia adottata nelle tabelle di verifica

Per gli elementi con progettazione "*Singolo Elemento …*" è presente una tabella con i simboli di seguito descritti:

Macro Guscio	Numero del macroelemento di tipo guscio (elementi non verticali contigui ed analoghi per proprietà)
Macro Setto	Numero del macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Spessore	Spessore della parete
Id Materiale	Codice del materiale assegnato all'elemento
Id Criterio	Codice del criterio di progetto assegnato all'elemento
Progettazione	Sigla tipo di Elemento: - Singolo Elemento; - Singolo Elemento FONDAZIONE; - Singolo Elemento NON DISSIPATIVO

Per gli elementi con progettazione "*Parete Sismica o Parete Debolmente Armata*" è presente una tabella con i simboli di seguito descritti:

Parete	Numero della PARETE SISMICA
Parete PDA	Numero della PARETE DEBOLMENTE ARMATA
H totale	Altezza complessiva della parete
Spessore	Spessore della parete
H critica	Altezza come da punto 7.4.4.5.1 per traslazione momento (solo in Parete Sismica)
H critica V	Altezza della zona dissipativa (solo in Parete Sismica)
L totale	Larghezza di base della parete
L confinata	Lunghezza della zona dissipativa (solo in Parete Sismica)
Verif. N	Verifica di cui al punto 7.4.4.5.1 compressione semplice
Verif. N-M	Verifica di cui al punto 7.4.4.5.1 pressoflessione
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. 7.4.4
Verif. V	Verifica di cui al punto 7.4.4.5.1 taglio (compressione cls, trazione acciaio, scorrimento in zona critica) (solo in Parete Sismica)
Verifica Snellezza	Verifica di cui al punto 7.4.4.5.1 limitazione compressione per prevenire l'instabilità (solo in Parete Debolmente Armata)
Prog. composta	Sigla per la progettazione composta

Per le verifiche degli elementi con progettazione "*Singolo Elemento …*" e *Progettazione Composta* è presente una tabella con i simboli di seguito descritti:

Nodo	numero del nodo
Stato	codice di verifica dell'elemento **ok** o **NV**

x/d	rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
V N/M	Verifica delle sollecitazioni Normali (momento e sforzo normale)
Ver. rid	Rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd)
Af pr+	quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr-	quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec+	quantità di armatura richiesta in direzione secondaria relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	quantità di armatura richiesta in direzione secondaria relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Nz No Nzo	Sforzi membranali per pareti e\o setti verticali
Mz Mo Mzo	Sforzi flessionali per pareti e\o setti verticali
Nx Ny Nxy	Sforzi membranali per gusci orizzontali
Mx Mx Mxy	Sforzi flessionali per gusci orizzontali

Nodo	numero del nodo
Stato	codice di verifica dell'elemento **ok** o **NV**
Max tau	Tensione tangenziale Massima
Ver V pr	Verifica a taglio nella direzione principale lato calcestruzzo
Ver V sec	Verifica a taglio nella direzione secondaria lato calcestruzzo
Af V pr	Armatura nella direzione principale
V pr-	Verifica dell'armatura nella direzione principale
Af V sec	Armatura nella direzione secondaria
V sec-	Verifica dell'armatura nella direzione secondaria

Per le verifiche degli elementi con progettazione "*Parete Sismica o Parete Debolmente Armata*", oltre alla tabella con le verifiche per gli elementi con progettazione "*Singolo Elemento …*", è presente una tabella con i simboli di seguito descritti:

Quota	Ascissa verticale di riferimento
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. V acc(7)	Rapporto tra azione di calcolo e resistenza a taglio-trazione per alfaS minore di 2 secondo paragrafo 7.4.4.5.1
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
N invil M invil	Inviluppo del Momento e Sforzo Normale come al punto 7.4.4.5.1 (informativo) (solo in Parete Sismica)

Quota	Ascissa verticale di riferimento
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
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

Quota	Ascissa verticale di riferimento
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 [7.4.20]
Vid	Valore del contributo alla resistenza allo scorrimento come da [7.4.21]
A s.i.	Somma delle aree di armature
Incli.	Angolo di inclinazione delle armature
Dist.	Distanza alla base tra le armature inclinate

Quota	Ascissa verticale di riferimento
V[7.4.16]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.16)

N M V	Sollecitazioni di calcolo della condizione più gravosa
Alfas	Rapporto di Taglio
Vrd,c	Resistenza a taglio degli elementi non armati
VRd,s	Resistenza a taglio nei confronti dello scorrimento
V[7.4.17]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.17)
roH	Rapporto tra l'armatura orizzontale e l'area della sezione relativa di calcestruzzo
roV	Rapporto tra l'armatura verticale e l'area della sezione relativa di calcestruzzo
roN	Sforzo normale adimensionalizzato Ned/(bw fyd)

Per la verifica a *Punzonamento* è presente una tabella con i simboli di seguito descritti:

Nodo	numero del nodo
Stato	codice di verifica dell'elemento **ok** o **NV**
V. 6.47	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro resistente U1
V. 6.53	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro del pilastro U0
Beta	Fattore di incremento dovuto ai momenti flettenti
f. a fon	fattore di amplificazione per le fondazioni (solo per gusci di fondazione)
f. Uout	fattore di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta
Aw tot	Quantitativo di armatura per la verifica di piastre munite di armatura (formula 6.52 dell'EC2)
Asw,min	Quantitativo minimo di armatura previsto dai dettagli costruttivi (formula 9.11 dell'EC2)
n. x serie	Numero di serie di armature
n.ser 0(R)	Numero di braccia delle armatura in direzione 0 (o numero di braccia radiale)
n.ser 90	Numero di braccia delle armatura in direzione 90 (solo se armatura cruciforme)
Rif. cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 prevede:
"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 azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;
- […];
- quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD"A" e 1,10 in CD"B";

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 di un coefficiente pari 1.1 in CDB e 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 pari a 1.2 in CDB e 1.35 in CDA.
N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.
N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
1	239.00	4	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
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.07	1.0	5.26e-02	72.6	10.1	53.8	10.1	-1345.3	1271.0	1190.6	-6.839e+05	-2.565e+05	4.561e+04
2	ok	0.04	1.0	2.61e-02	40.5	10.1	42.3	10.1	-507.3	502.1	699.4	-3.543e+05	-2.614e+05	2.093e+04
3	ok	0.04	1.0	2.32e-02	43.0	10.1	39.8	10.1	-648.0	805.0	368.3	-3.604e+05	-2.436e+05	2.160e+04
4	ok	0.07	1.0	4.90e-02	72.5	10.1	55.0	10.1	-868.2	783.4	-1409.4	-6.520e+05	-2.607e+05	-8.727e+04
17	ok	0.05	1.0	2.54e-02	45.9	10.1	36.9	10.1	-591.8	902.5	-11.8	-3.608e+05	-2.118e+05	1.346e+04
18	ok	0.07	1.0	5.38e-02	71.0	10.1	51.9	10.1	-190.8	-156.5	-1639.8	-5.882e+05	-2.817e+05	-1.332e+05
25	ok	0.04	1.0	2.72e-02	44.4	10.1	33.3	10.1	269.8	-592.5	-582.7	-3.176e+05	-2.054e+05	-2.067e+04
26	ok	0.07	1.0	5.79e-02	65.8	10.1	46.0	10.1	487.3	-1077.4	-1407.4	-5.007e+05	-2.975e+05	-1.570e+05
33	ok	0.04	1.0	2.82e-02	39.1	10.1	25.1	10.1	382.2	-838.8	-287.4	-2.927e+05	-1.666e+05	-3.445e+04
34	ok	0.08	1.0	5.97e-02	74.9	10.1	54.3	10.1	921.7	-1725.7	-796.6	-4.025e+05	-2.978e+05	-1.590e+05
41	ok	0.04	1.0	2.77e-02	37.0	10.1	16.7	10.1	352.3	313.0	-470.2	-2.757e+05	-1.006e+05	-6.425e+04
42	ok	0.07	1.0	5.94e-02	67.5	10.1	41.7	10.1	1042.2	30.5	-883.6	-3.382e+05	-2.278e+05	-1.612e+05

49	ok	0.04	1.0	2.64e-02	38.2	10.1	18.9	10.1	606.7	126.1	-292.0	-2.098e+05	-7.546e+04	-9.210e+04
50	ok	0.06	1.0	5.73e-02	59.4	10.1	33.7	10.1	1450.3	-252.9	-309.8	-2.282e+05	-1.963e+05	-1.486e+05
57	ok	0.03	1.0	2.45e-02	34.3	10.4	22.4	10.4	691.8	78.0	-36.8	-1.296e+05	-5.716e+04	-1.101e+05
58	ok	0.06	1.0	5.42e-02	62.3	10.1	34.3	10.1	1426.4	-154.3	332.7	-1.277e+05	-1.440e+05	-1.291e+05
65	ok	0.03	1.0	2.26e-02	29.5	15.2	20.8	15.2	-470.8	-271.2	342.3	-4.588e+04	-4.623e+04	-1.086e+05
66	ok	0.06	1.0	5.13e-02	63.3	12.9	51.5	12.9	-800.2	-428.0	1039.0	-4.791e+04	-8.542e+04	-1.025e+05
73	ok	0.03	1.0	2.09e-02	25.0	15.7	26.1	11.3	-631.8	-105.3	142.0	3.862e+04	-2.860e+04	-1.051e+05
74	ok	0.04	1.0	4.83e-02	43.0	13.7	43.3	15.4	242.7	-170.1	-61.5	-5.347e+04	-1.155e+05	2722.2
81	ok	0.02	1.0	1.99e-02	20.6	20.2	20.6	16.3	-618.4	-81.8	-110.1	1.172e+05	-8614.7	-8.856e+04
82	ok	0.03	1.0	4.52e-02	22.3	17.7	22.3	39.5	-251.8	1431.3	639.7	1.225e+05	7.225e+04	-1.062e+05
89	ok	0.03	1.0	2.01e-02	10.1	22.1	10.1	22.9	-125.9	727.9	85.1	1.704e+05	3.403e+04	-5.807e+04
90	ok	0.06	1.0	4.30e-02	11.9	32.2	11.5	60.2	-636.1	1682.9	58.7	2.040e+05	1.290e+05	-1.147e+05
97	ok	0.03	1.0	2.09e-02	10.1	29.2	10.1	29.7	-217.4	706.7	-178.6	2.099e+05	7.270e+04	-3.496e+04
98	ok	0.07	1.0	4.21e-02	11.6	55.8	11.6	72.6	-650.5	1520.6	-619.5	2.886e+05	1.649e+05	-1.218e+05
105	ok	0.03	1.0	2.17e-02	10.1	33.5	10.1	26.8	-158.0	513.3	-425.4	2.346e+05	1.118e+05	-1.903e+04
106	ok	0.07	1.0	4.28e-02	11.5	70.7	11.6	60.4	-302.0	958.2	-1152.6	3.719e+05	1.795e+05	-1.190e+05
113	ok	0.04	1.0	2.21e-02	10.1	37.1	10.1	27.3	17.9	187.5	-564.3	2.490e+05	1.441e+05	-1.216e+04
114	ok	0.09	1.0	4.42e-02	11.5	83.0	11.5	50.6	267.0	146.4	-1346.2	4.452e+05	1.779e+05	-1.002e+05
121	ok	0.04	1.0	2.15e-02	10.1	42.2	10.1	24.3	507.1	-631.4	272.8	2.704e+05	1.569e+05	1.630e+04
122	ok	0.09	1.0	4.48e-02	11.6	88.9	11.3	32.1	828.8	-677.9	-1121.5	4.978e+05	1.680e+05	-6.427e+04
129	ok	0.04	1.0	2.02e-02	10.1	44.1	10.1	23.4	414.8	-376.9	551.0	2.664e+05	1.725e+05	1.540e+04
130	ok	0.09	1.0	4.29e-02	11.6	89.1	10.7	24.0	1201.3	-1060.8	952.4	5.233e+05	1.702e+05	3.610e+04
137	ok	0.04	1.0	2.14e-02	10.1	42.2	10.1	29.6	192.3	9.9	699.8	2.602e+05	1.703e+05	1.137e+04
138	ok	0.10	1.0	4.61e-02	11.6	93.7	11.3	45.3	730.3	-317.7	1467.1	4.936e+05	1.878e+05	8.126e+04
145	ok	0.04	1.0	2.27e-02	10.1	37.3	10.1	32.4	-71.8	434.4	665.7	2.518e+05	1.506e+05	1.012e+04
146	ok	0.09	1.0	4.75e-02	11.5	83.3	11.5	63.9	53.7	621.3	1577.6	4.354e+05	2.033e+05	1.112e+05
153	ok	0.03	1.0	2.34e-02	10.1	31.6	10.1	31.1	-273.7	786.2	454.6	2.382e+05	1.173e+05	1.644e+04
154	ok	0.07	1.0	4.89e-02	11.5	67.9	11.6	71.9	-577.7	1495.5	1234.8	3.591e+05	2.079e+05	1.225e+05
161	ok	0.03	1.0	2.41e-02	10.1	26.4	10.1	34.1	-329.5	975.9	131.3	2.146e+05	7.715e+04	3.221e+04
162	ok	0.09	1.0	5.17e-02	11.6	47.1	11.6	85.9	-926.7	2058.3	539.8	2.761e+05	1.930e+05	1.172e+05
169	ok	0.03	1.0	2.52e-02	10.4	20.9	10.4	26.7	-205.4	964.5	-201.8	1.761e+05	3.743e+04	5.558e+04
170	ok	0.07	1.0	5.61e-02	15.7	26.1	15.3	75.6	-850.8	2159.2	-288.0	1.949e+05	1.538e+05	1.027e+05
177	ok	0.03	1.0	2.70e-02	23.5	21.4	23.5	18.4	-865.3	8.0	8.8	1.107e+05	-1.134e+04	9.059e+04
178	ok	0.04	1.0	6.06e-02	23.9	16.7	25.3	51.4	-352.5	1793.5	-983.9	1.193e+05	9.116e+04	8.854e+04
185	ok	0.03	1.0	2.91e-02	33.9	16.0	36.2	15.2	416.1	488.5	-505.5	4.796e+04	-2.157e+04	1.031e+05
186	ok	0.04	0.5	6.42e-02	43.1	20.4	44.8	21.9	420.1	1104.5	-1325.5	4.757e+04	1.207e+04	8.338e+04
193	ok	0.03	1.0	3.10e-02	32.8	10.2	23.8	10.2	-596.7	-302.5	-532.9	-5.321e+04	-4.806e+04	1.087e+05
194	ok	0.06	1.0	6.78e-02	67.2	14.4	56.0	11.6	-1010.7	-479.1	-1446.0	-6.037e+04	-8.861e+04	8.217e+04
201	ok	0.04	1.0	3.28e-02	37.9	10.1	24.2	10.1	-242.5	-629.5	-601.0	-1.347e+05	-6.842e+04	9.780e+04
202	ok	0.09	1.0	7.03e-02	83.2	11.1	45.2	10.3	-132.3	-1326.1	-1477.8	-1.330e+05	-1.735e+05	8.882e+04
209	ok	0.04	1.0	3.44e-02	41.5	10.1	20.1	10.1	127.6	-941.3	-466.9	-2.050e+05	-9.562e+04	7.719e+04
210	ok	0.08	1.0	7.28e-02	80.0	10.1	32.3	10.1	679.2	-2054.1	-1027.1	-2.097e+05	-2.476e+05	1.081e+05
217	ok	0.04	1.0	3.55e-02	40.5	10.1	15.3	10.1	400.5	-1126.9	-158.1	-2.596e+05	-1.307e+05	5.299e+04
218	ok	0.08	1.0	7.44e-02	75.9	10.1	44.5	10.1	1171.7	-2413.9	-215.6	-2.953e+05	-3.002e+05	1.334e+05
225	ok	0.04	1.0	3.57e-02	42.4	10.1	23.5	10.1	494.3	-1108.0	240.1	-2.974e+05	-1.710e+05	3.170e+04
226	ok	0.09	1.0	7.42e-02	81.8	10.1	55.4	10.1	1197.9	-2263.4	716.9	-3.900e+05	-3.259e+05	1.544e+05
233	ok	0.05	1.0	3.43e-02	46.8	10.1	32.9	10.1	385.5	-865.3	611.9	-3.213e+05	-2.109e+05	1.808e+04
234	ok	0.09	1.0	7.13e-02	85.2	10.1	66.3	10.1	763.0	-1614.7	1489.5	-4.880e+05	-3.259e+05	1.604e+05
241	ok	0.05	1.0	3.20e-02	48.8	10.1	37.9	10.1	116.2	-446.1	847.6	-3.358e+05	-2.432e+05	1.366e+04
242	ok	0.08	1.0	6.56e-02	74.0	10.1	49.4	10.1	22.6	-631.4	1871.2	-5.784e+05	-3.072e+05	1.442e+05
249	ok	0.05	1.0	2.93e-02	46.0	10.1	39.5	10.1	-219.7	50.1	878.6	-3.459e+05	-2.613e+05	1.628e+04
250	ok	0.08	1.0	5.93e-02	75.7	10.1	52.6	10.1	-769.6	423.2	1754.9	-6.477e+05	-2.806e+05	1.043e+05

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
								-1345.33	-2413.93	-1639.79	-6.839e+05	-3.259e+05	-1.612e+05
	0.10	0.99	0.07	85.18	93.74	66.31	85.88	1450.27	2159.19	1871.23	5.233e+05	2.079e+05	1.604e+05

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
1	ok Av	13.64	0.39	0.32	12.0	9.8	2451.3	2006.4
2	ok Av	7.62	0.22	0.18	6.6	5.6	1353.3	1140.0
3	ok Av	7.98	0.24	0.24	7.3	7.4	1482.4	1515.0
4	ok Av	13.93	0.42	0.41	13.0	12.6	2655.6	2569.2
17	ok Av	8.10	0.23	0.28	7.0	8.6	1432.7	1762.1
18	ok Av	14.35	0.40	0.49	12.3	15.1	2513.2	3093.8
25	ok Av	7.97	0.19	0.29	5.9	9.0	1212.3	1840.9
26	ok Av	14.32	0.33	0.53	10.0	16.2	2048.7	3304.3
33	ok Av	7.59	0.14	0.28	4.2	8.5	854.4	1742.1
34	ok Av	13.84	0.21	0.51	6.5	15.5	1334.3	3173.5
41	ok Av	6.97	0.10	0.24	3.2	7.3	650.4	1482.8
42	ok Av	12.94	0.20	0.43	6.2	13.3	1265.2	2725.5
49	ok Av	6.15	0.14	0.18	4.4	5.4	905.8	1103.9
50	ok Av	11.66	0.29	0.32	8.7	9.9	1787.7	2031.8
57	ok Av	5.16	0.16	0.11	4.9	3.2	998.2	663.4
58	ok Av	10.06	0.32	0.19	9.8	5.9	2003.6	1200.6
65	ok Av	4.07	0.15	0.04	4.5	1.1	917.7	228.0

66	ok Av	8.27	0.30	0.06	9.2	1.8	1885.4	359.7
73	ok Av	4.14	0.15	0.04	4.5	1.4	919.0	279.6
74	ok Av	8.60	0.30	0.11	9.2	3.2	1882.9	661.9
81	ok Av	4.95	0.14	0.11	4.4	3.5	903.1	712.0
82	ok Av	9.95	0.28	0.24	8.7	7.2	1774.4	1479.9
89	ok Av	5.66	0.12	0.18	3.5	5.4	724.2	1098.0
90	ok Av	11.07	0.22	0.35	6.7	10.7	1359.8	2181.6
97	ok Av	6.20	0.07	0.22	2.0	6.7	414.0	1379.0
98	ok Av	11.85	0.13	0.42	4.0	13.0	819.3	2658.5
105	ok Av	6.52	0.13	0.24	4.0	7.4	827.4	1513.6
106	ok Av	12.23	0.24	0.45	7.4	13.9	1504.8	2838.0
113	ok Av	6.60	0.17	0.24	5.1	7.3	1040.8	1483.1
114	ok Av	12.17	0.31	0.43	9.6	13.2	1961.3	2694.1
121	ok Av	6.42	0.18	0.21	5.4	6.3	1098.6	1295.1
122	ok Av	11.69	0.34	0.36	10.4	11.0	2116.9	2251.5
129	ok Av	6.03	0.16	0.16	4.9	4.8	992.3	987.5
130	ok Av	11.37	0.31	0.28	9.5	8.7	1946.5	1782.9
137	ok Av	6.45	0.18	0.21	5.4	6.4	1097.4	1301.2
138	ok Av	12.31	0.33	0.39	10.2	12.0	2077.6	2449.1
145	ok Av	6.62	0.17	0.24	5.1	7.3	1038.4	1488.9
146	ok Av	12.85	0.30	0.46	9.2	14.1	1884.2	2880.3
153	ok Av	6.54	0.13	0.24	4.0	7.4	824.0	1518.8
154	ok Av	12.95	0.22	0.48	6.8	14.7	1392.8	3005.6
161	ok Av	6.22	0.07	0.22	2.0	6.8	418.4	1383.5
162	ok Av	12.61	0.14	0.45	4.2	13.7	851.7	2801.0
169	ok Av	5.69	0.12	0.18	3.6	5.4	729.4	1101.5
170	ok Av	11.87	0.24	0.37	7.5	11.2	1527.3	2293.5
177	ok Av	4.98	0.14	0.11	4.4	3.5	908.9	714.4
178	ok Av	10.78	0.31	0.25	9.6	7.6	1960.6	1557.0
185	ok Av	4.16	0.15	0.04	4.5	1.4	925.2	280.8
186	ok Av	9.46	0.33	0.11	10.2	3.4	2080.5	701.2
193	ok Av	4.10	0.15	0.04	4.5	1.1	924.0	228.0
194	ok Av	9.12	0.33	0.06	10.2	1.8	2086.9	359.7
201	ok Av	5.19	0.16	0.11	4.9	3.3	1004.3	664.6
202	ok Av	10.88	0.35	0.20	10.8	6.1	2201.2	1239.9
209	ok Av	6.17	0.15	0.18	4.5	5.4	911.6	1106.3
210	ok Av	12.44	0.31	0.34	9.7	10.3	1973.9	2108.9
217	ok Av	7.00	0.10	0.24	3.2	7.3	655.6	1486.3
218	ok Av	13.69	0.23	0.45	7.0	13.9	1432.7	2837.4
225	ok Av	7.61	0.14	0.28	4.2	8.5	850.0	1746.5
226	ok Av	14.55	0.19	0.53	5.8	16.2	1191.8	3316.0
233	ok Av	7.99	0.19	0.29	5.9	9.0	1208.8	1846.1
234	ok Av	14.99	0.31	0.55	9.5	17.0	1936.7	3471.9
241	ok Av	8.12	0.23	0.28	7.0	8.6	1430.3	1767.9
242	ok Av	14.98	0.39	0.52	11.9	16.0	2436.1	3280.0
249	ok Av	7.99	0.24	0.24	7.2	7.4	1481.1	1521.2
250	ok Av	14.52	0.42	0.44	12.8	13.5	2616.3	2766.8

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	14.99	0.42	0.55	12.99	16.98	2655.58	3471.86

Macro Guscio	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
2	216.80	4	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**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
2	ok	0.05	1.0	1.72e-02	43.6	10.1	34.6	10.1	-449.5	473.0	269.5	-3.682e+05	-2.089e+05	5711.2
3	ok	0.05	1.0	1.55e-02	43.3	10.1	32.7	10.1	-356.7	374.7	-309.3	-3.620e+05	-2.035e+05	-1.484e+04
5	ok	0.03	1.0	8.55e-03	25.9	10.1	27.5	10.1	-212.3	271.6	147.8	-2.171e+05	-1.814e+05	3492.3
6	ok	0.03	1.0	7.70e-03	27.4	10.1	27.0	10.1	-228.1	311.5	17.8	-2.193e+05	-1.729e+05	1.082e+04
17	ok	0.05	1.0	1.59e-02	43.8	10.1	29.3	10.1	-169.8	145.3	-441.8	-3.470e+05	-1.902e+05	-2.731e+04
19	ok	0.03	1.0	7.53e-03	29.8	10.1	25.3	10.1	-176.9	281.3	-102.5	-2.216e+05	-1.516e+05	1.243e+04
25	ok	0.05	1.0	1.62e-02	41.5	10.1	24.4	10.1	50.4	-115.1	-442.3	-3.218e+05	-1.694e+05	-4.201e+04
27	ok	0.03	1.0	7.50e-03	30.0	10.1	20.7	10.1	-76.7	198.3	-179.4	-2.197e+05	-1.223e+05	5122.2
33	ok	0.05	1.0	1.60e-02	42.2	10.1	20.9	10.1	102.6	69.3	-367.5	-2.934e+05	-1.389e+05	-5.710e+04
35	ok	0.03	1.0	7.32e-03	27.7	10.1	13.7	10.1	39.5	94.7	-194.7	-2.086e+05	-9.148e+04	-1.118e+04
41	ok	0.05	1.0	1.54e-02	41.2	10.1	19.3	10.1	291.9	-96.3	-253.4	-2.438e+05	-1.135e+05	-7.639e+04
43	ok	0.03	1.0	6.87e-03	26.2	10.1	11.7	10.1	135.4	6.3	-151.2	-1.841e+05	-6.465e+04	-3.331e+04
49	ok	0.04	1.0	1.44e-02	37.7	10.1	20.8	10.1	374.1	-162.4	-69.6	-1.822e+05	-8.936e+04	-9.252e+04
51	ok	0.03	1.0	6.23e-03	24.3	10.1	14.5	10.1	183.1	-39.2	-70.7	-1.450e+05	-4.524e+04	-5.581e+04
57	ok	0.04	1.0	1.32e-02	31.0	10.1	23.4	10.1	331.4	-111.6	112.5	-1.118e+05	-6.680e+04	-1.026e+05

59	ok	0.03	1.0	5.52e-03	20.4	10.1	16.9	10.1	172.2	-31.5	13.8	-9.316e+04	-3.339e+04	-7.274e+04
65	ok	0.03	1.0	1.22e-02	22.4	10.1	22.4	10.1	189.1	30.2	225.3	-3.708e+04	-4.474e+04	-1.045e+05
67	ok	0.02	1.0	4.95e-03	15.4	10.1	15.4	10.1	112.4	19.6	70.4	-3.403e+04	-2.626e+04	-7.956e+04
73	ok	0.02	1.0	1.15e-02	16.4	11.9	16.4	11.9	-252.6	70.0	185.2	4.017e+04	-2.193e+04	-9.772e+04
75	ok	0.02	1.0	4.75e-03	11.1	10.1	11.1	10.1	-116.7	8.0	56.2	2.910e+04	-1.887e+04	-7.428e+04
81	ok	0.03	1.0	1.12e-02	12.6	17.6	12.6	16.7	-327.7	153.2	20.6	1.081e+05	3122.9	-8.478e+04
83	ok	0.02	1.0	5.08e-03	10.1	13.0	10.1	13.0	-146.8	35.0	-16.5	8.194e+04	-8058.5	-5.949e+04
89	ok	0.03	1.0	1.14e-02	10.1	25.4	10.1	20.6	-282.1	123.8	-159.5	1.663e+05	3.065e+04	-6.691e+04
91	ok	0.02	1.0	5.78e-03	10.1	16.6	10.1	12.9	-121.5	11.8	-93.3	1.229e+05	9578.2	-3.856e+04
97	ok	0.04	1.0	1.20e-02	10.1	33.2	10.1	20.7	-128.1	-6.6	-284.1	2.121e+05	5.992e+04	-4.733e+04
99	ok	0.03	1.0	6.59e-03	10.1	19.8	10.1	12.2	-47.6	-54.6	-142.0	1.496e+05	3.415e+04	-1.722e+04
105	ok	0.04	1.0	1.29e-02	10.1	38.5	10.1	21.4	-22.9	124.9	-348.4	2.390e+05	9.191e+04	-3.254e+04
107	ok	0.03	1.0	7.33e-03	10.1	21.7	10.1	11.9	50.3	-139.9	-139.9	1.631e+05	6.265e+04	-773.8
113	ok	0.05	1.0	1.38e-02	10.1	41.7	10.1	20.1	160.7	-98.9	-351.6	2.608e+05	1.161e+05	-1.957e+04
115	ok	0.03	1.0	7.88e-03	10.1	23.0	10.1	12.1	138.6	-211.1	-82.2	1.671e+05	8.976e+04	7574.3
121	ok	0.05	1.0	1.45e-02	10.1	42.5	10.1	17.0	315.1	-295.9	-236.6	2.733e+05	1.319e+05	-1.001e+04
123	ok	0.03	1.0	8.17e-03	10.1	24.2	10.1	12.6	186.2	-237.6	15.8	1.664e+05	1.095e+05	7739.1
129	ok	0.05	1.0	1.47e-02	10.1	43.1	10.1	15.9	384.7	-371.0	225.4	2.782e+05	1.385e+05	4528.7
131	ok	0.03	1.0	8.19e-03	10.1	24.7	10.1	13.9	175.6	-202.9	123.7	1.650e+05	1.172e+05	2657.1
137	ok	0.05	1.0	1.46e-02	10.1	44.1	10.1	20.9	251.6	-194.7	405.2	2.729e+05	1.342e+05	1.181e+04
139	ok	0.03	1.0	8.14e-03	10.1	24.1	10.1	14.7	139.5	-217.4	86.0	1.662e+05	1.086e+05	-7646.9
145	ok	0.05	1.0	1.49e-02	10.1	41.8	10.1	24.3	39.0	60.6	475.9	2.598e+05	1.190e+05	2.072e+04
147	ok	0.03	1.0	8.34e-03	10.1	23.1	10.1	14.3	55.5	-154.5	163.5	1.668e+05	8.894e+04	-7369.1
153	ok	0.04	1.0	1.53e-02	10.1	37.7	10.1	25.1	-181.5	321.2	409.4	2.377e+05	9.512e+04	3.286e+04
155	ok	0.03	1.0	8.40e-03	10.1	21.5	10.1	13.0	-91.1	145.1	199.2	1.586e+05	6.542e+04	3133.1
161	ok	0.04	1.0	1.58e-02	10.1	31.3	10.1	23.5	-333.4	509.4	222.5	2.049e+05	6.614e+04	4.843e+04
163	ok	0.03	1.0	8.40e-03	10.1	18.7	10.1	12.6	-167.6	39.0	150.1	1.491e+05	3.356e+04	1.754e+04
169	ok	0.03	1.0	1.66e-02	10.1	22.6	10.1	22.9	-361.9	568.8	-27.5	1.602e+05	3.564e+04	6.601e+04
171	ok	0.02	1.0	8.43e-03	10.1	15.4	10.1	12.9	-236.5	100.3	59.9	1.222e+05	9107.5	3.888e+04
177	ok	0.03	1.0	1.76e-02	18.3	15.4	18.3	15.4	-487.2	274.9	-144.8	1.052e+05	4084.5	8.363e+04
179	ok	0.02	1.0	8.56e-03	10.1	12.0	10.1	12.0	-241.3	103.0	-53.3	8.117e+04	-8416.2	5.974e+04
185	ok	0.03	1.0	1.84e-02	18.7	10.1	18.7	10.1	-353.9	133.5	-353.8	3.784e+04	-2.156e+04	9.592e+04
187	ok	0.02	1.0	8.78e-03	12.7	10.1	12.7	10.1	-178.2	43.2	-151.8	2.825e+04	-1.915e+04	7.444e+04
193	ok	0.03	1.0	1.92e-02	24.7	10.1	24.7	10.1	219.6	37.6	-412.5	-3.555e+04	-4.432e+04	1.024e+05
195	ok	0.02	1.0	9.04e-03	17.0	10.1	17.0	10.1	133.8	24.7	-177.3	-3.315e+04	-2.602e+04	7.960e+04
201	ok	0.04	1.0	1.99e-02	33.6	10.1	25.0	10.1	432.6	-175.1	-281.1	-1.094e+05	-6.718e+04	1.007e+05
203	ok	0.03	1.0	9.36e-03	22.1	10.1	18.0	10.1	233.7	-66.7	-109.4	-9.231e+04	-3.311e+04	7.290e+04
209	ok	0.04	1.0	2.07e-02	40.1	10.1	21.6	10.1	533.6	-284.1	-54.6	-1.793e+05	-9.032e+04	9.137e+04
211	ok	0.03	1.0	9.74e-03	26.1	10.1	15.2	10.1	277.6	-107.3	0.9	-1.442e+05	-4.488e+04	5.607e+04
217	ok	0.05	1.0	2.12e-02	43.4	10.1	18.1	10.1	488.2	-254.8	192.5	-2.406e+05	-1.147e+05	7.607e+04
219	ok	0.03	1.0	1.00e-02	27.6	10.1	11.8	10.1	250.4	-82.3	117.8	-1.835e+05	-6.418e+04	3.362e+04
225	ok	0.05	1.0	2.13e-02	44.3	10.1	18.8	10.1	396.1	-534.9	305.9	-2.839e+05	-1.475e+05	5.819e+04
227	ok	0.03	1.0	1.02e-02	29.2	10.1	12.4	10.1	159.5	1.1	202.8	-2.081e+05	-9.088e+04	1.151e+04
233	ok	0.05	1.0	2.08e-02	44.0	10.1	23.0	10.1	208.9	-311.5	503.3	-3.205e+05	-1.726e+05	4.233e+04
235	ok	0.04	1.0	9.98e-03	31.6	10.1	20.1	10.1	32.1	116.0	227.7	-2.193e+05	-1.216e+05	-4835.2
241	ok	0.05	1.0	1.98e-02	46.7	10.1	29.5	10.1	-48.1	-14.2	566.0	-3.460e+05	-1.931e+05	2.846e+04
243	ok	0.04	1.0	9.64e-03	31.6	10.1	25.5	10.1	-93.8	224.8	183.7	-2.213e+05	-1.508e+05	-1.223e+04
249	ok	0.05	1.0	1.86e-02	46.0	10.1	33.0	10.1	-293.2	273.4	477.9	-3.616e+05	-2.058e+05	1.664e+04
251	ok	0.03	1.0	9.18e-03	29.1	10.1	27.6	10.1	-181.5	291.3	84.0	-2.191e+05	-1.720e+05	-1.073e+04

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
								-487.23	-534.92	-442.33	-3.682e+05	-2.089e+05	-1.045e+05
	0.05	0.99	0.02	46.68	44.09	34.57	25.13	533.60	568.82	566.04	2.782e+05	1.385e+05	1.024e+05

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
2	ok Av	6.42	0.23	0.04	7.2	1.2	1327.8	228.4
3	ok Av	6.44	0.23	0.10	7.0	3.2	1292.9	594.3
5	ok Av	4.29	0.16	0.03	4.8	0.9	884.9	166.2
6	ok Av	4.29	0.15	0.07	4.7	2.1	872.1	392.3
17	ok Av	6.34	0.20	0.16	6.0	5.0	1110.2	916.4
19	ok Av	4.16	0.14	0.10	4.2	3.1	773.8	574.9
25	ok Av	6.10	0.14	0.20	4.4	6.1	807.0	1121.8
27	ok Av	3.92	0.11	0.12	3.3	3.7	604.4	688.6
33	ok Av	5.73	0.08	0.21	2.3	6.4	428.1	1182.3
35	ok Av	3.58	0.07	0.13	2.1	3.9	388.7	718.3
41	ok Av	5.26	0.03	0.19	0.9	5.9	164.6	1091.5
43	ok Av	3.15	5.65e-04	0.12	1.73e-02	3.6	3.2	661.3
49	ok Av	4.72	0.09	0.15	2.6	4.7	483.6	865.5
51	ok	2.66						
57	ok Av	4.17	0.12	0.10	3.7	2.9	690.4	540.5
59	ok	2.17						
65	ok Av	3.69	0.13	0.03	4.1	0.9	756.8	167.1
67	ok	1.73						
73	ok Av	3.68	0.13	0.04	4.0	1.2	736.6	230.6
75	ok	1.59						

81	ok Av	3.91	0.10	0.10	3.2	3.1	589.4	570.6
83	ok	1.84						
89	ok Av	4.21	0.06	0.15	1.8	4.5	325.9	822.9
91	ok	2.18						
97	ok Av	4.53	0.03	0.17	1.1	5.1	196.2	950.3
99	ok	2.53						
105	ok Av	4.78	0.09	0.16	2.9	5.1	538.4	935.4
107	ok	2.83						
113	ok Av	4.94	0.14	0.14	4.4	4.2	815.3	782.7
115	ok Av	3.04	0.08	0.08	2.4	2.5	449.4	454.4
121	ok Av	4.99	0.17	0.09	5.3	2.8	983.0	518.4
123	ok Av	3.15	0.11	0.06	3.4	1.7	631.5	314.8
129	ok Av	4.94	0.18	0.04	5.5	1.2	1014.9	213.3
131	ok Av	3.14	0.11	0.02	3.5	0.7	645.8	134.7
137	ok Av	5.03	0.17	0.10	5.3	2.9	977.7	545.2
139	ok Av	3.15	0.11	0.06	3.4	1.7	631.5	314.9
145	ok Av	5.00	0.14	0.14	4.4	4.4	804.9	808.0
147	ok Av	3.04	0.08	0.08	2.4	2.5	449.4	454.4
153	ok Av	4.86	0.09	0.17	2.8	5.2	523.2	958.1
155	ok	2.83						
161	ok Av	4.62	0.03	0.17	1.0	5.2	176.8	969.7
163	ok	2.53						
169	ok Av	4.32	0.06	0.15	1.9	4.5	348.7	838.1
171	ok	2.18						
177	ok Av	4.03	0.11	0.10	3.3	3.1	614.7	581.1
179	ok	1.84						
185	ok Av	3.81	0.13	0.04	4.1	1.3	763.4	235.9
187	ok	1.59						
193	ok Av	3.82	0.14	0.03	4.2	0.9	784.1	167.1
195	ok	1.73						
201	ok Av	4.29	0.13	0.10	3.9	3.0	717.2	545.8
203	ok	2.17						
209	ok Av	4.82	0.09	0.15	2.8	4.7	508.9	875.9
211	ok	2.66						
217	ok Av	5.34	0.03	0.20	1.0	6.0	187.4	1106.7
219	ok Av	3.15	5.69e-04	0.12	1.75e-02	3.6	3.2	661.3
225	ok Av	5.80	0.07	0.21	2.2	6.5	408.8	1201.6
227	ok Av	3.58	0.07	0.13	2.1	3.9	388.7	718.3
233	ok Av	6.16	0.14	0.20	4.3	6.2	791.8	1144.6
235	ok Av	3.92	0.11	0.12	3.3	3.7	604.4	688.7
241	ok Av	6.39	0.19	0.17	5.9	5.1	1099.7	941.7
243	ok Av	4.16	0.14	0.10	4.2	3.1	773.8	575.0
249	ok Av	6.47	0.23	0.11	7.0	3.4	1287.5	621.1
251	ok Av	4.29	0.15	0.07	4.7	2.1	872.1	392.3

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	6.47	0.23	0.21	7.18	6.50	1327.76	1201.63

Macro Guscio	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
3	194.70	4	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**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
5	ok	0.04	1.0	7.92e-03	29.0	10.1	23.7	10.1	-201.8	244.8	72.2	-2.197e+05	-1.430e+05	1357.9
6	ok	0.04	1.0	7.46e-03	29.0	10.1	22.9	10.1	-184.5	225.6	-80.4	-2.183e+05	-1.378e+05	-1879.8
7	ok	0.03	1.0	4.20e-03	17.0	10.1	19.3	10.1	-104.3	166.5	43.8	-1.284e+05	-1.195e+05	1518.5
8	ok	0.03	1.0	3.97e-03	18.4	10.1	19.5	10.1	-103.6	168.3	-21.1	-1.305e+05	-1.138e+05	9280.3
19	ok	0.04	1.0	7.13e-03	29.8	10.1	20.8	10.1	-115.9	148.4	-160.8	-2.141e+05	-1.237e+05	-5658.8
20	ok	0.03	1.0	3.70e-03	20.5	10.1	18.2	10.1	-72.6	137.7	-74.9	-1.342e+05	-9.852e+04	1.272e+04
27	ok	0.04	1.0	6.74e-03	29.2	10.1	16.2	10.1	-39.6	97.1	-181.7	-2.079e+05	-1.038e+05	-1.254e+04
28	ok	0.03	1.0	3.43e-03	21.2	10.1	14.4	10.1	-22.9	86.2	-103.6	-1.361e+05	-7.746e+04	9159.4
35	ok	0.04	1.0	6.22e-03	29.1	10.1	13.0	10.1	58.7	0.3	-170.3	-1.913e+05	-8.201e+04	-2.667e+04
36	ok	0.03	1.0	3.07e-03	19.2	10.1	10.5	10.1	28.7	30.7	-101.9	-1.322e+05	-5.539e+04	-1665.0
43	ok	0.04	1.0	5.57e-03	28.2	10.1	13.8	10.1	128.4	-69.8	-111.4	-1.642e+05	-6.214e+04	-4.372e+04
44	ok	0.03	1.0	2.61e-03	17.8	10.1	10.5	10.1	65.8	-12.2	-74.5	-1.191e+05	-3.672e+04	-1.748e+04
51	ok	0.03	1.0	4.85e-03	25.3	10.1	15.9	10.1	149.3	-93.0	-29.8	-1.263e+05	-4.646e+04	-6.008e+04
52	ok	0.03	1.0	2.08e-03	16.2	10.1	12.1	10.1	77.7	-31.6	-34.4	-9.544e+04	-2.408e+04	-3.419e+04
59	ok	0.03	1.0	4.18e-03	20.5	10.1	18.1	10.1	119.3	-67.0	43.4	-7.920e+04	-3.519e+04	-7.186e+04
60	ok	0.03	1.0	1.54e-03	13.3	10.1	13.3	10.1	63.1	-26.1	2.4	-6.235e+04	-1.767e+04	-4.719e+04
67	ok	0.03	1.0	3.75e-03	15.6	10.1	15.6	10.1	53.7	-7.0	81.8	-2.699e+04	-2.663e+04	-7.605e+04
68	ok	0.02	1.0	1.10e-03	10.5	10.1	10.5	10.1	30.0	-3.0	22.3	-2.355e+04	-1.528e+04	-5.290e+04

75	ok	0.02	1.0	3.71e-03	11.2	10.1	11.2	10.1	-65.3	39.9	66.3	2.967e+04	-1.716e+04	-7.093e+04
76	ok	0.02	0.7	1.13e-03	10.1	10.1	10.1	10.1	-23.2	12.2	16.4	1.935e+04	-1.241e+04	-4.949e+04
83	ok	0.03	1.0	4.08e-03	10.1	14.0	10.1	14.0	-107.2	77.8	6.9	7.626e+04	-5425.8	-5.869e+04
84	ok	0.02	1.0	1.79e-03	10.1	10.1	10.1	10.1	-45.1	25.2	-11.2	5.381e+04	-7363.4	-3.878e+04
91	ok	0.03	1.0	4.72e-03	10.1	18.2	10.1	14.0	-102.5	70.8	-66.4	1.136e+05	1.086e+04	-4.207e+04
92	ok	0.02	1.0	2.60e-03	10.1	11.8	10.1	11.5	-43.6	16.1	-45.7	7.965e+04	3121.6	-2.367e+04
99	ok	0.03	1.0	5.46e-03	10.1	21.7	10.1	13.2	-51.0	18.9	-124.0	1.400e+05	3.139e+04	-2.502e+04
100	ok	0.03	1.0	3.36e-03	10.1	13.4	10.1	10.6	-18.3	-15.1	-71.7	9.532e+04	1.920e+04	-8514.8
107	ok	0.03	1.0	6.19e-03	10.1	24.2	10.1	12.4	30.0	-60.7	-141.1	1.560e+05	5.378e+04	-1.113e+04
108	ok	0.03	1.0	4.02e-03	10.1	14.5	10.1	10.2	22.0	-59.2	-76.7	1.018e+05	3.862e+04	2697.6
115	ok	0.03	1.0	6.81e-03	10.1	25.5	10.1	11.7	112.2	-139.6	-107.4	1.639e+05	7.421e+04	-2491.4
116	ok	0.03	1.0	4.52e-03	10.1	15.0	10.1	10.1	62.5	-101.5	-55.4	1.022e+05	5.739e+04	7629.1
123	ok	0.03	1.0	7.27e-03	10.1	26.0	10.1	10.9	165.4	-187.9	-30.3	1.668e+05	8.857e+04	899.8
124	ok	0.03	1.0	4.85e-03	10.1	15.3	10.1	10.3	87.8	-126.4	-11.9	1.002e+05	7.103e+04	6336.9
131	ok	0.04	1.0	7.50e-03	10.1	26.4	10.1	11.6	169.0	-185.0	66.5	1.672e+05	9.372e+04	1040.4
132	ok	0.03	1.0	5.11e-03	10.1	15.2	10.1	10.4	87.2	-123.2	41.2	9.874e+04	7.609e+04	1169.8
139	ok	0.04	1.0	7.68e-03	10.1	26.7	10.1	12.8	125.5	-153.8	126.1	1.667e+05	8.848e+04	-675.1
140	ok	0.03	1.0	5.21e-03	10.1	14.7	10.1	10.3	61.2	-108.6	74.4	1.002e+05	7.093e+04	-6332.2
147	ok	0.04	1.0	7.80e-03	10.1	26.0	10.1	13.1	38.4	-71.6	181.7	1.637e+05	7.420e+04	2689.8
148	ok	0.03	1.0	5.15e-03	10.1	14.3	10.1	10.2	13.7	-61.5	104.7	1.022e+05	5.729e+04	-7610.5
155	ok	0.03	1.0	7.80e-03	10.1	23.9	10.1	13.4	-66.8	30.3	182.7	1.557e+05	5.384e+04	1.127e+04
156	ok	0.03	1.0	4.95e-03	10.1	13.8	10.1	10.3	-42.3	-3.7	105.3	1.018e+05	3.853e+04	-2667.9
163	ok	0.03	1.0	7.74e-03	10.1	20.8	10.1	13.6	-156.6	118.7	126.4	1.397e+05	3.149e+04	2.508e+04
164	ok	0.02	1.0	4.65e-03	10.1	12.6	10.1	10.6	-88.9	46.8	75.2	9.527e+04	1.913e+04	8551.1
171	ok	0.03	1.0	7.69e-03	10.1	16.9	10.1	13.8	-201.2	163.7	29.4	1.133e+05	1.097e+04	4.204e+04
172	ok	0.02	1.0	4.33e-03	10.1	10.9	10.1	10.9	-110.5	74.2	23.5	7.958e+04	3061.2	2.371e+04
179	ok	0.02	1.0	7.67e-03	10.1	12.7	10.1	12.7	-184.4	149.2	-77.8	7.595e+04	-5343.1	5.858e+04
180	ok	0.02	0.9	4.01e-03	10.1	10.1	10.1	10.1	-98.9	70.1	-33.2	5.373e+04	-7409.8	3.882e+04
187	ok	0.02	1.0	7.67e-03	12.5	10.1	12.5	10.1	-109.8	78.6	-160.3	2.941e+04	-1.713e+04	7.075e+04
188	ok	0.02	0.8	3.78e-03	10.1	10.1	10.1	10.1	-56.2	36.4	-76.3	1.925e+04	-1.245e+04	4.951e+04
195	ok	0.03	1.0	7.70e-03	17.0	10.1	17.0	10.1	59.1	-6.6	-184.5	-2.681e+04	-2.658e+04	7.583e+04
196	ok	0.02	1.0	3.68e-03	11.4	10.1	11.4	10.1	37.9	-2.1	-88.5	-2.345e+04	-1.525e+04	5.291e+04
203	ok	0.03	1.0	7.81e-03	22.0	10.1	19.1	10.1	163.8	-105.7	-137.3	-7.894e+04	-3.521e+04	7.168e+04
204	ok	0.03	1.0	3.70e-03	14.2	10.1	14.2	10.1	96.1	-50.2	-62.3	-6.225e+04	-1.763e+04	4.722e+04
211	ok	0.04	1.0	8.05e-03	26.9	10.1	16.5	10.1	226.6	-164.4	-41.0	-1.259e+05	-4.654e+04	5.998e+04
212	ok	0.03	1.0	3.83e-03	17.3	10.1	12.5	10.1	131.4	-76.5	-10.0	-9.536e+04	-2.404e+04	3.422e+04
219	ok	0.04	1.0	8.30e-03	29.5	10.1	13.9	10.1	227.1	-162.6	74.4	-1.639e+05	-6.225e+04	4.369e+04
220	ok	0.03	1.0	4.02e-03	18.8	10.1	10.6	10.1	132.7	-70.3	52.4	-1.191e+05	-3.666e+04	1.752e+04
227	ok	0.04	1.0	8.47e-03	30.4	10.1	11.7	10.1	164.3	-99.5	172.7	-1.909e+05	-8.211e+04	2.674e+04
228	ok	0.03	1.0	4.19e-03	20.0	10.1	10.4	10.1	99.4	-31.1	105.4	-1.322e+05	-5.531e+04	1701.3
235	ok	0.04	1.0	8.49e-03	30.9	10.1	15.6	10.1	57.3	6.1	223.3	-2.076e+05	-1.038e+05	1.268e+04
236	ok	0.03	1.0	4.29e-03	22.5	10.1	14.1	10.1	41.4	30.8	132.2	-1.360e+05	-7.737e+04	-9129.7
243	ok	0.04	1.0	8.39e-03	31.7	10.1	20.9	10.1	-44.5	71.2	231.7	-2.140e+05	-1.240e+05	5766.9
244	ok	0.03	1.0	4.33e-03	21.7	10.1	18.3	10.1	-23.8	97.8	124.2	-1.341e+05	-9.842e+04	-1.270e+04
251	ok	0.04	1.0	8.21e-03	30.7	10.1	23.6	10.1	-145.9	181.2	174.3	-2.182e+05	-1.380e+05	2055.6
252	ok	0.03	1.0	4.31e-03	19.6	10.1	20.1	10.1	-77.1	150.6	83.6	-1.305e+05	-1.137e+05	-9275.7

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**
								-201.80	-187.88	-184.51	-2.197e+05	-1.430e+05	-7.605e+04
	0.04	0.99	8.49e-03	31.67	26.74	23.71	13.97	227.05	244.77	231.68	1.672e+05	9.372e+04	7.583e+04

Nodo	**Stato**	**Max tau** daN/cm2	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr** daN/cm	**V sec** daN/cm
5	ok Av	4.36	0.16	2.86e-03	5.0	8.77e-02	819.5	14.5
6	ok Av	4.30	0.15	0.04	4.7	1.4	782.3	226.5
7	ok Av	3.32	0.12	0.01	3.8	0.4	620.8	69.7
8	ok Av	3.28	0.12	0.04	3.7	1.3	608.7	207.8
19	ok Av	4.12	0.13	0.08	4.0	2.5	668.4	409.8
20	ok Av	3.13	0.11	0.06	3.3	1.9	545.6	321.3
27	ok Av	3.83	0.10	0.11	3.0	3.2	494.5	535.3
28	ok	2.88						
35	ok Av	3.44	0.06	0.12	1.7	3.5	285.9	586.1
36	ok	2.54						
43	ok Av	2.99	0.01	0.11	0.4	3.4	72.9	557.8
44	ok	2.13						
51	ok	2.52						
52	ok	1.67						
59	ok	2.07						
60	ok	1.19						
67	ok	1.75						
68	ok	0.77						
75	ok	1.65						
76	ok	0.62						
83	ok	1.81						
84	ok	0.90						
91	ok	2.12						

92	ok	1.31						
99	ok	2.48						
100	ok	1.69						
107	ok	2.82						
108	ok	2.02						
115	ok Av	3.08	0.10	0.07	2.9	2.1	486.4	342.0
116	ok	2.26						
123	ok Av	3.24	0.12	0.04	3.5	1.2	587.0	197.1
124	ok	2.41						
131	ok Av	3.29	0.12	4.82e-03	3.7	0.1	618.4	24.5
132	ok	2.46						
139	ok Av	3.24	0.12	0.04	3.5	1.2	586.3	200.3
140	ok	2.41						
147	ok Av	3.08	0.10	0.07	2.9	2.1	485.2	345.1
148	ok	2.26						
155	ok	2.82						
156	ok	2.02						
163	ok	2.49						
164	ok	1.69						
171	ok	2.14						
172	ok	1.31						
179	ok	1.82						
180	ok	0.90						
187	ok	1.67						
188	ok	0.62						
195	ok	1.76						
196	ok	0.77						
203	ok	2.08						
204	ok	1.19						
211	ok	2.53						
212	ok	1.67						
219	ok Av	3.00	0.01	0.11	0.4	3.4	70.2	559.6
220	ok	2.13						
227	ok Av	3.45	0.06	0.12	1.7	3.6	283.6	588.4
228	ok	2.54						
235	ok Av	3.83	0.10	0.11	3.0	3.3	492.6	538.1
236	ok	2.88						
243	ok Av	4.12	0.13	0.08	4.0	2.5	667.1	412.8
244	ok Av	3.13	0.11	0.06	3.3	1.9	545.6	321.2
251	ok Av	4.30	0.15	0.05	4.7	1.4	781.6	229.8
252	ok Av	3.28	0.12	0.04	3.7	1.3	608.7	207.6

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	4.36	0.16	0.12	4.95	3.56	819.51	588.38

Macro Guscio	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
4	172.50	4	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**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
7	ok	0.03	1.0	4.47e-03	19.6	10.1	16.7	10.1	-101.2	150.5	31.0	-1.290e+05	-9.094e+04	599.6
8	ok	0.03	1.0	4.31e-03	20.0	10.1	16.4	10.1	-97.0	147.0	-29.8	-1.294e+05	-8.728e+04	2556.3
9	ok	0.03	1.0	2.52e-03	10.5	10.1	13.6	10.1	-55.5	115.8	23.6	-6.857e+04	-7.364e+04	1051.2
10	ok	0.03	1.0	2.42e-03	11.8	10.1	13.9	10.1	-55.2	114.5	-14.8	-7.050e+04	-6.971e+04	7844.4
20	ok	0.03	1.0	4.05e-03	20.9	10.1	14.9	10.1	-64.4	113.6	-78.1	-1.294e+05	-7.696e+04	1854.0
21	ok	0.03	1.0	2.25e-03	13.6	10.1	12.9	10.1	-38.0	94.4	-46.3	-7.439e+04	-5.925e+04	1.147e+04
28	ok	0.03	1.0	3.71e-03	20.6	10.1	11.4	10.1	-15.4	62.2	-101.0	-1.268e+05	-6.243e+04	-3212.6
29	ok	0.03	1.0	2.04e-03	13.6	10.1	11.6	10.1	-10.8	62.5	-63.0	-7.785e+04	-4.491e+04	9945.3
36	ok	0.03	1.0	3.28e-03	19.4	10.1	10.4	10.1	33.6	9.5	-94.5	-1.192e+05	-4.694e+04	-1.274e+04
37	ok	0.03	1.0	1.77e-03	12.7	10.1	10.3	10.1	16.8	28.4	-62.5	-7.784e+04	-3.015e+04	3024.1
44	ok	0.03	1.0	2.77e-03	18.7	10.1	11.5	10.1	67.0	-28.8	-64.3	-1.042e+05	-3.349e+04	-2.513e+04
45	ok	0.03	1.0	1.44e-03	11.8	10.1	10.1	10.1	35.8	1.5	-47.7	-7.180e+04	-1.809e+04	-7701.4
52	ok	0.03	1.0	2.22e-03	16.9	10.1	13.3	10.1	75.4	-43.2	-23.4	-8.136e+04	-2.388e+04	-3.755e+04
53	ok	0.03	1.0	1.07e-03	10.5	10.1	10.5	10.1	40.5	-12.3	-26.1	-5.856e+04	-1.060e+04	-1.931e+04
60	ok	0.03	1.0	1.69e-03	13.8	10.1	13.8	10.1	58.4	-33.0	12.4	-5.163e+04	-1.828e+04	-4.682e+04
61	ok	0.03	0.9	6.60e-04	10.1	10.1	10.1	10.1	30.6	-12.4	-6.7	-3.882e+04	-7779.6	-2.852e+04
68	ok	0.03	1.0	1.35e-03	11.0	10.1	11.0	10.1	24.6	-6.5	30.2	-1.785e+04	-1.522e+04	-5.051e+04
69	ok	0.03	0.7	3.38e-04	10.1	10.1	10.1	10.1	11.2	-3.3	2.9	-1.507e+04	-8000.9	-3.274e+04
76	ok	0.03	0.8	1.43e-03	10.1	10.1	10.1	10.1	-22.6	18.4	23.4	1.967e+04	-1.156e+04	-4.710e+04
77	ok	0.03	0.5	4.15e-04	10.1	10.1	10.1	10.1	-2.5	5.4	0.7	1.164e+04	-7930.9	-3.066e+04
84	ok	0.03	1.0	1.97e-03	10.1	10.5	10.1	10.5	-45.7	34.7	-3.6	4.958e+04	-6139.3	-3.821e+04

85	ok	0.03	0.7	1.24e-03	10.1	10.1	10.1	10.1	-16.6	9.5	-12.5	3.263e+04	-6361.8	-2.348e+04
92	ok	0.03	1.0	2.68e-03	10.1	12.7	10.1	12.0	-46.4	29.4	-38.6	7.278e+04	3145.0	-2.608e+04
93	ok	0.03	0.8	2.01e-03	10.1	10.1	10.1	10.1	-18.1	1.9	-30.0	4.781e+04	-813.4	-1.327e+04
100	ok	0.03	1.0	3.38e-03	10.1	14.6	10.1	11.2	-23.6	1.6	-67.0	8.810e+04	1.620e+04	-1.383e+04
101	ok	0.03	0.9	2.69e-03	10.1	10.1	10.1	10.1	-6.5	-17.7	-43.4	5.617e+04	8924.4	-3091.2
108	ok	0.03	1.0	4.00e-03	10.1	15.8	10.1	10.5	14.9	-40.6	-75.8	9.622e+04	3.125e+04	-4274.5
109	ok	0.03	0.9	3.26e-03	10.1	10.1	10.1	10.1	13.8	-44.5	-45.5	5.854e+04	2.133e+04	4211.2
116	ok	0.03	1.0	4.50e-03	10.1	16.4	10.1	10.2	55.2	-83.1	-59.0	9.917e+04	4.540e+04	978.2
117	ok	0.03	0.9	3.69e-03	10.1	10.1	10.1	10.1	34.9	-70.3	-32.9	5.712e+04	3.364e+04	6990.4
124	ok	0.03	1.0	4.84e-03	10.1	16.7	10.1	10.1	82.0	-110.8	-19.8	9.948e+04	5.544e+04	2000.0
125	ok	0.03	0.9	3.98e-03	10.1	10.1	10.1	10.1	48.0	-86.3	-7.7	5.462e+04	4.270e+04	5300.7
132	ok	0.03	1.0	5.05e-03	10.1	16.8	10.1	10.1	84.3	-112.4	30.5	9.917e+04	5.896e+04	447.4
133	ok	0.03	0.9	4.11e-03	10.1	10.1	10.1	10.1	47.0	-86.2	23.4	5.324e+04	4.608e+04	831.1
140	ok	0.03	1.0	5.16e-03	10.1	16.6	10.1	10.3	59.9	-88.5	76.1	9.947e+04	5.543e+04	-1980.9
141	ok	0.03	0.9	4.09e-03	10.1	10.1	10.1	10.1	31.5	-76.7	48.4	5.462e+04	4.269e+04	-5300.8
148	ok	0.03	1.0	5.12e-03	10.1	16.2	10.1	10.5	13.3	-41.0	102.5	9.915e+04	4.539e+04	-960.9
149	ok	0.03	0.9	3.92e-03	10.1	10.1	10.1	10.1	3.8	-46.1	65.6	5.711e+04	3.363e+04	-6988.9
156	ok	0.03	1.0	4.97e-03	10.1	15.2	10.1	10.8	-40.4	15.0	99.9	9.620e+04	3.126e+04	4287.5
157	ok	0.03	0.9	3.62e-03	10.1	10.1	10.1	10.1	-27.7	-9.9	65.1	5.854e+04	2.132e+04	-4208.4
164	ok	0.03	1.0	4.72e-03	10.1	13.9	10.1	11.3	-84.0	62.3	68.0	8.807e+04	1.620e+04	1.384e+04
165	ok	0.03	0.8	3.23e-03	10.1	10.1	10.1	10.1	-52.6	21.6	46.9	5.617e+04	8916.1	3094.9
172	ok	0.03	1.0	4.45e-03	10.1	12.0	10.1	11.8	-102.6	85.8	16.5	7.275e+04	3151.7	2.608e+04
173	ok	0.03	0.7	2.79e-03	10.1	10.1	10.1	10.1	-62.3	39.2	16.9	4.781e+04	-820.1	1.327e+04
180	ok	0.03	1.0	4.19e-03	10.1	10.1	10.1	10.1	-89.1	78.4	-38.5	4.955e+04	-6134.4	3.820e+04
181	ok	0.03	0.6	2.37e-03	10.1	10.1	10.1	10.1	-52.7	38.7	-15.2	3.263e+04	-6367.0	2.349e+04
188	ok	0.03	0.8	3.97e-03	10.1	10.1	10.1	10.1	-46.6	42.7	-78.9	1.964e+04	-1.156e+04	4.709e+04
189	ok	0.03	0.5	2.03e-03	10.1	10.1	10.1	10.1	-25.6	21.6	-38.8	1.163e+04	-7934.8	3.066e+04
196	ok	0.03	1.0	3.86e-03	11.8	10.1	11.8	10.1	25.5	-7.7	-90.7	-1.783e+04	-1.521e+04	5.049e+04
197	ok	0.03	0.7	1.86e-03	10.1	10.1	10.1	10.1	18.2	-3.4	-45.5	-1.506e+04	-7997.8	3.274e+04
204	ok	0.03	1.0	3.85e-03	14.6	10.1	14.6	10.1	82.4	-57.2	-67.8	-5.160e+04	-1.828e+04	4.681e+04
205	ok	0.03	0.9	1.85e-03	10.1	10.1	10.1	10.1	53.7	-28.6	-31.3	-3.881e+04	-7775.6	2.853e+04
212	ok	0.03	1.0	3.96e-03	17.8	10.1	13.6	10.1	118.8	-86.8	-18.6	-8.133e+04	-2.389e+04	3.754e+04
213	ok	0.03	1.0	1.94e-03	11.1	10.1	11.0	10.1	76.6	-41.6	-1.6	-5.855e+04	-1.060e+04	1.932e+04
220	ok	0.03	1.0	4.14e-03	19.6	10.1	11.6	10.1	123.2	-85.2	42.1	-1.042e+05	-3.349e+04	2.513e+04
221	ok	0.03	1.0	2.10e-03	12.4	10.1	10.1	10.1	80.0	-35.8	34.6	-7.180e+04	-1.808e+04	7705.4
228	ok	0.03	1.0	4.31e-03	20.2	10.1	10.3	10.1	94.0	-51.1	95.6	-1.191e+05	-4.695e+04	1.275e+04
229	ok	0.03	1.0	2.26e-03	13.3	10.1	10.3	10.1	62.9	-10.9	66.0	-7.783e+04	-3.014e+04	-3020.5
236	ok	0.04	1.0	4.44e-03	21.6	10.1	11.1	10.1	40.0	6.6	125.1	-1.268e+05	-6.243e+04	3225.6
237	ok	0.03	1.0	2.40e-03	14.3	10.1	11.7	10.1	30.7	27.9	82.6	-7.784e+04	-4.491e+04	-9942.5
244	ok	0.04	1.0	4.50e-03	22.0	10.1	14.9	10.1	-22.6	71.5	121.6	-1.294e+05	-7.695e+04	-1836.6
245	ok	0.03	1.0	2.49e-03	14.4	10.1	13.1	10.1	-6.9	70.2	78.9	-7.439e+04	-5.924e+04	-1.147e+04
252	ok	0.03	1.0	4.51e-03	21.0	10.1	16.8	10.1	-75.0	124.7	86.1	-1.294e+05	-8.727e+04	-2537.2
253	ok	0.03	1.0	2.54e-03	12.5	10.1	14.3	10.1	-38.7	104.9	55.6	-7.050e+04	-6.970e+04	-7844.4

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**
									-102.58	-112.36	-100.97	-1.294e+05	-9.094e+04	-5.051e+04
		0.04	0.98	5.16e-03	22.03	16.81	16.82	11.98	123.18	150.48	125.10	9.948e+04	5.896e+04	5.049e+04

Nodo	**Stato**	**Max tau** daN/cm2	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr** daN/cm	**V sec** daN/cm
7	ok Av	3.25	0.12	4.44e-03	3.7	0.1	538.7	19.9
8	ok Av	3.22	0.12	0.03	3.5	1.0	517.3	143.6
9	ok	2.71						
10	ok	2.68						
20	ok Av	3.08	0.10	0.06	3.0	1.7	444.5	249.7
21	ok	2.55						
28	ok	2.84						
29	ok	2.33						
36	ok	2.52						
37	ok	2.04						
44	ok	2.13						
45	ok	1.69						
52	ok	1.68						
53	ok	1.28						
60	ok	1.23						
61	ok	0.84						
68	ok	0.84						
69	ok	0.48						
76	ok	0.69						
77	ok	0.47						
84	ok	0.96						
85	ok	0.62						
92	ok	1.35						
93	ok	1.02						
100	ok	1.73						
101	ok	1.38						

108	ok	2.05						
109	ok	1.67						
116	ok	2.28						
117	ok	1.88						
124	ok	2.42						
125	ok	2.01						
132	ok	2.46						
133	ok	2.05						
140	ok	2.42						
141	ok	2.01						
148	ok	2.28						
149	ok	1.88						
156	ok	2.05						
157	ok	1.67						
164	ok	1.73						
165	ok	1.38						
172	ok	1.36						
173	ok	1.02						
180	ok	0.96						
181	ok	0.62						
188	ok	0.69						
189	ok	0.46						
196	ok	0.84						
197	ok	0.46						
204	ok	1.23						
205	ok	0.84						
212	ok	1.69						
213	ok	1.28						
220	ok	2.13						
221	ok	1.69						
228	ok	2.52						
229	ok	2.04						
236	ok	2.84						
237	ok	2.33						
244	ok Av	3.08	0.10	0.06	3.0	1.7	444.4	250.0
245	ok	2.55						
252	ok Av	3.22	0.12	0.03	3.5	1.0	517.2	143.9
253	ok	2.68						

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	3.25	0.12	0.06	3.69	1.71	538.68	250.01

Macro Guscio	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
5	150.40	4	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**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
9	ok	0.03	1.0	2.78e-03	12.2	10.1	11.3	10.1	-52.4	104.3	16.6	-6.969e+04	-5.341e+04	233.6
10	ok	0.03	1.0	2.68e-03	12.9	10.1	11.3	10.1	-49.7	101.4	-19.3	-7.036e+04	-5.102e+04	2811.7
11	ok	0.03	0.8	1.52e-03	10.1	10.1	10.1	10.1	-29.0	86.5	15.7	-2.932e+04	-4.122e+04	802.3
12	ok	0.03	0.8	1.48e-03	10.1	10.1	10.1	10.1	-29.5	85.5	-8.8	-3.101e+04	-3.857e+04	6374.5
21	ok	0.03	1.0	2.51e-03	13.4	10.1	10.9	10.1	-31.1	81.0	-47.7	-7.152e+04	-4.414e+04	3452.1
22	ok	0.03	0.8	1.39e-03	10.1	10.1	10.1	10.1	-19.8	72.3	-29.1	-3.469e+04	-3.168e+04	9686.0
29	ok	0.03	1.0	2.28e-03	13.2	10.1	10.3	10.1	-3.4	49.9	-61.5	-7.165e+04	-3.452e+04	860.9
30	ok	0.03	0.8	1.26e-03	10.1	10.1	10.1	10.1	-4.1	51.4	-40.4	-3.865e+04	-2.238e+04	9331.1
37	ok	0.03	1.0	1.98e-03	12.8	10.1	10.1	10.1	23.9	17.9	-58.5	-6.880e+04	-2.446e+04	-5100.7
38	ok	0.03	0.8	1.09e-03	10.1	10.1	10.1	10.1	11.7	28.7	-41.0	-4.072e+04	-1.305e+04	5117.0
45	ok	0.03	1.0	1.64e-03	12.1	10.1	10.6	10.1	42.0	-6.3	-41.9	-6.135e+04	-1.609e+04	-1.334e+04
46	ok	0.03	0.7	8.85e-04	10.1	10.1	10.1	10.1	22.1	10.0	-32.9	-3.904e+04	-5839.4	-1870.1
53	ok	0.03	1.0	1.25e-03	10.9	10.1	10.9	10.1	45.9	-17.2	-19.2	-4.861e+04	-1.070e+04	-2.184e+04
54	ok	0.03	0.6	6.55e-04	10.1	10.1	10.1	10.1	23.7	-1.0	-20.6	-3.270e+04	-1992.4	-9622.0
61	ok	0.03	0.9	8.61e-04	10.1	10.1	10.1	10.1	35.4	-14.4	0.6	-3.120e+04	-8378.1	-2.837e+04
62	ok	0.03	0.5	4.10e-04	10.1	10.1	10.1	10.1	16.6	-3.9	-9.6	-2.207e+04	-1522.6	-1.587e+04
69	ok	0.03	0.7	5.42e-04	10.1	10.1	10.1	10.1	15.5	-2.7	10.3	-1.096e+04	-8034.6	-3.114e+04
70	ok	0.03	0.4	1.97e-04	10.1	10.1	10.1	10.1	3.8	-1.5	-4.3	-8759.3	-3255.5	-1.881e+04
77	ok	0.03	0.6	6.62e-04	10.1	10.1	10.1	10.1	-11.0	7.1	7.2	1.207e+04	-7343.8	-2.902e+04
85	ok	0.03	0.7	1.30e-03	10.1	10.1	10.1	10.1	-25.2	13.6	-7.0	2.986e+04	-5396.4	-2.310e+04
86	ok	0.03	0.4	1.33e-03	10.1	10.1	10.1	10.1	-6.3	0.6	-11.7	1.793e+04	-5454.5	-1.305e+04
93	ok	0.03	0.8	1.99e-03	10.1	10.1	10.1	10.1	-27.0	8.4	-26.0	4.318e+04	-589.3	-1.500e+04
94	ok	0.03	0.5	1.99e-03	10.1	10.1	10.1	10.1	-8.7	-6.3	-21.3	2.586e+04	-3196.2	-6433.4
101	ok	0.03	0.9	2.63e-03	10.1	10.1	10.1	10.1	-15.4	-9.2	-41.3	5.132e+04	7083.9	-6923.2

102	ok	0.03	0.5	2.57e-03	10.1	10.1	10.1	10.1	-3.1	-20.2	-28.4	2.945e+04	2114.7	108.4
109	ok	0.03	1.0	3.16e-03	10.1	10.1	10.1	10.1	5.3	-34.7	-45.7	5.487e+04	1.644e+04	-842.5
110	ok	0.03	0.5	3.05e-03	10.1	10.1	10.1	10.1	7.8	-38.1	-28.7	2.930e+04	9512.4	4639.6
117	ok	0.03	1.0	3.57e-03	10.1	10.4	10.1	10.1	27.4	-60.2	-35.6	5.535e+04	2.546e+04	2127.0
118	ok	0.03	0.5	3.39e-03	10.1	10.1	10.1	10.1	19.4	-54.9	-20.2	2.700e+04	1.715e+04	6025.9
125	ok	0.03	1.0	3.84e-03	10.1	10.4	10.1	10.1	42.3	-77.0	-12.8	5.460e+04	3.193e+04	2066.8
126	ok	0.03	0.5	3.61e-03	10.1	10.1	10.1	10.1	26.3	-65.3	-4.0	2.446e+04	2.290e+04	4303.1
133	ok	0.03	1.0	3.98e-03	10.1	10.4	10.1	10.1	43.7	-78.6	16.5	5.409e+04	3.416e+04	182.2
134	ok	0.03	0.4	3.68e-03	10.1	10.1	10.1	10.1	24.9	-65.4	15.7	2.322e+04	2.511e+04	634.9
141	ok	0.03	1.0	4.01e-03	10.1	10.3	10.1	10.1	30.7	-62.8	46.3	5.460e+04	3.193e+04	-2065.5
142	ok	0.03	0.5	3.60e-03	10.1	10.1	10.1	10.1	16.3	-62.9	30.9	2.446e+04	2.290e+04	-4303.2
149	ok	0.03	1.0	3.90e-03	10.1	10.1	10.1	10.1	4.0	-34.2	61.6	5.535e+04	2.546e+04	-2125.8
150	ok	0.03	0.5	3.39e-03	10.1	10.1	10.1	10.1	-0.5	-42.7	42.7	2.700e+04	1.715e+04	-6025.8
157	ok	0.03	0.9	3.67e-03	10.1	10.1	10.1	10.1	-26.2	-0.7	60.2	5.487e+04	1.644e+04	843.5
158	ok	0.03	0.5	3.05e-03	10.1	10.1	10.1	10.1	-19.4	-18.4	43.4	2.930e+04	9511.5	-4639.4
165	ok	0.03	0.9	3.35e-03	10.1	10.1	10.1	10.1	-50.0	27.9	42.2	5.132e+04	7083.8	6923.8
166	ok	0.03	0.5	2.62e-03	10.1	10.1	10.1	10.1	-34.2	3.3	33.0	2.945e+04	2114.0	-108.1
173	ok	0.03	0.8	2.98e-03	10.1	10.1	10.1	10.1	-59.2	43.1	13.1	4.318e+04	-589.1	1.500e+04
174	ok	0.03	0.5	2.12e-03	10.1	10.1	10.1	10.1	-39.4	16.8	15.1	2.586e+04	-3196.8	6433.7
181	ok	0.03	0.7	2.61e-03	10.1	10.1	10.1	10.1	-50.0	40.9	-17.7	2.986e+04	-5396.4	2.310e+04
182	ok	0.03	0.4	1.61e-03	10.1	10.1	10.1	10.1	-32.6	19.3	-4.3	1.793e+04	-5455.0	1.305e+04
189	ok	0.03	0.6	2.31e-03	10.1	10.1	10.1	10.1	-24.3	22.9	-40.0	1.207e+04	-7344.0	2.902e+04
190	ok	0.03	0.3	1.20e-03	10.1	10.1	10.1	10.1	-14.9	11.6	-18.7	6270.6	-4893.4	1.763e+04
197	ok	0.03	0.8	2.13e-03	10.1	10.1	10.1	10.1	15.1	-4.9	-46.2	-1.096e+04	-8034.0	3.114e+04
198	ok	0.03	0.5	9.81e-04	10.1	10.1	10.1	10.1	12.2	-2.2	-22.9	-8758.3	-3255.2	1.881e+04
205	ok	0.03	0.9	2.08e-03	10.1	10.1	10.1	10.1	48.7	-30.3	-33.4	-3.120e+04	-8377.9	2.837e+04
206	ok	0.03	0.6	9.51e-04	10.1	10.1	10.1	10.1	35.1	-14.8	-13.9	-2.207e+04	-1522.2	1.587e+04
213	ok	0.03	1.0	2.19e-03	11.3	10.1	11.3	10.1	70.6	-44.5	-5.5	-4.861e+04	-1.070e+04	2.184e+04
214	ok	0.03	0.7	1.03e-03	10.1	10.1	10.1	10.1	50.0	-19.7	4.6	-3.270e+04	-1991.9	9622.3
221	ok	0.03	1.0	2.35e-03	12.6	10.1	10.6	10.1	74.2	-41.1	29.0	-6.135e+04	-1.609e+04	1.334e+04
222	ok	0.03	0.7	1.16e-03	10.1	10.1	10.1	10.1	52.8	-13.1	26.7	-3.904e+04	-5838.8	1870.5
229	ok	0.03	1.0	2.51e-03	13.3	10.1	10.1	10.1	58.4	-19.3	59.4	-6.880e+04	-2.446e+04	5101.3
230	ok	0.03	0.8	1.29e-03	10.1	10.1	10.1	10.1	42.7	5.2	45.6	-4.072e+04	-1.305e+04	-5116.7
237	ok	0.03	1.0	2.65e-03	13.7	10.1	10.4	10.1	28.1	15.9	76.1	-7.165e+04	-3.451e+04	-859.9
238	ok	0.03	0.8	1.40e-03	10.1	10.1	10.1	10.1	23.1	31.8	55.0	-3.865e+04	-2.238e+04	-9330.8
245	ok	0.03	1.0	2.75e-03	13.9	10.1	11.1	10.1	-7.7	55.0	73.7	-7.152e+04	-4.414e+04	-3450.8
246	ok	0.03	0.8	1.48e-03	10.1	10.1	10.1	10.1	6.23e-02	60.1	51.6	-3.469e+04	-3.168e+04	-9685.8
253	ok	0.03	1.0	2.79e-03	13.5	10.1	11.6	10.1	-38.1	87.3	52.8	-7.036e+04	-5.102e+04	-2810.4
254	ok	0.03	0.8	1.53e-03	10.1	10.1	10.1	10.1	-19.4	83.0	35.7	-3.101e+04	-3.857e+04	-6374.6
449	ok	0.03	0.3	6.24e-04	10.1	10.1	10.1	10.1	3.5	0.8	-4.7	6271.4	-4893.0	-1.763e+04

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**
								-59.21	-78.60	-61.53	-7.165e+04	-5.341e+04	-3.114e+04
	0.03	0.98	4.01e-03	13.91	10.45	11.56	10.07	74.24	104.33	76.10	5.535e+04	3.416e+04	3.114e+04

Nodo	**Stato**	**Max tau** daN/cm2	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr** daN/cm	**V sec** daN/cm
9	ok	2.49						
10	ok	2.47						
11	ok	2.27						
12	ok	2.25						
21	ok	2.36						
22	ok	2.15						
29	ok	2.18						
30	ok	1.99						
37	ok	1.92						
38	ok	1.75						
45	ok	1.60						
46	ok	1.47						
53	ok	1.23						
54	ok	1.13						
61	ok	0.83						
62	ok	0.76						
69	ok	0.44						
70	ok	0.40						
77	ok	0.43						
85	ok	0.63						
86	ok	0.59						
93	ok	1.00						
94	ok	0.92						
101	ok	1.32						
102	ok	1.21						
109	ok	1.57						
110	ok	1.44						
117	ok	1.76						
118	ok	1.61						

125	ok	1.86
126	ok	1.70
133	ok	1.89
134	ok	1.72
141	ok	1.86
142	ok	1.70
149	ok	1.76
150	ok	1.61
157	ok	1.57
158	ok	1.44
165	ok	1.32
166	ok	1.21
173	ok	1.00
174	ok	0.92
181	ok	0.63
182	ok	0.59
189	ok	0.41
190	ok	0.37
197	ok	0.42
198	ok	0.38
205	ok	0.83
206	ok	0.76
213	ok	1.23
214	ok	1.13
221	ok	1.60
222	ok	1.47
229	ok	1.92
230	ok	1.75
237	ok	2.18
238	ok	1.99
245	ok	2.36
246	ok	2.15
253	ok	2.47
254	ok	2.25
449	ok	0.39

Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		2.49						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
6	128.20	4	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
									daN/cm	daN/cm	daN/cm	daN	daN	daN
11	ok	0.04	0.6	1.68e-03	10.1	10.1	10.1	10.1	-24.8	78.4	7.5	-2.946e+04	-2.778e+04	-49.1
12	ok	0.04	0.7	1.63e-03	10.1	10.1	10.1	10.1	-22.3	75.5	-14.8	-3.021e+04	-2.630e+04	2805.6
13	ok	0.04	0.5	8.04e-04	10.1	10.1	10.1	10.1	-12.2	67.0	10.2	-6629.1	-2.013e+04	758.9
14	ok	0.04	0.5	7.91e-04	10.1	10.1	10.1	10.1	-12.8	65.9	-5.7	-8026.8	-1.837e+04	4933.8
22	ok	0.04	0.7	1.54e-03	10.1	10.1	10.1	10.1	-10.5	61.6	-32.2	-3.202e+04	-2.190e+04	4275.8
23	ok	0.04	0.4	7.52e-04	10.1	10.1	10.1	10.1	-7.3	56.9	-18.9	-1.112e+04	-1.409e+04	7568.0
30	ok	0.04	0.7	1.41e-03	10.1	10.1	10.1	10.1	6.3	41.2	-40.4	-3.378e+04	-1.580e+04	3387.8
31	ok	0.04	0.4	6.90e-04	10.1	10.1	10.1	10.1	1.7	42.5	-26.4	-1.475e+04	-8476.3	7749.9
38	ok	0.04	0.7	1.23e-03	10.1	10.1	10.1	10.1	22.2	20.2	-38.4	-3.407e+04	-9584.3	-17.7
39	ok	0.04	0.4	6.06e-04	10.1	10.1	10.1	10.1	10.5	26.8	-27.2	-1.747e+04	-3064.2	5361.5
46	ok	0.04	0.7	1.02e-03	10.1	10.1	10.1	10.1	32.2	3.8	-28.1	-3.162e+04	-4751.3	-5219.5
47	ok	0.04	0.4	5.06e-04	10.1	10.1	10.1	10.1	15.6	13.4	-22.4	-1.803e+04	793.5	1112.2
54	ok	0.04	0.6	7.90e-04	10.1	10.1	10.1	10.1	33.1	-4.5	-14.3	-2.581e+04	-2192.0	-1.084e+04
55	ok	0.04	0.3	3.96e-04	10.1	10.1	10.1	10.1	15.0	4.6	-15.1	-1.579e+04	2331.7	-3698.7
62	ok	0.04	0.6	5.43e-04	10.1	10.1	10.1	10.1	25.2	-4.7	-2.3	-1.694e+04	-1948.8	-1.531e+04
63	ok	0.04	0.3	2.84e-04	10.1	10.1	10.1	10.1	8.9	0.8	-8.6	-1.094e+04	1598.5	-7611.0
70	ok	0.04	0.5	3.13e-04	10.1	10.1	10.1	10.1	11.5	0.4	3.4	-6122.9	-3235.4	-1.736e+04
71	ok	0.04	0.3	3.54e-04	10.1	10.1	10.1	10.1	-0.7	0.2	-5.9	-4457.9	-594.9	-9481.0
79	ok	0.04	0.2	8.53e-04	10.1	10.1	10.1	10.1	5.8	-1.7	-5.4	2685.6	-2787.0	-8886.4
86	ok	0.04	0.4	1.15e-03	10.1	10.1	10.1	10.1	-18.4	3.6	-6.4	1.601e+04	-4609.8	-1.238e+04
87	ok	0.04	0.2	1.48e-03	10.1	10.1	10.1	10.1	-2.2	-3.7	-9.1	8290.9	-4277.3	-6229.7
94	ok	0.04	0.5	1.80e-03	10.1	10.1	10.1	10.1	-14.5	1.4	-18.7	2.142e+04	-3412.1	-7788.2
95	ok	0.04	0.2	2.08e-03	10.1	10.1	10.1	10.1	-5.4	-9.7	-14.6	1.171e+04	-3919.2	-2289.2
102	ok	0.04	0.5	2.38e-03	10.1	10.1	10.1	10.1	-15.4	-13.2	-27.3	2.578e+04	1259.1	-2163.7
103	ok	0.04	0.3	2.61e-03	10.1	10.1	10.1	10.1	-3.6	-19.9	-18.7	1.258e+04	-1484.8	1607.7
110	ok	0.04	0.5	2.85e-03	10.1	10.1	10.1	10.1	-3.6	-30.1	-30.3	2.632e+04	6650.8	1413.1
111	ok	0.04	0.3	3.03e-03	10.1	10.1	10.1	10.1	2.0	-32.4	-18.6	1.130e+04	2477.6	4215.1

118	ok	0.04	0.5	3.20e-03	10.1	10.1	10.1	10.1	9.6	-46.9	-24.4	2.524e+04	1.207e+04	2773.0
119	ok	0.04	0.3	3.34e-03	10.1	10.1	10.1	10.1	8.2	-44.0	-13.0	8928.2	6832.5	4790.3
126	ok	0.04	0.5	3.41e-03	10.1	10.1	10.1	10.1	19.0	-58.4	-10.6	2.389e+04	1.600e+04	2003.4
127	ok	0.04	0.2	3.51e-03	10.1	10.1	10.1	10.1	11.9	-51.3	-2.5	6704.8	1.025e+04	3336.1
134	ok	0.04	0.5	3.49e-03	10.1	10.1	10.1	10.1	20.7	-60.4	7.5	2.330e+04	1.733e+04	-28.5
135	ok	0.04	0.2	3.55e-03	10.1	10.1	10.1	10.1	10.7	-51.7	10.2	5659.5	1.165e+04	584.5
142	ok	0.04	0.5	3.44e-03	10.1	10.1	10.1	10.1	15.1	-49.5	28.4	2.389e+04	1.600e+04	-2003.4
143	ok	0.04	0.2	3.44e-03	10.1	10.1	10.1	10.1	7.0	-54.9	19.1	6704.8	1.025e+04	-3336.1
150	ok	0.04	0.5	3.29e-03	10.1	10.1	10.1	10.1	-0.7	-31.7	38.4	2.524e+04	1.207e+04	-2772.9
151	ok	0.04	0.3	3.20e-03	10.1	10.1	10.1	10.1	-3.0	-41.3	28.1	8928.1	6832.4	-4790.3
158	ok	0.04	0.5	3.02e-03	10.1	10.1	10.1	10.1	-18.2	-10.5	38.3	2.632e+04	6650.8	-1413.1
159	ok	0.04	0.3	2.84e-03	10.1	10.1	10.1	10.1	-14.5	-24.5	29.9	1.130e+04	2477.5	-4215.1
166	ok	0.04	0.5	2.65e-03	10.1	10.1	10.1	10.1	-31.8	8.1	28.2	2.578e+04	1259.0	2163.7
167	ok	0.04	0.3	2.37e-03	10.1	10.1	10.1	10.1	-23.4	-8.6	24.5	1.258e+04	-1484.8	-1607.6
174	ok	0.04	0.5	2.21e-03	10.1	10.1	10.1	10.1	-34.0	16.1	10.7	2.142e+04	-3412.0	7788.2
175	ok	0.04	0.2	1.83e-03	10.1	10.1	10.1	10.1	-26.3	2.6	14.0	1.171e+04	-3919.2	2289.2
182	ok	0.04	0.4	1.75e-03	10.1	10.1	10.1	10.1	-29.9	20.1	-6.3	1.601e+04	-4609.8	1.238e+04
183	ok	0.04	0.2	1.24e-03	10.1	10.1	10.1	10.1	-21.5	7.2	2.2	8290.8	-4277.4	6229.7
190	ok	0.04	0.4	1.36e-03	10.1	10.1	10.1	10.1	-13.7	11.9	-19.0	6656.7	-4381.2	1.615e+04
191	ok	0.04	0.2	7.05e-04	10.1	10.1	10.1	10.1	-9.8	5.4	-6.8	2685.6	-2787.1	8886.5
198	ok	0.04	0.5	1.13e-03	10.1	10.1	10.1	10.1	10.0	-3.0	-22.3	-6122.7	-3235.4	1.736e+04
199	ok	0.04	0.3	4.12e-04	10.1	10.1	10.1	10.1	9.3	-1.4	-9.7	-4457.8	-594.8	9481.0
206	ok	0.04	0.6	1.11e-03	10.1	10.1	10.1	10.1	30.7	-15.2	-14.8	-1.694e+04	-1948.8	1.531e+04
207	ok	0.04	0.3	3.81e-04	10.1	10.1	10.1	10.1	24.5	-6.3	-3.5	-1.094e+04	1598.5	7611.1
214	ok	0.04	0.6	1.20e-03	10.1	10.1	10.1	10.1	44.6	-20.9	1.6	-2.581e+04	-2192.0	1.084e+04
215	ok	0.04	0.4	4.46e-04	10.1	10.1	10.1	10.1	34.4	-6.2	8.2	-1.579e+04	2331.7	3698.7
222	ok	0.04	0.7	1.32e-03	10.1	10.1	10.1	10.1	47.5	-16.4	21.7	-3.162e+04	-4751.3	5219.5
223	ok	0.04	0.4	5.34e-04	10.1	10.1	10.1	10.1	36.4	1.0	21.8	-1.803e+04	793.5	-1112.2
230	ok	0.04	0.7	1.44e-03	10.1	10.1	10.1	10.1	38.6	-1.2	39.2	-3.407e+04	-9584.2	17.8
231	ok	0.04	0.4	6.21e-04	10.1	10.1	10.1	10.1	30.3	15.5	32.9	-1.747e+04	-3064.1	-5361.5
238	ok	0.04	0.8	1.55e-03	10.1	10.1	10.1	10.1	20.9	21.7	48.5	-3.378e+04	-1.580e+04	-3387.7
239	ok	0.04	0.4	6.98e-04	10.1	10.1	10.1	10.1	18.1	34.6	37.7	-1.475e+04	-8476.3	-7749.9
246	ok	0.04	0.7	1.63e-03	10.1	10.1	10.1	10.1	-0.2	46.5	46.2	-3.202e+04	-2.190e+04	-4275.7
247	ok	0.04	0.5	7.56e-04	10.1	10.1	10.1	10.1	3.9	54.2	34.0	-1.112e+04	-1.409e+04	-7568.0
254	ok	0.04	0.7	1.68e-03	10.1	10.1	10.1	10.1	-18.3	66.6	32.6	-3.021e+04	-2.630e+04	-2805.6
255	ok	0.04	0.5	7.92e-04	10.1	10.1	10.1	10.1	-7.9	69.6	22.3	-8026.8	-1.837e+04	-4933.8
449	ok	0.04	0.4	4.82e-04	10.1	10.1	10.1	10.1	-8.1	1.4	1.9	6656.9	-4381.1	-1.615e+04

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**
								-34.04	-60.44	-40.45	-3.407e+04	-2.778e+04	-1.736e+04
	0.04	0.75	3.55e-03	10.05	10.05	10.05	10.05	47.49	78.38	48.49	2.632e+04	1.733e+04	1.736e+04

Nodo	**Stato**	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
		daN/cm2					daN/cm	daN/cm
11	ok	1.75						
12	ok	1.74						
13	ok	1.85						
14	ok	1.86						
22	ok	1.68						
23	ok	1.80						
30	ok	1.55						
31	ok	1.69						
38	ok	1.38						
39	ok	1.51						
46	ok	1.16						
47	ok	1.29						
54	ok	0.90						
55	ok	1.03						
62	ok	0.62						
63	ok	0.74						
70	ok	0.33						
71	ok	0.43						
79	ok	0.32						
86	ok	0.49						
87	ok	0.59						
94	ok	0.74						
95	ok	0.85						
102	ok	0.96						
103	ok	1.07						
110	ok	1.14						
111	ok	1.24						
118	ok	1.26						
119	ok	1.36						
126	ok	1.33						
127	ok	1.41						
134	ok	1.33						

135	ok	1.41
142	ok	1.33
143	ok	1.41
150	ok	1.26
151	ok	1.36
158	ok	1.14
159	ok	1.24
166	ok	0.96
167	ok	1.07
174	ok	0.74
175	ok	0.85
182	ok	0.49
183	ok	0.59
190	ok	0.28
191	ok	0.30
198	ok	0.33
199	ok	0.43
206	ok	0.62
207	ok	0.74
214	ok	0.90
215	ok	1.03
222	ok	1.16
223	ok	1.29
230	ok	1.38
231	ok	1.51
238	ok	1.55
239	ok	1.69
246	ok	1.68
247	ok	1.80
254	ok	1.74
255	ok	1.86
449	ok	0.30

Nodo	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
	1.86						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
7	106.00	4	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
									daN/cm	daN/cm	daN/cm	daN	daN	daN
13	ok	0.04	0.3	8.75e-04	10.1	10.1	10.1	10.1	-7.6	62.1	0.5	-6767.4	-1.196e+04	217.9
14	ok	0.04	0.3	8.67e-04	10.1	10.1	10.1	10.1	-4.4	58.6	-13.6	-7636.5	-1.097e+04	2831.6
15	ok	0.04	0.3	2.24e-04	10.1	10.1	10.1	10.1	-0.8	53.1	5.1	-481.5	-8643.4	2202.6
16	ok	0.04	0.2	2.27e-04	10.1	10.1	10.1	10.1	-0.8	51.4	-4.9	-1792.1	-7227.4	3830.0
23	ok	0.04	0.4	8.37e-04	10.1	10.1	10.1	10.1	4.0	48.2	-24.0	-9702.2	-8171.6	4417.2
24	ok	0.04	0.2	2.24e-04	10.1	10.1	10.1	10.1	2.6	44.5	-13.1	-3579.3	-5067.5	4570.2
31	ok	0.04	0.4	7.85e-04	10.1	10.1	10.1	10.1	14.8	33.8	-28.3	-1.215e+04	-4420.4	4285.6
32	ok	0.04	0.2	2.18e-04	10.1	10.1	10.1	10.1	7.6	34.3	-17.4	-5297.8	-2723.4	4249.4
39	ok	0.04	0.4	7.14e-04	10.1	10.1	10.1	10.1	24.3	19.1	-25.9	-1.393e+04	-814.2	2320.4
40	ok	0.04	0.2	2.08e-04	10.1	10.1	10.1	10.1	21.3	26.3	-26.7	-3075.8	-3871.1	3344.6
47	ok	0.04	0.4	6.27e-04	10.1	10.1	10.1	10.1	29.2	7.8	-18.4	-1.411e+04	1646.1	-980.8
48	ok	0.04	0.2	1.96e-04	10.1	10.1	10.1	10.1	26.2	14.3	-22.3	-4153.9	-1703.5	2639.4
55	ok	0.04	0.4	5.27e-04	10.1	10.1	10.1	10.1	28.0	1.6	-9.0	-1.220e+04	2380.9	-4669.5
56	ok	0.04	0.1	1.84e-04	10.1	10.1	10.1	10.1	10.9	6.9	-9.5	-5642.4	732.9	-405.5
63	ok	0.04	0.3	4.22e-04	10.1	10.1	10.1	10.1	20.8	0.5	-1.2	-8319.1	1409.6	-7657.4
64	ok	0.04	0.1	1.78e-04	10.1	10.1	10.1	10.1	4.8	3.3	-5.7	-3933.7	340.0	-1560.5
71	ok	0.04	0.3	3.41e-04	10.1	10.1	10.1	10.1	10.0	2.7	2.4	-3175.6	-672.7	-9072.8
72	ok	0.04	7.98e-02	4.16e-04	10.1	10.1	10.1	10.1	-3.4	1.6	-4.5	-1882.0	-337.0	-1898.3
79	ok	0.04	0.2	6.17e-04	10.1	10.1	10.1	10.1	-8.7	-1.5	1.5	3551.1	-2546.8	-8347.1
80	ok	0.04	7.14e-02	9.97e-04	10.1	10.1	10.1	10.1	5.9	-2.9	-3.6	-126.9	-406.8	-1992.6
87	ok	0.04	0.3	1.25e-03	10.1	10.1	10.1	10.1	-17.4	-1.0	-4.0	7833.8	-3920.3	-6001.4
88	ok	0.04	7.14e-02	1.62e-03	10.1	10.1	10.1	10.1	-1.4	-5.3	-5.5	1899.1	-1117.0	-1568.9
95	ok	0.04	0.3	1.87e-03	10.1	10.1	10.1	10.1	-21.0	-4.9	-11.9	1.036e+04	-3802.7	-2752.2
96	ok	0.04	8.62e-02	2.20e-03	10.1	10.1	10.1	10.1	-5.6	-10.1	-9.0	3375.8	-1387.3	-434.2
103	ok	0.04	0.3	2.40e-03	10.1	10.1	10.1	10.1	-18.7	-13.6	-18.8	1.092e+04	-2080.9	379.3
104	ok	0.04	0.1	2.71e-03	10.1	10.1	10.1	10.1	-6.3	-17.6	-11.9	3978.8	-939.6	1005.2
111	ok	0.04	0.3	2.84e-03	10.1	10.1	10.1	10.1	-12.0	-25.5	-21.7	9887.2	778.1	2470.2
112	ok	0.04	0.1	3.11e-03	10.1	10.1	10.1	10.1	-4.1	-26.6	-12.2	3666.2	227.6	2252.4
119	ok	0.04	0.2	3.15e-03	10.1	10.1	10.1	10.1	-3.5	-37.6	-19.0	8081.6	3887.1	3003.9
120	ok	0.04	0.1	3.39e-03	10.1	10.1	10.1	10.1	-1.0	-35.0	-9.1	2679.0	1840.5	2890.6

127	ok	0.04	0.2	3.34e-03	10.1	10.1	10.1	10.1	3.4	-46.5	-10.9	6455.3	6243.3	2035.6
128	ok	0.04	0.1	3.54e-03	10.1	10.1	10.1	10.1	1.2	-40.7	-2.8	1446.1	3446.1	2723.5
135	ok	0.04	0.2	3.39e-03	10.1	10.1	10.1	10.1	6.1	-49.5	0.5	5755.9	7071.1	160.4
136	ok	0.04	0.1	3.56e-03	10.1	10.1	10.1	10.1	0.8	-42.0	5.2	428.2	4569.4	1837.6
143	ok	0.04	0.2	3.29e-03	10.1	10.1	10.1	10.1	5.9	-40.2	16.6	6455.3	6243.3	-2035.6
144	ok	0.04	0.1	3.44e-03	10.1	10.1	10.1	10.1	1.0	-48.1	10.6	1446.1	3446.1	-2723.5
151	ok	0.04	0.2	3.07e-03	10.1	10.1	10.1	10.1	-3.0	-29.3	23.5	8081.6	3887.1	-3003.9
152	ok	0.04	0.1	3.18e-03	10.1	10.1	10.1	10.1	-4.4	-39.1	17.6	2679.0	1840.5	-2890.6
159	ok	0.04	0.3	2.72e-03	10.1	10.1	10.1	10.1	-12.9	-15.7	24.4	9887.2	778.1	-2470.2
160	ok	0.04	0.1	2.80e-03	10.1	10.1	10.1	10.1	-10.9	-27.4	20.2	3666.2	227.6	-2252.4
167	ok	0.04	0.3	2.27e-03	10.1	10.1	10.1	10.1	-20.3	-3.2	19.2	1.092e+04	-2080.9	-379.3
168	ok	0.04	0.1	2.32e-03	10.1	10.1	10.1	10.1	-15.9	-15.6	18.1	3978.8	-939.6	-1005.2
175	ok	0.04	0.3	1.74e-03	10.1	10.1	10.1	10.1	-22.3	5.1	10.0	1.036e+04	-3802.7	2752.2
176	ok	0.04	8.61e-02	1.74e-03	10.1	10.1	10.1	10.1	-17.2	-6.2	12.6	3375.8	-1387.3	434.2
183	ok	0.04	0.3	1.20e-03	10.1	10.1	10.1	10.1	-17.5	7.8	7.15e-02	7833.8	-3920.3	6001.4
184	ok	0.04	7.14e-02	1.09e-03	10.1	10.1	10.1	10.1	-13.7	-0.5	5.9	1899.1	-1117.0	1568.9
191	ok	0.04	0.2	7.15e-04	10.1	10.1	10.1	10.1	-7.0	5.5	-6.9	3551.1	-2546.8	8347.1
192	ok	0.04	7.14e-02	4.07e-04	10.1	10.1	10.1	10.1	7.2	0.3	-1.4	-2772.6	-41.8	280.0
199	ok	0.04	0.3	5.01e-04	10.1	10.1	10.1	10.1	6.0	-2.1	-8.4	-3175.6	-672.7	9072.8
200	ok	0.04	8.03e-02	8.18e-05	10.1	10.1	10.1	10.1	6.7	-0.9	-1.3	-1882.0	-337.0	1898.3
207	ok	0.04	0.3	4.88e-04	10.1	10.1	10.1	10.1	19.1	-6.5	-4.2	-8319.1	1409.6	7657.4
208	ok	0.04	0.1	9.21e-05	10.1	10.1	10.1	10.1	16.6	-0.9	2.7	-3933.7	340.0	1560.5
215	ok	0.04	0.4	5.47e-04	10.1	10.1	10.1	10.1	28.1	-7.3	5.1	-1.220e+04	2380.9	4669.5
216	ok	0.04	0.1	1.17e-04	10.1	10.1	10.1	10.1	23.3	2.1	9.8	-5642.4	732.9	405.5
223	ok	0.04	0.4	6.25e-04	10.1	10.1	10.1	10.1	30.5	-2.3	16.5	-1.411e+04	1646.1	980.8
224	ok	0.04	0.2	1.43e-04	10.1	10.1	10.1	10.1	25.3	7.5	14.3	-4153.9	-1703.5	-2639.4
231	ok	0.04	0.4	7.03e-04	10.1	10.1	10.1	10.1	25.9	8.8	26.3	-1.393e+04	-814.2	-2320.4
232	ok	0.04	0.2	1.66e-04	10.1	10.1	10.1	10.1	23.3	16.7	20.5	-3075.8	-3871.1	-3344.6
239	ok	0.04	0.4	7.72e-04	10.1	10.1	10.1	10.1	15.8	24.0	30.9	-1.215e+04	-4420.4	-4285.6
240	ok	0.04	0.2	1.87e-04	10.1	10.1	10.1	10.1	14.3	35.1	25.4	-5297.8	-2723.4	-4249.4
247	ok	0.04	0.4	8.26e-04	10.1	10.1	10.1	10.1	3.6	39.9	28.5	-9702.2	-8171.6	-4417.2
248	ok	0.04	0.2	2.04e-04	10.1	10.1	10.1	10.1	6.1	48.6	21.6	-3579.3	-5067.5	-4570.2
255	ok	0.04	0.3	8.61e-04	10.1	10.1	10.1	10.1	-6.9	52.4	19.3	-7636.5	-1.097e+04	-2831.6
256	ok	0.04	0.2	2.16e-04	10.1	10.1	10.1	10.1	-0.6	58.8	12.7	-1792.1	-7227.4	-3830.0

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**
								-22.27	-49.50	-28.27	-1.411e+04	-1.196e+04	-9072.85
	0.04	0.38	3.56e-03	10.05	10.05	10.05	10.05	30.53	62.15	30.91	1.092e+04	7071.07	9072.85

Nodo	**Stato**	**Max tau** daN/cm2	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr** daN/cm	**V sec** daN/cm
13	ok	0.93						
14	ok	0.95						
15	ok	1.54						
16	ok	1.68						
23	ok	0.94						
24	ok	1.77						
31	ok	0.90						
32	ok	1.79						
39	ok	0.83						
40	ok	1.75						
47	ok	0.73						
48	ok	1.65						
55	ok	0.61						
56	ok	1.49						
63	ok	0.47						
64	ok	1.28						
71	ok	0.32						
72	ok	1.03						
79	ok	0.24						
80	ok	1.07						
87	ok	0.37						
88	ok	1.27						
95	ok	0.49						
96	ok	1.43						
103	ok	0.58						
104	ok	1.53						
111	ok	0.65						
112	ok	1.57						
119	ok	0.69						
120	ok	1.54						
127	ok	0.70						
128	ok	1.46						
135	ok	0.68						
136	ok	1.31						
143	ok	0.70						

144	ok	1.46
151	ok	0.69
152	ok	1.54
159	ok	0.65
160	ok	1.57
167	ok	0.58
168	ok	1.53
175	ok	0.49
176	ok	1.43
183	ok	0.37
184	ok	1.27
191	ok	0.24
192	ok	1.07
199	ok	0.32
200	ok	1.03
207	ok	0.47
208	ok	1.28
215	ok	0.61
216	ok	1.49
223	ok	0.73
224	ok	1.65
231	ok	0.83
232	ok	1.75
239	ok	0.90
240	ok	1.79
247	ok	0.94
248	ok	1.77
255	ok	0.95
256	ok	1.68

Nodo	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
	1.79						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
8	310.00	4	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
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.11	0.6	2.94e-04	99.5	15.6	128.3	15.6	1235.7	2438.1	1105.9	-5.647e+05	-3.373e+05	6.465e+04
4	ok	0.10	0.7	2.00e-04	107.7	14.2	123.1	16.8	1638.4	2006.8	-1059.7	-5.235e+05	-3.460e+05	-9.185e+04
18	ok	0.08	0.9	1.31e-04	102.0	10.8	111.0	22.0	1806.0	1519.8	-801.4	-4.791e+05	-3.545e+05	-8.921e+04
26	ok	0.07	1.0	5.85e-05	65.1	10.4	104.7	26.1	1696.3	1203.0	-467.8	-4.325e+05	-3.375e+05	-8.109e+04
34	ok	0.05	1.0	1.53e-03	54.3	15.1	89.1	30.3	1326.7	1055.1	-197.6	-3.843e+05	-2.971e+05	-7.558e+04
42	ok	0.04	1.0	5.27e-03	52.4	22.9	79.2	33.0	256.6	2526.9	-1158.1	-3.873e+05	-1.454e+05	-1.305e+05
50	ok	0.03	0.8	8.76e-03	45.6	30.9	62.5	32.9	533.1	1742.6	-1395.1	-2.765e+05	-1.215e+05	-1.554e+05
58	ok	0.02	0.8	1.20e-02	33.4	37.9	40.0	37.9	-219.4	715.3	-493.4	-1.879e+05	-1.154e+05	-1.119e+05
66	ok	0.03	0.9	2.41e-02	24.9	42.7	17.4	42.7	-459.3	296.1	-844.3	-9.240e+04	-6.357e+04	-1.325e+05
74	ok	0.03	1.0	3.66e-02	20.3	47.1	19.5	35.4	736.7	-333.7	-758.4	6.125e+04	-1.845e+04	-1.314e+05
78	ok	0.02	1.0	5.73e-05	14.0	10.1	29.5	10.1	62.7	767.0	138.3	-1.426e+04	-1.998e+05	-3.936e+04
82	ok	0.02	1.0	4.71e-02	20.0	27.2	16.8	27.2	384.3	-642.0	-428.7	1.475e+05	3.552e+04	-1.083e+05
90	ok	0.03	1.0	5.57e-02	19.5	33.4	15.2	23.9	-106.4	-788.0	-237.6	2.170e+05	9.373e+04	-8.973e+04
98	ok	0.03	1.0	6.22e-02	18.3	36.8	12.9	17.2	-606.4	-876.4	-236.4	2.734e+05	1.475e+05	-7.965e+04
106	ok	0.03	1.0	6.59e-02	18.0	37.1	13.2	18.9	-981.8	-1018.5	-400.0	3.217e+05	1.878e+05	-7.745e+04
114	ok	0.03	1.0	6.65e-02	16.3	37.0	14.3	21.0	-1137.6	-1289.3	-637.3	3.654e+05	2.076e+05	-7.841e+04
122	ok	0.03	1.0	6.38e-02	15.0	37.5	13.9	21.3	-1049.4	-1696.8	-824.3	4.044e+05	2.046e+05	-7.553e+04
130	ok	0.03	1.0	6.15e-02	14.5	36.8	14.3	18.3	-747.5	-2027.4	835.1	4.385e+05	2.029e+05	4.531e+04
138	ok	0.03	1.0	6.70e-02	13.7	37.5	14.5	20.2	-1016.9	-1558.2	787.3	4.152e+05	2.192e+05	5.652e+04
146	ok	0.03	1.0	6.96e-02	13.3	37.1	14.4	19.6	-1086.8	-1168.9	582.8	3.836e+05	2.148e+05	6.013e+04
154	ok	0.03	1.0	6.90e-02	13.1	37.2	14.0	17.4	-907.5	-921.6	336.4	3.465e+05	1.884e+05	6.267e+04
162	ok	0.03	1.0	6.53e-02	12.9	36.8	12.9	17.7	-506.9	-804.8	173.3	3.029e+05	1.434e+05	7.064e+04
170	ok	0.03	1.0	5.87e-02	13.2	33.3	13.1	25.0	16.2	-739.5	184.6	2.487e+05	8.742e+04	8.785e+04
178	ok	0.02	1.0	5.01e-02	13.3	31.2	13.3	27.1	524.4	-610.9	393.9	1.785e+05	2.994e+04	1.138e+05
186	ok	0.04	1.0	3.96e-02	13.1	52.6	13.2	33.9	885.9	-311.7	747.1	8.872e+04	-2.052e+04	1.435e+05
194	ok	0.03	0.9	2.71e-02	22.6	50.4	17.4	49.0	-608.0	273.6	858.2	-1.141e+05	-6.726e+04	1.494e+05
202	ok	0.03	0.9	1.33e-02	37.5	46.1	42.3	46.1	-368.6	693.4	482.1	-2.153e+05	-1.134e+05	1.240e+05
210	ok	0.03	0.8	7.59e-03	50.8	34.7	64.3	39.0	89.2	896.2	175.0	-2.979e+05	-1.710e+05	9.724e+04
218	ok	0.04	1.0	4.15e-03	60.3	24.7	82.4	37.9	668.6	953.6	45.2	-3.626e+05	-2.340e+05	7.669e+04
226	ok	0.05	1.0	1.27e-03	64.7	15.9	94.2	35.0	1227.2	983.4	134.5	-4.138e+05	-2.930e+05	6.657e+04
234	ok	0.06	1.0	1.07e-03	66.8	10.6	101.2	30.7	1622.0	1106.1	404.2	-4.573e+05	-3.381e+05	6.631e+04
242	ok	0.07	1.0	8.40e-04	71.1	10.9	107.0	26.6	1755.2	1399.5	746.9	-4.973e+05	-3.616e+05	7.093e+04
250	ok	0.09	0.7	5.62e-04	111.1	14.9	119.2	21.8	1605.8	1868.2	1022.7	-5.343e+05	-3.606e+05	7.284e+04

257	ok	0.06	0.6	5.68e-03	76.5	13.1	78.8	13.1	520.4	1591.8	709.3	-3.063e+05	-2.001e+05	4.068e+04
258	ok	0.07	0.6	7.77e-03	78.2	14.2	91.5	14.2	815.1	1289.2	-778.0	-2.847e+05	-2.041e+05	-4.718e+04
259	ok	0.06	0.8	9.65e-03	74.8	12.9	85.7	16.5	1033.0	909.3	-691.3	-2.614e+05	-2.102e+05	-4.525e+04
260	ok	0.05	0.7	1.12e-02	67.0	10.6	73.1	17.7	1113.3	611.6	-491.3	-2.375e+05	-2.033e+05	-3.945e+04
261	ok	0.04	1.0	1.21e-02	40.1	13.4	61.7	18.6	1024.3	436.3	-258.6	-2.139e+05	-1.839e+05	-3.422e+04
262	ok	0.04	1.0	1.23e-02	38.9	15.3	57.8	18.7	-290.6	1758.6	-726.4	-2.265e+05	-1.068e+05	-5.542e+04
263	ok	0.03	1.0	1.21e-02	34.4	17.6	47.5	17.6	15.1	1171.9	-944.4	-1.749e+05	-9.196e+04	-7.025e+04
264	ok	0.02	1.0	1.15e-02	27.4	16.0	32.1	16.0	306.6	569.9	-912.4	-1.173e+05	-7.813e+04	-7.697e+04
265	ok	0.02	0.9	1.03e-02	21.5	16.0	19.4	16.0	-30.4	391.1	-372.8	-7.798e+04	-5.966e+04	-6.764e+04
266	ok	0.02	1.0	1.49e-02	20.0	17.1	17.9	17.1	376.7	233.1	-93.7	-8.753e+04	-8.739e+04	-7962.4
267	ok	0.02	1.0	2.28e-02	19.5	24.0	16.3	24.0	437.9	169.2	-157.1	-8.773e+04	-8.782e+04	-7147.3
268	ok	0.02	1.0	2.99e-02	18.8	19.3	14.4	15.9	487.8	119.3	-93.8	-8.500e+04	-9.055e+04	-6586.3
269	ok	0.02	1.0	3.54e-02	17.9	21.2	13.8	14.0	110.4	-1056.6	-491.0	1.282e+05	-2610.2	-4.786e+04
270	ok	0.02	1.0	3.92e-02	17.8	21.9	14.1	11.1	-516.4	-295.3	-383.9	1.202e+05	6.231e+04	-3.950e+04
271	ok	0.02	1.0	4.09e-02	17.2	22.5	14.6	13.4	-487.9	-541.2	-538.3	1.432e+05	7.003e+04	-4.075e+04
272	ok	0.02	1.0	4.07e-02	16.3	22.0	15.0	15.9	-335.3	-855.8	-602.8	1.640e+05	6.651e+04	-3.881e+04
273	ok	0.02	1.0	3.97e-02	15.0	19.3	15.4	18.6	-109.4	-1089.6	538.5	1.818e+05	6.637e+04	2.973e+04
274	ok	0.02	1.0	4.18e-02	14.4	21.7	15.0	16.2	-323.3	-775.2	595.9	1.667e+05	7.827e+04	3.598e+04
275	ok	0.02	1.0	4.21e-02	14.7	22.2	14.6	13.8	-470.6	-465.8	518.9	1.473e+05	8.036e+04	3.639e+04
276	ok	0.02	1.0	4.03e-02	14.4	21.7	14.1	11.4	-489.5	-229.6	354.8	1.262e+05	7.074e+04	3.428e+04
277	ok	0.02	1.0	3.66e-02	13.8	21.0	13.8	14.5	-357.4	-97.3	178.7	1.038e+05	5.016e+04	3.352e+04
278	ok	0.02	1.0	3.10e-02	14.1	18.9	14.4	16.4	487.8	119.3	93.8	-8.500e+04	-9.055e+04	6586.3
279	ok	0.02	1.0	2.40e-02	14.6	23.6	14.7	23.6	437.9	169.2	157.1	-8.773e+04	-8.782e+04	7147.3
280	ok	0.02	1.0	1.61e-02	14.6	18.2	14.4	18.2	367.6	239.6	196.6	-9.047e+04	-8.508e+04	6620.1
281	ok	0.02	0.9	9.85e-03	18.6	18.7	15.0	18.7	-92.4	384.3	378.7	-8.725e+04	-6.086e+04	7.127e+04
282	ok	0.03	1.0	1.10e-02	33.4	17.5	31.1	17.5	81.5	543.3	62.8	-1.386e+05	-8.277e+04	5.889e+04
283	ok	0.03	1.0	1.16e-02	33.8	19.0	46.2	19.0	449.1	500.8	-163.5	-1.809e+05	-1.105e+05	4.448e+04
284	ok	0.04	1.0	1.18e-02	38.4	16.7	56.6	20.4	915.9	338.7	-200.0	-2.135e+05	-1.418e+05	3.206e+04
285	ok	0.04	1.0	1.16e-02	40.3	14.0	60.6	20.1	984.8	383.2	224.3	-2.220e+05	-1.903e+05	2.893e+04
286	ok	0.05	1.0	1.06e-02	67.7	10.9	72.3	19.3	1086.4	545.9	462.3	-2.435e+05	-2.118e+05	3.423e+04
287	ok	0.06	0.8	9.11e-03	75.6	12.8	84.7	18.1	1015.7	834.0	671.9	-2.655e+05	-2.205e+05	4.089e+04
288	ok	0.07	0.6	7.22e-03	79.1	15.8	90.5	15.8	803.1	1208.6	771.1	-2.874e+05	-2.159e+05	4.434e+04
290	ok	0.02	1.0	8.89e-05	20.2	10.1	28.1	10.1	377.2	938.2	117.7	-1.606e+05	-1.676e+05	961.0
291	ok	0.05	1.0	1.41e-04	46.5	10.1	65.9	10.1	411.2	1275.4	642.2	-2.377e+05	-1.813e+05	1.222e+04
292	ok	0.05	1.0	1.38e-04	55.8	10.1	66.6	10.1	678.6	1012.2	-695.0	-2.302e+05	-1.786e+05	-1.380e+04
293	ok	0.02	1.0	5.87e-05	22.3	10.1	28.4	10.1	332.6	965.8	36.3	-1.619e+05	-1.622e+05	8880.4
294	ok	0.04	1.0	3.70e-04	56.0	10.1	58.5	10.1	888.6	716.2	-618.4	-2.210e+05	-1.729e+05	-1.329e+04
295	ok	0.02	1.0	3.17e-05	23.8	10.1	27.1	10.1	303.6	945.3	-57.6	-1.642e+05	-1.484e+05	1.336e+04
296	ok	0.04	1.0	1.20e-03	52.6	10.1	51.0	10.1	986.6	488.6	-449.2	-2.093e+05	-1.595e+05	-1.400e+04
297	ok	0.03	1.0	6.85e-06	24.2	10.1	36.6	10.1	337.2	831.8	-133.3	-1.642e+05	-1.299e+05	1.242e+04
298	ok	0.04	1.0	1.86e-03	38.2	10.1	49.2	10.1	594.3	759.4	-202.1	-2.031e+05	-1.311e+05	-1.818e+04
299	ok	0.03	1.0	0.0	23.1	10.1	34.5	10.1	480.5	588.6	-203.0	-1.599e+05	-1.101e+05	5864.8
300	ok	0.03	1.0	2.32e-03	32.6	10.1	44.0	10.1	167.3	1022.7	-545.1	-1.836e+05	-1.019e+05	-3.443e+04
301	ok	0.02	1.0	0.0	28.1	10.1	30.9	10.1	315.8	612.9	-262.2	-1.510e+05	-8.827e+04	-5891.7
302	ok	0.03	1.0	2.60e-03	27.4	10.1	35.4	10.1	312.2	667.0	-571.9	-1.482e+05	-8.700e+04	-4.555e+04
303	ok	0.02	0.6	0.0	25.8	10.1	22.4	10.1	323.5	454.9	-271.0	-1.324e+05	-7.253e+04	-1.879e+04
304	ok	0.02	1.0	2.68e-03	22.9	10.1	20.8	10.1	292.6	408.5	-263.0	-1.126e+05	-7.451e+04	-4.815e+04
305	ok	0.02	0.6	0.0	20.2	10.1	17.0	10.1	309.1	318.7	-205.4	-1.070e+05	-6.126e+04	-2.980e+04
306	ok	0.02	1.0	3.24e-03	15.6	10.1	13.3	10.1	127.7	266.3	-180.6	-7.525e+04	-5.887e+04	-5.015e+04
307	ok	0.02	0.9	1.87e-04	14.8	10.1	11.4	10.1	356.4	245.4	18.7	-1.032e+05	-7.253e+04	244.3
308	ok	0.02	1.0	5.96e-03	13.6	10.1	12.3	10.1	376.1	222.8	-78.7	-9.348e+04	-8.201e+04	-4898.0
309	ok	0.02	1.0	1.77e-03	14.1	10.1	10.9	10.1	359.4	242.5	4.0	-1.019e+05	-7.379e+04	-6087.3
310	ok	0.02	1.0	1.15e-02	13.1	13.2	13.1	13.2	400.4	198.6	-43.4	-9.117e+04	-8.432e+04	-6721.3
311	ok	0.02	1.0	3.81e-03	14.4	10.1	11.8	10.1	353.4	248.4	26.0	-9.850e+04	-7.719e+04	-1.100e+04
312	ok	0.02	1.0	1.63e-02	13.5	10.8	13.6	10.8	409.3	189.6	-1.4	-8.834e+04	-8.715e+04	-7521.4
313	ok	0.02	1.0	5.97e-03	14.2	10.1	12.9	10.1	339.4	262.4	44.1	-9.348e+04	-8.221e+04	-1.424e+04
314	ok	0.02	1.0	2.02e-02	13.7	12.4	13.7	12.2	267.8	333.2	19.0	-8.823e+04	-8.746e+04	-7003.7
315	ok	0.02	1.0	7.79e-03	13.7	10.1	13.7	10.1	319.6	282.2	55.5	-8.760e+04	-8.809e+04	-1.532e+04
316	ok	0.02	1.0	2.31e-02	13.6	13.3	13.5	10.5	263.1	337.9	5.0	-8.552e+04	-9.016e+04	-6618.7
317	ok	0.02	1.0	9.18e-03	12.9	10.1	14.2	10.1	262.4	339.4	44.1	-8.221e+04	-9.348e+04	-1.424e+04
318	ok	0.02	1.0	2.48e-02	13.1	13.7	13.1	10.1	264.0	337.0	-9.7	-8.316e+04	-9.252e+04	-5226.0
319	ok	0.02	1.0	1.01e-02	11.8	10.1	14.4	10.1	248.4	353.4	26.0	-7.719e+04	-9.850e+04	-1.100e+04
320	ok	0.02	1.0	2.52e-02	12.3	13.5	13.6	11.1	270.5	330.5	-22.9	-8.152e+04	-9.416e+04	-3037.8
321	ok	0.02	1.0	1.04e-02	10.9	10.1	14.1	10.1	242.5	359.4	4.0	-7.379e+04	-1.019e+05	-6087.3
322	ok	0.02	1.0	2.50e-02	11.4	12.5	13.7	12.5	281.5	319.5	32.7	-8.084e+04	-9.485e+04	387.0
323	ok	0.02	1.0	1.04e-02	10.1	10.1	13.6	10.1	245.4	356.4	-18.7	-7.253e+04	-1.032e+05	-244.3
324	ok	0.02	1.0	2.59e-02	12.3	13.3	13.6	11.0	270.5	330.5	22.9	-8.152e+04	-9.416e+04	3037.8
325	ok	0.02	1.0	1.06e-02	10.9	10.1	14.1	10.1	242.5	359.4	-4.0	-7.379e+04	-1.019e+05	6087.3
326	ok	0.02	1.0	2.55e-02	13.1	13.4	13.1	10.1	264.0	337.0	9.7	-8.316e+04	-9.252e+04	5226.0
327	ok	0.02	1.0	1.02e-02	11.8	10.1	14.4	10.1	248.4	353.4	-26.0	-7.719e+04	-9.850e+04	1.100e+04
328	ok	0.02	1.0	2.38e-02	13.6	13.1	13.5	10.6	189.6	409.3	1.4	-8.715e+04	-8.834e+04	7521.4
329	ok	0.02	1.0	9.31e-03	12.9	10.1	14.2	10.1	262.4	339.4	-44.1	-8.221e+04	-9.348e+04	1.424e+04
330	ok	0.02	1.0	2.09e-02	13.7	12.1	13.7	12.1	267.8	333.2	-19.0	-8.823e+04	-8.746e+04	7003.7
331	ok	0.02	1.0	7.91e-03	13.7	10.1	13.7	10.1	319.6	282.2	-55.5	-8.760e+04	-8.809e+04	1.532e+04
332	ok	0.02	1.0	1.70e-02	13.5	10.6	13.6	10.6	337.9	263.1	-5.0	-9.016e+04	-8.552e+04	6618.7
333	ok	0.02	1.0	6.08e-03	14.2	10.1	12.9	10.1	339.4	262.4	-44.1	-9.348e+04	-8.221e+04	1.424e+04
334	ok	0.02	1.0	1.22e-02	13.1	12.8	13.1	12.8	400.4	198.6	43.4	-9.117e+04	-8.432e+04	6721.3

335	ok	0.02	1.0	3.92e-03	14.4	10.1	11.8	10.1	353.4	248.4	-26.0	-9.850e+04	-7.719e+04	1.100e+04
336	ok	0.02	1.0	6.61e-03	13.6	10.1	12.3	10.1	376.1	222.8	78.7	-9.348e+04	-8.201e+04	4898.0
337	ok	0.02	1.0	1.77e-03	14.1	10.1	10.9	10.1	359.4	242.5	-4.0	-1.019e+05	-7.379e+04	6087.3
338	ok	0.02	1.0	3.13e-03	16.3	10.1	12.0	10.1	89.2	261.6	177.3	-8.083e+04	-5.959e+04	5.123e+04
339	ok	0.02	0.9	3.87e-04	14.7	10.1	11.3	10.1	350.1	249.9	-11.2	-1.029e+05	-7.252e+04	-33.2
340	ok	0.02	1.0	2.27e-03	22.6	10.1	20.4	10.1	271.3	326.7	56.0	-1.199e+05	-7.619e+04	4.297e+04
341	ok	0.02	0.6	3.71e-04	20.1	10.1	17.0	10.1	314.4	302.6	176.9	-1.085e+05	-6.144e+04	2.937e+04
342	ok	0.03	1.0	2.21e-03	27.1	10.1	34.8	10.1	381.9	545.7	220.4	-1.521e+05	-9.072e+04	3.990e+04
343	ok	0.02	0.6	3.45e-04	25.7	10.1	22.3	10.1	381.9	398.0	176.4	-1.338e+05	-7.324e+04	1.758e+04
344	ok	0.03	1.0	1.95e-03	32.6	10.1	43.4	10.1	491.0	657.0	197.0	-1.827e+05	-1.098e+05	2.849e+04
345	ok	0.02	1.0	3.12e-04	28.1	10.1	30.8	10.1	440.0	490.0	185.6	-1.514e+05	-8.975e+04	4608.8
346	ok	0.04	1.0	1.49e-03	38.2	10.1	48.7	10.1	928.3	335.6	235.5	-1.984e+05	-1.422e+05	1.512e+04
347	ok	0.03	1.0	2.68e-04	23.2	10.1	34.5	10.1	477.1	584.4	200.1	-1.610e+05	-1.100e+05	-6250.5
348	ok	0.04	1.0	8.35e-04	35.8	10.1	50.6	10.1	974.5	457.6	434.9	-2.125e+05	-1.625e+05	1.135e+04
349	ok	0.03	1.0	2.19e-04	24.3	10.1	37.5	10.1	486.1	683.2	210.4	-1.640e+05	-1.314e+05	-1.233e+04
350	ok	0.04	1.0	2.59e-04	56.5	10.1	58.0	10.1	881.2	680.4	608.8	-2.232e+05	-1.770e+05	1.081e+04
351	ok	0.02	1.0	1.68e-04	23.9	10.1	27.1	10.1	450.1	806.1	150.3	-1.636e+05	-1.492e+05	-1.325e+04
352	ok	0.05	1.0	1.72e-04	56.2	10.1	66.1	10.1	673.9	973.7	691.5	-2.315e+05	-1.835e+05	1.187e+04
353	ok	0.02	1.0	1.25e-04	22.3	10.1	28.4	10.1	333.9	972.1	-34.7	-1.620e+05	-1.611e+05	-9243.8
354	ok	0.02	1.0	2.46e-05	10.1	10.1	28.5	10.1	37.0	800.0	4.5	-6235.2	-2.095e+05	229.3
355	ok	0.02	1.0	6.44e-05	12.8	10.1	25.6	10.1	278.1	794.7	-36.9	-9.933e+04	-1.718e+05	-496.6
356	ok	0.02	1.0	3.81e-05	15.6	10.1	27.1	10.1	269.8	788.0	-39.9	-1.030e+05	-1.656e+05	1.848e+04
357	ok	0.02	1.0	4.13e-06	14.0	10.1	29.5	10.1	62.7	766.7	-138.3	-1.426e+04	-1.999e+05	3.936e+04
358	ok	0.02	1.0	1.65e-05	18.7	10.1	26.7	10.1	277.2	744.2	-112.8	-1.123e+05	-1.483e+05	3.178e+04
359	ok	0.02	1.0	0.0	20.4	10.1	29.4	10.1	137.0	670.6	-253.9	-3.612e+04	-1.732e+05	7.058e+04
360	ok	0.02	1.0	0.0	20.9	10.1	24.8	10.1	296.7	666.4	-171.0	-1.237e+05	-1.237e+05	3.668e+04
361	ok	0.02	1.0	0.0	22.9	10.1	28.4	10.1	241.3	531.0	-321.0	-6.645e+04	-1.351e+05	8.802e+04
362	ok	0.02	1.0	0.0	21.5	10.1	21.1	10.1	381.1	514.0	-204.1	-1.321e+05	-9.767e+04	3.229e+04
363	ok	0.02	1.0	0.0	24.9	10.1	24.9	10.1	350.1	374.9	-330.3	-9.795e+04	-9.305e+04	8.916e+04
364	ok	0.02	1.0	0.0	20.1	10.1	17.3	10.1	387.3	414.4	-196.9	-1.345e+05	-7.380e+04	2.014e+04
365	ok	0.02	1.0	0.0	25.1	10.1	19.5	10.1	444.3	226.5	-283.5	-1.228e+05	-5.488e+04	7.549e+04
366	ok	0.02	1.0	0.0	23.5	10.1	19.3	10.1	375.6	319.3	-177.7	-1.276e+05	-5.619e+04	3659.4
367	ok	0.02	1.0	0.0	24.0	10.1	15.1	10.1	502.1	111.2	-194.2	-1.451e+05	-3.197e+04	5.671e+04
368	ok	0.02	0.7	0.0	20.1	10.1	15.0	10.1	396.1	206.2	-46.0	-1.160e+05	-5.966e+04	1.153e+04
369	ok	0.02	1.0	0.0	22.9	10.1	11.7	10.1	561.5	51.8	-104.7	-1.625e+05	-1.457e+04	3.076e+04
370	ok	0.02	0.9	0.0	16.3	10.1	10.9	10.1	406.5	195.8	6.1	-1.183e+05	-5.739e+04	123.1
371	ok	0.02	1.0	0.0	22.1	10.1	10.1	10.1	582.2	31.1	0.8	-1.686e+05	-8425.1	122.8
372	ok	0.02	1.0	0.0	15.9	10.1	10.8	10.1	400.8	201.5	34.6	-1.159e+05	-5.976e+04	-1.176e+04
373	ok	0.02	1.0	0.0	22.9	10.1	11.7	10.1	561.5	51.8	104.7	-1.625e+05	-1.457e+04	-3.076e+04
374	ok	0.02	1.0	7.34e-04	16.5	10.1	12.3	10.1	380.0	222.3	70.1	-1.093e+05	-6.640e+04	-2.161e+04
375	ok	0.02	1.0	0.0	24.0	10.1	15.1	10.1	502.1	111.2	194.2	-1.451e+05	-3.197e+04	-5.671e+04
376	ok	0.02	1.0	1.81e-03	16.6	10.1	13.7	10.1	347.1	255.2	94.9	-9.937e+04	-7.630e+04	-2.817e+04
377	ok	0.02	1.0	0.0	24.1	10.1	18.6	10.1	412.9	200.4	254.2	-1.190e+05	-5.798e+04	-7.404e+04
378	ok	0.02	1.0	2.75e-03	15.5	10.1	15.5	10.1	307.3	295.0	105.3	-8.771e+04	-8.796e+04	-3.044e+04
379	ok	0.02	1.0	3.92e-06	22.1	10.1	22.1	10.1	305.8	307.5	275.5	-8.863e+04	-8.839e+04	-8.008e+04
380	ok	0.02	1.0	3.62e-03	13.7	10.1	16.6	10.1	255.2	347.1	94.9	-7.630e+04	-9.937e+04	-2.817e+04
381	ok	0.02	1.0	2.37e-05	18.6	10.1	24.1	10.1	200.4	412.9	254.2	-5.798e+04	-1.190e+05	-7.404e+04
382	ok	0.02	1.0	4.23e-03	12.3	10.1	16.5	10.1	222.3	380.0	70.1	-6.640e+04	-1.093e+05	-2.161e+04
383	ok	0.02	1.0	5.65e-05	15.1	10.1	24.0	10.1	111.2	502.1	194.2	-3.197e+04	-1.451e+05	-5.671e+04
384	ok	0.02	1.0	4.54e-03	10.8	10.1	15.9	10.1	201.5	400.8	34.6	-5.976e+04	-1.159e+05	-1.176e+04
385	ok	0.02	1.0	9.09e-05	11.7	10.1	22.9	10.1	51.8	561.5	104.7	-1.457e+04	-1.625e+05	-3.076e+04
386	ok	0.02	1.0	4.58e-03	10.1	10.1	15.5	10.1	195.8	406.5	6.1	-5.739e+04	-1.183e+05	123.1
387	ok	0.02	1.0	1.25e-04	10.1	10.1	22.1	10.1	31.1	582.2	-0.8	-8425.1	-1.686e+05	-122.8
388	ok	0.02	1.0	4.58e-03	10.8	10.1	15.9	10.1	201.5	400.8	-34.6	-5.976e+04	-1.159e+05	1.176e+04
389	ok	0.02	1.0	1.57e-04	11.7	10.1	22.9	10.1	51.8	561.5	-104.7	-1.457e+04	-1.625e+05	3.076e+04
390	ok	0.02	1.0	4.27e-03	12.3	10.1	16.5	10.1	222.3	380.0	-70.1	-6.640e+04	-1.093e+05	2.161e+04
391	ok	0.02	1.0	1.85e-04	15.1	10.1	24.0	10.1	111.2	502.1	-194.2	-3.197e+04	-1.451e+05	5.671e+04
392	ok	0.02	1.0	3.65e-03	13.7	10.1	16.6	10.1	255.2	347.1	-94.9	-7.630e+04	-9.937e+04	2.817e+04
393	ok	0.02	1.0	2.10e-04	18.6	10.1	24.1	10.1	200.4	412.9	-254.2	-5.798e+04	-1.190e+05	7.404e+04
394	ok	0.02	1.0	2.78e-03	15.5	10.1	15.5	10.1	307.3	295.0	-105.3	-8.771e+04	-8.796e+04	3.044e+04
395	ok	0.02	1.0	2.29e-04	22.1	10.1	22.1	10.1	305.8	307.5	-275.5	-8.863e+04	-8.839e+04	8.008e+04
396	ok	0.02	1.0	1.82e-03	16.6	10.1	13.7	10.1	347.1	255.2	-94.9	-9.937e+04	-7.630e+04	2.817e+04
397	ok	0.02	1.0	2.43e-04	24.1	10.1	18.6	10.1	412.9	200.4	-254.2	-1.190e+05	-5.798e+04	7.404e+04
398	ok	0.02	1.0	7.41e-04	16.5	10.1	12.3	10.1	380.0	222.3	-70.1	-1.093e+05	-6.640e+04	2.161e+04
399	ok	0.02	1.0	2.49e-04	24.0	10.1	15.1	10.1	502.1	111.2	-194.2	-1.451e+05	-3.197e+04	5.671e+04
400	ok	0.02	1.0	2.92e-04	15.9	10.1	10.8	10.1	400.8	201.5	-34.6	-1.159e+05	-5.976e+04	1.176e+04
401	ok	0.02	1.0	2.49e-04	22.9	10.1	11.7	10.1	561.5	51.8	-104.7	-1.625e+05	-1.457e+04	3.076e+04
402	ok	0.02	0.9	2.86e-04	16.3	10.1	10.9	10.1	406.5	195.8	6.1	-1.183e+05	-5.739e+04	123.1
403	ok	0.02	1.0	2.43e-04	22.1	10.1	10.1	10.1	582.2	31.1	0.8	-1.686e+05	-8425.1	122.8
404	ok	0.02	0.7	2.72e-04	20.1	10.1	15.0	10.1	378.6	213.1	31.2	-1.115e+05	-6.254e+04	-1.006e+04
405	ok	0.02	1.0	2.30e-04	22.9	10.1	11.7	10.1	560.9	52.4	106.2	-1.625e+05	-1.447e+04	-3.053e+04
406	ok	0.02	1.0	2.53e-04	23.4	10.1	19.5	10.1	374.1	318.8	177.1	-1.280e+05	-5.607e+04	-3539.0
407	ok	0.02	1.0	2.11e-04	24.0	10.1	15.1	10.1	484.7	117.6	203.3	-1.372e+05	-2.624e+04	-5.110e+04
408	ok	0.02	1.0	2.25e-04	20.1	10.1	17.2	10.1	386.1	413.6	196.2	-1.349e+05	-7.365e+04	-2.013e+04
409	ok	0.02	1.0	1.86e-04	25.1	10.1	19.5	10.1	437.7	230.0	285.8	-1.233e+05	-5.479e+04	-7.533e+04
410	ok	0.02	1.0	1.94e-04	21.5	10.1	21.1	10.1	380.2	512.9	203.4	-1.324e+05	-9.754e+04	-3.238e+04
411	ok	0.02	1.0	1.57e-04	24.9	10.1	24.9	10.1	350.2	375.1	330.4	-9.794e+04	-9.303e+04	-8.915e+04

412	ok	0.02	1.0	1.59e-04	21.0	10.1	24.8	10.1	359.2	610.2	192.7	-1.233e+05	-1.242e+05	-3.670e+04
413	ok	0.02	1.0	1.25e-04	22.9	10.1	28.4	10.1	241.4	531.2	321.1	-6.644e+04	-1.351e+05	-8.801e+04
414	ok	0.02	1.0	1.25e-04	18.7	10.1	26.7	10.1	277.7	745.7	113.4	-1.124e+05	-1.479e+05	-3.190e+04
415	ok	0.02	1.0	9.15e-05	20.4	10.1	29.4	10.1	137.0	670.8	254.0	-3.612e+04	-1.732e+05	-7.058e+04
416	ok	0.02	1.0	9.40e-05	15.6	10.1	27.1	10.1	270.1	789.6	40.2	-1.030e+05	-1.653e+05	-1.869e+04

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
								-1137.60	-2027.43	-1395.08	-5.647e+05	-3.616e+05	-1.554e+05
	0.11	0.99	0.07	111.11	52.57	128.33	48.97	1805.99	2526.86	1105.93	4.385e+05	2.192e+05	1.494e+05

Nodo	Stato	Max tau daN/cm2	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr daN/cm	V sec daN/cm
1	ok Av	12.48	0.35	0.30	10.7	9.3	2853.1	2485.5
4	ok Av	12.67	0.40	0.30	12.2	9.3	3268.0	2478.9
18	ok Av	13.09	0.44	0.28	13.4	8.6	3586.3	2289.7
26	ok Av	13.10	0.46	0.24	14.1	7.3	3758.9	1945.5
34	ok Av	12.70	0.46	0.18	14.1	5.6	3758.8	1496.4
42	ok Av	11.90	0.44	0.12	13.4	3.8	3585.1	1007.6
50	ok Av	10.77	0.40	0.07	12.2	2.1	3263.6	549.1
58	ok Av	9.38	0.35	0.02	10.6	0.7	2842.2	185.9
66	ok Av	7.87	0.29	0.01	8.9	0.3	2384.5	89.9
74	ok Av	8.55	0.32	9.97e-03	9.7	0.3	2590.3	81.6
78	ok Av	3.28	0.05	0.11	1.6	3.4	422.2	900.3
82	ok Av	9.94	0.37	0.05	11.3	1.5	3014.9	402.1
90	ok Av	11.10	0.41	0.10	12.5	3.1	3349.2	823.4
98	ok Av	11.92	0.43	0.16	13.3	4.8	3544.6	1282.2
106	ok Av	12.35	0.44	0.21	13.4	6.4	3574.7	1709.5
114	ok Av	12.37	0.42	0.25	12.9	7.6	3439.2	2041.0
122	ok Av	11.99	0.39	0.27	11.9	8.3	3163.7	2227.0
130	ok Av	11.82	0.34	0.27	10.5	8.4	2795.6	2240.1
138	ok Av	12.64	0.39	0.25	12.1	7.8	3220.7	2078.9
146	ok Av	13.08	0.43	0.22	13.3	6.6	3551.1	1770.9
154	ok Av	13.11	0.46	0.18	14.0	5.5	3737.2	1466.4
162	ok Av	12.73	0.46	0.13	14.1	4.0	3751.3	1075.5
170	ok Av	11.96	0.44	0.08	13.5	2.5	3592.2	661.0
178	ok Av	10.85	0.40	0.04	12.3	1.1	3284.9	290.2
186	ok Av	9.49	0.35	3.00e-03	10.8	9.21e-02	2877.1	24.6
194	ok Av	8.83	0.33	0.01	10.0	0.3	2676.8	89.9
202	ok Av	10.32	0.38	0.02	11.7	0.5	3129.0	128.9
210	ok Av	11.67	0.43	0.05	13.2	1.6	3533.7	437.3
218	ok Av	12.77	0.47	0.10	14.3	3.2	3828.2	845.1
226	ok Av	13.52	0.48	0.16	14.9	4.8	3965.5	1289.7
234	ok Av	13.88	0.48	0.21	14.7	6.4	3921.3	1702.4
242	ok Av	13.82	0.45	0.25	13.9	7.6	3698.2	2019.6
250	ok Av	13.35	0.41	0.28	12.5	8.6	3325.0	2308.3
257	ok Av	9.11	0.31	0.17	9.4	5.2	2509.1	1382.3
258	ok Av	9.79	0.33	0.16	10.1	4.9	2703.0	1312.6
259	ok Av	10.38	0.36	0.15	10.9	4.5	2911.2	1196.9
260	ok Av	10.73	0.38	0.12	11.6	3.7	3097.3	996.3
261	ok Av	10.81	0.39	0.09	12.0	2.8	3194.1	740.5
262	ok Av	10.63	0.39	0.06	11.9	1.8	3187.5	467.6
263	ok Av	10.18	0.38	0.03	11.5	0.8	3078.9	218.0
264	ok Av	9.52	0.35	4.61e-03	10.8	0.1	2884.8	37.7
265	ok Av	8.69	0.32	9.07e-03	9.9	0.3	2634.9	74.3
266	ok Av	9.02	0.33	8.73e-03	10.2	0.3	2734.1	71.5
267	ok Av	9.68	0.36	0.02	11.0	0.7	2930.1	193.2
268	ok Av	10.14	0.37	0.05	11.4	1.6	3046.4	414.3
269	ok Av	10.34	0.37	0.08	11.5	2.5	3066.1	660.7
270	ok Av	10.28	0.36	0.11	11.2	3.3	2987.3	893.0
271	ok Av	9.96	0.34	0.13	10.6	4.0	2823.5	1074.2
272	ok Av	9.41	0.32	0.14	10.0	4.4	2656.6	1175.1
273	ok Av	8.78	0.30	0.15	9.3	4.6	2481.6	1235.3
274	ok Av	9.52	0.33	0.15	10.0	4.6	2672.9	1229.9
275	ok Av	10.09	0.35	0.14	10.7	4.2	2844.8	1125.7
276	ok Av	10.43	0.37	0.11	11.3	3.5	3018.3	939.4
277	ok Av	10.50	0.38	0.09	11.6	2.6	3105.6	700.1
278	ok Av	10.31	0.38	0.05	11.6	1.7	3092.8	445.3
279	ok Av	9.86	0.36	0.03	11.2	0.8	2981.6	214.6
280	ok Av	9.20	0.34	0.01	10.4	0.3	2788.8	82.4
281	ok Av	8.88	0.33	9.07e-03	10.1	0.3	2690.6	74.3
282	ok Av	9.70	0.36	4.83e-03	11.0	0.1	2939.5	39.6
283	ok Av	10.35	0.38	0.03	11.7	0.9	3130.4	239.3
284	ok Av	10.79	0.39	0.06	12.1	1.9	3233.9	498.5
285	ok Av	10.97	0.39	0.10	12.1	2.9	3233.6	779.9
286	ok Av	10.88	0.38	0.13	11.7	3.9	3128.3	1042.7
287	ok Av	10.51	0.36	0.15	11.0	4.7	2932.5	1248.4

288	ok Av	9.91	0.33	0.17	10.2	5.1	2719.3	1367.3
290	ok Av	6.86	0.25	0.01	7.8	0.3	2078.5	92.1
291	ok Av	7.74	0.28	0.07	8.6	2.2	2308.7	585.2
292	ok Av	8.13	0.29	0.07	9.0	2.2	2396.2	582.9
293	ok Av	7.02	0.26	0.03	7.9	0.8	2118.8	208.9
294	ok Av	8.57	0.31	0.07	9.5	2.2	2531.1	586.7
295	ok Av	7.39	0.27	0.04	8.3	1.3	2216.8	334.2
296	ok Av	8.94	0.32	0.07	10.0	2.0	2657.4	538.6
297	ok Av	7.89	0.29	0.05	8.8	1.5	2355.1	411.8
298	ok Av	9.21	0.34	0.05	10.3	1.7	2755.9	445.5
299	ok Av	8.41	0.31	0.05	9.4	1.6	2512.5	430.1
300	ok Av	9.33	0.34	0.04	10.5	1.2	2811.5	321.6
301	ok Av	8.88	0.33	0.05	10.0	1.4	2664.5	386.2
302	ok Av	9.31	0.34	0.02	10.5	0.7	2815.7	185.6
303	ok Av	9.24	0.34	0.04	10.4	1.1	2787.7	287.1
304	ok Av	9.13	0.34	8.70e-03	10.4	0.3	2767.5	71.2
305	ok Av	9.46	0.35	0.02	10.7	0.6	2863.2	148.8
306	ok Av	8.82	0.33	5.08e-03	10.0	0.2	2674.3	41.6
307	ok Av	9.50	0.35	1.17e-03	10.8	3.60e-02	2879.1	9.6
308	ok Av	8.93	0.33	0.01	10.1	0.4	2706.2	98.3
309	ok Av	9.42	0.35	0.02	10.7	0.6	2852.2	161.5
310	ok Av	9.10	0.34	0.02	10.3	0.7	2754.8	177.6
311	ok Av	9.20	0.34	0.04	10.4	1.1	2774.8	295.5
312	ok Av	9.14	0.34	0.04	10.3	1.1	2753.4	301.9
313	ok Av	8.84	0.32	0.05	9.9	1.5	2650.2	392.0
314	ok Av	9.02	0.33	0.05	10.1	1.6	2702.8	414.8
315	ok Av	8.36	0.31	0.05	9.4	1.6	2497.3	432.9
316	ok Av	8.77	0.32	0.06	9.8	1.9	2611.3	498.0
317	ok Av	7.84	0.29	0.05	8.8	1.5	2339.8	411.7
318	ok Av	8.41	0.30	0.07	9.3	2.0	2493.7	538.0
319	ok Av	7.34	0.27	0.04	8.2	1.2	2201.7	331.0
320	ok Av	8.01	0.29	0.06	8.9	2.0	2369.1	527.7
321	ok Av	6.97	0.26	0.02	7.9	0.8	2105.2	202.9
322	ok Av	7.65	0.28	0.06	8.6	2.0	2298.3	525.9
323	ok Av	6.84	0.25	0.01	7.8	0.3	2073.1	83.4
324	ok Av	8.08	0.29	0.07	8.9	2.2	2380.3	584.2
325	ok Av	7.01	0.26	0.03	7.9	0.9	2112.5	239.1
326	ok Av	8.52	0.31	0.07	9.4	2.2	2515.7	591.1
327	ok Av	7.41	0.27	0.04	8.3	1.4	2215.9	365.1
328	ok Av	8.90	0.32	0.07	9.9	2.0	2643.2	545.9
329	ok Av	7.92	0.29	0.05	8.8	1.7	2360.3	442.4
330	ok Av	9.17	0.34	0.06	10.3	1.7	2743.4	455.5
331	ok Av	8.46	0.31	0.06	9.5	1.7	2523.4	459.0
332	ok Av	9.30	0.34	0.04	10.5	1.3	2801.2	333.8
333	ok Av	8.95	0.33	0.05	10.0	1.5	2680.9	412.5
334	ok Av	9.28	0.34	0.02	10.5	0.7	2807.9	199.6
335	ok Av	9.32	0.34	0.04	10.5	1.2	2808.9	309.6
336	ok Av	9.11	0.34	0.01	10.3	0.4	2762.6	109.6
337	ok Av	9.54	0.35	0.02	10.8	0.6	2888.4	168.7
338	ok Av	9.01	0.33	5.08e-03	10.2	0.2	2731.8	41.6
339	ok Av	9.62	0.36	1.17e-03	10.9	3.60e-02	2916.0	9.6
340	ok Av	9.32	0.34	0.01	10.6	0.3	2823.9	82.4
341	ok Av	9.58	0.35	0.02	10.9	0.6	2899.4	156.0
342	ok Av	9.49	0.35	0.03	10.7	0.8	2868.8	207.6
343	ok Av	9.36	0.34	0.04	10.6	1.1	2821.8	301.2
344	ok Av	9.50	0.35	0.04	10.7	1.3	2859.4	353.6
345	ok Av	8.99	0.33	0.05	10.1	1.5	2695.2	406.7
346	ok Av	9.36	0.34	0.06	10.5	1.8	2796.6	486.2
347	ok Av	8.51	0.31	0.06	9.5	1.7	2538.6	456.2
348	ok Av	9.08	0.33	0.07	10.1	2.2	2689.4	586.4
349	ok Av	7.97	0.29	0.05	8.9	1.7	2375.6	442.5
350	ok Av	8.68	0.31	0.08	9.6	2.4	2553.1	639.9
351	ok Av	7.46	0.27	0.04	8.4	1.4	2230.9	368.3
352	ok Av	8.22	0.29	0.08	9.0	2.4	2407.5	639.3
353	ok Av	7.06	0.26	0.03	8.0	0.9	2126.0	245.1
354	ok	0.96						
355	ok Av	5.79	0.21	3.00e-03	6.6	9.19e-02	1756.8	24.5
356	ok Av	6.04	0.22	0.04	6.8	1.2	1811.5	325.2
357	ok Av	3.23	0.05	0.11	1.6	3.3	419.2	885.3
358	ok Av	6.71	0.24	0.07	7.4	2.3	1969.6	601.6
359	ok Av	6.21	0.11	0.20	3.5	6.2	924.2	1642.4
360	ok Av	7.65	0.27	0.10	8.3	2.9	2206.8	785.8
361	ok Av	8.99	0.21	0.26	6.3	8.1	1680.1	2149.3
362	ok Av	8.74	0.31	0.10	9.4	3.2	2509.2	849.9
363	ok Av	11.43	0.31	0.28	9.6	8.7	2571.7	2328.5
364	ok Av	9.70	0.35	0.10	10.6	2.9	2834.1	784.1
365	ok Av	13.44	0.42	0.26	13.0	8.1	3463.2	2152.7

366	ok Av	10.44	0.38	0.07	11.6	2.2	3108.7	598.8
367	ok Av	14.93	0.52	0.20	15.8	6.2	4218.6	1648.9
368	ok Av	10.91	0.40	0.04	12.3	1.2	3291.1	322.2
369	ok Av	15.85	0.58	0.11	17.7	3.3	4722.8	893.7
370	ok Av	11.06	0.41	5.38e-04	12.6	1.65e-02	3353.3	4.4
371	ok Av	16.16	0.60	6.83e-04	18.4	2.09e-02	4899.7	5.6
372	ok Av	10.90	0.40	0.04	12.3	1.2	3287.8	329.4
373	ok Av	15.85	0.58	0.11	17.7	3.4	4722.9	896.7
374	ok Av	10.43	0.38	0.07	11.6	2.3	3104.1	605.2
375	ok Av	14.93	0.52	0.20	15.8	6.2	4218.0	1651.5
376	ok Av	9.68	0.35	0.10	10.6	3.0	2828.3	789.5
377	ok Av	13.44	0.42	0.26	13.0	8.1	3462.0	2155.0
378	ok Av	8.72	0.31	0.10	9.4	3.2	2502.5	854.0
379	ok Av	11.44	0.31	0.28	9.6	8.7	2570.0	2330.3
380	ok Av	7.63	0.27	0.10	8.3	3.0	2206.5	788.5
381	ok Av	8.99	0.20	0.26	6.3	8.1	1677.8	2150.5
382	ok Av	6.71	0.24	0.07	7.4	2.3	1968.9	602.8
383	ok Av	6.22	0.11	0.20	3.5	6.2	921.5	1643.7
384	ok Av	6.04	0.22	0.04	6.8	1.2	1810.3	324.9
385	ok Av	3.23	0.05	0.11	1.6	3.3	416.3	886.6
386	ok Av	5.79	0.21	2.78e-03	6.6	8.51e-02	1755.2	22.7
387	ok	0.96						
388	ok Av	6.07	0.22	0.04	6.8	1.3	1815.3	350.2
389	ok Av	3.28	0.05	0.11	1.6	3.4	419.2	901.5
390	ok Av	6.76	0.24	0.08	7.4	2.3	1978.7	626.6
391	ok Av	6.26	0.11	0.20	3.5	6.2	927.4	1657.8
392	ok Av	7.70	0.27	0.10	8.3	3.0	2220.9	810.0
393	ok Av	9.04	0.21	0.26	6.3	8.1	1686.3	2163.2
394	ok Av	8.80	0.31	0.11	9.4	3.3	2520.7	872.2
395	ok Av	11.49	0.32	0.29	9.7	8.8	2580.8	2341.1
396	ok Av	9.77	0.35	0.10	10.7	3.0	2849.7	803.8
397	ok Av	13.49	0.42	0.26	13.0	8.1	3474.7	2163.5
398	ok Av	10.51	0.38	0.08	11.7	2.3	3127.9	615.0
399	ok Av	14.98	0.52	0.20	15.9	6.2	4232.1	1657.3
400	ok Av	10.98	0.40	0.04	12.4	1.3	3313.1	334.4
401	ok Av	15.90	0.58	0.11	17.7	3.4	4737.8	899.7
402	ok Av	11.14	0.41	5.38e-04	12.7	1.65e-02	3379.0	4.4
403	ok Av	16.21	0.60	6.83e-04	18.4	2.09e-02	4915.0	5.6
404	ok Av	10.99	0.41	0.04	12.4	1.2	3316.4	327.2
405	ok Av	15.90	0.58	0.11	17.7	3.4	4737.8	896.7
406	ok Av	10.52	0.38	0.07	11.7	2.3	3132.5	608.7
407	ok Av	14.98	0.52	0.20	15.9	6.2	4232.7	1654.7
408	ok Av	9.78	0.35	0.10	10.7	3.0	2855.5	798.5
409	ok Av	13.49	0.42	0.26	13.0	8.1	3475.9	2161.2
410	ok Av	8.81	0.31	0.11	9.5	3.3	2527.4	868.1
411	ok Av	11.48	0.32	0.29	9.7	8.8	2582.5	2339.3
412	ok Av	7.72	0.27	0.10	8.3	3.0	2221.2	807.2
413	ok Av	9.04	0.21	0.26	6.3	8.1	1688.6	2162.0
414	ok Av	6.76	0.24	0.08	7.4	2.3	1979.5	625.4
415	ok Av	6.26	0.11	0.20	3.5	6.2	930.0	1656.5
416	ok Av	6.07	0.22	0.04	6.8	1.3	1816.5	350.5
Nodo		**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
		16.21	0.60	0.30	18.41	9.31	4914.99	2485.48

STATI LIMITE D' ESERCIZIO

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 sopraripportati 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).

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
					mm	mm	mm	
1	0.53	0.99	0.53	3,3,5	0.40	0.32	0.29	3,4,5
2	0.39	0.99	0.39	3,3,5	0.43	0.37	0.33	3,4,5
3	0.32	0.99	0.32	3,3,5	0.45	0.0	0.0	3,0,0
4	0.26	0.98	0.27	3,3,5	0.0	0.0	0.0	0,0,0
5	0.22	0.98	0.22	3,3,5	0.0	0.0	0.0	0,0,0
6	0.14	0.70	0.14	3,3,5	0.0	0.0	0.0	0,0,0
7	0.07	0.39	0.07	3,3,5	0.0	0.0	0.0	0,0,0
8	0.51	1.00	0.52	3,3,5	0.42	0.33	0.30	3,4,5
9	0.38	0.99	0.38	3,3,5	0.43	0.37	0.33	3,4,5
10	0.32	0.98	0.32	3,3,5	0.44	0.0	0.0	3,0,0
11	0.26	0.98	0.26	3,3,5	0.0	0.0	0.0	0,0,0
12	0.22	0.98	0.22	3,3,5	0.0	0.0	0.0	0,0,0
13	0.15	0.73	0.15	3,3,5	0.0	0.0	0.0	0,0,0
14	0.08	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
15	0.50	1.00	0.51	3,3,5	0.42	0.37	0.31	3,4,5
16	0.37	1.00	0.37	3,3,5	0.45	0.39	0.34	3,4,5
17	0.31	0.98	0.31	3,3,5	0.44	0.0	0.0	3,0,0
18	0.26	0.98	0.26	3,3,5	0.0	0.0	0.0	0,0,0
19	0.21	0.97	0.22	3,3,5	0.0	0.0	0.0	0,0,0
20	0.15	0.75	0.15	3,3,5	0.0	0.0	0.0	0,0,0
21	0.08	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
22	0.50	1.02	0.51	3,3,5	0.46	0.41	0.37	3,4,5
23	0.36	1.00	0.36	3,3,5	0.45	0.39	0.33	3,4,5
24	0.30	1.00	0.30	3,3,5	0.44	0.0	0.0	3,0,0
25	0.25	0.98	0.26	3,3,5	0.0	0.0	0.0	0,0,0
26	0.21	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
27	0.15	0.74	0.15	3,3,5	0.0	0.0	0.0	0,0,0
28	0.08	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
29	0.47	1.02	0.48	3,3,5	0.44	0.40	0.36	3,4,5
30	0.34	1.01	0.34	3,3,5	0.46	0.38	0.32	3,4,5
31	0.29	1.00	0.29	3,3,5	0.43	0.0	0.0	3,0,0
32	0.25	0.98	0.25	3,3,5	0.0	0.0	0.0	0,0,0
33	0.21	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
34	0.14	0.71	0.15	3,3,5	0.0	0.0	0.0	0,0,0
35	0.08	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
36	0.41	1.01	0.42	3,3,5	0.43	0.37	0.34	3,4,5
37	0.31	1.00	0.32	3,3,5	0.45	0.36	0.0	3,4,0
38	0.27	0.99	0.27	3,3,5	0.0	0.0	0.0	0,0,0
39	0.23	0.98	0.24	3,3,5	0.0	0.0	0.0	0,0,0
40	0.20	0.98	0.20	3,3,5	0.0	0.0	0.0	0,0,0
41	0.14	0.68	0.14	3,3,5	0.0	0.0	0.0	0,0,0
42	0.08	0.37	0.08	3,3,5	0.0	0.0	0.0	0,0,0
43	0.33	0.99	0.34	3,3,5	0.42	0.37	0.34	3,4,5
44	0.28	0.99	0.28	3,3,5	0.45	0.0	0.0	3,0,0
45	0.25	0.99	0.25	3,3,5	0.0	0.0	0.0	0,0,0
46	0.22	0.98	0.22	3,3,5	0.0	0.0	0.0	0,0,0
47	0.19	0.98	0.19	3,3,5	0.0	0.0	0.0	0,0,0
48	0.13	0.62	0.13	3,3,5	0.0	0.0	0.0	0,0,0
49	0.07	0.34	0.07	3,3,5	0.0	0.0	0.0	0,0,0
50	0.24	1.01	0.26	3,3,5	0.43	0.0	0.0	3,0,0
51	0.24	1.00	0.25	3,3,5	0.0	0.0	0.0	0,0,0
52	0.22	0.99	0.23	3,3,5	0.0	0.0	0.0	0,0,0
53	0.20	0.99	0.20	3,3,5	0.0	0.0	0.0	0,0,0
54	0.17	0.88	0.17	3,3,5	0.0	0.0	0.0	0,0,0
55	0.11	0.54	0.11	3,3,5	0.0	0.0	0.0	0,0,0
56	0.07	0.30	0.07	3,3,5	0.0	0.0	0.0	0,0,0
57	0.18	1.04	0.20	3,3,5	0.0	0.0	0.0	0,0,0
58	0.20	0.99	0.21	3,3,5	0.0	0.0	0.0	0,0,0
59	0.19	1.00	0.20	3,3,5	0.0	0.0	0.0	0,0,0
60	0.17	0.99	0.18	3,3,5	0.0	0.0	0.0	0,0,0
61	0.13	0.71	0.14	3,3,5	0.0	0.0	0.0	0,0,0
62	0.09	0.45	0.10	3,3,5	0.0	0.0	0.0	0,0,0
63	0.06	0.26	0.06	3,3,5	0.0	0.0	0.0	0,0,0
64	0.22	1.03	0.18	3,3,5	0.0	0.0	0.0	0,0,0
65	0.21	1.01	0.18	3,3,5	0.0	0.0	0.0	0,0,0
66	0.19	1.01	0.17	3,3,5	0.0	0.0	0.0	0,0,0
67	0.17	0.91	0.14	3,3,5	0.0	0.0	0.0	0,0,0
68	0.12	0.65	0.11	3,3,5	0.0	0.0	0.0	0,0,0
69	0.08	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
70	0.05	0.23	0.05	3,3,5	0.0	0.0	0.0	0,0,0
71	0.27	1.00	0.23	3,3,5	0.0	0.0	0.0	0,0,0
72	0.23	0.91	0.20	3,3,5	0.0	0.0	0.0	0,0,0
73	0.21	0.91	0.18	3,3,5	0.0	0.0	0.0	0,0,0

74	0.18	0.91	0.16	3,3,5	0.0	0.0	0.0	0,0,0
75	0.15	0.76	0.13	3,3,5	0.0	0.0	0.0	0,0,0
76	0.10	0.46	0.09	3,3,5	0.0	0.0	0.0	0,0,0
77	0.06	0.24	0.05	3,3,5	0.0	0.0	0.0	0,0,0
78	0.29	0.91	0.25	3,3,5	0.37	0.0	0.0	3,0,0
79	0.24	0.91	0.21	3,3,5	0.0	0.0	0.0	0,0,0
80	0.22	0.91	0.19	3,3,5	0.0	0.0	0.0	0,0,0
81	0.19	0.92	0.17	3,3,5	0.0	0.0	0.0	0,0,0
82	0.16	0.85	0.14	3,3,5	0.0	0.0	0.0	0,0,0
83	0.10	0.50	0.09	3,3,5	0.0	0.0	0.0	0,0,0
84	0.06	0.24	0.05	3,3,5	0.0	0.0	0.0	0,0,0
85	0.28	0.91	0.24	3,3,5	0.37	0.27	0.23	3,4,5
86	0.25	0.91	0.22	3,3,5	0.36	0.0	0.0	3,0,0
87	0.22	0.92	0.20	3,3,5	0.0	0.0	0.0	0,0,0
88	0.20	0.92	0.18	3,3,5	0.0	0.0	0.0	0,0,0
89	0.17	0.91	0.15	3,3,5	0.0	0.0	0.0	0,0,0
90	0.11	0.52	0.10	3,3,5	0.0	0.0	0.0	0,0,0
91	0.06	0.24	0.06	3,3,5	0.0	0.0	0.0	0,0,0
92	0.28	0.91	0.25	3,3,5	0.36	0.28	0.23	3,4,5
93	0.25	0.92	0.22	3,3,5	0.38	0.0	0.0	3,0,0
94	0.23	0.92	0.20	3,3,5	0.0	0.0	0.0	0,0,0
95	0.20	0.92	0.18	3,3,5	0.0	0.0	0.0	0,0,0
96	0.17	0.92	0.15	3,3,5	0.0	0.0	0.0	0,0,0
97	0.11	0.51	0.10	3,3,5	0.0	0.0	0.0	0,0,0
98	0.06	0.23	0.05	3,3,5	0.0	0.0	0.0	0,0,0
99	0.30	0.92	0.26	3,3,5	0.35	0.27	0.24	3,4,5
100	0.25	0.92	0.23	3,3,5	0.38	0.0	0.0	3,0,0
101	0.23	0.92	0.20	3,3,5	0.0	0.0	0.0	0,0,0
102	0.20	0.92	0.18	3,3,5	0.0	0.0	0.0	0,0,0
103	0.17	0.92	0.15	3,3,5	0.0	0.0	0.0	0,0,0
104	0.11	0.51	0.09	3,3,5	0.0	0.0	0.0	0,0,0
105	0.05	0.21	0.05	3,3,5	0.0	0.0	0.0	0,0,0
106	0.31	0.92	0.27	3,3,5	0.35	0.27	0.24	3,4,5
107	0.26	0.91	0.23	3,3,5	0.39	0.0	0.0	3,0,0
108	0.23	0.92	0.20	3,3,5	0.0	0.0	0.0	0,0,0
109	0.20	0.92	0.18	3,3,5	0.0	0.0	0.0	0,0,0
110	0.17	0.92	0.15	3,3,5	0.0	0.0	0.0	0,0,0
111	0.10	0.49	0.09	3,3,5	0.0	0.0	0.0	0,0,0
112	0.05	0.18	0.04	3,3,5	0.0	0.0	0.0	0,0,0
113	0.31	0.92	0.27	3,3,5	0.36	0.28	0.23	3,4,5
114	0.26	0.92	0.23	3,3,5	0.39	0.0	0.0	3,0,0
115	0.23	0.92	0.20	3,3,5	0.0	0.0	0.0	0,0,0
116	0.20	0.92	0.18	3,3,5	0.0	0.0	0.0	0,0,0
117	0.17	0.92	0.15	3,3,5	0.0	0.0	0.0	0,0,0
118	0.10	0.49	0.09	3,3,5	0.0	0.0	0.0	0,0,0
119	0.05	0.17	0.04	3,3,5	0.0	0.0	0.0	0,0,0
120	0.30	0.92	0.26	3,3,5	0.37	0.28	0.23	3,4,5
121	0.25	0.91	0.22	3,3,5	0.38	0.0	0.0	3,0,0
122	0.23	0.91	0.20	3,3,5	0.0	0.0	0.0	0,0,0
123	0.21	0.91	0.18	3,3,5	0.0	0.0	0.0	0,0,0
124	0.18	0.92	0.16	3,3,5	0.0	0.0	0.0	0,0,0
125	0.11	0.49	0.09	3,3,5	0.0	0.0	0.0	0,0,0
126	0.05	0.21	0.05	3,3,5	0.0	0.0	0.0	0,0,0
127	0.28	0.91	0.25	3,3,5	0.36	0.28	0.22	3,4,5
128	0.25	0.91	0.22	3,3,5	0.36	0.0	0.0	3,0,0
129	0.23	0.91	0.20	3,3,5	0.0	0.0	0.0	0,0,0
130	0.21	0.91	0.18	3,3,5	0.0	0.0	0.0	0,0,0
131	0.17	0.91	0.16	3,3,5	0.0	0.0	0.0	0,0,0
132	0.11	0.50	0.10	3,3,5	0.0	0.0	0.0	0,0,0
133	0.06	0.23	0.05	3,3,5	0.0	0.0	0.0	0,0,0
134	0.28	0.91	0.25	3,3,5	0.36	0.26	0.23	3,4,5
135	0.25	0.91	0.22	3,3,5	0.36	0.0	0.0	3,0,0
136	0.23	0.91	0.20	3,3,5	0.0	0.0	0.0	0,0,0
137	0.20	0.91	0.18	3,3,5	0.0	0.0	0.0	0,0,0
138	0.17	0.87	0.15	3,3,5	0.0	0.0	0.0	0,0,0
139	0.11	0.49	0.10	3,3,5	0.0	0.0	0.0	0,0,0
140	0.06	0.24	0.06	3,3,5	0.0	0.0	0.0	0,0,0
141	0.29	1.03	0.26	3,3,5	0.36	0.0	0.0	3,0,0
142	0.25	0.90	0.22	3,3,5	0.0	0.0	0.0	0,0,0
143	0.22	0.91	0.19	3,3,5	0.0	0.0	0.0	0,0,0
144	0.20	0.91	0.17	3,3,5	0.0	0.0	0.0	0,0,0
145	0.16	0.81	0.14	3,3,5	0.0	0.0	0.0	0,0,0
146	0.10	0.47	0.09	3,3,5	0.0	0.0	0.0	0,0,0
147	0.06	0.24	0.05	3,3,5	0.0	0.0	0.0	0,0,0
148	0.25	1.01	0.22	3,3,5	0.0	0.0	0.0	0,0,0
149	0.24	0.90	0.21	3,3,5	0.0	0.0	0.0	0,0,0
150	0.21	0.90	0.18	3,3,5	0.0	0.0	0.0	0,0,0

151	0.19	0.90	0.17	3,3,5	0.0	0.0	0.0	0,0,0
152	0.15	0.72	0.13	3,3,5	0.0	0.0	0.0	0,0,0
153	0.10	0.43	0.09	3,3,5	0.0	0.0	0.0	0,0,0
154	0.06	0.23	0.05	3,3,5	0.0	0.0	0.0	0,0,0
155	0.22	0.98	0.18	3,3,5	0.0	0.0	0.0	0,0,0
156	0.21	1.01	0.18	3,3,5	0.0	0.0	0.0	0,0,0
157	0.20	1.01	0.17	3,3,5	0.0	0.0	0.0	0,0,0
158	0.17	0.85	0.14	3,3,5	0.0	0.0	0.0	0,0,0
159	0.13	0.60	0.11	3,3,5	0.0	0.0	0.0	0,0,0
160	0.09	0.38	0.08	3,3,5	0.0	0.0	0.0	0,0,0
161	0.05	0.23	0.05	3,3,5	0.0	0.0	0.0	0,0,0
162	0.18	1.06	0.19	3,3,5	0.0	0.0	0.0	0,0,0
163	0.18	1.02	0.20	3,3,5	0.0	0.0	0.0	0,0,0
164	0.18	1.00	0.19	3,3,5	0.0	0.0	0.0	0,0,0
165	0.17	0.99	0.18	3,3,5	0.0	0.0	0.0	0,0,0
166	0.13	0.76	0.14	3,3,5	0.0	0.0	0.0	0,0,0
167	0.09	0.48	0.10	3,3,5	0.0	0.0	0.0	0,0,0
168	0.06	0.28	0.06	3,3,5	0.0	0.0	0.0	0,0,0
169	0.22	1.02	0.25	3,3,5	0.0	0.0	0.0	0,0,0
170	0.22	1.00	0.23	3,3,5	0.0	0.0	0.0	0,0,0
171	0.21	1.00	0.22	3,3,5	0.0	0.0	0.0	0,0,0
172	0.19	0.99	0.20	3,3,5	0.0	0.0	0.0	0,0,0
173	0.16	0.93	0.17	3,3,5	0.0	0.0	0.0	0,0,0
174	0.11	0.57	0.11	3,3,5	0.0	0.0	0.0	0,0,0
175	0.07	0.32	0.07	3,3,5	0.0	0.0	0.0	0,0,0
176	0.32	1.00	0.34	3,3,5	0.41	0.36	0.33	3,4,5
177	0.26	0.99	0.28	3,3,5	0.44	0.0	0.0	3,0,0
178	0.24	0.99	0.24	3,3,5	0.0	0.0	0.0	0,0,0
179	0.21	0.98	0.22	3,3,5	0.0	0.0	0.0	0,0,0
180	0.18	0.98	0.19	3,3,5	0.0	0.0	0.0	0,0,0
181	0.13	0.65	0.13	3,3,5	0.0	0.0	0.0	0,0,0
182	0.07	0.35	0.07	3,3,5	0.0	0.0	0.0	0,0,0
183	0.41	1.01	0.43	3,3,5	0.43	0.39	0.33	3,4,5
184	0.30	1.00	0.31	3,3,5	0.45	0.37	0.0	3,4,0
185	0.26	0.99	0.27	3,3,5	0.0	0.0	0.0	0,0,0
186	0.23	0.98	0.23	3,3,5	0.0	0.0	0.0	0,0,0
187	0.20	0.98	0.20	3,3,5	0.0	0.0	0.0	0,0,0
188	0.14	0.71	0.14	3,3,5	0.0	0.0	0.0	0,0,0
189	0.08	0.38	0.08	3,3,5	0.0	0.0	0.0	0,0,0
190	0.48	1.02	0.49	3,3,5	0.44	0.41	0.38	3,4,5
191	0.33	1.00	0.34	3,3,5	0.46	0.38	0.31	3,4,5
192	0.28	0.99	0.28	3,3,5	0.44	0.0	0.0	3,0,0
193	0.24	0.98	0.25	3,3,5	0.0	0.0	0.0	0,0,0
194	0.20	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
195	0.14	0.74	0.15	3,3,5	0.0	0.0	0.0	0,0,0
196	0.08	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
197	0.52	1.02	0.53	3,3,5	0.47	0.43	0.40	3,4,5
198	0.35	1.00	0.36	3,3,5	0.46	0.38	0.32	3,4,5
199	0.29	0.99	0.30	3,3,5	0.44	0.0	0.0	3,0,0
200	0.25	0.98	0.25	3,3,5	0.0	0.0	0.0	0,0,0
201	0.21	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
202	0.15	0.76	0.15	3,3,5	0.0	0.0	0.0	0,0,0
203	0.08	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
204	0.50	0.98	0.50	3,3,5	0.42	0.35	0.29	3,4,5
205	0.36	0.98	0.36	3,3,5	0.43	0.37	0.32	3,4,5
206	0.30	0.98	0.30	3,3,5	0.44	0.0	0.0	3,0,0
207	0.25	0.98	0.25	3,3,5	0.0	0.0	0.0	0,0,0
208	0.21	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
209	0.15	0.77	0.15	3,3,5	0.0	0.0	0.0	0,0,0
210	0.08	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
211	0.51	1.00	0.51	3,3,5	0.44	0.38	0.31	3,4,5
212	0.37	0.98	0.37	3,3,5	0.42	0.35	0.31	3,4,5
213	0.31	0.98	0.31	3,3,5	0.45	0.0	0.0	3,0,0
214	0.26	0.98	0.26	3,3,5	0.0	0.0	0.0	0,0,0
215	0.21	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
216	0.14	0.75	0.15	3,3,5	0.0	0.0	0.0	0,0,0
217	0.08	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
218	0.52	0.99	0.53	3,3,5	0.41	0.33	0.30	3,4,5
219	0.38	0.99	0.39	3,3,5	0.42	0.36	0.32	3,4,5
220	0.32	0.99	0.32	3,3,5	0.45	0.0	0.0	3,0,0
221	0.27	0.98	0.27	3,3,5	0.0	0.0	0.0	0,0,0
222	0.22	0.98	0.22	3,3,5	0.0	0.0	0.0	0,0,0
223	0.14	0.72	0.14	3,3,5	0.0	0.0	0.0	0,0,0
224	0.07	0.39	0.07	3,3,5	0.0	0.0	0.0	0,0,0
225	0.24	0.92	0.24	3,3,5	0.34	0.21	0.0	3,4,0
226	0.26	0.89	0.27	3,3,5	0.33	0.24	0.0	3,4,0
227	0.26	0.89	0.27	3,3,5	0.27	0.17	0.0	3,4,0

228	0.26	0.99	0.26	3,3,5	0.51	0.0	0.0	3,0,0
229	0.23	1.00	0.23	3,3,5	0.39	0.0	0.0	3,0,0
230	0.20	1.01	0.21	3,3,5	0.0	0.0	0.0	0,0,0
231	0.19	1.05	0.20	3,3,5	0.0	0.0	0.0	0,0,0
232	0.21	0.88	0.22	3,3,5	0.0	0.0	0.0	0,0,0
233	0.18	0.77	0.21	3,3,5	0.0	0.0	0.0	0,0,0
234	0.12	0.91	0.12	3,3,5	0.0	0.0	0.0	0,0,0
235	0.18	0.93	0.16	3,3,5	0.0	0.0	0.0	0,0,0
236	0.22	0.93	0.20	3,3,5	0.0	0.0	0.0	0,0,0
237	0.25	0.93	0.22	3,3,5	0.0	0.0	0.0	0,0,0
238	0.26	0.93	0.23	3,3,5	0.0	0.0	0.0	0,0,0
239	0.26	0.93	0.24	3,3,5	0.0	0.0	0.0	0,0,0
240	0.27	0.93	0.24	3,3,5	0.0	0.0	0.0	0,0,0
241	0.26	0.93	0.24	3,3,5	0.0	0.0	0.0	0,0,0
242	0.26	0.93	0.24	3,3,5	0.0	0.0	0.0	0,0,0
243	0.26	0.93	0.23	3,3,5	0.0	0.0	0.0	0,0,0
244	0.25	0.93	0.22	3,3,5	0.0	0.0	0.0	0,0,0
245	0.23	0.94	0.20	3,3,5	0.0	0.0	0.0	0,0,0
246	0.19	0.95	0.16	3,3,5	0.0	0.0	0.0	0,0,0
247	0.13	0.93	0.14	3,3,5	0.0	0.0	0.0	0,0,0
248	0.21	0.84	0.23	3,3,5	0.0	0.0	0.0	0,0,0
249	0.23	0.94	0.24	3,3,5	0.0	0.0	0.0	0,0,0
250	0.21	1.05	0.21	3,3,5	0.0	0.0	0.0	0,0,0
251	0.21	1.01	0.20	3,3,5	0.0	0.0	0.0	0,0,0
252	0.22	1.00	0.22	3,3,5	0.39	0.0	0.0	3,0,0
253	0.24	0.99	0.25	3,3,5	0.39	0.0	0.0	3,0,0
254	0.26	0.97	0.26	3,3,5	0.52	0.29	0.0	3,4,0
255	0.27	0.92	0.27	3,3,5	0.28	0.24	0.0	3,4,0
256	0.24	0.92	0.24	3,3,5	0.32	0.21	0.0	3,4,0
257	0.15	0.99	0.16	3,3,5	0.0	0.0	0.0	0,0,0
258	0.16	0.91	0.16	3,3,5	0.0	0.0	0.0	0,0,0
259	0.16	1.00	0.17	3,3,5	0.0	0.0	0.0	0,0,0
260	0.18	0.90	0.18	3,3,5	0.0	0.0	0.0	0,0,0
261	0.15	1.00	0.16	3,3,5	0.0	0.0	0.0	0,0,0
262	0.20	0.90	0.21	3,3,5	0.0	0.0	0.0	0,0,0
263	0.14	1.01	0.15	3,3,5	0.0	0.0	0.0	0,0,0
264	0.21	0.99	0.22	3,3,5	0.0	0.0	0.0	0,0,0
265	0.13	1.02	0.14	3,3,5	0.0	0.0	0.0	0,0,0
266	0.17	1.01	0.18	3,3,5	0.0	0.0	0.0	0,0,0
267	0.12	0.79	0.13	3,3,5	0.0	0.0	0.0	0,0,0
268	0.14	1.01	0.16	3,3,5	0.0	0.0	0.0	0,0,0
269	0.12	0.73	0.14	3,3,5	0.0	0.0	0.0	0,0,0
270	0.13	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
271	0.13	0.82	0.15	3,3,5	0.0	0.0	0.0	0,0,0
272	0.13	0.92	0.14	3,3,5	0.0	0.0	0.0	0,0,0
273	0.13	0.88	0.15	3,3,5	0.0	0.0	0.0	0,0,0
274	0.12	0.74	0.14	3,3,5	0.0	0.0	0.0	0,0,0
275	0.10	0.67	0.13	3,3,5	0.0	0.0	0.0	0,0,0
276	0.10	0.71	0.12	3,3,5	0.0	0.0	0.0	0,0,0
277	0.08	0.59	0.10	3,3,5	0.0	0.0	0.0	0,0,0
278	0.09	0.85	0.10	3,3,5	0.0	0.0	0.0	0,0,0
279	0.07	0.77	0.08	3,3,5	0.0	0.0	0.0	0,0,0
280	0.10	0.87	0.08	3,3,5	0.0	0.0	0.0	0,0,0
281	0.09	0.82	0.06	3,3,5	0.0	0.0	0.0	0,0,0
282	0.12	0.88	0.10	3,3,5	0.0	0.0	0.0	0,0,0
283	0.10	0.83	0.07	3,3,5	0.0	0.0	0.0	0,0,0
284	0.13	0.88	0.10	3,3,5	0.0	0.0	0.0	0,0,0
285	0.11	0.83	0.08	3,3,5	0.0	0.0	0.0	0,0,0
286	0.13	0.88	0.11	3,3,5	0.0	0.0	0.0	0,0,0
287	0.11	0.80	0.08	3,3,5	0.0	0.0	0.0	0,0,0
288	0.13	0.88	0.11	3,3,5	0.0	0.0	0.0	0,0,0
289	0.11	0.80	0.08	3,3,5	0.0	0.0	0.0	0,0,0
290	0.13	0.88	0.11	3,3,5	0.0	0.0	0.0	0,0,0
291	0.11	0.83	0.08	3,3,5	0.0	0.0	0.0	0,0,0
292	0.14	0.88	0.11	3,3,5	0.0	0.0	0.0	0,0,0
293	0.10	0.84	0.07	3,3,5	0.0	0.0	0.0	0,0,0
294	0.13	0.88	0.10	3,3,5	0.0	0.0	0.0	0,0,0
295	0.09	0.82	0.06	3,3,5	0.0	0.0	0.0	0,0,0
296	0.13	0.88	0.10	3,3,5	0.0	0.0	0.0	0,0,0
297	0.07	0.77	0.08	3,3,5	0.0	0.0	0.0	0,0,0
298	0.11	0.87	0.08	3,3,5	0.0	0.0	0.0	0,0,0
299	0.08	0.61	0.10	3,3,5	0.0	0.0	0.0	0,0,0
300	0.10	0.85	0.09	3,3,5	0.0	0.0	0.0	0,0,0
301	0.10	0.67	0.13	3,3,5	0.0	0.0	0.0	0,0,0
302	0.10	0.84	0.13	3,3,5	0.0	0.0	0.0	0,0,0
303	0.13	0.89	0.15	3,3,5	0.0	0.0	0.0	0,0,0
304	0.14	0.78	0.16	3,3,5	0.0	0.0	0.0	0,0,0

305	0.13	0.82	0.15	3,3,5	0.0	0.0	0.0	0,0,0
306	0.14	0.92	0.15	3,3,5	0.0	0.0	0.0	0,0,0
307	0.12	0.74	0.14	3,3,5	0.0	0.0	0.0	0,0,0
308	0.13	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
309	0.12	0.79	0.13	3,3,5	0.0	0.0	0.0	0,0,0
310	0.14	1.02	0.16	3,3,5	0.0	0.0	0.0	0,0,0
311	0.13	1.02	0.14	3,3,5	0.0	0.0	0.0	0,0,0
312	0.17	1.01	0.18	3,3,5	0.0	0.0	0.0	0,0,0
313	0.14	1.01	0.15	3,3,5	0.0	0.0	0.0	0,0,0
314	0.21	0.99	0.22	3,3,5	0.0	0.0	0.0	0,0,0
315	0.15	1.00	0.16	3,3,5	0.0	0.0	0.0	0,0,0
316	0.20	0.98	0.21	3,3,5	0.0	0.0	0.0	0,0,0
317	0.16	1.00	0.17	3,3,5	0.0	0.0	0.0	0,0,0
318	0.18	0.91	0.18	3,3,5	0.0	0.0	0.0	0,0,0
319	0.15	0.99	0.16	3,3,5	0.0	0.0	0.0	0,0,0
320	0.16	0.91	0.16	3,3,5	0.0	0.0	0.0	0,0,0
321	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
322	0.12	1.01	0.13	3,3,5	0.0	0.0	0.0	0,0,0
323	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
324	0.12	1.01	0.13	3,3,5	0.0	0.0	0.0	0,0,0
325	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
326	0.12	1.02	0.13	3,3,5	0.0	0.0	0.0	0,0,0
327	0.12	1.05	0.14	3,3,5	0.0	0.0	0.0	0,0,0
328	0.12	1.03	0.13	3,3,5	0.0	0.0	0.0	0,0,0
329	0.12	1.06	0.14	3,3,5	0.0	0.0	0.0	0,0,0
330	0.11	1.04	0.12	3,3,5	0.0	0.0	0.0	0,0,0
331	0.11	1.06	0.14	3,3,5	0.0	0.0	0.0	0,0,0
332	0.10	1.05	0.12	3,3,5	0.0	0.0	0.0	0,0,0
333	0.11	1.02	0.13	3,3,5	0.0	0.0	0.0	0,0,0
334	0.10	0.78	0.12	3,3,5	0.0	0.0	0.0	0,0,0
335	0.10	0.93	0.12	3,3,5	0.0	0.0	0.0	0,0,0
336	0.11	0.79	0.13	3,3,5	0.0	0.0	0.0	0,0,0
337	0.10	0.83	0.12	3,3,5	0.0	0.0	0.0	0,0,0
338	0.11	0.80	0.13	3,3,5	0.0	0.0	0.0	0,0,0
339	0.09	0.73	0.11	3,3,5	0.0	0.0	0.0	0,0,0
340	0.09	0.69	0.12	3,3,5	0.0	0.0	0.0	0,0,0
341	0.07	0.64	0.10	3,3,5	0.0	0.0	0.0	0,0,0
342	0.08	0.54	0.10	3,3,5	0.0	0.0	0.0	0,0,0
343	0.06	0.55	0.09	3,3,5	0.0	0.0	0.0	0,0,0
344	0.06	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
345	0.06	0.47	0.09	3,3,5	0.0	0.0	0.0	0,0,0
346	0.05	0.40	0.07	3,3,5	0.0	0.0	0.0	0,0,0
347	0.05	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
348	0.04	0.39	0.06	3,3,5	0.0	0.0	0.0	0,0,0
349	0.05	0.36	0.08	3,3,5	0.0	0.0	0.0	0,0,0
350	0.04	0.38	0.05	3,3,5	0.0	0.0	0.0	0,0,0
351	0.04	0.34	0.07	3,3,5	0.0	0.0	0.0	0,0,0
352	0.04	0.36	0.05	3,3,5	0.0	0.0	0.0	0,0,0
353	0.04	0.34	0.07	3,3,5	0.0	0.0	0.0	0,0,0
354	0.04	0.36	0.05	3,3,5	0.0	0.0	0.0	0,0,0
355	0.05	0.36	0.08	3,3,5	0.0	0.0	0.0	0,0,0
356	0.04	0.38	0.05	3,3,5	0.0	0.0	0.0	0,0,0
357	0.05	0.41	0.08	3,3,5	0.0	0.0	0.0	0,0,0
358	0.04	0.40	0.06	3,3,5	0.0	0.0	0.0	0,0,0
359	0.06	0.47	0.09	3,3,5	0.0	0.0	0.0	0,0,0
360	0.05	0.40	0.07	3,3,5	0.0	0.0	0.0	0,0,0
361	0.06	0.55	0.09	3,3,5	0.0	0.0	0.0	0,0,0
362	0.06	0.40	0.08	3,3,5	0.0	0.0	0.0	0,0,0
363	0.07	0.64	0.10	3,3,5	0.0	0.0	0.0	0,0,0
364	0.08	0.54	0.10	3,3,5	0.0	0.0	0.0	0,0,0
365	0.09	0.73	0.11	3,3,5	0.0	0.0	0.0	0,0,0
366	0.10	0.69	0.12	3,3,5	0.0	0.0	0.0	0,0,0
367	0.10	0.83	0.12	3,3,5	0.0	0.0	0.0	0,0,0
368	0.11	0.81	0.13	3,3,5	0.0	0.0	0.0	0,0,0
369	0.10	0.93	0.12	3,3,5	0.0	0.0	0.0	0,0,0
370	0.11	0.80	0.13	3,3,5	0.0	0.0	0.0	0,0,0
371	0.11	1.02	0.13	3,3,5	0.0	0.0	0.0	0,0,0
372	0.10	0.78	0.12	3,3,5	0.0	0.0	0.0	0,0,0
373	0.11	1.06	0.14	3,3,5	0.0	0.0	0.0	0,0,0
374	0.10	1.05	0.12	3,3,5	0.0	0.0	0.0	0,0,0
375	0.12	1.06	0.14	3,3,5	0.0	0.0	0.0	0,0,0
376	0.11	1.04	0.12	3,3,5	0.0	0.0	0.0	0,0,0
377	0.12	1.05	0.14	3,3,5	0.0	0.0	0.0	0,0,0
378	0.12	1.03	0.13	3,3,5	0.0	0.0	0.0	0,0,0
379	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
380	0.12	1.02	0.13	3,3,5	0.0	0.0	0.0	0,0,0
381	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0

382	0.12	1.01	0.13	3,3,5	0.0	0.0	0.0	0,0,0
383	0.12	1.04	0.14	3,3,5	0.0	0.0	0.0	0,0,0
384	0.12	1.01	0.13	3,3,5	0.0	0.0	0.0	0,0,0

Guscio	**rRfck**	**rRfyk**	**rPfck**		**wR**	**wF**	**wP**	
	0.53	1.06	0.53		0.52	0.43	0.40	

RELAZIONE GEOTECNICA E DELLE FONDAZIONI

NORMATIVE DI RIFERIMENTO

In quanto di seguito riportato viene fatto esplicito riferimento alle seguenti Normative:

- **LEGGE n° 64 del 02/02/1974.** "Provvedimenti per le costruzioni, con particolari prescrizioni per le zone sismiche.";
- **D.M. LL.PP. del 11/03/1988.** "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.";
- **D.M. LL.PP. del 16/01/1996.** "Norme tecniche per le costruzioni in zone sismiche.";
- **Circolare Ministeriale LL.PP. n° 65/AA.GG. del 10/04/1997.** "Istruzioni per l'applicazione delle "Norme Tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/1996.";
- **Eurocodice 1 - Parte 1 -** "Basi di calcolo ed azioni sulle strutture - Basi di calcolo -.";
- **Eurocodice 7 - Parte 1 -**"Progettazione geotecnica - Regole generali -.";
- **Eurocodice 8 - Parte 5 -**"Indicazioni progettuali per la resistenza sismica delle strutture - Fondazioni, strutture di contenimento ed aspetti geotecnici -.";
- **D.M. 17/01/2018 - NUOVE NORME TECNICHE PER LE COSTRUZIONI**
- **Circolare n. 7 del 21/01/2019**

INDAGINI IN SITO E CARATTERIZZAZIONE GEOTECNICA DEI TERRENI DI FONDAZIONE

La finalità della presente relazione è quella di definire il comportamento meccanico del volume di terreno (volume significativo) influenzato direttamente o indirettamente dalla costruzione di un manufatto e che a sua volta influenza il comportamento strutturale del manufatto stesso. Di seguito si illustrano i risultati delle indagini geologiche eseguite, nonchè l'interpretazione dei risultati ottenuti. Dal quadro generale in tal modo scaturito si definiscono le caratteristiche della fondazione da adottare ed il modello da utilizzare per le elaborazioni relative alla interazione sovrastruttura-fondazione e fondazione-terreno.

CARICO LIMITE DI FONDAZIONI SUPERFICIALI SU TERRENI

Per la determinazione del carico limite del complesso terreno-fondazione (inteso come valore asintotico del diagramma carico-cedimento) si fa riferimento a due principali meccanismi di rottura: il "meccanismo generale" e quello di "punzonamento". Il primo è caratterizzato dalla formazione di una superficie di scorrimento: il terreno sottostante la fondazione rifluisce lateralmente e verso l'alto, conseguentemente il terreno circostante la fondazione è interessato da un meccanismo di sollevamento ed emersione della superficie di scorrimento. Il secondo meccanismo è caratterizzato dall'assenza di una superficie di scorrimento ben definita: il terreno sotto la fondazione si comprime ed in corrispondenza della superficie del terreno circostante la fondazione si osserva un abbassamento generalizzato. Quest'ultimo meccanismo non consente una precisa individuazione del carico limite in quanto la curva cedimenti-carico applicato non raggiunge mai un valore asintotico ma cresce indefinitamente. Vesic ha studiato il fenomeno della rottura per punzonamento assimilando il terreno ad un mezzo elasto-plastico e la rottura per carico limite all'espansione di una cavità cilindrica. In questo caso il fenomeno risulta retto da un indice di rigidezza "I_r" così definito:

$$I_r = \frac{G}{c' + \sigma' \cdot tg(\varphi)}.$$

Per la determinazione del modulo di rigidezza a taglio si utilizzeranno le seguenti relazioni:

$$G = \frac{E}{2 \cdot (1+\nu)}; \qquad E = E_{ed} \frac{1-\nu-2\cdot\nu^2}{1-\nu}; \qquad \nu = \frac{k_0}{1+k_0}; \qquad k_0 = 1 - sen(\varphi).$$

L'indice di rigidezza viene confrontato con l'indice di rigidezza critico "$I_{r,crit}$":

$$I_{r,crit} = \frac{e^{\left[\left(3.3-0.45\cdot\frac{B}{L}\right)\cdot ctg\left(45°-\frac{\varphi}{2}\right)\right]}}{2}.$$

La rottura per punzonamento del terreno di fondazione avviene quando l'indice di rigidezza è minore di quello critico. Tale teoria comporta l'introduzione di coefficienti correttivi all'interno della formula trinomia del carico limite detti "coefficienti di punzonamento" i quali sono funzione dell'indice di rigidezza, dell'angolo d'attrito e della geometria dell'elemento di fondazione. La loro espressione è la seguente:
- se $I_r < I_{r,crit}$ si ha :

$$\Psi_\gamma = \Psi_q = e^{\left[\left(0.6\cdot\frac{B}{L}-4.4\right)\cdot tg(\varphi)+\frac{3.07\cdot sen(\varphi)\cdot\log_{10}(2\cdot I_r)}{1+sen(\varphi)}\right]} \qquad \text{se } \varphi = 0 \Rightarrow \Psi_\gamma = \Psi_q = 1$$

$$\Psi_c = \Psi_q - \frac{1-\Psi_q}{N_c\cdot tg(\varphi)} \qquad \text{se } \varphi = 0 \Rightarrow \Psi_c = 0.32 + 0.12\cdot\frac{B}{L} + 0.6\cdot\log_{10}(I_r)$$

- se $I_r > I_{r,crit}$ si ha che $\psi_\gamma = \psi_q = \psi_c = 1$.

Il significato dei simboli adottati nelle equazioni sopra riportate è il seguente:
- E_{ed} modulo edometrico del terreno sottostante la fondazione
- ν coefficiente di Poisson del terreno sottostante la fondazione
- k_0 coefficiente di spinta a riposo del terreno sottostante la fondazione
- φ angolo d'attrito efficace del terreno sottostante il piano di posa
- c' coesione (espressa in termini di tensioni efficaci)
- σ' tensione litostatica effettiva a profondità D+B/2
- L luce delle singole travi di fondazione
- D profondità del piano di posa della fondazione a partire dal piano campagna
- B larghezza della trave di fondazione

Definito il meccanismo di rottura, il calcolo del carico limite viene eseguito modellando il terreno come un mezzo rigido perfettamente plastico con la seguente espressione:

$$q_{ult} = \gamma_1\cdot D\cdot N_q\cdot s_q\cdot d_q\cdot i_q\cdot\Psi_q + c\cdot N_c\cdot s_c\cdot d_c\cdot i_c\cdot\Psi_c + \gamma_2\cdot\frac{B}{2}\cdot N_\gamma\cdot s_\gamma\cdot d_\gamma\cdot i_\gamma\cdot\Psi_\gamma\cdot r_\gamma.$$

Il significato dei termini presenti nella relazione trinomia sopra riportata è il seguente:
- N_q, N_c, N_γ, fattori adimensionali di portanza funzione dell'angolo d'attrito interno φ del terreno
- s_q, s_c, s_γ, coefficienti che rappresentano il fattore di forma
- d_q, d_c, d_γ, coefficienti che rappresentano il fattore dell'approfondimento
- i_q, i_c, i_γ, coefficienti che rappresentano il fattore di inclinazione del carico
- γ_1 peso per unità di volume del terreno sovrastante il piano di posa
- γ_2 peso per unità di volume del terreno sottostante il piano di posa

Per fondazioni aventi larghezza modesta si dimostra che il terzo termine non aumenta indefinitamente e per valori elevati di "B", sia secondo Vesic che secondo de Beer, il valore limite è prossimo a quello di una fondazione profonda. Bowles per fondazioni di larghezza maggiore di 2.00 metri propone il seguente fattore riduttivo:

$$r_\gamma = 1 - 0.25\cdot\log_{10}\left(\frac{B}{2}\right) \qquad \text{dove "}B\text{" va espresso in metri.}$$

Questa relazione risulta particolarmente utile per fondazioni larghe con rapporto D/B basso (platee e simili), caso nel quale il terzo termine dell'equazione trinomia è predominante.

Nel caso di carico eccentrico Meyerhof consiglia di ridurre le dimensioni della superficie di contatto (A_f) tra fondazione e terreno (B, L) in tutte le formule del calcolo del carico limite. Tale riduzione è espressa dalle seguenti relazioni:

$B_{rid} = B - 2\cdot e_B \qquad L_{rid} = L - 2\cdot e_L$ dove e_B, e_L sono le eccentricità relative alle dimensioni in esame.

L'equazione trinomia del carico limite può essere risolta secondo varie formulazioni, di seguito si riportano quelle che sono state implementate:

Formulazione di Hansen (1970)

$$N_q = tg^2\left(\frac{90°+\varphi}{2}\right)\cdot e^{\pi\cdot tg(\varphi)} \qquad N_\gamma = 1.5\cdot(N_q-1)\cdot tg(\varphi) \quad N_c = (N_q-1)\cdot ctg(\varphi)$$

- se φ ≠ 0 si ha:

$$s_q = 1 + \frac{B}{L} \cdot tg(\varphi) \qquad s_\gamma = 1 - 0.4 \cdot \frac{B}{L} \qquad s_c = 1 + \frac{N_q \cdot B}{N_c \cdot L}$$

$$d_q = 1 + 2 \cdot tg(\varphi) \cdot (1 - sen(\varphi))^2 \cdot \Theta \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$\text{dove: se } \frac{D}{B} \le 1 \Rightarrow \Theta = \frac{D}{B}, \text{ se } \frac{D}{B} > 1 \Rightarrow \Theta = arctg\left(\frac{D}{B}\right)$$

$$i_q = \left[1 - \frac{0.5 \cdot H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^{\alpha_1} \qquad i_\gamma = \left[1 - \frac{0.7 \cdot H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^{\alpha_2} \qquad i_c = i_q - \frac{1 - i_q}{N_q - 1}$$

- se φ = 0 si ha:

$$s_q = 1.0 \quad s_\gamma = 1.0 \quad s_c = 1 + 0.2 \cdot \frac{B}{L}$$

$$d_q = 1.0 \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$i_q = 1.0 \quad i_\gamma = 1.0 \quad i_c = 0.5 \cdot \left(1 + \sqrt{1 - \frac{H}{A_f \cdot c_a}}\right)$$

Formulazione di Vesic (1975)

$$N_q = tg^2\left(\frac{90° + \varphi}{2}\right) \cdot e^{\pi \cdot tg(\varphi)} \qquad N_\gamma = 2 \cdot (N_q + 1) \cdot tg(\varphi) \qquad N_c = (N_q - 1) \cdot ctg(\varphi)$$

- se φ ≠ 0 si ha:

$$s_q = 1 + \frac{B}{L} \cdot tg(\varphi) \qquad s_\gamma = 1 - 0.4 \cdot \frac{B}{L} \qquad s_c = 1 + \frac{N_q \cdot B}{N_c \cdot L}$$

$$d_q = 1 + 2 \cdot tg(\varphi) \cdot (1 - sen(\varphi))^2 \cdot \Theta \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$\text{dove: se } \frac{D}{B} \le 1 \Rightarrow \Theta = \frac{D}{B}, \text{ se } \frac{D}{B} > 1 \Rightarrow \Theta = arctg\left(\frac{D}{B}\right)$$

$$i_q = \left[1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^{m} \qquad i_\gamma = \left[1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^{m+1} \qquad i_c = i_q - \frac{1 - i_q}{N_q - 1}$$

$$\text{dove: } m = m_B = \frac{2 + \frac{B}{L}}{1 + \frac{B}{L}} \qquad m = m_L = \frac{2 + \frac{L}{B}}{1 + \frac{L}{B}}$$

- se φ = 0 si ha:

$$s_q = 1.0 \quad s_\gamma = 1.0 \quad s_c = 1 + 0.2 \cdot \frac{B}{L}$$

$$d_q = 1.0 \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$i_q = 1.0 \quad i_\gamma = 1.0 \quad i_c = 1 - \frac{m \cdot H}{A_f \cdot c_a \cdot N_c}$$

Formulazione di Brinch-Hansen

$$N_q = tg^2\left(\frac{90° + \varphi}{2}\right) \cdot e^{\pi \cdot tg(\varphi)} \qquad N_\gamma = 2 \cdot (N_q + 1) \cdot tg(\varphi) \qquad N_c = (N_q - 1) \cdot ctg(\varphi)$$

- se φ ≠ 0 si ha:

$$s_q = 1 + 0.1 \cdot \frac{B \cdot (1 + sen(\varphi))}{L \cdot (1 - sen(\varphi))} \qquad s_\gamma = 1 + 0.1 \cdot \frac{B \cdot (1 + sen(\varphi))}{L \cdot (1 - sen(\varphi))} \qquad s_c = 1 + 0.2 \cdot \frac{B \cdot (1 + sen(\varphi))}{L \cdot (1 - sen(\varphi))}$$

$$d_q = 1 + 2 \cdot tg(\varphi) \cdot (1 - sen(\varphi))^2 \cdot \Theta \quad d_\gamma = 1.0 \qquad d_c = d_q - \frac{1 - d_q}{N_c \cdot tg(\varphi)}$$

$$\text{dove: se } \frac{D}{B} \le 1 \Rightarrow \Theta = \frac{D}{B},\ \text{se } \frac{D}{B} > 1 \Rightarrow \Theta = arctg\left(\frac{D}{B}\right)$$

$$i_q = \left[1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^m \qquad i_\gamma = \left[1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^{m+1} \qquad i_c = i_q - \frac{1 - i_q}{N_q - 1}$$

$$\text{dove: } m = m_B = \frac{2 + \frac{B}{L}}{1 + \frac{B}{L}} \qquad m = m_L = \frac{2 + \frac{L}{B}}{1 + \frac{L}{B}}$$

- se φ = 0 si ha:

$$s_q = 1.0 \quad s_\gamma = 1.0 \quad s_c = 1 + 0.2 \cdot \frac{B}{L}$$

$$d_q = 1.0 \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$i_q = 1.0 \quad i_\gamma = 1.0 \quad i_c = 1 - \frac{m \cdot H}{A_f \cdot c_a \cdot N_c}$$

Formulazione Eurocodice 7

$$N_q = tg^2\left(\frac{90° + \varphi}{2}\right) \cdot e^{\pi \cdot tg(\varphi)} \qquad N_\gamma = 2 \cdot (N_q - 1) \cdot tg(\varphi) \qquad N_c = (N_q - 1) \cdot ctg(\varphi)$$

- se φ ≠ 0 si ha:

$$s_q = 1 + \frac{B}{L} \cdot sen(\varphi) \qquad s_\gamma = 1 - 0.3 \cdot \frac{B}{L} \qquad s_c = \frac{s_q \cdot (N_q - 1)}{N_q - 1}$$

$$d_q = 1 + 2 \cdot tg(\varphi) \cdot (1 - sen(\varphi))^2 \cdot \Theta \quad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$\text{dove: se } \frac{D}{B} \le 1 \Rightarrow \Theta = \frac{D}{B},\ \text{se } \frac{D}{B} > 1 \Rightarrow \Theta = arctg\left(\frac{D}{B}\right)$$

- se H è parallela al lato B si ha:

$$i_q = \left[1 - \frac{0.7 \cdot H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^3 \qquad i_\gamma = \left[1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)}\right]^3 \qquad i_c = \frac{i_q \cdot N_q - 1}{N_q - 1}$$

- se H è parallela al lato L si ha:

$$i_q = 1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)} \qquad i_\gamma = 1 - \frac{H}{V + A_f \cdot c_a \cdot ctg(\varphi)} \qquad i_c = \frac{i_q \cdot N_q - 1}{N_q - 1}$$

- se φ = 0 si ha:

$$s_q = 1.0 \quad s_\gamma = 1.0 \quad s_c = 1 + 0.2 \cdot \frac{B}{L}$$

$$d_q = 1.0 \qquad d_\gamma = 1.0 \qquad d_c = 1 + 0.4 \cdot \Theta$$

$$i_q = 1.0 \quad i_\gamma = 1.0 \quad i_c = 0.5 \cdot \left(1 + \sqrt{1 - \frac{H}{A_f \cdot c_a}}\right)$$

Si ricorda che per le relazioni sopra riportate nel caso in cui φ = 0 => $N_q = 1.0$, $N_\gamma = 1.0$ e $N_c = 2+\pi$.
Il significato dei termini presenti nelle relazioni su descritte è il seguente:

- V componente verticale del carico agente sulla fondazione
- H componente orizzontale del carico agente sulla fondazione (sia lungo B che lungo L)
- c_a adesione fondazione-terreno (valore variabile tra il 60% e 100% della coesione)
- α_1, α_2 esponenti di potenza che variano tra 2 e 5

Nel caso in cui il cuneo di fondazione sia interessato da falda idrica il valore di γ_2 nella formula trinomia assume

la seguente espressione:

$$\gamma_2 = \frac{\gamma \cdot z + \gamma_{sat} \cdot (h_c - z)}{h_c} \quad h_c = \frac{B}{2} \cdot tg\left(\frac{90 + \varphi}{2}\right)$$

dove i termini dell'espressione hanno il seguente significato:
- γ peso per unità di volume del terreno sottostante il piano di posa
- γ_{sat} peso per unità di volume saturo del terreno sottostante il piano di posa
- z profondità della falda dal piano di posa
- h_c altezza del cuneo di rottura della fondazione

Tutto ciò che è stato detto sopra è valido nell'ipotesi di terreno con caratteristiche geotecniche omogenee. Nella realtà i terreni costituenti il piano di posa delle fondazioni sono quasi sempre composti, o comunque riconducibili, a formazioni di terreno omogenee di spessore variabile che si sovrappongono (caso di terreni stratificati). In queste condizioni i parametri vengono determinati con la seguente procedura:
- viene determinata l'altezza del cuneo di rottura in funzione delle caratteristiche geotecniche degli strati attraversati; quindi si determinato il numero degli strati interessati da esso
- in corrispondenza di ogni superficie di separazione, partendo da quella immediatamente sottostante il piano di posa della fondazione, fino a raggiungere l'altezza del cuneo di rottura, viene determinata la capacità portante di ogni singolo strato come somma di due valori: il primo dato dall'applicazione della formula trinomia alla quota i-esima dello strato; il secondo dato dalla resistenza al punzonamento del terreno sovrastante lo strato in esame
- il minimo di questi due valori sarà assunto come valore massimo della capacità portante della fondazione stratificata

Si può formulare il procedimento anche in forma analitica:

$$q'_{ult} = \left[q''_{ult} + q_{resT}\right]_{\min} = \left[q''_{ult} + \frac{p}{A_f}\left(P_V \cdot K_s \cdot tg(\varphi) + d \cdot c\right)\right]_{\min}$$

dove i termini dell'espressione hanno il seguente significato:
- q''_{ult} carico limite per un'ipotetica fondazione posta alla quota dello strato interessato
- p perimetro della fondazione
- P_V spinta verticale del terreno dal piano di posa allo strato interessato
- K_S coefficiente di spinta laterale del terreno
- d distanza dal piano di posa allo strato interessato

CARICO LIMITE DI FONDAZIONI SUPERFICIALI SU ROCCIA

Per la determinazione del carico limite nel caso di presenza di ammasso roccioso bisogna valutare molto attentamente il grado di solidità della roccia stessa. Tale valutazione viene in genere eseguita stimando l'indice *RQD* (Rock Quality Designation) che rappresenta una misura della qualità di un ammasso roccioso. Tale indice può variare da un minimo di 0 (caso in cui la lunghezza dei pezzi di roccia estratti dal carotiere è inferiore a 100 mm) ad un massimo di 1 (caso in cui la carota risulta integra) ed è calcolato nel seguente modo:

$$RQD = \frac{\sum \text{lunghezze dei pezzi di roccia intatta} > 100\text{mm}}{\text{lunghezza del carotiere}}.$$

Se il valore di *RQD* è molto basso la roccia è molto fratturata ed il calcolo della capacità portante dell'ammasso roccioso va condotto alla stregua di un terreno sciolto utilizzando tutte le formulazioni sopra descritte.
Per ricavare la capacità portante di rocce non assimilabili ad ammassi di terreno sciolto sono state implementate due formulazioni: quella di Terzaghi (1943) e quella di Stagg-Zienkiewicz (1968), entrambe correlate all'indice RQD. In definitiva il valore della capacità portante sarà espresso dalla seguente relazione:

$$q'_{ult} = q''_{ult} \cdot RQD^2$$

dove i termini dell'espressione hanno il seguente significato:
- q'_{ult} carico limite dell'ammasso roccioso
- q''_{ult} carico limite calcolato alla Terzaghi o alla Stagg-Zienkiewicz

In questo caso l'equazione trinomia del carico limite assume la seguente forma:

$$q''_{ult} = \gamma_1 \cdot D \cdot N_q + c \cdot N_c \cdot s_c + \gamma_2 \cdot \frac{B}{2} \cdot N_\gamma \cdot s_\gamma .$$

I termini presenti nell'equazione hanno lo stesso significato già visto in precedenza; i coefficienti di forma assumeranno i seguenti valori:

$s_c = 1.0$ per fondazioni di tipo nastriforme $\qquad$ $s_c = 1.3$ per fondazioni di tipo quadrato;

$s_\gamma = 1.0$ per fondazioni di tipo nastriforme $\qquad$ $s_\gamma = 0.8$ per fondazioni di tipo quadrato.

I fattori adimensionali di portanza a seconda della formulazione adottata saranno:

Formulazione di Terzaghi (1943)

$$N_q = \frac{e^{2\cdot\left(0.75\cdot\pi-\frac{\varphi}{2}\right)\cdot tg(\varphi)}}{2\cdot\cos^2\left(\frac{90°+\varphi}{2}\right)} \qquad N_\gamma = \frac{tg(\varphi)}{2}\left(\frac{K_{p\gamma}}{\cos^2(\varphi)}-1\right) \qquad N_c = (N_q - 1)\cdot ctg(\varphi)$$

$$\text{se } \varphi = 0 \Rightarrow N_c = 1.5\cdot\pi + 1$$

φ	0	5	10	15	20	25	30	35	40	45	50
$K_{p\gamma}$	10.8	12.2	14.7	18.6	25.0	35.0	52.0	82.0	141.0	298.0	800.0

Formulazione di Stagg-Zienkiewicz (1968)

$$N_q = tg^6\left(\frac{90°+\varphi}{2}\right) \qquad N_\gamma = N_q + 1 \qquad N_c = 5\cdot tg^4\left(\frac{90°+\varphi}{2}\right)$$

VERIFICA A ROTTURA PER SCORRIMENTO DI FONDAZIONI SUPERFICIALI

Se il carico applicato alla base della fondazione non è normale alla stessa bisogna effettuare anche una verifica per rottura a scorrimento. Rispetto al collasso per scorrimento la resistenza offerta dal sistema fondale viene valutata come somma di due componenti: la prima derivante dall'attrito fondazione-terreno, la seconda derivante dall'adesione. In generale, oltre a queste due componenti, può essere tenuto in conto anche l'effetto della spinta passiva del terreno di ricoprimento esercita sulla fondazione fino ad un massimo del 30%. La formulazione analitica della verifica può essere esposta nel seguente modo:

$$T_{Sd} \le T_{Rd} = N_{Sd}\cdot tg(\delta) + A_f \cdot c_a + S_p \cdot f_{Sp}$$

dove i termini dell'espressione hanno il seguente significato:

- T_{Sd} componente orizzontale del carico agente sulla fondazione (sia lungo B che lungo L)
- N_{Sd} componente verticale del carico agente sulla fondazione
- c_a adesione fondazione-terreno (valore variabile tra il 60% e 100% della coesione)
- δ angolo d'attrito fondazione-terreno (valore variabile tra il 60% e 100% della coesione)
- S_p spinta passiva del terreno di ricoprimento della fondazione
- f_{Sp} percentuale di partecipazione della spinta passiva
- A_f superficie di contatto del piano di posa della fondazione

La verifica deve essere effettuata sia per componenti taglianti parallele alla base della fondazione che per quelle ortogonali.

DETERMINAZIONE DELLE TENSIONI INDOTTE NEL TERRENO

Ai fini del calcolo dei cedimenti è essenziale conoscere lo stato tensionale indotto nel terreno a varie profondità da un carico applicato in superficie. Tale determinazione viene eseguita ipotizzando che il terreno si comporti come un mezzo continuo, elastico-lineare, omogeneo e isotopo. Tale assunzione, utilizzata per la determinazione della variazione delle tensioni verticali dovuta all'applicazione di un carico in superficie, è confortata dalla letteratura (Morgenstern e Phukan) perché la non linearità del materiale poco influenza la

distribuzione delle tensioni verticali. Per ottenere un profilo verticale di pressioni si possono utilizzare tre metodi di calcolo: quello di Boussinesq, quello di Westergaard oppure quello di Mindlin; tutti basati sulla teoria del continuo elastico. Il metodo di Westergaard differisce da quello di Boussinesq per la presenza del coefficiente di Poisson "u", quindi si adatta meglio ai terreni stratificati. Il metodo di Mindlin differisce dai primi due per la possibilità di posizionare il carico all'interno del continuo elastico mentre i primi due lo pongono esclusivamente sulla frontiera quindi si presta meglio al caso di fondazioni molto profonde. Nel caso di fondazioni poste sulla frontiera del continuo elastico il metodo di Mindlin risulta equivalente a quello di Boussinesq. Le espressioni analitiche dei tre metodi di calcolo sono:

$$\text{Boussinesq} \Rightarrow \Delta\sigma_v = \frac{3 \cdot Q \cdot z^3}{2 \cdot \pi \cdot \left(r^2 + z^2\right)^{\frac{5}{2}}} \qquad \text{Westergaard} \Rightarrow \Delta\sigma_v = \frac{Q}{2 \cdot \pi \cdot z^2} \cdot \frac{\sqrt{\frac{1-2\cdot\nu}{2-2\cdot\nu}}}{\left(\frac{1-2\cdot\nu}{2-2\cdot\nu} + \frac{r^2}{z^2}\right)^{\frac{3}{2}}}$$

dove i termini dell'espressioni hanno il seguente significato:
- *Q* carico puntiforme applicato sulla frontiera del mezzo
- *r* proiezione orizzontale della distanza del punto di applicazione del carico dal punto in esame
- *z* proiezione verticale della distanza del punto di applicazione del carico dal punto in esame

$$\text{Mindlin} \Rightarrow \Delta\sigma_v = \frac{Q}{8 \cdot \pi \cdot (1-\nu) \cdot D^2} \left(- \frac{(1-2\cdot\nu)\cdot(\mathrm{m}-1)}{A^3} + \frac{(1-2\cdot\nu)\cdot(\mathrm{m}-1)}{B^3} - \frac{3\cdot(\mathrm{m}-1)^3}{A^5} - \frac{30\cdot\mathrm{m}\cdot(\mathrm{m}+1)^3}{B^7} - \frac{3\cdot(3-4\cdot\nu)\cdot\mathrm{m}\cdot(\mathrm{m}+1)^2 - 3\cdot(\mathrm{m}+1)\cdot(5\cdot\mathrm{m}-1)}{B^5} \right)$$

$$\mathrm{n} = \frac{r}{D}; \qquad \mathrm{m} = \frac{z}{D}; \qquad A^2 = \mathrm{n}^2 + (\mathrm{m}-1)^2; \qquad B^2 = \mathrm{n}^2 + (\mathrm{m}+1)^2$$

dove i termini dell'espressioni hanno il seguente significato:
- *Q* carico puntiforme applicato sulla frontiera o all'interno del mezzo
- *D* proiezione verticale della distanza del punto di applicazione del carico dalla frontiera del mezzo
- *r* proiezione orizzontale della distanza del punto di applicazione del carico dal punto in esame
- *z* proiezione verticale della distanza del punto di applicazione del carico dal punto in esame

Basandosi sulle ben note equazioni ricavate per un carico puntiforme, l'algoritmo implementato esegue un integrazione delle equazioni di cui sopra lungo la verticale di ogni punto notevole degli elementi fondali estesa a tutte le aree di carico presenti sulla superficie del terreno; questo consente di determinare la variazione dello stato tensionale verticale "$\Delta\sigma_v$". Bisogna sottolineare che, nel caso di pressione, "*Q*" va definito come "pressione netta", ossia la pressione in eccesso rispetto a quella geostatica esistente che può essere sopportata con sicurezza alla profondità "D" del piano di posa delle fondazioni. Questo perché i cedimenti sono causati solo da incrementi netti di pressione che si aggiungono all'esistente pressione geostatica.

CALCOLO DEI CEDIMENTI DELLA FONDAZIONE

La determinazione dei cedimenti delle fondazioni assume una rilevanza notevole per il manufatto da realizzarsi, in special modo nella fase di esercizio. Nell'evolversi della fase di cedimento il terreno passa da uno stato di sforzo corrente dovuto al peso proprio ad uno nuovo dovuto all'effetto del carico addizionale applicato. Questa variazione dello stato tensionale produce una serie di movimenti di rotolamento e scorrimento relativo tra i granuli del terreno, nonché deformazioni elastiche e rotture delle particelle costituenti il mezzo localizzate in una limitata zona d'influenza a ridosso dell'area di carico. L'insieme di questi fenomeni costituisce il cedimento che nel caso in esame è verticale. Nonostante la frazione elastica sia modesta, l'esperienza ha dimostrato che ai fini del calcolo dei cedimenti modellare il terreno come materiale pseudoelastico permette di ottenere risultati soddisfacenti. In letteratura sono descritti diversi metodi per il calcolo dei cedimenti ma si ricorda che, qualunque sia il metodo di calcolo, la determinazione del valore del cedimento deve intendersi come la miglior stima delle deformazioni subite dal terreno da attendersi all'applicazione dei carichi. Nel seguito vengono descritte le teorie implementate:

Metodo edometrico, che si basa sulla nota relazione:

$$w_{ed} = \sum_{i=1}^{n} \frac{\Delta\sigma_{v,i}}{E_{ed,i}} \cdot \Delta z_i$$

dove i termini dell'espressioni hanno il seguente significato:
- $\Delta\sigma_{v,i}$ variazione dello stato tensionale verticale alla profondità "z_i" dello strato i-esimo per l'applicazione del carico
- $E_{ed,i}$ modulo edometrico del terreno relativo allo strato i-esimo
- Δz_i spessore dello strato i-esimo

Si ricorda che questo metodo si basa sull'ipotesi edometrica quindi l'accuratezza del risultato è maggiore quando il rapporto tra lo spessore dello strato deformabile e la dimensione in pianta delle fondazioni è ridotto, tuttavia il metodo edometrico consente una buona approssimazione anche nel caso di strati deformabili di spessore notevole.

Metodo dell'elasticità, che si basa sulle note relazioni:

$$w_{\text{Imp.}} = \sum_{i=1}^{n} \frac{\Delta\sigma_{v,i}}{E_i} \cdot \Delta z_i \qquad w_{\text{Lib.}} = \sum_{i=1}^{n} \frac{\Delta\sigma_{v,i}}{E_i} \cdot \frac{1-2\cdot\nu^2}{1-\nu} \cdot \Delta z_i$$

dove i termini dell'espressioni hanno il seguente significato:
- $w_{\text{Imp.}}$ cedimento in condizioni di deformazione laterale impedita
- $w_{\text{Lib.}}$ cedimento in condizioni di deformazione laterale libera
- $\Delta\sigma_{v,i}$ variazione stato tensionale verticale alla profondità "z_i" dello strato i-esimo per l'applicazione del carico
- E_i modulo elastico del terreno relativo allo strato i-esimo
- Δz_i spessore dello strato i-esimo

La doppia formulazione adottata consente di ottenere un intervallo di valori del cedimento elastico per la fondazione in esame (valore minimo per $w_{\text{Imp.}}$ e valore massimo per $w_{\text{Lib.}}$).

SIMBOLOGIA ADOTTATA NEI TABULATI DI CALCOLO

Per maggior chiarezza nella lettura dei tabulati di calcolo viene riportata la descrizione dei simboli principali utilizzati nella stesura degli stessi. Per comodità di lettura la legenda è suddivisa in paragrafi con la stessa modalità in cui sono stampati i tabulati di calcolo.

Dati geometrici degli elementi costituenti le fondazioni superficiali

per tipologie travi e plinti superficiali:
- Indice Strat. indice della stratigrafia associata all'elemento
- Prof. Fon. profondità del piano di posa dell'elemento a partire dal piano campagna
- Base larghezza della sezione trasversale dell'elemento
- Altezza altezza della sezione trasversale dell'elemento
- Lung. Elem. dimensione dello sviluppo longitudinale dell'elemento
- Lung. Travata nel caso l'elemento appartenga ad un macroelemento, rappresenta la dimensione dello sviluppo longitudinale del macroelemento

per tipologia platea:
- Indice Strat. indice della stratigrafia associata all'elemento
- Prof. Fon. profondità del piano di posa dell'elemento dal piano campagna
- Dia. Eq. diametro del cerchio equivalente alla superficie dell'elemento
- Spessore spessore dell'elemento
- Superficie superficie dell'elemento
- Vert. Elem. Numero dei vertici che costituiscono l'elemento
- Macro nel caso l'elemento appartenga ad un macroelemento, rappresenta il numero del macroelemento

Nel caso si avesse scelto di determinare la portanza anche per gli elementi platea è presente un ulteriore riga nella quale sono riportate le caratteristiche geometriche del plinto equivalente alla macro/platea in esame.

Dati di carico degli elementi costituenti le fondazioni superficiali

per tipologie travi e plinti superficiali:

- Cmb numero della combinazione di carico
- Tipologia tipologia della combinazione di carico
- Sismica flag per l'applicazione della riduzione sismica alle caratteristiche meccaniche del terreno di fondazione per la combinazione di carico in esame
- Ecc. B eccentricità del carico normale agente sul piano di fondazione in direzione parallela alla sezione trasversale dell'elemento
- Ecc. L eccentricità del carico normale agente sul piano di fondazione in direzione parallela allo sviluppo longitudinale dell'elemento
- S.Taglio B sforzo di taglio agente sul piano di fondazione in direzione parallela alla sezione trasversale dell'elemento
- S.Taglio L sforzo di taglio agente sul piano di fondazione in direzione parallela allo sviluppo longitudinale dell'elemento
- S.Normale carico normale agente sul piano di fondazione
- T.T.min minimo valore della distribuzione tensionale di contatto tra terreno ed elemento fondale
- T.T.max massimo valore della distribuzione tensionale di contatto tra terreno ed elemento fondale

per tipologia platea:

- Cmb numero della combinazione di carico
- Tipologia tipologia della combinazione di carico
- Sismica flag per l'applicazione della riduzione sismica alle caratteristiche meccaniche del terreno di fondazione per la combinazione di carico in esame
- Press. N1 tensione di contatto tra terreno e fondazione nel vertice n° 1 dell'elemento
- Press. N2 tensione di contatto tra terreno e fondazione nel vertice n° 2 dell'elemento
- Press. N3 tensione di contatto tra terreno e fondazione nel vertice n° 3 dell'elemento
- Press. N4 tensione di contatto tra terreno e fondazione nel vertice n° 4 dell'elemento
- S.Taglio X sforzo di taglio agente sul piano di fondazione in direzione parallela all'asse X del riferimento globale
- S.Taglio Y sforzo di taglio agente sul piano di fondazione in direzione parallela all'asse Y del riferimento globale

Nel caso si avesse scelto di determinare la portanza anche per gli elementi platea è presente un ulteriore riga nella quale sono riportate le macroazioni (integrale delle azioni applicate sui singoli elementi che compongono la platea) agenti sul plinto equivalente alla macro/platea in esame.

Valori di calcolo della portanza per fondazioni superficiali

- Cmb numero della combinazione di carico
- Qlim capacità portante totale data dalla somma di Qlim q, Qlim g, Qlim c e di Qres P (nel caso in cui si operi alle tensioni ammissibili corrisponde alla portanza ammissibile)
- Qlim q termine relativo al sovraccarico della formula trinomia per il calcolo della capacità portante (nel caso in cui si operi alle tensioni ammissibili corrisponde alla relativa parte della portanza ammissibile)
- Qlim g termine relativo alla larghezza della base di fondazione della formula trinomia per il calcolo della capacità portante (nel caso in cui si operi alle tensioni ammissibili corrisponde alla relativa parte della portanza ammissibile)
- Qlim c termine relativo alla coesione della formula trinomia per il calcolo della capacità portante (nel caso in cui si operi alle tensioni ammissibili corrisponde alla relativa parte della portanza ammissibile)
- Qres P termine relativo alla resistenza al punzonamento del terreno sovrastante lo strato di rottura. Diverso da zero solo nel caso di terreni stratificati dove lo strato di rottura è diverso dal primo (nel caso in cui si operi alle tensioni ammissibili corrisponde alla relativa parte della portanza ammissibile)
- Qmax / Qlim rapporto tra il massimo valore della distribuzione tensionale di contatto tra terreno ed elemento

fondale ed il valore della capacità portante (verifica positiva se il rapporto è < 1.0).
- TBlim valore limite della resistenza a scorrimento in direzione parallela alla sezione trasversale dell'elemento
- TB / TBlim rapporto tra lo sforzo di taglio agente ed il valore limite della resistenza a scorrimento in direzione parallela alla sezione trasversale dell'elemento (verifica positiva se il rapporto è < 1.0)
- TLlim valore limite della resistenza a scorrimento in direzione parallela allo sviluppo longitudinale dell'elemento
- TL / TLlim rapporto tra lo sforzo di taglio agente ed il valore limite della resistenza a scorrimento in direzione parallela allo sviluppo longitudinale dell'elemento (verifica positiva se il rapporto è < 1.0)
- Sgm. Lt. tensione litostatica agente alla quota del piano di posa dell'elemento fondale

Nel caso si avesse scelto di determinare la portanza anche per gli elementi platea è presente un ulteriore riga nella quale sono riportate le verifiche di portanza del plinto equivalente alla macro/platea in esame.

Valori di calcolo dei cedimenti per fondazioni superficiali

- Cmb numero della combinazione di carico e tipologia
- Nodo vertice dell'elemento in cui viene calcolato il cedimento
- Car. Netto valore del carico netto applicato sulla superficie del terreno
- Cedimento/i valore del cedimento (nel caso di calcolo di cedimenti elastici i valori riportati sono due, il primo corrisponde al cedimento $w_{Imp.}$, mentre il secondo al cedimento $w_{Lib.}$)

PARAMETRI DI CALCOLO

Metodi di calcolo della portanza per fondazioni superficiali:
- Per terreni sciolti: Vesic
- Per terreni lapidei: Terzaghi

Fattori utilizzati per il calcolo della portanza per fondazioni superficiali :
- Riduzione dimensioni per eccentricità: si
- Fattori di forma della fondazione: si
- Fattori di profondità del piano di posa: si
- Fattori di inclinazione del carico: si
- Fattori di punzonamento (Vesic): si
- Fattore riduzione effetto piastra (Bowles): si
- Fattore di riduzione dimensione Base equivalente platea: 20,0 %
- Fattore di riduzione dimensione Lunghezza equivalente platea: 20,0 %

Coefficienti parziali di sicurezza per Tensioni Ammissibili, SLE nel calcolo della portanza per fondazioni superficiali:
- Coeff. parziale di sicurezza Fc (statico): 2,50
- Coeff. parziale di sicurezza Fq (statico): 2,50
- Coeff. parziale di sicurezza Fg (statico): 2,50

Combinazioni di carico:
APPROCCIO PROGETTUALE TIPO 2 - Comb. (A1+M1+R3)

Coefficienti parziali di sicurezza per SLU nel calcolo della portanza per fondazioni superficiali :

I coeff. A1 risultano combinati secondo lo schema presente nella relazione di calcolo della struttura.

- Coeff. M1 per Tan ϕ (statico): 1
- Coeff. M1 per c' (statico): 1
- Coeff. M1 per Cu (statico): 1

- Coeff. R3 capacità portante (statico e sismico): 2,30
- Coeff. R3 scorrimento (statico e sismico): 1,10

Parametri per la verifica a scorrimento delle fondazioni superficiali:
- Fattore per l'adesione (6 < Ca < 10): 8
- Fattore per attrito terreno-fondazione (5 < Delta < 10): 7

- Frazione di spinta passiva fSp: 50,00 %
- Coeff. resistenza sulle sup. laterali: 1,30

Metodi e parametri per il calcolo dei cedimenti delle fondazioni superficiali:
- Metodo di calcolo tensioni superficiali: Boussinesq
- Modalità d'interferenza dei bulbi tensionali: sovrapposizione dei bulbi
- Metodo di calcolo dei cedimenti del terreno: cedimenti edometrici

ARCHIVIO STRATIGRAFIE

Indice / Descrizione: 001 / Nuova stratigrafia n. 1
Numero strati: 4
Profondità falda: assente

Strato n.	Quota di riferimento	Spessore	Indice / Descrizione terreno	Attrito Neg.
1	da 0,0 a -120,0 cm	120,0 cm	003 / Terreno Vegetale	Assente
2	da -120,0 a -725,0 cm	605,0 cm	001 / Sabbie giallastre con ciottoli	Assente
3	da -725,0 a -995,0 cm	270,0 cm	002 / Sabbia argillosa con livelli arenacei	Assente
4	da -995,0 a -1995,0 cm	1000,0 cm	004 / Argilla marnosa	Assente

ARCHIVIO TERRENI

Indice / Descrizione terreno: **003 / Terreno Vegetale**
Comportamento del terreno: condizione non drenata

Peso Spec.	P. Spec. Sat.	Coes.non dren.	Mod.Elast.	Mod.Edom.	Dens.Rel.	Poisson	C. Ades.
daN/cmc	daN/cmc	daN/cmq	daN/cmq	daN/cmq	%	%	
1,800 E-3	1,900 E-3	0,250	100,000	100,000	60,0	0,500	0,75

Indice / Descrizione terreno: **001 / Sabbie giallastre con ciottoli**
Comportamento del terreno: condizione drenata

Peso Spec.	P. Spec. Sat.	Angolo Res.	Coesione	Mod.Elast.	Mod.Edom.	Dens.Rel.	Poisson	C. Ades.
daN/cmc	daN/cmc	Gradi°	daN/cmq	daN/cmq	daN/cmq	%	%	
1,900 E-3	2,000 E-3	23,000	0,100	750,000	200,000	60,0	0,379	0,90

Indice / Descrizione terreno: **002 / Sabbia argillosa con livelli arenacei**
Comportamento del terreno: condizione non drenata

Peso Spec.	P. Spec. Sat.	Coes.non dren.	Mod.Elast.	Mod.Edom.	Dens.Rel.	Poisson	C. Ades.
daN/cmc	daN/cmc	daN/cmq	daN/cmq	daN/cmq	%	%	
2,000 E-3	2,200 E-3	0,700	89,250	150,000	60,0	0,360	0,49

Indice / Descrizione terreno: **004 / Argilla marnosa**
Comportamento del terreno: condizione non drenata

Peso Spec.	P. Spec. Sat.	Coes.non dren.	Mod.Elast.	Mod.Edom.	Dens.Rel.	Poisson	C. Ades.
daN/cmc	daN/cmc	daN/cmq	daN/cmq	daN/cmq	%	%	
1,900 E-3	2,000 E-3	2,500	250,000	250,000	60,0	0,500	0,40

DATI GEOMETRICI DEGLI ELEMENTI COSTITUENTI LE FONDAZIONI SUPERFICIALI

Elemento n.	Tipologia	Id.Strat.	Prof. Fon. cm	Dia. Eq. cm	Spessore cm	Superficie cm^2	Vertici n. per elem.	Macro n.
Platea n. 1	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 8	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n. 15	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 22	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 29	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 36	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 43	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n. 50	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 57	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 64	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n. 71	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 78	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 85	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 92	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 99	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n. 106	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 113	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n. 120	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n. 127	Platea	001	244.500	107.486	239.000	9073.943	4	1

Platea n.	134	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	141	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	148	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	155	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n.	162	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	169	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	176	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n.	183	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	190	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	197	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	204	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	211	Platea	001	244.500	107.486	239.000	9073.944	4	1
Platea n.	218	Platea	001	244.500	107.486	239.000	9073.943	4	1
Platea n.	37	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	44	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	2	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	51	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	9	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	58	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	65	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	72	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	79	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	86	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	93	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	100	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	16	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	107	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	114	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	121	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	128	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	135	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	142	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	149	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	23	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	156	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	163	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	170	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	177	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	184	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	191	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	198	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	30	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	205	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	212	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	219	Platea	001	233.400	127.340	216.800	12735.590	4	2
Platea n.	66	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	73	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	80	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	87	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	94	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	3	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	101	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	45	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	108	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	17	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	115	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	122	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	129	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	136	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	143	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	52	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	150	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	157	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	24	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	164	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	171	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	178	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	38	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	185	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	59	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	192	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	199	Platea	001	222.350	144.491	194.700	16397.240	4	3

Platea n.	206	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	31	Platea	001	222.350	144.491	194.700	16397.240	4	3
Platea n.	213	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	10	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	220	Platea	001	222.350	144.491	194.700	16397.250	4	3
Platea n.	11	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	102	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	46	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	39	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	109	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	74	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	116	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	18	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	123	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	130	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	137	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	144	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	4	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	67	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	81	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	151	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	53	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	158	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	165	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	25	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	172	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	179	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	88	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	186	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	193	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	60	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	200	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	207	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	214	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	32	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	95	Platea	001	211.250	159.812	172.500	20058.900	4	4
Platea n.	221	Platea	001	211.250	159.812	172.500	20058.890	4	4
Platea n.	40	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	131	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	12	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	138	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	145	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	110	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	152	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	54	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	82	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	47	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	159	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	75	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	166	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	103	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	117	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	173	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	26	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	33	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	180	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	68	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	187	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	89	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	194	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	5	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	201	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	61	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	124	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	208	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	215	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	19	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	96	Platea	001	200.200	173.787	150.400	23720.540	4	5
Platea n.	222	Platea	001	200.200	173.787	150.400	23720.550	4	5
Platea n.	83	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	55	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	167	Platea	001	189.100	186.719	128.200	27382.190	4	6

Platea n.	6	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	13	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	41	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	34	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	174	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	146	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	118	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	181	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	27	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	97	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	104	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	20	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	188	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	111	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	90	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	48	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	195	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	76	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	153	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	202	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	62	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	209	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	69	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	125	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	216	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	132	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	139	Platea	001	189.100	186.719	128.200	27382.200	4	6
Platea n.	160	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	223	Platea	001	189.100	186.719	128.200	27382.190	4	6
Platea n.	56	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	112	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	147	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	196	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	35	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	140	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	91	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	105	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	182	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	21	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	203	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	154	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	161	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	14	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	98	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	77	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	119	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	210	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	7	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	63	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	168	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	175	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	70	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	133	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	217	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	126	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	189	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	28	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	49	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	84	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	42	Platea	001	178.000	198.812	106.000	31043.850	4	7
Platea n.	224	Platea	001	178.000	198.812	106.000	31043.840	4	7
Platea n.	225	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	226	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	227	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	228	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	229	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	230	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	231	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	232	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	233	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	234	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	235	Platea	001	280.000	83.013	310.000	5412.294	4	8

Platea n.	236	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	237	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	238	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	239	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	240	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	241	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	242	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	243	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	244	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	245	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	246	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	247	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	248	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	249	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	250	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	251	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	252	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	253	Platea	001	280.000	83.013	310.000	5412.292	4	8
Platea n.	254	Platea	001	280.000	83.013	310.000	5412.294	4	8
Platea n.	255	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	256	Platea	001	280.000	83.013	310.000	5412.293	4	8
Platea n.	257	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	258	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	259	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	260	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	261	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	262	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	263	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	264	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	265	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	266	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	267	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	268	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	269	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	270	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	271	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	272	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	273	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	274	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	275	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	276	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	277	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	278	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	279	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	280	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	281	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	282	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	283	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	284	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	285	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	286	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	287	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	288	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	289	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	290	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	291	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	292	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	293	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	294	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	295	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	296	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	297	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	298	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	299	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	300	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	301	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	302	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	303	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	304	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	305	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	306	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	307	Platea	001	280.000	26.146	310.000	536.889	4	8

Platea n.	308	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	309	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	310	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	311	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	312	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	313	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	314	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	315	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	316	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	317	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	318	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	319	Platea	001	280.000	26.146	310.000	536.889	4	8
Platea n.	320	Platea	001	280.000	30.626	310.000	736.661	4	8
Platea n.	321	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	322	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	323	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	324	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	325	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	326	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	327	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	328	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	329	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	330	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	331	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	332	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	333	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	334	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	335	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	336	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	337	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	338	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	339	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	340	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	341	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	342	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	343	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	344	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	345	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	346	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	347	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	348	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	349	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	350	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	351	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	352	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	353	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	354	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	355	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	356	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	357	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	358	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	359	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	360	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	361	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	362	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	363	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	364	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	365	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	366	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	367	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	368	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	369	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	370	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	371	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	372	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	373	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	374	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	375	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	376	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	377	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	378	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	379	Platea	001	280.000	14.097	310.000	156.072	4	8

Platea n.	380	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	381	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	382	Platea	001	280.000	17.265	310.000	234.108	4	8
Platea n.	383	Platea	001	280.000	14.097	310.000	156.072	4	8
Platea n.	384	Platea	001	280.000	17.265	310.000	234.108	4	8

Elemento	**Tipologia**	**Id.Strat.**	**Prof. Fon.**	**Base Eq.**	**Spessore**	**Lung. Eq.**	**Lung. Travata Eq.**
n.			cm	cm	cm	cm	cm
Macro n. 1	Macro-Platea	001	244.500	431.085	239.000	431.085	431.085
Macro n. 2	Macro-Platea	001	233.400	510.710	216.800	510.710	510.710
Macro n. 3	Macro-Platea	001	222.350	579.496	194.700	579.496	579.496
Macro n. 4	Macro-Platea	001	211.250	640.942	172.500	640.942	640.942
Macro n. 5	Macro-Platea	001	200.200	696.991	150.400	696.991	696.991
Macro n. 6	Macro-Platea	001	189.100	748.857	128.200	748.857	748.857
Macro n. 7	Macro-Platea	001	178.000	797.357	106.000	797.357	797.357
Macro n. 8	Macro-Platea	001	280.000	380.680	310.000	380.680	380.680

VALORI DI CALCOLO DELLA PORTANZA PER FONDAZIONI SUPERFICIALI

I coeff. A1 risultano combinati secondo lo schema presente nella relazione di calcolo della struttura. Le azioni trasmesse in fondazione, relative alle combinazioni di tipo sismico, non saranno amplificate in quanto determinate ipotizzando un comportamento non dissipativo.
La verifica nei confronti dello Stato Limite di Danno viene eseguita determinando il carico limite della fondazione per le corrispondenti azioni di SLD, impiegando i coefficienti parziali gammaR di cui alla tabella 7.11.II.

N.B. La relazione è redatta in forma sintetica. Verranno riportati solo i casi maggiormente gravosi per ogni tipo di combinazione e le relative verifiche.

Macro platea: 1
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.4526 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.3694 + 2.7631 + 0.5956 + 0.0000
Qmax / Qlim = 1.4647 / 4.7281 = 0,310 Ok (Cmb. n. 002)
TB / TBlim = 8114.2 / 134721.5 = 0,060 Ok (Cmb. n. 002)
TL / TLlim = 711.8 / 120008.6 = 0,006 Ok (Cmb. n. 009)
Sollecitazioni:

Cmb	**Tipo**	**Sism.**	**Ecc. B**	**Ecc. L**	**S. Taglio B**	**S. Taglio L**	**S. Normale**	**T.T. min**	**T.T. max**
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	46.097	0.000	8114.2	0.0	-324441.5	-0.7689	-1.4647
009	SLU STR	No	1.032	3.441	213.6	711.8	-258419.5	-0.8679	-0.9109

Macro platea: 2
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.4315 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.3198 + 2.5560 + 0.5777 + 0.0000
Qmax / Qlim = 1.4777 / 4.4535 = 0,332 Ok (Cmb. n. 002)
TB / TBlim = 10689.3 / 164499.4 = 0,065 Ok (Cmb. n. 002)
TL / TLlim = 938.0 / 147519.0 = 0,006 Ok (Cmb. n. 009)
Sollecitazioni:

Cmb	**Tipo**	**Sism.**	**Ecc. B**	**Ecc. L**	**S. Taglio B**	**S. Taglio L**	**S. Normale**	**T.T. min**	**T.T. max**
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	87.551	0.000	10689.3	0.0	-427548.5	-0.6191	-1.4777
009	SLU STR	No	1.961	6.537	281.4	938.0	-340440.7	-0.8081	-0.8612

Macro platea: 3
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.4105 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.2864 + 2.3815 + 0.5031 + 0.0000
Qmax / Qlim = 1.5074 / 4.1711 = 0,361 Ok (Cmb. n. 002)
TB / TBlim = 13084.8 / 188395.7 = 0,069 Ok (Cmb. n. 002)
TL / TLlim = 1315.5 / 188395.7 = 0,007 Ok (Cmb. n. 002)
Sollecitazioni:

Cmb	**Tipo**	**Sism.**	**Ecc. B**	**Ecc. L**	**S. Taglio B**	**S. Taglio L**	**S. Normale**	**T.T. min**	**T.T. max**
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	141.262	14.202	13084.8	1315.5	-525729.0	-0.4950	-1.5074

Macro platea: 4
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.3894 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.2612 + 2.2231 + 0.3722 + 0.0000
Qmax / Qlim = 1.5439 / 3.8566 = 0,400 Ok (Cmb. n. 002)
TB / TBlim = 15517.5 / 208758.2 = 0,074 Ok (Cmb. n. 002)
TL / TLlim = 1362.0 / 193130.8 = 0,007 Ok (Cmb. n. 009)
Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	209.087	0.000	15517.5	0.0	-619825.0	-0.3856	-1.5439
009	SLU STR	No	4.687	15.625	408.6	1362.0	-493116.9	-0.7316	-0.8031

Macro platea: 5
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.2160 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.1904 + 1.1773 + 0.2072 + 0.0000
Qmax / Qlim = 1.5439 / 2.5749 = 0,600 Ok (Cmb. n. 002)
TB / TBlim = 17181.1 / 199835.9 = 0,086 Ok (Cmb. n. 002)
TL / TLlim = 2464.9 / 199835.9 = 0,012 Ok (Cmb. n. 002)
Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	285.801	41.003	17181.1	2464.9	-692475.1	-0.2789	-1.5439

Macro platea: 6
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.3473 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 2.1567 + 0.5937 + 0.0000 + 0.4006
Qmax / Qlim = 1.6756 / 3.1510 = 0,532 Ok (Cmb. n. 002)
TB / TBlim = 14595.7 / 246479.8 = 0,059 Ok (Cmb. n. 002)
TL / TLlim = 14595.7 / 246479.8 = 0,059 Ok (Cmb. n. 002)
Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	269.327	-269.327	14595.7	-14595.7	-822401.8	-0.1996	-1.6756

Macro platea: 7
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.3262 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 0.0000 + 0.0000 + 0.0000 + 0.0000
Qmax / Qlim = 1.7168 / 0.0000 = (Cmb. n. 002)
TB / TBlim = 22806.7 / 286908.4 = 0,079 Ok (Cmb. n. 002)
TL / TLlim = 1981.4 / 252596.0 = 0,008 Ok (Cmb. n. 009)
Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	485.432	-17.047	22806.7	-800.9	-907920.1	-0.1092	-1.7168
009	SLU STR	No	12.177	35.953	671.1	1981.4	-721127.7	-0.6753	-0.7747

Macro platea: 8
Risultati più gravosi per cmb. di tipo **SLU STR**:
Sgm. Lt (tens. litostatica) = -0.5200 daN/cm^2
Qlim = Qlim c + Qlim q + Qlim g + Qres P = 1.4447 + 3.3182 + 0.6273 + 0.0000
Qmax / Qlim = 1.4280 / 5.3902 = 0,265 Ok (Cmb. n. 002)
TB / TBlim = 6715.0 / 124031.4 = 0,054 Ok (Cmb. n. 002)
TL / TLlim = 587.9 / 110513.2 = 0,005 Ok (Cmb. n. 009)
Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
002	SLU STR	No	14.519	0.000	6715.0	0.0	-266960.7	-0.9294	-1.4280
009	SLU STR	No	0.325	1.083	176.4	587.9	-212675.2	-0.9236	-0.9544

VALORI DI CALCOLO DEI CEDIMENTI PER FONDAZIONI SUPERFICIALI

Elemento: Platea n. 1

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	49.389	0.000	7029.1	0.0	-259380.6	-0.5947	-1.1908
005	SLE q.p.	No	35.612	0.000	4836.5	0.0	-258538.9	-0.6757	-1.1040

Cedimento massimo = -2.911 cm in Cmb n. 003
Cedimento minimo = -0.544 cm in Cmb n. 005

Elemento: Platea n. 37

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	93.836	0.000	9260.0	0.0	-341695.8	-0.4700	-1.2055
005	SLE q.p.	No	67.658	0.000	6371.3	0.0	-340596.6	-0.5708	-1.0993

Cedimento massimo = -3.245 cm in Cmb n. 003
Cedimento minimo = -0.483 cm in Cmb n. 005

Elemento: Platea n. 66

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	151.469	15.228	11335.3	1139.6	-419977.6	-0.3660	-1.2332
005	SLE q.p.	No	109.209	10.979	7799.0	784.1	-418641.8	-0.4854	-1.1087

Cedimento massimo = -3.387 cm in Cmb n. 003
Cedimento minimo = -0.371 cm in Cmb n. 005

Elemento: Platea n. 11

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	224.311	0.000	13442.8	0.0	-494890.2	-0.2740	-1.2662
005	SLE q.p.	No	161.720	0.000	9248.9	0.0	-493337.2	-0.4112	-1.1242

Cedimento massimo = -3.407 cm in Cmb n. 003
Cedimento minimo = -0.309 cm in Cmb n. 005

Elemento: Platea n. 40

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	306.788	44.014	14884.0	2135.4	-552577.7	-0.1853	-1.2688
004	SLE freq	No	245.680	35.247	11760.1	1687.2	-551325.8	-0.2926	-1.1583

Cedimento massimo = -3.329 cm in Cmb n. 003
Cedimento minimo = -0.117 cm in Cmb n. 004

Elemento: Platea n. 83

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	289.282	-289.282	12644.4	-12644.4	-655852.2	-0.1153	-1.3797
004	SLE freq	No	231.652	-231.652	9990.5	-9990.5	-654390.8	-0.2408	-1.2510

Cedimento massimo = -3.277 cm in Cmb n. 003
Cedimento minimo = -0.073 cm in Cmb n. 004

Elemento: Platea n. 56

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	521.727	-18.321	19757.7	-693.8	-723596.0	-0.0389	-1.4160
004	SLE freq	No	417.775	-14.671	15610.7	-548.2	-722011.2	-0.1757	-1.2760

Cedimento massimo = -2.876 cm in Cmb n. 003
Cedimento minimo = -0.070 cm in Cmb n. 004

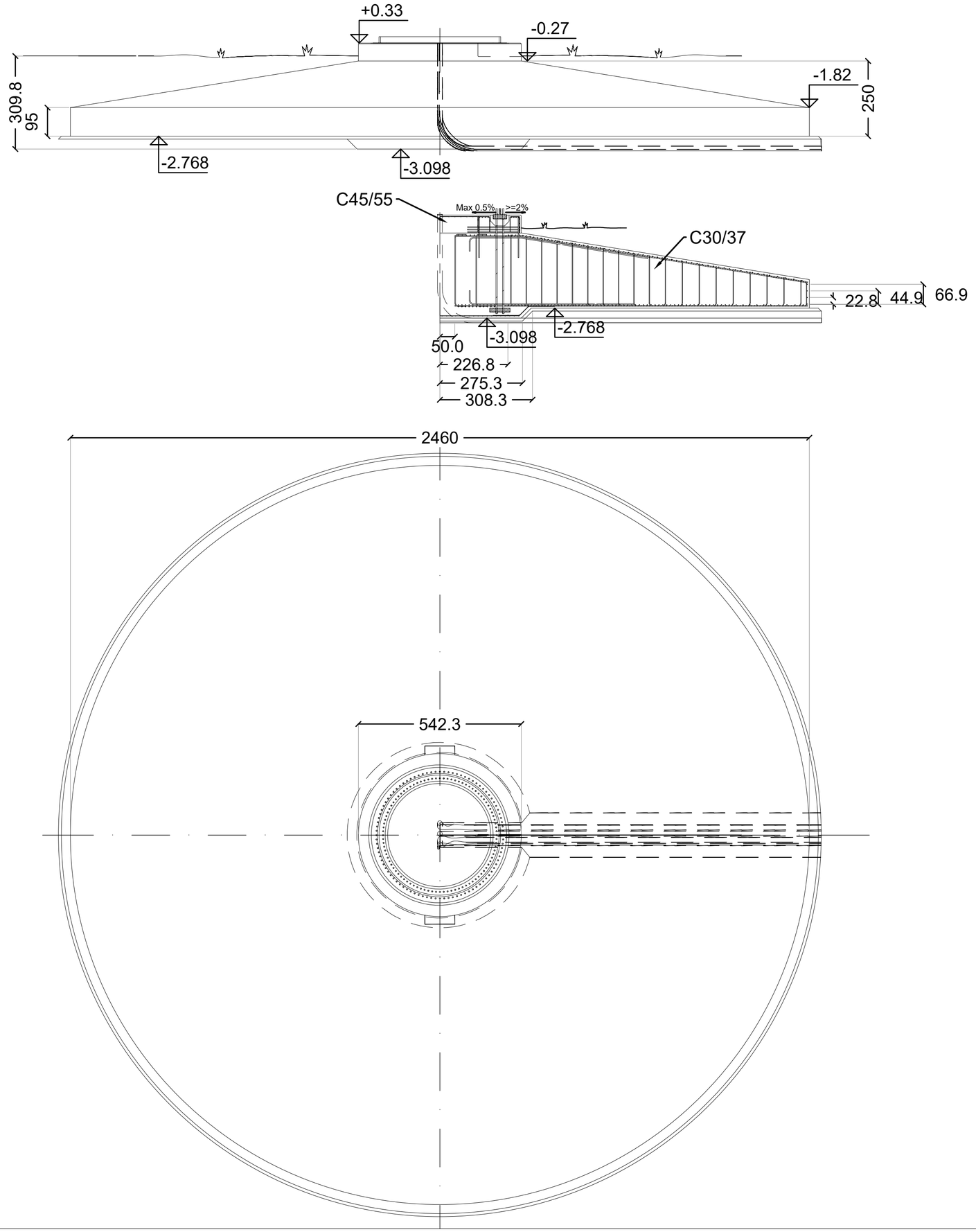
Elemento: Platea n. 225

Sollecitazioni:

Cmb	Tipo	Sism.	Ecc. B	Ecc. L	S. Taglio B	S. Taglio L	S. Normale	T.T. min	T.T. max
n.			cm	cm	daN	daN	daN	daN/cm^2	daN/cm^2
003	SLE rare	No	15.553	0.000	5816.7	0.0	-213470.2	-0.7290	-1.1560

Cedimento massimo = -2.585 cm in Cmb n. 003

Cedimento minimo = -0.564 cm in Cmb n. 003



COMUNE di FOGGIA

Progetto definitivo per la realizzazione di un Parco Eolico

progetto " La STELLA "

"Adeguato alle prescrizioni formulate in Conferenza dei Servizi"

COMMITTENTE	**DESE SRL**
PROGETTO DEFINITIVO	COMUNE: **FOGGIA** LOCALITA': **"la Stella"**

Fondazione tipo pale eoliche

ELABORATO: **EF**

Scala: 1:100	03-05-2021	**Rev:** 01
	REV 03-03-2024	

Progettazione:

Tecnico incaricato:

ING. LUIGI FIORE