



CITTA' DI SCAFATI
*Croce al Valor Militare e
Medaglia d'oro alla Resistenza*

CITTA' DI SCAFATI

(Provincia di Salerno)

Lavori di Adeguamento Sismico della Scuola Elementare e Materna Ferdinando II di
Borbone di Via Genova – CUP: G83H19000720001

CORPO C

PNRR: Missione 5-Componente 2 Investimento/Subinvestimento 2.1 "Rigenerazione Urbana"

STAZIONE APPALTANTE

Comune di Scafati (SA) – Via P. Melchiade - 84018

Settore VI – LL.PP. e Manutenzione

Descrizione

PROGETTO DEFINITIVO-ESECUTIVO

Relazione di calcolo stato di progetto – Scala di ingresso

Codice

C_RT_12

Scala

-



Il R.U.P.

Arch. Mirko Sasso

Scafati, 2 maggio 2023

Il RTP

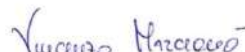
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DELLA PROVINCIA DI REGGIO CALABRIA

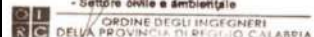


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ORDINE DEGLI INGEGNERI
DELLA PROVINCIA DI REGGIO CALABRIA



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”.

Origine e Caratteristiche dei Codici di Calcolo	
Codice di calcolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2022-10-198)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l. Via Garibaldi, 90 44121 Ferrara FE (Italy) Tel. +39 0532 200091 www.2si.it

Descrizione	
Progetto	
Ubicazione	Comune di SCAFATI (SA) (Regione CAMPANIA)
	Località SCAFATI (SA)
	Longitudine 14.527, Latitudine 40.749
Progettista	

In merito al punto 10.2 delle Norme Tecniche per le Costruzioni (*Affidabilità dei codici utilizzati*), si fa 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” disponibile per il download sul sito: <https://www.2si.it/it/prodotti/affidabilita/>

INTESTAZIONE E CONTENUTI DELLA RELAZIONE

Progetto

Contenuti della relazione:

RELAZIONE DI CALCOLO STRUTTURALE

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

STAMPA DEI DATI DI INGRESSO

- *Normative prese a riferimento*
- *Criteri adottati per le misure di sicurezza*
- *Criteri seguiti nella schematizzazione della struttura, dei vincoli e delle sconessioni*
- *Interazione tra terreno e struttura*
- *Legami costitutivi adottati per la modellazione dei materiali e dei terreni*
- *Schematizzazione delle azioni, condizioni e combinazioni di carico*
- *Metodologie numeriche utilizzate per l'analisi strutturale*
- *Metodologie numeriche utilizzate per la progettazione e la verifica degli elementi strutturali*

STAMPA DEI RISULTATI

Il Progettista:

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”.	1
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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 ν
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	Coefficiente 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	c.a.	Resistenza Rc	resistenza a compressione 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
	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, CNR-DT 215 per interventi con FRCM)

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
		kg/cm2	kg/cm2	kg/cm2		kg/cm2	kg/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 (assiale)								1.00
	Rapporto Rfessurata (flessione)								1.00
	Rapporto Rfessurata (taglio)								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetto armatura	Singolo elemento	Singolo elemento FONDAZIONE				
Armatura						
Inclinazione Av [gradi]	90.00	90.00				
Angolo Av-Ao [gradi]	90.00	90.00				
Minima tesa	0.20	0.20				
Massima tesa	4.00	4.00				
Maglia unica centrale	NO	NO				
Unico strato verticale	NO	NO				

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Unico strato orizzontale	NO	NO				
Copriferro [cm]	3.00	2.00				
Maglia V						
diametro	16	10				
passo	20	25				
diametro aggiuntivi	16	12				
Maglia O						
diametro	12	10				
passo	15	25				
diametro aggiuntivi	12	12				
Stati limite ultimi						
Tensione fy [kg/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				
Tensioni ammissibili						
Tensione amm. cls [kg/cm2]	97.50	97.50				
Tensione amm. acciaio [kg/cm2]	2600.00	2600.00				
Rapporto omogeneizzazione N	15.00	15.00				
Massimo rapporto area compressa/tesa	1.00	1.00				
Parete estesa debolmente armata						
Fattore amplificazione taglio V	0.0	0.0				
Hcrit. par. 7.4.4.5.1 [cm]	0.0	0.0				
Hcrit. par. 7.4.6.1.4 [cm]	0.0	0.0				
Diagramma inviluppo taglio	NO	NO				
Vincolo lati	nessun lato	nessun lato				
Verifica come fascia	NO	NO				
Diametro di estremità	0	0				
Zona confinata						
Minima tesa	1.00	1.00				
Massima tesa	4.00	4.00				
Distanza barre [cm]	2.00	2.00				
Interferro	2	2				
Armatura inclinata						
Area barre [cm2]	0.0	0.0				
Angolo orizzontale [gradi]	0.0	0.0				
Distanza di base [cm]	0.0	0.0				
Resistenza al fuoco						
3- intradosso	NO	NO				
3+ estradosso	NO	NO				
Tempo di esposizione R	15	15				

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	0.10				
Massima tesa	0.78	4.00				
Maglia unica centrale	NO	NO				
Copriferro [cm]	3.00	3.00				
Maglia x						
diametro	16	16				
passo	20	20				
diametro aggiuntivi	16	16				
Maglia y						
diametro	16	16				
passo	20	20				
diametro aggiuntivi	16	16				
Stati limite ultimi						
Tensione fy [kg/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 [kg/cm2]	97.50	97.50				
Tensione amm. acciaio [kg/cm2]	2600.00	2600.00				
Rapporto omogeneizzazione N	15.00	15.00				
Massimo rapporto area compressa/tesa	1.00	1.00				
Resistenza al fuoco						

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
3- intradosso	NO	NO				
3+ estradosso	NO	NO				
Tempo di esposizione R	15	15				

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

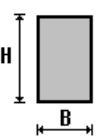
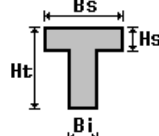
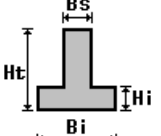
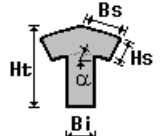
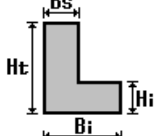
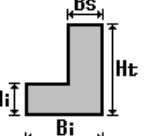
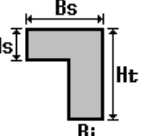
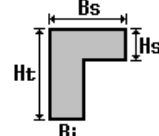

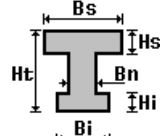
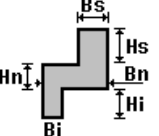
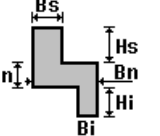
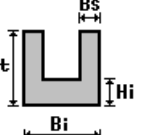
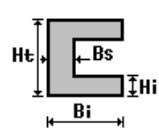
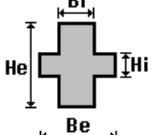
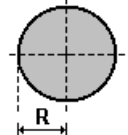
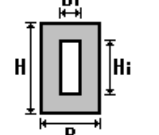
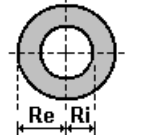
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

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 profilati.

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

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	0.0	0.0	0.0	2	300.0	0.0	0.0	3	0.0	0.0	130.0
4	300.0	0.0	130.0	5	0.0	315.0	0.0	6	300.0	315.0	0.0
7	0.0	315.0	290.0	8	300.0	315.0	290.0	9	0.0	450.0	290.0
10	300.0	450.0	290.0	11	0.0	0.0	65.0	12	150.0	0.0	65.0
13	150.0	0.0	130.0	14	150.0	0.0	0.0	15	300.0	0.0	65.0
16	0.0	315.0	145.0	17	150.0	315.0	145.0	18	150.0	315.0	290.0
19	150.0	315.0	0.0	20	300.0	315.0	145.0	21	0.0	157.5	210.0
22	150.0	157.5	210.0	23	300.0	157.5	210.0	24	0.0	157.5	0.0
25	150.0	157.5	0.0	26	300.0	157.5	0.0	27	0.0	382.5	290.0
28	150.0	382.5	290.0	29	150.0	450.0	290.0	30	300.0	382.5	290.0
31	0.0	0.0	97.5	32	75.0	0.0	97.5	33	75.0	0.0	130.0
34	75.0	0.0	65.0	35	150.0	0.0	97.5	36	0.0	315.0	217.5
37	75.0	315.0	217.5	38	75.0	315.0	290.0	39	75.0	315.0	145.0
40	150.0	315.0	217.5	41	0.0	78.8	170.0	42	75.0	78.8	170.0
43	75.0	157.5	210.0	44	150.0	78.8	170.0	45	0.0	78.8	0.0
46	75.0	78.8	0.0	47	75.0	0.0	0.0	48	75.0	157.5	0.0
49	150.0	78.8	0.0	50	0.0	348.8	290.0	51	75.0	348.8	290.0
52	75.0	382.5	290.0	53	150.0	348.8	290.0	54	0.0	0.0	32.5
55	75.0	0.0	32.5	56	150.0	0.0	32.5	57	225.0	0.0	97.5

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
58	225.0	0.0	130.0	59	225.0	0.0	65.0	60	300.0	0.0	97.5
61	225.0	0.0	32.5	62	225.0	0.0	0.0	63	300.0	0.0	32.5
64	0.0	315.0	72.5	65	75.0	315.0	72.5	66	75.0	315.0	0.0
67	150.0	315.0	72.5	68	225.0	315.0	217.5	69	225.0	315.0	290.0
70	225.0	315.0	145.0	71	300.0	315.0	217.5	72	225.0	315.0	72.5
73	225.0	315.0	0.0	74	300.0	315.0	72.5	75	0.0	236.2	250.0
76	75.0	236.2	250.0	77	150.0	236.2	250.0	78	225.0	78.8	170.0
79	225.0	157.5	210.0	80	300.0	78.8	170.0	81	225.0	236.2	250.0
82	300.0	236.2	250.0	83	0.0	236.2	0.0	84	75.0	236.2	0.0
85	150.0	236.2	0.0	86	225.0	78.8	0.0	87	225.0	157.5	0.0
88	300.0	78.8	0.0	89	225.0	236.2	0.0	90	300.0	236.2	0.0
91	0.0	416.2	290.0	92	75.0	416.2	290.0	93	75.0	450.0	290.0
94	150.0	416.2	290.0	95	225.0	348.8	290.0	96	225.0	382.5	290.0
97	300.0	348.8	290.0	98	225.0	416.2	290.0	99	225.0	450.0	290.0
100	300.0	416.2	290.0	101	0.0	0.0	113.8	102	37.5	0.0	113.8
103	37.5	0.0	130.0	104	37.5	0.0	97.5	105	75.0	0.0	113.8
106	0.0	315.0	253.8	107	37.5	315.0	253.8	108	37.5	315.0	290.0
109	37.5	315.0	217.5	110	75.0	315.0	253.8	111	0.0	39.4	150.0
112	37.5	39.4	150.0	113	37.5	78.8	170.0	114	75.0	39.4	150.0
115	0.0	39.4	0.0	116	37.5	39.4	0.0	117	37.5	0.0	0.0
118	37.5	78.8	0.0	119	75.0	39.4	0.0	120	0.0	331.9	290.0
121	37.5	331.9	290.0	122	37.5	348.8	290.0	123	75.0	331.9	290.0
124	0.0	0.0	48.8	125	37.5	0.0	48.8	126	37.5	0.0	65.0
127	37.5	0.0	32.5	128	75.0	0.0	48.8	129	150.0	0.0	113.8
130	187.5	0.0	113.8	131	187.5	0.0	130.0	132	187.5	0.0	97.5
133	225.0	0.0	113.8	134	150.0	0.0	48.8	135	187.5	0.0	48.8
136	187.5	0.0	65.0	137	187.5	0.0	32.5	138	225.0	0.0	48.8
139	0.0	315.0	108.8	140	37.5	315.0	108.8	141	37.5	315.0	145.0
142	37.5	315.0	72.5	143	75.0	315.0	108.8	144	150.0	315.0	253.8
145	187.5	315.0	253.8	146	187.5	315.0	290.0	147	187.5	315.0	217.5
148	225.0	315.0	253.8	149	150.0	315.0	108.8	150	187.5	315.0	108.8
151	187.5	315.0	145.0	152	187.5	315.0	72.5	153	225.0	315.0	108.8
154	0.0	196.9	230.0	155	37.5	196.9	230.0	156	37.5	157.5	210.0
157	37.5	236.2	250.0	158	75.0	196.9	230.0	159	150.0	39.4	150.0
160	187.5	39.4	150.0	161	187.5	78.8	170.0	162	225.0	39.4	150.0
163	150.0	196.9	230.0	164	187.5	196.9	230.0	165	187.5	157.5	210.0
166	187.5	236.2	250.0	167	225.0	196.9	230.0	168	0.0	196.9	0.0
169	37.5	196.9	0.0	170	37.5	157.5	0.0	171	37.5	236.2	0.0
172	75.0	196.9	0.0	173	150.0	39.4	0.0	174	187.5	39.4	0.0
175	187.5	0.0	0.0	176	187.5	78.8	0.0	177	225.0	39.4	0.0
178	150.0	196.9	0.0	179	187.5	196.9	0.0	180	187.5	157.5	0.0
181	187.5	236.2	0.0	182	225.0	196.9	0.0	183	0.0	399.4	290.0
184	37.5	399.4	290.0	185	37.5	382.5	290.0	186	37.5	416.2	290.0
187	75.0	399.4	290.0	188	150.0	331.9	290.0	189	187.5	331.9	290.0
190	187.5	348.8	290.0	191	225.0	331.9	290.0	192	150.0	399.4	290.0
193	187.5	399.4	290.0	194	187.5	382.5	290.0	195	187.5	416.2	290.0
196	225.0	399.4	290.0	197	0.0	0.0	81.2	198	37.5	0.0	81.2
199	75.0	0.0	81.2	200	112.5	0.0	113.8	201	112.5	0.0	130.0
202	112.5	0.0	97.5	203	112.5	0.0	81.2	204	112.5	0.0	65.0
205	150.0	0.0	81.2	206	0.0	315.0	181.2	207	37.5	315.0	181.2
208	75.0	315.0	181.2	209	112.5	315.0	253.8	210	112.5	315.0	290.0
211	112.5	315.0	217.5	212	112.5	315.0	181.2	213	112.5	315.0	145.0
214	150.0	315.0	181.2	215	0.0	118.1	190.0	216	37.5	118.1	190.0
217	75.0	118.1	190.0	218	112.5	39.4	150.0	219	112.5	78.8	170.0
220	112.5	118.1	190.0	221	112.5	157.5	210.0	222	150.0	118.1	190.0
223	0.0	118.1	0.0	224	37.5	118.1	0.0	225	75.0	118.1	0.0
226	112.5	39.4	0.0	227	112.5	0.0	0.0	228	112.5	78.8	0.0
229	112.5	118.1	0.0	230	112.5	157.5	0.0	231	150.0	118.1	0.0
232	0.0	365.6	290.0	233	37.5	365.6	290.0	234	75.0	365.6	290.0
235	112.5	331.9	290.0	236	112.5	348.8	290.0	237	112.5	365.6	290.0
238	112.5	382.5	290.0	239	150.0	365.6	290.0	240	0.0	0.0	16.2
241	37.5	0.0	16.2	242	75.0	0.0	16.2	243	112.5	0.0	48.8
244	112.5	0.0	32.5	245	112.5	0.0	16.2	246	150.0	0.0	16.2
247	187.5	0.0	81.2	248	225.0	0.0	81.2	249	262.5	0.0	113.8
250	262.5	0.0	130.0	251	262.5	0.0	97.5	252	300.0	0.0	113.8
253	262.5	0.0	81.2	254	262.5	0.0	65.0	255	300.0	0.0	81.2
256	187.5	0.0	16.2	257	225.0	0.0	16.2	258	262.5	0.0	48.8
259	262.5	0.0	32.5	260	300.0	0.0	48.8	261	262.5	0.0	16.2
262	262.5	0.0	0.0	263	300.0	0.0	16.2	264	0.0	315.0	36.2
265	37.5	315.0	36.2	266	37.5	315.0	0.0	267	75.0	315.0	36.2
268	112.5	315.0	108.8	269	112.5	315.0	72.5	270	112.5	315.0	36.2
271	112.5	315.0	0.0	272	150.0	315.0	36.2	273	187.5	315.0	181.2
274	225.0	315.0	181.2	275	262.5	315.0	253.8	276	262.5	315.0	290.0
277	262.5	315.0	217.5	278	300.0	315.0	253.8	279	262.5	315.0	181.2

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
280	262.5	315.0	145.0	281	300.0	315.0	181.2	282	187.5	315.0	36.2
283	187.5	315.0	0.0	284	225.0	315.0	36.2	285	262.5	315.0	108.8
286	262.5	315.0	72.5	287	300.0	315.0	108.8	288	262.5	315.0	36.2
289	262.5	315.0	0.0	290	300.0	315.0	36.2	291	0.0	275.6	270.0
292	37.5	275.6	270.0	293	75.0	275.6	270.0	294	112.5	196.9	230.0
295	112.5	236.2	250.0	296	112.5	275.6	270.0	297	150.0	275.6	270.0
298	187.5	118.1	190.0	299	225.0	118.1	190.0	300	262.5	39.4	150.0
301	262.5	78.8	170.0	302	300.0	39.4	150.0	303	262.5	118.1	190.0
304	262.5	157.5	210.0	305	300.0	118.1	190.0	306	187.5	275.6	270.0
307	225.0	275.6	270.0	308	262.5	196.9	230.0	309	262.5	236.2	250.0
310	300.0	196.9	230.0	311	262.5	275.6	270.0	312	300.0	275.6	270.0
313	0.0	275.6	0.0	314	37.5	275.6	0.0	315	75.0	275.6	0.0
316	112.5	196.9	0.0	317	112.5	236.2	0.0	318	112.5	275.6	0.0
319	150.0	275.6	0.0	320	187.5	118.1	0.0	321	225.0	118.1	0.0
322	262.5	39.4	0.0	323	262.5	78.8	0.0	324	300.0	39.4	0.0
325	262.5	118.1	0.0	326	262.5	157.5	0.0	327	300.0	118.1	0.0
328	187.5	275.6	0.0	329	225.0	275.6	0.0	330	262.5	196.9	0.0
331	262.5	236.2	0.0	332	300.0	196.9	0.0	333	262.5	275.6	0.0
334	300.0	275.6	0.0	335	0.0	433.1	290.0	336	37.5	433.1	290.0
337	37.5	450.0	290.0	338	75.0	433.1	290.0	339	112.5	399.4	290.0
340	112.5	416.2	290.0	341	112.5	433.1	290.0	342	112.5	450.0	290.0
343	150.0	433.1	290.0	344	187.5	365.6	290.0	345	225.0	365.6	290.0
346	262.5	331.9	290.0	347	262.5	348.8	290.0	348	300.0	331.9	290.0
349	262.5	365.6	290.0	350	262.5	382.5	290.0	351	300.0	365.6	290.0
352	187.5	433.1	290.0	353	187.5	450.0	290.0	354	225.0	433.1	290.0
355	262.5	399.4	290.0	356	262.5	416.2	290.0	357	300.0	399.4	290.0
358	262.5	433.1	290.0	359	262.5	450.0	290.0	360	300.0	433.1	290.0

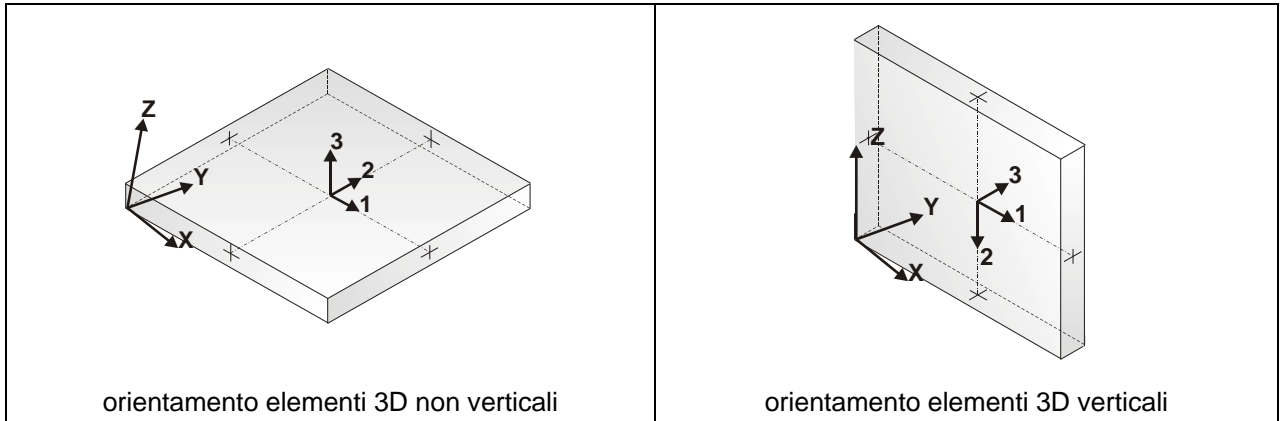
MODELLAZIONE STRUTTURA: ELEMENTI SHELL

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.



In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: <i>Guscio</i> (elemento guscio in elevazione non verticale) <i>Guscio fond.</i> (elemento guscio su suolo elastico) <i>Setto</i> (elemento guscio in elevazione verticale) <i>Membrana</i> (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

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
								cm		daN/cm3	daN/cm3
1	Setto	3	103	102	101	4	1	35.0			
2	Setto	7	108	107	106	4	1	35.0			
3	Guscio	3	103	112	111	4	1	14.0			
4	Guscio fond.	1	117	116	115	4	2	30.0		5.00	2.50
5	Guscio	7	108	121	120	4	1	14.0			
6	Setto	11	126	125	124	4	1	35.0			
7	Setto	13	131	130	129	4	1	35.0			
8	Setto	12	136	135	134	4	1	35.0			
9	Setto	16	141	140	139	4	1	35.0			
10	Setto	18	146	145	144	4	1	35.0			
11	Setto	17	151	150	149	4	1	35.0			
12	Guscio	21	156	155	154	4	1	14.0			
13	Guscio	13	131	160	159	4	1	14.0			
14	Guscio	22	165	164	163	4	1	14.0			
15	Guscio fond.	24	170	169	168	4	2	30.0		5.00	2.50
16	Guscio fond.	14	175	174	173	4	2	30.0		5.00	2.50
17	Guscio fond.	25	180	179	178	4	2	30.0		5.00	2.50
18	Guscio	27	185	184	183	4	1	14.0			
19	Guscio	18	146	189	188	4	1	14.0			
20	Guscio	28	194	193	192	4	1	14.0			
21	Setto	31	104	198	197	4	1	35.0			
22	Setto	33	201	200	105	4	1	35.0			
23	Setto	32	202	203	199	4	1	35.0			
24	Setto	36	109	207	206	4	1	35.0			
25	Setto	38	210	209	110	4	1	35.0			
26	Setto	37	211	212	208	4	1	35.0			
27	Guscio	41	113	216	215	4	1	14.0			
28	Guscio	33	201	218	114	4	1	14.0			
29	Guscio	42	219	220	217	4	1	14.0			
30	Guscio fond.	45	118	224	223	4	2	30.0		5.00	2.50
31	Guscio fond.	47	227	226	119	4	2	30.0		5.00	2.50
32	Guscio fond.	46	228	229	225	4	2	30.0		5.00	2.50
33	Guscio	50	122	233	232	4	1	14.0			
34	Guscio	38	210	235	123	4	1	14.0			
35	Guscio	51	236	237	234	4	1	14.0			
36	Setto	54	127	241	240	4	1	35.0			
37	Setto	34	204	243	128	4	1	35.0			
38	Setto	55	244	245	242	4	1	35.0			
39	Setto	35	132	247	205	4	1	35.0			
40	Setto	58	250	249	133	4	1	35.0			
41	Setto	57	251	253	248	4	1	35.0			
42	Setto	56	137	256	246	4	1	35.0			
43	Setto	59	254	258	138	4	1	35.0			
44	Setto	61	259	261	257	4	1	35.0			
45	Setto	64	142	265	264	4	1	35.0			
46	Setto	39	213	268	143	4	1	35.0			
47	Setto	65	269	270	267	4	1	35.0			
48	Setto	40	147	273	214	4	1	35.0			
49	Setto	69	276	275	148	4	1	35.0			
50	Setto	68	277	279	274	4	1	35.0			
51	Setto	67	152	282	272	4	1	35.0			
52	Setto	70	280	285	153	4	1	35.0			
53	Setto	72	286	288	284	4	1	35.0			
54	Guscio	75	157	292	291	4	1	14.0			
55	Guscio	43	221	294	158	4	1	14.0			
56	Guscio	76	295	296	293	4	1	14.0			
57	Guscio	44	161	298	222	4	1	14.0			
58	Guscio	58	250	300	162	4	1	14.0			
59	Guscio	78	301	303	299	4	1	14.0			
60	Guscio	77	166	306	297	4	1	14.0			
61	Guscio	79	304	308	167	4	1	14.0			
62	Guscio	81	309	311	307	4	1	14.0			
63	Guscio fond.	83	171	314	313	4	2	30.0		5.00	2.50
64	Guscio fond.	48	230	316	172	4	2	30.0		5.00	2.50
65	Guscio fond.	84	317	318	315	4	2	30.0		5.00	2.50
66	Guscio fond.	49	176	320	231	4	2	30.0		5.00	2.50
67	Guscio fond.	62	262	322	177	4	2	30.0		5.00	2.50
68	Guscio fond.	86	323	325	321	4	2	30.0		5.00	2.50
69	Guscio fond.	85	181	328	319	4	2	30.0		5.00	2.50
70	Guscio fond.	87	326	330	182	4	2	30.0		5.00	2.50
71	Guscio fond.	89	331	333	329	4	2	30.0		5.00	2.50

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
72	Guscio	91	186	336	335	4	1	14.0			
73	Guscio	52	238	339	187	4	1	14.0			
74	Guscio	92	340	341	338	4	1	14.0			
75	Guscio	53	190	344	239	4	1	14.0			
76	Guscio	69	276	346	191	4	1	14.0			
77	Guscio	95	347	349	345	4	1	14.0			
78	Guscio	94	195	352	343	4	1	14.0			
79	Guscio	96	350	355	196	4	1	14.0			
80	Guscio	98	356	358	354	4	1	14.0			
81	Setto	101	102	104	31	4	1	35.0			
82	Setto	103	33	105	102	4	1	35.0			
83	Setto	102	105	32	104	4	1	35.0			
84	Setto	106	107	109	36	4	1	35.0			
85	Setto	108	38	110	107	4	1	35.0			
86	Setto	107	110	37	109	4	1	35.0			
87	Guscio	111	112	113	41	4	1	14.0			
88	Guscio	103	33	114	112	4	1	14.0			
89	Guscio	112	114	42	113	4	1	14.0			
90	Guscio fond.	115	116	118	45	4	2	30.0		5.00	2.50
91	Guscio fond.	117	47	119	116	4	2	30.0		5.00	2.50
92	Guscio fond.	116	119	46	118	4	2	30.0		5.00	2.50
93	Guscio	120	121	122	50	4	1	14.0			
94	Guscio	108	38	123	121	4	1	14.0			
95	Guscio	121	123	51	122	4	1	14.0			
96	Setto	124	125	127	54	4	1	35.0			
97	Setto	126	34	128	125	4	1	35.0			
98	Setto	125	128	55	127	4	1	35.0			
99	Setto	129	130	132	35	4	1	35.0			
100	Setto	131	58	133	130	4	1	35.0			
101	Setto	130	133	57	132	4	1	35.0			
102	Setto	134	135	137	56	4	1	35.0			
103	Setto	136	59	138	135	4	1	35.0			
104	Setto	135	138	61	137	4	1	35.0			
105	Setto	139	140	142	64	4	1	35.0			
106	Setto	141	39	143	140	4	1	35.0			
107	Setto	140	143	65	142	4	1	35.0			
108	Setto	144	145	147	40	4	1	35.0			
109	Setto	146	69	148	145	4	1	35.0			
110	Setto	145	148	68	147	4	1	35.0			
111	Setto	149	150	152	67	4	1	35.0			
112	Setto	151	70	153	150	4	1	35.0			
113	Setto	150	153	72	152	4	1	35.0			
114	Guscio	154	155	157	75	4	1	14.0			
115	Guscio	156	43	158	155	4	1	14.0			
116	Guscio	155	158	76	157	4	1	14.0			
117	Guscio	159	160	161	44	4	1	14.0			
118	Guscio	131	58	162	160	4	1	14.0			
119	Guscio	160	162	78	161	4	1	14.0			
120	Guscio	163	164	166	77	4	1	14.0			
121	Guscio	165	79	167	164	4	1	14.0			
122	Guscio	164	167	81	166	4	1	14.0			
123	Guscio fond.	168	169	171	83	4	2	30.0		5.00	2.50
124	Guscio fond.	170	48	172	169	4	2	30.0		5.00	2.50
125	Guscio fond.	169	172	84	171	4	2	30.0		5.00	2.50
126	Guscio fond.	173	174	176	49	4	2	30.0		5.00	2.50
127	Guscio fond.	175	62	177	174	4	2	30.0		5.00	2.50
128	Guscio fond.	174	177	86	176	4	2	30.0		5.00	2.50
129	Guscio fond.	178	179	181	85	4	2	30.0		5.00	2.50
130	Guscio fond.	180	87	182	179	4	2	30.0		5.00	2.50
131	Guscio fond.	179	182	89	181	4	2	30.0		5.00	2.50
132	Guscio	183	184	186	91	4	1	14.0			
133	Guscio	185	52	187	184	4	1	14.0			
134	Guscio	184	187	92	186	4	1	14.0			
135	Guscio	188	189	190	53	4	1	14.0			
136	Guscio	146	69	191	189	4	1	14.0			
137	Guscio	189	191	95	190	4	1	14.0			
138	Guscio	192	193	195	94	4	1	14.0			
139	Guscio	194	96	196	193	4	1	14.0			
140	Guscio	193	196	98	195	4	1	14.0			
141	Setto	197	198	126	11	4	1	35.0			
142	Setto	104	32	199	198	4	1	35.0			
143	Setto	198	199	34	126	4	1	35.0			
144	Setto	105	200	202	32	4	1	35.0			
145	Setto	201	13	129	200	4	1	35.0			

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
146	Setto	200	129	35	202	4	1	35.0			
147	Setto	199	203	204	34	4	1	35.0			
148	Setto	202	35	205	203	4	1	35.0			
149	Setto	203	205	12	204	4	1	35.0			
150	Setto	206	207	141	16	4	1	35.0			
151	Setto	109	37	208	207	4	1	35.0			
152	Setto	207	208	39	141	4	1	35.0			
153	Setto	110	209	211	37	4	1	35.0			
154	Setto	210	18	144	209	4	1	35.0			
155	Setto	209	144	40	211	4	1	35.0			
156	Setto	208	212	213	39	4	1	35.0			
157	Setto	211	40	214	212	4	1	35.0			
158	Setto	212	214	17	213	4	1	35.0			
159	Guscio	215	216	156	21	4	1	14.0			
160	Guscio	113	42	217	216	4	1	14.0			
161	Guscio	216	217	43	156	4	1	14.0			
162	Guscio	114	218	219	42	4	1	14.0			
163	Guscio	201	13	159	218	4	1	14.0			
164	Guscio	218	159	44	219	4	1	14.0			
165	Guscio	217	220	221	43	4	1	14.0			
166	Guscio	219	44	222	220	4	1	14.0			
167	Guscio	220	222	22	221	4	1	14.0			
168	Guscio fond.	223	224	170	24	4	2	30.0		5.00	2.50
169	Guscio fond.	118	46	225	224	4	2	30.0		5.00	2.50
170	Guscio fond.	224	225	48	170	4	2	30.0		5.00	2.50
171	Guscio fond.	119	226	228	46	4	2	30.0		5.00	2.50
172	Guscio fond.	227	14	173	226	4	2	30.0		5.00	2.50
173	Guscio fond.	226	173	49	228	4	2	30.0		5.00	2.50
174	Guscio fond.	225	229	230	48	4	2	30.0		5.00	2.50
175	Guscio fond.	228	49	231	229	4	2	30.0		5.00	2.50
176	Guscio fond.	229	231	25	230	4	2	30.0		5.00	2.50
177	Guscio	232	233	185	27	4	1	14.0			
178	Guscio	122	51	234	233	4	1	14.0			
179	Guscio	233	234	52	185	4	1	14.0			
180	Guscio	123	235	236	51	4	1	14.0			
181	Guscio	210	18	188	235	4	1	14.0			
182	Guscio	235	188	53	236	4	1	14.0			
183	Guscio	234	237	238	52	4	1	14.0			
184	Guscio	236	53	239	237	4	1	14.0			
185	Guscio	237	239	28	238	4	1	14.0			
186	Setto	240	241	117	1	4	1	35.0			
187	Setto	127	55	242	241	4	1	35.0			
188	Setto	241	242	47	117	4	1	35.0			
189	Setto	128	243	244	55	4	1	35.0			
190	Setto	204	12	134	243	4	1	35.0			
191	Setto	243	134	56	244	4	1	35.0			
192	Setto	242	245	227	47	4	1	35.0			
193	Setto	244	56	246	245	4	1	35.0			
194	Setto	245	246	14	227	4	1	35.0			
195	Setto	205	247	136	12	4	1	35.0			
196	Setto	132	57	248	247	4	1	35.0			
197	Setto	247	248	59	136	4	1	35.0			
198	Setto	133	249	251	57	4	1	35.0			
199	Setto	250	4	252	249	4	1	35.0			
200	Setto	249	252	60	251	4	1	35.0			
201	Setto	248	253	254	59	4	1	35.0			
202	Setto	251	60	255	253	4	1	35.0			
203	Setto	253	255	15	254	4	1	35.0			
204	Setto	246	256	175	14	4	1	35.0			
205	Setto	137	61	257	256	4	1	35.0			
206	Setto	256	257	62	175	4	1	35.0			
207	Setto	138	258	259	61	4	1	35.0			
208	Setto	254	15	260	258	4	1	35.0			
209	Setto	258	260	63	259	4	1	35.0			
210	Setto	257	261	262	62	4	1	35.0			
211	Setto	259	63	263	261	4	1	35.0			
212	Setto	261	263	2	262	4	1	35.0			
213	Setto	264	265	266	5	4	1	35.0			
214	Setto	142	65	267	265	4	1	35.0			
215	Setto	265	267	66	266	4	1	35.0			
216	Setto	143	268	269	65	4	1	35.0			
217	Setto	213	17	149	268	4	1	35.0			
218	Setto	268	149	67	269	4	1	35.0			
219	Setto	267	270	271	66	4	1	35.0			

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
220	Setto	269	67	272	270	4	1	35.0			
221	Setto	270	272	19	271	4	1	35.0			
222	Setto	214	273	151	17	4	1	35.0			
223	Setto	147	68	274	273	4	1	35.0			
224	Setto	273	274	70	151	4	1	35.0			
225	Setto	148	275	277	68	4	1	35.0			
226	Setto	276	8	278	275	4	1	35.0			
227	Setto	275	278	71	277	4	1	35.0			
228	Setto	274	279	280	70	4	1	35.0			
229	Setto	277	71	281	279	4	1	35.0			
230	Setto	279	281	20	280	4	1	35.0			
231	Setto	272	282	283	19	4	1	35.0			
232	Setto	152	72	284	282	4	1	35.0			
233	Setto	282	284	73	283	4	1	35.0			
234	Setto	153	285	286	72	4	1	35.0			
235	Setto	280	20	287	285	4	1	35.0			
236	Setto	285	287	74	286	4	1	35.0			
237	Setto	284	288	289	73	4	1	35.0			
238	Setto	286	74	290	288	4	1	35.0			
239	Setto	288	290	6	289	4	1	35.0			
240	Guscio	291	292	108	7	4	1	14.0			
241	Guscio	157	76	293	292	4	1	14.0			
242	Guscio	292	293	38	108	4	1	14.0			
243	Guscio	158	294	295	76	4	1	14.0			
244	Guscio	221	22	163	294	4	1	14.0			
245	Guscio	294	163	77	295	4	1	14.0			
246	Guscio	293	296	210	38	4	1	14.0			
247	Guscio	295	77	297	296	4	1	14.0			
248	Guscio	296	297	18	210	4	1	14.0			
249	Guscio	222	298	165	22	4	1	14.0			
250	Guscio	161	78	299	298	4	1	14.0			
251	Guscio	298	299	79	165	4	1	14.0			
252	Guscio	162	300	301	78	4	1	14.0			
253	Guscio	250	4	302	300	4	1	14.0			
254	Guscio	300	302	80	301	4	1	14.0			
255	Guscio	299	303	304	79	4	1	14.0			
256	Guscio	301	80	305	303	4	1	14.0			
257	Guscio	303	305	23	304	4	1	14.0			
258	Guscio	297	306	146	18	4	1	14.0			
259	Guscio	166	81	307	306	4	1	14.0			
260	Guscio	306	307	69	146	4	1	14.0			
261	Guscio	167	308	309	81	4	1	14.0			
262	Guscio	304	23	310	308	4	1	14.0			
263	Guscio	308	310	82	309	4	1	14.0			
264	Guscio	307	311	276	69	4	1	14.0			
265	Guscio	309	82	312	311	4	1	14.0			
266	Guscio	311	312	8	276	4	1	14.0			
267	Guscio fond.	313	314	266	5	4	2	30.0		5.00	2.50
268	Guscio fond.	171	84	315	314	4	2	30.0		5.00	2.50
269	Guscio fond.	314	315	66	266	4	2	30.0		5.00	2.50
270	Guscio fond.	172	316	317	84	4	2	30.0		5.00	2.50
271	Guscio fond.	230	25	178	316	4	2	30.0		5.00	2.50
272	Guscio fond.	316	178	85	317	4	2	30.0		5.00	2.50
273	Guscio fond.	315	318	271	66	4	2	30.0		5.00	2.50
274	Guscio fond.	317	85	319	318	4	2	30.0		5.00	2.50
275	Guscio fond.	318	319	19	271	4	2	30.0		5.00	2.50
276	Guscio fond.	231	320	180	25	4	2	30.0		5.00	2.50
277	Guscio fond.	176	86	321	320	4	2	30.0		5.00	2.50
278	Guscio fond.	320	321	87	180	4	2	30.0		5.00	2.50
279	Guscio fond.	177	322	323	86	4	2	30.0		5.00	2.50
280	Guscio fond.	262	2	324	322	4	2	30.0		5.00	2.50
281	Guscio fond.	322	324	88	323	4	2	30.0		5.00	2.50
282	Guscio fond.	321	325	326	87	4	2	30.0		5.00	2.50
283	Guscio fond.	323	88	327	325	4	2	30.0		5.00	2.50
284	Guscio fond.	325	327	26	326	4	2	30.0		5.00	2.50
285	Guscio fond.	319	328	283	19	4	2	30.0		5.00	2.50
286	Guscio fond.	181	89	329	328	4	2	30.0		5.00	2.50
287	Guscio fond.	328	329	73	283	4	2	30.0		5.00	2.50
288	Guscio fond.	182	330	331	89	4	2	30.0		5.00	2.50
289	Guscio fond.	326	26	332	330	4	2	30.0		5.00	2.50
290	Guscio fond.	330	332	90	331	4	2	30.0		5.00	2.50
291	Guscio fond.	329	333	289	73	4	2	30.0		5.00	2.50
292	Guscio fond.	331	90	334	333	4	2	30.0		5.00	2.50
293	Guscio fond.	333	334	6	289	4	2	30.0		5.00	2.50

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
294	Guscio	335	336	337	9	4	1	14.0			
295	Guscio	186	92	338	336	4	1	14.0			
296	Guscio	336	338	93	337	4	1	14.0			
297	Guscio	187	339	340	92	4	1	14.0			
298	Guscio	238	28	192	339	4	1	14.0			
299	Guscio	339	192	94	340	4	1	14.0			
300	Guscio	338	341	342	93	4	1	14.0			
301	Guscio	340	94	343	341	4	1	14.0			
302	Guscio	341	343	29	342	4	1	14.0			
303	Guscio	239	344	194	28	4	1	14.0			
304	Guscio	190	95	345	344	4	1	14.0			
305	Guscio	344	345	96	194	4	1	14.0			
306	Guscio	191	346	347	95	4	1	14.0			
307	Guscio	276	8	348	346	4	1	14.0			
308	Guscio	346	348	97	347	4	1	14.0			
309	Guscio	345	349	350	96	4	1	14.0			
310	Guscio	347	97	351	349	4	1	14.0			
311	Guscio	349	351	30	350	4	1	14.0			
312	Guscio	343	352	353	29	4	1	14.0			
313	Guscio	195	98	354	352	4	1	14.0			
314	Guscio	352	354	99	353	4	1	14.0			
315	Guscio	196	355	356	98	4	1	14.0			
316	Guscio	350	30	357	355	4	1	14.0			
317	Guscio	355	357	100	356	4	1	14.0			
318	Guscio	354	358	359	99	4	1	14.0			
319	Guscio	356	100	360	358	4	1	14.0			
320	Guscio	358	360	10	359	4	1	14.0			

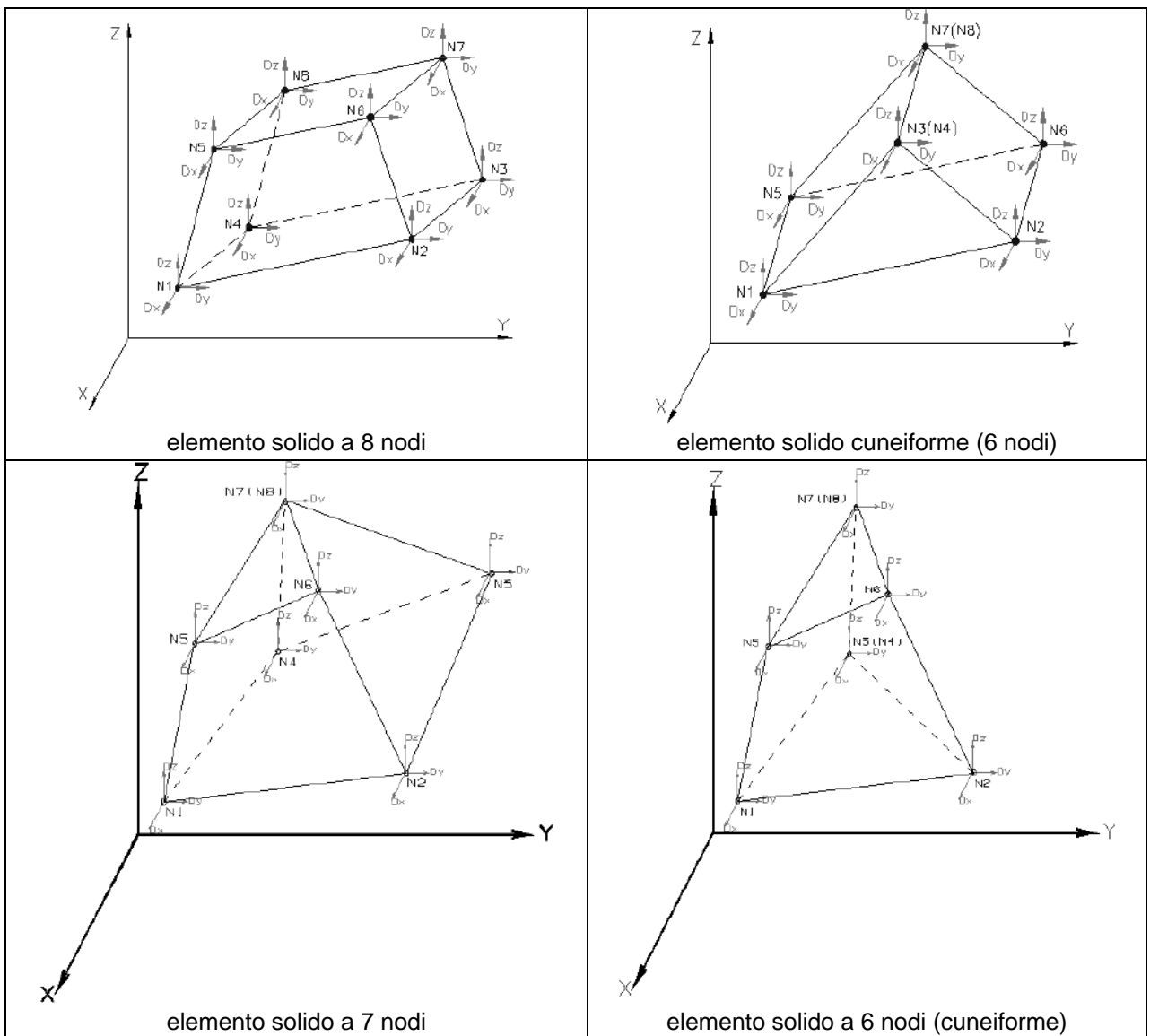
MODELLAZIONE STRUTTURA: ELEMENTI SOLIDI

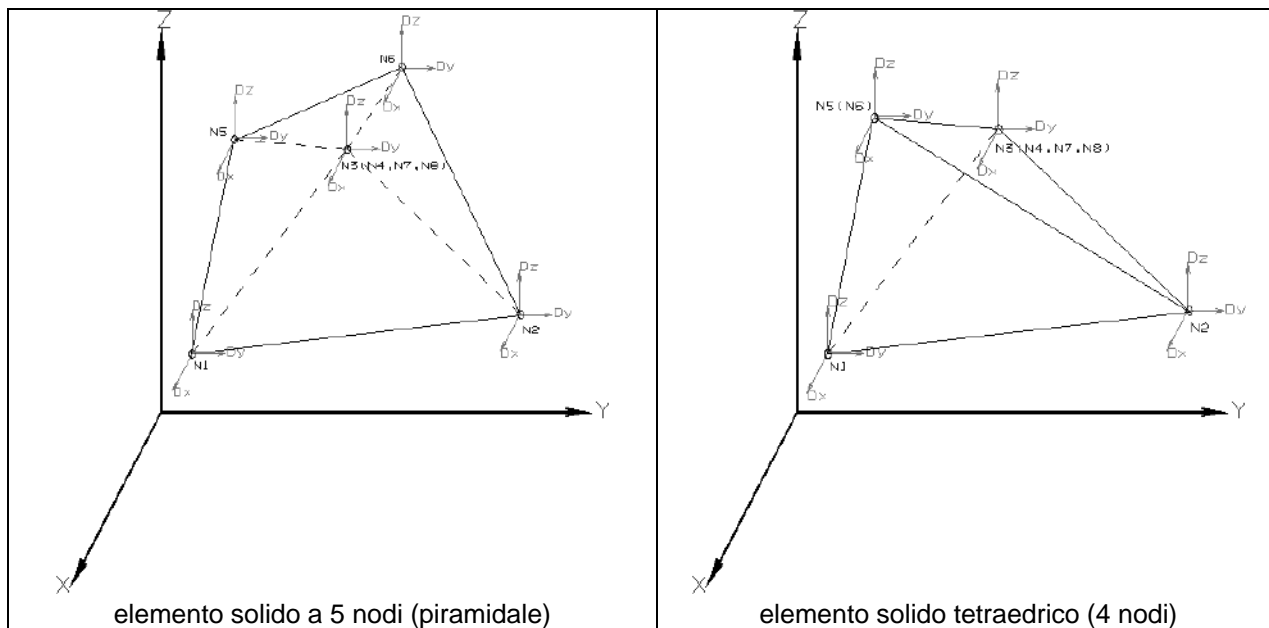
LEGENDA TABELLA DATI ELEMENTI SOLIDI

Il programma utilizza per la modellazione elementi tridimensionali denominati in generale **Solidi** con numero di nodi variabile da quattro a otto.

Ogni elemento solido è individuato dai nodi 1,2,3,4,5,6,7,8 (in figura si riporta la convenzione adottata per i vari tipi di elementi).

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione. All'elemento può essere associato automaticamente un set di molle (verticali ed orizzontali) collegate alla faccia inferiore: la rigidità delle molle, proporzionale all' area della faccia e ad una costante, modella l'interazione dell'elemento con un "mezzo elastico alla Winkler".





In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: <i>Solido</i> (elemento standard) <i>Solido fond.</i> (elemento con faccia inferiore su suolo elastico)
Mat.	codice del materiale assegnato all'elemento
Nodo 1 (2...)	numero del nodo 1 (2, ...)
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

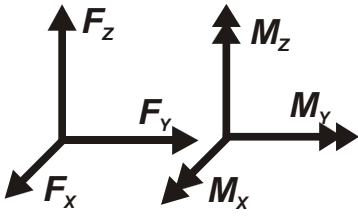
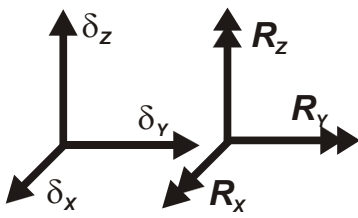
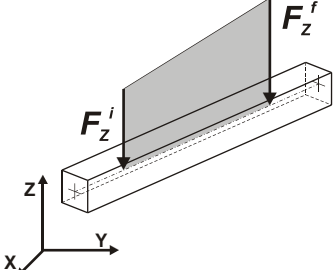
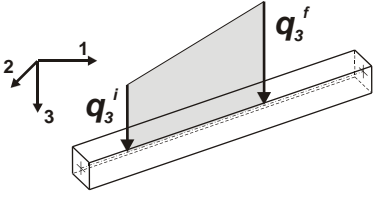
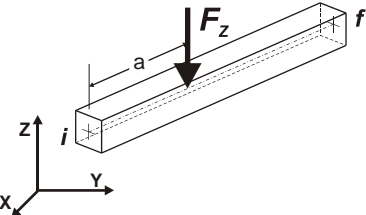
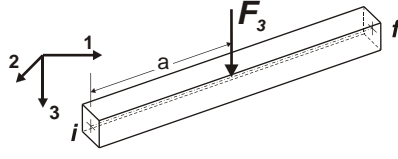
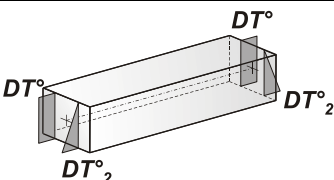
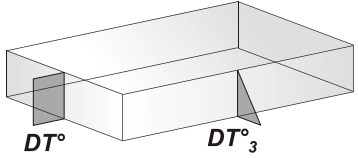
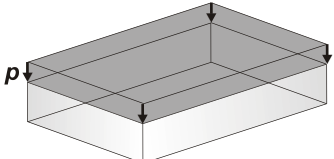
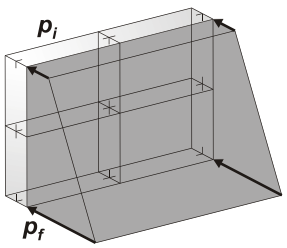
Elem.	Note	Mat.	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Nodo 5	Nodo 6	Nodo 7	Nodo 8	Wink V	Wink O
											daN/cm3	daN/cm3

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 F_x , F_y , F_z , momento M_x , M_y , M_z)
2	spostamento nodale impresso 6 dati (spostamento T_x , T_y , T_z , rotazione R_x , R_y , R_z)
3	carico distribuito globale su elemento tipo trave 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di inizio carico) 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di inizio carico) 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (F_x , F_y , F_z , M_x , M_y , M_z , ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F_1 , F_2 , F_3 , M_1 , M_2 , M_3 , 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 variabile generale

Id	Tipo	ascissa	valore	ascissa	valore
		m	kN/ m2	m	kN/ m2
1	G2 scala e pianerottolo -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-3.40		
2	Q scala e pianerottolo -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-4.00		
3	Lapilli Vulcanici -QV:unif - Qz - Pres.				
	Unif. Qz Pres. L2=0.0		-7.00		
4	Neve -QV:unif - Qz - Pres.				
	Unif. Qz Pres. L2=0.0		-0.48		

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	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Gk	CDC=G2k (permanente generico n.c.d.)	Azioni applicate:
			D3 : 3 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 : 5 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 12 a 14 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 18 a 20 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 27 a 29 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 33 a 35 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area

CDC	Tipo	Sigla Id	Note
			D3 :da 54 a 62 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 72 a 80 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 87 a 89 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 93 a 95 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 114 a 122 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 132 a 140 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 159 a 167 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 177 a 185 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 240 a 266 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 294 a 320 Azione : G2 scala e pianerottolo -QV:unif - Qz - Area
3	Qk	CDC=Qk (variabile generico)	Azioni applicate:
			D3 : 3 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 : 5 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 12 a 14 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 18 a 20 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 27 a 29 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 33 a 35 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 54 a 62 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 72 a 80 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 87 a 89 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 93 a 95 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 114 a 122 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 132 a 140 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 159 a 167 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 177 a 185 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 240 a 266 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
			D3 :da 294 a 320 Azione : Q scala e pianerottolo -QV:unif - Qz - Area
4	Qk	CDC=Qk (variabile generico) neve	Azioni applicate:
			D3 : 3 Azione : Neve -QV:unif - Qz - Pres.
			D3 : 5 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 12 a 14 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 18 a 20 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 27 a 29 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 33 a 35 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 54 a 62 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 72 a 80 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 87 a 89 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 93 a 95 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 114 a 122 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 132 a 140 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 159 a 167 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 177 a 185 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 240 a 266 Azione : Neve -QV:unif - Qz - Pres.
			D3 :da 294 a 320 Azione : Neve -QV:unif - Qz - Pres.
5	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)
			partecipazione:1.00 per 2 CDC=G2k (permanente generico n.c.d.)
			partecipazione:1.00 per 3 CDC=Qk (variabile generico)
			partecipazione:1.00 per 4 CDC=Qk (variabile generico) neve
6	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
7	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
8	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
9	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
10	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
11	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
12	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
13	Qk	CDC=Qk (Eccezionale)	Azioni applicate:
			D3 : 3 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 : 5 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 12 a 14 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 18 a 20 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 27 a 29 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 33 a 35 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 54 a 62 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 72 a 80 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 87 a 89 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 93 a 95 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 114 a 122 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 132 a 140 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 159 a 167 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 177 a 185 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 240 a 266 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
			D3 :da 294 a 320 Azione : Lapilli Vulcanici -QV:unif - Qz - Pres.
14	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)	come precedente CDC sismico
15	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)	come precedente CDC sismico

CDC	Tipo	Sigla Id	Note
16	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)	come precedente CDC sismico
17	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)	come precedente CDC sismico

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

$$\gamma G_1 \cdot G_1 + \gamma G_2 \cdot G_2 + \gamma P \cdot P + \gamma Q_1 \cdot Q_{k1} + \gamma Q_2 \cdot \psi_{02} \cdot Q_{k2} + \gamma Q_3 \cdot \psi_{03} \cdot Q_{k3} + \dots$$

Combinazione caratteristica (rara) SLE

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

Combinazione frequente SLE

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

Combinazione quasi permanente SLE

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

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

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

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

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

Dove:

NTC 2018 Tabella 2.5.1

Destinazione d'uso/azione	ψ_0	ψ_1	ψ_2
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 $\leq 30kN$)	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 2.6.1

	Coefficiente	EQU	A1	A2
	γ_f			

<i>Carichi permanenti</i>	<i>Favorevoli</i>	γ_{G1}	0,9	1,0	1,0
	<i>Sfavorevoli</i>		1,1	1,3	1,0
<i>Carichi permanenti non strutturali</i> <i>(Non compiutamente definiti)</i>	<i>Favorevoli</i>	γ_{G2}	0,8	0,8	0,8
	<i>Sfavorevoli</i>		1,5	1,5	1,3
<i>Carichi variabili</i>	<i>Favorevoli</i>	γ_{Qi}	0,0	0,0	0,0
	<i>Sfavorevoli</i>		1,5	1,5	1,3

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU(ecc.)	Comb. SLU (Eccez.) 1	
2	SLU(ecc.)	Comb. SLU (Eccez.) 2	
3	SLU(ecc.)	Comb. SLU (Eccez.) 3	
4	SLU(ecc.)	Comb. SLU (Eccez.) 4	
5	SLU	Comb. SLU A1 5	
6	SLU	Comb. SLU A1 6	
7	SLU	Comb. SLU A1 7	
8	SLU	Comb. SLU A1 8	
9	SLU	Comb. SLU A1 9	
10	SLU	Comb. SLU A1 10	
11	SLU	Comb. SLU A1 11	
12	SLU	Comb. SLU A1 12	
13	SLU	Comb. SLU A1 13	
14	SLU	Comb. SLU A1 14	
15	SLU	Comb. SLU A1 15	
16	SLU	Comb. SLU A1 16	
17	SLU	Comb. SLU A1 17	
18	SLU	Comb. SLU A1 18	
19	SLU	Comb. SLU A1 19	
20	SLU	Comb. SLU A1 20	
21	SLU	Comb. SLU A1 21	
22	SLU	Comb. SLU A1 22	
23	SLU	Comb. SLU A1 23	
24	SLU	Comb. SLU A1 24	
25	SLU	Comb. SLU A1 25	
26	SLU	Comb. SLU A1 26	
27	SLU	Comb. SLU A1 27	
28	SLU	Comb. SLU A1 28	
29	SLU	Comb. SLU A1 (SLV sism.) 29	
30	SLU	Comb. SLU A1 (SLV sism.) 30	
31	SLU	Comb. SLU A1 (SLV sism.) 31	
32	SLU	Comb. SLU A1 (SLV sism.) 32	
33	SLU	Comb. SLU A1 (SLV sism.) 33	
34	SLU	Comb. SLU A1 (SLV sism.) 34	
35	SLU	Comb. SLU A1 (SLV sism.) 35	
36	SLU	Comb. SLU A1 (SLV sism.) 36	
37	SLU	Comb. SLU A1 (SLV sism.) 37	
38	SLU	Comb. SLU A1 (SLV sism.) 38	
39	SLU	Comb. SLU A1 (SLV sism.) 39	
40	SLU	Comb. SLU A1 (SLV sism.) 40	
41	SLU	Comb. SLU A1 (SLV sism.) 41	
42	SLU	Comb. SLU A1 (SLV sism.) 42	
43	SLU	Comb. SLU A1 (SLV sism.) 43	
44	SLU	Comb. SLU A1 (SLV sism.) 44	
45	SLU	Comb. SLU A1 (SLV sism.) 45	
46	SLU	Comb. SLU A1 (SLV sism.) 46	
47	SLU	Comb. SLU A1 (SLV sism.) 47	
48	SLU	Comb. SLU A1 (SLV sism.) 48	
49	SLU	Comb. SLU A1 (SLV sism.) 49	
50	SLU	Comb. SLU A1 (SLV sism.) 50	
51	SLU	Comb. SLU A1 (SLV sism.) 51	
52	SLU	Comb. SLU A1 (SLV sism.) 52	
53	SLU	Comb. SLU A1 (SLV sism.) 53	
54	SLU	Comb. SLU A1 (SLV sism.) 54	
55	SLU	Comb. SLU A1 (SLV sism.) 55	
56	SLU	Comb. SLU A1 (SLV sism.) 56	
57	SLU	Comb. SLU A1 (SLV sism.) 57	
58	SLU	Comb. SLU A1 (SLV sism.) 58	
59	SLU	Comb. SLU A1 (SLV sism.) 59	
60	SLU	Comb. SLU A1 (SLV sism.) 60	

Cmb	Tipo	Sigla Id	effetto P-delta
61	SLE(sis)	Comb. SLE (SLD Danno sism.) 61	
62	SLE(sis)	Comb. SLE (SLD Danno sism.) 62	
63	SLE(sis)	Comb. SLE (SLD Danno sism.) 63	
64	SLE(sis)	Comb. SLE (SLD Danno sism.) 64	
65	SLE(sis)	Comb. SLE (SLD Danno sism.) 65	
66	SLE(sis)	Comb. SLE (SLD Danno sism.) 66	
67	SLE(sis)	Comb. SLE (SLD Danno sism.) 67	
68	SLE(sis)	Comb. SLE (SLD Danno sism.) 68	
69	SLE(sis)	Comb. SLE (SLD Danno sism.) 69	
70	SLE(sis)	Comb. SLE (SLD Danno sism.) 70	
71	SLE(sis)	Comb. SLE (SLD Danno sism.) 71	
72	SLE(sis)	Comb. SLE (SLD Danno sism.) 72	
73	SLE(sis)	Comb. SLE (SLD Danno sism.) 73	
74	SLE(sis)	Comb. SLE (SLD Danno sism.) 74	
75	SLE(sis)	Comb. SLE (SLD Danno sism.) 75	
76	SLE(sis)	Comb. SLE (SLD Danno sism.) 76	
77	SLE(sis)	Comb. SLE (SLD Danno sism.) 77	
78	SLE(sis)	Comb. SLE (SLD Danno sism.) 78	
79	SLE(sis)	Comb. SLE (SLD Danno sism.) 79	
80	SLE(sis)	Comb. SLE (SLD Danno sism.) 80	
81	SLE(sis)	Comb. SLE (SLD Danno sism.) 81	
82	SLE(sis)	Comb. SLE (SLD Danno sism.) 82	
83	SLE(sis)	Comb. SLE (SLD Danno sism.) 83	
84	SLE(sis)	Comb. SLE (SLD Danno sism.) 84	
85	SLE(sis)	Comb. SLE (SLD Danno sism.) 85	
86	SLE(sis)	Comb. SLE (SLD Danno sism.) 86	
87	SLE(sis)	Comb. SLE (SLD Danno sism.) 87	
88	SLE(sis)	Comb. SLE (SLD Danno sism.) 88	
89	SLE(sis)	Comb. SLE (SLD Danno sism.) 89	
90	SLE(sis)	Comb. SLE (SLD Danno sism.) 90	
91	SLE(sis)	Comb. SLE (SLD Danno sism.) 91	
92	SLE(sis)	Comb. SLE (SLD Danno sism.) 92	
93	SLE(sis)	Comb. SLE (SLO Operativo sism.) 93	
94	SLE(sis)	Comb. SLE (SLO Operativo sism.) 94	
95	SLE(sis)	Comb. SLE (SLO Operativo sism.) 95	
96	SLE(sis)	Comb. SLE (SLO Operativo sism.) 96	
97	SLE(sis)	Comb. SLE (SLO Operativo sism.) 97	
98	SLE(sis)	Comb. SLE (SLO Operativo sism.) 98	
99	SLE(sis)	Comb. SLE (SLO Operativo sism.) 99	
100	SLE(sis)	Comb. SLE (SLO Operativo sism.) 100	
101	SLE(sis)	Comb. SLE (SLO Operativo sism.) 101	
102	SLE(sis)	Comb. SLE (SLO Operativo sism.) 102	
103	SLE(sis)	Comb. SLE (SLO Operativo sism.) 103	
104	SLE(sis)	Comb. SLE (SLO Operativo sism.) 104	
105	SLE(sis)	Comb. SLE (SLO Operativo sism.) 105	
106	SLE(sis)	Comb. SLE (SLO Operativo sism.) 106	
107	SLE(sis)	Comb. SLE (SLO Operativo sism.) 107	
108	SLE(sis)	Comb. SLE (SLO Operativo sism.) 108	
109	SLE(sis)	Comb. SLE (SLO Operativo sism.) 109	
110	SLE(sis)	Comb. SLE (SLO Operativo sism.) 110	
111	SLE(sis)	Comb. SLE (SLO Operativo sism.) 111	
112	SLE(sis)	Comb. SLE (SLO Operativo sism.) 112	
113	SLE(sis)	Comb. SLE (SLO Operativo sism.) 113	
114	SLE(sis)	Comb. SLE (SLO Operativo sism.) 114	
115	SLE(sis)	Comb. SLE (SLO Operativo sism.) 115	
116	SLE(sis)	Comb. SLE (SLO Operativo sism.) 116	
117	SLE(sis)	Comb. SLE (SLO Operativo sism.) 117	
118	SLE(sis)	Comb. SLE (SLO Operativo sism.) 118	
119	SLE(sis)	Comb. SLE (SLO Operativo sism.) 119	
120	SLE(sis)	Comb. SLE (SLO Operativo sism.) 120	
121	SLE(sis)	Comb. SLE (SLO Operativo sism.) 121	
122	SLE(sis)	Comb. SLE (SLO Operativo sism.) 122	
123	SLE(sis)	Comb. SLE (SLO Operativo sism.) 123	
124	SLE(sis)	Comb. SLE (SLO Operativo sism.) 124	
125	SLE(r)	Comb. SLE(rara) 125	
126	SLE(r)	Comb. SLE(rara) 126	
127	SLE(r)	Comb. SLE(rara) 127	
128	SLE(r)	Comb. SLE(rara) 128	
129	SLE(r)	Comb. SLE(rara) 129	
130	SLE(r)	Comb. SLE(rara) 130	
131	SLE(r)	Comb. SLE(rara) 131	
132	SLE(r)	Comb. SLE(rara) 132	
133	SLE(r)	Comb. SLE(rara) 133	
134	SLE(r)	Comb. SLE(rara) 134	

AZIONE SISMICA

VALUTAZIONE DELL' AZIONE SISMICA

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

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

a_g : accelerazione orizzontale massima del terreno;

F_o : valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T^*c : periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
III	50.0	1.5	75.0	E	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s \cdot S_t$ (3.2.3)

F_o è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

F_v è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno a_g su sito di riferimento rigido orizzontale

T_b è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

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

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

Lo spettro di risposta elastico in accelerazione della componente orizzontale del moto sismico, S_e , è definito dalle seguenti espressioni:

$$\begin{aligned}
 0 \leq T < T_B & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right] \\
 T_B \leq T < T_C & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \\
 T_C \leq T < T_D & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right) \\
 T_D \leq T & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)
 \end{aligned}$$

Dove per sottosuolo di categoria **A** i coefficienti S_s e C_c valgono 1; mentre per le categorie di sottosuolo B, C, D, E i coefficienti S_s e C_c vengono calcolati mediante le espressioni riportate nella seguente Tabella

Categoria sottosuolo	S_s	C_c
A	1,00	1,00
B	$1,00 \leq 1,40 - 0,40 \cdot F_o \cdot \frac{a_g}{g} \leq 1,20$	$1,10 \cdot (T_c^*)^{-0,20}$
C	$1,00 \leq 1,70 - 0,60 \cdot F_o \cdot \frac{a_g}{g} \leq 1,50$	$1,05 \cdot (T_c^*)^{-0,33}$
D	$0,90 \leq 2,40 - 1,50 \cdot F_o \cdot \frac{a_g}{g} \leq 1,80$	$1,25 \cdot (T_c^*)^{-0,50}$
E	$1,00 \leq 2,00 - 1,10 \cdot F_o \cdot \frac{a_g}{g} \leq 1,60$	$1,15 \cdot (T_c^*)^{-0,40}$

Per tenere conto delle condizioni topografiche e in assenza di specifiche analisi di risposta sismica locale, si utilizzano i valori del coefficiente topografico S_T riportati nella seguente Tabella

Categoria topografica	Ubicazione dell'opera o dell'intervento	S_T
T1	-	1,0
T2	In corrispondenza della sommità del pendio	1,2
T3	In corrispondenza della cresta di un rilievo con pendenza media minore o uguale a 30°	1,2
T4	In corrispondenza della cresta di un rilievo con pendenza media maggiore di 30°	1,4

Lo spettro di risposta elastico in accelerazione della componente verticale del moto sismico, S_{ve} , è definito dalle espressioni:

$$\begin{aligned}
 0 \leq T < T_B & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right] \\
 T_B \leq T < T_C & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \\
 T_C \leq T < T_D & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C}{T} \right) \\
 T_D \leq T & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)
 \end{aligned}$$

I valori di S_s , T_B , T_C e T_D , sono riportati nella seguente Tabella

Categoria di sottosuolo	S_s	T_B	T_C	T_D
A, B, C, D, E	1,0	0,05 s	0,15 s	1,0 s

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	14.527	40.749	
33648	14.480	40.731	4.558
33649	14.546	40.730	2.701
33427	14.547	40.780	3.709
33426	14.480	40.781	5.310

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	45.2	0.051	2.356	0.312
SLD	63.0	75.4	0.064	2.395	0.332
SLV	10.0	711.8	0.153	2.482	0.379
SLC	5.0	1462.2	0.190	2.529	0.390

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.051	1.600	2.356	0.718	0.191	0.572	1.804
SLD	0.064	1.600	2.395	0.821	0.198	0.593	1.858
SLV	0.153	1.583	2.482	1.309	0.214	0.643	2.210
SLC	0.190	1.472	2.529	1.487	0.218	0.654	2.359

RISULTATI ANALISI SISMICHE

LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

9. Esk caso di carico sismico con analisi statica equivalente

10. Edk caso di carico sismico con analisi dinamica

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

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

Angolo di ingresso	di	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	di	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica		Zona sismica
Accelerazione ag		Accelerazione orizzontale massima sul suolo
Categoria suolo		Categoria di profilo stratigrafico del suolo di fondazione
Fattore q		Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
Amplificazione ND		Coefficiente di amplificazione q/q_{ND} delle azioni sismiche (solo per elementi progettati in campo non dissipativo)
Fattore di sito S		Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD		Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore di riduzione SLD	riduz.	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	proprio	Periodo proprio di vibrazione della struttura
Coefficiente Lambda		Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	spettro	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	spettro	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	spettro	Valore dell'ordinata dello spettro in uso nel tratto costante
N° di modi considerati	modi	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Nel caso di elementi progettati in campo non dissipativo vengono adottate le sollecitazioni calcolate con un fattore q_{ND} ricavato come da 7.3.2 in funzione del fattore di comportamento q utilizzato per la struttura: $1 < q_{ND} = 2/3 * q < 1.5$

Il coefficiente di amplificazione delle azioni sismiche rispetto alle azioni calcolate con il fattore di comportamento globale viene indicato nelle relative tabelle.

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

- a) analisi sismica statica equivalente:

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

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

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

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo la circolare n.7/2019 del C.S.LL.PP nelle combinazioni in SLC come previsto dal DM 17-01-2018. Per ogni combinazione è riportato il codice di verifica ed i valori utilizzati per la verifica: spostamento dE , area ridotta e dimensione A_2 , azione verticale, deformazioni di taglio dell'elastomero e tensioni nell'acciaio.

In particolare la tabella, per ogni combinazione di calcolo, riporta:

Nodo	Nodo di appoggio dell' isolatore
Cmb	Combinazione oggetto della verifica
Verif.	Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata
dE	Spostamento relativo tra le due facce combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta A_r (per dispositivi circolari)
V	Azione verticale agente
A_r	Area ridotta efficace
Dim A_2	Dimensione utile per il calcolo della deformazione per rotazione
Sig s	Tensione nell' inserto in acciaio
$\Gamma_{c(a,s,t)}$	Deformazioni di taglio dell' elastomero
V_{cr}	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 1) $V > 0$
- 2) $\text{Sig } s < f_{yk}$
- 3) $\Gamma_{ct} < 5$
- 4) $\Gamma_{cs} < \Gamma_{c} \cdot (\text{caratteristica dell' elastomero})$
- 5) $\Gamma_{cs} < 2$
- 6) $V < 0.5 V_{cr}$

CDC	Tipo	Sigla Id	Note
5	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: E
			fattore di sito S = 1.583

CDC	Tipo	Sigla Id	Note
			ordinata spettro (tratto Tb-Tc) = 0.400 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.153 sec.
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 3.102
			classe di duttilità CD: ND
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.0	-0.07	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X %	M efficace Y %	M efficace Z %	Energia	Energia x v			
	Hz	sec	g	x g	x g	x g					
				kN	kN	kN					
1	6.378	0.157	0.358	0.0	184.73	74.4	10.32	4.2	802.9	4014.3	
2	6.539	0.153	0.355	182.46	73.5	0.0	0.0	0.0	844.0	4220.0	
3	12.857	0.078	0.299	18.93	7.6	0.0	0.0	0.0	3262.7	1.631e+04	
4	16.319	0.061	0.287	0.0	0.0	33.12	13.3	177.56	71.5	5256.5	2.628e+04
5	18.495	0.054	0.282	0.0	0.0	12.74	5.1	38.60	15.5	6752.3	3.376e+04
6	26.306	0.038	0.270	30.84	12.4	0.0	0.0	0.0	0.0	1.366e+04	6.830e+04
7	27.628	0.036	0.268	0.0	0.0	1.35	0.5	0.09	3.62e-02	1.507e+04	7.533e+04
8	32.066	0.031	0.265	7.68	3.1	0.0	0.0	0.0	0.0	2.030e+04	1.015e+05
9	37.364	0.027	0.261	0.0	0.0	11.02	4.4	18.17	7.3	2.756e+04	1.378e+05
10	42.656	0.023	0.259	6.95	2.8	0.0	0.0	0.0	0.0	3.592e+04	1.796e+05
11	51.250	0.020	0.256	0.0	0.0	4.54	1.8	2.59	1.0	5.185e+04	2.592e+05
12	52.338	0.019	0.256	0.0	0.0	0.23	9.45e-02	0.25	9.95e-02	5.407e+04	2.704e+05
13	55.788	0.018	0.255	1.34	0.5	0.0	0.0	0.0	0.0	6.144e+04	3.072e+05
14	63.267	0.016	0.253	0.0	0.0	7.40e-03	2.98e-03	2.32e-03	9.35e-04	7.901e+04	3.951e+05
15	83.029	0.012	0.251	0.0	0.0	0.03	1.05e-02	0.55	0.2	1.361e+05	6.804e+05
16	91.108	0.011	0.250	0.04	1.57e-02	0.0	0.0	0.0	0.0	1.639e+05	8.193e+05
17	96.276	0.010	0.249	0.0	0.0	2.41e-04	9.70e-05	1.30e-03	5.24e-04	1.830e+05	9.148e+05
18	101.157	0.010	0.249	1.62e-04	6.52e-05	0.0	0.0	0.0	0.0	2.020e+05	1.010e+06
19	109.942	0.009	0.248	0.0	0.0	0.44	0.2	0.05	2.20e-02	2.386e+05	1.193e+06
20	110.100	0.009	0.248	1.52e-03	6.10e-04	0.0	0.0	0.0	0.0	2.393e+05	1.196e+06
21	122.474	0.008	0.248	1.13e-03	4.56e-04	0.0	0.0	0.0	0.0	2.961e+05	1.480e+06
22	137.400	0.007	0.247	8.72e-04	3.51e-04	0.0	0.0	0.0	0.0	3.727e+05	1.863e+06
23	153.435	0.007	0.246	0.01	5.73e-03	0.0	0.0	0.0	0.0	4.647e+05	2.324e+06
24	153.599	0.007	0.246	0.0	0.0	0.03	1.32e-02	9.36e-03	3.77e-03	4.657e+05	2.329e+06
25	158.285	0.006	0.246	0.0	0.0	2.98e-03	1.20e-03	1.13e-03	4.56e-04	4.945e+05	2.473e+06
26	159.521	0.006	0.246	0.0	0.0	6.00e-03	2.42e-03	0.03	1.33e-02	5.023e+05	2.512e+06
27	182.904	0.005	0.246	0.0	0.0	7.28e-05	2.93e-05	3.35e-04	1.35e-04	6.604e+05	3.302e+06
28	191.506	0.005	0.245	0.0	0.0	5.91e-04	2.38e-04	6.31e-04	2.54e-04	7.239e+05	3.620e+06

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
29	197.091	0.005	0.245	0.0	0.0	0.01	4.32e-03	1.86e-03	7.48e-04	7.668e+05	3.834e+06
30	201.258	0.005	0.245	0.0	0.0	4.46e-03	1.80e-03	7.37e-04	2.97e-04	7.995e+05	3.998e+06
31	213.766	0.005	0.245	2.21e-04	8.91e-05	0.0	0.0	0.0	0.0	9.020e+05	4.510e+06
32	218.933	0.005	0.245	0.0	0.0	1.38e-05	5.56e-06	0.0	0.0	9.461e+05	4.731e+06
33	233.796	0.004	0.245	0.0	0.0	5.72e-05	2.31e-05	0.02	7.00e-03	1.079e+06	5.395e+06
34	241.755	0.004	0.245	0.0	0.0	5.85e-06	2.35e-06	5.42e-04	2.18e-04	1.154e+06	5.768e+06
35	287.327	0.003	0.244	0.0	0.0	1.43e-03	5.74e-04	5.98e-03	2.41e-03	1.630e+06	8.148e+06
36	309.625	0.003	0.244	0.0	0.0	1.15e-04	4.63e-05	3.98e-05	1.60e-05	1.892e+06	9.462e+06
37	317.447	0.003	0.244	1.01e-03	4.08e-04	0.0	0.0	0.0	0.0	1.989e+06	9.946e+06
38	350.361	0.003	0.244	0.0	0.0	5.22e-04	2.10e-04	3.14e-04	1.26e-04	2.423e+06	1.212e+07
39	381.631	0.003	0.244	0.0	0.0	1.61e-03	6.50e-04	2.43e-03	9.80e-04	2.875e+06	1.437e+07
40	414.356	0.002	0.243	0.0	0.0	7.31e-04	2.95e-04	1.77e-04	7.12e-05	3.389e+06	1.695e+07
41	499.816	0.002	0.243	0.0	0.0	5.28e-04	2.13e-04	1.51e-03	6.09e-04	4.931e+06	2.466e+07
42	511.627	0.002	0.243	6.56e-04	2.64e-04	0.0	0.0	0.0	0.0	5.167e+06	2.583e+07
43	595.725	0.002	0.243	0.0	0.0	7.88e-04	3.17e-04	2.47e-04	9.95e-05	7.005e+06	3.503e+07
44	899.854	0.001	0.242	0.0	0.0	4.13e-05	1.66e-05	4.07e-04	1.64e-04	1.598e+07	7.992e+07
45	911.650	0.001	0.242	0.0	0.0	2.61e-04	1.05e-04	1.02e-05	4.12e-06	1.641e+07	8.203e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: E
			fattore di sito S = 1.583
			ordinata spettro (tratto Tb-Tc) = 0.400 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.154 sec.
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 3.088
			classe di duttilità CD: ND
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.0	0.07	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
1	6.378	0.157	0.358	0.0	0.0	184.73	74.4	10.32	4.2	802.9	4014.3
2	6.496	0.154	0.355	180.85	72.8	0.0	0.0	0.0	0.0	832.9	4164.3
3	12.744	0.078	0.300	20.61	8.3	0.0	0.0	0.0	0.0	3205.6	1.603e+04
4	16.319	0.061	0.287	0.0	0.0	33.12	13.3	177.56	71.5	5256.5	2.628e+04
5	18.495	0.054	0.282	0.0	0.0	12.74	5.1	38.60	15.5	6752.3	3.376e+04
6	26.299	0.038	0.270	30.80	12.4	0.0	0.0	0.0	0.0	1.365e+04	6.826e+04
7	27.628	0.036	0.268	0.0	0.0	1.35	0.5	0.09	3.62e-02	1.507e+04	7.533e+04
8	32.066	0.031	0.265	7.66	3.1	0.0	0.0	0.0	0.0	2.030e+04	1.015e+05
9	37.364	0.027	0.261	0.0	0.0	11.02	4.4	18.17	7.3	2.756e+04	1.378e+05
10	42.735	0.023	0.259	6.94	2.8	0.0	0.0	0.0	0.0	3.605e+04	1.802e+05
11	51.250	0.020	0.256	0.0	0.0	4.54	1.8	2.59	1.0	5.185e+04	2.592e+05
12	52.338	0.019	0.256	0.0	0.0	0.23	9.45e-02	0.25	9.95e-02	5.407e+04	2.704e+05
13	55.782	0.018	0.255	1.35	0.5	0.0	0.0	0.0	0.0	6.142e+04	3.071e+05
14	63.267	0.016	0.253	0.0	0.0	7.40e-03	2.98e-03	2.32e-03	9.35e-04	7.901e+04	3.951e+05
15	83.029	0.012	0.251	0.0	0.0	0.03	1.05e-02	0.55	0.2	1.361e+05	6.804e+05
16	90.923	0.011	0.250	0.04	1.56e-02	0.0	0.0	0.0	0.0	1.632e+05	8.159e+05
17	96.277	0.010	0.249	0.0	0.0	2.41e-04	9.71e-05	1.30e-03	5.24e-04	1.830e+05	9.148e+05
18	101.149	0.010	0.249	1.55e-04	6.25e-05	0.0	0.0	0.0	0.0	2.020e+05	1.010e+06
19	109.774	0.009	0.248	1.45e-03	5.85e-04	0.0	0.0	0.0	0.0	2.379e+05	1.189e+06
20	109.942	0.009	0.248	0.0	0.0	0.44	0.2	0.05	2.20e-02	2.386e+05	1.193e+06
21	120.044	0.008	0.248	1.18e-03	4.77e-04	0.0	0.0	0.0	0.0	2.845e+05	1.422e+06
22	146.143	0.007	0.247	2.10e-03	8.45e-04	0.0	0.0	0.0	0.0	4.216e+05	2.108e+06
23	153.601	0.007	0.246	0.0	0.0	0.03	1.32e-02	9.35e-03	3.77e-03	4.657e+05	2.329e+06
24	153.915	0.006	0.246	0.01	5.20e-03	0.0	0.0	0.0	0.0	4.676e+05	2.338e+06
25	158.283	0.006	0.246	0.0	0.0	2.95e-03	1.19e-03	1.11e-03	4.46e-04	4.945e+05	2.473e+06
26	159.520	0.006	0.246	0.0	0.0	6.02e-03	2.42e-03	0.03	1.33e-02	5.023e+05	2.511e+06
27	182.913	0.005	0.246	0.0	0.0	7.49e-05	3.02e-05	3.32e-04	1.34e-04	6.604e+05	3.302e+06
28	191.461	0.005	0.245	0.0	0.0	5.91e-04	2.38e-04	6.30e-04	2.54e-04	7.236e+05	3.618e+06
29	197.107	0.005	0.245	0.0	0.0	0.01	4.25e-03	1.82e-03	7.32e-04	7.669e+05	3.834e+06
30	201.130	0.005	0.245	0.0	0.0	4.64e-03	1.87e-03	7.76e-04	3.12e-04	7.985e+05	3.993e+06
31	219.856	0.005	0.245	2.33e-04	9.37e-05	0.0	0.0	0.0	0.0	9.541e+05	4.771e+06
32	220.455	0.005	0.245	0.0	0.0	1.19e-05	4.81e-06	0.0	0.0	9.593e+05	4.797e+06
33	233.808	0.004	0.245	0.0	0.0	5.80e-05	2.34e-05	0.02	7.02e-03	1.079e+06	5.395e+06
34	241.989	0.004	0.245	0.0	0.0	5.29e-06	2.13e-06	5.06e-04	2.04e-04	1.156e+06	5.780e+06
35	287.349	0.003	0.244	0.0	0.0	1.43e-03	5.77e-04	5.97e-03	2.40e-03	1.630e+06	8.149e+06
36	313.017	0.003	0.244	0.0	0.0	1.05e-04	4.25e-05	4.97e-05	2.00e-05	1.934e+06	9.670e+06
37	321.858	0.003	0.244	1.01e-03	4.08e-04	0.0	0.0	0.0	0.0	2.045e+06	1.022e+07
38	351.241	0.003	0.244	0.0	0.0	5.54e-04	2.23e-04	3.03e-04	1.22e-04	2.435e+06	1.218e+07
39	381.643	0.003	0.244	0.0	0.0	1.58e-03	6.37e-04	2.45e-03	9.87e-04	2.875e+06	1.438e+07
40	415.521	0.002	0.243	0.0	0.0	7.39e-04	2.98e-04	1.57e-04	6.34e-05	3.408e+06	1.704e+07
41	499.767	0.002	0.243	0.0	0.0	5.19e-04	2.09e-04	1.52e-03	6.13e-04	4.930e+06	2.465e+07
42	517.772	0.002	0.243	6.30e-04	2.54e-04	0.0	0.0	0.0	0.0	5.292e+06	2.646e+07
43	596.175	0.002	0.243	0.0	0.0	7.91e-04	3.19e-04	2.42e-04	9.75e-05	7.016e+06	3.508e+07
44	899.391	0.001	0.242	0.0	0.0	3.26e-05	1.31e-05	4.13e-04	1.66e-04	1.597e+07	7.984e+07
45	912.970	0.001	0.242	0.0	0.0	2.67e-04	1.08e-04	5.42e-06	2.18e-06	1.645e+07	8.226e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: E
			fattore di sito S = 1.583
			ordinata spettro (tratto Tb-Tc) = 0.400 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.158 sec.
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 3.040
			classe di duttilità CD: ND
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.15	0.0	0.0	0.0	0.0	0.0	0.0

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
2.54	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.345	0.158	0.358	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.355	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6
3	12.841	0.078	0.299	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.287	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.282	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.270	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.268	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.265	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.261	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.259	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.256	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.256	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.255	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.253	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.251	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.250	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.249	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.249	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06
19	105.404	0.009	0.249	8.73e-04	3.51e-04	0.28	0.1	0.01	4.82e-03	2.193e+05	1.097e+06
20	110.572	0.009	0.248	2.51e-04	1.01e-04	0.04	1.72e-02	6.63e-03	2.67e-03	2.413e+05	1.207e+06
21	114.530	0.009	0.248	7.35e-04	2.96e-04	0.14	5.55e-02	0.03	1.37e-02	2.589e+05	1.295e+06
22	123.118	0.008	0.248	1.27e-03	5.10e-04	1.91e-03	7.70e-04	2.97e-06	1.19e-06	2.992e+05	1.496e+06
23	139.083	0.007	0.247	1.31e-05	5.28e-06	3.60e-06	1.45e-06	3.21e-06	1.29e-06	3.818e+05	1.909e+06
24	150.692	0.007	0.247	9.30e-03	3.75e-03	0.01	5.71e-03	3.13e-03	1.26e-03	4.482e+05	2.241e+06
25	155.364	0.006	0.246	3.89e-03	1.57e-03	0.02	8.26e-03	6.94e-03	2.80e-03	4.765e+05	2.382e+06
26	158.673	0.006	0.246	2.95e-04	1.19e-04	2.59e-03	1.04e-03	2.94e-03	1.18e-03	4.970e+05	2.485e+06
27	159.515	0.006	0.246	2.73e-04	1.10e-04	5.79e-03	2.33e-03	0.03	1.22e-02	5.023e+05	2.511e+06
28	163.704	0.006	0.246	1.12e-03	4.51e-04	4.60e-05	1.85e-05	8.84e-04	3.56e-04	5.290e+05	2.645e+06
29	184.707	0.005	0.246	1.12e-06	0.0	1.70e-04	6.84e-05	6.43e-04	2.59e-04	6.734e+05	3.367e+06
30	194.051	0.005	0.245	1.07e-05	4.32e-06	1.39e-03	5.61e-04	2.42e-04	9.75e-05	7.433e+05	3.716e+06
31	197.399	0.005	0.245	0.0	0.0	5.71e-03	2.30e-03	1.31e-03	5.27e-04	7.692e+05	3.846e+06
32	200.300	0.005	0.245	3.21e-06	1.29e-06	7.68e-03	3.09e-03	1.27e-03	5.11e-04	7.919e+05	3.960e+06
33	228.524	0.004	0.245	3.60e-05	1.45e-05	0.0	0.0	0.02	6.11e-03	1.031e+06	5.154e+06
34	252.579	0.004	0.245	1.61e-04	6.48e-05	1.34e-04	5.40e-05	3.03e-03	1.22e-03	1.259e+06	6.296e+06
35	272.068	0.004	0.244	8.17e-06	3.29e-06	1.02e-03	4.13e-04	2.27e-03	9.15e-04	1.461e+06	7.306e+06
36	274.299	0.004	0.244	2.34e-04	9.41e-05	7.67e-04	3.09e-04	6.03e-05	2.43e-05	1.485e+06	7.426e+06
37	316.014	0.003	0.244	1.76e-06	0.0	4.50e-04	1.81e-04	3.69e-03	1.48e-03	1.971e+06	9.856e+06
38	345.754	0.003	0.244	6.91e-04	2.78e-04	6.17e-05	2.49e-05	5.04e-05	2.03e-05	2.360e+06	1.180e+07
39	362.425	0.003	0.244	1.25e-05	5.02e-06	1.94e-03	7.81e-04	1.20e-03	4.85e-04	2.593e+06	1.296e+07
40	428.111	0.002	0.243	2.17e-04	8.73e-05	1.27e-05	5.10e-06	1.44e-03	5.80e-04	3.618e+06	1.809e+07
41	452.719	0.002	0.243	1.85e-04	7.45e-05	6.35e-04	2.56e-04	7.16e-05	2.88e-05	4.046e+06	2.023e+07
42	467.305	0.002	0.243	6.65e-05	2.68e-05	9.72e-04	3.92e-04	1.12e-03	4.53e-04	4.311e+06	2.155e+07
43	694.059	0.001	0.243	1.28e-06	0.0	6.18e-04	2.49e-04	3.00e-04	1.21e-04	9.509e+06	4.754e+07
44	753.626	0.001	0.243	1.27e-04	5.14e-05	8.51e-05	3.43e-05	2.90e-04	1.17e-04	1.121e+07	5.605e+07
45	799.812	0.001	0.243	1.03e-04	4.14e-05	1.23e-04	4.95e-05	2.01e-04	8.11e-05	1.263e+07	6.314e+07
Risulta				248.27		248.27		248.27			

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: E
			fattore di sito S = 1.583
			ordinata spettro (tratto Tb-Tc) = 0.400 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.158 sec.
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 3.040
			classe di duttilità CD: ND
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.345	0.158	0.358	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.355	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6
3	12.841	0.078	0.299	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.287	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.282	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.270	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.268	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.265	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.261	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.259	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.256	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.256	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.255	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.253	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.251	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.250	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.249	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.249	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
2.54	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.378	0.157	0.217	0.0	0.0	184.73	74.4	10.32	4.2	802.9	4014.3
2	6.496	0.154	0.215	180.85	72.8	0.0	0.0	0.0	0.0	832.9	4164.3
3	12.744	0.078	0.160	20.61	8.3	0.0	0.0	0.0	0.0	3205.6	1.603e+04
4	16.319	0.061	0.148	0.0	0.0	33.12	13.3	177.56	71.5	5256.5	2.628e+04
5	18.495	0.054	0.142	0.0	0.0	12.74	5.1	38.60	15.5	6752.3	3.376e+04
6	26.299	0.038	0.131	30.80	12.4	0.0	0.0	0.0	0.0	1.365e+04	6.826e+04
7	27.628	0.036	0.129	0.0	0.0	1.35	0.5	0.09	3.62e-02	1.507e+04	7.533e+04
8	32.066	0.031	0.126	7.66	3.1	0.0	0.0	0.0	0.0	2.030e+04	1.015e+05
9	37.364	0.027	0.122	0.0	0.0	11.02	4.4	18.17	7.3	2.756e+04	1.378e+05
10	42.735	0.023	0.120	6.94	2.8	0.0	0.0	0.0	0.0	3.605e+04	1.802e+05
11	51.250	0.020	0.117	0.0	0.0	4.54	1.8	2.59	1.0	5.185e+04	2.592e+05
12	52.338	0.019	0.117	0.0	0.0	0.23	9.45e-02	0.25	9.95e-02	5.407e+04	2.704e+05
13	55.782	0.018	0.116	1.35	0.5	0.0	0.0	0.0	0.0	6.142e+04	3.071e+05
14	63.267	0.016	0.115	0.0	0.0	7.40e-03	2.98e-03	2.32e-03	9.35e-04	7.901e+04	3.951e+05
15	83.029	0.012	0.112	0.0	0.0	0.03	1.05e-02	0.55	0.2	1.361e+05	6.804e+05
16	90.923	0.011	0.111	0.04	1.56e-02	0.0	0.0	0.0	0.0	1.632e+05	8.159e+05
17	96.277	0.010	0.111	0.0	0.0	2.41e-04	9.71e-05	1.30e-03	5.24e-04	1.830e+05	9.148e+05
18	101.149	0.010	0.110	1.55e-04	6.25e-05	0.0	0.0	0.0	0.0	2.020e+05	1.010e+06
19	109.774	0.009	0.110	1.45e-03	5.85e-04	0.0	0.0	0.0	0.0	2.379e+05	1.189e+06
20	109.942	0.009	0.110	0.0	0.0	0.44	0.2	0.05	2.20e-02	2.386e+05	1.193e+06
21	120.044	0.008	0.109	1.18e-03	4.77e-04	0.0	0.0	0.0	0.0	2.845e+05	1.422e+06
22	146.143	0.007	0.108	2.10e-03	8.45e-04	0.0	0.0	0.0	0.0	4.216e+05	2.108e+06
23	153.601	0.007	0.108	0.0	0.0	0.03	1.32e-02	9.35e-03	3.77e-03	4.657e+05	2.329e+06
24	153.915	0.006	0.108	0.01	5.20e-03	0.0	0.0	0.0	0.0	4.676e+05	2.338e+06
25	158.283	0.006	0.108	0.0	0.0	2.95e-03	1.19e-03	1.11e-03	4.46e-04	4.945e+05	2.473e+06
26	159.520	0.006	0.108	0.0	0.0	6.02e-03	2.42e-03	0.03	1.33e-02	5.023e+05	2.511e+06
27	182.913	0.005	0.107	0.0	0.0	7.49e-05	3.02e-05	3.32e-04	1.34e-04	6.604e+05	3.302e+06
28	191.461	0.005	0.107	0.0	0.0	5.91e-04	2.38e-04	6.30e-04	2.54e-04	7.236e+05	3.618e+06
29	197.107	0.005	0.107	0.0	0.0	0.01	4.25e-03	1.82e-03	7.32e-04	7.669e+05	3.834e+06
30	201.130	0.005	0.107	0.0	0.0	4.64e-03	1.87e-03	7.76e-04	3.12e-04	7.985e+05	3.993e+06
31	219.856	0.005	0.106	2.33e-04	9.37e-05	0.0	0.0	0.0	0.0	9.541e+05	4.771e+06
32	220.455	0.005	0.106	0.0	0.0	1.19e-05	4.81e-06	0.0	0.0	9.593e+05	4.797e+06
33	233.808	0.004	0.106	0.0	0.0	5.80e-05	2.34e-05	0.02	7.02e-03	1.079e+06	5.395e+06
34	241.989	0.004	0.106	0.0	0.0	5.29e-06	2.13e-06	5.06e-04	2.04e-04	1.156e+06	5.780e+06
35	287.349	0.003	0.106	0.0	0.0	1.43e-03	5.77e-04	5.97e-03	2.40e-03	1.630e+06	8.149e+06
36	313.017	0.003	0.105	0.0	0.0	1.05e-04	4.25e-05	4.97e-05	2.00e-05	1.934e+06	9.670e+06
37	321.858	0.003	0.105	1.01e-03	4.08e-04	0.0	0.0	0.0	0.0	2.045e+06	1.022e+07
38	351.241	0.003	0.105	0.0	0.0	5.54e-04	2.23e-04	3.03e-04	1.22e-04	2.435e+06	1.218e+07
39	381.643	0.003	0.105	0.0	0.0	1.58e-03	6.37e-04	2.45e-03	9.87e-04	2.875e+06	1.438e+07
40	415.521	0.002	0.105	0.0	0.0	7.39e-04	2.98e-04	1.57e-04	6.34e-05	3.408e+06	1.704e+07
41	499.767	0.002	0.104	0.0	0.0	5.19e-04	2.09e-04	1.52e-03	6.13e-04	4.930e+06	2.465e+07
42	517.772	0.002	0.104	6.30e-04	2.54e-04	0.0	0.0	0.0	0.0	5.292e+06	2.646e+07
43	596.175	0.002	0.104	0.0	0.0	7.91e-04	3.19e-04	2.42e-04	9.75e-05	7.016e+06	3.508e+07
44	899.391	0.001	0.104	0.0	0.0	3.26e-05	1.31e-05	4.13e-04	1.66e-04	1.597e+07	7.984e+07
45	912.970	0.001	0.104	0.0	0.0	2.67e-04	1.08e-04	5.42e-06	2.18e-06	1.645e+07	8.226e+07
Risulta				248.27		248.27		248.27			

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X % x g	M efficace Y % x g	M efficace Z % x g	Energia	Energia x v
In percentuale				100.00	100.00	100.00		

CDC	Tipo	Sigla Id	Note
11	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.247 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.158 sec.
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X % x g	M efficace Y % x g	M efficace Z % x g	Energia	Energia x v			
	Hz	sec	g	kN	kN	kN					
1	6.345	0.158	0.217	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.214	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6
3	12.841	0.078	0.160	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.147	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.142	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.131	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.129	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.126	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.122	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.120	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.117	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.117	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.116	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.115	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.112	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.111	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.111	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.110	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06
19	105.404	0.009	0.110	8.73e-04	3.51e-04	0.28	0.1	0.01	4.82e-03	2.193e+05	1.097e+06
20	110.572	0.009	0.110	2.51e-04	1.01e-04	0.04	1.72e-02	6.63e-03	2.67e-03	2.413e+05	1.207e+06
21	114.530	0.009	0.109	7.35e-04	2.96e-04	0.14	5.55e-02	0.03	1.37e-02	2.589e+05	1.295e+06
22	123.118	0.008	0.109	1.27e-03	5.10e-04	1.91e-03	7.70e-04	2.97e-06	1.19e-06	2.992e+05	1.496e+06

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.345	0.158	0.217	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.214	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6
3	12.841	0.078	0.160	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.147	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.142	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.131	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.129	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.126	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.122	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.120	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.117	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.117	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.116	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.115	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.112	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.111	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.111	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.110	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06
19	105.404	0.009	0.110	8.73e-04	3.51e-04	0.28	0.1	0.01	4.82e-03	2.193e+05	1.097e+06
20	110.572	0.009	0.110	2.51e-04	1.01e-04	0.04	1.72e-02	6.63e-03	2.67e-03	2.413e+05	1.207e+06
21	114.530	0.009	0.109	7.35e-04	2.96e-04	0.14	5.55e-02	0.03	1.37e-02	2.589e+05	1.295e+06
22	123.118	0.008	0.109	1.27e-03	5.10e-04	1.91e-03	7.70e-04	2.97e-06	1.19e-06	2.992e+05	1.496e+06
23	139.083	0.007	0.108	1.31e-05	5.28e-06	3.60e-06	1.45e-06	3.21e-06	1.29e-06	3.818e+05	1.909e+06
24	150.692	0.007	0.108	9.30e-03	3.75e-03	0.01	5.71e-03	3.13e-03	1.26e-03	4.482e+05	2.241e+06
25	155.364	0.006	0.108	3.89e-03	1.57e-03	0.02	8.26e-03	6.94e-03	2.80e-03	4.765e+05	2.382e+06
26	158.673	0.006	0.108	2.95e-04	1.19e-04	2.59e-03	1.04e-03	2.94e-03	1.18e-03	4.970e+05	2.485e+06
27	159.515	0.006	0.108	2.73e-04	1.10e-04	5.79e-03	2.33e-03	0.03	1.22e-02	5.023e+05	2.511e+06
28	163.704	0.006	0.107	1.12e-03	4.51e-04	4.60e-05	1.85e-05	8.84e-04	3.56e-04	5.290e+05	2.645e+06
29	184.707	0.005	0.107	1.12e-06	0.0	1.70e-04	6.84e-05	6.43e-04	2.59e-04	6.734e+05	3.367e+06
30	194.051	0.005	0.107	1.07e-05	4.32e-06	1.39e-03	5.61e-04	2.42e-04	9.75e-05	7.433e+05	3.716e+06
31	197.399	0.005	0.107	0.0	0.0	5.71e-03	2.30e-03	1.31e-03	5.27e-04	7.692e+05	3.846e+06
32	200.300	0.005	0.107	3.21e-06	1.29e-06	7.68e-03	3.09e-03	1.27e-03	5.11e-04	7.919e+05	3.960e+06
33	228.524	0.004	0.106	3.60e-05	1.45e-05	0.0	0.0	0.02	6.11e-03	1.031e+06	5.154e+06
34	252.579	0.004	0.106	1.61e-04	6.48e-05	1.34e-04	5.40e-05	3.03e-03	1.22e-03	1.259e+06	6.296e+06
35	272.068	0.004	0.106	8.17e-06	3.29e-06	1.02e-03	4.13e-04	2.27e-03	9.15e-04	1.461e+06	7.306e+06
36	274.299	0.004	0.106	2.34e-04	9.41e-05	7.67e-04	3.09e-04	6.03e-05	2.43e-05	1.485e+06	7.426e+06
37	316.014	0.003	0.105	1.76e-06	0.0	4.50e-04	1.81e-04	3.69e-03	1.48e-03	1.971e+06	9.856e+06
38	345.754	0.003	0.105	6.91e-04	2.78e-04	6.17e-05	2.49e-05	5.04e-05	2.03e-05	2.360e+06	1.180e+07
39	362.425	0.003	0.105	1.25e-05	5.02e-06	1.94e-03	7.81e-04	1.20e-03	4.85e-04	2.593e+06	1.296e+07
40	428.111	0.002	0.105	2.17e-04	8.73e-05	1.27e-05	5.10e-06	1.44e-03	5.80e-04	3.618e+06	1.809e+07
41	452.719	0.002	0.105	1.85e-04	7.45e-05	6.35e-04	2.56e-04	7.16e-05	2.88e-05	4.046e+06	2.023e+07
42	467.305	0.002	0.105	6.65e-05	2.68e-05	9.72e-04	3.92e-04	1.12e-03	4.53e-04	4.311e+06	2.155e+07
43	694.059	0.001	0.104	1.28e-06	0.0	6.18e-04	2.49e-04	3.00e-04	1.21e-04	9.509e+06	4.754e+07
44	753.626	0.001	0.104	1.27e-04	5.14e-05	8.51e-05	3.43e-05	2.90e-04	1.17e-04	1.121e+07	5.605e+07
45	799.812	0.001	0.104	1.03e-04	4.14e-05	1.23e-04	4.95e-05	2.01e-04	8.11e-05	1.263e+07	6.314e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
14	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.192 g
			angolo di ingresso: 0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.153 sec.
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.0	-0.07	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
2.18	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X %	M efficace Y %	M efficace Z %	Energia	Energia x v			
	Hz	sec	g	x g	x g	x g					
				kN	kN	kN					
1	6.378	0.157	0.172	0.0	184.73	74.4	10.32	4.2	802.9	4014.3	
2	6.539	0.153	0.170	182.46	73.5	0.0	0.0	0.0	844.0	4220.0	
3	12.857	0.078	0.126	18.93	7.6	0.0	0.0	0.0	3262.7	1.631e+04	
4	16.319	0.061	0.117	0.0	0.0	33.12	13.3	177.56	71.5	5256.5	2.628e+04
5	18.495	0.054	0.113	0.0	0.0	12.74	5.1	38.60	15.5	6752.3	3.376e+04
6	26.306	0.038	0.103	30.84	12.4	0.0	0.0	0.0	0.0	1.366e+04	6.830e+04
7	27.628	0.036	0.102	0.0	0.0	1.35	0.5	0.09	3.62e-02	1.507e+04	7.533e+04
8	32.066	0.031	0.099	7.68	3.1	0.0	0.0	0.0	0.0	2.030e+04	1.015e+05
9	37.364	0.027	0.097	0.0	0.0	11.02	4.4	18.17	7.3	2.756e+04	1.378e+05
10	42.656	0.023	0.095	6.95	2.8	0.0	0.0	0.0	0.0	3.592e+04	1.796e+05
11	51.250	0.020	0.093	0.0	0.0	4.54	1.8	2.59	1.0	5.185e+04	2.592e+05
12	52.338	0.019	0.092	0.0	0.0	0.23	9.45e-02	0.25	9.95e-02	5.407e+04	2.704e+05
13	55.788	0.018	0.092	1.34	0.5	0.0	0.0	0.0	0.0	6.144e+04	3.072e+05
14	63.267	0.016	0.091	0.0	0.0	7.40e-03	2.98e-03	2.32e-03	9.35e-04	7.901e+04	3.951e+05
15	83.029	0.012	0.088	0.0	0.0	0.03	1.05e-02	0.55	0.2	1.361e+05	6.804e+05
16	91.108	0.011	0.088	0.04	1.57e-02	0.0	0.0	0.0	0.0	1.639e+05	8.193e+05
17	96.276	0.010	0.087	0.0	0.0	2.41e-04	9.70e-05	1.30e-03	5.24e-04	1.830e+05	9.148e+05
18	101.157	0.010	0.087	1.62e-04	6.52e-05	0.0	0.0	0.0	0.0	2.020e+05	1.010e+06
19	109.942	0.009	0.087	0.0	0.0	0.44	0.2	0.05	2.20e-02	2.386e+05	1.193e+06
20	110.100	0.009	0.087	1.52e-03	6.10e-04	0.0	0.0	0.0	0.0	2.393e+05	1.196e+06
21	122.474	0.008	0.086	1.13e-03	4.56e-04	0.0	0.0	0.0	0.0	2.961e+05	1.480e+06
22	137.400	0.007	0.086	8.72e-04	3.51e-04	0.0	0.0	0.0	0.0	3.727e+05	1.863e+06
23	153.435	0.007	0.085	0.01	5.73e-03	0.0	0.0	0.0	0.0	4.647e+05	2.324e+06
24	153.599	0.007	0.085	0.0	0.0	0.03	1.32e-02	9.36e-03	3.77e-03	4.657e+05	2.329e+06
25	158.285	0.006	0.085	0.0	0.0	2.98e-03	1.20e-03	1.13e-03	4.56e-04	4.945e+05	2.473e+06
26	159.521	0.006	0.085	0.0	0.0	6.00e-03	2.42e-03	0.03	1.33e-02	5.023e+05	2.512e+06
27	182.904	0.005	0.085	0.0	0.0	7.28e-05	2.93e-05	3.35e-04	1.35e-04	6.604e+05	3.302e+06
28	191.506	0.005	0.084	0.0	0.0	5.91e-04	2.38e-04	6.31e-04	2.54e-04	7.239e+05	3.620e+06
29	197.091	0.005	0.084	0.0	0.0	0.01	4.32e-03	1.86e-03	7.48e-04	7.668e+05	3.834e+06
30	201.258	0.005	0.084	0.0	0.0	4.46e-03	1.80e-03	7.37e-04	2.97e-04	7.995e+05	3.998e+06
31	213.766	0.005	0.084	2.21e-04	8.91e-05	0.0	0.0	0.0	0.0	9.020e+05	4.510e+06
32	218.933	0.005	0.084	0.0	0.0	1.38e-05	5.56e-06	0.0	0.0	9.461e+05	4.731e+06
33	233.796	0.004	0.084	0.0	0.0	5.72e-05	2.31e-05	0.02	7.00e-03	1.079e+06	5.395e+06
34	241.755	0.004	0.084	0.0	0.0	5.85e-06	2.35e-06	5.42e-04	2.18e-04	1.154e+06	5.768e+06
35	287.327	0.003	0.083	0.0	0.0	1.43e-03	5.74e-04	5.98e-03	2.41e-03	1.630e+06	8.148e+06
36	309.625	0.003	0.083	0.0	0.0	1.15e-04	4.63e-05	3.98e-05	1.60e-05	1.892e+06	9.462e+06
37	317.447	0.003	0.083	1.01e-03	4.08e-04	0.0	0.0	0.0	0.0	1.989e+06	9.946e+06
38	350.361	0.003	0.083	0.0	0.0	5.22e-04	2.10e-04	3.14e-04	1.26e-04	2.423e+06	1.212e+07
39	381.631	0.003	0.083	0.0	0.0	1.61e-03	6.50e-04	2.43e-03	9.80e-04	2.875e+06	1.437e+07
40	414.356	0.002	0.083	0.0	0.0	7.31e-04	2.95e-04	1.77e-04	7.12e-05	3.389e+06	1.695e+07
41	499.816	0.002	0.083	0.0	0.0	5.28e-04	2.13e-04	1.51e-03	6.09e-04	4.931e+06	2.466e+07
42	511.627	0.002	0.083	6.56e-04	2.64e-04	0.0	0.0	0.0	0.0	5.167e+06	2.583e+07
43	595.725	0.002	0.082	0.0	0.0	7.88e-04	3.17e-04	2.47e-04	9.95e-05	7.005e+06	3.503e+07
44	899.854	0.001	0.082	0.0	0.0	4.13e-05	1.66e-05	4.07e-04	1.64e-04	1.598e+07	7.992e+07
45	911.650	0.001	0.082	0.0	0.0	2.61e-04	1.05e-04	1.02e-05	4.12e-06	1.641e+07	8.203e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
15	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.192 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.154 sec.
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.0	0.07	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.378	0.157	0.172	0.0	0.0	184.73	74.4	10.32	4.2	802.9	4014.3
2	6.496	0.154	0.170	180.85	72.8	0.0	0.0	0.0	0.0	832.9	4164.3
3	12.744	0.078	0.127	20.61	8.3	0.0	0.0	0.0	0.0	3205.6	1.603e+04
4	16.319	0.061	0.117	0.0	0.0	33.12	13.3	177.56	71.5	5256.5	2.628e+04
5	18.495	0.054	0.113	0.0	0.0	12.74	5.1	38.60	15.5	6752.3	3.376e+04
6	26.299	0.038	0.103	30.80	12.4	0.0	0.0	0.0	0.0	1.365e+04	6.826e+04
7	27.628	0.036	0.102	0.0	0.0	1.35	0.5	0.09	3.62e-02	1.507e+04	7.533e+04
8	32.066	0.031	0.099	7.66	3.1	0.0	0.0	0.0	0.0	2.030e+04	1.015e+05
9	37.364	0.027	0.097	0.0	0.0	11.02	4.4	18.17	7.3	2.756e+04	1.378e+05
10	42.735	0.023	0.095	6.94	2.8	0.0	0.0	0.0	0.0	3.605e+04	1.802e+05
11	51.250	0.020	0.093	0.0	0.0	4.54	1.8	2.59	1.0	5.185e+04	2.592e+05
12	52.338	0.019	0.092	0.0	0.0	0.23	9.45e-02	0.25	9.95e-02	5.407e+04	2.704e+05
13	55.782	0.018	0.092	1.35	0.5	0.0	0.0	0.0	0.0	6.142e+04	3.071e+05
14	63.267	0.016	0.091	0.0	0.0	7.40e-03	2.98e-03	2.32e-03	9.35e-04	7.901e+04	3.951e+05
15	83.029	0.012	0.088	0.0	0.0	0.03	1.05e-02	0.55	0.2	1.361e+05	6.804e+05
16	90.923	0.011	0.088	0.04	1.56e-02	0.0	0.0	0.0	0.0	1.632e+05	8.159e+05
17	96.277	0.010	0.087	0.0	0.0	2.41e-04	9.71e-05	1.30e-03	5.24e-04	1.830e+05	9.148e+05
18	101.149	0.010	0.087	1.55e-04	6.25e-05	0.0	0.0	0.0	0.0	2.020e+05	1.010e+06
19	109.774	0.009	0.087	1.45e-03	5.85e-04	0.0	0.0	0.0	0.0	2.379e+05	1.189e+06
20	109.942	0.009	0.087	0.0	0.0	0.44	0.2	0.05	2.20e-02	2.386e+05	1.193e+06
21	120.044	0.008	0.086	1.18e-03	4.77e-04	0.0	0.0	0.0	0.0	2.845e+05	1.422e+06
22	146.143	0.007	0.085	2.10e-03	8.45e-04	0.0	0.0	0.0	0.0	4.216e+05	2.108e+06
23	153.601	0.007	0.085	0.0	0.0	0.03	1.32e-02	9.35e-03	3.77e-03	4.657e+05	2.329e+06
24	153.915	0.006	0.085	0.01	5.20e-03	0.0	0.0	0.0	0.0	4.676e+05	2.338e+06
25	158.283	0.006	0.085	0.0	0.0	2.95e-03	1.19e-03	1.11e-03	4.46e-04	4.945e+05	2.473e+06
26	159.520	0.006	0.085	0.0	0.0	6.02e-03	2.42e-03	0.03	1.33e-02	5.023e+05	2.511e+06

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
27	182.913	0.005	0.085	0.0	0.0	7.49e-05	3.02e-05	3.32e-04	1.34e-04	6.604e+05	3.302e+06
28	191.461	0.005	0.084	0.0	0.0	5.91e-04	2.38e-04	6.30e-04	2.54e-04	7.236e+05	3.618e+06
29	197.107	0.005	0.084	0.0	0.0	0.01	4.25e-03	1.82e-03	7.32e-04	7.669e+05	3.834e+06
30	201.130	0.005	0.084	0.0	0.0	4.64e-03	1.87e-03	7.76e-04	3.12e-04	7.985e+05	3.993e+06
31	219.856	0.005	0.084	2.33e-04	9.37e-05	0.0	0.0	0.0	0.0	9.541e+05	4.771e+06
32	220.455	0.005	0.084	0.0	0.0	1.19e-05	4.81e-06	0.0	0.0	9.593e+05	4.797e+06
33	233.808	0.004	0.084	0.0	0.0	5.80e-05	2.34e-05	0.02	7.02e-03	1.079e+06	5.395e+06
34	241.989	0.004	0.084	0.0	0.0	5.29e-06	2.13e-06	5.06e-04	2.04e-04	1.156e+06	5.780e+06
35	287.349	0.003	0.083	0.0	0.0	1.43e-03	5.77e-04	5.97e-03	2.40e-03	1.630e+06	8.149e+06
36	313.017	0.003	0.083	0.0	0.0	1.05e-04	4.25e-05	4.97e-05	2.00e-05	1.934e+06	9.670e+06
37	321.858	0.003	0.083	1.01e-03	4.08e-04	0.0	0.0	0.0	0.0	2.045e+06	1.022e+07
38	351.241	0.003	0.083	0.0	0.0	5.54e-04	2.23e-04	3.03e-04	1.22e-04	2.435e+06	1.218e+07
39	381.643	0.003	0.083	0.0	0.0	1.58e-03	6.37e-04	2.45e-03	9.87e-04	2.875e+06	1.438e+07
40	415.521	0.002	0.083	0.0	0.0	7.39e-04	2.98e-04	1.57e-04	6.34e-05	3.408e+06	1.704e+07
41	499.767	0.002	0.083	0.0	0.0	5.19e-04	2.09e-04	1.52e-03	6.13e-04	4.930e+06	2.465e+07
42	517.772	0.002	0.083	6.30e-04	2.54e-04	0.0	0.0	0.0	0.0	5.292e+06	2.646e+07
43	596.175	0.002	0.082	0.0	0.0	7.91e-04	3.19e-04	2.42e-04	9.75e-05	7.016e+06	3.508e+07
44	899.391	0.001	0.082	0.0	0.0	3.26e-05	1.31e-05	4.13e-04	1.66e-04	1.597e+07	7.984e+07
45	912.970	0.001	0.082	0.0	0.0	2.67e-04	1.08e-04	5.42e-06	2.18e-06	1.645e+07	8.226e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
16	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.192 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.158 sec.
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.81	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	0.15	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.345	0.158	0.173	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.170	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
3	12.841	0.078	0.126	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.117	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.113	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.103	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.102	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.099	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.097	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.095	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.093	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.092	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.092	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.091	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.088	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.088	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.087	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.087	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06
19	105.404	0.009	0.087	8.73e-04	3.51e-04	0.28	0.1	0.01	4.82e-03	2.193e+05	1.097e+06
20	110.572	0.009	0.087	2.51e-04	1.01e-04	0.04	1.72e-02	6.63e-03	2.67e-03	2.413e+05	1.207e+06
21	114.530	0.009	0.086	7.35e-04	2.96e-04	0.14	5.55e-02	0.03	1.37e-02	2.589e+05	1.295e+06
22	123.118	0.008	0.086	1.27e-03	5.10e-04	1.91e-03	7.70e-04	2.97e-06	1.19e-06	2.992e+05	1.496e+06
23	139.083	0.007	0.086	1.31e-05	5.28e-06	3.60e-06	1.45e-06	3.21e-06	1.29e-06	3.818e+05	1.909e+06
24	150.692	0.007	0.085	9.30e-03	3.75e-03	0.01	5.71e-03	3.13e-03	1.26e-03	4.482e+05	2.241e+06
25	155.364	0.006	0.085	3.89e-03	1.57e-03	0.02	8.26e-03	6.94e-03	2.80e-03	4.765e+05	2.382e+06
26	158.673	0.006	0.085	2.95e-04	1.19e-04	2.59e-03	1.04e-03	2.94e-03	1.18e-03	4.970e+05	2.485e+06
27	159.515	0.006	0.085	2.73e-04	1.10e-04	5.79e-03	2.33e-03	0.03	1.22e-02	5.023e+05	2.511e+06
28	163.704	0.006	0.085	1.12e-03	4.51e-04	4.60e-05	1.85e-05	8.84e-04	3.56e-04	5.290e+05	2.645e+06
29	184.707	0.005	0.085	1.12e-06	0.0	1.70e-04	6.84e-05	6.43e-04	2.59e-04	6.734e+05	3.367e+06
30	194.051	0.005	0.084	1.07e-05	4.32e-06	1.39e-03	5.61e-04	2.42e-04	9.75e-05	7.433e+05	3.716e+06
31	197.399	0.005	0.084	0.0	0.0	5.71e-03	2.30e-03	1.31e-03	5.27e-04	7.692e+05	3.846e+06
32	200.300	0.005	0.084	3.21e-06	1.29e-06	7.68e-03	3.09e-03	1.27e-03	5.11e-04	7.919e+05	3.960e+06
33	228.524	0.004	0.084	3.60e-05	1.45e-05	0.0	0.0	0.02	6.11e-03	1.031e+06	5.154e+06
34	252.579	0.004	0.084	1.61e-04	6.48e-05	1.34e-04	5.40e-05	3.03e-03	1.22e-03	1.259e+06	6.296e+06
35	272.068	0.004	0.084	8.17e-06	3.29e-06	1.02e-03	4.13e-04	2.27e-03	9.15e-04	1.461e+06	7.306e+06
36	274.299	0.004	0.084	2.34e-04	9.41e-05	7.67e-04	3.09e-04	6.03e-05	2.43e-05	1.485e+06	7.426e+06
37	316.014	0.003	0.083	1.76e-06	0.0	4.50e-04	1.81e-04	3.69e-03	1.48e-03	1.971e+06	9.856e+06
38	345.754	0.003	0.083	6.91e-04	2.78e-04	6.17e-05	2.49e-05	5.04e-05	2.03e-05	2.360e+06	1.180e+07
39	362.425	0.003	0.083	1.25e-05	5.02e-06	1.94e-03	7.81e-04	1.20e-03	4.85e-04	2.593e+06	1.296e+07
40	428.111	0.002	0.083	2.17e-04	8.73e-05	1.27e-05	5.10e-06	1.44e-03	5.80e-04	3.618e+06	1.809e+07
41	452.719	0.002	0.083	1.85e-04	7.45e-05	6.35e-04	2.56e-04	7.16e-05	2.88e-05	4.046e+06	2.023e+07
42	467.305	0.002	0.083	6.65e-05	2.68e-05	9.72e-04	3.92e-04	1.12e-03	4.53e-04	4.311e+06	2.155e+07
43	694.059	0.001	0.082	1.28e-06	0.0	6.18e-04	2.49e-04	3.00e-04	1.21e-04	9.509e+06	4.754e+07
44	753.626	0.001	0.082	1.27e-04	5.14e-05	8.51e-05	3.43e-05	2.90e-04	1.17e-04	1.121e+07	5.605e+07
45	799.812	0.001	0.082	1.03e-04	4.14e-05	1.23e-04	4.95e-05	2.01e-04	8.11e-05	1.263e+07	6.314e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

CDC	Tipo	Sigla Id	Note
17	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.192 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.158 sec.
			numero di modi considerati: 45
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
m	kN	m	m	m	m	m	m			
2.90	55.44	1.50	3.69	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.70	14.44	1.50	2.76	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.54	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.50	14.44	1.50	2.36	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.30	14.44	1.50	1.97	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.18	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
2.10	14.44	1.50	1.57	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.90	14.44	1.50	1.18	-0.15	0.0	0.0	0.0	0.0	0.0	0.0

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
1.81	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.70	14.44	1.50	0.79	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.50	14.44	1.50	0.39	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.45	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.30	9.05	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.14	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
1.09	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.97	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.81	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.72	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.65	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.49	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.36	8.16	1.50	3.15	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.33	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
0.16	3.66	1.50	0.0	-0.15	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	248.27									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	kN		kN		kN			
1	6.345	0.158	0.173	21.22	8.5	163.23	65.7	8.83	3.6	794.8	3973.9
2	6.544	0.153	0.170	160.67	64.7	21.68	8.7	1.43	0.6	845.3	4226.6
3	12.841	0.078	0.126	19.47	7.8	0.18	7.16e-02	0.95	0.4	3254.8	1.627e+04
4	16.346	0.061	0.117	0.08	3.42e-02	32.52	13.1	177.71	71.6	5273.9	2.637e+04
5	18.503	0.054	0.113	0.03	1.22e-02	12.93	5.2	37.56	15.1	6758.1	3.379e+04
6	26.298	0.038	0.103	30.38	12.2	0.01	4.40e-03	0.01	5.78e-03	1.365e+04	6.825e+04
7	27.633	0.036	0.102	0.39	0.2	1.37	0.6	0.09	3.75e-02	1.507e+04	7.536e+04
8	32.059	0.031	0.099	7.70	3.1	0.08	3.38e-02	0.06	2.46e-02	2.029e+04	1.014e+05
9	37.338	0.027	0.097	0.08	3.27e-02	10.95	4.4	17.83	7.2	2.752e+04	1.376e+05
10	42.721	0.023	0.095	6.76	2.7	4.38e-03	1.76e-03	0.33	0.1	3.603e+04	1.801e+05
11	51.072	0.020	0.093	0.21	8.37e-02	4.35	1.8	2.46	1.0	5.149e+04	2.574e+05
12	52.384	0.019	0.092	0.02	9.36e-03	0.20	8.19e-02	0.21	8.60e-02	5.417e+04	2.708e+05
13	56.056	0.018	0.092	1.20	0.5	0.19	7.80e-02	0.10	4.19e-02	6.203e+04	3.101e+05
14	63.267	0.016	0.091	6.57e-06	2.64e-06	7.47e-03	3.01e-03	2.35e-03	9.48e-04	7.901e+04	3.951e+05
15	82.403	0.012	0.088	4.07e-03	1.64e-03	0.02	6.51e-03	0.52	0.2	1.340e+05	6.702e+05
16	91.556	0.011	0.088	0.03	1.37e-02	3.49e-03	1.41e-03	0.03	1.15e-02	1.655e+05	8.273e+05
17	96.394	0.010	0.087	5.94e-04	2.39e-04	1.13e-03	4.56e-04	2.64e-04	1.07e-04	1.834e+05	9.171e+05
18	101.031	0.010	0.087	1.54e-04	6.21e-05	0.0	0.0	5.20e-06	2.09e-06	2.015e+05	1.007e+06
19	105.404	0.009	0.087	8.73e-04	3.51e-04	0.28	0.1	0.01	4.82e-03	2.193e+05	1.097e+06
20	110.572	0.009	0.087	2.51e-04	1.01e-04	0.04	1.72e-02	6.63e-03	2.67e-03	2.413e+05	1.207e+06
21	114.530	0.009	0.086	7.35e-04	2.96e-04	0.14	5.55e-02	0.03	1.37e-02	2.589e+05	1.295e+06
22	123.118	0.008	0.086	1.27e-03	5.10e-04	1.91e-03	7.70e-04	2.97e-06	1.19e-06	2.992e+05	1.496e+06
23	139.083	0.007	0.086	1.31e-05	5.28e-06	3.60e-06	1.45e-06	3.21e-06	1.29e-06	3.818e+05	1.909e+06
24	150.692	0.007	0.085	9.30e-03	3.75e-03	0.01	5.71e-03	3.13e-03	1.26e-03	4.482e+05	2.241e+06
25	155.364	0.006	0.085	3.89e-03	1.57e-03	0.02	8.26e-03	6.94e-03	2.80e-03	4.765e+05	2.382e+06
26	158.673	0.006	0.085	2.95e-04	1.19e-04	2.59e-03	1.04e-03	2.94e-03	1.18e-03	4.970e+05	2.485e+06
27	159.515	0.006	0.085	2.73e-04	1.10e-04	5.79e-03	2.33e-03	0.03	1.22e-02	5.023e+05	2.511e+06
28	163.704	0.006	0.085	1.12e-03	4.51e-04	4.60e-05	1.85e-05	8.84e-04	3.56e-04	5.290e+05	2.645e+06
29	184.707	0.005	0.085	1.12e-06	0.0	1.70e-04	6.84e-05	6.43e-04	2.59e-04	6.734e+05	3.367e+06
30	194.051	0.005	0.084	1.07e-05	4.32e-06	1.39e-03	5.61e-04	2.42e-04	9.75e-05	7.433e+05	3.716e+06
31	197.399	0.005	0.084	0.0	0.0	5.71e-03	2.30e-03	1.31e-03	5.27e-04	7.692e+05	3.846e+06
32	200.300	0.005	0.084	3.21e-06	1.29e-06	7.68e-03	3.09e-03	1.27e-03	5.11e-04	7.919e+05	3.960e+06
33	228.524	0.004	0.084	3.60e-05	1.45e-05	0.0	0.0	0.02	6.11e-03	1.031e+06	5.154e+06
34	252.579	0.004	0.084	1.61e-04	6.48e-05	1.34e-04	5.40e-05	3.03e-03	1.22e-03	1.259e+06	6.296e+06
35	272.068	0.004	0.084	8.17e-06	3.29e-06	1.02e-03	4.13e-04	2.27e-03	9.15e-04	1.461e+06	7.306e+06
36	274.299	0.004	0.084	2.34e-04	9.41e-05	7.67e-04	3.09e-04	6.03e-05	2.43e-05	1.485e+06	7.426e+06
37	316.014	0.003	0.083	1.76e-06	0.0	4.50e-04	1.81e-04	3.69e-03	1.48e-03	1.971e+06	9.856e+06
38	345.754	0.003	0.083	6.91e-04	2.78e-04	6.17e-05	2.49e-05	5.04e-05	2.03e-05	2.360e+06	1.180e+07
39	362.425	0.003	0.083	1.25e-05	5.02e-06	1.94e-03	7.81e-04	1.20e-03	4.85e-04	2.593e+06	1.296e+07
40	428.111	0.002	0.083	2.17e-04	8.73e-05	1.27e-05	5.10e-06	1.44e-03	5.80e-04	3.618e+06	1.809e+07
41	452.719	0.002	0.083	1.85e-04	7.45e-05	6.35e-04	2.56e-04	7.16e-05	2.88e-05	4.046e+06	2.023e+07
42	467.305	0.002	0.083	6.65e-05	2.68e-05	9.72e-04	3.92e-04	1.12e-03	4.53e-04	4.311e+06	2.155e+07
43	694.059	0.001	0.082	1.28e-06	0.0	6.18e-04	2.49e-04	3.00e-04	1.21e-04	9.509e+06	4.754e+07
44	753.626	0.001	0.082	1.27e-04	5.14e-05	8.51e-05	3.43e-05	2.90e-04	1.17e-04	1.121e+07	5.605e+07
45	799.812	0.001	0.082	1.03e-04	4.14e-05	1.23e-04	4.95e-05	2.01e-04	8.11e-05	1.263e+07	6.314e+07
Risulta				248.27		248.27		248.27			
In percentuale				100.00		100.00		100.00			

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
		mm	mm	mm			
1	1	-5.63e-05	-1.70e-04	-0.18	-2.16e-04	-3.88e-06	9.75e-06
1	2	4.01e-04	0.08	0.02	-4.82e-04	-1.15e-05	1.81e-05
1	3	-2.59e-05	-3.08e-04	-0.18	-2.63e-04	-5.08e-06	1.21e-05
1	4	4.32e-04	0.08	0.02	-5.29e-04	-1.27e-05	2.05e-05
1	5	-6.46e-05	-2.60e-04	-0.23	-2.94e-04	-5.38e-06	1.33e-05
1	6	-2.54e-05	7.02e-03	-0.22	-3.17e-04	-6.04e-06	1.41e-05
1	7	1.14e-05	-6.05e-04	-0.24	-4.10e-04	-8.39e-06	1.93e-05
1	8	5.06e-05	6.68e-03	-0.22	-4.33e-04	-9.04e-06	2.00e-05
1	9	-6.49e-05	-1.31e-04	-0.18	-2.03e-04	-3.54e-06	9.08e-06
1	10	-2.57e-05	7.15e-03	-0.16	-2.26e-04	-4.19e-06	9.79e-06
1	11	1.11e-05	-4.76e-04	-0.18	-3.19e-04	-6.54e-06	1.50e-05
1	12	5.03e-05	6.81e-03	-0.17	-3.42e-04	-7.20e-06	1.57e-05
1	13	1.38e-05	0.01	-0.20	-3.40e-04	-6.69e-06	1.48e-05
1	14	-1.14e-05	-5.02e-04	-0.24	-3.76e-04	-7.48e-06	1.75e-05
1	15	6.71e-05	0.01	-0.20	-4.21e-04	-8.80e-06	1.89e-05
1	16	1.35e-05	0.01	-0.14	-2.49e-04	-4.85e-06	1.05e-05
1	17	-1.17e-05	-3.72e-04	-0.18	-2.84e-04	-5.64e-06	1.32e-05
1	18	6.67e-05	0.01	-0.15	-3.30e-04	-6.95e-06	1.47e-05
1	19	1.08e-03	0.21	0.27	-9.59e-04	-2.45e-05	3.42e-05
1	20	1.12e-03	0.22	0.28	-9.82e-04	-2.52e-05	3.49e-05
1	21	1.13e-03	0.21	0.26	-1.04e-03	-2.66e-05	3.84e-05
1	22	2.78e-05	6.78e-03	-0.22	-3.98e-04	-8.14e-06	1.82e-05
1	23	1.17e-03	0.22	0.28	-1.06e-03	-2.73e-05	3.91e-05
1	24	1.08e-03	0.21	0.32	-8.68e-04	-2.27e-05	2.99e-05
1	25	1.12e-03	0.22	0.34	-8.91e-04	-2.33e-05	3.06e-05
1	26	1.13e-03	0.21	0.32	-9.49e-04	-2.48e-05	3.41e-05
1	27	2.75e-05	6.91e-03	-0.17	-3.07e-04	-6.30e-06	1.39e-05
1	28	1.17e-03	0.22	0.34	-9.72e-04	-2.54e-05	3.48e-05
1	29	0.17	0.50	0.95	-8.71e-04	4.18e-04	-2.01e-04
1	30	0.14	0.36	0.47	-4.50e-04	4.56e-04	-2.38e-04
1	31	-0.14	-0.19	-0.44	-6.38e-04	-4.82e-04	2.80e-04
1	32	-0.17	-0.33	-0.91	-2.17e-04	-4.44e-04	2.43e-04
1	33	0.14	0.53	0.95	-8.75e-04	4.19e-04	-2.32e-04
1	34	0.17	0.32	0.47	-4.46e-04	4.55e-04	-2.06e-04
1	35	-0.17	-0.15	-0.43	-6.42e-04	-4.81e-04	2.49e-04
1	36	-0.14	-0.36	-0.92	-2.13e-04	-4.45e-04	2.75e-04
1	37	0.19	0.51	0.94	-8.71e-04	4.15e-04	-2.12e-04
1	38	0.15	0.37	0.47	-4.50e-04	4.53e-04	-2.49e-04
1	39	-0.15	-0.21	-0.43	-6.38e-04	-4.79e-04	2.91e-04
1	40	-0.19	-0.34	-0.90	-2.17e-04	-4.41e-04	2.55e-04
1	41	0.15	0.55	0.95	-8.75e-04	4.15e-04	-2.44e-04
1	42	0.19	0.34	0.46	-4.47e-04	4.52e-04	-2.17e-04
1	43	-0.19	-0.17	-0.43	-6.41e-04	-4.78e-04	2.60e-04
1	44	-0.15	-0.38	-0.91	-2.13e-04	-4.42e-04	2.86e-04
1	45	0.11	0.42	1.01	-1.28e-03	5.86e-05	1.03e-05
1	46	-0.01	-0.04	-0.56	1.23e-04	1.85e-04	-1.12e-04
1	47	0.01	0.21	0.60	-1.21e-03	-2.11e-04	1.55e-04
1	48	-0.11	-0.25	-0.97	1.93e-04	-8.48e-05	3.22e-05

Nodo	Cmb	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
1	49	0.11	0.42	1.01	-1.28e-03	5.76e-05	6.88e-06
1	50	-9.10e-03	-0.04	-0.56	1.23e-04	1.84e-04	-1.15e-04
1	51	9.98e-03	0.21	0.60	-1.21e-03	-2.10e-04	1.58e-04
1	52	-0.11	-0.25	-0.97	1.93e-04	-8.38e-05	3.56e-05
1	53	-0.01	0.53	1.03	-1.29e-03	6.17e-05	-9.49e-05
1	54	0.11	-0.16	-0.58	1.35e-04	1.82e-04	-6.92e-06
1	55	-0.10	0.33	0.62	-1.22e-03	-2.08e-04	4.94e-05
1	56	0.01	-0.36	-1.00	2.05e-04	-8.80e-05	1.37e-04
1	57	-7.46e-03	0.54	1.03	-1.29e-03	6.07e-05	-9.83e-05
1	58	0.11	-0.15	-0.58	1.35e-04	1.81e-04	-1.03e-05
1	59	-0.11	0.32	0.62	-1.22e-03	-2.07e-04	5.28e-05
1	60	8.34e-03	-0.37	-1.00	2.05e-04	-8.70e-05	1.41e-04
1	61	0.10	0.33	0.58	-7.42e-04	2.47e-04	-1.12e-04
1	62	0.07	0.25	0.29	-4.87e-04	2.70e-04	-1.34e-04
1	63	-0.07	-0.08	-0.26	-6.02e-04	-2.96e-04	1.76e-04
1	64	-0.09	-0.16	-0.54	-3.46e-04	-2.73e-04	1.54e-04
1	65	0.07	0.35	0.58	-7.44e-04	2.47e-04	-1.31e-04
1	66	0.09	0.23	0.29	-4.84e-04	2.69e-04	-1.15e-04
1	67	-0.09	-0.06	-0.25	-6.04e-04	-2.95e-04	1.57e-04
1	68	-0.07	-0.18	-0.55	-3.44e-04	-2.74e-04	1.73e-04
1	69	0.10	0.34	0.58	-7.42e-04	2.45e-04	-1.18e-04
1	70	0.08	0.26	0.29	-4.87e-04	2.68e-04	-1.41e-04
1	71	-0.08	-0.09	-0.25	-6.01e-04	-2.94e-04	1.83e-04
1	72	-0.10	-0.17	-0.54	-3.46e-04	-2.71e-04	1.61e-04
1	73	0.08	0.36	0.58	-7.45e-04	2.46e-04	-1.38e-04
1	74	0.10	0.24	0.29	-4.85e-04	2.67e-04	-1.22e-04
1	75	-0.10	-0.07	-0.25	-6.04e-04	-2.94e-04	1.64e-04
1	76	-0.08	-0.19	-0.54	-3.43e-04	-2.72e-04	1.80e-04
1	77	0.06	0.28	0.62	-9.91e-04	2.99e-05	1.53e-05
1	78	-0.01	8.17e-03	-0.33	-1.39e-04	1.07e-04	-5.92e-05
1	79	0.01	0.16	0.37	-9.49e-04	-1.33e-04	1.02e-04
1	80	-0.06	-0.11	-0.58	-9.73e-05	-5.61e-05	2.72e-05
1	81	0.06	0.29	0.62	-9.91e-04	2.94e-05	1.32e-05
1	82	-8.00e-03	0.01	-0.33	-1.40e-04	1.06e-04	-6.12e-05
1	83	8.89e-03	0.16	0.37	-9.49e-04	-1.32e-04	1.04e-04
1	84	-0.06	-0.12	-0.58	-9.72e-05	-5.56e-05	2.93e-05
1	85	-9.69e-03	0.35	0.63	-9.99e-04	3.20e-05	-4.86e-05
1	86	0.06	-0.06	-0.35	-1.32e-04	1.05e-04	4.75e-06
1	87	-0.06	0.23	0.38	-9.56e-04	-1.31e-04	3.78e-05
1	88	0.01	-0.19	-0.60	-8.96e-05	-5.83e-05	9.11e-05
1	89	-6.99e-03	0.36	0.63	-9.99e-04	3.15e-05	-5.07e-05
1	90	0.06	-0.06	-0.35	-1.32e-04	1.04e-04	2.66e-06
1	91	-0.06	0.23	0.38	-9.56e-04	-1.30e-04	3.98e-05
1	92	7.88e-03	-0.19	-0.60	-8.95e-05	-5.78e-05	9.32e-05
1	93	0.08	0.28	0.46	-7.01e-04	1.93e-04	-8.41e-05
1	94	0.06	0.21	0.24	-4.99e-04	2.11e-04	-1.02e-04
1	95	-0.06	-0.04	-0.20	-5.90e-04	-2.38e-04	1.44e-04
1	96	-0.07	-0.11	-0.43	-3.87e-04	-2.19e-04	1.27e-04
1	97	0.06	0.30	0.47	-7.03e-04	1.94e-04	-9.93e-05
1	98	0.08	0.20	0.23	-4.97e-04	2.11e-04	-8.66e-05
1	99	-0.07	-0.03	-0.20	-5.91e-04	-2.37e-04	1.29e-04
1	100	-0.06	-0.13	-0.43	-3.85e-04	-2.20e-04	1.42e-04
1	101	0.08	0.29	0.46	-7.01e-04	1.92e-04	-8.96e-05
1	102	0.07	0.22	0.23	-4.99e-04	2.10e-04	-1.07e-04
1	103	-0.06	-0.05	-0.20	-5.89e-04	-2.36e-04	1.50e-04
1	104	-0.08	-0.12	-0.42	-3.87e-04	-2.18e-04	1.32e-04
1	105	0.07	0.30	0.46	-7.03e-04	1.92e-04	-1.05e-04
1	106	0.08	0.21	0.23	-4.97e-04	2.09e-04	-9.21e-05
1	107	-0.08	-0.04	-0.19	-5.91e-04	-2.36e-04	1.35e-04
1	108	-0.06	-0.14	-0.43	-3.85e-04	-2.18e-04	1.47e-04
1	109	0.05	0.24	0.49	-8.99e-04	2.10e-05	1.65e-05
1	110	-8.42e-03	0.02	-0.26	-2.23e-04	8.19e-05	-4.25e-05
1	111	9.30e-03	0.15	0.30	-8.65e-04	-1.08e-04	8.51e-05
1	112	-0.05	-0.07	-0.46	-1.90e-04	-4.72e-05	2.60e-05
1	113	0.05	0.24	0.49	-8.99e-04	2.06e-05	1.49e-05
1	114	-6.28e-03	0.03	-0.26	-2.23e-04	8.15e-05	-4.42e-05
1	115	7.16e-03	0.14	0.30	-8.65e-04	-1.08e-04	8.67e-05
1	116	-0.05	-0.08	-0.46	-1.89e-04	-4.68e-05	2.76e-05
1	117	-7.62e-03	0.30	0.51	-9.05e-04	2.27e-05	-3.42e-05
1	118	0.05	-0.03	-0.27	-2.17e-04	8.02e-05	8.16e-06
1	119	-0.05	0.20	0.31	-8.71e-04	-1.06e-04	3.43e-05
1	120	8.50e-03	-0.13	-0.47	-1.83e-04	-4.89e-05	7.67e-05
1	121	-5.48e-03	0.30	0.51	-9.05e-04	2.23e-05	-3.58e-05
1	122	0.05	-0.03	-0.27	-2.17e-04	7.98e-05	6.50e-06

Nodo	Cmb	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
1	123	-0.05	0.20	0.31	-8.71e-04	-1.06e-04	3.60e-05
1	124	6.36e-03	-0.13	-0.47	-1.83e-04	-4.85e-05	7.83e-05
1	125	-5.63e-05	-1.70e-04	-0.18	-2.16e-04	-3.88e-06	9.75e-06
1	126	-3.02e-05	4.68e-03	-0.17	-2.32e-04	-4.31e-06	1.02e-05
1	127	-5.65e-06	-4.00e-04	-0.18	-2.94e-04	-5.88e-06	1.37e-05
1	128	2.05e-05	4.45e-03	-0.17	-3.09e-04	-6.32e-06	1.42e-05
1	129	-4.02e-06	9.54e-03	-0.16	-2.47e-04	-4.75e-06	1.07e-05
1	130	-2.09e-05	-3.31e-04	-0.18	-2.70e-04	-5.28e-06	1.25e-05
1	131	3.14e-05	9.38e-03	-0.16	-3.01e-04	-6.15e-06	1.35e-05
1	132	7.06e-04	0.14	0.15	-6.60e-04	-1.66e-05	2.37e-05
1	133	7.33e-04	0.15	0.17	-6.75e-04	-1.71e-05	2.41e-05
1	134	7.42e-04	0.14	0.15	-7.14e-04	-1.80e-05	2.64e-05
1	135	5.30e-06	4.52e-03	-0.17	-2.86e-04	-5.72e-06	1.30e-05
1	136	7.68e-04	0.15	0.16	-7.29e-04	-1.85e-05	2.69e-05
1	137	-5.63e-05	-1.70e-04	-0.18	-2.16e-04	-3.88e-06	9.75e-06
1	138	4.01e-04	0.08	0.02	-4.82e-04	-1.15e-05	1.81e-05
1	139	-2.09e-05	-3.31e-04	-0.18	-2.70e-04	-5.28e-06	1.25e-05
1	140	4.37e-04	0.08	0.02	-5.36e-04	-1.29e-05	2.09e-05
1	141	-4.59e-05	1.77e-03	-0.18	-2.22e-04	-4.05e-06	9.94e-06
1	142	4.12e-04	0.09	0.03	-4.88e-04	-1.17e-05	1.83e-05
1	143	-2.59e-05	-3.08e-04	-0.18	-2.63e-04	-5.08e-06	1.21e-05
1	144	4.32e-04	0.08	0.02	-5.29e-04	-1.27e-05	2.05e-05
1	145	-1.55e-05	1.63e-03	-0.18	-2.69e-04	-5.25e-06	1.23e-05
1	146	4.42e-04	0.09	0.02	-5.35e-04	-1.29e-05	2.07e-05
1	147	-5.63e-05	-1.70e-04	-0.18	-2.16e-04	-3.88e-06	9.75e-06
1	148	4.01e-04	0.08	0.02	-4.82e-04	-1.15e-05	1.81e-05
1	149	-2.59e-05	-3.08e-04	-0.18	-2.63e-04	-5.08e-06	1.21e-05
1	150	4.32e-04	0.08	0.02	-5.29e-04	-1.27e-05	2.05e-05
2	1	5.63e-05	-1.70e-04	-0.18	-2.16e-04	3.88e-06	-9.75e-06
2	2	-4.01e-04	0.08	0.02	-4.82e-04	1.15e-05	-1.81e-05
2	3	2.59e-05	-3.08e-04	-0.18	-2.63e-04	5.08e-06	-1.21e-05
2	4	-4.32e-04	0.08	0.02	-5.29e-04	1.27e-05	-2.05e-05
2	5	6.46e-05	-2.60e-04	-0.23	-2.94e-04	5.38e-06	-1.33e-05
2	6	2.54e-05	7.02e-03	-0.22	-3.17e-04	6.04e-06	-1.41e-05
2	7	-1.14e-05	-6.05e-04	-0.24	-4.10e-04	8.39e-06	-1.93e-05
2	8	-5.06e-05	6.68e-03	-0.22	-4.33e-04	9.04e-06	-2.00e-05
2	9	6.49e-05	-1.31e-04	-0.18	-2.03e-04	3.54e-06	-9.08e-06
2	10	2.57e-05	7.15e-03	-0.16	-2.26e-04	4.19e-06	-9.79e-06
2	11	-1.11e-05	-4.76e-04	-0.18	-3.19e-04	6.54e-06	-1.50e-05
2	12	-5.03e-05	6.81e-03	-0.17	-3.42e-04	7.20e-06	-1.57e-05
2	13	-1.38e-05	0.01	-0.20	-3.40e-04	6.69e-06	-1.48e-05
2	14	1.14e-05	-5.02e-04	-0.24	-3.76e-04	7.48e-06	-1.75e-05
2	15	-6.71e-05	0.01	-0.20	-4.21e-04	8.80e-06	-1.89e-05
2	16	-1.35e-05	0.01	-0.14	-2.49e-04	4.85e-06	-1.05e-05
2	17	1.17e-05	-3.72e-04	-0.18	-2.84e-04	5.64e-06	-1.32e-05
2	18	-6.67e-05	0.01	-0.15	-3.30e-04	6.95e-06	-1.47e-05
2	19	-1.08e-03	0.21	0.27	-9.59e-04	2.45e-05	-3.42e-05
2	20	-1.12e-03	0.22	0.28	-9.82e-04	2.52e-05	-3.49e-05
2	21	-1.13e-03	0.21	0.26	-1.04e-03	2.66e-05	-3.84e-05
2	22	-2.78e-05	6.78e-03	-0.22	-3.98e-04	8.14e-06	-1.82e-05
2	23	-1.17e-03	0.22	0.28	-1.06e-03	2.73e-05	-3.91e-05
2	24	-1.08e-03	0.21	0.32	-8.68e-04	2.27e-05	-2.99e-05
2	25	-1.12e-03	0.22	0.34	-8.91e-04	2.33e-05	-3.06e-05
2	26	-1.13e-03	0.21	0.32	-9.49e-04	2.48e-05	-3.41e-05
2	27	-2.75e-05	6.91e-03	-0.17	-3.07e-04	6.30e-06	-1.39e-05
2	28	-1.17e-03	0.22	0.34	-9.72e-04	2.54e-05	-3.48e-05
2	29	0.17	-0.15	-0.43	-6.42e-04	4.81e-04	-2.49e-04
2	30	0.14	-0.36	-0.92	-2.13e-04	4.45e-04	-2.75e-04
2	31	-0.14	0.53	0.95	-8.75e-04	-4.19e-04	2.32e-04
2	32	-0.17	0.32	0.47	-4.46e-04	-4.55e-04	2.06e-04
2	33	0.14	-0.19	-0.44	-6.38e-04	4.82e-04	-2.80e-04
2	34	0.17	-0.33	-0.91	-2.17e-04	4.44e-04	-2.43e-04
2	35	-0.17	0.50	0.95	-8.71e-04	-4.18e-04	2.01e-04
2	36	-0.14	0.36	0.47	-4.50e-04	-4.56e-04	2.38e-04
2	37	0.19	-0.17	-0.43	-6.41e-04	4.78e-04	-2.60e-04
2	38	0.15	-0.38	-0.91	-2.13e-04	4.42e-04	-2.86e-04
2	39	-0.15	0.55	0.95	-8.75e-04	-4.15e-04	2.44e-04
2	40	-0.19	0.34	0.46	-4.47e-04	-4.52e-04	2.17e-04
2	41	0.15	-0.21	-0.43	-6.38e-04	4.79e-04	-2.91e-04
2	42	0.19	-0.34	-0.90	-2.17e-04	4.41e-04	-2.55e-04
2	43	-0.19	0.51	0.94	-8.71e-04	-4.15e-04	2.12e-04
2	44	-0.15	0.37	0.47	-4.50e-04	-4.53e-04	2.49e-04
2	45	0.10	0.33	0.62	-1.22e-03	2.08e-04	-4.94e-05
2	46	-0.01	-0.36	-1.00	2.05e-04	8.80e-05	-1.37e-04

Nodo	Cmb	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
2	47	0.01	0.53	1.03	-1.29e-03	-6.17e-05	9.49e-05
2	48	-0.11	-0.16	-0.58	1.35e-04	-1.82e-04	6.92e-06
2	49	0.11	0.32	0.62	-1.22e-03	2.07e-04	-5.28e-05
2	50	-8.34e-03	-0.37	-1.00	2.05e-04	8.70e-05	-1.41e-04
2	51	7.46e-03	0.54	1.03	-1.29e-03	-6.07e-05	9.83e-05
2	52	-0.11	-0.15	-0.58	1.35e-04	-1.81e-04	1.03e-05
2	53	-0.01	0.21	0.60	-1.21e-03	2.11e-04	-1.55e-04
2	54	0.11	-0.25	-0.97	1.93e-04	8.48e-05	-3.22e-05
2	55	-0.11	0.42	1.01	-1.28e-03	-5.86e-05	-1.03e-05
2	56	0.01	-0.04	-0.56	1.23e-04	-1.85e-04	1.12e-04
2	57	-9.98e-03	0.21	0.60	-1.21e-03	2.10e-04	-1.58e-04
2	58	0.11	-0.25	-0.97	1.93e-04	8.38e-05	-3.56e-05
2	59	-0.11	0.42	1.01	-1.28e-03	-5.76e-05	-6.88e-06
2	60	9.10e-03	-0.04	-0.56	1.23e-04	-1.84e-04	1.15e-04
2	61	0.09	-0.06	-0.25	-6.04e-04	2.95e-04	-1.57e-04
2	62	0.07	-0.18	-0.55	-3.44e-04	2.74e-04	-1.73e-04
2	63	-0.07	0.35	0.58	-7.44e-04	-2.47e-04	1.31e-04
2	64	-0.09	0.23	0.29	-4.84e-04	-2.69e-04	1.15e-04
2	65	0.07	-0.08	-0.26	-6.02e-04	2.96e-04	-1.76e-04
2	66	0.09	-0.16	-0.54	-3.46e-04	2.73e-04	-1.54e-04
2	67	-0.10	0.33	0.58	-7.42e-04	-2.47e-04	1.12e-04
2	68	-0.07	0.25	0.29	-4.87e-04	-2.70e-04	1.34e-04
2	69	0.10	-0.07	-0.25	-6.04e-04	2.94e-04	-1.64e-04
2	70	0.08	-0.19	-0.54	-3.43e-04	2.72e-04	-1.80e-04
2	71	-0.08	0.36	0.58	-7.45e-04	-2.46e-04	1.38e-04
2	72	-0.10	0.24	0.29	-4.85e-04	-2.67e-04	1.22e-04
2	73	0.08	-0.09	-0.25	-6.01e-04	2.94e-04	-1.83e-04
2	74	0.10	-0.17	-0.54	-3.46e-04	2.71e-04	-1.61e-04
2	75	-0.10	0.34	0.58	-7.42e-04	-2.45e-04	1.18e-04
2	76	-0.08	0.26	0.29	-4.87e-04	-2.68e-04	1.41e-04
2	77	0.06	0.23	0.38	-9.56e-04	1.31e-04	-3.78e-05
2	78	-0.01	-0.19	-0.60	-8.96e-05	5.83e-05	-9.11e-05
2	79	9.69e-03	0.35	0.63	-9.99e-04	-3.20e-05	4.86e-05
2	80	-0.06	-0.06	-0.35	-1.32e-04	-1.05e-04	-4.75e-06
2	81	0.06	0.23	0.38	-9.56e-04	1.30e-04	-3.98e-05
2	82	-7.88e-03	-0.19	-0.60	-8.95e-05	5.78e-05	-9.32e-05
2	83	6.99e-03	0.36	0.63	-9.99e-04	-3.15e-05	5.07e-05
2	84	-0.06	-0.06	-0.35	-1.32e-04	-1.04e-04	-2.66e-06
2	85	-0.01	0.16	0.37	-9.49e-04	1.33e-04	-1.02e-04
2	86	0.06	-0.11	-0.58	-9.73e-05	5.61e-05	-2.72e-05
2	87	-0.06	0.28	0.62	-9.91e-04	-2.99e-05	-1.53e-05
2	88	0.01	8.17e-03	-0.33	-1.39e-04	-1.07e-04	5.92e-05
2	89	-8.89e-03	0.16	0.37	-9.49e-04	1.32e-04	-1.04e-04
2	90	0.06	-0.12	-0.58	-9.72e-05	5.56e-05	-2.93e-05
2	91	-0.06	0.29	0.62	-9.91e-04	-2.94e-05	-1.32e-05
2	92	8.00e-03	0.01	-0.33	-1.40e-04	-1.06e-04	6.12e-05
2	93	0.07	-0.03	-0.20	-5.91e-04	2.37e-04	-1.29e-04
2	94	0.06	-0.13	-0.43	-3.85e-04	2.20e-04	-1.42e-04
2	95	-0.06	0.30	0.47	-7.03e-04	-1.94e-04	9.93e-05
2	96	-0.08	0.20	0.23	-4.97e-04	-2.11e-04	8.66e-05
2	97	0.06	-0.04	-0.20	-5.90e-04	2.38e-04	-1.44e-04
2	98	0.07	-0.11	-0.43	-3.87e-04	2.19e-04	-1.27e-04
2	99	-0.08	0.28	0.46	-7.01e-04	-1.93e-04	8.41e-05
2	100	-0.06	0.21	0.24	-4.99e-04	-2.11e-04	1.02e-04
2	101	0.08	-0.04	-0.19	-5.91e-04	2.36e-04	-1.35e-04
2	102	0.06	-0.14	-0.43	-3.85e-04	2.18e-04	-1.47e-04
2	103	-0.07	0.30	0.46	-7.03e-04	-1.92e-04	1.05e-04
2	104	-0.08	0.21	0.23	-4.97e-04	-2.09e-04	9.21e-05
2	105	0.06	-0.05	-0.20	-5.89e-04	2.36e-04	-1.50e-04
2	106	0.08	-0.12	-0.42	-3.87e-04	2.18e-04	-1.32e-04
2	107	-0.08	0.29	0.46	-7.01e-04	-1.92e-04	8.96e-05
2	108	-0.07	0.22	0.23	-4.99e-04	-2.10e-04	1.07e-04
2	109	0.05	0.20	0.31	-8.71e-04	1.06e-04	-3.43e-05
2	110	-8.50e-03	-0.13	-0.47	-1.83e-04	4.89e-05	-7.67e-05
2	111	7.62e-03	0.30	0.51	-9.05e-04	-2.27e-05	3.42e-05
2	112	-0.05	-0.03	-0.27	-2.17e-04	-8.02e-05	-8.16e-06
2	113	0.05	0.20	0.31	-8.71e-04	1.06e-04	-3.60e-05
2	114	-6.36e-03	-0.13	-0.47	-1.83e-04	4.85e-05	-7.83e-05
2	115	5.48e-03	0.30	0.51	-9.05e-04	-2.23e-05	3.58e-05
2	116	-0.05	-0.03	-0.27	-2.17e-04	-7.98e-05	-6.50e-06
2	117	-9.30e-03	0.15	0.30	-8.65e-04	1.08e-04	-8.51e-05
2	118	0.05	-0.07	-0.46	-1.90e-04	4.72e-05	-2.60e-05
2	119	-0.05	0.24	0.49	-8.99e-04	-2.10e-05	-1.65e-05
2	120	8.42e-03	0.02	-0.26	-2.23e-04	-8.19e-05	4.25e-05

Nodo	Cmb	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
2	121	-7.16e-03	0.14	0.30	-8.65e-04	1.08e-04	-8.67e-05
2	122	0.05	-0.08	-0.46	-1.89e-04	4.68e-05	-2.76e-05
2	123	-0.05	0.24	0.49	-8.99e-04	-2.06e-05	-1.49e-05
2	124	6.28e-03	0.03	-0.26	-2.23e-04	-8.15e-05	4.42e-05
2	125	5.63e-05	-1.70e-04	-0.18	-2.16e-04	3.88e-06	-9.75e-06
2	126	3.02e-05	4.68e-03	-0.17	-2.32e-04	4.31e-06	-1.02e-05
2	127	5.65e-06	-4.00e-04	-0.18	-2.94e-04	5.88e-06	-1.37e-05
2	128	-2.05e-05	4.45e-03	-0.17	-3.09e-04	6.32e-06	-1.42e-05
2	129	4.02e-06	9.54e-03	-0.16	-2.47e-04	4.75e-06	-1.07e-05
2	130	2.09e-05	-3.31e-04	-0.18	-2.70e-04	5.28e-06	-1.25e-05
2	131	-3.14e-05	9.38e-03	-0.16	-3.01e-04	6.15e-06	-1.35e-05
2	132	-7.06e-04	0.14	0.15	-6.60e-04	1.66e-05	-2.37e-05
2	133	-7.33e-04	0.15	0.17	-6.75e-04	1.71e-05	-2.41e-05
2	134	-7.42e-04	0.14	0.15	-7.14e-04	1.80e-05	-2.64e-05
2	135	-5.30e-06	4.52e-03	-0.17	-2.86e-04	5.72e-06	-1.30e-05
2	136	-7.68e-04	0.15	0.16	-7.29e-04	1.85e-05	-2.69e-05
2	137	5.63e-05	-1.70e-04	-0.18	-2.16e-04	3.88e-06	-9.75e-06
2	138	-4.01e-04	0.08	0.02	-4.82e-04	1.15e-05	-1.81e-05
2	139	2.09e-05	-3.31e-04	-0.18	-2.70e-04	5.28e-06	-1.25e-05
2	140	-4.37e-04	0.08	0.02	-5.36e-04	1.29e-05	-2.09e-05
2	141	4.59e-05	1.77e-03	-0.18	-2.22e-04	4.05e-06	-9.94e-06
2	142	-4.12e-04	0.09	0.03	-4.88e-04	1.17e-05	-1.83e-05
2	143	2.59e-05	-3.08e-04	-0.18	-2.63e-04	5.08e-06	-1.21e-05
2	144	-4.32e-04	0.08	0.02	-5.29e-04	1.27e-05	-2.05e-05
2	145	1.55e-05	1.63e-03	-0.18	-2.69e-04	5.25e-06	-1.23e-05
2	146	-4.42e-04	0.09	0.02	-5.35e-04	1.29e-05	-2.07e-05
2	147	5.63e-05	-1.70e-04	-0.18	-2.16e-04	3.88e-06	-9.75e-06
2	148	-4.01e-04	0.08	0.02	-4.82e-04	1.15e-05	-1.81e-05
...							
360	150	8.39e-06	1.93	-3.05	-1.26e-03	-1.28e-05	0.0
Nodo		Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
		-2.85	-0.54	-5.87	-2.39e-03	-6.63e-04	-3.71e-04
		2.85	4.34	1.04	5.18e-04	6.63e-04	3.71e-04

Nodo	Cmb	Azione X	Azione Y	Azione Z	Azione RX	Azione RY	Azione RZ
		kN	kN	kN	kN m	kN m	kN m
Nodo		Azione X	Azione Y	Azione Z	Azione RX	Azione RY	Azione RZ

Nodo	Cmb	Azione X	Azione Y	Azione Z	Azione RX	Azione RY	Azione RZ
		kN	kN	kN	kN m	kN m	kN m

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 (<i>PALO</i>) 4) plinto su palo 5) plinto su due pali (<i>PL.2P</i>) 6) plinto su tre pali (<i>PL.3P</i>) 7) plinto su quattro pali (<i>PL.4P</i>) 8) plinto rettangolare su cinque pali (<i>PL.5P.R</i>) 9) plinto pentagonale su cinque pali (<i>PL.5P</i>) 10) plinto su sei pali (<i>PL.6P</i>)
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 F_z (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.

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...									
	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2	
1	-8.99e-03	1.04e-03	-9.08e-03	9.48e-04	-0.01	-0.01	-0.01	-0.01	-0.01	-8.97e-03	-8.11e-03	-9.19e-03	
	-8.33e-03	-1.00e-02	-0.01	-0.01	-7.25e-03	-9.12e-03	-7.40e-03	0.01	0.01	0.01	0.01	-0.01	
	0.01	0.02	0.02	0.02	-8.26e-03	0.02	0.05	0.02	-0.02	-0.05	0.05	0.05	
	0.02	-0.02	-0.05	0.05	0.02	-0.02	-0.05	0.05	0.02	-0.02	-0.02	-0.05	
	0.05	-0.03	0.03	-0.05	0.05	-0.03	0.03	-0.05	0.05	-0.05	0.05	-0.03	0.03
	-0.05	0.05	-0.03	0.03	-0.05	0.03	0.01	-0.01	-0.03	0.03	0.03	0.01	0.01
	-0.01	-0.03	0.03	0.01	-0.01	-0.03	0.03	0.01	-0.01	-0.03	-0.03	0.03	0.03
	-0.02	0.02	-0.03	0.03	-0.02	0.02	-0.03	0.03	-0.02	0.02	0.02	0.02	-0.03
	0.03	-0.02	0.02	-0.03	0.02	0.01	-9.97e-03	-0.02	0.02	0.01	-9.79e-03	0.02	-9.79e-03
	-0.02	0.02	0.01	-9.87e-03	-0.02	0.02	0.01	-9.69e-03	-0.02	0.02	0.02	0.02	-0.01
	0.01	-0.02	0.02	-0.01	0.01	-0.02	0.03	-0.01	0.02	-0.02	0.02	0.03	0.03
	-0.01	0.02	-0.02	-8.99e-03	-8.42e-03	-9.14e-03	-8.57e-03	-7.85e-03	-9.10e-03	-7.95e-03	7.72e-03	7.72e-03	7.72e-03
	8.30e-03	7.62e-03	-8.52e-03	8.19e-03	-8.99e-03	1.04e-03	-9.10e-03	9.33e-04	-8.76e-03	1.27e-03	-9.08e-03	-9.08e-03	-9.08e-03
	9.48e-04	-8.85e-03	1.18e-03	-8.99e-03	1.04e-03	-9.08e-03	9.48e-04						
2	-8.99e-03	1.04e-03	-9.08e-03	9.48e-04	-0.01	-0.01	-0.01	-0.01	-0.01	-8.97e-03	-8.11e-03	-9.19e-03	
	-8.33e-03	-1.00e-02	-0.01	-0.01	-7.25e-03	-9.12e-03	-7.40e-03	0.01	0.01	0.01	0.01	-0.01	
	0.01	0.02	0.02	0.02	-8.26e-03	0.02	-0.02	-0.05	0.05	0.02	-0.02	-0.02	
	-0.05	0.05	0.02	-0.02	-0.05	0.05	0.02	-0.02	-0.05	0.05	0.05	0.02	
	0.03	-0.05	0.05	-0.03	0.03	-0.05	0.05	-0.03	0.03	0.03	-0.05	0.05	
	-0.03	0.03	-0.05	0.05	-0.03	-0.01	-0.03	0.03	0.01	-0.01	-0.01	-0.03	
	0.03	0.01	-0.01	-0.03	0.03	0.01	-0.01	-0.03	0.03	0.01	0.01	0.02	
	-0.03	0.03	-0.02	0.02	-0.03	0.03	-0.02	0.02	-0.03	0.03	0.03	-0.02	
	0.02	-0.03	0.03	-0.02	-9.79e-03	-0.02	0.02	0.01	-9.97e-03	-0.02	0.02	0.02	0.02
	0.01	-9.69e-03	-0.02	0.02	0.01	-9.87e-03	-0.02	0.02	0.01	0.02	0.02	-0.02	
	0.03	-0.01	0.02	-0.02	0.03	-0.01	0.01	-0.02	0.02	-0.01	0.01	0.01	
	-0.02	0.02	-0.01	-8.99e-03	-8.42e-03	-9.14e-03	-8.57e-03	-7.85e-03	-9.10e-03	-7.95e-03	7.72e-03	7.72e-03	
	8.30e-03	7.62e-03	-8.52e-03	8.19e-03	-8.99e-03	1.04e-03	-9.10e-03	9.33e-04	-8.76e-03	1.27e-03	-9.08e-03	-9.08e-03	
	9.48e-04	-8.85e-03	1.18e-03	-8.99e-03	1.04e-03	-9.08e-03	9.48e-04						
5	-0.06	-0.08	-0.07	-0.09	-0.08	-0.08	-0.10	-0.10	-0.05	-0.06	-0.08	-0.08	
	-0.08	-0.08	-0.09	-0.10	-0.06	-0.07	-0.07	-0.13	-0.14	-0.15	-0.09	-0.09	
	-0.15	-0.11	-0.11	-0.13	-0.07	-0.13	-0.06	-0.04	-0.15	-0.12	-0.06	-0.06	
	-0.04	-0.15	-0.12	-0.06	-0.04	-0.15	-0.12	-0.06	-0.04	-0.15	-0.12	-0.12	
	-0.12	-0.04	-0.15	-0.06	-0.12	-0.04	-0.15	-0.06	-0.12	-0.12	-0.04	-0.14	
	-0.07	-0.12	-0.04	-0.14	-0.07	-0.07	-0.06	-0.13	-0.11	-0.07	-0.06	-0.06	
	-0.13	-0.11	-0.07	-0.06	-0.13	-0.11	-0.07	-0.06	-0.13	-0.11	-0.11	-0.11	
	-0.06	-0.13	-0.07	-0.11	-0.06	-0.13	-0.07	-0.11	-0.06	-0.12	-0.08	-0.08	
	-0.11	-0.06	-0.12	-0.08	-0.08	-0.07	-0.12	-0.11	-0.08	-0.07	-0.12	-0.12	
	-0.11	-0.08	-0.07	-0.12	-0.11	-0.08	-0.07	-0.12	-0.11	-0.11	-0.11	-0.07	
	-0.12	-0.08	-0.11	-0.07	-0.12	-0.08	-0.10	-0.07	-0.12	-0.12	-0.08	-0.10	
	-0.07	-0.12	-0.08	-0.06	-0.06	-0.07	-0.07	-0.06	-0.07	-0.07	-0.07	-0.10	
	-0.10	-0.11	-0.07	-0.11	-0.06	-0.08	-0.07	-0.09	-0.06	-0.08	-0.07	-0.07	
	-0.09	-0.07	-0.09	-0.06	-0.08	-0.07	-0.09						
6	-0.06	-0.08	-0.07	-0.09	-0.08	-0.08	-0.10	-0.10	-0.05	-0.06	-0.08	-0.08	
	-0.08	-0.08	-0.09	-0.10	-0.06	-0.07	-0.07	-0.13	-0.14	-0.15	-0.09	-0.09	
	-0.15	-0.11	-0.11	-0.13	-0.07	-0.13	-0.15	-0.12	-0.06	-0.04	-0.15	-0.15	
	-0.12	-0.06	-0.04	-0.15	-0.12	-0.06	-0.04	-0.15	-0.12	-0.06	-0.04	-0.04	
	-0.14	-0.07	-0.12	-0.04	-0.14	-0.07	-0.12	-0.04	-0.15	-0.06	-0.06	-0.12	
	-0.04	-0.15	-0.06	-0.12	-0.04	-0.13	-0.11	-0.07	-0.06	-0.13	-0.11	-0.11	
	-0.07	-0.06	-0.13	-0.11	-0.07	-0.06	-0.13	-0.11	-0.07	-0.06	-0.12	-0.12	
	-0.08	-0.11	-0.06	-0.12	-0.08	-0.11	-0.06	-0.13	-0.07	-0.11	-0.06	-0.06	
	-0.13	-0.07	-0.11	-0.06	-0.12	-0.11	-0.08	-0.07	-0.12	-0.11	-0.11	-0.08	
	-0.07	-0.12	-0.11	-0.08	-0.07	-0.12	-0.11	-0.08	-0.07	-0.12	-0.12	-0.08	
	-0.10	-0.07	-0.12	-0.08	-0.10	-0.07	-0.12	-0.08	-0.11	-0.07	-0.12	-0.12	
	-0.08	-0.11	-0.07	-0.06	-0.06	-0.07	-0.07	-0.06	-0.07	-0.07	-0.07	-0.10	
	-0.10	-0.11	-0.07	-0.11	-0.06	-0.08	-0.07	-0.09	-0.06	-0.08	-0.07	-0.07	
	-0.09	-0.07	-0.09	-0.06	-0.08	-0.07	-0.09						
14	-9.00e-03	1.08e-03	-9.08e-03	9.98e-04	-0.01	-0.01	-0.01	-0.01	-0.01	-8.98e-03	-8.11e-03	-9.19e-03	
	-8.32e-03	-9.99e-03	-0.01	-0.01	-7.25e-03	-9.12e-03	-7.40e-03	0.01	0.01	0.01	0.01	-0.01	
	0.01	0.02	0.02	0.02	-8.26e-03	0.02	0.01	-0.01	0.01	-0.01	0.01	0.01	
	-0.01	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01	
	0.04	-0.04	0.04	-0.04	0.04	-0.04	0.04	-0.04	0.04	-0.04	0.04	0.04	
	-0.04	0.04	-0.04	0.04	-0.04	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	
	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	-6.25e-03	8.19e-03	0.03	
	-0.02	0.03	-0.02	0.03	-0.02	0.03	-0.02	0.03	-0.02	0.03	-0.02	0.03	
	0.03	-0.02	0.03	-0.02	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	
	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	6.70e-03	-4.76e-03	0.02	
	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	0.02	
	-0.02	0.02	-0.02	-9.00e-03	-8.42e-03	-9.14e-03	-8.57e-03	-7.85e-03	-9.10e-03	-7.95e-03	7.80e-03	7.80e-03	
	8.38e-03	7.70e-03	-8.52e-03	8.28e-03	-9.00e-03	1.08e-03	-9.10e-03	9.83e-04	-8.77e-03	1.31e-03	-9.08e-03	-9.08e-03	
	9.98e-04	-8.85e-03	1.23e-03	-9.00e-03	1.08e-03	-9.08e-03	9.98e-04						
19	-0.06	-0.08	-0.07	-0.09	-0.08	-0.08	-0.10	-0.10	-0.05	-0.06	-0.08	-0.08	
	-0.08	-0.08	-0.09	-0.10	-0.06	-0.07	-0.07	-0.13	-0.14	-0.15	-0.09	-0.09	
	-0.15	-0.11	-0.11	-0.13	-0.07	-0.13	-0.10	-0.08	-0.10	-0.08	-0.10	-0.10	

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
	-0.08	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08
	-0.13	-0.05	-0.13	-0.05	-0.13	-0.05	-0.13	-0.05	-0.13	-0.05	-0.13
	-0.05	-0.13	-0.05	-0.13	-0.05	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08
	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08	-0.10	-0.08	-0.12
	-0.07	-0.12	-0.07	-0.12	-0.07	-0.12	-0.07	-0.12	-0.07	-0.12	-0.07
	-0.12	-0.07	-0.12	-0.07	-0.10	-0.09	-0.10	-0.09	-0.10	-0.09	-0.10
	-0.09	-0.10	-0.09	-0.10	-0.09	-0.10	-0.09	-0.10	-0.09	-0.11	-0.07
	-0.11	-0.07	-0.11	-0.07	-0.11	-0.07	-0.11	-0.07	-0.11	-0.07	-0.11
	-0.07	-0.11	-0.07	-0.06	-0.06	-0.07	-0.07	-0.06	-0.07	-0.07	-0.10
	-0.10	-0.11	-0.07	-0.11	-0.06	-0.08	-0.07	-0.09	-0.06	-0.08	-0.07
	-0.09	-0.07	-0.09	-0.06	-0.08	-0.07	-0.09				
24	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.04	-0.04	-0.02	-0.02	-0.03
	-0.03	-0.03	-0.04	-0.04	-0.02	-0.03	-0.03	-0.05	-0.05	-0.05	-0.04
	-0.05	-0.04	-0.04	-0.04	-0.03	-0.04	-4.11e-03	-7.37e-04	-0.07	-0.06	-3.89e-03
	-9.51e-04	-0.07	-0.06	-4.26e-03	-8.86e-04	-0.07	-0.06	-4.04e-03	-1.10e-03	-0.07	-0.06
	-0.03	-0.02	-0.05	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03	-0.02	-0.05
	-0.04	-0.03	-0.02	-0.05	-0.04	-0.02	-0.01	-0.05	-0.05	-0.02	-0.01
	-0.05	-0.05	-0.02	-0.01	-0.05	-0.05	-0.02	-0.01	-0.05	-0.05	-0.03
	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04
	-0.03	-0.03	-0.04	-0.04	-0.02	-0.02	-0.05	-0.05	-0.02	-0.02	-0.05
	-0.05	-0.02	-0.02	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05	-0.03	-0.03
	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03
	-0.03	-0.04	-0.04	-0.02	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.02	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03
	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03	-0.03				
25	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.04	-0.04	-0.02	-0.02	-0.03
	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.03	-0.05	-0.05	-0.05	-0.04
	-0.05	-0.04	-0.04	-0.04	-0.03	-0.04	-0.04	-0.03	-0.04	-0.03	-0.04
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03	-0.04	-0.03
26	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.04	-0.04	-0.02	-0.02	-0.03
	-0.03	-0.03	-0.04	-0.04	-0.02	-0.03	-0.03	-0.05	-0.05	-0.05	-0.04
	-0.05	-0.04	-0.04	-0.04	-0.03	-0.04	-0.07	-0.06	-3.89e-03	-9.51e-04	-0.07
	-0.06	-4.11e-03	-7.37e-04	-0.07	-0.06	-4.04e-03	-1.10e-03	-0.07	-0.06	-4.26e-03	-8.86e-04
	-0.05	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03
	-0.02	-0.05	-0.04	-0.03	-0.02	-0.05	-0.05	-0.02	-0.01	-0.05	-0.05
	-0.02	-0.01	-0.05	-0.05	-0.02	-0.01	-0.05	-0.05	-0.02	-0.01	-0.04
	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03
	-0.04	-0.04	-0.03	-0.03	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05	-0.02
	-0.02	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05	-0.02	-0.02	-0.04	-0.04
	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04
	-0.04	-0.03	-0.03	-0.02	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.02	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03
	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03	-0.03				
45	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.02	-0.02	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	-0.02	-0.01	-0.01	-0.01	-0.02	-0.01	0.02	9.66e-03	-0.04	-0.05	0.02
	9.35e-03	-0.04	-0.05	0.02	9.45e-03	-0.04	-0.05	0.02	9.14e-03	-0.04	-0.05
	7.95e-03	-0.02	-0.01	-0.04	7.89e-03	-0.02	-0.01	-0.04	9.01e-03	-0.02	-9.61e-03
	-0.04	8.95e-03	-0.02	-9.55e-03	-0.04	4.75e-03	-8.29e-04	-0.03	-0.04	4.96e-03	-1.04e-03
	-0.03	-0.04	4.64e-03	-9.33e-04	-0.03	-0.04	4.85e-03	-1.15e-03	-0.03	-0.04	-1.85e-03
	-0.02	-0.01	-0.03	-1.88e-03	-0.02	-0.01	-0.03	-1.14e-03	-0.02	-0.01	-0.03
	-1.17e-03	-0.02	-0.01	-0.03	3.06e-04	-4.12e-03	-0.03	-0.03	4.76e-04	-4.29e-03	-0.03
	-0.03	2.24e-04	-4.20e-03	-0.03	-0.03	3.93e-04	-4.37e-03	-0.03	-0.03	-4.93e-03	-0.02
	-0.01	-0.03	-4.95e-03	-0.02	-0.01	-0.03	-4.36e-03	-0.02	-0.01	-0.03	-4.39e-03
	-0.02	-0.01	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01
	-0.01	-0.02	-0.02	-0.02	-0.02	-0.01	-0.02	-0.02	-0.02	-0.01	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.01	-0.02	-0.02				
46	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.02	-0.02	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	-0.02	-0.01	-0.01	-0.02	-0.02	-0.02	3.01e-03	-6.37e-03	-0.03	-0.04	3.17e-03
	-6.53e-03	-0.03	-0.04	2.91e-03	-6.47e-03	-0.03	-0.04	3.07e-03	-6.63e-03	-0.03	-0.04
	3.16e-03	-0.03	-6.09e-03	-0.04	3.13e-03	-0.03	-6.06e-03	-0.04	3.69e-03	-0.03	-5.56e-03
	-0.04	3.66e-03	-0.03	-5.53e-03	-0.04	-4.96e-03	-0.01	-0.02	-0.03	-4.86e-03	-0.01
	-0.02	-0.03	-5.02e-03	-0.01	-0.02	-0.03	-4.91e-03	-0.01	-0.02	-0.03	-4.85e-03

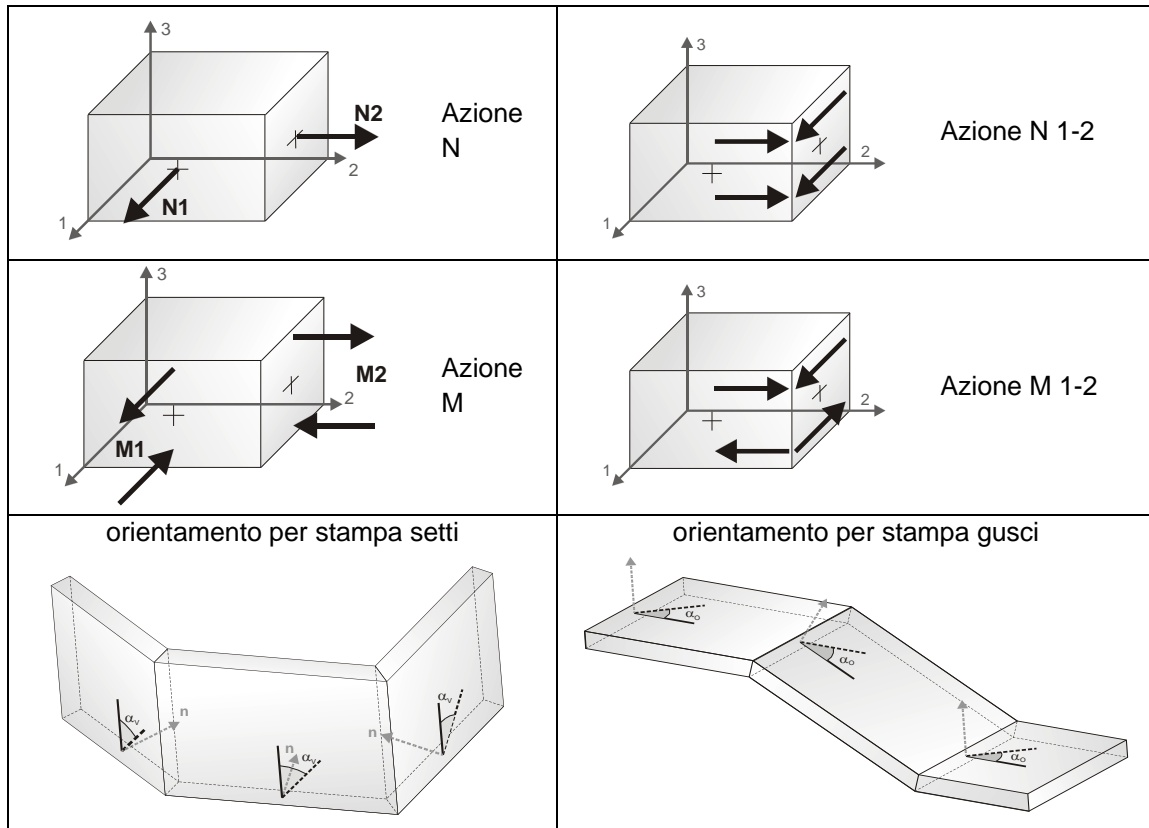
Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
	-0.02	-0.01	-0.03	-4.87e-03	-0.02	-0.01	-0.03	-4.50e-03	-0.02	-0.01	-0.03
	-4.51e-03	-0.02	-0.01	-0.03	-7.47e-03	-0.01	-0.02	-0.03	-7.38e-03	-0.01	-0.02
	-0.03	-7.51e-03	-0.01	-0.02	-0.03	-7.43e-03	-0.01	-0.02	-0.03	-7.38e-03	-0.02
	-0.01	-0.03	-7.39e-03	-0.02	-0.01	-0.03	-7.10e-03	-0.02	-0.01	-0.03	-7.11e-03
	-0.02	-0.01	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01
	-0.01	-0.02	-0.02	-0.02	-0.02	-0.01	-0.02	-0.02	-0.02	-0.01	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.01	-0.02	-0.02				
47	-8.99e-03	1.09e-03	-9.07e-03	1.01e-03	-0.01	-0.01	-0.01	-0.01	-8.97e-03	-8.10e-03	-9.18e-03
	-8.31e-03	-9.98e-03	-0.01	-0.01	-7.24e-03	-9.11e-03	-7.39e-03	0.01	0.01	0.01	-0.01
	0.01	0.02	0.02	0.02	-8.25e-03	0.02	0.03	6.45e-03	-4.50e-03	-0.03	0.03
	6.28e-03	-4.33e-03	-0.03	0.03	6.33e-03	-4.37e-03	-0.03	0.03	6.16e-03	-4.20e-03	-0.03
	0.05	-0.03	0.04	-0.04	0.05	-0.03	0.04	-0.04	0.05	-0.03	0.04
	-0.04	0.05	-0.03	0.04	-0.04	0.02	4.24e-03	-2.28e-03	-0.02	0.02	4.13e-03
	-2.17e-03	-0.02	0.02	4.18e-03	-2.22e-03	-0.02	0.02	4.07e-03	-2.11e-03	-0.02	0.03
	-0.02	0.02	-0.03	0.03	-0.02	0.02	-0.03	0.03	-0.02	0.02	-0.03
	0.03	-0.02	0.02	-0.03	0.01	3.57e-03	-1.61e-03	-0.01	0.02	3.48e-03	-1.52e-03
	-0.01	0.01	3.52e-03	-1.56e-03	-0.01	0.01	3.43e-03	-1.47e-03	-0.01	0.02	-0.02
	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02
	-0.02	0.02	-0.02	-8.99e-03	-8.41e-03	-9.13e-03	-8.55e-03	-7.84e-03	-9.09e-03	-7.94e-03	7.81e-03
	8.39e-03	7.71e-03	-8.51e-03	8.29e-03	-8.99e-03	1.09e-03	-9.09e-03	9.93e-04	-8.76e-03	1.32e-03	-9.07e-03
	1.01e-03	-8.84e-03	1.24e-03	-8.99e-03	1.09e-03	-9.07e-03	1.01e-03				
48	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.04	-0.04	-0.02	-0.02	-0.03
	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.03	-0.05	-0.05	-0.05	-0.04
	-0.05	-0.04	-0.04	-0.04	-0.03	-0.04	-0.02	-0.02	-0.05	-0.05	-0.02
	-0.02	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05
	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04
	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03	-0.02
	-0.05	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03	-0.02	-0.05	-0.04	-0.03
	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04
	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04
	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03
	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03
	-0.03	-0.04	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
	-0.03	-0.04	-0.03	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03				
49	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.02	-0.02	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	-0.02	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01
	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02
	-1.43e-03	-0.03	-1.43e-03	-0.03	-1.43e-03	-0.03	-1.43e-03	-0.03	-1.43e-03	-0.03	-1.43e-03
	-0.03	-1.43e-03	-0.03	-1.43e-03	-0.03	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02
	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-7.65e-03
	-0.03	-7.65e-03	-0.03	-7.65e-03	-0.03	-7.65e-03	-0.03	-7.65e-03	-0.03	-7.65e-03	-0.03
	-7.65e-03	-0.03	-7.65e-03	-0.03	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01
	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.02	-9.63e-03	-0.02
	-9.63e-03	-0.02	-9.63e-03	-0.02	-9.63e-03	-0.02	-9.63e-03	-0.02	-9.63e-03	-0.02	-9.63e-03
	-0.02	-9.63e-03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01
	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02				
62	-8.99e-03	1.09e-03	-9.07e-03	1.01e-03	-0.01	-0.01	-0.01	-0.01	-8.97e-03	-8.10e-03	-9.18e-03
	-8.31e-03	-9.98e-03	-0.01	-0.01	-7.24e-03	-9.11e-03	-7.39e-03	0.01	0.01	0.01	-0.01
	0.01	0.02	0.02	0.02	-8.25e-03	0.02	-4.33e-03	-0.03	0.03	6.28e-03	-4.50e-03
	-0.03	0.03	6.45e-03	-4.20e-03	-0.03	0.03	6.16e-03	-4.37e-03	-0.03	0.03	6.33e-03
	0.04	-0.04	0.05	-0.03	0.04	-0.04	0.05	-0.03	0.04	-0.04	0.05
	-0.03	0.04	-0.04	0.05	-0.03	-2.17e-03	-0.02	0.02	4.13e-03	-2.28e-03	-0.02
	0.02	4.24e-03	-2.11e-03	-0.02	0.02	4.07e-03	-2.22e-03	-0.02	0.02	4.18e-03	0.02
	-0.03	0.03	-0.02	0.02	-0.03	0.03	-0.02	0.02	-0.03	0.03	-0.02
	0.02	-0.03	0.03	-0.02	-1.52e-03	-0.01	0.02	3.48e-03	-1.61e-03	-0.01	0.01
	3.57e-03	-1.47e-03	-0.01	0.01	3.43e-03	-1.56e-03	-0.01	0.01	3.52e-03	0.02	-0.02
	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02	-0.02	0.02
	-0.02	0.02	-0.02	-8.99e-03	-8.41e-03	-9.13e-03	-8.55e-03	-7.84e-03	-9.09e-03	-7.94e-03	7.81e-03
	8.39e-03	7.71e-03	-8.51e-03	8.29e-03	-8.99e-03	1.09e-03	-9.09e-03	9.93e-04	-8.76e-03	1.32e-03	-9.07e-03
	1.01e-03	-8.84e-03	1.24e-03	-8.99e-03	1.09e-03	-9.07e-03	1.01e-03				
66	-0.06	-0.08	-0.07	-0.09	-0.08	-0.08	-0.10	-0.10	-0.05	-0.06	-0.08
	-0.08	-0.08	-0.09	-0.10	-0.06	-0.07	-0.07	-0.13	-0.14	-0.15	-0.09
	-0.15	-0.11	-0.11	-0.13	-0.07	-0.13	-0.08	-0.06	-0.13	-0.10	-0.08
	-0.06	-0.13	-0.10	-0.08	-0.06	-0.13	-0.10	-0.08	-0.06	-0.13	-0.10
	-0.13	-0.04	-0.14	-0.06	-0.13	-0.04	-0.14	-0.06	-0.12	-0.05	-0.14
	-0.06	-0.12	-0.05	-0.14	-0.06	-0.09	-0.07	-0.11	-0.10	-0.09	-0.07
	-0.11	-0.10	-0.09	-0.07	-0.11	-0.10	-0.09	-0.07	-0.11	-0.10	-0.11
	-0.06	-0.12	-0.07	-0.11	-0.06	-0.12	-0.07	-0.11	-0.06	-0.12	-0.07
	-0.11	-0.06	-0.12	-0.07	-0.09	-0.08	-0.11	-0.10	-0.09	-0.08	-0.11
	-0.10	-0.09	-0.08	-0.11	-0.10	-0.09	-0.08	-0.11	-0.10	-0.11	-0.07
	-0.11	-0.08	-0.11	-0.07	-0.11	-0.08	-0.11	-0.07	-0.11	-0.08	-0.11

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-Z (gradi)
1	Setto	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
			cm	kN	kN	kN	kN m	kN m	kN m
1	1	0.0	0.0	-58.42	0.0	12.70	0.0	-32.67	0.0
1	1	16.25	16.25	-58.42	0.0	12.70	0.0	-30.87	0.0
1	1	32.50	32.50	-54.76	0.0	11.60	0.0	-29.06	0.0
1	1	48.75	48.75	-51.11	0.0	11.32	0.0	-27.26	0.0
1	1	65.00	65.00	-47.45	0.0	11.08	0.0	-25.46	0.0
1	1	81.25	81.25	-43.80	0.0	10.87	0.0	-23.66	0.0
1	1	97.50	97.50	-40.14	0.0	10.71	0.0	-21.86	0.0
1	1	113.75	113.75	-36.48	0.0	10.61	0.0	-20.06	0.0
1	1	130.00	130.00	-32.83	0.0	10.45	0.0	-18.26	0.0
1	2	0.0	0.0	-71.85	0.0	30.99	0.0	-63.68	0.0
1	2	16.25	16.25	-71.85	0.0	30.99	0.0	-59.02	0.0
1	2	32.50	32.50	-68.19	0.0	29.44	0.0	-54.35	0.0
1	2	48.75	48.75	-64.54	0.0	28.95	0.0	-49.68	0.0
1	2	65.00	65.00	-60.88	0.0	28.52	0.0	-45.02	0.0
1	2	81.25	81.25	-57.23	0.0	28.16	0.0	-40.35	0.0
1	2	97.50	97.50	-53.57	0.0	27.88	0.0	-35.68	0.0
1	2	113.75	113.75	-49.91	0.0	27.72	0.0	-31.01	0.0
1	2	130.00	130.00	-46.26	0.0	27.01	0.0	-26.35	0.0
1	3	0.0	0.0	-70.11	0.0	14.54	0.0	-40.45	0.0
1	3	16.25	16.25	-70.11	0.0	14.54	0.0	-38.41	0.0
1	3	32.50	32.50	-66.45	0.0	13.20	0.0	-36.37	0.0
1	3	48.75	48.75	-62.79	0.0	12.86	0.0	-34.34	0.0
1	3	65.00	65.00	-59.14	0.0	12.56	0.0	-32.30	0.0
1	3	81.25	81.25	-55.48	0.0	12.30	0.0	-30.27	0.0
1	3	97.50	97.50	-51.82	0.0	12.09	0.0	-28.23	0.0
1	3	113.75	113.75	-48.17	0.0	11.95	0.0	-26.19	0.0
1	3	130.00	130.00	-44.51	0.0	11.75	0.0	-24.16	0.0
1	4	0.0	0.0	-83.54	0.0	32.83	0.0	-71.46	0.0
1	4	16.25	16.25	-83.54	0.0	32.83	0.0	-66.56	0.0
1	4	32.50	32.50	-79.88	0.0	31.04	0.0	-61.66	0.0
1	4	48.75	48.75	-76.22	0.0	30.48	0.0	-56.76	0.0
1	4	65.00	65.00	-72.57	0.0	29.99	0.0	-51.85	0.0
1	4	81.25	81.25	-68.91	0.0	29.58	0.0	-46.95	0.0
1	4	97.50	97.50	-65.26	0.0	29.26	0.0	-42.05	0.0
1	4	113.75	113.75	-61.60	0.0	29.06	0.0	-37.15	0.0
1	4	130.00	130.00	-57.94	0.0	28.31	0.0	-32.24	0.0
1	5	0.0	0.0	-79.26	0.0	17.03	0.0	-44.67	0.0
1	5	16.25	16.25	-79.26	0.0	17.03	0.0	-42.26	0.0
1	5	32.50	32.50	-74.50	0.0	15.53	0.0	-39.85	0.0
1	5	48.75	48.75	-69.75	0.0	15.16	0.0	-37.45	0.0
1	5	65.00	65.00	-65.00	0.0	14.82	0.0	-35.04	0.0
1	5	81.25	81.25	-60.24	0.0	14.54	0.0	-32.63	0.0
1	5	97.50	97.50	-55.49	0.0	14.31	0.0	-30.22	0.0
1	5	113.75	113.75	-50.74	0.0	14.17	0.0	-27.82	0.0
1	5	130.00	130.00	-45.99	0.0	13.96	0.0	-25.41	0.0
1	6	0.0	0.0	-80.41	0.0	18.60	0.0	-47.33	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
1	6	16.25	-80.41	0.0	18.60	0.0	-44.68	0.0	
1	6	32.50	-75.66	0.0	17.06	0.0	-42.02	0.0	
1	6	48.75	-70.90	0.0	16.67	0.0	-39.37	0.0	
1	6	65.00	-66.15	0.0	16.32	0.0	-36.72	0.0	
1	6	81.25	-61.40	0.0	16.02	0.0	-34.06	0.0	
1	6	97.50	-56.64	0.0	15.79	0.0	-31.41	0.0	
1	6	113.75	-51.89	0.0	15.64	0.0	-28.76	0.0	
1	6	130.00	-47.14	0.0	15.38	0.0	-26.10	0.0	
1	7	0.0	-108.47	0.0	21.65	0.0	-64.12	0.0	
1	7	16.25	-108.47	0.0	21.65	0.0	-61.12	0.0	
1	7	32.50	-103.72	0.0	19.53	0.0	-58.13	0.0	
1	7	48.75	-98.97	0.0	19.00	0.0	-55.13	0.0	
1	7	65.00	-94.21	0.0	18.51	0.0	-52.14	0.0	
1	7	81.25	-89.46	0.0	18.10	0.0	-49.14	0.0	
1	7	97.50	-84.71	0.0	17.76	0.0	-46.15	0.0	
1	7	113.75	-79.95	0.0	17.53	0.0	-43.15	0.0	
1	7	130.00	-75.20	0.0	17.21	0.0	-40.16	0.0	
1	8	0.0	-109.62	0.0	23.21	0.0	-66.78	0.0	
1	8	16.25	-109.62	0.0	23.21	0.0	-63.54	0.0	
1	8	32.50	-104.87	0.0	21.06	0.0	-60.29	0.0	
1	8	48.75	-100.12	0.0	20.51	0.0	-57.05	0.0	
1	8	65.00	-95.36	0.0	20.01	0.0	-53.81	0.0	
1	8	81.25	-90.61	0.0	19.58	0.0	-50.57	0.0	
1	8	97.50	-85.86	0.0	19.23	0.0	-47.33	0.0	
1	8	113.75	-81.10	0.0	18.99	0.0	-44.09	0.0	
1	8	130.00	-76.35	0.0	18.63	0.0	-40.85	0.0	
1	9	0.0	-55.11	0.0	12.18	0.0	-30.46	0.0	
1	9	16.25	-55.11	0.0	12.18	0.0	-28.73	0.0	
1	9	32.50	-51.45	0.0	11.15	0.0	-26.99	0.0	
1	9	48.75	-47.80	0.0	10.89	0.0	-25.26	0.0	
1	9	65.00	-44.14	0.0	10.66	0.0	-23.53	0.0	
1	9	81.25	-40.48	0.0	10.47	0.0	-21.79	0.0	
1	9	97.50	-36.83	0.0	10.32	0.0	-20.06	0.0	
1	9	113.75	-33.17	0.0	10.23	0.0	-18.32	0.0	
1	9	130.00	-29.52	0.0	10.08	0.0	-16.59	0.0	
1	10	0.0	-56.26	0.0	13.74	0.0	-33.12	0.0	
1	10	16.25	-56.26	0.0	13.74	0.0	-31.14	0.0	
1	10	32.50	-52.60	0.0	12.68	0.0	-29.16	0.0	
1	10	48.75	-48.95	0.0	12.40	0.0	-27.18	0.0	
1	10	65.00	-45.29	0.0	12.16	0.0	-25.20	0.0	
1	10	81.25	-41.64	0.0	11.95	0.0	-23.22	0.0	
1	10	97.50	-37.98	0.0	11.79	0.0	-21.24	0.0	
1	10	113.75	-34.32	0.0	11.69	0.0	-19.26	0.0	
1	10	130.00	-30.67	0.0	11.50	0.0	-17.28	0.0	
1	11	0.0	-84.32	0.0	16.79	0.0	-49.91	0.0	
1	11	16.25	-84.32	0.0	16.79	0.0	-47.59	0.0	
1	11	32.50	-80.67	0.0	15.14	0.0	-45.27	0.0	
1	11	48.75	-77.01	0.0	14.73	0.0	-42.94	0.0	
1	11	65.00	-73.35	0.0	14.35	0.0	-40.62	0.0	
1	11	81.25	-69.70	0.0	14.03	0.0	-38.30	0.0	
1	11	97.50	-66.04	0.0	13.76	0.0	-35.98	0.0	
1	11	113.75	-62.39	0.0	13.58	0.0	-33.66	0.0	
1	11	130.00	-58.73	0.0	13.34	0.0	-31.34	0.0	
1	12	0.0	-85.47	0.0	18.36	0.0	-52.57	0.0	
1	12	16.25	-85.47	0.0	18.36	0.0	-50.00	0.0	
1	12	32.50	-81.82	0.0	16.67	0.0	-47.43	0.0	
1	12	48.75	-78.16	0.0	16.24	0.0	-44.87	0.0	
1	12	65.00	-74.51	0.0	15.85	0.0	-42.30	0.0	
1	12	81.25	-70.85	0.0	15.51	0.0	-39.73	0.0	
1	12	97.50	-67.19	0.0	15.24	0.0	-37.16	0.0	
1	12	113.75	-63.54	0.0	15.05	0.0	-34.60	0.0	
1	12	130.00	-59.88	0.0	14.75	0.0	-32.03	0.0	
1	13	0.0	-81.56	0.0	20.17	0.0	-49.99	0.0	
1	13	16.25	-81.56	0.0	20.17	0.0	-47.09	0.0	
1	13	32.50	-76.81	0.0	18.59	0.0	-44.19	0.0	
1	13	48.75	-72.05	0.0	18.18	0.0	-41.29	0.0	
1	13	65.00	-67.30	0.0	17.81	0.0	-38.39	0.0	
1	13	81.25	-62.55	0.0	17.50	0.0	-35.49	0.0	
1	13	97.50	-57.79	0.0	17.26	0.0	-32.59	0.0	
1	13	113.75	-53.04	0.0	17.10	0.0	-29.69	0.0	
1	13	130.00	-48.29	0.0	16.79	0.0	-26.79	0.0	
1	14	0.0	-99.71	0.0	20.26	0.0	-58.28	0.0	
1	14	16.25	-99.71	0.0	20.26	0.0	-55.46	0.0	
1	14	32.50	-94.95	0.0	18.33	0.0	-52.65	0.0	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
1	14	48.75	-90.20	0.0	17.84	0.0	-49.83	0.0	
1	14	65.00	-85.45	0.0	17.41	0.0	-47.01	0.0	
1	14	81.25	-80.69	0.0	17.03	0.0	-44.19	0.0	
1	14	97.50	-75.94	0.0	16.72	0.0	-41.37	0.0	
1	14	113.75	-71.19	0.0	16.52	0.0	-38.55	0.0	
1	14	130.00	-66.44	0.0	16.23	0.0	-35.73	0.0	
1	15	0.0	-102.01	0.0	23.40	0.0	-63.60	0.0	
1	15	16.25	-102.01	0.0	23.40	0.0	-60.29	0.0	
1	15	32.50	-97.26	0.0	21.39	0.0	-56.98	0.0	
1	15	48.75	-92.50	0.0	20.87	0.0	-53.67	0.0	
1	15	65.00	-87.75	0.0	20.40	0.0	-50.36	0.0	
1	15	81.25	-83.00	0.0	19.99	0.0	-47.05	0.0	
1	15	97.50	-78.24	0.0	19.67	0.0	-43.74	0.0	
1	15	113.75	-73.49	0.0	19.45	0.0	-40.43	0.0	
1	15	130.00	-68.74	0.0	19.07	0.0	-37.12	0.0	
1	16	0.0	-57.41	0.0	15.31	0.0	-35.78	0.0	
1	16	16.25	-57.41	0.0	15.31	0.0	-33.55	0.0	
1	16	32.50	-53.76	0.0	14.21	0.0	-31.33	0.0	
1	16	48.75	-50.10	0.0	13.91	0.0	-29.10	0.0	
1	16	65.00	-46.44	0.0	13.65	0.0	-26.88	0.0	
1	16	81.25	-42.79	0.0	13.43	0.0	-24.65	0.0	
1	16	97.50	-39.13	0.0	13.26	0.0	-22.43	0.0	
1	16	113.75	-35.47	0.0	13.16	0.0	-20.20	0.0	
1	16	130.00	-31.82	0.0	12.92	0.0	-17.97	0.0	
1	17	0.0	-75.56	0.0	15.41	0.0	-44.08	0.0	
1	17	16.25	-75.56	0.0	15.41	0.0	-41.93	0.0	
1	17	32.50	-71.90	0.0	13.95	0.0	-39.78	0.0	
1	17	48.75	-68.25	0.0	13.58	0.0	-37.64	0.0	
1	17	65.00	-64.59	0.0	13.25	0.0	-35.49	0.0	
1	17	81.25	-60.93	0.0	12.96	0.0	-33.35	0.0	
1	17	97.50	-57.28	0.0	12.73	0.0	-31.20	0.0	
1	17	113.75	-53.62	0.0	12.58	0.0	-29.06	0.0	
1	17	130.00	-49.97	0.0	12.36	0.0	-26.91	0.0	
1	18	0.0	-77.86	0.0	18.54	0.0	-49.39	0.0	
1	18	16.25	-77.86	0.0	18.54	0.0	-46.76	0.0	
1	18	32.50	-74.21	0.0	17.00	0.0	-44.12	0.0	
1	18	48.75	-70.55	0.0	16.60	0.0	-41.48	0.0	
1	18	65.00	-66.89	0.0	16.23	0.0	-38.85	0.0	
1	18	81.25	-63.24	0.0	15.92	0.0	-36.21	0.0	
1	18	97.50	-59.58	0.0	15.67	0.0	-33.57	0.0	
1	18	113.75	-55.92	0.0	15.51	0.0	-30.93	0.0	
1	18	130.00	-52.27	0.0	15.20	0.0	-28.30	0.0	
1	19	0.0	-112.83	0.0	62.75	0.0	-122.22	0.0	
1	19	16.25	-112.83	0.0	62.75	0.0	-112.64	0.0	
1	19	32.50	-108.08	0.0	60.14	0.0	-103.07	0.0	
1	19	48.75	-103.33	0.0	59.22	0.0	-93.49	0.0	
1	19	65.00	-98.58	0.0	58.41	0.0	-83.92	0.0	
1	19	81.25	-93.82	0.0	57.75	0.0	-74.35	0.0	
1	19	97.50	-89.07	0.0	57.25	0.0	-64.77	0.0	
1	19	113.75	-84.32	0.0	56.95	0.0	-55.20	0.0	
1	19	130.00	-79.56	0.0	55.34	0.0	-45.62	0.0	
1	20	0.0	-113.99	0.0	64.32	0.0	-124.88	0.0	
1	20	16.25	-113.99	0.0	64.32	0.0	-115.06	0.0	
1	20	32.50	-109.23	0.0	61.67	0.0	-105.24	0.0	
1	20	48.75	-104.48	0.0	60.73	0.0	-95.42	0.0	
1	20	65.00	-99.73	0.0	59.91	0.0	-85.60	0.0	
1	20	81.25	-94.97	0.0	59.23	0.0	-75.78	0.0	
1	20	97.50	-90.22	0.0	58.72	0.0	-65.96	0.0	
1	20	113.75	-85.47	0.0	58.41	0.0	-56.14	0.0	
1	20	130.00	-80.71	0.0	56.76	0.0	-46.32	0.0	
1	21	0.0	-133.28	0.0	65.98	0.0	-135.83	0.0	
1	21	16.25	-133.28	0.0	65.98	0.0	-125.85	0.0	
1	21	32.50	-128.53	0.0	62.94	0.0	-115.86	0.0	
1	21	48.75	-123.78	0.0	61.91	0.0	-105.87	0.0	
1	21	65.00	-119.03	0.0	61.00	0.0	-95.89	0.0	
1	21	81.25	-114.27	0.0	60.24	0.0	-85.90	0.0	
1	21	97.50	-109.52	0.0	59.66	0.0	-75.92	0.0	
1	21	113.75	-104.77	0.0	59.30	0.0	-65.93	0.0	
1	21	130.00	-100.01	0.0	57.61	0.0	-55.95	0.0	
1	22	0.0	-100.86	0.0	21.83	0.0	-60.94	0.0	
1	22	16.25	-100.86	0.0	21.83	0.0	-57.88	0.0	
1	22	32.50	-96.11	0.0	19.86	0.0	-54.81	0.0	
1	22	48.75	-91.35	0.0	19.35	0.0	-51.75	0.0	
1	22	65.00	-86.60	0.0	18.90	0.0	-48.68	0.0	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
1	22	81.25	-81.85	0.0		18.51	0.0	-45.62	0.0
1	22	97.50	-77.09	0.0		18.20	0.0	-42.55	0.0
1	22	113.75	-72.34	0.0		17.99	0.0	-39.49	0.0
1	22	130.00	-67.59	0.0		17.65	0.0	-36.43	0.0
1	23	0.0	-134.44	0.0		67.55	0.0	-138.49	0.0
1	23	16.25	-134.44	0.0		67.55	0.0	-128.26	0.0
1	23	32.50	-129.68	0.0		64.47	0.0	-118.03	0.0
1	23	48.75	-124.93	0.0		63.42	0.0	-107.80	0.0
1	23	65.00	-120.18	0.0		62.49	0.0	-97.56	0.0
1	23	81.25	-115.42	0.0		61.72	0.0	-87.33	0.0
1	23	97.50	-110.67	0.0		61.13	0.0	-77.10	0.0
1	23	113.75	-105.92	0.0		60.77	0.0	-66.87	0.0
1	23	130.00	-101.16	0.0		59.03	0.0	-56.64	0.0
1	24	0.0	-88.69	0.0		57.89	0.0	-108.01	0.0
1	24	16.25	-88.69	0.0		57.89	0.0	-99.11	0.0
1	24	32.50	-85.03	0.0		55.75	0.0	-90.21	0.0
1	24	48.75	-81.37	0.0		54.95	0.0	-81.31	0.0
1	24	65.00	-77.72	0.0		54.25	0.0	-72.41	0.0
1	24	81.25	-74.06	0.0		53.68	0.0	-63.51	0.0
1	24	97.50	-70.41	0.0		53.25	0.0	-54.60	0.0
1	24	113.75	-66.75	0.0		53.01	0.0	-45.70	0.0
1	24	130.00	-63.09	0.0		51.47	0.0	-36.80	0.0
1	25	0.0	-89.84	0.0		59.46	0.0	-110.67	0.0
1	25	16.25	-89.84	0.0		59.46	0.0	-101.52	0.0
1	25	32.50	-86.18	0.0		57.28	0.0	-92.37	0.0
1	25	48.75	-82.53	0.0		56.46	0.0	-83.23	0.0
1	25	65.00	-78.87	0.0		55.75	0.0	-74.08	0.0
1	25	81.25	-75.21	0.0		55.17	0.0	-64.94	0.0
1	25	97.50	-71.56	0.0		54.73	0.0	-55.79	0.0
1	25	113.75	-67.90	0.0		54.47	0.0	-46.64	0.0
1	25	130.00	-64.24	0.0		52.88	0.0	-37.50	0.0
1	26	0.0	-109.14	0.0		61.12	0.0	-121.62	0.0
1	26	16.25	-109.14	0.0		61.12	0.0	-112.31	0.0
1	26	32.50	-105.48	0.0		58.55	0.0	-103.00	0.0
1	26	48.75	-101.82	0.0		57.64	0.0	-93.69	0.0
1	26	65.00	-98.17	0.0		56.84	0.0	-84.37	0.0
1	26	81.25	-94.51	0.0		56.17	0.0	-75.06	0.0
1	26	97.50	-90.86	0.0		55.66	0.0	-65.75	0.0
1	26	113.75	-87.20	0.0		55.36	0.0	-56.44	0.0
1	26	130.00	-83.54	0.0		53.74	0.0	-47.13	0.0
1	27	0.0	-76.71	0.0		16.97	0.0	-46.73	0.0
1	27	16.25	-76.71	0.0		16.97	0.0	-44.34	0.0
1	27	32.50	-73.05	0.0		15.47	0.0	-41.95	0.0
1	27	48.75	-69.40	0.0		15.09	0.0	-39.56	0.0
1	27	65.00	-65.74	0.0		14.74	0.0	-37.17	0.0
1	27	81.25	-62.09	0.0		14.44	0.0	-34.78	0.0
1	27	97.50	-58.43	0.0		14.20	0.0	-32.39	0.0
1	27	113.75	-54.77	0.0		14.04	0.0	-30.00	0.0
1	27	130.00	-51.12	0.0		13.78	0.0	-27.60	0.0
1	28	0.0	-110.29	0.0		62.69	0.0	-124.28	0.0
1	28	16.25	-110.29	0.0		62.69	0.0	-114.72	0.0
1	28	32.50	-106.63	0.0		60.08	0.0	-105.17	0.0
1	28	48.75	-102.98	0.0		59.15	0.0	-95.61	0.0
1	28	65.00	-99.32	0.0		58.33	0.0	-86.05	0.0
1	28	81.25	-95.66	0.0		57.66	0.0	-76.49	0.0
1	28	97.50	-92.01	0.0		57.14	0.0	-66.94	0.0
1	28	113.75	-88.35	0.0		56.82	0.0	-57.38	0.0
1	28	130.00	-84.69	0.0		55.16	0.0	-47.82	0.0
1	29	0.0	-79.39	26.16	48.55	-52.96	-89.75	-15.95	
1	29	16.25	-79.39	26.16	48.55	-52.96	-84.76	-16.36	
1	29	32.50	-75.24	25.63	46.53	-48.43	-77.36	-27.61	
1	29	48.75	-71.81	25.34	45.84	-44.54	-69.98	-29.10	
1	29	65.00	-68.35	24.83	45.20	-40.61	-62.62	-29.31	
1	29	81.25	-64.88	24.56	44.63	-36.69	-55.28	-29.10	
1	29	97.50	-61.40	24.23	44.12	-32.82	-47.99	-28.61	
1	29	113.75	-57.91	23.78	43.71	-29.03	-40.84	-26.98	
1	29	130.00	-54.42	23.30	42.74	-25.37	-33.07	-15.35	
1	30	0.0	-95.47	24.49	18.35	-51.04	-58.36	-17.26	
1	30	16.25	-95.47	24.49	18.35	-51.04	-53.39	-17.72	
1	30	32.50	-92.31	24.10	16.62	-48.07	-50.83	-30.38	
1	30	48.75	-88.43	23.68	16.15	-44.32	-48.25	-32.14	
1	30	65.00	-84.58	23.58	15.77	-40.53	-45.65	-32.25	
1	30	81.25	-80.74	23.24	15.49	-36.76	-43.03	-32.15	
1	30	97.50	-76.90	22.90	15.32	-33.02	-40.36	-31.73	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
1	30	113.75		-73.08	22.52	15.31	-29.37	-37.55	-29.78
1	30	130.00		-69.25	22.22	14.73	-25.85	-35.35	-17.01
1	31	0.0		-79.39	-24.49	48.55	51.04	-89.75	17.26
1	31	16.25		-79.39	-24.49	48.55	51.04	-84.76	17.72
1	31	32.50		-75.24	-24.10	46.53	48.07	-77.36	30.38
1	31	48.75		-71.81	-23.68	45.84	44.32	-69.98	32.14
1	31	65.00		-68.35	-23.58	45.20	40.53	-62.62	32.25
1	31	81.25		-64.88	-23.24	44.63	36.76	-55.28	32.15
1	31	97.50		-61.40	-22.90	44.12	33.02	-47.99	31.73
1	31	113.75		-57.91	-22.52	43.71	29.37	-40.84	29.78
1	31	130.00		-54.42	-22.22	42.74	25.85	-33.07	17.01
1	32	0.0		-95.47	-26.16	18.35	52.96	-58.36	15.95
1	32	16.25		-95.47	-26.16	18.35	52.96	-53.39	16.36
1	32	32.50		-92.31	-25.63	16.62	48.43	-50.83	27.61
1	32	48.75		-88.43	-25.34	16.15	44.54	-48.25	29.10
1	32	65.00		-84.58	-24.83	15.77	40.61	-45.65	29.31
1	32	81.25		-80.74	-24.56	15.49	36.69	-43.03	29.10
1	32	97.50		-76.90	-24.23	15.32	32.82	-40.36	28.61
1	32	113.75		-73.08	-23.78	15.31	29.03	-37.55	26.98
1	32	130.00		-69.25	-23.30	14.73	25.37	-35.35	15.35
1	33	0.0		-79.39	24.49	48.55	-51.04	-89.75	-17.26
1	33	16.25		-79.39	24.49	48.55	-51.04	-84.76	-17.72
1	33	32.50		-75.24	24.10	46.53	-48.07	-77.36	-30.38
1	33	48.75		-71.81	23.68	45.84	-44.32	-69.98	-32.14
1	33	65.00		-68.35	23.58	45.20	-40.53	-62.62	-32.25
1	33	81.25		-64.88	23.24	44.63	-36.76	-55.28	-32.15
1	33	97.50		-61.40	22.90	44.12	-33.02	-47.99	-31.73
1	33	113.75		-57.91	22.52	43.71	-29.37	-40.84	-29.78
1	33	130.00		-54.42	22.22	42.74	-25.85	-33.07	-17.01
1	34	0.0		-95.47	26.16	18.35	-52.96	-58.36	-15.95
...									
1	150	130.00		-57.94	0.0	28.31	0.0	-32.24	0.0
M	S			N memb.	V memb.	V orto	M memb.	M orto	T
				-134.44	-26.16	-18.58	-52.96	-138.49	-32.80
				-29.52	26.16	83.78	52.96	-16.59	32.80

Macro	Tipo	Angolo 1-Z (gradi)
2	Setto	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
			cm	kN	kN	kN	kN m	kN m	kN m
2	1	0.0		-131.25	0.0	-12.54	0.0	31.35	0.0
2	1	36.25		-131.25	0.0	-12.54	0.0	27.33	0.0
2	1	72.50		-123.10	0.0	-11.44	0.0	23.31	0.0
2	1	108.75		-114.94	0.0	-11.02	0.0	19.29	0.0
2	1	145.00		-106.78	0.0	-10.78	0.0	15.28	0.0
2	1	181.25		-98.63	0.0	-10.64	0.0	11.26	0.0
2	1	217.50		-90.47	0.0	-10.54	0.0	7.24	0.0
2	1	253.75		-82.32	0.0	-10.45	0.0	3.22	0.0
2	1	290.00		-74.16	0.0	-10.36	0.0	-0.79	0.0
2	2	0.0		-174.52	0.0	-10.38	0.0	28.75	0.0
2	2	36.25		-174.52	0.0	-10.38	0.0	25.65	0.0
2	2	72.50		-166.37	0.0	-9.02	0.0	22.54	0.0
2	2	108.75		-158.21	0.0	-8.58	0.0	19.44	0.0
2	2	145.00		-150.05	0.0	-8.35	0.0	16.33	0.0
2	2	181.25		-141.90	0.0	-8.19	0.0	13.23	0.0
2	2	217.50		-133.74	0.0	-8.06	0.0	10.13	0.0
2	2	253.75		-125.58	0.0	-7.90	0.0	7.02	0.0
2	2	290.00		-117.43	0.0	-7.62	0.0	3.92	0.0
2	3	0.0		-154.73	0.0	-14.23	0.0	35.82	0.0
2	3	36.25		-154.73	0.0	-14.23	0.0	31.28	0.0
2	3	72.50		-146.57	0.0	-12.95	0.0	26.74	0.0
2	3	108.75		-138.41	0.0	-12.46	0.0	22.19	0.0
2	3	145.00		-130.26	0.0	-12.19	0.0	17.65	0.0
2	3	181.25		-122.10	0.0	-12.02	0.0	13.11	0.0
2	3	217.50		-113.94	0.0	-11.91	0.0	8.57	0.0
2	3	253.75		-105.79	0.0	-11.80	0.0	4.03	0.0
2	3	290.00		-97.63	0.0	-11.62	0.0	-0.51	0.0
2	4	0.0		-197.99	0.0	-12.07	0.0	33.22	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
2	4	36.25	-197.99	0.0	-12.07	0.0	29.60	0.0	
2	4	72.50	-189.84	0.0	-10.53	0.0	25.97	0.0	
2	4	108.75	-181.68	0.0	-10.03	0.0	22.34	0.0	
2	4	145.00	-173.53	0.0	-9.76	0.0	18.71	0.0	
2	4	181.25	-165.37	0.0	-9.57	0.0	15.08	0.0	
2	4	217.50	-157.21	0.0	-9.43	0.0	11.45	0.0	
2	4	253.75	-149.06	0.0	-9.24	0.0	7.83	0.0	
2	4	290.00	-140.90	0.0	-8.88	0.0	4.20	0.0	
2	5	0.0	-177.28	0.0	-16.78	0.0	42.02	0.0	
2	5	36.25	-177.28	0.0	-16.78	0.0	36.65	0.0	
2	5	72.50	-166.68	0.0	-15.30	0.0	31.27	0.0	
2	5	108.75	-156.07	0.0	-14.73	0.0	25.90	0.0	
2	5	145.00	-145.47	0.0	-14.42	0.0	20.53	0.0	
2	5	181.25	-134.87	0.0	-14.22	0.0	15.16	0.0	
2	5	217.50	-124.26	0.0	-14.09	0.0	9.79	0.0	
2	5	253.75	-113.66	0.0	-13.97	0.0	4.42	0.0	
2	5	290.00	-103.06	0.0	-13.82	0.0	-0.95	0.0	
2	6	0.0	-180.99	0.0	-16.60	0.0	41.79	0.0	
2	6	36.25	-180.99	0.0	-16.60	0.0	36.50	0.0	
2	6	72.50	-170.39	0.0	-15.09	0.0	31.21	0.0	
2	6	108.75	-159.78	0.0	-14.52	0.0	25.92	0.0	
2	6	145.00	-149.18	0.0	-14.21	0.0	20.62	0.0	
2	6	181.25	-138.58	0.0	-14.01	0.0	15.33	0.0	
2	6	217.50	-127.97	0.0	-13.88	0.0	10.04	0.0	
2	6	253.75	-117.37	0.0	-13.75	0.0	4.75	0.0	
2	6	290.00	-106.77	0.0	-13.59	0.0	-0.55	0.0	
2	7	0.0	-235.96	0.0	-21.00	0.0	53.20	0.0	
2	7	36.25	-235.96	0.0	-21.00	0.0	46.52	0.0	
2	7	72.50	-225.36	0.0	-19.07	0.0	39.84	0.0	
2	7	108.75	-214.75	0.0	-18.34	0.0	33.15	0.0	
2	7	145.00	-204.15	0.0	-17.94	0.0	26.47	0.0	
2	7	181.25	-193.55	0.0	-17.69	0.0	19.79	0.0	
2	7	217.50	-182.94	0.0	-17.51	0.0	13.11	0.0	
2	7	253.75	-172.34	0.0	-17.32	0.0	6.43	0.0	
2	7	290.00	-161.74	0.0	-16.98	0.0	-0.25	0.0	
2	8	0.0	-239.67	0.0	-20.81	0.0	52.98	0.0	
2	8	36.25	-239.67	0.0	-20.81	0.0	46.37	0.0	
2	8	72.50	-229.07	0.0	-18.87	0.0	39.77	0.0	
2	8	108.75	-218.46	0.0	-18.14	0.0	33.17	0.0	
2	8	145.00	-207.86	0.0	-17.73	0.0	26.56	0.0	
2	8	181.25	-197.26	0.0	-17.48	0.0	19.96	0.0	
2	8	217.50	-186.65	0.0	-17.30	0.0	13.36	0.0	
2	8	253.75	-176.05	0.0	-17.10	0.0	6.75	0.0	
2	8	290.00	-165.45	0.0	-16.75	0.0	0.15	0.0	
2	9	0.0	-124.60	0.0	-12.06	0.0	30.08	0.0	
2	9	36.25	-124.60	0.0	-12.06	0.0	26.21	0.0	
2	9	72.50	-116.45	0.0	-11.01	0.0	22.34	0.0	
2	9	108.75	-108.29	0.0	-10.61	0.0	18.47	0.0	
2	9	145.00	-100.13	0.0	-10.38	0.0	14.60	0.0	
2	9	181.25	-91.98	0.0	-10.24	0.0	10.73	0.0	
2	9	217.50	-83.82	0.0	-10.15	0.0	6.87	0.0	
2	9	253.75	-75.67	0.0	-10.07	0.0	3.00	0.0	
2	9	290.00	-67.51	0.0	-10.00	0.0	-0.87	0.0	
2	10	0.0	-128.31	0.0	-11.88	0.0	29.86	0.0	
2	10	36.25	-128.31	0.0	-11.88	0.0	26.07	0.0	
2	10	72.50	-120.16	0.0	-10.81	0.0	22.28	0.0	
2	10	108.75	-112.00	0.0	-10.40	0.0	18.48	0.0	
2	10	145.00	-103.84	0.0	-10.18	0.0	14.69	0.0	
2	10	181.25	-95.69	0.0	-10.03	0.0	10.90	0.0	
2	10	217.50	-87.53	0.0	-9.94	0.0	7.11	0.0	
2	10	253.75	-79.37	0.0	-9.86	0.0	3.32	0.0	
2	10	290.00	-71.22	0.0	-9.76	0.0	-0.47	0.0	
2	11	0.0	-183.28	0.0	-16.28	0.0	41.26	0.0	
2	11	36.25	-183.28	0.0	-16.28	0.0	36.08	0.0	
2	11	72.50	-175.13	0.0	-14.79	0.0	30.90	0.0	
2	11	108.75	-166.97	0.0	-14.22	0.0	25.72	0.0	
2	11	145.00	-158.81	0.0	-13.91	0.0	20.54	0.0	
2	11	181.25	-150.66	0.0	-13.71	0.0	15.36	0.0	
2	11	217.50	-142.50	0.0	-13.57	0.0	10.18	0.0	
2	11	253.75	-134.35	0.0	-13.43	0.0	5.00	0.0	
2	11	290.00	-126.19	0.0	-13.16	0.0	-0.17	0.0	
2	12	0.0	-186.99	0.0	-16.10	0.0	41.04	0.0	
2	12	36.25	-186.99	0.0	-16.10	0.0	35.94	0.0	
2	12	72.50	-178.84	0.0	-14.58	0.0	30.84	0.0	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
2	12	108.75	-170.68	0.0	-14.01	0.0	25.73	0.0	
2	12	145.00	-162.52	0.0	-13.70	0.0	20.63	0.0	
2	12	181.25	-154.37	0.0	-13.50	0.0	15.53	0.0	
2	12	217.50	-146.21	0.0	-13.36	0.0	10.43	0.0	
2	12	253.75	-138.05	0.0	-13.21	0.0	5.33	0.0	
2	12	290.00	-129.90	0.0	-12.92	0.0	0.23	0.0	
2	13	0.0	-184.70	0.0	-16.41	0.0	41.57	0.0	
2	13	36.25	-184.70	0.0	-16.41	0.0	36.36	0.0	
2	13	72.50	-174.09	0.0	-14.89	0.0	31.14	0.0	
2	13	108.75	-163.49	0.0	-14.31	0.0	25.93	0.0	
2	13	145.00	-152.89	0.0	-14.00	0.0	20.71	0.0	
2	13	181.25	-142.28	0.0	-13.80	0.0	15.50	0.0	
2	13	217.50	-131.68	0.0	-13.66	0.0	10.29	0.0	
2	13	253.75	-121.08	0.0	-13.53	0.0	5.07	0.0	
2	13	290.00	-110.48	0.0	-13.35	0.0	-0.14	0.0	
2	14	0.0	-218.36	0.0	-19.73	0.0	49.84	0.0	
2	14	36.25	-218.36	0.0	-19.73	0.0	43.56	0.0	
2	14	72.50	-207.75	0.0	-17.94	0.0	37.27	0.0	
2	14	108.75	-197.15	0.0	-17.26	0.0	30.98	0.0	
2	14	145.00	-186.55	0.0	-16.89	0.0	24.69	0.0	
2	14	181.25	-175.94	0.0	-16.65	0.0	18.40	0.0	
2	14	217.50	-165.34	0.0	-16.48	0.0	12.11	0.0	
2	14	253.75	-154.74	0.0	-16.32	0.0	5.82	0.0	
2	14	290.00	-144.13	0.0	-16.03	0.0	-0.46	0.0	
2	15	0.0	-225.77	0.0	-19.36	0.0	49.40	0.0	
2	15	36.25	-225.77	0.0	-19.36	0.0	43.27	0.0	
2	15	72.50	-215.17	0.0	-17.53	0.0	37.14	0.0	
2	15	108.75	-204.57	0.0	-16.84	0.0	31.00	0.0	
2	15	145.00	-193.96	0.0	-16.47	0.0	24.87	0.0	
2	15	181.25	-183.36	0.0	-16.23	0.0	18.74	0.0	
2	15	217.50	-172.76	0.0	-16.06	0.0	12.61	0.0	
2	15	253.75	-162.15	0.0	-15.88	0.0	6.48	0.0	
2	15	290.00	-151.55	0.0	-15.56	0.0	0.34	0.0	
2	16	0.0	-132.02	0.0	-11.69	0.0	29.63	0.0	
2	16	36.25	-132.02	0.0	-11.69	0.0	25.92	0.0	
2	16	72.50	-123.86	0.0	-10.60	0.0	22.21	0.0	
2	16	108.75	-115.71	0.0	-10.19	0.0	18.50	0.0	
2	16	145.00	-107.55	0.0	-9.97	0.0	14.78	0.0	
2	16	181.25	-99.40	0.0	-9.82	0.0	11.07	0.0	
2	16	217.50	-91.24	0.0	-9.73	0.0	7.36	0.0	
2	16	253.75	-83.08	0.0	-9.64	0.0	3.65	0.0	
2	16	290.00	-74.93	0.0	-9.53	0.0	-0.06	0.0	
2	17	0.0	-165.68	0.0	-15.02	0.0	37.91	0.0	
2	17	36.25	-165.68	0.0	-15.02	0.0	33.12	0.0	
2	17	72.50	-157.52	0.0	-13.65	0.0	28.33	0.0	
2	17	108.75	-149.37	0.0	-13.14	0.0	23.55	0.0	
2	17	145.00	-141.21	0.0	-12.85	0.0	18.76	0.0	
2	17	181.25	-133.05	0.0	-12.67	0.0	13.97	0.0	
2	17	217.50	-124.90	0.0	-12.55	0.0	9.19	0.0	
2	17	253.75	-116.74	0.0	-12.42	0.0	4.40	0.0	
2	17	290.00	-108.59	0.0	-12.21	0.0	-0.38	0.0	
2	18	0.0	-173.10	0.0	-14.65	0.0	37.46	0.0	
2	18	36.25	-173.10	0.0	-14.65	0.0	32.83	0.0	
2	18	72.50	-164.94	0.0	-13.24	0.0	28.20	0.0	
2	18	108.75	-156.78	0.0	-12.72	0.0	23.57	0.0	
2	18	145.00	-148.63	0.0	-12.43	0.0	18.94	0.0	
2	18	181.25	-140.47	0.0	-12.25	0.0	14.31	0.0	
2	18	217.50	-132.32	0.0	-12.12	0.0	9.68	0.0	
2	18	253.75	-124.16	0.0	-11.98	0.0	5.05	0.0	
2	18	290.00	-116.00	0.0	-11.74	0.0	0.42	0.0	
2	19	0.0	-285.45	0.0	-11.38	0.0	35.53	0.0	
2	19	36.25	-285.45	0.0	-11.38	0.0	32.44	0.0	
2	19	72.50	-274.85	0.0	-9.25	0.0	29.35	0.0	
2	19	108.75	-264.25	0.0	-8.64	0.0	26.27	0.0	
2	19	145.00	-253.64	0.0	-8.32	0.0	23.18	0.0	
2	19	181.25	-243.04	0.0	-8.09	0.0	20.09	0.0	
2	19	217.50	-232.44	0.0	-7.88	0.0	17.00	0.0	
2	19	253.75	-221.83	0.0	-7.58	0.0	13.92	0.0	
2	19	290.00	-211.23	0.0	-6.97	0.0	10.83	0.0	
2	20	0.0	-289.16	0.0	-11.19	0.0	35.31	0.0	
2	20	36.25	-289.16	0.0	-11.19	0.0	32.30	0.0	
2	20	72.50	-278.56	0.0	-9.04	0.0	29.29	0.0	
2	20	108.75	-267.95	0.0	-8.43	0.0	26.28	0.0	
2	20	145.00	-257.35	0.0	-8.11	0.0	23.27	0.0	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
2	20	181.25	-246.75	0.0	-7.88	0.0	20.26	0.0	
2	20	217.50	-236.14	0.0	-7.67	0.0	17.25	0.0	
2	20	253.75	-225.54	0.0	-7.36	0.0	14.24	0.0	
2	20	290.00	-214.94	0.0	-6.73	0.0	11.23	0.0	
2	21	0.0	-326.53	0.0	-14.33	0.0	43.36	0.0	
2	21	36.25	-326.53	0.0	-14.33	0.0	39.35	0.0	
2	21	72.50	-315.93	0.0	-11.89	0.0	35.35	0.0	
2	21	108.75	-305.32	0.0	-11.17	0.0	31.34	0.0	
2	21	145.00	-294.72	0.0	-10.79	0.0	27.34	0.0	
2	21	181.25	-284.12	0.0	-10.52	0.0	23.33	0.0	
2	21	217.50	-273.51	0.0	-10.28	0.0	19.33	0.0	
2	21	253.75	-262.91	0.0	-9.93	0.0	15.32	0.0	
2	21	290.00	-252.31	0.0	-9.18	0.0	11.32	0.0	
2	22	0.0	-222.06	0.0	-19.55	0.0	49.62	0.0	
2	22	36.25	-222.06	0.0	-19.55	0.0	43.41	0.0	
2	22	72.50	-211.46	0.0	-17.73	0.0	37.20	0.0	
2	22	108.75	-200.86	0.0	-17.05	0.0	30.99	0.0	
2	22	145.00	-190.26	0.0	-16.68	0.0	24.78	0.0	
2	22	181.25	-179.65	0.0	-16.44	0.0	18.57	0.0	
2	22	217.50	-169.05	0.0	-16.27	0.0	12.36	0.0	
2	22	253.75	-158.45	0.0	-16.10	0.0	6.15	0.0	
2	22	290.00	-147.84	0.0	-15.80	0.0	-0.06	0.0	
2	23	0.0	-330.24	0.0	-14.15	0.0	43.13	0.0	
2	23	36.25	-330.24	0.0	-14.15	0.0	39.21	0.0	
2	23	72.50	-319.63	0.0	-11.68	0.0	35.28	0.0	
2	23	108.75	-309.03	0.0	-10.96	0.0	31.35	0.0	
2	23	145.00	-298.43	0.0	-10.58	0.0	27.43	0.0	
2	23	181.25	-287.82	0.0	-10.31	0.0	23.50	0.0	
2	23	217.50	-277.22	0.0	-10.07	0.0	19.57	0.0	
2	23	253.75	-266.62	0.0	-9.71	0.0	15.65	0.0	
2	23	290.00	-256.02	0.0	-8.95	0.0	11.72	0.0	
2	24	0.0	-232.77	0.0	-6.66	0.0	23.59	0.0	
2	24	36.25	-232.77	0.0	-6.66	0.0	22.01	0.0	
2	24	72.50	-224.62	0.0	-4.96	0.0	20.42	0.0	
2	24	108.75	-216.46	0.0	-4.52	0.0	18.83	0.0	
2	24	145.00	-208.31	0.0	-4.29	0.0	17.25	0.0	
2	24	181.25	-200.15	0.0	-4.12	0.0	15.66	0.0	
2	24	217.50	-191.99	0.0	-3.95	0.0	14.08	0.0	
2	24	253.75	-183.84	0.0	-3.69	0.0	12.49	0.0	
2	24	290.00	-175.68	0.0	-3.15	0.0	10.91	0.0	
2	25	0.0	-236.48	0.0	-6.48	0.0	23.37	0.0	
2	25	36.25	-236.48	0.0	-6.48	0.0	21.86	0.0	
2	25	72.50	-228.33	0.0	-4.75	0.0	20.35	0.0	
2	25	108.75	-220.17	0.0	-4.31	0.0	18.85	0.0	
2	25	145.00	-212.01	0.0	-4.08	0.0	17.34	0.0	
2	25	181.25	-203.86	0.0	-3.91	0.0	15.83	0.0	
2	25	217.50	-195.70	0.0	-3.73	0.0	14.33	0.0	
2	25	253.75	-187.55	0.0	-3.47	0.0	12.82	0.0	
2	25	290.00	-179.39	0.0	-2.91	0.0	11.31	0.0	
2	26	0.0	-273.85	0.0	-9.61	0.0	31.42	0.0	
2	26	36.25	-273.85	0.0	-9.61	0.0	28.92	0.0	
2	26	72.50	-265.70	0.0	-7.60	0.0	26.41	0.0	
2	26	108.75	-257.54	0.0	-7.04	0.0	23.91	0.0	
2	26	145.00	-249.38	0.0	-6.76	0.0	21.41	0.0	
2	26	181.25	-241.23	0.0	-6.54	0.0	18.90	0.0	
2	26	217.50	-233.07	0.0	-6.34	0.0	16.40	0.0	
2	26	253.75	-224.91	0.0	-6.03	0.0	13.90	0.0	
2	26	290.00	-216.76	0.0	-5.36	0.0	11.40	0.0	
2	27	0.0	-169.39	0.0	-14.83	0.0	37.68	0.0	
2	27	36.25	-169.39	0.0	-14.83	0.0	32.98	0.0	
2	27	72.50	-161.23	0.0	-13.45	0.0	28.27	0.0	
2	27	108.75	-153.08	0.0	-12.93	0.0	23.56	0.0	
2	27	145.00	-144.92	0.0	-12.64	0.0	18.85	0.0	
2	27	181.25	-136.76	0.0	-12.46	0.0	14.14	0.0	
2	27	217.50	-128.61	0.0	-12.33	0.0	9.44	0.0	
2	27	253.75	-120.45	0.0	-12.20	0.0	4.73	0.0	
2	27	290.00	-112.29	0.0	-11.98	0.0	0.02	0.0	
2	28	0.0	-277.56	0.0	-9.43	0.0	31.20	0.0	
2	28	36.25	-277.56	0.0	-9.43	0.0	28.77	0.0	
2	28	72.50	-269.40	0.0	-7.40	0.0	26.35	0.0	
2	28	108.75	-261.25	0.0	-6.84	0.0	23.92	0.0	
2	28	145.00	-253.09	0.0	-6.55	0.0	21.50	0.0	
2	28	181.25	-244.94	0.0	-6.33	0.0	19.07	0.0	
2	28	217.50	-236.78	0.0	-6.13	0.0	16.65	0.0	

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
2	28	253.75	-228.62	0.0	-5.81	0.0	14.22	0.0	
2	28	290.00	-220.47	0.0	-5.12	0.0	11.80	0.0	
2	29	0.0	-220.27	40.59	-7.20	-101.11	27.24	18.31	
2	29	36.25	-220.27	40.59	-7.20	-101.11	23.45	8.78	
2	29	72.50	-211.54	39.62	-5.96	-86.78	21.51	2.74	
2	29	108.75	-202.84	38.04	-5.80	-72.57	19.42	-6.51	
2	29	145.00	-194.17	36.25	-5.93	-58.85	17.16	-10.50	
2	29	181.25	-185.52	34.22	-6.21	-45.82	15.25	-12.58	
2	29	217.50	-176.91	31.60	-6.60	-33.68	12.97	-13.26	
2	29	253.75	-168.32	29.03	-7.00	-22.74	9.99	-13.76	
2	29	290.00	-159.76	26.18	-7.18	-13.85	6.98	-10.08	
2	30	0.0	-191.37	43.95	-18.06	-103.52	42.19	17.36	
2	30	36.25	-191.37	43.95	-18.06	-103.52	38.37	8.26	
2	30	72.50	-183.78	42.30	-16.10	-88.63	32.71	2.14	
2	30	108.75	-176.17	40.79	-15.21	-73.85	27.19	-7.41	
2	30	145.00	-168.53	38.95	-14.52	-59.54	21.84	-11.42	
2	30	181.25	-160.86	36.80	-13.86	-45.93	16.15	-13.55	
2	30	217.50	-153.17	34.66	-13.17	-33.21	10.82	-14.18	
2	30	253.75	-145.44	31.89	-12.38	-21.70	6.20	-13.65	
2	30	290.00	-137.69	28.82	-11.42	-12.26	1.60	-9.36	
2	31	0.0	-220.27	-43.95	-7.20	103.52	27.24	-17.36	
2	31	36.25	-220.27	-43.95	-7.20	103.52	23.45	-8.26	
2	31	72.50	-211.54	-42.30	-5.96	88.63	21.51	-2.14	
2	31	108.75	-202.84	-40.79	-5.80	73.85	19.42	7.41	
2	31	145.00	-194.17	-38.95	-5.93	59.54	17.16	11.42	
2	31	181.25	-185.52	-36.80	-6.21	45.93	15.25	13.55	
2	31	217.50	-176.91	-34.66	-6.60	33.21	12.97	14.18	
2	31	253.75	-168.32	-31.89	-7.00	21.70	9.99	13.65	
2	31	290.00	-159.76	-28.82	-7.18	12.26	6.98	9.36	
2	32	0.0	-191.37	-40.59	-18.06	101.11	42.19	-18.31	
2	32	36.25	-191.37	-40.59	-18.06	101.11	38.37	-8.78	
2	32	72.50	-183.78	-39.62	-16.10	86.78	32.71	-2.74	
2	32	108.75	-176.17	-38.04	-15.21	72.57	27.19	6.51	
2	32	145.00	-168.53	-36.25	-14.52	58.85	21.84	10.50	
2	32	181.25	-160.86	-34.22	-13.86	45.82	16.15	12.58	
2	32	217.50	-153.17	-31.60	-13.17	33.68	10.82	13.26	
2	32	253.75	-145.44	-29.03	-12.38	22.74	6.20	13.76	
2	32	290.00	-137.69	-26.18	-11.42	13.85	1.60	10.08	
2	33	0.0	-220.27	43.95	-7.20	-103.52	27.24	17.36	
2	33	36.25	-220.27	43.95	-7.20	-103.52	23.45	8.26	
2	33	72.50	-211.54	42.30	-5.96	-88.63	21.51	2.14	
2	33	108.75	-202.84	40.79	-5.80	-73.85	19.42	-7.41	
2	33	145.00	-194.17	38.95	-5.93	-59.54	17.16	-11.42	
2	33	181.25	-185.52	36.80	-6.21	-45.93	15.25	-13.55	
2	33	217.50	-176.91	34.66	-6.60	-33.21	12.97	-14.18	
2	33	253.75	-168.32	31.89	-7.00	-21.70	9.99	-13.65	
2	33	290.00	-159.76	28.82	-7.18	-12.26	6.98	-9.36	
2	34	0.0	-191.37	40.59	-18.06	-101.11	42.19	18.31	
...									
2	150	290.00	-140.90	0.0	-8.88	0.0	4.20	0.0	
M_S			N memb.	V memb.	V orto	M memb.	M orto	T	
			-330.24	-44.64	-30.73	-103.57	-4.66	-18.31	
			-67.51	44.64	5.86	103.57	59.63	18.31	

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
				kN/ m	kN/ m	kN/ m	kN/ m	kN/ m	kN	kN	kN	kN	kN
3	1	3	12.34	-0.30	0.44	11.60	2.96	6.06	0.23	0.24	6.05	0.13	
3	1	4	12.34	-0.30	0.44	11.60	-2.96	6.06	0.23	0.24	6.05	-0.13	
3	1	7	15.07	0.71	1.04	14.74	-2.15	5.93	0.26	0.26	5.92	-0.10	
3	1	8	15.07	0.71	1.04	14.74	2.15	5.93	0.26	0.26	5.92	0.10	
3	1	13	-0.25	-1.04	-0.25	-1.04		5.97	1.19	1.19	5.97		
3	1	18	8.26	2.25	2.25	8.26		5.91	1.18	1.18	5.91		
3	1	21	4.15	-9.76e-02	-1.13e-02	4.06	0.60	7.02e-02	-3.68	7.02e-02	-3.68	-2.52e-03	
3	1	22	4.05	0.37	0.37	4.05		-0.55	-3.49	-0.55	-3.49		
3	1	23	4.15	-9.76e-02	-1.13e-02	4.06	-0.60	7.02e-02	-3.68	7.02e-02	-3.68	2.52e-03	
3	1	33	-0.87	-2.34	-0.89	-2.32	-0.17	6.10	1.22	1.22	6.10	-3.38e-02	

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
3	1	38	8.47	1.77	1.93	8.32	-1.00	6.03	1.21	1.21	6.03	4.23e-02	
3	1	41	2.82	-0.19	-3.76e-02	2.67	0.66	0.15	-1.23	6.65e-02	-1.15	-0.32	
3	1	42	1.41	0.19	0.57	1.02	0.57	-7.77e-02	-1.13	-8.45e-02	-1.13	-8.48e-02	
3	1	43	4.19	0.19	0.20	4.18	0.24	-0.44	-3.52	-0.44	-3.52	-1.47e-03	
3	1	44	0.82	0.37	0.37	0.82		-0.13	-1.11	-0.13	-1.11		
3	1	58	-0.87	-2.34	-0.89	-2.32	0.17	6.10	1.22	1.22	6.10	3.38e-02	
3	1	69	8.47	1.77	1.93	8.32	1.00	6.03	1.21	1.21	6.03	-4.23e-02	
3	1	75	6.61	-8.23e-02	-2.73e-02	6.55	0.60	0.14	-1.26	6.62e-02	-1.19	0.32	
3	1	76	6.97	0.50	0.51	6.97	-0.23	-7.93e-02	-1.16	-8.57e-02	-1.16	8.29e-02	
3	1	77	6.87	0.78	0.78	6.87		-0.13	-1.14	-0.13	-1.14		
3	1	78	1.41	0.19	0.57	1.02	-0.57	-7.77e-02	-1.13	-8.45e-02	-1.13	8.48e-02	
3	1	79	4.19	0.19	0.20	4.18	-0.24	-0.44	-3.52	-0.44	-3.52	1.47e-03	
3	1	80	2.82	-0.19	-3.76e-02	2.67	-0.66	0.15	-1.23	6.65e-02	-1.15	0.32	
3	1	81	6.97	0.50	0.51	6.97	0.23	-7.93e-02	-1.16	-8.57e-02	-1.16	-8.29e-02	
3	1	82	6.61	-8.23e-02	-2.73e-02	6.55	-0.60	0.14	-1.26	6.62e-02	-1.19	-0.32	
3	1	103	-1.76	-4.48	-1.83	-4.41	0.45	6.24	1.27	1.27	6.24	-7.15e-02	
3	1	108	7.99	0.45	0.68	7.75	-1.31	6.21	1.27	1.28	6.21	8.15e-02	
3	1	111	4.10	-0.23	3.76e-02	3.84	1.04	2.08	-5.46e-03	4.33e-02	2.03	-0.31	
3	1	112	2.57	-0.89	1.46	0.22	1.61	1.87	0.31	0.33	1.86	-0.16	
3	1	113	2.24	-1.91e-02	0.29	1.93	0.78	-4.25e-03	-1.18	-4.60e-02	-1.13	-0.22	
3	1	114	0.60	-1.13	0.59	-1.12	0.13	1.87	0.43	0.43	1.86	-9.56e-02	
3	1	131	-0.35	-1.36	-0.38	-1.33	0.16	6.00	1.20	1.20	6.00	1.15e-02	
3	1	146	8.31	2.16	2.19	8.28	0.47	5.94	1.19	1.19	5.94	-1.69e-02	
3	1	154	5.26	-8.01e-02	-1.21e-02	5.19	0.60	8.01e-02	-3.07	6.93e-02	-3.06	0.18	
3	1	155	5.53	5.99e-02	6.08e-02	5.53	7.14e-02	-0.20	-2.98	-0.21	-2.98	0.13	
3	1	156	4.23	4.46e-02	5.58e-02	4.22	0.22	-0.26	-3.58	-0.26	-3.58	2.60e-03	
3	1	157	7.01	0.16	0.16	7.01	-0.18	-7.05e-03	-1.21	-4.60e-02	-1.17	0.21	
3	1	158	5.60	0.24	0.24	5.60	5.37e-02	-0.36	-2.93	-0.36	-2.93	5.24e-02	
3	1	159	-4.85e-02	-0.56	-4.85e-02	-0.56		1.85	0.41	0.41	1.85		
3	1	160	9.23e-02	-0.76	7.78e-02	-0.75	0.11	1.86	0.42	0.42	1.86	4.31e-02	
3	1	161	0.89	0.38	0.46	0.81	-0.19	-0.11	-1.12	-0.12	-1.12	3.54e-02	
3	1	162	0.60	-1.13	0.59	-1.12	-0.13	1.87	0.43	0.43	1.86	9.56e-02	
3	1	163	5.54	0.45	0.45	5.54		-0.45	-2.91	-0.45	-2.91		
3	1	164	5.56	0.39	0.39	5.56	-2.93e-02	-0.43	-2.91	-0.43	-2.91	-1.94e-02	
3	1	165	4.09	0.32	0.32	4.09	-0.15	-0.53	-3.50	-0.53	-3.50	6.64e-04	
3	1	166	6.90	0.71	0.71	6.89	0.12	-0.12	-1.15	-0.12	-1.15	-3.49e-02	
3	1	167	5.60	0.24	0.24	5.60	-5.37e-02	-0.36	-2.93	-0.36	-2.93	-5.24e-02	
3	1	201	-0.35	-1.36	-0.38	-1.33	-0.16	6.00	1.20	1.20	6.00	-1.15e-02	
3	1	210	8.31	2.16	2.19	8.28	-0.47	5.94	1.19	1.19	5.94	1.69e-02	
3	1	215	3.25	-0.13	-2.06e-02	3.14	0.61	8.08e-02	-3.06	6.93e-02	-3.05	-0.19	
3	1	216	3.09	5.38e-02	0.11	3.03	0.40	-0.20	-2.97	-0.21	-2.96	-0.14	
3	1	217	2.77	0.24	0.31	2.70	0.42	-0.36	-2.92	-0.36	-2.91	-5.51e-02	
3	1	218	9.23e-02	-0.76	7.78e-02	-0.75	-0.11	1.86	0.42	0.42	1.86	-4.31e-02	
3	1	219	0.89	0.38	0.46	0.81	0.19	-0.11	-1.12	-0.12	-1.12	-3.54e-02	
3	1	220	2.52	0.38	0.40	2.49	0.23	-0.43	-2.90	-0.43	-2.90	-2.06e-02	
3	1	221	4.09	0.32	0.32	4.09	0.15	-0.53	-3.50	-0.53	-3.50	-6.64e-04	
3	1	222	2.44	0.42	0.42	2.44		-0.45	-2.89	-0.45	-2.89		
3	1	250	-1.76	-4.48	-1.83	-4.41	-0.45	6.24	1.27	1.27	6.24	7.15e-02	
3	1	276	7.99	0.45	0.68	7.75	1.31	6.21	1.27	1.28	6.21	-8.15e-02	
3	1	291	8.64	-0.30	-0.24	8.58	0.72	2.03	-7.96e-03	3.79e-02	1.99	0.30	
3	1	292	8.73	0.78	0.90	8.61	-0.97	1.82	0.32	0.33	1.80	0.15	
3	1	293	8.18	1.06	1.10	8.14	-0.55	1.82	0.43	0.43	1.81	9.63e-02	
3	1	294	5.56	0.39	0.39	5.56	2.93e-02	-0.43	-2.91	-0.43	-2.91	1.94e-02	
3	1	295	6.90	0.71	0.71	6.89	-0.12	-0.12	-1.15	-0.12	-1.15	3.49e-02	
3	1	296	8.06	1.33	1.34	8.04	-0.29	1.81	0.41	0.41	1.81	4.32e-02	
3	1	297	8.01	1.42	1.42	8.01		1.81	0.40	0.40	1.81		
3	1	298	2.52	0.38	0.40	2.49	-0.23	-0.43	-2.90	-0.43	-2.90	2.06e-02	
3	1	299	2.77	0.24	0.31	2.70	-0.42	-0.36	-2.92	-0.36	-2.91	5.51e-02	
3	1	300	2.57	-0.89	1.46	0.22	-1.61	1.87	0.31	0.33	1.86	0.16	
3	1	301	2.24	-1.91e-02	0.29	1.93	-0.78	-4.25e-03	-1.18	-4.60e-02	-1.13	0.22	
3	1	302	4.10	-0.23	3.76e-02	3.84	-1.04	2.08	-5.46e-03	4.33e-02	2.03	0.31	
3	1	303	3.09	5.38e-02	0.11	3.03	-0.40	-0.20	-2.97	-0.21	-2.96	0.14	
3	1	304	4.23	4.46e-02	5.58e-02	4.22	-0.22	-0.26	-3.58	-0.26	-3.58	2.60e-03	
3	1	305	3.25	-0.13	-2.06e-02	3.14	-0.61	8.08e-02	-3.06	6.93e-02	-3.05	0.19	
3	1	306	8.06	1.33	1.34	8.04	0.29	1.81	0.41	0.41	1.81	-4.32e-02	
3	1	307	8.18	1.06	1.10	8.14	0.55	1.82	0.43	0.43	1.81	-9.63e-02	
3	1	308	5.53	5.99e-02	6.08e-02	5.53	7.14e-02	-0.20	-2.98	-0.21	-2.98	-0.13	
3	1	309	7.01	0.16	0.16	7.01	0.18	-7.05e-03	-1.21	-4.60e-02	-1.17	-0.21	
3	1	310	5.26	-8.01e-02	-1.21e-02	5.19	-0.60	8.01e-02	-3.07	6.93e-02	-3.06	-0.18	
3	1	311	8.73	0.78	0.90	8.61	0.97	1.82	0.32	0.33	1.80	-0.15	
3	1	312	8.64	-0.30	-0.24	8.58	-0.72	2.03	-7.96e-03	3.79e-02	1.99	-0.30	
3	2	3	22.63	-0.16	0.96	21.51	4.92	8.94	0.35	0.35	8.94	0.12	
3	2	4	22.63	-0.16	0.96	21.51	-4.92	8.94	0.35	0.35	8.94	-0.12	
3	2	7	21.08	0.52	0.96	20.64	-2.99	11.12	0.53	0.53	11.12	-0.29	

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
3	2	8	21.08	0.52	0.96	20.64	2.99	11.12	0.53	0.53	11.12	0.29	
3	2	13	2.15	1.13	1.13	2.15		8.54	1.71	1.71	8.54		
3	2	18	11.26	3.17	3.17	11.26		11.24	2.25	2.25	11.24		
3	2	21	7.11	-6.52e-02	-1.50e-02	7.06	0.60	0.12	-6.28	0.12	-6.28	4.99e-02	
3	2	22	7.35	0.48	0.48	7.35		-0.94	-5.96	-0.94	-5.96		
3	2	23	7.11	-6.52e-02	-1.50e-02	7.06	-0.60	0.12	-6.28	0.12	-6.28	-4.99e-02	
3	2	33	8.59e-02	-0.35	-0.26	-4.33e-03	0.18	8.75	1.76	1.76	8.75	-5.51e-02	
3	2	38	11.53	2.37	2.60	11.30	-1.43	11.45	2.30	2.30	11.45	6.36e-02	
3	2	41	6.01	-0.14	-6.27e-02	5.94	0.67	0.20	-2.84	0.11	-2.75	-0.52	
3	2	42	4.33	0.79	0.97	4.15	0.78	-0.25	-2.67	-0.26	-2.66	-0.15	
3	2	43	7.44	0.25	0.26	7.43	0.27	-0.75	-6.01	-0.75	-6.01	1.03e-02	
3	2	44	4.03	0.76	0.76	4.03		-0.37	-2.64	-0.37	-2.64		
3	2	58	8.59e-02	-0.35	-0.26	-4.33e-03	-0.18	8.75	1.76	1.76	8.75	5.51e-02	
3	2	69	11.53	2.37	2.60	11.30	1.43	11.45	2.30	2.30	11.45	-6.36e-02	
3	2	75	9.66	-6.72e-02	-3.01e-02	9.63	0.60	0.30	-1.56	0.11	-1.37	0.56	
3	2	76	10.20	0.68	0.69	10.18	-0.33	-3.14e-02	-1.37	-4.63e-02	-1.36	0.14	
3	2	77	10.13	1.01	1.01	10.13		-0.11	-1.33	-0.11	-1.33		
3	2	78	4.33	0.79	0.97	4.15	-0.78	-0.25	-2.67	-0.26	-2.66	0.15	
3	2	79	7.44	0.25	0.26	7.43	-0.27	-0.75	-6.01	-0.75	-6.01	-1.03e-02	
3	2	80	6.01	-0.14	-6.27e-02	5.94	-0.67	0.20	-2.84	0.11	-2.75	0.52	
3	2	81	10.20	0.68	0.69	10.18	0.33	-3.14e-02	-1.37	-4.63e-02	-1.36	-0.14	
3	2	82	9.66	-6.72e-02	-3.01e-02	9.63	-0.60	0.30	-1.56	0.11	-1.37	-0.56	
3	2	103	-1.34	-4.14	-2.09	-3.39	1.24	9.04	1.85	1.85	9.04	-0.13	
3	2	108	10.48	4.98e-02	0.34	10.19	-1.71	11.77	2.41	2.42	11.77	0.12	
3	2	111	8.38	-0.21	-4.56e-02	8.22	1.16	2.38	-5.13e-02	8.42e-02	2.25	-0.56	
3	2	112	5.59	0.30	2.41	3.47	2.59	2.09	0.36	0.42	2.03	-0.31	
3	2	113	5.49	0.24	0.47	5.26	1.08	-9.07e-02	-2.74	-0.14	-2.69	-0.36	
3	2	114	1.79	1.17	1.36	1.60	0.29	2.04	0.51	0.53	2.02	-0.17	
3	2	131	1.64	0.84	0.84	1.64	1.78e-02	8.59	1.72	1.72	8.59	1.74e-02	
3	2	146	11.33	3.02	3.07	11.28	0.67	11.28	2.26	2.26	11.28	-2.49e-02	
3	2	154	8.24	-5.94e-02	-1.58e-02	8.20	0.60	0.14	-4.91	0.12	-4.88	0.36	
3	2	155	8.70	7.81e-02	7.84e-02	8.70	4.64e-02	-0.31	-4.77	-0.33	-4.75	0.26	
3	2	156	7.39	6.22e-02	6.95e-02	7.39	0.23	-0.43	-6.11	-0.44	-6.11	3.44e-02	
3	2	157	10.24	0.22	0.23	10.23	-0.30	7.35e-02	-1.46	-2.14e-02	-1.36	0.37	
3	2	158	8.85	0.31	0.31	8.85	2.17e-02	-0.56	-4.68	-0.56	-4.68	9.85e-02	
3	2	159	2.66	0.58	0.58	2.66		1.99	0.47	0.47	1.99		
3	2	160	2.33	0.72	0.73	2.32	0.13	2.01	0.48	0.49	2.00	7.28e-02	
3	2	161	3.98	0.85	0.86	3.97	-0.24	-0.34	-2.65	-0.34	-2.65	6.23e-02	
3	2	162	1.79	1.17	1.36	1.60	-0.29	2.04	0.51	0.53	2.02	0.17	
3	2	163	8.84	0.57	0.57	8.84		-0.70	-4.64	-0.70	-4.64		
3	2	164	8.85	0.50	0.50	8.85	-1.18e-02	-0.67	-4.65	-0.67	-4.65	-3.54e-02	
3	2	165	7.38	0.42	0.42	7.38	-0.16	-0.90	-5.97	-0.90	-5.97	-2.08e-03	
3	2	166	10.14	0.93	0.93	10.14	0.16	-8.23e-02	-1.34	-8.51e-02	-1.34	-5.94e-02	
3	2	167	8.85	0.31	0.31	8.85	-2.17e-02	-0.56	-4.68	-0.56	-4.68	-9.85e-02	
3	2	201	1.64	0.84	0.84	1.64	-1.78e-02	8.59	1.72	1.72	8.59	-1.74e-02	
3	2	210	11.33	3.02	3.07	11.28	-0.67	11.28	2.26	2.26	11.28	2.49e-02	
3	2	215	6.24	-8.90e-02	-3.02e-02	6.18	0.61	0.13	-5.59	0.12	-5.57	-0.27	
3	2	216	6.29	0.12	0.15	6.25	0.49	-0.37	-5.43	-0.38	-5.42	-0.21	
3	2	217	5.99	0.41	0.45	5.94	0.52	-0.66	-5.33	-0.66	-5.33	-8.62e-02	
3	2	218	2.33	0.72	0.73	2.32	-0.13	2.01	0.48	0.49	2.00	-7.28e-02	
3	2	219	3.98	0.85	0.86	3.97	0.24	-0.34	-2.65	-0.34	-2.65	-6.23e-02	
3	2	220	5.76	0.59	0.60	5.75	0.28	-0.79	-5.30	-0.79	-5.30	-3.40e-02	
3	2	221	7.38	0.42	0.42	7.38	0.16	-0.90	-5.97	-0.90	-5.97	2.08e-03	
3	2	222	5.70	0.63	0.63	5.70		-0.83	-5.29	-0.83	-5.29		
3	2	250	-1.34	-4.14	-2.09	-3.39	-1.24	9.04	1.85	1.85	9.04	0.13	
3	2	276	10.48	4.98e-02	0.34	10.19	1.71	11.77	2.41	2.42	11.77	-0.12	
3	2	291	12.16	-0.23	-0.19	12.13	0.63	4.39	-1.04e-02	4.57e-02	4.34	0.49	
3	2	292	11.97	1.19	1.36	11.80	-1.35	3.98	0.66	0.68	3.96	0.22	
3	2	293	11.33	1.40	1.45	11.28	-0.70	4.00	0.90	0.90	3.99	0.16	
3	2	294	8.85	0.50	0.50	8.85	1.18e-02	-0.67	-4.65	-0.67	-4.65	3.54e-02	
3	2	295	10.14	0.93	0.93	10.14	-0.16	-8.23e-02	-1.34	-8.51e-02	-1.34	5.94e-02	
3	2	296	11.23	1.76	1.78	11.22	-0.38	3.99	0.88	0.88	3.99	7.34e-02	
3	2	297	11.19	1.90	1.90	11.19		3.98	0.86	0.86	3.98		
3	2	298	5.76	0.59	0.60	5.75	-0.28	-0.79	-5.30	-0.79	-5.30	3.40e-02	
3	2	299	5.99	0.41	0.45	5.94	-0.52	-0.66	-5.33	-0.66	-5.33	8.62e-02	
3	2	300	5.59	0.30	2.41	3.47	-2.59	2.09	0.36	0.42	2.03	0.31	
3	2	301	5.49	0.24	0.47	5.26	-1.08	-9.07e-02	-2.74	-0.14	-2.69	0.36	
3	2	302	8.38	-0.21	-4.56e-02	8.22	-1.16	2.38	-5.13e-02	8.42e-02	2.25	0.56	
3	2	303	6.29	0.12	0.15	6.25	-0.49	-0.37	-5.43	-0.38	-5.42	0.21	
3	2	304	7.39	6.22e-02	6.95e-02	7.39	-0.23	-0.43	-6.11	-0.44	-6.11	-3.44e-02	
3	2	305	6.24	-8.90e-02	-3.02e-02	6.18	-0.61	0.13	-5.59	0.12	-5.57	0.27	
3	2	306	11.23	1.76	1.78	11.22	0.38	3.99	0.88	0.88	3.99	-7.34e-02	
3	2	307	11.33	1.40	1.45	11.28	0.70	4.00	0.90	0.90	3.99	-0.16	
3	2	308	8.70	7.81e-02	7.84e-02	8.70	-4.64e-02	-0.31	-4.77	-0.33	-4.75	-0.26	

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
3	2	309	10.24	0.22	0.23	10.23	0.30	7.35e-02	-1.46	-2.14e-02	-1.36	-0.37	
3	2	310	8.24	-5.94e-02	-1.58e-02	8.20	-0.60	0.14	-4.91	0.12	-4.88	-0.36	
3	2	311	11.97	1.19	1.36	11.80	1.35	3.98	0.66	0.68	3.96	-0.22	
3	2	312	12.16	-0.23	-0.19	12.13	-0.63	4.39	-1.04e-02	4.57e-02	4.34	-0.49	
3	3	3	14.94	-0.54	0.43	13.97	3.74	8.03	0.31	0.31	8.03	0.17	
3	3	4	14.94	-0.54	0.43	13.97	-3.74	8.03	0.31	0.31	8.03	-0.17	
3	3	7	18.75	0.74	1.15	18.34	-2.69	8.16	0.36	0.36	8.15	-0.15	
3	3	8	18.75	0.74	1.15	18.34	2.69	8.16	0.36	0.36	8.15	0.15	
3	3	13	-0.25	-2.18	-0.25	-2.18		7.89	1.58	1.58	7.89		
3	3	18	10.40	2.87	2.87	10.40		8.15	1.63	1.63	8.15		
3	3	21	4.75	-0.15	-1.39e-02	4.62	0.81	9.47e-02	-4.94	9.47e-02	-4.94	3.43e-03	
3	3	22	4.62	0.45	0.45	4.62		-0.74	-4.69	-0.74	-4.69		
3	3	23	4.75	-0.15	-1.39e-02	4.62	-0.81	9.47e-02	-4.94	9.47e-02	-4.94	-3.43e-03	
3	3	33	-1.12	-3.87	-1.13	-3.85	-0.21	8.06	1.62	1.62	8.06	-4.42e-02	
3	3	38	10.66	2.22	2.42	10.46	-1.27	8.31	1.67	1.67	8.31	5.38e-02	
3	3	41	2.90	-0.31	-4.71e-02	2.63	0.88	0.19	-1.73	8.98e-02	-1.63	-0.43	
3	3	42	1.35	-7.77e-02	0.73	0.54	0.71	-0.12	-1.59	-0.13	-1.58	-0.11	
3	3	43	4.79	0.23	0.25	4.77	0.31	-0.60	-4.72	-0.60	-4.72	-2.11e-04	
3	3	44	0.46	0.31	0.46	0.31		-0.19	-1.57	-0.19	-1.57		
3	3	58	-1.12	-3.87	-1.13	-3.85	0.21	8.06	1.62	1.62	8.06	4.42e-02	
3	3	69	10.66	2.22	2.42	10.46	1.27	8.31	1.67	1.67	8.31	-5.38e-02	
3	3	75	8.05	-0.11	-2.66e-02	7.97	0.81	0.20	-1.60	8.89e-02	-1.49	0.43	
3	3	76	8.54	0.62	0.63	8.53	-0.26	-9.18e-02	-1.47	-0.10	-1.46	0.11	
3	3	77	8.45	0.96	0.96	8.45		-0.16	-1.44	-0.16	-1.44		
3	3	78	1.35	-7.77e-02	0.73	0.54	-0.71	-0.12	-1.59	-0.13	-1.58	0.11	
3	3	79	4.79	0.23	0.25	4.77	-0.31	-0.60	-4.72	-0.60	-4.72	2.11e-04	
3	3	80	2.90	-0.31	-4.71e-02	2.63	-0.88	0.19	-1.73	8.98e-02	-1.63	0.43	
3	3	81	8.54	0.62	0.63	8.53	0.26	-9.18e-02	-1.47	-0.10	-1.46	-0.11	
3	3	82	8.05	-0.11	-2.66e-02	7.97	-0.81	0.20	-1.60	8.89e-02	-1.49	-0.43	
3	3	103	-2.38	-6.71	-2.45	-6.64	0.55	8.27	1.69	1.69	8.27	-9.46e-02	
3	3	108	9.95	0.40	0.68	9.67	-1.60	8.56	1.76	1.76	8.56	0.10	
3	3	111	4.49	-0.37	8.13e-02	4.05	1.41	2.69	-8.50e-03	6.01e-02	2.62	-0.42	
3	3	112	3.04	-1.78	1.89	-0.63	2.05	2.42	0.40	0.43	2.40	-0.21	
3	3	113	2.22	-0.15	0.38	1.69	0.99	-1.46e-02	-1.65	-6.79e-02	-1.60	-0.29	
3	3	114	0.75	-2.30	0.74	-2.29	0.14	2.41	0.56	0.56	2.40	-0.13	
3	3	131	-0.41	-2.58	-0.43	-2.56	0.19	7.93	1.59	1.59	7.93	1.49e-02	
3	3	146	10.46	2.74	2.79	10.42	0.59	8.19	1.64	1.64	8.19	-2.13e-02	
3	3	154	6.26	-0.12	-1.37e-02	6.16	0.81	0.11	-4.08	9.33e-02	-4.07	0.25	
3	3	155	6.59	7.22e-02	7.38e-02	6.58	0.10	-0.27	-3.96	-0.28	-3.95	0.19	
3	3	156	4.83	5.25e-02	6.87e-02	4.82	0.28	-0.34	-4.80	-0.34	-4.80	1.52e-03	
3	3	157	8.56	0.19	0.20	8.56	-0.21	2.12e-03	-1.53	-5.35e-02	-1.47	0.29	
3	3	158	6.69	0.29	0.29	6.69	8.08e-02	-0.47	-3.89	-0.48	-3.89	7.16e-02	
3	3	159	-6.50e-02	-1.53	-6.50e-02	-1.53		2.39	0.53	0.53	2.39		
3	3	160	0.11	-1.79	9.30e-02	-1.78	0.16	2.40	0.54	0.54	2.39	5.74e-02	
3	3	161	0.70	0.17	0.57	0.29	-0.22	-0.17	-1.57	-0.17	-1.57	4.74e-02	
3	3	162	0.75	-2.30	0.74	-2.29	-0.14	2.41	0.56	0.56	2.40	0.13	
3	3	163	6.63	0.55	0.55	6.63		-0.60	-3.86	-0.60	-3.86		
3	3	164	6.66	0.48	0.48	6.66	-4.57e-02	-0.57	-3.87	-0.57	-3.87	-2.63e-02	
3	3	165	4.68	0.39	0.40	4.67	-0.19	-0.71	-4.70	-0.71	-4.70	3.89e-04	
3	3	166	8.47	0.87	0.88	8.47	0.13	-0.14	-1.45	-0.14	-1.45	-4.67e-02	
3	3	167	6.69	0.29	0.29	6.69	-8.08e-02	-0.47	-3.89	-0.48	-3.89	-7.16e-02	
3	3	201	-0.41	-2.58	-0.43	-2.56	-0.19	7.93	1.59	1.59	7.93	-1.49e-02	
3	3	210	10.46	2.74	2.79	10.42	-0.59	8.19	1.64	1.64	8.19	2.13e-02	
3	3	215	3.53	-0.21	-2.62e-02	3.34	0.82	0.11	-4.15	9.35e-02	-4.13	-0.25	
3	3	216	3.29	5.42e-02	0.14	3.21	0.51	-0.27	-4.03	-0.28	-4.02	-0.18	
3	3	217	2.91	0.27	0.39	2.79	0.53	-0.49	-3.96	-0.49	-3.95	-7.27e-02	
3	3	218	0.11	-1.79	9.30e-02	-1.78	-0.16	2.40	0.54	0.54	2.39	-5.74e-02	
3	3	219	0.70	0.17	0.57	0.29	0.22	-0.17	-1.57	-0.17	-1.57	-4.74e-02	
3	3	220	2.58	0.46	0.50	2.54	0.29	-0.58	-3.93	-0.58	-3.93	-2.73e-02	
3	3	221	4.68	0.39	0.40	4.67	0.19	-0.71	-4.70	-0.71	-4.70	-3.89e-04	
3	3	222	2.47	0.52	0.52	2.47		-0.61	-3.93	-0.61	-3.93		
3	3	250	-2.38	-6.71	-2.45	-6.64	-0.55	8.27	1.69	1.69	8.27	9.46e-02	
3	3	276	9.95	0.40	0.68	9.67	1.60	8.56	1.76	1.76	8.56	-0.10	
3	3	291	10.73	-0.34	-0.26	10.65	0.94	2.89	-7.66e-03	4.96e-02	2.83	0.40	
3	3	292	10.80	1.01	1.15	10.66	-1.18	2.59	0.44	0.46	2.57	0.20	
3	3	293	10.20	1.31	1.36	10.15	-0.65	2.60	0.60	0.61	2.59	0.13	
3	3	294	6.66	0.48	0.48	6.66	4.57e-02	-0.57	-3.87	-0.57	-3.87	2.63e-02	
3	3	295	8.47	0.87	0.88	8.47	-0.13	-0.14	-1.45	-0.14	-1.45	4.67e-02	
3	3	296	10.07	1.66	1.67	10.06	-0.35	2.59	0.58	0.58	2.58	5.76e-02	
3	3	297	10.02	1.78	1.78	10.02		2.58	0.57	0.57	2.58		
3	3	298	2.58	0.46	0.50	2.54	-0.29	-0.58	-3.93	-0.58	-3.93	2.73e-02	
3	3	299	2.91	0.27	0.39	2.79	-0.53	-0.49	-3.96	-0.49	-3.95	7.27e-02	
3	3	300	3.04	-1.78	1.89	-0.63	-2.05	2.42	0.40	0.43	2.40	0.21	
3	3	301	2.22	-0.15	0.38	1.69	-0.99	-1.46e-02	-1.65	-6.79e-02	-1.60	0.29	

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
3	3	302	4.49	-0.37	8.13e-02	4.05	-1.41	2.69	-8.50e-03	6.01e-02	2.62	0.42	
3	3	303	3.29	5.42e-02	0.14	3.21	-0.51	-0.27	-4.03	-0.28	-4.02	0.18	
3	3	304	4.83	5.25e-02	6.87e-02	4.82	-0.28	-0.34	-4.80	-0.34	-4.80	-1.52e-03	
3	3	305	3.53	-0.21	-2.62e-02	3.34	-0.82	0.11	-4.15	9.35e-02	-4.13	0.25	
3	3	306	10.07	1.66	1.67	10.06	0.35	2.59	0.58	0.58	2.58	-5.76e-02	
3	3	307	10.20	1.31	1.36	10.15	0.65	2.60	0.60	0.61	2.59	-0.13	
3	3	308	6.59	7.22e-02	7.38e-02	6.58	-0.10	-0.27	-3.96	-0.28	-3.95	-0.19	
3	3	309	8.56	0.19	0.20	8.56	0.21	2.12e-03	-1.53	-5.35e-02	-1.47	-0.29	
3	3	310	6.26	-0.12	-1.37e-02	6.16	-0.81	0.11	-4.08	9.33e-02	-4.07	-0.25	
3	3	311	10.80	1.01	1.15	10.66	1.18	2.59	0.44	0.46	2.57	-0.20	
3	3	312	10.73	-0.34	-0.26	10.65	-0.94	2.89	-7.66e-03	4.96e-02	2.83	-0.40	
3	4	3	25.22	-0.39	0.95	23.88	5.70	10.92	0.42	0.42	10.92	0.16	
3	4	4	25.22	-0.39	0.95	23.88	-5.70	10.92	0.42	0.42	10.92	-0.16	
3	4	7	24.76	0.54	1.06	24.24	-3.52	13.35	0.62	0.63	13.35	-0.34	
3	4	8	24.76	0.54	1.06	24.24	3.52	13.35	0.62	0.63	13.35	0.34	
3	4	13	1.13	1.01	1.13	1.01		10.47	2.10	2.10	10.47		
3	4	18	13.40	3.79	3.79	13.40		13.48	2.69	2.69	13.48		
3	4	21	7.70	-0.10	-1.76e-02	7.62	0.81	0.14	-7.55	0.14	-7.54	5.59e-02	
3	4	22	7.92	0.57	0.57	7.92		-1.13	-7.16	-1.13	-7.16		
3	4	23	7.70	-0.10	-1.76e-02	7.62	-0.81	0.14	-7.55	0.14	-7.54	-5.59e-02	
3	4	33	-0.49	-1.55	-0.51	-1.54	0.14	10.72	2.15	2.15	10.72	-6.55e-02	
3	4	38	13.71	2.82	3.09	13.44	-1.70	13.74	2.76	2.76	13.74	7.51e-02	
3	4	41	6.03	-0.20	-7.23e-02	5.90	0.90	0.25	-3.33	0.14	-3.22	-0.63	
3	4	42	3.97	0.83	1.13	3.67	0.93	-0.29	-3.13	-0.30	-3.12	-0.18	
3	4	43	8.04	0.29	0.31	8.03	0.33	-0.91	-7.21	-0.91	-7.21	1.16e-02	
3	4	44	3.53	0.85	0.85	3.53		-0.43	-3.09	-0.43	-3.09		
3	4	58	-0.49	-1.55	-0.51	-1.54	-0.14	10.72	2.15	2.15	10.72	6.55e-02	
3	4	69	13.71	2.82	3.09	13.44	1.70	13.74	2.76	2.76	13.74	-7.51e-02	
3	4	75	11.10	-8.81e-02	-2.94e-02	11.04	0.81	0.36	-1.90	0.13	-1.68	0.68	
3	4	76	11.76	0.80	0.82	11.75	-0.37	-4.38e-02	-1.68	-6.14e-02	-1.66	0.17	
3	4	77	11.71	1.19	1.19	11.71		-0.13	-1.63	-0.13	-1.63		
3	4	78	3.97	0.83	1.13	3.67	-0.93	-0.29	-3.13	-0.30	-3.12	0.18	
3	4	79	8.04	0.29	0.31	8.03	-0.33	-0.91	-7.21	-0.91	-7.21	-1.16e-02	
3	4	80	6.03	-0.20	-7.23e-02	5.90	-0.90	0.25	-3.33	0.14	-3.22	0.63	
3	4	81	11.76	0.80	0.82	11.75	0.37	-4.38e-02	-1.68	-6.14e-02	-1.66	-0.17	
3	4	82	11.10	-8.81e-02	-2.94e-02	11.04	-0.81	0.36	-1.90	0.13	-1.68	-0.68	
3	4	103	-2.18	-6.15	-2.71	-5.62	1.34	11.06	2.27	2.27	11.06	-0.16	
3	4	108	12.44	3.66e-04	0.33	12.11	-2.01	14.12	2.90	2.90	14.12	0.14	
3	4	111	8.70	-0.27	-1.89e-03	8.43	1.53	2.99	-5.32e-02	0.10	2.84	-0.67	
3	4	112	5.76	-0.29	2.84	2.63	3.03	2.64	0.46	0.52	2.57	-0.37	
3	4	113	5.36	0.21	0.55	5.02	1.29	-0.10	-3.21	-0.16	-3.15	-0.44	
3	4	114	1.59	0.36	1.51	0.43	0.29	2.58	0.64	0.66	2.56	-0.20	
3	4	131	0.79	0.41	0.79	0.41	5.16e-02	10.52	2.11	2.11	10.52	2.09e-02	
3	4	146	13.48	3.60	3.67	13.42	0.80	13.53	2.71	2.71	13.53	-2.93e-02	
3	4	154	9.23	-8.80e-02	-1.75e-02	9.16	0.81	0.17	-5.92	0.14	-5.89	0.43	
3	4	155	9.76	9.07e-02	9.13e-02	9.76	7.51e-02	-0.38	-5.74	-0.40	-5.73	0.31	
3	4	156	8.00	7.15e-02	8.23e-02	7.99	0.29	-0.52	-7.33	-0.52	-7.33	3.85e-02	
3	4	157	11.79	0.26	0.27	11.78	-0.33	8.32e-02	-1.78	-2.90e-02	-1.66	0.44	
3	4	158	9.94	0.36	0.36	9.94	4.88e-02	-0.68	-5.64	-0.68	-5.64	0.12	
3	4	159	1.70	0.57	0.57	1.70		2.53	0.59	0.59	2.53		
3	4	160	1.34	0.69	0.74	1.29	0.17	2.55	0.61	0.61	2.54	8.71e-02	
3	4	161	3.48	0.95	0.98	3.45	-0.28	-0.39	-3.10	-0.39	-3.10	7.44e-02	
3	4	162	1.59	0.36	1.51	0.43	-0.29	2.58	0.64	0.66	2.56	0.20	
3	4	163	9.93	0.67	0.67	9.93		-0.85	-5.60	-0.85	-5.60		
3	4	164	9.94	0.59	0.59	9.94	-2.82e-02	-0.81	-5.61	-0.81	-5.61	-4.23e-02	
3	4	165	7.96	0.49	0.50	7.96	-0.20	-1.08	-7.17	-1.08	-7.17	-2.36e-03	
3	4	166	11.72	1.09	1.10	11.71	0.18	-0.11	-1.65	-0.11	-1.64	-7.12e-02	
3	4	167	9.94	0.36	0.36	9.94	-4.88e-02	-0.68	-5.64	-0.68	-5.64	-0.12	
3	4	201	0.79	0.41	0.79	0.41	-5.16e-02	10.52	2.11	2.11	10.52	-2.09e-02	
3	4	210	13.48	3.60	3.67	13.42	-0.80	13.53	2.71	2.71	13.53	2.93e-02	
3	4	215	6.48	-0.14	-3.58e-02	6.38	0.82	0.16	-6.67	0.14	-6.66	-0.33	
3	4	216	6.48	0.13	0.18	6.42	0.59	-0.45	-6.48	-0.46	-6.47	-0.25	
3	4	217	6.10	0.46	0.53	6.03	0.63	-0.79	-6.37	-0.79	-6.37	-0.10	
3	4	218	1.34	0.69	0.74	1.29	-0.17	2.55	0.61	0.61	2.54	-8.71e-02	
3	4	219	3.48	0.95	0.98	3.45	0.28	-0.39	-3.10	-0.39	-3.10	-7.44e-02	
3	4	220	5.81	0.68	0.70	5.79	0.33	-0.95	-6.33	-0.95	-6.33	-4.07e-02	
...													
3	150	312	14.25	-0.26	-0.21	14.20	-0.86	5.25	-1.07e-02	5.74e-02	5.18	-0.59	
M	G		N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2	
				-30.00	-6.91	-28.13	-19.88		-14.08	-2.11	-14.08	-1.28	
			75.12		6.56	69.53	19.88	27.24		5.59	27.24	1.28	

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
				kN/ m	kN/ m	kN/ m	kN/ m	kN/ m	kN	kN	kN	kN	kN
4	1	1	1	17.15	-1.49	0.39	15.27	5.61	-3.85e-02	-10.28	-3.99e-02	-10.28	0.12
4	1	2	2	17.15	-1.49	0.39	15.27	-5.61	-3.85e-02	-10.28	-3.99e-02	-10.28	-0.12
4	1	5	5	22.65	1.06	6.62	17.09	-9.44	-0.13	-10.02	-0.14	-10.02	-0.26
4	1	6	6	22.65	1.06	6.62	17.09	9.44	-0.13	-10.02	-0.14	-10.02	0.26
4	1	14	14	1.93	-3.98	1.93	-3.98		-2.27	-10.75	-2.27	-10.75	
4	1	19	19	4.23	-4.47	4.23	-4.47		-2.17	-10.32	-2.17	-10.32	
4	1	24	24	-2.77e-02	-4.23	-2.78e-02	-4.23	1.72e-02	13.42	-0.25	-0.25	13.41	0.21
4	1	25	25	0.80	-3.63	0.80	-3.63		12.91	1.90	1.90	12.91	
4	1	26	26	-2.77e-02	-4.23	-2.78e-02	-4.23	-1.72e-02	13.42	-0.25	-0.25	13.41	-0.21
4	1	45	45	-3.36e-02	-2.59	-3.85e-02	-2.58	0.11	4.02	-0.20	-0.10	3.93	0.63
4	1	46	46	1.22	-4.28	1.14	-4.20	0.68	3.91	0.10	0.14	3.87	0.35
4	1	47	47	0.29	-5.77	0.24	-5.72	0.55	-2.33	-11.04	-2.33	-11.03	0.15
4	1	48	48	0.47	-3.56	0.47	-3.55	0.15	13.02	1.44	1.44	13.02	7.42e-02
4	1	49	49	0.87	-3.93	0.87	-3.93		3.80	0.28	0.28	3.80	
4	1	62	62	0.29	-5.77	0.24	-5.72	-0.55	-2.33	-11.04	-2.33	-11.03	-0.15
4	1	66	66	3.55	-5.87	3.44	-5.76	-0.99	-2.33	-10.50	-2.34	-10.50	-0.23
4	1	73	73	3.55	-5.87	3.44	-5.76	0.99	-2.33	-10.50	-2.34	-10.50	0.23
4	1	83	83	-0.18	-3.74	-0.18	-3.74	-1.56e-03	11.49	-0.43	-0.40	11.46	-0.55
4	1	84	84	1.64	-3.96	1.53	-3.85	-0.78	11.12	1.26	1.27	11.11	-0.36
4	1	85	85	1.75	-3.84	1.75	-3.84		11.00	1.69	1.69	11.00	
4	1	86	86	1.22	-4.28	1.14	-4.20	-0.68	3.91	0.10	0.14	3.87	-0.35
4	1	87	87	0.47	-3.56	0.47	-3.55	-0.15	13.02	1.44	1.44	13.02	-7.42e-02
4	1	88	88	-3.36e-02	-2.59	-3.85e-02	-2.58	-0.11	4.02	-0.20	-0.10	3.93	-0.63
4	1	89	89	1.64	-3.96	1.53	-3.85	0.78	11.12	1.26	1.27	11.11	0.36
4	1	90	90	-0.18	-3.74	-0.18	-3.74	1.56e-03	11.49	-0.43	-0.40	11.46	0.55
4	1	115	115	1.79	-0.16	0.20	1.43	0.76	9.88e-02	-3.24	-1.34e-02	-3.12	0.60
4	1	116	116	3.54	-4.99	2.67	-4.12	2.58	-0.35	-3.31	-0.60	-3.05	0.84
4	1	117	117	-2.19	-10.44	-2.29	-10.35	0.86	-1.97	-11.19	-1.98	-11.18	0.30
4	1	118	118	0.94	-3.55	0.60	-3.21	1.20	4.11	-0.15	4.03e-02	3.92	0.87
4	1	119	119	1.35	-5.16	1.35	-5.15	0.17	-0.85	-3.17	-0.93	-3.09	0.42
4	1	168	168	-5.16e-02	-4.31	-5.17e-02	-4.31	1.50e-02	14.34	-0.32	-0.32	14.34	-0.15
4	1	169	169	0.22	-3.58	0.21	-3.57	-0.20	14.17	0.77	0.78	14.17	-0.26
4	1	170	170	0.14	-3.65	0.13	-3.64	0.17	13.27	0.69	0.69	13.26	0.27
4	1	171	171	0.88	-3.45	0.64	-3.21	-0.99	11.39	0.54	0.60	11.33	-0.79
4	1	172	172	0.72	-3.57	0.71	-3.55	-0.25	13.90	1.61	1.61	13.90	-0.15
4	1	173	173	0.98	-3.92	0.98	-3.92		-0.89	-3.12	-0.89	-3.12	
4	1	174	174	1.00	-4.24	1.00	-4.24	6.55e-02	-0.90	-3.14	-0.92	-3.12	-0.19
4	1	175	175	1.60	-4.35	1.59	-4.34	-0.27	-2.30	-10.83	-2.30	-10.83	-6.26e-02
4	1	176	176	0.97	-4.09	0.96	-4.08	-0.15	3.83	0.23	0.24	3.82	-0.15
4	1	177	177	1.35	-5.16	1.35	-5.15	-0.17	-0.85	-3.17	-0.93	-3.09	-0.42
4	1	178	178	1.11	-3.65	1.11	-3.65		13.78	2.11	2.11	13.78	
4	1	179	179	1.03	-3.63	1.02	-3.63	0.12	13.80	2.00	2.00	13.80	6.86e-02
4	1	180	180	0.72	-3.61	0.72	-3.61	-7.35e-02	12.93	1.80	1.80	12.93	-1.74e-02
4	1	181	181	1.74	-3.91	1.72	-3.90	0.27	11.02	1.59	1.59	11.02	0.15
4	1	182	182	0.72	-3.57	0.71	-3.55	0.25	13.90	1.61	1.61	13.90	0.15
4	1	223	223	-3.44e-02	-3.77	-3.47e-02	-3.76	2.91e-02	9.70	-0.20	-0.17	9.68	0.48
4	1	224	224	0.28	-3.55	0.21	-3.48	0.52	9.63	0.39	0.44	9.58	0.68
4	1	225	225	0.65	-3.75	0.60	-3.70	0.47	9.43	0.92	0.93	9.43	0.25
4	1	226	226	1.00	-4.24	1.00	-4.24	-6.55e-02	-0.90	-3.14	-0.92	-3.12	0.19
4	1	227	227	1.60	-4.35	1.59	-4.34	0.27	-2.30	-10.83	-2.30	-10.83	6.26e-02
4	1	228	228	0.97	-4.09	0.96	-4.08	0.15	3.83	0.23	0.24	3.82	0.15
4	1	229	229	0.77	-3.79	0.76	-3.78	0.20	9.36	1.17	1.17	9.36	9.09e-02
4	1	230	230	0.72	-3.61	0.72	-3.61	7.35e-02	12.93	1.80	1.80	12.93	1.74e-02
4	1	231	231	0.78	-3.77	0.78	-3.77		9.34	1.25	1.25	9.34	
4	1	262	262	-2.19	-10.44	-2.29	-10.35	-0.86	-1.97	-11.19	-1.98	-11.18	-0.30
4	1	266	266	2.27	-10.86	2.03	-10.61	-1.77	-2.28	-10.81	-2.32	-10.77	-0.59
4	1	271	271	4.10	-4.73	4.08	-4.70	-0.46	-2.21	-10.36	-2.21	-10.36	-8.51e-02
4	1	283	283	4.10	-4.73	4.08	-4.70	0.46	-2.21	-10.36	-2.21	-10.36	8.51e-02
4	1	289	289	2.27	-10.86	2.03	-10.61	-1.77	-2.28	-10.81	-2.32	-10.77	0.59
4	1	313	313	-0.86	-1.31	-1.28	-0.89	0.12	3.90	-0.73	-0.54	3.71	-0.92
4	1	314	314	4.59	-4.58	3.19	-3.18	-3.30	3.99	-0.44	-5.51e-02	3.61	-1.24
4	1	315	315	2.85	-4.89	2.76	-4.80	-0.82	3.50	4.33e-02	0.13	3.41	-0.55
4	1	316	316	1.03	-3.63	1.02	-3.63	-0.12	13.80	2.00	2.00	13.80	-6.86e-02
4	1	317	317	1.74	-3.91	1.72	-3.90	-0.27	11.02	1.59	1.59	11.02	-0.15
4	1	318	318	2.67	-4.29	2.66	-4.28	-0.28	3.39	0.32	0.33	3.37	-0.23
4	1	319	319	2.69	-4.10	2.69	-4.10		3.37	0.40	0.40	3.37	
4	1	320	320	0.77	-3.79	0.76	-3.78	-0.20	9.36	1.17	1.17	9.36	-9.09e-02
4	1	321	321	0.65	-3.75	0.60	-3.70	-0.47	9.43	0.92	0.93	9.43	-0.25

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
4	1	322	3.54	-4.99	2.67	-4.12	-2.58	-0.35	-3.31	-0.60	-3.05	-0.84	
4	1	323	0.94	-3.55	0.60	-3.21	-1.20	4.11	-0.15	4.03e-02	3.92	-0.87	
4	1	324	1.79	-0.16	0.20	1.43	-0.76	9.88e-02	-3.24	-1.34e-02	-3.12	-0.60	
4	1	325	0.28	-3.55	0.21	-3.48	-0.52	9.63	0.39	0.44	9.58	-0.68	
4	1	326	0.14	-3.65	0.13	-3.64	-0.17	13.27	0.69	0.69	13.26	-0.27	
4	1	327	-3.44e-02	-3.77	-3.47e-02	-3.76	-2.91e-02	9.70	-0.20	-0.17	9.68	-0.48	
4	1	328	2.67	-4.29	2.66	-4.28	0.28	3.39	0.32	0.33	3.37	0.23	
4	1	329	2.85	-4.89	2.76	-4.80	0.82	3.50	4.33e-02	0.13	3.41	0.55	
4	1	330	0.22	-3.58	0.21	-3.57	0.20	14.17	0.77	0.78	14.17	0.26	
4	1	331	0.88	-3.45	0.64	-3.21	0.99	11.39	0.54	0.60	11.33	0.79	
4	1	332	-5.16e-02	-4.31	-5.17e-02	-4.31	-1.50e-02	14.34	-0.32	-0.32	14.34	0.15	
4	1	333	4.59	-4.58	3.19	-3.18	3.30	3.99	-0.44	-5.51e-02	3.61	1.24	
4	1	334	-0.86	-1.31	-1.28	-0.89	-0.12	3.90	-0.73	-0.54	3.71	0.92	
4	2	1	28.17	-4.12	-1.84	25.89	8.28	-6.29e-02	-19.51	-6.31e-02	-19.51	-6.30e-02	
4	2	2	28.17	-4.12	-1.84	25.89	-8.28	-6.29e-02	-19.51	-6.31e-02	-19.51	6.30e-02	
4	2	5	24.95	1.52	9.83	16.64	-11.21	-0.18	-9.53	-0.20	-9.51	-0.41	
4	2	6	24.95	1.52	9.83	16.64	11.21	-0.18	-9.53	-0.20	-9.51	0.41	
4	2	14	-8.97e-02	-9.96	-8.97e-02	-9.96		-4.40	-21.30	-4.40	-21.30		
4	2	19	6.67	-3.96	6.67	-3.96		-1.98	-9.31	-1.98	-9.31		
4	2	24	-9.08e-03	-6.56	-4.14e-02	-6.53	0.46	15.91	-0.33	-0.32	15.90	0.48	
4	2	25	1.18	-6.38	1.18	-6.38		15.30	2.28	2.28	15.30		
4	2	26	-9.08e-03	-6.56	-4.14e-02	-6.53	-0.46	15.91	-0.33	-0.32	15.90	-0.48	
4	2	45	0.12	-3.79	-7.22e-03	-3.66	0.71	0.58	-1.26	-5.95e-02	-0.61	0.88	
4	2	46	1.89	-9.45	1.71	-9.27	1.42	-0.16	-0.96	-0.61	-0.51	0.40	
4	2	47	-3.31	-13.11	-3.31	-13.10	0.16	-4.36	-21.64	-4.36	-21.64	0.18	
4	2	48	0.81	-6.18	0.70	-6.07	0.87	15.43	1.74	1.74	15.42	0.17	
4	2	49	0.72	-9.10	0.72	-9.10		-0.59	-0.67	-0.67	-0.59		
4	2	62	-3.31	-13.11	-3.31	-13.10	-0.16	-4.36	-21.64	-4.36	-21.64	-0.18	
4	2	66	6.54	-5.25	6.36	-5.07	-1.45	-2.24	-9.53	-2.25	-9.52	-0.27	
4	2	73	6.54	-5.25	6.36	-5.07	1.45	-2.24	-9.53	-2.25	-9.52	0.27	
4	2	83	-0.21	-6.12	-0.25	-6.08	0.50	17.46	-0.60	-0.58	17.44	-0.59	
4	2	84	1.90	-4.35	1.85	-4.30	-0.54	16.89	2.08	2.09	16.88	-0.42	
4	2	85	2.55	-4.31	2.55	-4.31		16.74	2.76	2.76	16.74		
4	2	86	1.89	-9.45	1.71	-9.27	-1.42	-0.16	-0.96	-0.61	-0.51	-0.40	
4	2	87	0.81	-6.18	0.70	-6.07	-0.87	15.43	1.74	1.74	15.42	-0.17	
4	2	88	0.12	-3.79	-7.22e-03	-3.66	-0.71	0.58	-1.26	-5.95e-02	-0.61	-0.88	
4	2	89	1.90	-4.35	1.85	-4.30	0.54	16.89	2.08	2.09	16.88	0.42	
4	2	90	-0.21	-6.12	-0.25	-6.08	-0.50	17.46	-0.60	-0.58	17.44	0.59	
4	2	115	5.26	-0.26	1.04	3.96	2.34	0.18	-11.09	0.14	-11.05	0.66	
4	2	116	5.66	-10.91	4.42	-9.67	4.35	-1.31	-10.85	-1.38	-10.78	0.79	
4	2	117	-7.82	-20.84	-7.82	-20.84	0.12	-3.46	-21.46	-3.47	-21.46	0.25	
4	2	118	1.85	-7.33	1.06	-6.54	2.58	0.70	-1.57	-0.32	-0.55	1.13	
4	2	119	1.01	-11.95	1.01	-11.95	-0.12	-2.32	-10.86	-2.34	-10.83	0.44	
4	2	168	-3.34e-02	-6.67	-6.56e-02	-6.63	0.46	19.31	-0.45	-0.45	19.31	1.67e-03	
4	2	169	0.26	-5.36	0.23	-5.34	0.35	19.07	1.10	1.10	19.07	-8.28e-02	
4	2	170	0.32	-6.06	0.21	-5.95	0.84	15.74	0.82	0.84	15.72	0.62	
4	2	171	0.71	-4.31	0.66	-4.25	-0.54	17.27	0.95	1.00	17.23	-0.87	
4	2	172	0.90	-5.07	0.88	-5.06	0.29	18.69	2.26	2.26	18.69	-0.11	
4	2	173	-0.25	-9.78	-0.25	-9.78		-2.51	-10.97	-2.51	-10.97		
4	2	174	-7.85e-02	-10.38	-9.29e-02	-10.37	0.38	-2.50	-10.95	-2.50	-10.94	-0.22	
4	2	175	-0.76	-10.62	-0.76	-10.62	-9.69e-02	-4.42	-21.41	-4.42	-21.41	-7.91e-02	
4	2	176	1.04	-9.33	1.03	-9.33	-0.31	-0.45	-0.78	-0.67	-0.56	-0.16	
4	2	177	1.01	-11.95	1.01	-11.95	0.12	-2.32	-10.86	-2.34	-10.83	-0.44	
4	2	178	1.55	-5.17	1.55	-5.17		18.54	2.96	2.96	18.54		
4	2	179	1.39	-5.13	1.38	-5.13	-0.18	18.57	2.80	2.80	18.57	6.95e-02	
4	2	180	1.10	-6.33	1.07	-6.30	-0.49	15.32	2.16	2.16	15.32	-3.58e-02	
4	2	181	2.40	-4.34	2.39	-4.34	0.19	16.77	2.60	2.61	16.77	0.18	
4	2	182	0.90	-5.07	0.88	-5.06	-0.29	18.69	2.26	2.26	18.69	0.11	
4	2	223	-1.18e-02	-5.85	-5.47e-02	-5.80	0.50	8.88	-0.26	-0.19	8.81	0.79	
4	2	224	0.69	-6.55	0.40	-6.25	1.43	8.86	0.23	0.37	8.73	1.06	
4	2	225	1.21	-7.52	1.00	-7.32	1.32	8.61	0.74	0.76	8.60	0.35	
4	2	226	-7.85e-02	-10.38	-9.29e-02	-10.37	-0.38	-2.50	-10.95	-2.50	-10.94	0.22	
4	2	227	-0.76	-10.62	-0.76	-10.62	9.69e-02	-4.42	-21.41	-4.42	-21.41	7.91e-02	
4	2	228	1.04	-9.33	1.03	-9.33	0.31	-0.45	-0.78	-0.67	-0.56	0.16	
4	2	229	1.17	-7.80	1.13	-7.76	0.62	8.54	0.94	0.94	8.54	0.11	
4	2	230	1.10	-6.33	1.07	-6.30	0.49	15.32	2.16	2.16	15.32	3.58e-02	
4	2	231	1.10	-7.81	1.10	-7.81		8.52	1.00	1.00	8.52		
4	2	262	-7.82	-20.84	-7.82	-20.84	-0.12	-3.46	-21.46	-3.47	-21.46	-0.25	
4	2	266	5.83	-10.67	5.37	-10.20	-2.73	-2.40	-10.14	-2.48	-10.06	-0.78	
4	2	271	6.67	-4.19	6.63	-4.15	-0.65	-2.04	-9.35	-2.04	-9.35	-9.69e-02	
4	2	283	6.67	-4.19	6.63	-4.15	0.65	-2.04	-9.35	-2.04	-9.35	9.69e-02	
4	2	289	5.83	-10.67	5.37	-10.20	2.73	-2.40	-10.14	-2.48	-10.06	0.78	
4	2	313	-1.51	-4.28	-2.10	-3.68	1.14	8.73	-0.96	-0.81	8.58	-1.19	
4	2	314	5.00	-4.33	3.45	-2.78	-3.48	8.68	-2.20e-02	0.29	8.36	-1.62	

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
4	2	315	4.06	-4.46	3.91	-4.31	-1.14	8.17	0.78	0.85	8.10	-0.69	
4	2	316	1.39	-5.13	1.38	-5.13	0.18	18.57	2.80	2.80	18.57	-6.95e-02	
4	2	317	2.40	-4.34	2.39	-4.34	-0.19	16.77	2.60	2.61	16.77	-0.18	
4	2	318	4.20	-3.94	4.17	-3.92	-0.47	8.10	1.19	1.20	8.09	-0.27	
4	2	319	4.29	-3.80	4.29	-3.80		8.10	1.31	1.31	8.10		
4	2	320	1.17	-7.80	1.13	-7.76	-0.62	8.54	0.94	0.94	8.54	-0.11	
4	2	321	1.21	-7.52	1.00	-7.32	-1.32	8.61	0.74	0.76	8.60	-0.35	
4	2	322	5.66	-10.91	4.42	-9.67	-4.35	-1.31	-10.85	-1.38	-10.78	-0.79	
4	2	323	1.85	-7.33	1.06	-6.54	-2.58	0.70	-1.57	-0.32	-0.55	-1.13	
4	2	324	5.26	-0.26	1.04	3.96	-2.34	0.18	-11.09	0.14	-11.05	-0.66	
4	2	325	0.69	-6.55	0.40	-6.25	-1.43	8.86	0.23	0.37	8.73	-1.06	
4	2	326	0.32	-6.06	0.21	-5.95	-0.84	15.74	0.82	0.84	15.72	-0.62	
4	2	327	-1.18e-02	-5.85	-5.47e-02	-5.80	-0.50	8.88	-0.26	-0.19	8.81	-0.79	
4	2	328	4.20	-3.94	4.17	-3.92	0.47	8.10	1.19	1.20	8.09	0.27	
4	2	329	4.06	-4.46	3.91	-4.31	1.14	8.17	0.78	0.85	8.10	0.69	
4	2	330	0.26	-5.36	0.23	-5.34	-0.35	19.07	1.10	1.10	19.07	8.28e-02	
4	2	331	0.71	-4.31	0.66	-4.25	0.54	17.27	0.95	1.00	17.23	0.87	
4	2	332	-3.34e-02	-6.67	-6.56e-02	-6.63	-0.46	19.31	-0.45	-0.45	19.31	-1.67e-03	
4	2	333	5.00	-4.33	3.45	-2.78	3.48	8.68	-2.20e-02	0.29	8.36	1.62	
4	2	334	-1.51	-4.28	-2.10	-3.68	-1.14	8.73	-0.96	-0.81	8.58	1.19	
4	3	1	21.84	-1.75	0.48	19.61	6.90	-5.11e-02	-12.66	-5.23e-02	-12.66	0.12	
4	3	2	21.84	-1.75	0.48	19.61	-6.90	-5.11e-02	-12.66	-5.23e-02	-12.66	-0.12	
4	3	5	26.28	1.27	7.89	19.66	-11.03	-0.17	-11.48	-0.17	-11.47	-0.31	
4	3	6	26.28	1.27	7.89	19.66	11.03	-0.17	-11.48	-0.17	-11.47	0.31	
4	3	14	2.14	-4.59	2.14	-4.59		-2.81	-13.35	-2.81	-13.35		
4	3	19	5.10	-5.06	5.10	-5.06		-2.48	-11.78	-2.48	-11.78		
4	3	24	-3.35e-02	-4.79	-3.36e-02	-4.79	2.31e-02	15.72	-0.29	-0.29	15.72	0.26	
4	3	25	0.97	-4.12	0.97	-4.12		15.12	2.23	2.23	15.12		
4	3	26	-3.35e-02	-4.79	-3.36e-02	-4.79	-2.31e-02	15.72	-0.29	-0.29	15.72	-0.26	
4	3	45	-3.94e-02	-2.61	-4.76e-02	-2.61	0.15	4.38	-0.24	-0.12	4.26	0.74	
4	3	46	1.52	-4.96	1.40	-4.84	0.88	4.24	6.70e-02	0.11	4.20	0.41	
4	3	47	0.11	-6.82	5.53e-02	-6.76	0.63	-2.87	-13.68	-2.87	-13.68	0.18	
4	3	48	0.58	-4.02	0.56	-4.01	0.24	15.25	1.69	1.69	15.25	9.15e-02	
4	3	49	1.04	-4.55	1.04	-4.55		4.12	0.27	0.27	4.12		
4	3	62	0.11	-6.82	5.53e-02	-6.76	-0.63	-2.87	-13.68	-2.87	-13.68	-0.18	
4	3	66	4.36	-6.66	4.23	-6.53	-1.19	-2.67	-11.99	-2.68	-11.99	-0.26	
4	3	73	4.36	-6.66	4.23	-6.53	1.19	-2.67	-11.99	-2.68	-11.99	0.26	
4	3	83	-0.21	-4.37	-0.21	-4.37	6.48e-03	13.71	-0.50	-0.47	13.68	-0.64	
4	3	84	1.92	-4.44	1.79	-4.32	-0.87	13.27	1.51	1.52	13.25	-0.42	
4	3	85	2.09	-4.31	2.09	-4.31		13.12	2.03	2.03	13.12		
4	3	86	1.52	-4.96	1.40	-4.84	-0.88	4.24	6.70e-02	0.11	4.20	-0.41	
4	3	87	0.58	-4.02	0.56	-4.01	-0.24	15.25	1.69	1.69	15.25	-9.15e-02	
4	3	88	-3.94e-02	-2.61	-4.76e-02	-2.61	-0.15	4.38	-0.24	-0.12	4.26	-0.74	
4	3	89	1.92	-4.44	1.79	-4.32	0.87	13.27	1.51	1.52	13.25	0.42	
4	3	90	-0.21	-4.37	-0.21	-4.37	-6.48e-03	13.71	-0.50	-0.47	13.68	0.64	
4	3	115	2.83	-0.11	0.25	2.47	0.96	0.11	-4.31	-9.77e-03	-4.19	0.71	
4	3	116	4.45	-5.81	3.30	-4.67	3.22	-0.49	-4.36	-0.76	-4.10	0.97	
4	3	117	-2.91	-12.51	-3.02	-12.40	1.01	-2.41	-13.82	-2.42	-13.81	0.35	
4	3	118	1.24	-4.01	0.74	-3.52	1.53	4.49	-0.21	2.34e-02	4.25	1.03	
4	3	119	1.61	-6.05	1.61	-6.05	0.21	-1.10	-4.24	-1.19	-4.15	0.49	
4	3	168	-6.08e-02	-4.96	-6.09e-02	-4.96	2.11e-02	16.94	-0.38	-0.38	16.94	-0.16	
4	3	169	0.26	-4.05	0.25	-4.04	-0.18	16.75	0.92	0.92	16.74	-0.29	
4	3	170	0.17	-4.11	0.16	-4.10	0.26	15.55	0.81	0.81	15.54	0.33	
4	3	171	1.00	-3.90	0.74	-3.64	-1.10	13.59	0.66	0.72	13.52	-0.93	
4	3	172	0.85	-4.01	0.83	-4.00	-0.24	16.42	1.90	1.91	16.42	-0.17	
4	3	173	1.10	-4.53	1.10	-4.53		-1.15	-4.20	-1.15	-4.20		
4	3	174	1.13	-4.94	1.13	-4.93	9.18e-02	-1.16	-4.22	-1.18	-4.20	-0.23	
4	3	175	1.74	-5.05	1.72	-5.04	-0.31	-2.84	-13.44	-2.84	-13.44	-7.46e-02	
4	3	176	1.17	-4.74	1.17	-4.73	-0.20	4.15	0.21	0.21	4.14	-0.17	
4	3	177	1.61	-6.05	1.61	-6.05	-0.21	-1.10	-4.24	-1.19	-4.15	-0.49	
4	3	178	1.32	-4.11	1.32	-4.11		16.28	2.50	2.50	16.28		
4	3	179	1.22	-4.09	1.21	-4.08	0.11	16.31	2.37	2.37	16.31	8.00e-02	
4	3	180	0.87	-4.09	0.87	-4.09	-0.12	15.15	2.11	2.11	15.15	-2.10e-02	
4	3	181	2.06	-4.39	2.05	-4.37	0.30	13.15	1.91	1.91	13.15	0.18	
4	3	182	0.85	-4.01	0.83	-4.00	0.24	16.42	1.90	1.91	16.42	0.17	
4	3	223	-4.27e-02	-4.15	-4.31e-02	-4.15	3.91e-02	11.21	-0.23	-0.20	11.18	0.58	
4	3	224	0.38	-3.99	0.27	-3.87	0.69	11.13	0.45	0.51	11.07	0.81	
4	3	225	0.83	-4.28	0.75	-4.20	0.63	10.89	1.05	1.06	10.88	0.30	
4	3	226	1.13	-4.94	1.13	-4.93	-9.18e-02	-1.16	-4.22	-1.18	-4.20	0.23	
4	3	227	1.74	-5.05	1.72	-5.04	0.31	-2.84	-13.44	-2.84	-13.44	7.46e-02	
4	3	228	1.17	-4.74	1.17	-4.73	0.20	4.15	0.21	0.21	4.14	0.17	
4	3	229	0.95	-4.35	0.94	-4.34	0.28	10.81	1.34	1.34	10.81	0.11	
4	3	230	0.87	-4.09	0.87	-4.09	0.12	15.15	2.11	2.11	15.15	2.10e-02	
4	3	231	0.96	-4.33	0.96	-4.33		10.78	1.44	1.44	10.78		

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
4	3	262	-2.91	-12.51	-3.02	-12.40	-1.01	-2.41	-13.82	-2.42	-13.81	-0.35	
4	3	266	2.93	-12.44	2.63	-12.14	-2.13	-2.63	-12.37	-2.67	-12.32	-0.69	
4	3	271	4.96	-5.36	4.93	-5.33	-0.56	-2.53	-11.82	-2.53	-11.82	-9.93e-02	
4	3	283	4.96	-5.36	4.93	-5.33	0.56	-2.53	-11.82	-2.53	-11.82	9.93e-02	
4	3	289	2.93	-12.44	2.63	-12.14	2.13	-2.63	-12.37	-2.67	-12.32	0.69	
4	3	313	-1.11	-1.63	-1.54	-1.20	0.19	4.87	-0.85	-0.64	4.65	-1.08	
4	3	314	5.33	-5.19	3.69	-3.55	-3.82	4.96	-0.47	-3.78e-02	4.53	-1.47	
4	3	315	3.39	-5.52	3.28	-5.41	-0.97	4.39	0.11	0.21	4.29	-0.65	
4	3	316	1.22	-4.09	1.21	-4.08	-0.11	16.31	2.37	2.37	16.31	-8.00e-02	
4	3	317	2.06	-4.39	2.05	-4.37	-0.30	13.15	1.91	1.91	13.15	-0.18	
4	3	318	3.21	-4.83	3.20	-4.82	-0.34	4.27	0.43	0.45	4.25	-0.27	
4	3	319	3.24	-4.61	3.24	-4.61		4.25	0.54	0.54	4.25		
4	3	320	0.95	-4.35	0.94	-4.34	-0.28	10.81	1.34	1.34	10.81	-0.11	
4	3	321	0.83	-4.28	0.75	-4.20	-0.63	10.89	1.05	1.06	10.88	-0.30	
4	3	322	4.45	-5.81	3.30	-4.67	-3.22	-0.49	-4.36	-0.76	-4.10	-0.97	
4	3	323	1.24	-4.01	0.74	-3.52	-1.53	4.49	-0.21	2.34e-02	4.25	-1.03	
4	3	324	2.83	-0.11	0.25	2.47	-0.96	0.11	-4.31	-9.77e-03	-4.19	-0.71	
4	3	325	0.38	-3.99	0.27	-3.87	-0.69	11.13	0.45	0.51	11.07	-0.81	
4	3	326	0.17	-4.11	0.16	-4.10	-0.26	15.55	0.81	0.81	15.54	-0.33	
4	3	327	-4.27e-02	-4.15	-4.31e-02	-4.15	-3.91e-02	11.21	-0.23	-0.20	11.18	-0.58	
4	3	328	3.21	-4.83	3.20	-4.82	0.34	4.27	0.43	0.45	4.25	0.27	
4	3	329	3.39	-5.52	3.28	-5.41	0.97	4.39	0.11	0.21	4.29	0.65	
4	3	330	0.26	-4.05	0.25	-4.04	0.18	16.75	0.92	0.92	16.74	0.29	
4	3	331	1.00	-3.90	0.74	-3.64	1.10	13.59	0.66	0.72	13.52	0.93	
4	3	332	-6.08e-02	-4.96	-6.09e-02	-4.96	-2.11e-02	16.94	-0.38	-0.38	16.94	0.16	
4	3	333	5.33	-5.19	3.69	-3.55	3.82	4.96	-0.47	-3.78e-02	4.53	1.47	
4	3	334	-1.11	-1.63	-1.54	-1.20	-0.19	4.87	-0.85	-0.64	4.65	1.08	
4	4	1	32.87	-4.39	-1.75	30.23	9.57	-7.54e-02	-21.88	-7.55e-02	-21.88	-5.77e-02	
4	4	2	32.87	-4.39	-1.75	30.23	-9.57	-7.54e-02	-21.88	-7.55e-02	-21.88	5.77e-02	
4	4	5	28.58	1.73	11.10	19.21	-12.80	-0.22	-10.99	-0.24	-10.97	-0.46	
4	4	6	28.58	1.73	11.10	19.21	12.80	-0.22	-10.99	-0.24	-10.97	0.46	
4	4	14	0.13	-10.57	0.13	-10.57		-4.94	-23.90	-4.94	-23.90		
4	4	19	7.54	-4.56	7.54	-4.56		-2.29	-10.76	-2.29	-10.76		
4	4	24	-1.67e-02	-7.12	-4.73e-02	-7.09	0.47	18.22	-0.38	-0.36	18.20	0.53	
4	4	25	1.35	-6.87	1.35	-6.87		17.52	2.61	2.61	17.52		
4	4	26	-1.67e-02	-7.12	-4.73e-02	-7.09	-0.47	18.22	-0.38	-0.36	18.20	-0.53	
4	4	45	0.13	-3.83	-1.64e-02	-3.69	0.74	0.82	-1.18	-7.59e-02	-0.29	0.99	
4	4	46	2.19	-10.13	1.97	-9.91	1.62	0.10	-0.92	-0.64	-0.18	0.46	
4	4	47	-3.49	-14.15	-3.49	-14.14	0.24	-4.90	-24.29	-4.90	-24.29	0.21	
4	4	48	0.93	-6.66	0.80	-6.53	0.96	17.66	1.99	1.99	17.66	0.19	
4	4	49	0.89	-9.72	0.89	-9.72		-0.28	-0.69	-0.69	-0.28		
4	4	62	-3.49	-14.15	-3.49	-14.14	-0.24	-4.90	-24.29	-4.90	-24.29	-0.21	
4	4	66	7.35	-6.04	7.15	-5.84	-1.65	-2.58	-11.02	-2.59	-11.01	-0.31	
4	4	73	7.35	-6.04	7.15	-5.84	1.65	-2.58	-11.02	-2.59	-11.01	0.31	
4	4	83	-0.25	-6.75	-0.29	-6.71	0.50	19.68	-0.68	-0.65	19.65	-0.68	
4	4	84	2.17	-4.83	2.11	-4.77	-0.64	19.03	2.34	2.35	19.02	-0.48	
4	4	85	2.89	-4.78	2.89	-4.78		18.87	3.10	3.10	18.87		
4	4	86	2.19	-10.13	1.97	-9.91	-1.62	0.10	-0.92	-0.64	-0.18	-0.46	
4	4	87	0.93	-6.66	0.80	-6.53	-0.96	17.66	1.99	1.99	17.66	-0.19	
4	4	88	0.13	-3.83	-1.64e-02	-3.69	-0.74	0.82	-1.18	-7.59e-02	-0.29	-0.99	
4	4	89	2.17	-4.83	2.11	-4.77	0.64	19.03	2.34	2.35	19.02	0.48	
4	4	90	-0.25	-6.75	-0.29	-6.71	-0.50	19.68	-0.68	-0.65	19.65	0.68	
4	4	115	6.26	-0.16	1.09	5.00	2.54	0.19	-12.17	0.14	-12.12	0.76	
4	4	116	6.55	-11.72	5.06	-10.22	5.00	-1.45	-11.91	-1.53	-11.83	0.93	
4	4	117	-8.55	-22.90	-8.56	-22.90	0.27	-3.91	-24.09	-3.91	-24.08	0.31	
4	4	118	2.15	-7.79	1.21	-6.85	2.91	1.01	-1.56	-0.34	-0.22	1.29	
4	4	119	1.27	-12.84	1.27	-12.84	-8.06e-02	-2.57	-11.93	-2.59	-11.90	0.51	
4	4	168	-4.46e-02	-7.31	-7.48e-02	-7.28	0.47	21.91	-0.51	-0.51	21.91	-1.29e-02	
4	4	169	0.29	-5.84	0.27	-5.81	0.37	21.64	1.24	1.24	21.64	-0.11	
4	4	170	0.36	-6.53	0.23	-6.41	0.92	18.02	0.94	0.97	18.00	0.69	
4	4	171	0.83	-4.75	0.75	-4.68	-0.65	19.47	1.07	1.12	19.42	-1.01	
4	4	172	1.02	-5.52	1.01	-5.50	0.30	21.21	2.56	2.56	21.21	-0.13	
4	4	173	-0.14	-10.39	-0.14	-10.39		-2.77	-12.05	-2.77	-12.05		
4	4	174	5.77e-02	-11.08	4.26e-02	-11.06	0.41	-2.76	-12.03	-2.77	-12.02	-0.25	
4	4	175	-0.62	-11.32	-0.62	-11.32	-0.13	-4.96	-24.02	-4.96	-24.02	-9.11e-02	
4	4	176	1.25	-9.99	1.24	-9.97	-0.37	-0.18	-0.76	-0.70	-0.24	-0.18	
4	4	177	1.27	-12.84	1.27	-12.84	8.06e-02	-2.57	-11.93	-2.59	-11.90	-0.51	
4	4	178	1.77	-5.62	1.77	-5.62		21.04	3.35	3.35	21.04		
4	4	179	1.58	-5.58	1.58	-5.58	-0.19	21.07	3.17	3.17	21.07	8.10e-02	
4	4	180	1.26	-6.82	1.22	-6.78	-0.54	17.55	2.47	2.47	17.55	-3.93e-02	
4	4	181	2.72	-4.82	2.72	-4.81	0.22	18.90	2.92	2.93	18.90	0.21	
4	4	182	1.02	-5.52	1.01	-5.50	-0.30	21.21	2.56	2.56	21.21	0.13	
4	4	223	-2.12e-02	-6.23	-6.31e-02	-6.19	0.51	10.38	-0.30	-0.22	10.30	0.89	
4	4	224	0.80	-6.99	0.45	-6.65	1.60	10.36	0.29	0.43	10.21	1.20	

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
4	4		225	1.39	-8.06	1.15	-7.82	1.48	10.07	0.88	0.89	10.06	0.40
4	4		226	5.77e-02	-11.08	4.26e-02	-11.06	-0.41	-2.76	-12.03	-2.77	-12.02	0.25
4	4		227	-0.62	-11.32	-0.62	-11.32	0.13	-4.96	-24.02	-4.96	-24.02	9.11e-02
4	4		228	1.25	-9.99	1.24	-9.97	0.37	-0.18	-0.76	-0.70	-0.24	0.18
4	4		229	1.36	-8.36	1.31	-8.31	0.69	9.99	1.11	1.11	9.99	0.12
4	4		230	1.26	-6.82	1.22	-6.78	0.54	17.55	2.47	2.47	17.55	3.93e-02
4	4		231	1.27	-8.37	1.27	-8.37		9.96	1.19	1.19	9.96	
4	4		262	-8.55	-22.90	-8.56	-22.90	-0.27	-3.91	-24.09	-3.91	-24.08	-0.31
...													
4	150		334	-1.72	-4.64	-2.36	-3.99	-1.21	9.69	-1.08	-0.91	9.52	1.35
M	G			N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
				84.25	-47.44	19.51	74.18	31.08	36.78	-47.16	-9.57	-47.15	-8.32
											5.74	36.78	8.32

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
				kN/ m	kN/ m	kN/ m	kN/ m	kN/ m	kN	kN	kN	kN	kN
5	1		7	1.08	-1.11	-1.05	1.01	-0.38	5.66	0.28	0.29	5.65	0.19
5	1		8	1.08	-1.11	-1.05	1.01	0.38	5.66	0.28	0.29	5.65	-0.19
5	1		9	2.99e-03	2.13e-04	2.92e-03	2.81e-04	4.27e-04	7.78e-02	-1.10e-02	6.81e-02	-1.29e-03	-2.77e-02
5	1		10	2.99e-03	2.13e-04	2.92e-03	2.81e-04	-4.27e-04	7.78e-02	-1.10e-02	6.81e-02	-1.29e-03	2.77e-02
5	1		18	0.63	4.90e-02	0.63	4.90e-02		6.30	1.26	1.26	6.30	
5	1		27	5.29e-02	-1.38e-02	-1.83e-03	4.10e-02	2.56e-02	1.62	6.27e-02	6.91e-02	1.61	-0.10
5	1		28	8.08e-02	6.27e-02	6.27e-02	8.08e-02		1.57	0.30	0.30	1.57	
5	1		29	-1.08e-03	-0.22	-0.22	-1.08e-03		1.82e-04	-3.18e-02	-3.18e-02	1.82e-04	
5	1		30	5.29e-02	-1.38e-02	-1.83e-03	4.10e-02	-2.56e-02	1.62	6.27e-02	6.91e-02	1.61	0.10
5	1		38	0.45	-0.15	0.31	-1.05e-02	0.25	6.36	1.28	1.28	6.36	2.39e-02
5	1		50	0.52	-3.25e-02	5.03e-02	0.43	0.20	3.60	7.64e-02	7.65e-02	3.60	-1.05e-02
5	1		51	0.11	-5.53e-02	4.62e-02	7.88e-03	-8.01e-02	3.53	0.69	0.69	3.53	1.99e-02
5	1		52	0.11	-8.95e-02	6.07e-02	-3.66e-02	-8.92e-02	1.56	0.27	0.27	1.56	2.60e-02
5	1		53	0.26	0.11	0.26	0.11		3.54	0.70	0.70	3.54	
5	1		69	0.45	-0.15	0.31	-1.05e-02	-0.25	6.36	1.28	1.28	6.36	-2.39e-02
5	1		91	-3.00e-04	-4.97e-03	-4.94e-04	-4.78e-03	9.33e-04	0.41	5.57e-02	7.12e-02	0.39	-7.21e-02
5	1		92	4.54e-02	-6.64e-02	-9.06e-03	-1.20e-02	-5.59e-02	0.39	2.13e-02	2.19e-02	0.39	1.54e-02
5	1		93	4.65e-04	-7.25e-02	-7.25e-02	4.25e-04	-1.71e-03	2.98e-04	-5.52e-02	-5.50e-02	1.28e-04	3.07e-03
5	1		94	2.78e-02	-6.05e-02	-6.05e-02	2.78e-02		0.39	5.20e-02	5.20e-02	0.39	
5	1		95	0.11	-5.53e-02	4.62e-02	7.88e-03	8.01e-02	3.53	0.69	0.69	3.53	-1.99e-02
5	1		96	0.11	-8.95e-02	6.07e-02	-3.66e-02	8.92e-02	1.56	0.27	0.27	1.56	-2.60e-02
5	1		97	0.52	-3.25e-02	5.03e-02	0.43	-0.20	3.60	7.64e-02	7.65e-02	3.60	1.05e-02
5	1		98	4.54e-02	-6.64e-02	-9.06e-03	-1.20e-02	5.59e-02	0.39	2.13e-02	2.19e-02	0.39	-1.54e-02
5	1		99	4.65e-04	-7.25e-02	-7.25e-02	4.25e-04	1.71e-03	2.98e-04	-5.52e-02	-5.50e-02	1.28e-04	-3.07e-03
5	1		100	-3.00e-04	-4.97e-03	-4.94e-04	-4.78e-03	-9.33e-04	0.41	5.57e-02	7.12e-02	0.39	7.21e-02
5	1		108	-0.54	-1.48	-1.44	-0.57	0.18	6.50	1.34	1.34	6.50	2.91e-02
5	1		120	1.18	8.03e-05	0.24	0.94	0.47	4.83	0.12	0.13	4.82	0.16
5	1		121	-0.14	-0.78	-0.22	-0.70	-0.21	4.76	0.89	0.89	4.76	9.73e-02
5	1		122	0.13	-0.38	0.13	-0.38	-3.10e-03	3.51	0.55	0.55	3.50	9.16e-02
5	1		123	0.15	8.98e-03	7.97e-02	8.07e-02	7.12e-02	4.84	0.96	0.96	4.84	1.77e-02
5	1		146	0.61	2.89e-02	0.58	5.46e-02	-0.12	6.31	1.26	1.26	6.31	-1.04e-02
5	1		183	6.55e-03	-7.64e-03	-2.18e-03	1.09e-03	6.91e-03	0.91	5.94e-02	7.00e-02	0.90	-9.47e-02
5	1		184	3.78e-02	-3.94e-02	3.74e-02	-3.90e-02	-5.08e-03	0.89	6.58e-02	6.58e-02	0.89	-9.44e-04
5	1		185	7.95e-02	-8.50e-02	7.80e-02	-8.35e-02	1.53e-02	1.58	0.17	0.17	1.58	1.84e-02
5	1		186	1.59e-02	-2.32e-02	9.60e-03	-1.69e-02	-1.44e-02	0.40	-1.30e-03	-1.13e-03	0.40	-8.15e-03
5	1		187	7.93e-02	-7.49e-02	2.88e-02	-2.43e-02	-7.24e-02	0.88	0.12	0.12	0.88	2.14e-02
5	1		188	0.42	9.21e-02	0.42	9.21e-02		4.82	0.96	0.96	4.82	
5	1		189	0.36	8.87e-02	0.35	0.10	-6.06e-02	4.83	0.96	0.96	4.83	-8.16e-03
5	1		190	0.20	0.10	0.20	0.10	2.22e-03	3.54	0.70	0.70	3.54	-6.18e-03
5	1		191	0.15	8.98e-03	7.97e-02	8.07e-02	-7.12e-02	4.84	0.96	0.96	4.84	-1.77e-02
5	1		192	5.40e-02	-1.36e-03	-1.36e-03	5.40e-02		0.88	0.15	0.15	0.88	
5	1		193	7.82e-02	-3.96e-02	2.80e-03	3.58e-02	5.65e-02	0.88	0.15	0.15	0.88	-9.47e-03
5	1		194	0.11	-8.43e-04	5.22e-02	5.92e-02	5.64e-02	1.56	0.29	0.29	1.56	-9.12e-03
5	1		195	4.27e-02	-7.17e-02	-4.63e-02	1.73e-02	4.75e-02	0.39	4.48e-02	4.50e-02	0.39	-8.53e-03
5	1		196	7.93e-02	-7.49e-02	2.88e-02	-2.43e-02	7.24e-02	0.88	0.12	0.12	0.88	-2.14e-02
5	1		210	0.61	2.89e-02	0.58	5.46e-02	0.12	6.31	1.26	1.26	6.31	1.04e-02
5	1		232	0.19	-2.31e-02	7.59e-03	0.16	7.50e-02	2.52	6.71e-02	6.96e-02	2.51	-7.78e-02
5	1		233	0.13	-0.18	0.13	-0.18	3.26e-02	2.45	0.32	0.32	2.45	5.16e-02
5	1		234	0.13	-9.79e-02	7.12e-02	-3.54e-02	-0.10	2.44	0.46	0.46	2.44	2.61e-02
5	1		235	0.36	8.87e-02	0.35	0.10	6.06e-02	4.83	0.96	0.96	4.83	8.16e-03

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
5	1	236	0.20	0.10	0.20	0.10	0.10	-2.22e-03	3.54	0.70	0.70	3.54	6.18e-03
5	1	237	0.14	5.58e-02	0.11	8.50e-02	0.11	4.07e-02	2.45	0.48	0.48	2.45	7.56e-03
5	1	238	0.11	-8.43e-04	5.22e-02	5.92e-02	5.92e-02	-5.64e-02	1.56	0.29	0.29	1.56	9.12e-03
5	1	239	0.15	0.10	0.15	0.10	0.10		2.46	0.48	0.48	2.46	
5	1	276	-0.54	-1.48	-1.44	-0.57	-0.18	6.50	1.34	1.34	6.50		-2.91e-02
5	1	335	1.11e-03	-1.35e-03	1.03e-03	-1.27e-03	4.35e-04	0.12	4.02e-02	7.30e-02	8.93e-02	8.93e-02	-4.01e-02
5	1	336	5.96e-03	-1.72e-02	-6.87e-03	-4.34e-03	-1.15e-02	0.11	-3.87e-02	-3.82e-02	0.11		-7.96e-03
5	1	337	6.70e-04	-8.55e-03	-8.53e-03	6.55e-04	-3.74e-04	3.13e-04	-4.94e-02	-4.93e-02	2.52e-04		-1.74e-03
5	1	338	1.67e-02	-6.48e-02	-4.49e-02	-3.19e-03	-3.50e-02	9.96e-02	-3.71e-02	-3.63e-02	9.88e-02		1.09e-02
5	1	339	7.82e-02	-3.96e-02	2.80e-03	3.58e-02	-5.65e-02	0.88	0.15	0.15	0.88		9.47e-03
5	1	340	4.27e-02	-7.17e-02	-4.63e-02	1.73e-02	-4.75e-02	0.39	4.48e-02	4.50e-02	0.39		8.53e-03
5	1	341	1.28e-02	-0.11	-0.10	4.47e-03	-3.08e-02	9.58e-02	-1.80e-02	-1.76e-02	9.54e-02		7.35e-03
5	1	342	-6.66e-04	-0.17	-0.17	-6.80e-04	-1.57e-03	3.03e-04	-3.87e-02	-3.86e-02	1.76e-04		2.22e-03
5	1	343	7.38e-03	-0.13	-0.13	7.38e-03		9.50e-02	-1.06e-02	-1.06e-02	9.50e-02		
5	1	344	0.14	5.58e-02	0.11	8.50e-02	4.07e-02	2.45	0.48	0.48	2.45		-7.56e-03
5	1	345	0.13	-9.79e-02	7.12e-02	-3.54e-02	0.10	2.44	0.46	0.46	2.44		-2.61e-02
5	1	346	-0.14	-0.78	-0.22	-0.70	0.21	4.76	0.89	0.89	4.76		-9.73e-02
5	1	347	0.13	-0.38	0.13	-0.38	3.10e-03	3.51	0.55	0.55	3.50		-9.16e-02
5	1	348	1.18	8.03e-05	0.24	0.94	-0.47	4.83	0.12	0.13	4.82		-0.16
5	1	349	0.13	-0.18	0.13	-0.18	-3.26e-02	2.45	0.32	0.32	2.45		-5.16e-02
5	1	350	7.95e-02	-8.50e-02	7.80e-02	-8.35e-02	-1.53e-02	1.58	0.17	0.17	1.58		-1.84e-02
5	1	351	0.19	-2.31e-02	7.59e-03	0.16	-7.50e-02	2.52	6.71e-02	6.96e-02	2.51		7.78e-02
5	1	352	1.28e-02	-0.11	-0.10	4.47e-03	3.08e-02	9.58e-02	-1.80e-02	-1.76e-02	9.54e-02		-7.35e-03
5	1	353	-6.66e-04	-0.17	-0.17	-6.80e-04	1.57e-03	3.03e-04	-3.87e-02	-3.86e-02	1.76e-04		-2.22e-03
5	1	354	1.67e-02	-6.48e-02	-4.49e-02	-3.19e-03	-3.50e-02	9.96e-02	-3.71e-02	-3.63e-02	9.88e-02		-1.09e-02
5	1	355	3.78e-02	-3.94e-02	3.74e-02	-3.90e-02	5.08e-03	0.89	6.58e-02	6.58e-02	0.89		9.44e-04
5	1	356	1.59e-02	-2.32e-02	9.60e-03	-1.69e-02	1.44e-02	0.40	-1.30e-03	-1.13e-03	0.40		8.15e-03
5	1	357	6.55e-03	-7.64e-03	-2.18e-03	1.09e-03	-6.91e-03	0.91	5.94e-02	7.00e-02	0.90		9.47e-02
5	1	358	5.96e-03	-1.72e-02	-6.87e-03	-4.34e-03	1.15e-02	0.11	-3.87e-02	-3.82e-02	0.11		7.96e-03
5	1	359	6.70e-04	-8.55e-03	-8.53e-03	6.55e-04	-3.74e-04	3.13e-04	-4.94e-02	-4.93e-02	2.52e-04		1.74e-03
5	1	360	1.11e-03	-1.35e-03	1.03e-03	-1.27e-03	4.35e-04	0.12	4.02e-02	7.30e-02	8.93e-02		4.01e-02
5	2	7	2.52	-2.18	-2.00	2.34	-0.90	9.03	0.32	0.33	9.02		0.21
5	2	8	2.52	-2.18	-2.00	2.34	0.90	9.03	0.32	0.33	9.02		-0.21
5	2	9	-3.27e-05	-5.71e-03	-5.19e-03	-5.52e-04	-1.64e-03	0.13	-1.76e-02	0.11	-2.04e-03		-4.45e-02
5	2	10	-3.27e-05	-5.71e-03	-5.19e-03	-5.52e-04	1.64e-03	0.13	-1.76e-02	0.11	-2.04e-03		4.45e-02
5	2	18	0.95	-5.39e-02	0.95	-5.39e-02		10.15	2.03	2.03	10.15		
5	2	27	0.24	-2.00e-02	-5.67e-03	0.22	5.89e-02	2.60	0.10	0.11	2.59		-0.16
5	2	28	0.16	7.71e-02	0.16	7.71e-02		2.52	0.48	0.48	2.52		
5	2	29	-1.03e-03	-0.11	-0.11	-1.03e-03		2.61e-04	-4.55e-02	-4.55e-02	2.61e-04		
5	2	30	0.24	-2.00e-02	-5.67e-03	0.22	-5.89e-02	2.60	0.10	0.11	2.59		0.16
5	2	38	0.72	-0.45	0.41	-0.13	0.52	10.25	2.06	2.06	10.25		3.59e-02
5	2	50	1.23	-3.27e-02	8.80e-02	1.11	0.37	5.77	0.12	0.12	5.77		-2.38e-02
5	2	51	8.59e-02	-7.29e-02	6.96e-02	-5.66e-02	-4.82e-02	5.68	1.12	1.12	5.68		2.91e-02
5	2	52	0.17	-0.11	0.16	-9.71e-02	-5.99e-02	2.51	0.43	0.43	2.51		4.18e-02
5	2	53	0.42	8.14e-02	0.42	8.14e-02		5.71	1.13	1.13	5.71		
5	2	69	0.72	-0.45	0.41	-0.13	-0.52	10.25	2.06	2.06	10.25		-3.59e-02
5	2	91	2.22e-02	-6.29e-03	-5.05e-03	2.10e-02	5.81e-03	0.65	8.93e-02	0.11	0.63		-0.12
5	2	92	8.10e-02	-3.64e-02	7.44e-02	-2.98e-02	-2.71e-02	0.63	3.63e-02	3.74e-02	0.63		2.50e-02
5	2	93	1.56e-02	9.58e-04	1.55e-02	1.06e-03	-1.22e-03	4.79e-04	-8.66e-02	-8.64e-02	2.03e-04		4.90e-03
5	2	94	3.42e-02	2.81e-02	3.42e-02	2.81e-02		0.62	8.95e-02	8.95e-02	0.62		
5	2	95	8.59e-02	-7.29e-02	6.96e-02	-5.66e-02	4.82e-02	5.68	1.12	1.12	5.68		-2.91e-02
5	2	96	0.17	-0.11	0.16	-9.71e-02	5.99e-02	2.51	0.43	0.43	2.51		-4.18e-02
5	2	97	1.23	-3.27e-02	8.80e-02	1.11	-0.37	5.77	0.12	0.12	5.77		2.38e-02
5	2	98	8.10e-02	-3.64e-02	7.44e-02	-2.98e-02	2.71e-02	0.63	3.63e-02	3.74e-02	0.63		-2.50e-02
5	2	99	1.56e-02	9.58e-04	1.55e-02	1.06e-03	1.22e-03	4.79e-04	-8.66e-02	-8.64e-02	2.03e-04		-4.90e-03
5	2	100	2.22e-02	-6.29e-03	-5.05e-03	2.10e-02	-5.81e-03	0.65	8.93e-02	0.11	0.63		0.12
5	2	108	-0.86	-2.77	-2.67	-0.96	0.43	10.45	2.15	2.15	10.45		4.73e-02
5	2	120	2.45	5.14e-02	0.40	2.10	0.84	7.75	0.20	0.21	7.74		0.26
5	2	121	-0.35	-1.25	-0.43	-1.17	-0.25	7.64	1.42	1.43	7.64		0.15
5	2	122	0.25	-0.63	0.23	-0.61	0.12	5.63	0.88	0.88	5.63		0.14
5	2	123	0.27	-0.15	7.65e-02	4.98e-02	0.21	7.80	1.55	1.55	7.80		2.09e-02
5	2	146	0.93	-0.10	0.87	-4.61e-02	-0.24	10.17	2.04	2.04	10.17		-1.51e-02
5	2	183	8.62e-02	-1.22e-02	-7.38e-03	8.13e-02	2.13e-02	1.46	9.50e-02	0.11	1.45		-0.15
5	2	184	0.14	-6.96e-02	9.60e-02	-3.02e-02	8.07e-02	1.44	0.10	0.10	1.44		-2.07e-03
5	2	185	0.22	-0.15	0.16	-9.60e-02	0.14	2.53	0.27	0.27	2.53		2.85e-02
5	2	186	7.29e-02	-2.64e-02	5.26e-02	-6.09e-03	4.01e-02	0.65	-2.55e-03	-2.28e-03	0.65		-1.34e-02
5	2	187	0.13	-6.96e-02	0.12	-6.15e-02	-3.92e-02	1.41	0.20	0.20	1.41		3.46e-02
5	2	188	0.65	3.55e-02	0.65	3.55e-02		7.77	1.55	1.55	7.77		
5	2	189	0.57	1.55e-02	0.53	5.53e-02	-0.14	7.78	1.55	1.55	7.78		-9.25e-03
5	2	190	0.34	6.94e-02	0.33	7.57e-02	-4.04e-02	5.71	1.13	1.13	5.71		-7.80e-03
5	2	191	0.27	-0.15	7.65e-02	4.98e-02	-0.21	7.80	1.55	1.55	7.80		-2.09e-02
5	2	192	9.28e-02	5.32e-02	9.28e-02	5.32e-02		1.41	0.25	0.25	1.41		
5	2	193	0.12	-1.93e-03	9.42e-02	2.44e-02	5.03e-02	1.41	0.24	0.24	1.41		-1.53e-02
5	2	194	0.16	2.49e-02	0.15	4.35e-02	4.74e-02	2.52	0.48	0.48	2.52		-1.44e-02

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
5	2	195	7.50e-02	-1.76e-02	4.61e-02	1.13e-02	4.29e-02	0.62	7.70e-02	7.73e-02	0.62		-1.39e-02
5	2	196	0.13	-6.96e-02	0.12	-6.15e-02	3.92e-02	1.41	0.20	0.20	1.41		-3.46e-02
5	2	210	0.93	-0.10	0.87	-4.61e-02	0.24	10.17	2.04	2.04	10.17		1.51e-02
5	2	232	0.56	-2.93e-02	1.25e-02	0.52	0.15	4.04	0.11	0.11	4.04		-0.13
5	2	233	0.30	-0.32	0.24	-0.26	0.18	3.93	0.51	0.52	3.93		8.09e-02
5	2	234	0.17	-0.14	0.15	-0.11	-8.27e-02	3.93	0.74	0.74	3.93		4.11e-02
5	2	235	0.57	1.55e-02	0.53	5.53e-02	0.14	7.78	1.55	1.55	7.78		9.25e-03
5	2	236	0.34	6.94e-02	0.33	7.57e-02	4.04e-02	5.71	1.13	1.13	5.71		7.80e-03
5	2	237	0.22	6.27e-02	0.21	6.58e-02	-2.16e-02	3.95	0.77	0.77	3.95		1.12e-02
5	2	238	0.16	2.49e-02	0.15	4.35e-02	-4.74e-02	2.52	0.48	0.48	2.52		1.44e-02
5	2	239	0.27	9.08e-02	0.27	9.08e-02		3.96	0.78	0.78	3.96		
5	2	276	-0.86	-2.77	-2.67	-0.96	-0.43	10.45	2.15	2.15	10.45		-4.73e-02
5	2	335	1.67e-03	-2.87e-03	-2.19e-03	9.98e-04	-1.62e-03	0.20	6.43e-02	0.12	0.14		-6.47e-02
5	2	336	3.52e-02	-7.50e-03	2.72e-02	4.99e-04	1.67e-02	0.17	-6.23e-02	-6.16e-02	0.17		-1.30e-02
5	2	337	1.14e-02	1.09e-04	1.13e-02	1.63e-04	7.76e-04	5.31e-04	-7.95e-02	-7.94e-02	4.27e-04		-2.88e-03
5	2	338	4.09e-02	-1.40e-02	3.47e-02	-7.81e-03	-1.73e-02	0.16	-5.76e-02	-5.62e-02	0.16		1.76e-02
5	2	339	0.12	-1.93e-03	9.42e-02	2.44e-02	-5.03e-02	1.41	0.24	0.24	1.41		1.53e-02
5	2	340	7.50e-02	-1.76e-02	4.61e-02	1.13e-02	-4.29e-02	0.62	7.70e-02	7.73e-02	0.62		1.39e-02
5	2	341	2.84e-02	-2.98e-02	-4.36e-03	2.95e-03	-2.89e-02	0.15	-2.44e-02	-2.36e-02	0.15		1.19e-02
5	2	342	-3.73e-04	-6.24e-02	-6.24e-02	-4.29e-04	-1.87e-03	4.79e-04	-5.76e-02	-5.74e-02	2.60e-04		3.56e-03
5	2	343	7.72e-03	-2.74e-02	-2.74e-02	7.72e-03		0.15	-1.14e-02	-1.14e-02	0.15		
5	2	344	0.22	6.27e-02	0.21	6.58e-02	2.16e-02	3.95	0.77	0.77	3.95		-1.12e-02
5	2	345	0.17	-0.14	0.15	-0.11	8.27e-02	3.93	0.74	0.74	3.93		-4.11e-02
5	2	346	-0.35	-1.25	-0.43	-1.17	0.25	7.64	1.42	1.43	7.64		-0.15
5	2	347	0.25	-0.63	0.23	-0.61	-0.12	5.63	0.88	0.88	5.63		-0.14
5	2	348	2.45	5.14e-02	0.40	2.10	-0.84	7.75	0.20	0.21	7.74		-0.26
5	2	349	0.30	-0.32	0.24	-0.26	-0.18	3.93	0.51	0.52	3.93		-8.09e-02
5	2	350	0.22	-0.15	0.16	-9.60e-02	-0.14	2.53	0.27	0.27	2.53		-2.85e-02
5	2	351	0.56	-2.93e-02	1.25e-02	0.52	-0.15	4.04	0.11	0.11	4.04		0.13
5	2	352	2.84e-02	-2.98e-02	-4.36e-03	2.95e-03	2.89e-02	0.15	-2.44e-02	-2.36e-02	0.15		-1.19e-02
5	2	353	-3.73e-04	-6.24e-02	-6.24e-02	-4.29e-04	1.87e-03	4.79e-04	-5.76e-02	-5.74e-02	2.60e-04		-3.56e-03
5	2	354	4.09e-02	-1.40e-02	3.47e-02	-7.81e-03	1.73e-02	0.16	-5.76e-02	-5.62e-02	0.16		-1.76e-02
5	2	355	0.14	-6.96e-02	9.60e-02	-3.02e-02	-8.07e-02	1.44	0.10	0.10	1.44		2.07e-03
5	2	356	7.29e-02	-2.64e-02	5.26e-02	-6.09e-02	-4.01e-02	0.65	-2.55e-03	-2.28e-03	0.65		1.34e-02
5	2	357	8.62e-02	-1.22e-02	-7.38e-03	8.13e-02	-2.13e-02	1.46	9.50e-02	0.11	1.45		0.15
5	2	358	3.52e-02	-7.50e-03	2.72e-02	4.99e-04	-1.67e-02	0.17	-6.23e-02	-6.16e-02	0.17		1.30e-02
5	2	359	1.14e-02	1.09e-04	1.13e-02	1.63e-04	-7.76e-04	5.31e-04	-7.95e-02	-7.94e-02	4.27e-04		2.88e-03
5	2	360	1.67e-03	-2.87e-03	-2.19e-03	9.98e-04	1.62e-03	0.20	6.43e-02	0.12	0.14		6.47e-02
5	3	7	1.78	-1.52	-1.46	1.72	-0.46	7.60	0.35	0.36	7.60		0.24
5	3	8	1.78	-1.52	-1.46	1.72	0.46	7.60	0.35	0.36	7.60		-0.24
5	3	9	6.05e-04	-5.41e-05	4.99e-04	5.19e-05	-2.42e-04	0.10	-1.48e-02	9.17e-02	-1.73e-03		-3.73e-02
5	3	10	6.05e-04	-5.41e-05	4.99e-04	5.19e-05	2.42e-04	0.10	-1.48e-02	9.17e-02	-1.73e-03		3.73e-02
5	3	18	0.83	3.69e-02	0.83	3.69e-02		8.50	1.70	1.70	8.50		
5	3	27	0.12	-1.70e-02	-3.94e-03	0.11	4.07e-02	2.18	8.42e-02	9.30e-02	2.17		-0.14
5	3	28	0.11	9.37e-02	0.11	9.37e-02		2.11	0.40	0.40	2.11		
5	3	29	-1.24e-03	-0.21	-0.21	-1.24e-03		2.31e-04	-4.04e-02	-4.04e-02	2.31e-04		
5	3	30	0.12	-1.70e-02	-3.94e-03	0.11	-4.07e-02	2.18	8.42e-02	9.30e-02	2.17		0.14
5	3	38	0.58	-0.27	0.38	-6.58e-02	0.36	8.58	1.73	1.73	8.58		3.03e-02
5	3	50	0.85	-3.61e-02	7.11e-02	0.74	0.29	4.84	0.10	0.10	4.84		-1.58e-02
5	3	51	0.12	-7.58e-02	7.23e-02	-2.40e-02	-8.76e-02	4.76	0.94	0.94	4.76		2.55e-02
5	3	52	0.15	-0.11	0.11	-6.60e-02	-9.23e-02	2.10	0.36	0.36	2.10		3.49e-02
5	3	53	0.35	0.12	0.35	0.12		4.78	0.94	0.94	4.78		
5	3	69	0.58	-0.27	0.38	-6.58e-02	-0.36	8.58	1.73	1.73	8.58		-3.03e-02
5	3	91	4.11e-03	-3.31e-03	-2.28e-03	3.08e-03	2.57e-03	0.55	7.50e-02	9.59e-02	0.53		-9.72e-02
5	3	92	5.76e-02	-5.76e-02	2.04e-02	-2.04e-02	-5.38e-02	0.53	2.99e-02	3.07e-02	0.53		2.08e-02
5	3	93	7.83e-04	-5.25e-02	-5.25e-02	7.24e-04	-1.77e-03	4.02e-04	-7.32e-02	-7.30e-02	1.72e-04		4.12e-03
5	3	94	3.25e-02	-3.60e-02	-3.60e-02	3.25e-02		0.52	7.27e-02	7.27e-02	0.52		
5	3	95	0.12	-7.58e-02	7.23e-02	-2.40e-02	8.76e-02	4.76	0.94	0.94	4.76		-2.55e-02
5	3	96	0.15	-0.11	0.11	-6.60e-02	9.23e-02	2.10	0.36	0.36	2.10		-3.49e-02
5	3	97	0.85	-3.61e-02	7.11e-02	0.74	-0.29	4.84	0.10	0.10	4.84		1.58e-02
5	3	98	5.76e-02	-5.76e-02	2.04e-02	-2.04e-02	5.38e-02	0.53	2.99e-02	3.07e-02	0.53		-2.08e-02
5	3	99	7.83e-04	-5.25e-02	-5.25e-02	7.24e-04	1.77e-03	4.02e-04	-7.32e-02	-7.30e-02	1.72e-04		-4.12e-03
5	3	100	4.11e-03	-3.31e-03	-2.28e-03	3.08e-03	-2.57e-03	0.55	7.50e-02	9.59e-02	0.53		9.72e-02
5	3	108	-0.78	-2.09	-2.02	-0.85	0.28	8.76	1.80	1.80	8.76		3.69e-02
5	3	120	1.84	2.38e-02	0.35	1.52	0.69	6.50	0.16	0.17	6.49		0.22
5	3	121	-0.21	-1.06	-0.29	-0.98	-0.24	6.41	1.20	1.20	6.41		0.13
5	3	122	0.21	-0.52	0.20	-0.52	5.13e-02	4.72	0.74	0.74	4.72		0.12
5	3	123	0.20	-3.13e-02	9.88e-02	6.79e-02	0.11	6.53	1.30	1.30	6.53		2.08e-02
5	3	146	0.80	9.28e-04	0.76	3.80e-02	-0.17	8.51	1.70	1.70	8.51		-1.30e-02
5	3	183	3.31e-02	-8.85e-03	-4.57e-03	2.88e-02	1.27e-02	1.23	7.99e-02	9.43e-02	1.21		-0.13
5	3	184	7.07e-02	-4.66e-02	6.48e-02	-4.07e-02	2.56e-02	1.21	8.86e-02	8.86e-02	1.21		-1.38e-03
5	3	185	0.14	-0.12	0.12	-9.86e-02	6.30e-02	2.12	0.23	0.23	2.12		2.45e-02
5	3	186	2.69e-02	-1.53e-02	2.67e-02	-1.51e-02	3.00e-03	0.54	-1.63e-03	-1.41e-03	0.54		-1.10e-02
5	3	187	0.10	-7.71e-02	6.81e-02	-4.21e-02	-7.13e-02	1.18	0.16	0.17	1.18		2.88e-02

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
5	3	188	0.56	9.78e-02	0.56	9.78e-02			6.51	1.29	1.29	6.51	
5	3	189	0.48	8.62e-02	0.46	0.11		-8.83e-02	6.52	1.30	1.30	6.52	-9.41e-03
5	3	190	0.28	0.11	0.28	0.11		-4.87e-03	4.78	0.94	0.94	4.78	-7.42e-03
5	3	191	0.20	-3.13e-02	9.88e-02	6.79e-02		-0.11	6.53	1.30	1.30	6.53	-2.08e-02
5	3	192	6.28e-02	3.17e-02	3.17e-02	6.28e-02			1.18	0.21	0.21	1.18	
5	3	193	0.10	-2.72e-02	3.67e-02	3.70e-02		6.40e-02	1.18	0.20	0.20	1.18	-1.27e-02
5	3	194	0.14	1.22e-02	9.43e-02	6.25e-02		6.42e-02	2.11	0.40	0.40	2.11	-1.21e-02
5	3	195	5.57e-02	-5.78e-02	-1.99e-02	1.77e-02		5.35e-02	0.52	6.26e-02	6.29e-02	0.52	-1.15e-02
5	3	196	0.10	-7.71e-02	6.81e-02	-4.21e-02		7.13e-02	1.18	0.16	0.17	1.18	-2.88e-02
5	3	210	0.80	9.28e-04	0.76	3.80e-02		0.17	8.51	1.70	1.70	8.51	1.30e-02
5	3	232	0.35	-2.78e-02	9.62e-03	0.31		0.11	3.39	9.01e-02	9.35e-02	3.39	-0.11
5	3	233	0.21	-0.25	0.19	-0.23		9.54e-02	3.30	0.43	0.44	3.30	6.88e-02
5	3	234	0.17	-0.13	0.12	-7.36e-02		-0.11	3.29	0.62	0.62	3.29	3.46e-02
5	3	235	0.48	8.62e-02	0.46	0.11		8.83e-02	6.52	1.30	1.30	6.52	9.41e-03
5	3	236	0.28	0.11	0.28	0.11		4.87e-03	4.78	0.94	0.94	4.78	7.42e-03
5	3	237	0.19	7.05e-02	0.17	9.14e-02		-4.47e-02	3.31	0.64	0.64	3.31	9.72e-03
5	3	238	0.14	1.22e-02	9.43e-02	6.25e-02		-6.42e-02	2.11	0.40	0.40	2.11	1.21e-02
5	3	239	0.21	0.12	0.21	0.12			3.31	0.65	0.65	3.31	
5	3	276	-0.78	-2.09	-2.02	-0.85		-0.28	8.76	1.80	1.80	8.76	-3.69e-02
5	3	335	1.57e-04	-9.86e-04	1.15e-05	-8.41e-04		-3.81e-04	0.16	5.41e-02	9.83e-02	0.12	-5.41e-02
5	3	336	5.40e-03	-4.41e-03	4.13e-03	-3.14e-03		-3.29e-03	0.14	-5.19e-02	-5.13e-02	0.14	-1.08e-02
5	3	337	5.60e-04	-3.34e-03	-3.34e-03	5.59e-04		-5.17e-05	4.33e-04	-6.63e-02	-6.63e-02	3.49e-04	-2.36e-03
5	3	338	2.08e-02	-4.92e-02	-2.31e-02	-5.35e-03		-3.39e-02	0.13	-4.89e-02	-4.77e-02	0.13	1.47e-02
5	3	339	0.10	-2.72e-02	3.67e-02	3.70e-02		-6.40e-02	1.18	0.20	0.20	1.18	1.27e-02
5	3	340	5.57e-02	-5.78e-02	-1.99e-02	1.77e-02		-5.35e-02	0.52	6.26e-02	6.29e-02	0.52	1.15e-02
5	3	341	1.69e-02	-9.46e-02	-8.23e-02	4.57e-03		-3.50e-02	0.13	-2.22e-02	-2.15e-02	0.13	9.92e-03
5	3	342	-6.67e-04	-0.16	-0.16	-6.90e-04		-1.92e-03	4.04e-04	-5.00e-02	-4.98e-02	2.27e-04	2.98e-03
5	3	343	8.69e-03	-0.11	-0.11	8.69e-03			0.13	-1.18e-02	-1.18e-02	0.13	
5	3	344	0.19	7.05e-02	0.17	9.14e-02		4.47e-02	3.31	0.64	0.64	3.31	-9.72e-03
5	3	345	0.17	-0.13	0.12	-7.36e-02		0.11	3.29	0.62	0.62	3.29	-3.46e-02
5	3	346	-0.21	-1.06	-0.29	-0.98		0.24	6.41	1.20	1.20	6.41	-0.13
5	3	347	0.21	-0.52	0.20	-0.52		-5.13e-02	4.72	0.74	0.74	4.72	-0.12
5	3	348	1.84	2.38e-02	0.35	1.52		-0.69	6.50	0.16	0.17	6.49	-0.22
5	3	349	0.21	-0.25	0.19	-0.23		-9.54e-02	3.30	0.43	0.44	3.30	-6.88e-02
5	3	350	0.14	-0.12	0.12	-9.86e-02		-6.30e-02	2.12	0.23	0.23	2.12	-2.45e-02
5	3	351	0.35	-2.78e-02	9.62e-03	0.31		-0.11	3.39	9.01e-02	9.35e-02	3.39	0.11
5	3	352	1.69e-02	-9.46e-02	-8.23e-02	4.57e-03		3.50e-02	0.13	-2.22e-02	-2.15e-02	0.13	-9.92e-03
5	3	353	-6.67e-04	-0.16	-0.16	-6.90e-04		1.92e-03	4.04e-04	-5.00e-02	-4.98e-02	2.27e-04	-2.98e-03
5	3	354	2.08e-02	-4.92e-02	-2.31e-02	-5.35e-03		3.39e-02	0.13	-4.89e-02	-4.77e-02	0.13	-1.47e-02
5	3	355	7.07e-02	-4.66e-02	6.48e-02	-4.07e-02		-2.56e-02	1.21	8.86e-02	8.86e-02	1.21	1.38e-03
5	3	356	2.69e-02	-1.53e-02	2.67e-02	-1.51e-02		-3.00e-03	0.54	-1.63e-03	-1.41e-03	0.54	1.10e-02
5	3	357	3.31e-02	-8.85e-03	-4.57e-03	2.88e-02		-1.27e-02	1.23	7.99e-02	9.43e-02	1.23	0.13
5	3	358	5.40e-03	-4.41e-03	4.13e-03	-3.14e-03		3.29e-03	0.14	-5.19e-02	-5.13e-02	0.14	1.08e-02
5	3	359	5.60e-04	-3.34e-03	-3.34e-03	5.59e-04		-5.17e-05	4.33e-04	-6.63e-02	-6.63e-02	3.49e-04	-2.36e-03
5	3	360	1.57e-04	-9.86e-04	1.15e-05	-8.41e-04		3.81e-04	0.16	5.41e-02	9.83e-02	0.12	5.41e-02
5	4	7	3.22	-2.58	-2.41	3.05		-0.98	10.97	0.40	0.40	10.96	0.26
5	4	8	3.22	-2.58	-2.41	3.05		0.98	10.97	0.40	0.40	10.96	-0.26
5	4	9	-7.53e-05	-8.32e-03	-7.61e-03	-7.81e-04		-2.31e-03	0.15	-2.15e-02	0.13	-2.48e-03	-5.41e-02
5	4	10	-7.53e-05	-8.32e-03	-7.61e-03	-7.81e-04		2.31e-03	0.15	-2.15e-02	0.13	-2.48e-03	5.41e-02
5	4	18	1.15	-6.60e-02	1.15	-6.60e-02			12.35	2.47	2.47	12.35	
5	4	27	0.31	-2.51e-02	-7.78e-03	0.29		7.40e-02	3.16	0.12	0.13	3.14	-0.20
5	4	28	0.21	9.00e-02	0.21	9.00e-02			3.07	0.59	0.59	3.07	
5	4	29	-1.19e-03	-0.10	-0.10	-1.19e-03			3.11e-04	-5.41e-02	-5.41e-02	3.11e-04	
5	4	30	0.31	-2.51e-02	-7.78e-03	0.29		-7.40e-02	3.16	0.12	0.13	3.14	0.20
5	4	38	0.86	-0.57	0.48	-0.19		0.63	12.47	2.51	2.51	12.47	4.22e-02
5	4	50	1.57	-3.88e-02	0.11	1.42		0.46	7.02	0.15	0.15	7.02	-2.92e-02
5	4	51	0.11	-0.10	9.56e-02	-8.85e-02		-5.57e-02	6.91	1.36	1.36	6.91	3.46e-02
5	4	52	0.21	-0.14	0.20	-0.13		-6.30e-02	3.05	0.52	0.53	3.05	5.07e-02
5	4	53	0.51	9.56e-02	0.51	9.56e-02			6.94	1.38	1.38	6.94	
5	4	69	0.86	-0.57	0.48	-0.19		-0.63	12.47	2.51	2.51	12.47	-4.22e-02
5	4	91	3.03e-02	-8.33e-03	-6.84e-03	2.88e-02		7.45e-03	0.80	0.11	0.14	0.76	-0.14
5	4	92	0.11	-4.25e-02	0.10	-3.82e-02		-2.51e-02	0.77	4.49e-02	4.62e-02	0.77	3.04e-02
5	4	93	3.55e-02	1.31e-03	3.55e-02	1.36e-03		-1.28e-03	5.84e-04	-0.10	-0.10	2.47e-04	5.95e-03
5	4	94	5.87e-02	3.28e-02	5.87e-02	3.28e-02			0.76	0.11	0.11	0.76	
5	4	95	0.11	-0.10	9.56e-02	-8.85e-02		5.57e-02	6.91	1.36	1.36	6.91	-3.46e-02
5	4	96	0.21	-0.14	0.20	-0.13		6.30e-02	3.05	0.52	0.53	3.05	-5.07e-02
5	4	97	1.57	-3.88e-02	0.11	1.42		-0.46	7.02	0.15	0.15	7.02	2.92e-02
5	4	98	0.11	-4.25e-02	0.10	-3.82e-02		2.51e-02	0.77	4.49e-02	4.62e-02	0.77	-3.04e-02
5	4	99	3.55e-02	1.31e-03	3.55e-02	1.36e-03		1.28e-03	5.84e-04	-0.10	-0.10	2.47e-04	-5.95e-03
5	4	100	3.03e-02	-8.33e-03	-6.84e-03	2.88e-02		-7.45e-03	0.80	0.11	0.14	0.76	0.14
5	4	108	-1.11	-3.38	-3.25	-1.24		0.53	12.71	2.62	2.62	12.71	5.51e-02
5	4	120	3.11	7.16e-02	0.51	2.68		1.06	9.42	0.24	0.25	9.41	0.31
5	4	121	-0.42	-1.53	-0.50	-1.46		-0.28	9.29	1.73	1.73	9.29	0.18
5	4	122	0.33	-0.78	0.31	-0.75		0.17	6.85	1.07	1.07	6.85	0.17

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
5	4	123	0.32	-0.19	9.55e-02	3.71e-02	0.25	9.48	1.89	1.89	9.48	2.39e-02	
5	4	146	1.12	-0.13	1.05	-6.27e-02	-0.29	12.38	2.48	2.48	12.38	-1.77e-02	
5	4	183	0.11	-1.56e-02	-9.77e-03	0.11	2.70e-02	1.78	0.12	0.14	1.76	-0.19	
5	4	184	0.18	-9.00e-02	0.12	-3.19e-02	0.11	1.75	0.13	0.13	1.75	-2.50e-03	
5	4	185	0.29	-0.19	0.21	-0.11	0.18	3.08	0.33	0.33	3.08	3.46e-02	
5	4	186	0.10	-3.56e-02	6.97e-02	-4.30e-03	5.74e-02	0.79	-2.89e-03	-2.55e-03	0.79	-1.62e-02	
5	4	187	0.17	-8.52e-02	0.16	-7.92e-02	-3.81e-02	1.72	0.24	0.24	1.72	4.21e-02	
5	4	188	0.78	4.12e-02	0.78	4.12e-02		9.46	1.88	1.88	9.46		
5	4	189	0.69	1.32e-02	0.64	5.95e-02	-0.17	9.47	1.89	1.89	9.47	-1.05e-02	
5	4	190	0.41	7.68e-02	0.40	8.37e-02	-4.74e-02	6.94	1.38	1.38	6.94	-9.03e-03	
5	4	191	0.32	-0.19	9.55e-02	3.71e-02	-0.25	9.48	1.89	1.89	9.48	-2.39e-02	
5	4	192	0.13	6.20e-02	0.13	6.20e-02		1.72	0.31	0.31	1.72		
5	4	193	0.15	-4.03e-04	0.13	2.56e-02	5.78e-02	1.72	0.30	0.30	1.72	-1.86e-02	
5	4	194	0.21	2.77e-02	0.19	4.68e-02	5.52e-02	3.06	0.58	0.58	3.06	-1.74e-02	
5	4	195	9.97e-02	-1.55e-02	7.26e-02	1.17e-02	4.89e-02	0.76	9.48e-02	9.52e-02	0.76	-1.69e-02	
5	4	196	0.17	-8.52e-02	0.16	-7.92e-02	3.81e-02	1.72	0.24	0.24	1.72	-4.21e-02	
5	4	210	1.12	-0.13	1.05	-6.27e-02	0.29	12.38	2.48	2.48	12.38	1.77e-02	
5	4	232	0.72	-3.60e-02	1.45e-02	0.67	0.19	4.91	0.13	0.13	4.91	-0.16	
5	4	233	0.39	-0.39	0.31	-0.31	0.24	4.78	0.63	0.63	4.78	9.81e-02	
5	4	234	0.22	-0.17	0.19	-0.15	-9.28e-02	4.78	0.90	0.90	4.77	4.97e-02	
5	4	235	0.69	1.32e-02	0.64	5.95e-02	0.17	9.47	1.89	1.89	9.47	1.05e-02	
5	4	236	0.41	7.68e-02	0.40	8.37e-02	4.74e-02	6.94	1.38	1.38	6.94	9.03e-03	
5	4	237	0.27	6.90e-02	0.27	7.23e-02	-2.56e-02	4.80	0.94	0.94	4.80	1.33e-02	
5	4	238	0.21	2.77e-02	0.19	4.68e-02	-5.52e-02	3.06	0.58	0.58	3.06	1.74e-02	
5	4	239	0.33	0.11	0.33	0.11		4.81	0.95	0.95	4.81		
5	4	276	-1.11	-3.38	-3.25	-1.24	-0.53	12.71	2.62	2.62	12.71	-5.51e-02	
...													
5	150	360	2.47e-03	-4.25e-03	-3.21e-03	1.43e-03	2.43e-03	0.24	7.82e-02	0.14	0.17	7.87e-02	
M	G		N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2	
			29.44	-25.14	-6.22	-21.37	-8.63	23.26	-0.39	-0.29	-0.07	-0.56	

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
			kN/ m2	kN/ m	kN/ m	kN/ m	kN/ m	kN/ m	kN	kN	kN	kN	kN
1	1	3	0.30	1.24	-3.28	-3.06	1.02	-0.97	0.03	-5.98	0.03	-5.98	0.02
		103	0.35	-9.51	-21.24	-9.53	-21.22	-0.48	-0.39	-6.41	-0.40	-6.40	-0.19
		102	0.38	0.30	-17.14	0.30	-17.14	0.09	-0.34	-6.89	-0.38	-6.85	-0.54
		101	0.36	2.69	-2.04	1.82	-1.17	1.83	0.12	-7.15	0.11	-7.14	-0.20
1	2	3	0.45	0.89	-6.15	-5.49	0.23	-2.05	0.02	-8.94	0.02	-8.94	-0.03
		103	0.51	-13.86	-29.68	-13.98	-29.56	-1.40	-0.45	-9.23	-0.46	-9.22	-0.32
		102	0.58	0.22	-24.34	0.09	-24.21	-1.76	-0.47	-10.66	-0.56	-10.56	-1.00
		101	0.57	4.26	-3.34	2.67	-1.75	3.09	0.18	-11.31	0.16	-11.30	-0.46
1	3	3	0.40	0.79	-4.30	-4.10	0.60	-0.98	0.04	-7.93	0.04	-7.93	0.03
		103	0.47	-12.28	-28.37	-12.33	-28.32	-0.85	-0.54	-8.48	-0.55	-8.48	-0.25
		102	0.50	0.42	-22.94	0.42	-22.94	-0.40	-0.46	-9.00	-0.51	-8.95	-0.69
		101	0.47	3.66	-3.63	2.31	-2.28	2.82	0.16	-9.34	0.15	-9.33	-0.24
1	4	3	0.54	0.42	-7.14	-6.53	-0.20	-2.06	0.03	-10.89	0.03	-10.89	-0.02
		103	0.62	-16.62	-36.82	-16.78	-36.66	-1.77	-0.60	-11.31	-0.62	-11.29	-0.38
		102	0.70	0.38	-30.17	0.21	-30.01	-2.25	-0.59	-12.77	-0.70	-12.66	-1.15
		101	0.68	5.22	-4.93	3.16	-2.87	4.08	0.22	-13.50	0.20	-13.48	-0.50
1	5	3	0.42	1.48	-4.55	-4.27	1.21	-1.26	0.05	-8.32	0.05	-8.32	0.03
		103	0.49	-13.15	-29.63	-13.18	-29.60	-0.73	-0.55	-8.92	-0.56	-8.91	-0.26
		102	0.53	0.42	-23.92	0.42	-23.92	-0.02	-0.47	-9.56	-0.53	-9.50	-0.75
		101	0.50	3.77	-3.10	2.51	-1.83	2.66	0.16	-9.91	0.16	-9.90	-0.27
1	6	3	0.43	1.45	-4.79	-4.48	1.14	-1.36	0.05	-8.58	0.05	-8.58	0.02
		103	0.51	-13.53	-30.35	-13.56	-30.31	-0.81	-0.56	-9.16	-0.56	-9.15	-0.27
		102	0.54	0.40	-24.53	0.40	-24.53	-0.18	-0.48	-9.88	-0.55	-9.81	-0.78
		101	0.52	3.91	-3.21	2.58	-1.88	2.77	0.17	-10.27	0.16	-10.26	-0.29
1	7	3	0.66	0.38	-7.10	-6.87	0.14	-1.30	0.07	-13.21	0.07	-13.21	0.05
		103	0.78	-20.07	-47.46	-20.17	-47.36	-1.66	-0.93	-14.11	-0.95	-14.10	-0.41
		102	0.82	0.76	-38.45	0.72	-38.42	-1.24	-0.77	-14.84	-0.86	-14.75	-1.12
		101	0.78	6.18	-7.07	3.74	-4.63	5.14	0.26	-15.38	0.25	-15.37	-0.37
1	8	3	0.67	0.34	-7.34	-7.08	0.07	-1.40	0.06	-13.47	0.06	-13.47	0.05
		103	0.79	-20.44	-48.19	-20.55	-48.08	-1.74	-0.94	-14.35	-0.95	-14.34	-0.42
		102	0.84	0.75	-39.07	0.70	-39.02	-1.40	-0.78	-15.16	-0.88	-15.07	-1.16
		101	0.80	6.32	-7.18	3.81	-4.68	5.25	0.26	-15.74	0.25	-15.73	-0.40
1	9	3	0.27	1.37	-2.99	-2.77	1.14	-0.96	0.03	-5.42	0.03	-5.42	0.01
		103	0.32	-8.73	-19.22	-8.74	-19.20	-0.38	-0.35	-5.82	-0.35	-5.81	-0.17
		102	0.35	0.27	-15.50	0.26	-15.50	0.23	-0.30	-6.29	-0.34	-6.25	-0.50
		101	0.33	2.42	-1.59	1.68	-0.85	1.55	0.11	-6.53	0.10	-6.52	-0.18
1	10	3	0.29	1.33	-3.23	-2.98	1.07	-1.06	0.03	-5.68	0.03	-5.68	0.01
		103	0.33	-9.10	-19.94	-9.12	-19.92	-0.46	-0.35	-6.06	-0.36	-6.06	-0.18

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		102	0.36	0.24	-16.10	0.24	-16.10	0.07	-0.31	-6.62	-0.36	-6.57	-0.54
		101	0.34	2.55	-1.70	1.76	-0.90	1.66	0.11	-6.89	0.11	-6.88	-0.21
1	11	3	0.51	0.26	-5.54	-5.36	0.08	-1.00	0.05	-10.31	0.05	-10.31	0.04
		103	0.61	-15.65	-37.05	-15.73	-36.97	-1.30	-0.73	-11.01	-0.74	-11.00	-0.32
		102	0.64	0.60	-30.02	0.56	-29.99	-0.99	-0.60	-11.57	-0.67	-11.50	-0.87
		101	0.61	4.83	-5.56	2.91	-3.64	4.03	0.20	-12.00	0.19	-11.99	-0.29
1	12	3	0.53	0.22	-5.78	-5.57	9.36e-03	-1.10	0.05	-10.56	0.05	-10.56	0.04
		103	0.62	-16.02	-37.77	-16.11	-37.69	-1.38	-0.73	-11.25	-0.75	-11.24	-0.33
		102	0.66	0.59	-30.64	0.55	-30.59	-1.15	-0.61	-11.90	-0.69	-11.82	-0.91
		101	0.62	4.96	-5.67	2.99	-3.69	4.14	0.21	-12.35	0.20	-12.35	-0.31
1	13	3	0.44	1.41	-5.03	-4.69	1.07	-1.45	0.04	-8.83	0.04	-8.83	0.02
		103	0.52	-13.90	-31.07	-13.95	-31.03	-0.89	-0.56	-9.40	-0.57	-9.39	-0.29
		102	0.56	0.39	-25.14	0.38	-25.13	-0.34	-0.49	-10.20	-0.56	-10.13	-0.82
		101	0.53	4.04	-3.32	2.65	-1.93	2.88	0.18	-10.63	0.17	-10.62	-0.31
1	14	3	0.59	0.71	-6.34	-6.09	0.46	-1.29	0.06	-11.75	0.06	-11.75	0.04
		103	0.69	-17.99	-42.11	-18.07	-42.03	-1.38	-0.82	-12.55	-0.83	-12.54	-0.36
		102	0.73	0.65	-34.09	0.63	-34.07	-0.88	-0.68	-13.25	-0.76	-13.17	-1.01
		101	0.69	5.46	-5.88	3.37	-3.79	4.40	0.23	-13.74	0.22	-13.73	-0.34
1	15	3	0.61	0.63	-6.81	-6.51	0.33	-1.48	0.06	-12.25	0.06	-12.25	0.03
		103	0.72	-18.74	-43.56	-18.84	-43.46	-1.54	-0.83	-13.04	-0.84	-13.02	-0.39
		102	0.77	0.63	-35.32	0.59	-35.28	-1.19	-0.70	-13.90	-0.79	-13.81	-1.09
		101	0.73	5.73	-6.10	3.52	-3.89	4.61	0.24	-14.45	0.23	-14.44	-0.39
1	16	3	0.30	1.30	-3.48	-3.18	1.01	-1.15	0.03	-5.93	0.03	-5.93	6.76e-03
		103	0.35	-9.48	-20.66	-9.50	-20.63	-0.54	-0.36	-6.30	-0.36	-6.30	-0.20
		102	0.38	0.23	-16.71	0.23	-16.71	-0.09	-0.33	-6.94	-0.38	-6.89	-0.58
		101	0.36	2.69	-1.81	1.83	-0.95	1.77	0.12	-7.24	0.11	-7.24	-0.23
1	17	3	0.44	0.59	-4.77	-4.58	0.40	-0.99	0.05	-8.84	0.05	-8.84	0.03
		103	0.52	-13.57	-31.70	-13.63	-31.64	-1.03	-0.61	-9.45	-0.62	-9.44	-0.27
		102	0.55	0.49	-25.66	0.47	-25.64	-0.63	-0.51	-9.99	-0.57	-9.93	-0.76
		101	0.52	4.11	-4.37	2.54	-2.80	3.29	0.17	-10.36	0.17	-10.35	-0.26
1	18	3	0.47	0.51	-5.25	-5.00	0.26	-1.18	0.04	-9.35	0.04	-9.35	0.02
		103	0.55	-14.32	-33.14	-14.39	-33.07	-1.18	-0.63	-9.94	-0.63	-9.93	-0.30
		102	0.59	0.47	-26.89	0.44	-26.85	-0.94	-0.53	-10.64	-0.60	-10.56	-0.84
		101	0.56	4.37	-4.59	2.69	-2.90	3.50	0.18	-11.07	0.18	-11.06	-0.30
1	19	3	0.78	0.65	-11.78	-10.35	-0.77	-3.96	0.02	-15.72	0.02	-15.72	-0.09
		103	0.88	-23.97	-50.80	-24.31	-50.45	-3.03	-0.70	-15.97	-0.72	-15.95	-0.59
		102	1.03	0.42	-42.12	-0.10	-41.61	-4.64	-0.79	-18.98	-0.99	-18.78	-1.89
		101	1.02	7.69	-6.36	4.62	-3.29	5.81	0.33	-20.33	0.28	-20.29	-0.92
1	20	3	0.80	0.63	-12.03	-10.56	-0.84	-4.05	0.02	-15.98	0.02	-15.98	-0.10
		103	0.89	-24.34	-51.52	-24.70	-51.16	-3.11	-0.71	-16.22	-0.73	-16.19	-0.60
		102	1.05	0.43	-42.75	-0.11	-42.21	-4.80	-0.80	-19.30	-1.01	-19.10	-1.93
		101	1.04	7.83	-6.47	4.70	-3.34	5.91	0.33	-20.69	0.29	-20.65	-0.94
1	21	3	0.95	-0.19	-13.50	-12.17	-1.52	-3.99	0.03	-19.15	0.03	-19.14	-0.07
		103	1.08	-28.81	-63.28	-29.21	-62.88	-3.68	-0.97	-19.61	-0.99	-19.58	-0.69
		102	1.24	0.69	-52.33	0.11	-51.75	-5.49	-1.00	-22.67	-1.22	-22.45	-2.15
		101	1.21	9.37	-9.13	5.48	-5.25	7.54	0.39	-24.16	0.35	-24.12	-1.00
1	22	3	0.60	0.67	-6.57	-6.30	0.39	-1.38	0.06	-12.00	0.06	-12.00	0.04
		103	0.71	-18.37	-42.83	-18.46	-42.75	-1.46	-0.82	-12.79	-0.84	-12.78	-0.38
		102	0.75	0.64	-34.70	0.61	-34.67	-1.03	-0.69	-13.58	-0.78	-13.49	-1.05
		101	0.71	5.59	-5.99	3.44	-3.84	4.50	0.23	-14.10	0.23	-14.09	-0.36
1	23	3	0.96	-0.22	-13.75	-12.38	-1.59	-4.08	0.03	-19.40	0.03	-19.40	-0.08
		103	1.09	-29.18	-64.01	-29.59	-63.60	-3.76	-0.97	-19.85	-1.00	-19.82	-0.70
		102	1.25	0.70	-52.96	0.10	-52.36	-5.65	-1.01	-22.99	-1.23	-22.77	-2.19
		101	1.23	9.51	-9.25	5.56	-5.30	7.65	0.39	-24.51	0.35	-24.47	-1.02
1	24	3	0.64	0.58	-10.27	-8.85	-0.84	-3.66	5.55e-03	-12.82	4.73e-03	-12.82	-0.10
		103	0.71	-19.52	-40.40	-19.87	-40.06	-2.68	-0.50	-12.87	-0.52	-12.85	-0.50
		102	0.85	0.32	-33.76	-0.25	-33.18	-4.39	-0.62	-15.71	-0.80	-15.53	-1.64
		101	0.85	6.35	-4.86	3.80	-2.31	4.70	0.27	-16.95	0.23	-16.91	-0.84
1	25	3	0.65	0.56	-10.52	-9.05	-0.91	-3.75	4.68e-03	-13.08	3.81e-03	-13.08	-0.11
		103	0.72	-19.89	-41.13	-20.25	-40.77	-2.76	-0.50	-13.12	-0.52	-13.10	-0.51
		102	0.87	0.34	-34.39	-0.27	-33.79	-4.55	-0.63	-16.04	-0.82	-15.85	-1.68
		101	0.87	6.48	-4.97	3.87	-2.36	4.80	0.28	-17.31	0.23	-17.26	-0.86
1	26	3	0.81	-0.27	-11.97	-10.66	-1.58	-3.69	0.02	-16.24	0.02	-16.24	-0.09
		103	0.91	-24.37	-52.88	-24.76	-52.49	-3.32	-0.76	-16.51	-0.79	-16.48	-0.60
		102	1.06	0.58	-43.95	-0.04	-43.32	-5.25	-0.83	-19.41	-1.03	-19.21	-1.90
		101	1.04	8.02	-7.63	4.66	-4.26	6.43	0.33	-20.77	0.29	-20.73	-0.91
1	27	3	0.45	0.55	-5.01	-4.79	0.33	-1.08	0.04	-9.10	0.04	-9.10	0.03
		103	0.54	-13.95	-32.42	-14.01	-32.36	-1.10	-0.62	-9.69	-0.63	-9.69	-0.29
		102	0.57	0.48	-26.27	0.46	-26.25	-0.78	-0.52	-10.31	-0.59	-10.25	-0.80
		101	0.54	4.24	-4.48	2.62	-2.85	3.39	0.18	-10.71	0.17	-10.71	-0.28
1	28	3	0.82	-0.30	-12.22	-10.87	-1.65	-3.78	0.02	-16.50	0.02	-16.50	-0.09
		103	0.92	-24.74	-53.61	-25.14	-53.21	-3.40	-0.77	-16.75	-0.79	-16.73	-0.61
		102	1.07	0.59	-44.59	-0.06	-43.93	-5.40	-0.84	-19.73	-1.05	-19.53	-1.94
		101	1.06	8.16	-7.74	4.73	-4.31	6.54	0.34	-21.13	0.30	-21.09	-0.94

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	29	3	0.55	22.28	-15.73	-14.39	20.94	-7.00	1.12	-9.40	0.45	-8.73	-2.57
		103	0.52	-14.13	-30.63	-27.01	-17.76	-6.83	0.62	-9.67	-0.14	-8.91	-2.69
		102	0.62	1.08	-15.25	-3.51	-10.66	-7.34	1.10	-11.24	0.10	-10.23	-3.38
		101	0.68	18.06	1.69	1.71	18.04	-0.52	1.59	-12.03	0.92	-11.35	-2.96
1	30	3	0.56	17.79	-14.42	-13.47	16.83	-5.46	0.91	-9.91	0.38	-9.38	-2.34
		103	0.56	-18.81	-31.00	-27.95	-21.86	-5.29	0.34	-10.41	-0.27	-9.79	-2.50
		102	0.65	-1.45	-17.29	-3.97	-14.77	-5.80	0.75	-12.00	-0.12	-11.13	-3.21
		101	0.69	14.02	2.29	2.38	13.93	1.02	1.34	-12.58	0.77	-12.01	-2.76
1	31	3	0.74	-0.18	-17.61	-0.28	-17.51	1.32	0.08	-14.09	-0.31	-13.71	2.31
		103	0.83	-7.43	-56.25	-7.47	-56.20	1.50	-0.85	-14.39	-1.06	-14.17	1.70
		102	0.88	4.49	-49.13	4.47	-49.11	0.98	-1.31	-15.64	-1.36	-15.59	0.81
		101	0.88	6.53	-22.67	4.27	-20.41	7.80	-0.17	-16.59	-0.35	-16.41	1.73
1	32	3	0.79	1.00	-21.98	0.64	-21.62	2.86	0.07	-14.81	-0.38	-14.36	2.54
		103	0.89	-8.24	-60.49	-8.41	-60.31	3.04	-0.95	-15.31	-1.20	-15.06	1.89
		102	0.93	4.12	-53.33	4.01	-53.22	2.52	-1.51	-16.55	-1.57	-16.49	0.98
		101	0.93	7.65	-27.23	4.94	-24.52	9.34	-0.27	-17.29	-0.49	-17.07	1.93
1	33	3	0.59	22.71	-16.16	-14.86	21.41	-7.00	1.16	-10.06	0.46	-9.36	-2.72
		103	0.53	-14.01	-31.48	-28.20	-17.28	-6.82	0.71	-9.75	-0.11	-8.93	-2.81
		102	0.62	0.92	-15.04	-3.93	-10.19	-7.34	1.19	-11.30	0.14	-10.25	-3.47
		101	0.71	18.53	1.63	1.64	18.51	-0.52	1.64	-12.68	0.95	-11.99	-3.08
1	34	3	0.53	17.35	-13.99	-13.00	16.36	-5.46	0.86	-9.25	0.37	-8.75	-2.19
		103	0.55	-18.81	-30.28	-26.75	-22.33	-5.29	0.26	-10.34	-0.30	-9.77	-2.38
		102	0.65	-1.16	-17.63	-3.55	-15.24	-5.80	0.66	-11.94	-0.17	-11.11	-3.12
		101	0.65	13.55	2.35	2.44	13.46	1.01	1.29	-11.93	0.75	-11.38	-2.64
1	35	3	0.77	-0.64	-17.15	-0.75	-17.04	1.33	0.03	-14.66	-0.30	-14.34	2.16
		103	0.83	-8.62	-55.78	-8.67	-55.73	1.50	-0.84	-14.38	-1.03	-14.19	1.58
		102	0.88	4.07	-48.66	4.05	-48.64	0.99	-1.28	-15.65	-1.31	-15.61	0.73
		101	0.91	6.51	-22.24	4.21	-19.94	7.81	-0.17	-17.20	-0.32	-17.05	1.61
1	36	3	0.77	1.45	-22.43	1.11	-22.09	2.86	0.13	-14.25	-0.39	-13.73	2.69
		103	0.89	-7.05	-60.95	-7.22	-60.78	3.03	-0.94	-15.33	-1.23	-15.04	2.01
		102	0.93	4.54	-53.80	4.43	-53.69	2.52	-1.54	-16.55	-1.62	-16.47	1.07
		101	0.90	7.68	-27.66	5.01	-24.99	9.34	-0.26	-16.70	-0.52	-16.44	2.05
1	37	3	0.56	22.48	-15.85	-14.56	21.19	-6.92	1.15	-9.43	0.46	-8.73	-2.63
		103	0.52	-14.05	-30.67	-27.21	-17.51	-6.75	0.66	-9.68	-0.12	-8.90	-2.73
		102	0.62	1.04	-15.02	-3.56	-10.42	-7.26	1.15	-11.25	0.12	-10.22	-3.42
		101	0.68	18.30	1.69	1.70	18.29	-0.44	1.63	-12.05	0.93	-11.36	-3.01
1	38	3	0.57	17.99	-14.55	-13.63	17.08	-5.38	0.94	-9.94	0.38	-9.38	-2.39
		103	0.56	-18.74	-31.03	-28.15	-21.62	-5.21	0.38	-10.42	-0.26	-9.78	-2.55
		102	0.65	-1.51	-17.04	-4.02	-14.52	-5.72	0.79	-12.01	-0.10	-11.12	-3.25
		101	0.69	14.28	2.26	2.36	14.18	1.10	1.38	-12.60	0.79	-12.02	-2.81
1	39	3	0.74	-0.03	-17.84	-0.12	-17.76	1.24	0.09	-14.11	-0.32	-13.71	2.36
		103	0.84	-7.23	-56.49	-7.27	-56.45	1.42	-0.85	-14.41	-1.08	-14.18	1.75
		102	0.88	4.54	-49.37	4.52	-49.36	0.90	-1.33	-15.65	-1.38	-15.60	0.86
		101	0.88	6.48	-22.85	4.29	-20.66	7.72	-0.17	-16.60	-0.36	-16.41	1.78
1	40	3	0.79	1.14	-22.20	0.80	-21.86	2.78	0.08	-14.82	-0.39	-14.36	2.59
		103	0.89	-8.05	-60.73	-8.21	-60.56	2.96	-0.95	-15.33	-1.21	-15.07	1.94
		102	0.93	4.16	-53.57	4.06	-53.47	2.44	-1.52	-16.57	-1.59	-16.50	1.03
		101	0.93	7.60	-27.42	4.95	-24.77	9.26	-0.28	-17.30	-0.51	-17.07	1.98
1	41	3	0.59	22.92	-16.28	-15.02	21.66	-6.92	1.20	-10.09	0.47	-9.36	-2.78
		103	0.53	-13.90	-31.54	-28.40	-17.04	-6.74	0.75	-9.76	-0.09	-8.92	-2.86
		102	0.62	0.88	-14.81	-3.98	-9.94	-7.26	1.24	-11.31	0.16	-10.24	-3.51
		101	0.71	18.77	1.62	1.63	18.76	-0.44	1.68	-12.71	0.96	-11.99	-3.13
1	42	3	0.53	17.55	-14.11	-13.17	16.61	-5.39	0.90	-9.27	0.37	-8.75	-2.24
		103	0.55	-18.77	-30.27	-26.96	-22.09	-5.21	0.29	-10.35	-0.29	-9.76	-2.42
		102	0.65	-1.22	-17.37	-3.60	-14.99	-5.73	0.70	-11.95	-0.15	-11.10	-3.17
		101	0.66	13.81	2.32	2.43	13.71	1.09	1.33	-11.95	0.76	-11.38	-2.69
1	43	3	0.77	-0.50	-17.38	-0.59	-17.29	1.25	0.03	-14.68	-0.31	-14.34	2.21
		103	0.83	-8.42	-56.02	-8.47	-55.98	1.42	-0.85	-14.40	-1.05	-14.20	1.63
		102	0.88	4.12	-48.90	4.10	-48.89	0.91	-1.29	-15.66	-1.33	-15.62	0.77
		101	0.91	6.46	-22.43	4.22	-20.19	7.73	-0.17	-17.21	-0.34	-17.04	1.66
1	44	3	0.77	1.59	-22.66	1.27	-22.34	2.78	0.14	-14.27	-0.40	-13.73	2.74
		103	0.89	-6.86	-61.19	-7.02	-61.03	2.95	-0.94	-15.35	-1.24	-15.05	2.06
		102	0.94	4.58	-54.04	4.48	-53.94	2.44	-1.56	-16.56	-1.64	-16.48	1.11
		101	0.90	7.63	-27.84	5.02	-25.24	9.26	-0.26	-16.71	-0.54	-16.43	2.10
1	45	3	0.54	13.70	-11.96	-10.53	12.28	-5.89	0.39	-9.84	0.27	-9.71	-1.14
		103	0.54	-15.95	-29.54	-19.07	-26.42	-5.71	-0.11	-9.91	-0.30	-9.72	-1.37
		102	0.63	1.67	-21.17	-0.18	-19.33	-6.23	0.23	-11.46	-0.16	-11.06	-2.11
		101	0.66	9.42	1.78	1.83	9.37	0.59	0.83	-12.54	0.64	-12.35	-1.55
1	46	3	0.59	-1.33	-7.55	-7.46	-1.42	-0.75	0.04	-11.90	0.03	-11.88	-0.36
		103	0.69	-22.19	-40.13	-22.21	-40.11	-0.57	-0.71	-12.71	-0.76	-12.67	-0.74
		102	0.77	-1.68	-33.06	-1.72	-33.02	-1.09	-0.70	-14.23	-0.88	-14.05	-1.54
		101	0.74	6.96	-7.23	4.05	-4.32	5.73	0.21	-14.61	0.16	-14.55	-0.88
1	47	3	0.56	2.11	-7.66	-6.30	0.74	-3.39	0.05	-11.21	0.04	-11.20	0.32
		103	0.63	-12.80	-38.37	-13.21	-37.95	-3.22	-0.58	-11.30	-0.58	-11.30	-0.05

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		102	0.70	2.63	-31.28	2.22	-30.86	-3.73	-0.54	-12.73	-0.60	-12.67	-0.85
		101	0.70	4.12	-3.68	2.60	-2.16	3.09	0.26	-13.87	0.26	-13.87	-0.15
1	48	3	0.69	-2.92	-13.26	-3.22	-12.95	1.75	-0.11	-13.47	-0.20	-13.38	1.11
		103	0.80	-16.24	-51.75	-16.35	-51.65	1.92	-1.01	-14.27	-1.04	-14.25	0.57
		102	0.86	0.72	-44.60	0.68	-44.56	1.41	-1.31	-15.66	-1.31	-15.66	-0.29
		101	0.84	7.69	-18.73	4.82	-15.85	8.23	-0.20	-16.09	-0.22	-16.07	0.52
1	49	3	0.54	13.76	-11.99	-10.58	12.35	-5.86	0.40	-9.84	0.27	-9.71	-1.16
		103	0.54	-16.00	-29.47	-19.13	-26.35	-5.69	-0.10	-9.92	-0.30	-9.72	-1.38
		102	0.63	1.65	-21.09	-0.19	-19.25	-6.20	0.24	-11.46	-0.16	-11.06	-2.12
		101	0.66	9.50	1.78	1.83	9.45	0.62	0.83	-12.54	0.65	-12.35	-1.57
1	50	3	0.59	-1.26	-7.59	-7.50	-1.34	-0.72	0.04	-11.90	0.03	-11.89	-0.37
		103	0.69	-22.25	-40.06	-22.27	-40.04	-0.55	-0.71	-12.71	-0.75	-12.67	-0.76
		102	0.77	-1.69	-32.98	-1.73	-32.95	-1.06	-0.69	-14.23	-0.87	-14.05	-1.56
		101	0.74	6.99	-7.19	4.05	-4.24	5.76	0.22	-14.61	0.17	-14.55	-0.90
1	51	3	0.56	2.07	-7.65	-6.25	0.67	-3.41	0.05	-11.21	0.04	-11.20	0.34
		103	0.63	-12.74	-38.44	-13.15	-38.03	-3.24	-0.58	-11.30	-0.58	-11.30	-0.04
		102	0.70	2.65	-31.36	2.23	-30.94	-3.75	-0.55	-12.73	-0.61	-12.67	-0.84
		101	0.70	4.09	-3.72	2.60	-2.23	3.07	0.26	-13.87	0.26	-13.87	-0.13
1	52	3	0.69	-2.88	-13.32	-3.17	-13.03	1.73	-0.11	-13.47	-0.20	-13.38	1.12
		103	0.80	-16.19	-51.82	-16.29	-51.72	1.90	-1.01	-14.28	-1.04	-14.25	0.59
		102	0.87	0.74	-44.67	0.69	-44.63	1.39	-1.31	-15.67	-1.32	-15.66	-0.27
		101	0.84	7.68	-18.78	4.82	-15.93	8.20	-0.20	-16.09	-0.22	-16.07	0.54
1	53	3	0.65	15.11	-13.36	-12.09	13.84	-5.87	0.52	-12.03	0.30	-11.81	-1.64
		103	0.55	-18.19	-29.72	-23.05	-24.85	-5.69	0.12	-10.10	-0.20	-9.78	-1.77
		102	0.64	0.53	-19.87	-1.58	-17.76	-6.21	0.49	-11.62	-4.58e-03	-11.12	-2.40
		101	0.77	10.98	1.57	1.61	10.94	0.61	0.99	-14.72	0.74	-14.47	-1.96
1	54	3	0.48	-2.80	-6.09	-5.90	-2.99	-0.77	-5.44e-03	-9.79	-7.42e-03	-9.78	0.14
		103	0.69	-18.21	-41.70	-18.23	-41.68	-0.59	-0.85	-12.61	-0.86	-12.60	-0.34
		102	0.77	-0.28	-34.62	-0.32	-34.59	-1.11	-0.92	-14.11	-1.04	-13.99	-1.26
		101	0.63	6.84	-8.45	4.27	-5.89	5.71	0.09	-12.46	0.07	-12.44	-0.48
1	55	3	0.67	3.33	-8.87	-7.86	2.31	-3.37	0.08	-13.31	0.07	-13.30	-0.17
		103	0.63	-16.67	-36.90	-17.19	-36.39	-3.20	-0.46	-11.38	-0.48	-11.36	-0.46
		102	0.71	1.27	-29.74	0.82	-29.29	-3.71	-0.34	-12.83	-0.44	-12.73	-1.14
		101	0.80	4.34	-2.55	2.38	-0.59	3.11	0.38	-16.00	0.36	-15.99	-0.55
1	56	3	0.60	-1.44	-14.75	-1.66	-14.52	1.73	-6.59e-03	-11.51	-0.23	-11.28	1.60
		103	0.81	-12.28	-53.31	-12.37	-53.22	1.90	-1.06	-14.26	-1.14	-14.18	0.98
		102	0.86	2.12	-46.16	2.08	-46.12	1.39	-1.47	-15.60	-1.47	-15.60	1.79e-03
		101	0.74	7.72	-20.10	5.04	-17.42	8.21	-0.25	-14.02	-0.31	-13.96	0.93
1	57	3	0.65	15.17	-13.39	-12.14	13.92	-5.85	0.52	-12.03	0.30	-11.81	-1.65
		103	0.55	-18.21	-29.68	-23.11	-24.78	-5.67	0.13	-10.10	-0.20	-9.78	-1.79
		102	0.64	0.51	-19.79	-1.59	-17.68	-6.19	0.50	-11.62	1.14e-03	-11.12	-2.41
		101	0.78	11.06	1.56	1.61	11.02	0.63	0.99	-14.72	0.74	-14.47	-1.97
1	58	3	0.48	-2.74	-6.12	-5.95	-2.91	-0.74	-3.37e-03	-9.79	-4.92e-03	-9.78	0.12
		103	0.69	-18.28	-41.62	-18.29	-41.61	-0.57	-0.84	-12.61	-0.86	-12.60	-0.35
		102	0.77	-0.30	-34.55	-0.33	-34.52	-1.08	-0.91	-14.11	-1.03	-13.99	-1.27
		101	0.63	6.86	-8.41	4.27	-5.81	5.74	0.09	-12.46	0.07	-12.44	-0.49
1	59	3	0.67	3.28	-8.85	-7.81	2.24	-3.40	0.07	-13.30	0.07	-13.30	-0.16
		103	0.63	-16.61	-36.98	-17.13	-36.46	-3.22	-0.46	-11.38	-0.48	-11.37	-0.44
		102	0.71	1.29	-29.82	0.83	-29.37	-3.74	-0.34	-12.83	-0.45	-12.73	-1.13
		101	0.80	4.30	-2.58	2.38	-0.67	3.08	0.37	-16.00	0.35	-15.98	-0.54
1	60	3	0.60	-1.39	-14.82	-1.62	-14.60	1.71	-4.53e-03	-11.51	-0.24	-11.28	1.62
		103	0.81	-12.22	-53.38	-12.31	-53.29	1.88	-1.07	-14.26	-1.14	-14.19	0.99
		102	0.86	2.13	-46.24	2.09	-46.20	1.37	-1.48	-15.60	-1.48	-15.60	0.02
		101	0.74	7.70	-20.16	5.04	-17.50	8.19	-0.25	-14.02	-0.32	-13.95	0.94
1	61	3	0.56	13.45	-12.41	-11.39	12.43	-5.04	0.51	-10.21	0.28	-9.98	-1.55
		103	0.57	-19.71	-29.88	-23.31	-26.27	-4.87	-0.04	-10.51	-0.35	-10.20	-1.77
		102	0.66	-0.47	-20.72	-2.02	-19.18	-5.38	0.30	-12.07	-0.24	-11.54	-2.51
		101	0.68	9.80	2.08	2.35	9.53	1.44	0.93	-12.91	0.64	-12.62	-1.98
1	62	3	0.57	10.75	-11.62	-10.84	9.96	-4.11	0.42	-10.51	0.24	-10.33	-1.41
		103	0.59	-21.67	-30.92	-23.86	-28.73	-3.94	-0.17	-10.96	-0.43	-10.70	-1.66
		102	0.68	-1.32	-22.61	-2.29	-21.64	-4.45	0.11	-12.52	-0.36	-12.05	-2.41
		101	0.69	8.11	1.71	2.75	7.06	2.37	0.80	-13.23	0.55	-12.97	-1.86
1	63	3	0.66	-2.91	-10.64	-2.91	-10.64	-0.03	-0.02	-12.91	-0.17	-12.76	1.38
		103	0.76	-11.56	-49.34	-11.56	-49.34	0.15	-0.85	-13.33	-0.91	-13.27	0.86
		102	0.82	2.80	-42.25	2.79	-42.24	-0.37	-1.11	-14.67	-1.11	-14.67	0.01
		101	0.80	6.02	-15.67	3.90	-13.54	6.45	-0.08	-15.49	-0.12	-15.45	0.83
1	64	3	0.68	-2.29	-13.18	-2.36	-13.10	0.90	-0.04	-13.28	-0.21	-13.11	1.52
		103	0.79	-12.08	-51.83	-12.11	-51.80	1.08	-0.91	-13.84	-0.99	-13.77	0.98
		102	0.85	2.52	-44.71	2.52	-44.71	0.56	-1.24	-15.18	-1.24	-15.18	0.11
		101	0.83	6.70	-18.40	4.29	-16.00	7.38	-0.15	-15.86	-0.21	-15.80	0.95
1	65	3	0.58	13.72	-12.68	-11.68	12.73	-5.04	0.53	-10.56	0.29	-10.31	-1.64
		103	0.57	-20.03	-29.96	-24.02	-25.97	-4.86	4.14e-03	-10.54	-0.33	-10.21	-1.85
		102	0.66	-0.68	-20.47	-2.27	-18.88	-5.38	0.35	-12.11	-0.21	-11.55	-2.56
		101	0.70	10.09	2.05	2.31	9.82	1.44	0.96	-13.26	0.65	-12.95	-2.06

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	66	3	0.55	10.47	-11.36	-10.55	9.66	-4.11	0.40	-10.17	0.23	-10.00	-1.32
		103	0.59	-21.18	-31.00	-23.16	-29.03	-3.94	-0.21	-10.92	-0.45	-10.68	-1.58
		102	0.68	-1.09	-22.89	-2.04	-21.94	-4.45	0.06	-12.50	-0.39	-12.04	-2.36
		101	0.67	7.87	1.69	2.80	6.76	2.37	0.77	-12.88	0.53	-12.64	-1.79
1	67	3	0.67	-3.20	-10.34	-3.20	-10.34	-0.03	-0.04	-13.21	-0.16	-13.09	1.29
		103	0.76	-12.27	-49.04	-12.27	-49.04	0.15	-0.84	-13.33	-0.89	-13.28	0.79
		102	0.82	2.55	-41.95	2.54	-41.94	-0.37	-1.08	-14.68	-1.08	-14.68	-0.04
		101	0.82	6.02	-15.40	3.85	-13.24	6.45	-0.07	-15.82	-0.11	-15.78	0.76
1	68	3	0.67	-2.00	-13.47	-2.07	-13.40	0.90	-0.02	-12.98	-0.22	-12.78	1.61
		103	0.79	-11.37	-52.13	-11.40	-52.10	1.07	-0.92	-13.84	-1.01	-13.76	1.05
		102	0.85	2.77	-45.01	2.77	-45.00	0.56	-1.27	-15.17	-1.27	-15.17	0.17
		101	0.81	6.70	-18.67	4.34	-16.30	7.38	-0.16	-15.54	-0.23	-15.47	1.03
1	69	3	0.56	13.59	-12.49	-11.50	12.59	-4.99	0.52	-10.22	0.28	-9.98	-1.59
		103	0.57	-19.77	-29.77	-23.44	-26.10	-4.82	-0.02	-10.51	-0.34	-10.19	-1.80
		102	0.66	-0.51	-20.55	-2.05	-19.01	-5.33	0.32	-12.08	-0.22	-11.53	-2.54
		101	0.68	9.98	2.06	2.35	9.69	1.49	0.94	-12.92	0.65	-12.62	-2.02
1	70	3	0.57	10.89	-11.70	-10.94	10.13	-4.06	0.44	-10.52	0.24	-10.33	-1.45
		103	0.59	-21.77	-30.79	-23.99	-28.57	-3.89	-0.15	-10.96	-0.42	-10.69	-1.69
		102	0.68	-1.36	-22.44	-2.33	-21.47	-4.40	0.14	-12.53	-0.35	-12.04	-2.44
		101	0.69	8.28	1.69	2.75	7.23	2.42	0.82	-13.24	0.56	-12.98	-1.90
1	71	3	0.66	-2.81	-10.81	-2.81	-10.81	-0.07	-0.02	-12.91	-0.18	-12.76	1.41
		103	0.76	-11.43	-49.50	-11.43	-49.50	0.10	-0.85	-13.34	-0.91	-13.28	0.89
		102	0.82	2.83	-42.41	2.83	-42.41	-0.41	-1.12	-14.68	-1.13	-14.68	0.04
		101	0.81	5.99	-15.79	3.90	-13.71	6.41	-0.08	-15.50	-0.13	-15.45	0.87
1	72	3	0.69	-2.19	-13.33	-2.26	-13.27	0.86	-0.03	-13.29	-0.22	-13.10	1.55
		103	0.79	-11.95	-51.99	-11.98	-51.96	1.03	-0.92	-13.86	-1.00	-13.78	1.01
		102	0.85	2.56	-44.88	2.55	-44.87	0.52	-1.25	-15.19	-1.25	-15.19	0.14
		101	0.83	6.66	-18.53	4.30	-16.17	7.34	-0.16	-15.86	-0.22	-15.80	0.99
1	73	3	0.58	13.86	-12.76	-11.78	12.89	-4.99	0.55	-10.57	0.29	-10.31	-1.68
		103	0.57	-20.09	-29.87	-24.15	-25.80	-4.82	0.02	-10.55	-0.32	-10.20	-1.88
		102	0.66	-0.72	-20.29	-2.30	-18.71	-5.33	0.37	-12.11	-0.19	-11.54	-2.59
		101	0.70	10.27	2.03	2.30	9.99	1.49	0.98	-13.27	0.66	-12.96	-2.09
1	74	3	0.55	10.61	-11.43	-10.66	9.83	-4.06	0.41	-10.18	0.24	-10.00	-1.35
		103	0.59	-21.29	-30.86	-23.29	-28.86	-3.89	-0.19	-10.93	-0.44	-10.68	-1.62
		102	0.68	-1.14	-22.71	-2.08	-21.77	-4.40	0.09	-12.50	-0.38	-12.03	-2.38
		101	0.67	8.04	1.68	2.79	6.93	2.41	0.79	-12.89	0.54	-12.64	-1.82
1	75	3	0.67	-3.10	-10.51	-3.10	-10.51	-0.07	-0.03	-13.22	-0.17	-13.09	1.32
		103	0.76	-12.14	-49.20	-12.14	-49.20	0.10	-0.84	-13.34	-0.90	-13.29	0.82
...													
320	150	359	0.04	8.32e-03	-1.16e-03	8.28e-03	-1.12e-03	-6.11e-04	0.02	-0.11	-0.10	1.61e-03	-0.04
Elem.			Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
					-178.10	-34.02	-169.64	-37.65		-47.28	-9.60	-47.28	-9.22
			7.98	84.25		19.51	74.18	37.65	36.82		6.02	36.82	9.22

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, presso-flessione 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 involuppo 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 fattore 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 di tipo "*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 di tipo “*Parete Sismica*” e “*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

Sia per le verifiche degli elementi con progettazione di tipo “*Singolo Elemento ...*” e “*Parete ...*” 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 My 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 attinge il massimo valore
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 $Ned/(bw f_{yd})$

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 armature in direzione 0 (o numero di braccia radiale)
n.ser 90	Numero di braccia delle armature 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 la componente sismica delle combinazioni 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 di pali, plinti, plinti su pali, travi e platee vengono effettuate dal modulo geotecnico incrementando automaticamente la componente sismica delle azioni di un fattore 1.1 in CDB e 1.3 in CDA.

N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
1	35.00	4	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									kN/ m	kN/ m	kN/ m	kN	kN	kN
1	ok	0.11	0.4	8.96e-03	10.1	10.1	7.5	7.5	-56.8	-22.3	-12.3	-21.2	-0.1	-2.8
2	ok	0.11	0.4	8.96e-03	10.1	10.1	7.5	7.5	-56.8	-22.3	12.3	-21.2	-0.1	2.8
3	ok	0.11	0.2	3.34e-03	10.1	10.1	7.5	7.5	21.7	-15.0	6.9	-9.4	0.5	2.8
4	ok	0.11	0.2	3.34e-03	10.1	10.1	7.5	7.5	-1.6	-12.4	-4.1	-19.4	3.20e-02	-7.89e-02
11	ok	0.11	0.3	7.17e-03	10.1	10.1	7.5	7.5	-44.5	-2.6	-1.7	-17.8	-8.69e-04	-4.2
12	ok	0.11	0.3	7.55e-03	10.1	10.1	7.5	7.5	-40.3	-5.3	1.8	-32.0	-6.3	-2.63e-03
13	ok	0.11	0.2	6.72e-03	10.1	10.1	7.5	7.5	-32.6	-0.9	10.7	-18.3	-3.7	-9.98e-02
14	ok	0.11	0.4	8.38e-03	10.1	10.1	7.5	7.5	-43.6	-6.2	6.9	-46.5	-9.3	-2.90e-02
15	ok	0.11	0.3	7.17e-03	10.1	10.1	7.5	7.5	-44.5	-2.6	1.7	-17.8	-8.69e-04	4.2
31	ok	0.11	0.2	5.60e-03	10.1	10.1	7.5	7.5	-34.3	-0.2	-3.5	-16.4	-0.3	-3.7
32	ok	0.11	0.2	7.74e-03	10.1	10.1	7.5	7.5	-38.9	-2.4	5.8	-25.3	-3.8	0.5
33	ok	0.11	0.2	7.50e-03	10.1	10.1	7.5	7.5	-38.1	-8.1	-7.9	-18.7	-2.8	0.2
34	ok	0.11	0.3	8.67e-03	10.1	10.1	7.5	7.5	-43.3	-1.7	-9.8	-16.7	-2.8	-5.2
35	ok	0.11	0.2	6.84e-03	10.1	10.1	7.5	7.5	-34.9	-3.5	-1.9	-25.0	-5.0	-7.89e-03
47	ok	0.11	0.4	9.85e-03	10.1	10.1	7.5	7.5	-50.6	-14.1	-8.9	-47.3	-8.8	-6.38e-02
54	ok	0.11	0.3	8.19e-03	10.1	10.1	7.5	7.5	-49.6	-4.6	-2.9	-20.0	0.1	-4.2
55	ok	0.11	0.3	9.41e-03	10.1	10.1	7.5	7.5	-47.3	-6.8	-12.7	-18.8	-3.5	-5.4
56	ok	0.11	0.3	8.01e-03	10.1	10.1	7.5	7.5	-42.8	-6.9	1.8	-39.1	-7.8	-7.53e-03
57	ok	0.11	0.2	7.74e-03	10.1	10.1	7.5	7.5	-38.9	-2.4	-5.8	-25.3	-3.8	-0.5
58	ok	0.11	0.2	7.50e-03	10.1	10.1	7.5	7.5	-38.1	-8.1	7.9	-18.7	-2.8	-0.2
59	ok	0.11	0.3	8.67e-03	10.1	10.1	7.5	7.5	-43.6	-0.3	-2.6	-32.2	-5.0	4.88e-02
60	ok	0.11	0.2	5.60e-03	10.1	10.1	7.5	7.5	-34.3	-0.2	3.5	-16.4	-0.3	3.7
61	ok	0.11	0.3	9.41e-03	10.1	10.1	7.5	7.5	-47.3	-6.8	12.7	-18.8	-3.5	5.4
62	ok	0.11	0.4	9.85e-03	10.1	10.1	7.5	7.5	-50.6	-14.1	8.9	-47.3	-8.8	6.38e-02
63	ok	0.11	0.3	8.19e-03	10.1	10.1	7.5	7.5	-49.6	-4.6	2.9	-20.0	0.1	4.2
101	ok	0.11	0.2	4.52e-03	10.1	10.1	7.5	7.5	-5.3	5.6	-7.6	-24.5	0.4	1.0
102	ok	0.11	0.2	9.89e-03	10.1	10.1	7.5	7.5	-52.4	9.59e-02	5.7	-22.8	-1.2	2.2
103	ok	0.11	0.2	1.20e-02	10.1	10.1	7.5	7.5	-63.6	-29.6	3.8	-19.8	-1.0	0.7
104	ok	0.11	0.2	8.12e-03	10.1	10.1	7.5	7.5	-40.3	1.7	5.9	-26.2	-1.9	1.2
105	ok	0.11	0.2	7.30e-03	10.1	10.1	7.5	7.5	-36.4	-5.4	6.0	-21.8	-3.4	0.7
117	ok	0.11	0.4	1.49e-02	10.1	10.1	7.5	7.5	-49.9	-25.1	3.7	-46.7	-6.4	-0.2
124	ok	0.11	0.3	7.75e-03	10.1	10.1	7.5	7.5	-47.4	-3.4	-2.3	-18.9	0.1	-4.3
125	ok	0.11	0.3	9.47e-03	10.1	10.1	7.5	7.5	-44.2	-4.0	-7.5	-18.3	-1.6	-5.4
126	ok	0.11	0.3	8.60e-03	10.1	10.1	7.5	7.5	-41.0	-2.3	-6.8	-17.5	-1.5	-5.0
127	ok	0.11	0.3	1.08e-02	10.1	10.1	7.5	7.5	-47.5	-6.5	-8.8	-19.4	-2.1	-5.7
128	ok	0.11	0.3	9.09e-03	10.1	10.1	7.5	7.5	-45.9	-3.7	-11.5	-17.6	-3.0	-5.4
129	ok	0.11	0.2	6.49e-03	10.1	10.1	7.5	7.5	-32.8	-2.4	-1.7	-21.6	-4.4	-3.18e-02
130	ok	0.11	0.2	6.68e-03	10.1	10.1	7.5	7.5	-33.7	-3.1	-3.0	-21.6	-4.2	-0.2
131	ok	0.11	0.2	6.85e-03	10.1	10.1	7.5	7.5	-33.0	-2.2	-11.1	-18.4	-3.5	6.55e-02
132	ok	0.11	0.2	7.10e-03	10.1	10.1	7.5	7.5	-36.0	-3.4	-3.3	-25.1	-4.8	-0.2
133	ok	0.11	0.2	7.30e-03	10.1	10.1	7.5	7.5	-36.4	-5.4	-6.0	-21.8	-3.4	-0.7
134	ok	0.11	0.3	7.81e-03	10.1	10.1	7.5	7.5	-41.7	-6.1	1.8	-35.5	-7.1	-6.24e-03
135	ok	0.11	0.3	8.18e-03	10.1	10.1	7.5	7.5	-43.3	-5.1	-1.0	-35.5	-6.8	5.73e-02
136	ok	0.11	0.3	7.89e-03	10.1	10.1	7.5	7.5	-40.3	-3.9	-2.0	-32.0	-6.1	-4.06e-03
137	ok	0.11	0.3	8.37e-03	10.1	10.1	7.5	7.5	-44.3	-6.5	-0.3	-39.2	-7.6	9.58e-02
138	ok	0.11	0.3	9.09e-03	10.1	10.1	7.5	7.5	-45.9	-3.7	11.5	-17.6	-3.0	5.4
175	ok	0.11	0.4	8.64e-03	10.1	10.1	7.5	7.5	-44.8	-7.6	7.4	-46.7	-9.2	-2.81e-03
197	ok	0.11	0.3	6.48e-03	10.1	10.1	7.5	7.5	-40.2	-1.8	-1.9	-17.1	-0.2	-4.0
198	ok	0.11	0.2	8.10e-03	10.1	10.1	7.5	7.5	-38.4	-0.6	-6.1	-16.7	-1.6	-4.7
199	ok	0.11	0.2	8.24e-03	10.1	10.1	7.5	7.5	-41.4	-0.6	4.5	-28.8	-4.3	0.2
200	ok	0.11	0.2	6.68e-03	10.1	10.1	7.5	7.5	-33.7	-3.1	3.0	-21.6	-4.2	0.2
201	ok	0.11	0.2	6.85e-03	10.1	10.1	7.5	7.5	-33.5	-2.0	-10.2	-18.4	-3.6	0.1
202	ok	0.11	0.2	7.10e-03	10.1	10.1	7.5	7.5	-36.0	-3.4	3.3	-25.1	-4.8	0.2

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
203	ok	0.11	0.2	7.51e-03	10.1	10.1	7.5	7.5	-38.3	-3.4	2.8	-28.5	-5.4	8.22e-02
204	ok	0.11	0.3	7.89e-03	10.1	10.1	7.5	7.5	-40.3	-3.9	2.0	-32.0	-6.1	4.06e-03
205	ok	0.11	0.2	7.22e-03	10.1	10.1	7.5	7.5	-37.0	-4.2	1.9	-28.5	-5.7	1.96e-03
227	ok	0.11	0.4	8.64e-03	10.1	10.1	7.5	7.5	-44.8	-7.6	-7.4	-46.7	-9.2	2.81e-03
240	ok	0.11	0.4	8.41e-03	10.1	10.1	7.5	7.5	33.8	16.5	19.8	-25.7	-0.9	1.5
241	ok	0.11	0.3	1.32e-02	10.1	10.1	7.5	7.5	-47.7	-11.2	-8.6	-31.1	-3.2	-3.8
242	ok	0.11	0.3	9.41e-03	10.1	10.1	7.5	7.5	-49.3	-9.5	-2.3	-42.9	-7.8	-0.4
243	ok	0.11	0.3	8.18e-03	10.1	10.1	7.5	7.5	-43.3	-5.1	1.0	-35.5	-6.8	-5.73e-02
244	ok	0.11	0.3	8.37e-03	10.1	10.1	7.5	7.5	-44.3	-6.5	0.3	-39.2	-7.6	-9.58e-02
245	ok	0.11	0.3	8.46e-03	10.1	10.1	7.5	7.5	-45.0	-7.8	-3.0	-42.9	-8.5	-0.1
246	ok	0.11	0.3	8.20e-03	10.1	10.1	7.5	7.5	-43.8	-7.2	-1.6	-42.8	-8.6	-4.38e-03
247	ok	0.11	0.2	7.51e-03	10.1	10.1	7.5	7.5	-38.3	-3.4	-2.8	-28.5	-5.4	-8.22e-02
248	ok	0.11	0.2	8.24e-03	10.1	10.1	7.5	7.5	-41.4	-0.6	-4.5	-28.8	-4.3	-0.2
249	ok	0.11	0.2	9.89e-03	10.1	10.1	7.5	7.5	-52.4	9.59e-02	-5.7	-22.8	-1.2	-2.2
250	ok	0.11	0.2	1.20e-02	10.1	10.1	7.5	7.5	-63.6	-29.6	-3.8	-19.8	-1.0	-0.7
251	ok	0.11	0.2	8.12e-03	10.1	10.1	7.5	7.5	-40.3	1.7	-5.9	-26.2	-1.9	-1.2
252	ok	0.11	0.2	4.52e-03	10.1	10.1	7.5	7.5	-5.3	5.6	7.6	-24.5	0.4	-1.0
253	ok	0.11	0.2	8.10e-03	10.1	10.1	7.5	7.5	-39.2	3.2	-4.0	-29.6	-2.2	-0.6
254	ok	0.11	0.3	8.60e-03	10.1	10.1	7.5	7.5	-41.0	-2.3	6.8	-17.5	-1.5	5.0
255	ok	0.11	0.3	6.48e-03	10.1	10.1	7.5	7.5	-40.2	-1.8	1.9	-17.1	-0.2	4.0
256	ok	0.11	0.3	8.46e-03	10.1	10.1	7.5	7.5	-43.6	-7.6	3.9	-42.9	-8.5	8.84e-02
257	ok	0.11	0.3	9.41e-03	10.1	10.1	7.5	7.5	-49.3	-9.5	2.3	-42.9	-7.8	0.4
258	ok	0.11	0.3	9.47e-03	10.1	10.1	7.5	7.5	-44.2	-4.0	7.5	-18.3	-1.6	5.4
259	ok	0.11	0.3	1.08e-02	10.1	10.1	7.5	7.5	-47.5	-6.5	8.8	-19.4	-2.1	5.7
260	ok	0.11	0.3	7.75e-03	10.1	10.1	7.5	7.5	-47.4	-3.4	2.3	-18.9	0.1	4.3
261	ok	0.11	0.3	1.32e-02	10.1	10.1	7.5	7.5	-47.7	-11.2	8.6	-31.1	-3.2	3.8
262	ok	0.11	0.4	1.49e-02	10.1	10.1	7.5	7.5	-49.9	-25.1	-3.7	-46.7	-6.4	0.2
263	ok	0.11	0.4	8.41e-03	10.1	10.1	7.5	7.5	-56.5	-6.0	5.8	-22.3	0.9	3.3
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-63.60	-29.59	-12.74	-47.28	-9.26	-5.72
		0.11	0.38	0.01	10.05	10.05	7.54	7.54	33.83	16.53	19.80	-9.36	0.90	5.72

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		N/mm2					kN/ m	kN/ m
1	ok	1.97						
2	ok	1.97						
3	ok	2.05						
4	ok	2.05						
11	ok	1.10						
12	ok	0.91						
13	ok	1.88						
14	ok	1.84						
15	ok	1.10						
31	ok	1.12						
32	ok	0.89						
33	ok	1.99						
34	ok	0.94						
35	ok	0.87						
47	ok	2.07						
54	ok	1.05						
55	ok	1.03						
56	ok	0.95						
57	ok	0.89						
58	ok	1.99						
59	ok	0.94						
60	ok	1.12						
61	ok	1.03						
62	ok	2.07						
63	ok	1.05						
101	ok	1.32						
102	ok	1.32						
103	ok	2.05						
104	ok	1.12						
105	ok	0.88						
117	ok	2.07						
124	ok	1.08						
125	ok	1.08						
126	ok	1.10						
127	ok	1.05						
128	ok	0.98						
129	ok	0.86						

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
130	ok	0.88						
131	ok	1.96						
132	ok	0.89						
133	ok	0.88						
134	ok	0.93						
135	ok	0.98						
136	ok	0.94						
137	ok	1.01						
138	ok	0.98						
175	ok	1.88						
197	ok	1.11						
198	ok	1.11						
199	ok	0.91						
200	ok	0.88						
201	ok	1.96						
202	ok	0.89						
203	ok	0.91						
204	ok	0.94						
205	ok	0.89						
227	ok	1.88						
240	ok	1.20						
241	ok	1.23						
242	ok	1.23						
243	ok	0.98						
244	ok	1.01						
245	ok	1.05						
246	ok	0.96						
247	ok	0.91						
248	ok	0.91						
249	ok	1.32						
250	ok	2.05						
251	ok	1.12						
252	ok	1.32						
253	ok	1.11						
254	ok	1.10						
255	ok	1.11						
256	ok	1.05						
257	ok	1.23						
258	ok	1.08						
259	ok	1.05						
260	ok	1.08						
261	ok	1.23						
262	ok	2.07						
263	ok	1.20						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		2.07						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
2	35.00	4	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									kN/ m	kN/ m	kN/ m	kN	kN	kN
5	ok	0.11	0.2	3.06e-02	10.1	10.1	7.5	7.5	-169.6	-19.5	-36.6	26.4	1.8	2.7
6	ok	0.11	0.2	3.06e-02	10.1	10.1	7.5	7.5	-169.6	-19.5	36.6	26.4	1.8	-2.7
7	ok	0.11	4.85e-02	6.24e-03	10.1	10.1	7.5	7.5	-20.4	-8.9	-17.5	5.4	0.6	-0.9
8	ok	0.11	4.85e-02	6.24e-03	10.1	10.1	7.5	7.5	-20.4	-8.9	17.5	5.4	0.6	0.9
16	ok	0.11	8.51e-02	1.79e-02	10.1	10.1	7.5	7.5	-97.9	-2.1	-3.6	8.7	0.3	-1.6
17	ok	0.11	8.21e-02	1.89e-02	10.1	10.1	7.5	7.5	-97.4	-0.8	-1.8	9.0	1.0	9.42e-04
18	ok	0.11	3.80e-02	1.58e-02	10.1	10.1	7.5	7.5	-83.5	-12.3	8.9	3.3	0.5	8.68e-02
19	ok	0.11	0.1	2.14e-02	10.1	10.1	7.5	7.5	-105.8	-6.3	29.7	13.6	2.6	0.3
20	ok	0.11	8.51e-02	1.79e-02	10.1	10.1	7.5	7.5	-97.9	-2.1	3.6	8.7	0.3	1.6
36	ok	0.11	6.48e-02	1.51e-02	10.1	10.1	7.5	7.5	-78.4	0.8	1.1	6.8	-2.04e-02	-0.4
37	ok	0.11	6.33e-02	1.79e-02	10.1	10.1	7.5	7.5	-92.9	1.7	-1.7	6.5	0.5	-0.4
38	ok	0.11	4.11e-02	1.65e-02	10.1	10.1	7.5	7.5	-88.3	-15.5	-3.2	3.6	0.5	-0.4
39	ok	0.11	8.32e-02	1.88e-02	10.1	10.1	7.5	7.5	-90.6	8.72e-02	-15.2	7.4	1.0	-2.1
40	ok	0.11	6.17e-02	1.76e-02	10.1	10.1	7.5	7.5	-90.9	-3.3	-1.6	6.3	0.7	1.20e-03
64	ok	0.11	0.1	2.03e-02	10.1	10.1	7.5	7.5	-128.4	-5.9	-7.0	17.0	1.0	0.3

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
65	ok	0.11	0.1	1.98e-02	10.1	10.1	7.5	7.5	-87.9	-6.8	-17.1	12.7	2.3	0.6
66	ok	0.11	0.1	2.13e-02	10.1	10.1	7.5	7.5	-104.4	-4.3	0.6	17.5	3.5	3.4
67	ok	0.11	0.1	1.96e-02	10.1	10.1	7.5	7.5	-104.8	-4.3	2.8	11.4	1.6	7.12e-03
68	ok	0.11	6.33e-02	1.79e-02	10.1	10.1	7.5	7.5	-92.9	1.7	1.7	6.5	0.5	0.4
69	ok	0.11	4.11e-02	1.65e-02	10.1	10.1	7.5	7.5	-88.3	-15.5	3.2	3.6	0.5	0.4
70	ok	0.11	8.32e-02	1.88e-02	10.1	10.1	7.5	7.5	-90.6	8.72e-02	15.2	7.4	1.0	2.1
71	ok	0.11	6.48e-02	1.51e-02	10.1	10.1	7.5	7.5	-78.4	0.8	-1.1	6.8	-2.04e-02	0.4
72	ok	0.11	0.1	1.98e-02	10.1	10.1	7.5	7.5	-105.2	-3.2	20.5	12.6	2.1	-0.6
73	ok	0.11	0.1	2.13e-02	10.1	10.1	7.5	7.5	-104.4	-4.3	-0.6	17.5	3.5	-3.4
74	ok	0.11	0.1	2.03e-02	10.1	10.1	7.5	7.5	-128.4	-5.9	7.0	17.0	1.0	-0.3
106	ok	0.11	5.88e-02	1.20e-02	10.1	10.1	7.5	7.5	-58.7	10.5	-6.2	6.3	-0.2	-0.7
107	ok	0.11	5.83e-02	1.83e-02	10.1	10.1	7.5	7.5	-91.5	19.3	-7.8	5.4	0.5	-1.5
108	ok	0.11	5.26e-02	2.79e-02	10.1	10.1	7.5	7.5	-146.8	-32.8	16.2	4.2	1.1	-0.7
109	ok	0.11	6.52e-02	1.71e-02	10.1	10.1	7.5	7.5	-90.9	1.0	-5.3	6.7	0.3	-0.8
110	ok	0.11	5.32e-02	1.76e-02	10.1	10.1	7.5	7.5	-89.5	-5.2	4.4	5.1	0.6	-0.7
139	ok	0.11	9.91e-02	1.90e-02	10.1	10.1	7.5	7.5	-111.8	-3.1	-4.7	11.8	0.5	-1.0
140	ok	0.11	9.82e-02	1.93e-02	10.1	10.1	7.5	7.5	-98.4	-3.6	-14.2	11.2	1.4	-1.3
141	ok	0.11	8.47e-02	1.84e-02	10.1	10.1	7.5	7.5	-89.5	-2.1	-12.2	8.3	0.9	-1.9
142	ok	0.11	0.1	2.04e-02	10.1	10.1	7.5	7.5	-106.8	-6.1	-16.5	15.4	2.2	0.6
143	ok	0.11	9.60e-02	1.93e-02	10.1	10.1	7.5	7.5	-84.7	-3.9	-17.7	9.6	1.6	-1.3
144	ok	0.11	5.02e-02	1.67e-02	10.1	10.1	7.5	7.5	-85.6	-7.6	0.9	4.8	0.6	3.09e-02
145	ok	0.11	5.09e-02	1.68e-02	10.1	10.1	7.5	7.5	-86.3	-7.3	-1.5	4.9	0.6	0.4
146	ok	0.11	3.86e-02	1.60e-02	10.1	10.1	7.5	7.5	-83.9	-12.8	6.8	3.4	0.5	0.2
147	ok	0.11	6.21e-02	1.78e-02	10.1	10.1	7.5	7.5	-91.4	-2.4	-2.5	6.4	0.6	0.2
148	ok	0.11	5.32e-02	1.76e-02	10.1	10.1	7.5	7.5	-89.5	-5.2	-4.4	5.1	0.6	0.7
149	ok	0.11	9.46e-02	1.92e-02	10.1	10.1	7.5	7.5	-103.0	-2.7	-1.9	10.2	1.3	3.37e-04
150	ok	0.11	9.50e-02	1.93e-02	10.1	10.1	7.5	7.5	-99.5	-1.8	3.5	10.3	1.2	-7.13e-02
151	ok	0.11	8.24e-02	1.89e-02	10.1	10.1	7.5	7.5	-97.3	-0.5	-0.6	9.0	0.9	2.00e-02
152	ok	0.11	0.1	1.96e-02	10.1	10.1	7.5	7.5	-104.9	-4.4	-1.0	11.5	1.6	-0.2
153	ok	0.11	9.60e-02	1.93e-02	10.1	10.1	7.5	7.5	-98.6	-0.9	17.3	9.6	1.5	1.3
206	ok	0.11	7.48e-02	1.67e-02	10.1	10.1	7.5	7.5	-89.5	-0.4	1.6	8.1	-2.00e-02	-0.2
207	ok	0.11	7.46e-02	1.76e-02	10.1	10.1	7.5	7.5	-94.0	8.31e-02	-4.1	8.0	0.3	-0.5
208	ok	0.11	7.32e-02	1.82e-02	10.1	10.1	7.5	7.5	-97.6	5.29e-03	-3.4	7.8	0.6	-0.2
209	ok	0.11	5.09e-02	1.68e-02	10.1	10.1	7.5	7.5	-86.3	-7.3	1.5	4.9	0.6	-0.4
210	ok	0.11	3.86e-02	1.60e-02	10.1	10.1	7.5	7.5	-83.9	-12.8	-6.8	3.4	0.5	-0.2
211	ok	0.11	6.21e-02	1.78e-02	10.1	10.1	7.5	7.5	-91.4	-2.4	2.5	6.4	0.6	-0.2
212	ok	0.11	7.25e-02	1.84e-02	10.1	10.1	7.5	7.5	-94.9	-0.3	-2.4	7.7	0.7	-9.26e-02
213	ok	0.11	8.24e-02	1.89e-02	10.1	10.1	7.5	7.5	-97.3	-0.5	0.6	9.0	0.9	-2.00e-02
214	ok	0.11	7.22e-02	1.84e-02	10.1	10.1	7.5	7.5	-94.8	-1.0	-1.8	7.7	0.8	9.17e-04
264	ok	0.11	0.1	2.29e-02	10.1	10.1	7.5	7.5	-151.3	-9.8	-8.1	25.4	1.4	1.5
265	ok	0.11	0.1	2.28e-02	10.1	10.1	7.5	7.5	-109.4	-12.7	-11.2	21.4	3.4	2.4
266	ok	0.11	0.2	2.23e-02	10.1	10.1	7.5	7.5	-107.2	-10.2	-36.7	22.7	4.0	3.5
267	ok	0.11	0.1	2.04e-02	10.1	10.1	7.5	7.5	-106.4	-8.7	-26.6	16.2	3.0	1.8
268	ok	0.11	9.50e-02	1.93e-02	10.1	10.1	7.5	7.5	-99.5	-1.8	-3.5	10.3	1.2	7.13e-02
269	ok	0.11	0.1	1.96e-02	10.1	10.1	7.5	7.5	-104.9	-4.4	1.0	11.5	1.6	0.2
270	ok	0.11	0.1	2.03e-02	10.1	10.1	7.5	7.5	-106.6	-6.0	12.9	12.5	2.1	0.5
271	ok	0.11	0.1	2.14e-02	10.1	10.1	7.5	7.5	-105.0	-6.1	28.7	13.7	2.6	0.4
272	ok	0.11	0.1	2.03e-02	10.1	10.1	7.5	7.5	-106.9	-5.6	14.2	12.5	2.2	0.1
273	ok	0.11	7.25e-02	1.84e-02	10.1	10.1	7.5	7.5	-94.9	-0.3	2.4	7.7	0.7	9.26e-02
274	ok	0.11	7.32e-02	1.82e-02	10.1	10.1	7.5	7.5	-97.6	5.29e-03	3.4	7.8	0.6	0.2
275	ok	0.11	5.83e-02	1.83e-02	10.1	10.1	7.5	7.5	-91.5	19.3	7.8	5.4	0.5	1.5
276	ok	0.11	5.26e-02	2.79e-02	10.1	10.1	7.5	7.5	-146.8	-32.8	-16.2	4.2	1.1	0.7
277	ok	0.11	6.52e-02	1.71e-02	10.1	10.1	7.5	7.5	-90.9	1.0	5.3	6.7	0.3	0.8
278	ok	0.11	5.88e-02	1.20e-02	10.1	10.1	7.5	7.5	-58.7	10.5	6.2	6.3	-0.2	0.7
279	ok	0.11	7.46e-02	1.76e-02	10.1	10.1	7.5	7.5	-94.0	8.31e-02	4.1	8.0	0.3	0.5
280	ok	0.11	8.47e-02	1.84e-02	10.1	10.1	7.5	7.5	-89.5	-2.1	12.2	8.3	0.9	1.9
281	ok	0.11	7.48e-02	1.67e-02	10.1	10.1	7.5	7.5	-89.5	-0.4	-1.6	8.1	-2.00e-02	0.2
282	ok	0.11	0.1	2.03e-02	10.1	10.1	7.5	7.5	-106.6	-6.0	-12.9	12.5	2.1	-0.5
283	ok	0.11	0.1	2.14e-02	10.1	10.1	7.5	7.5	-105.0	-6.1	-28.7	13.7	2.6	-0.4
284	ok	0.11	0.1	2.04e-02	10.1	10.1	7.5	7.5	-106.4	-8.7	26.6	16.2	3.0	-1.8
285	ok	0.11	9.82e-02	1.93e-02	10.1	10.1	7.5	7.5	-98.4	-3.6	14.2	11.2	1.4	1.3
286	ok	0.11	0.1	2.04e-02	10.1	10.1	7.5	7.5	-106.8	-6.1	16.5	15.4	2.2	-0.6
287	ok	0.11	9.91e-02	1.90e-02	10.1	10.1	7.5	7.5	-111.8	-3.1	4.7	11.8	0.5	1.0
288	ok	0.11	0.1	2.28e-02	10.1	10.1	7.5	7.5	-109.4	-12.7	11.2	21.4	3.4	-2.4
289	ok	0.11	0.2	2.23e-02	10.1	10.1	7.5	7.5	-107.2	-10.2	36.7	22.7	4.0	-3.5
290	ok	0.11	0.1	2.29e-02	10.1	10.1	7.5	7.5	-151.3	-9.8	8.1	25.4	1.4	-1.5
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
		0.11	0.16	0.03	10.05	10.05	7.54	7.54	-169.64	-32.84	-36.70	3.32	-0.21	-3.45
									-20.36	19.34	36.70	26.36	4.03	3.45

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
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Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		N/mm2					kN/ m	kN/ m
5	ok	1.20						
6	ok	1.20						
7	ok	0.58						
8	ok	0.58						
16	ok	0.50						
17	ok	0.28						
18	ok	0.56						
19	ok	0.84						
20	ok	0.50						
36	ok	0.47						
37	ok	0.24						
38	ok	0.58						
39	ok	0.30						
40	ok	0.23						
64	ok	0.58						
65	ok	0.48						
66	ok	1.06						
67	ok	0.34						
68	ok	0.24						
69	ok	0.58						
70	ok	0.30						
71	ok	0.47						
72	ok	0.48						
73	ok	1.06						
74	ok	0.58						
106	ok	0.45						
107	ok	0.45						
108	ok	0.58						
109	ok	0.47						
110	ok	0.22						
139	ok	0.51						
140	ok	0.51						
141	ok	0.50						
142	ok	0.58						
143	ok	0.34						
144	ok	0.21						
145	ok	0.22						
146	ok	0.58						
147	ok	0.24						
148	ok	0.22						
149	ok	0.31						
150	ok	0.34						
151	ok	0.30						
152	ok	0.40						
153	ok	0.34						
206	ok	0.49						
207	ok	0.49						
208	ok	0.26						
209	ok	0.22						
210	ok	0.58						
211	ok	0.24						
212	ok	0.26						
213	ok	0.30						
214	ok	0.25						
264	ok	0.60						
265	ok	0.76						
266	ok	1.20						
267	ok	0.76						
268	ok	0.34						
269	ok	0.40						
270	ok	0.59						
271	ok	0.89						
272	ok	0.56						
273	ok	0.26						
274	ok	0.26						
275	ok	0.45						
276	ok	0.58						
277	ok	0.47						
278	ok	0.45						
279	ok	0.49						
280	ok	0.50						
281	ok	0.49						
282	ok	0.59						

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
283	ok	0.89						
284	ok	0.76						
285	ok	0.51						
286	ok	0.58						
287	ok	0.51						
288	ok	0.76						
289	ok	1.20						
290	ok	0.60						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		1.20						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
3	14.00	4	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									kN/ m	kN/ m	kN/ m	kN	kN	kN
3	ok	0.33	0.6	7.40e-03	10.1	10.1	10.1	10.1	1.9	45.5	10.5	0.7	19.4	0.2
4	ok	0.33	0.6	7.40e-03	10.1	10.1	10.1	10.1	1.9	45.5	-10.5	0.7	19.4	-0.2
7	ok	0.33	0.7	9.16e-04	10.1	10.1	10.1	10.1	1.4	41.7	-6.0	1.2	25.7	-0.7
8	ok	0.33	0.7	9.16e-04	10.1	10.1	10.1	10.1	1.4	41.7	6.0	1.2	25.7	0.7
13	ok	0.33	0.5	5.60e-03	10.1	10.1	10.1	10.1	3.3	4.6	-0.5	3.7	18.3	-2.62e-02
18	ok	0.33	0.7	0.0	10.1	10.1	10.1	10.1	6.6	22.8	-6.84e-02	5.2	26.0	-2.48e-02
21	ok	0.33	0.4	3.12e-03	10.1	10.1	10.1	10.1	0.3	15.6	1.2	0.3	-14.1	0.3
22	ok	0.33	0.4	2.55e-03	10.1	10.1	10.1	10.1	1.2	16.4	1.2	-2.1	-13.4	9.09e-04
23	ok	0.33	0.4	3.12e-03	10.1	10.1	10.1	10.1	0.3	15.6	-1.2	0.3	-14.1	-0.3
33	ok	0.33	0.5	7.35e-03	10.1	10.1	10.1	10.1	-0.4	-0.8	1.0	3.8	18.8	-9.34e-02
38	ok	0.33	0.7	4.56e-04	10.1	10.1	10.1	10.1	5.3	22.6	-3.1	5.4	26.5	0.1
41	ok	0.33	0.2	7.07e-03	10.1	10.1	10.1	10.1	-0.5	10.2	1.3	0.3	-6.6	-1.3
42	ok	0.33	0.2	5.18e-03	10.1	10.1	10.1	10.1	1.8	7.0	2.8	-0.6	-6.4	-0.3
43	ok	0.33	0.4	2.90e-03	10.1	10.1	10.1	10.1	0.2	13.7	-0.7	-1.7	-13.5	3.45e-02
44	ok	0.33	0.2	4.76e-03	10.1	10.1	10.1	10.1	1.4	6.9	1.3	-0.9	-6.3	-1.09e-02
58	ok	0.33	0.5	7.35e-03	10.1	10.1	10.1	10.1	-0.4	-0.8	-1.0	3.8	18.8	9.34e-02
69	ok	0.33	0.7	4.56e-04	10.1	10.1	10.1	10.1	5.3	22.6	3.1	5.4	26.5	-0.1
75	ok	0.33	0.1	1.26e-03	10.1	10.1	10.1	10.1	0.6	7.5	1.1	-0.1	-3.8	0.6
76	ok	0.33	0.1	9.56e-04	10.1	10.1	10.1	10.1	1.1	3.5	1.9	-0.5	-3.6	-6.76e-02
77	ok	0.33	0.1	6.20e-04	10.1	10.1	10.1	10.1	1.7	3.7	0.2	-0.5	-3.4	-0.2
78	ok	0.33	0.2	5.18e-03	10.1	10.1	10.1	10.1	1.8	7.0	-2.8	-0.6	-6.4	0.3
79	ok	0.33	0.4	2.90e-03	10.1	10.1	10.1	10.1	0.2	13.7	0.7	-1.7	-13.5	-3.45e-02
80	ok	0.33	0.2	7.07e-03	10.1	10.1	10.1	10.1	-0.5	10.2	-1.3	0.3	-6.6	1.3
81	ok	0.33	0.1	9.56e-04	10.1	10.1	10.1	10.1	1.1	3.5	-1.9	-0.5	-3.6	6.76e-02
82	ok	0.33	0.1	1.26e-03	10.1	10.1	10.1	10.1	0.6	7.5	-1.1	-0.1	-3.8	-0.6
103	ok	0.33	0.5	1.22e-02	10.1	10.1	10.1	10.1	-5.7	-14.5	3.3	4.4	19.6	-0.3
108	ok	0.33	0.8	1.11e-03	10.1	10.1	10.1	10.1	-1.7	16.1	-2.7	6.0	27.4	0.3
111	ok	0.33	0.2	1.21e-02	10.1	10.1	10.1	10.1	-0.5	-14.7	0.7	0.4	5.7	-0.5
112	ok	0.33	0.2	6.78e-03	10.1	10.1	10.1	10.1	-0.5	-18.4	2.78e-02	1.1	5.4	-0.3
113	ok	0.33	0.2	5.88e-03	10.1	10.1	10.1	10.1	1.1	12.1	1.1	-0.3	-6.4	-1.0
114	ok	0.33	0.1	6.91e-03	10.1	10.1	10.1	10.1	-0.8	-16.9	0.1	1.2	5.2	-0.2
131	ok	0.33	0.5	5.83e-03	10.1	10.1	10.1	10.1	2.6	3.5	0.4	3.7	18.4	6.41e-02
146	ok	0.33	0.7	2.58e-06	10.1	10.1	10.1	10.1	6.3	22.9	1.3	5.2	26.1	-7.70e-02
154	ok	0.33	0.3	2.13e-03	10.1	10.1	10.1	10.1	0.3	17.8	1.2	0.3	-10.7	1.0
155	ok	0.33	0.3	2.27e-03	10.1	10.1	10.1	10.1	-0.1	16.2	-1.1	-0.7	-10.5	0.8
156	ok	0.33	0.4	3.39e-03	10.1	10.1	10.1	10.1	-0.1	13.5	-0.7	-1.0	-13.7	0.2
157	ok	0.33	0.1	1.14e-03	10.1	10.1	10.1	10.1	0.8	6.5	0.8	-0.4	-3.6	0.4
158	ok	0.33	0.3	1.98e-03	10.1	10.1	10.1	10.1	0.9	19.3	-1.1	-1.2	-10.3	0.2
159	ok	0.33	0.1	5.73e-03	10.1	10.1	10.1	10.1	-1.0	-13.8	-3.8	1.1	4.9	-0.2
160	ok	0.33	0.1	6.01e-03	10.1	10.1	10.1	10.1	-0.8	-13.9	4.1	1.1	5.0	0.3
161	ok	0.33	0.2	4.85e-03	10.1	10.1	10.1	10.1	1.6	6.8	-1.7	-0.8	-6.3	0.2
162	ok	0.33	0.1	6.91e-03	10.1	10.1	10.1	10.1	-0.8	-16.9	-0.1	1.2	5.2	0.2
163	ok	0.33	0.3	1.49e-03	10.1	10.1	10.1	10.1	1.4	19.3	1.2	-1.5	-10.2	3.69e-03
164	ok	0.33	0.3	1.80e-03	10.1	10.1	10.1	10.1	1.2	19.3	-1.2	-1.5	-10.2	-8.49e-02
165	ok	0.33	0.4	2.81e-03	10.1	10.1	10.1	10.1	1.1	16.4	0.9	-2.0	-13.4	-6.79e-03
166	ok	0.33	0.1	7.97e-04	10.1	10.1	10.1	10.1	1.4	3.3	-5.82e-02	-0.5	-3.5	0.2
167	ok	0.33	0.3	1.98e-03	10.1	10.1	10.1	10.1	0.9	19.3	1.1	-1.2	-10.3	-0.2
201	ok	0.33	0.5	5.83e-03	10.1	10.1	10.1	10.1	2.6	3.5	-0.4	3.7	18.4	-6.41e-02
210	ok	0.33	0.7	2.58e-06	10.1	10.1	10.1	10.1	6.3	22.9	-1.3	5.2	26.1	7.70e-02
215	ok	0.33	0.4	3.53e-03	10.1	10.1	10.1	10.1	-0.4	10.9	1.2	0.3	-12.7	-0.8
216	ok	0.33	0.3	4.57e-03	10.1	10.1	10.1	10.1	0.6	14.0	-0.2	-0.8	-12.4	-0.6

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
217	ok	0.33	0.3	4.03e-03	10.1	10.1	10.1	10.1	0.7	10.8	-0.1	-1.5	-12.2	-0.2
218	ok	0.33	0.1	6.01e-03	10.1	10.1	10.1	10.1	-1.1	-14.9	-1.9	1.1	5.1	-0.1
219	ok	0.33	0.2	4.85e-03	10.1	10.1	10.1	10.1	1.6	6.8	1.7	-0.8	-6.3	-0.2
220	ok	0.33	0.3	3.85e-03	10.1	10.1	10.1	10.1	1.0	10.4	1.7	-1.8	-12.1	-7.94e-02
221	ok	0.33	0.4	2.81e-03	10.1	10.1	10.1	10.1	1.1	16.4	-0.9	-2.0	-13.4	6.79e-03
222	ok	0.33	0.3	3.65e-03	10.1	10.1	10.1	10.1	1.0	10.3	1.2	-1.9	-12.1	-3.02e-03
250	ok	0.33	0.5	1.22e-02	10.1	10.1	10.1	10.1	-5.7	-14.5	-3.3	4.4	19.6	0.3
276	ok	0.33	0.8	1.11e-03	10.1	10.1	10.1	10.1	-1.7	16.1	2.7	6.0	27.4	-0.3
291	ok	0.33	0.3	5.22e-04	10.1	10.1	10.1	10.1	7.37e-02	25.5	1.7	-6.54e-02	10.8	1.2
292	ok	0.33	0.3	5.36e-04	10.1	10.1	10.1	10.1	1.0	22.4	-3.7	1.6	9.8	0.7
293	ok	0.33	0.3	2.02e-04	10.1	10.1	10.1	10.1	3.0	24.5	-3.0	2.2	9.6	0.4
294	ok	0.33	0.3	1.80e-03	10.1	10.1	10.1	10.1	1.2	19.3	1.2	-1.5	-10.2	8.49e-02
295	ok	0.33	0.1	7.97e-04	10.1	10.1	10.1	10.1	1.4	3.3	5.82e-02	-0.5	-3.5	-0.2
296	ok	0.33	0.3	9.29e-05	10.1	10.1	10.1	10.1	3.8	24.2	-2.5	2.1	9.6	0.2
297	ok	0.33	0.3	0.0	10.1	10.1	10.1	10.1	4.1	24.1	-1.7	2.1	9.5	-8.55e-03
298	ok	0.33	0.3	3.85e-03	10.1	10.1	10.1	10.1	1.0	10.4	-1.7	-1.8	-12.1	7.94e-02
299	ok	0.33	0.3	4.03e-03	10.1	10.1	10.1	10.1	0.7	10.8	0.1	-1.5	-12.2	0.2
300	ok	0.33	0.2	6.78e-03	10.1	10.1	10.1	10.1	-0.5	-18.4	-2.78e-02	1.1	5.4	0.3
301	ok	0.33	0.2	5.88e-03	10.1	10.1	10.1	10.1	1.1	12.1	-1.1	-0.3	-6.4	1.0
302	ok	0.33	0.2	1.21e-02	10.1	10.1	10.1	10.1	-0.5	-14.7	-0.7	0.4	5.7	0.5
303	ok	0.33	0.3	4.57e-03	10.1	10.1	10.1	10.1	0.6	14.0	0.2	-0.8	-12.4	0.6
304	ok	0.33	0.4	3.39e-03	10.1	10.1	10.1	10.1	-0.1	13.5	0.7	-1.0	-13.7	-0.2
305	ok	0.33	0.4	3.53e-03	10.1	10.1	10.1	10.1	-0.4	10.9	-1.2	0.3	-12.7	0.8
306	ok	0.33	0.3	9.29e-05	10.1	10.1	10.1	10.1	3.8	24.2	2.5	2.1	9.6	-0.2
307	ok	0.33	0.3	2.02e-04	10.1	10.1	10.1	10.1	3.0	24.5	3.0	2.2	9.6	-0.4
308	ok	0.33	0.3	2.27e-03	10.1	10.1	10.1	10.1	-0.1	16.2	1.1	-0.7	-10.5	-0.8
309	ok	0.33	0.1	1.14e-03	10.1	10.1	10.1	10.1	0.8	6.5	-0.8	-0.4	-3.6	-0.4
310	ok	0.33	0.3	2.13e-03	10.1	10.1	10.1	10.1	0.3	17.8	-1.2	0.3	-10.7	-1.0
311	ok	0.33	0.3	5.36e-04	10.1	10.1	10.1	10.1	1.0	22.4	3.7	1.6	9.8	-0.7
312	ok	0.33	0.3	5.22e-04	10.1	10.1	10.1	10.1	7.37e-02	25.5	-1.7	-6.54e-02	10.8	-1.2
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
		0.33	0.76	0.01	10.05	10.05	10.05	10.05	6.56	45.53	10.49	6.02	27.41	1.33

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		N/mm2					kN/ m	kN/ m
3	ok	3.47						
4	ok	3.47						
7	ok	4.02						
8	ok	4.02						
13	ok	3.41						
18	ok	3.89						
21	ok	0.87						
22	ok	0.75						
23	ok	0.87						
33	ok	3.51						
38	ok	4.09						
41	ok	2.12						
42	ok	2.40						
43	ok	0.74						
44	ok	2.40						
58	ok	3.51						
69	ok	4.09						
75	ok	2.53						
76	ok	2.87						
77	ok	2.87						
78	ok	2.40						
79	ok	0.74						
80	ok	2.12						
81	ok	2.87						
82	ok	2.53						
103	ok	3.51						
108	ok	4.09						
111	ok	3.47						
112	ok	3.51						
113	ok	2.36						
114	ok	3.51						
131	ok	3.43						
146	ok	3.94						
154	ok	1.53						
155	ok	1.74						

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
156	ok	0.91						
157	ok	2.82						
158	ok	1.79						
159	ok	3.41						
160	ok	3.43						
161	ok	2.40						
162	ok	3.51						
163	ok	1.80						
164	ok	1.80						
165	ok	0.75						
166	ok	2.87						
167	ok	1.79						
201	ok	3.43						
210	ok	3.94						
215	ok	1.69						
216	ok	1.31						
217	ok	1.34						
218	ok	3.43						
219	ok	2.40						
220	ok	1.35						
221	ok	0.75						
222	ok	1.35						
250	ok	3.51						
276	ok	4.09						
291	ok	4.02						
292	ok	4.09						
293	ok	4.09						
294	ok	1.80						
295	ok	2.87						
296	ok	3.94						
297	ok	3.89						
298	ok	1.35						
299	ok	1.34						
300	ok	3.51						
301	ok	2.36						
302	ok	3.47						
303	ok	1.31						
304	ok	0.91						
305	ok	1.69						
306	ok	3.94						
307	ok	4.09						
308	ok	1.74						
309	ok	2.82						
310	ok	1.53						
311	ok	4.09						
312	ok	4.02						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.09						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
4	30.00	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
									kN/ m	kN/ m	kN/ m	kN	kN	kN
1	ok	0.13	0.5	3.04e-03	10.1	10.1	10.1	10.1	-11.3	12.8	8.7	-1.9	-44.0	-1.9
2	ok	0.13	0.5	3.04e-03	10.1	10.1	10.1	10.1	-5.1	56.1	-16.8	-0.1	-42.1	0.3
5	ok	0.13	0.3	1.75e-03	10.1	10.1	10.1	10.1	17.4	24.4	-31.1	-1.3	-25.3	-4.7
6	ok	0.13	0.3	1.75e-03	10.1	10.1	10.1	10.1	17.4	24.4	31.1	-1.3	-25.3	4.7
14	ok	0.13	0.5	4.75e-03	10.1	10.1	10.1	10.1	-2.3	-21.9	0.3	-9.5	-46.5	5.29e-02
19	ok	0.13	0.2	2.29e-03	10.1	10.1	10.1	10.1	4.2	-9.9	-4.9	-4.5	-21.6	-2.2
24	ok	0.13	0.3	4.72e-03	10.1	10.1	10.1	10.1	-0.9	-18.1	3.6	1.0	31.7	-1.7
25	ok	0.13	0.3	2.98e-03	10.1	10.1	10.1	10.1	2.2	-13.9	-1.0	4.1	27.5	-1.83e-02
26	ok	0.13	0.3	4.72e-03	10.1	10.1	10.1	10.1	-0.9	-18.1	-3.6	1.0	31.7	1.7
45	ok	0.13	0.2	3.83e-03	10.1	10.1	10.1	10.1	0.3	-15.0	0.2	-1.6	-21.9	0.9
46	ok	0.13	0.2	4.68e-03	10.1	10.1	10.1	10.1	0.5	-25.6	-1.9	-4.3	-19.4	-0.6
47	ok	0.13	0.5	6.33e-03	10.1	10.1	10.1	10.1	-9.6	-29.8	-0.6	-9.5	-47.2	0.3
48	ok	0.13	0.3	2.95e-03	10.1	10.1	10.1	10.1	-0.3	-8.0	7.5	4.6	26.7	-2.7

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
49	ok	0.13	0.2	4.44e-03	10.1	10.1	10.1	10.1	-0.7	-24.4	1.8	-4.1	-17.6	1.2
62	ok	0.13	0.5	6.33e-03	10.1	10.1	10.1	10.1	-9.6	-29.8	0.6	-9.5	-47.2	-0.3
66	ok	0.13	0.2	3.68e-03	10.1	10.1	10.1	10.1	1.8	-16.5	-5.2	-5.1	-24.2	-2.6
73	ok	0.13	0.2	3.68e-03	10.1	10.1	10.1	10.1	2.7	-15.7	3.4	-5.2	-24.2	2.4
83	ok	0.13	0.3	5.53e-03	10.1	10.1	10.1	10.1	-0.8	-11.4	1.5	-1.0	34.9	-1.8
84	ok	0.13	0.3	3.10e-03	10.1	10.1	10.1	10.1	3.0	-8.3	-1.5	4.3	33.7	-0.8
85	ok	0.13	0.3	1.77e-03	10.1	10.1	10.1	10.1	5.2	-6.1	1.1	5.7	33.5	-3.03e-02
86	ok	0.13	0.2	4.68e-03	10.1	10.1	10.1	10.1	0.5	-25.6	1.9	-4.3	-19.4	0.6
87	ok	0.13	0.3	2.95e-03	10.1	10.1	10.1	10.1	-0.3	-8.0	-7.5	4.6	26.7	2.7
88	ok	0.13	0.2	3.83e-03	10.1	10.1	10.1	10.1	0.3	-15.0	-0.2	-1.6	-21.9	-0.9
89	ok	0.13	0.3	3.10e-03	10.1	10.1	10.1	10.1	3.0	-8.3	1.5	4.3	33.7	0.8
90	ok	0.13	0.3	5.53e-03	10.1	10.1	10.1	10.1	-0.8	-11.4	-1.5	-1.0	34.9	1.8
115	ok	0.13	0.4	6.29e-03	10.1	10.1	10.1	10.1	1.8	-4.8	4.2	-1.0	-33.9	-0.4
116	ok	0.13	0.3	5.89e-03	10.1	10.1	10.1	10.1	1.5	-26.4	3.3	-4.7	-32.8	-0.8
117	ok	0.13	0.5	1.27e-02	10.1	10.1	10.1	10.1	-20.2	-39.2	-5.2	-7.8	-46.4	-1.6
118	ok	0.13	0.2	4.28e-03	10.1	10.1	10.1	10.1	0.9	-23.6	2.1	-3.4	-20.7	0.1
119	ok	0.13	0.3	5.86e-03	10.1	10.1	10.1	10.1	-2.7	-27.9	-3.5	-6.5	-31.6	-1.0
168	ok	0.13	0.4	5.54e-03	10.1	10.1	10.1	10.1	-0.3	-14.0	1.2	-1.0	36.7	0.7
169	ok	0.13	0.4	3.24e-03	10.1	10.1	10.1	10.1	-1.7	-15.1	3.6	3.6	31.4	-5.4
170	ok	0.13	0.3	3.14e-03	10.1	10.1	10.1	10.1	-1.2	-11.1	6.6	3.8	30.0	-2.5
171	ok	0.13	0.3	3.79e-03	10.1	10.1	10.1	10.1	0.6	-8.7	-1.4	2.0	34.6	-2.0
172	ok	0.13	0.4	2.37e-03	10.1	10.1	10.1	10.1	1.4	-10.5	8.79e-02	4.4	35.6	-0.2
173	ok	0.13	0.3	4.80e-03	10.1	10.1	10.1	10.1	-4.1	-24.8	1.8	-6.4	-29.8	1.6
174	ok	0.13	0.3	5.12e-03	10.1	10.1	10.1	10.1	-3.6	-25.8	4.6	-6.5	-30.8	1.3
175	ok	0.13	0.5	5.01e-03	10.1	10.1	10.1	10.1	-3.7	-23.4	0.4	-9.6	-46.8	-9.71e-02
176	ok	0.13	0.2	4.56e-03	10.1	10.1	10.1	10.1	-0.3	-24.5	3.1	-4.2	-18.1	1.0
177	ok	0.13	0.3	5.86e-03	10.1	10.1	10.1	10.1	-2.7	-27.9	3.5	-6.5	-31.6	1.0
178	ok	0.13	0.4	2.29e-03	10.1	10.1	10.1	10.1	2.8	-10.7	1.0	5.7	35.3	1.63e-02
179	ok	0.13	0.4	2.30e-03	10.1	10.1	10.1	10.1	2.4	-10.6	0.4	5.4	35.4	0.1
180	ok	0.13	0.3	2.99e-03	10.1	10.1	10.1	10.1	2.0	-13.7	-2.3	3.9	27.5	-9.72e-02
181	ok	0.13	0.3	2.26e-03	10.1	10.1	10.1	10.1	4.8	-6.1	-0.9	5.3	33.5	0.4
182	ok	0.13	0.4	2.37e-03	10.1	10.1	10.1	10.1	1.8	-8.3	-5.51e-02	4.4	35.6	0.2
223	ok	0.13	0.3	3.41e-03	10.1	10.1	10.1	10.1	-0.6	-2.2	0.8	1.1	27.6	0.4
224	ok	0.13	0.3	3.30e-03	10.1	10.1	10.1	10.1	4.62e-02	1.0	2.7	3.0	26.8	0.7
225	ok	0.13	0.3	3.72e-03	10.1	10.1	10.1	10.1	1.1	2.5	3.2	3.8	25.3	0.4
226	ok	0.13	0.3	5.12e-03	10.1	10.1	10.1	10.1	-3.6	-25.8	-4.5	-6.5	-30.8	-1.3
227	ok	0.13	0.5	5.01e-03	10.1	10.1	10.1	10.1	-3.7	-23.4	-0.4	-9.6	-46.8	9.71e-02
228	ok	0.13	0.2	4.56e-03	10.1	10.1	10.1	10.1	-0.3	-24.5	-3.1	-4.2	-18.1	-1.0
229	ok	0.13	0.3	3.77e-03	10.1	10.1	10.1	10.1	1.4	2.1	2.4	3.7	23.7	0.6
230	ok	0.13	0.3	2.99e-03	10.1	10.1	10.1	10.1	2.0	-13.7	2.3	3.9	27.5	9.72e-02
231	ok	0.13	0.3	3.76e-03	10.1	10.1	10.1	10.1	1.4	2.5	-0.7	3.6	22.9	-0.4
262	ok	0.13	0.5	1.27e-02	10.1	10.1	10.1	10.1	-16.8	-29.8	-1.0	-7.3	-46.4	-0.4
266	ok	0.13	0.3	7.89e-03	10.1	10.1	10.1	10.1	5.4	-29.0	-10.7	-5.4	-24.6	-5.3
271	ok	0.13	0.2	2.77e-03	10.1	10.1	10.1	10.1	3.7	-11.9	-4.9	-4.8	-22.8	-2.3
283	ok	0.13	0.2	2.77e-03	10.1	10.1	10.1	10.1	3.7	-11.9	4.9	-4.8	-22.8	2.3
289	ok	0.13	0.3	7.89e-03	10.1	10.1	10.1	10.1	5.4	-29.0	10.7	-5.4	-24.6	5.3
313	ok	0.13	0.3	4.51e-03	10.1	10.1	10.1	10.1	-9.5	-3.4	11.1	1.0	24.0	2.7
314	ok	0.13	0.3	5.45e-03	10.1	10.1	10.1	10.1	3.7	16.8	8.9	3.0	22.2	4.6
315	ok	0.13	0.2	3.82e-03	10.1	10.1	10.1	10.1	2.0	6.4	10.8	2.9	18.6	5.7
316	ok	0.13	0.4	2.30e-03	10.1	10.1	10.1	10.1	2.4	-10.6	-0.4	5.4	35.4	-0.1
317	ok	0.13	0.3	2.26e-03	10.1	10.1	10.1	10.1	4.8	-6.1	0.9	5.3	33.5	-0.4
318	ok	0.13	0.2	3.07e-03	10.1	10.1	10.1	10.1	6.9	2.4	4.3	3.7	20.7	2.5
319	ok	0.13	0.2	2.57e-03	10.1	10.1	10.1	10.1	7.8	0.9	5.2	3.7	19.6	2.9
320	ok	0.13	0.3	3.77e-03	10.1	10.1	10.1	10.1	1.4	2.1	-2.4	3.7	23.7	-0.6
321	ok	0.13	0.3	3.72e-03	10.1	10.1	10.1	10.1	1.1	2.5	-3.2	3.8	25.3	-0.4
322	ok	0.13	0.3	5.89e-03	10.1	10.1	10.1	10.1	1.5	-26.4	-3.3	-4.7	-32.8	0.8
323	ok	0.13	0.2	4.28e-03	10.1	10.1	10.1	10.1	0.9	-23.6	-2.1	-3.4	-20.7	-0.1
324	ok	0.13	0.4	6.29e-03	10.1	10.1	10.1	10.1	1.8	-4.8	-4.2	-1.0	-33.9	0.4
325	ok	0.13	0.3	3.30e-03	10.1	10.1	10.1	10.1	4.62e-02	1.0	-2.7	3.0	26.8	-0.7
326	ok	0.13	0.3	3.14e-03	10.1	10.1	10.1	10.1	-1.2	-11.1	-6.6	3.8	30.0	2.5
327	ok	0.13	0.3	3.41e-03	10.1	10.1	10.1	10.1	-0.6	-2.2	-0.8	1.1	27.6	-0.4
328	ok	0.13	0.2	3.07e-03	10.1	10.1	10.1	10.1	6.9	2.4	-4.3	3.7	20.7	-2.5
329	ok	0.13	0.2	3.82e-03	10.1	10.1	10.1	10.1	2.0	6.4	-10.8	2.9	18.6	-5.7
330	ok	0.13	0.4	3.24e-03	10.1	10.1	10.1	10.1	-1.7	-15.1	-3.6	3.6	31.4	5.4
331	ok	0.13	0.3	3.79e-03	10.1	10.1	10.1	10.1	0.6	-8.7	1.4	2.0	34.6	2.0
332	ok	0.13	0.4	5.54e-03	10.1	10.1	10.1	10.1	-0.3	-14.0	-1.2	-1.0	36.7	-0.7
333	ok	0.13	0.3	5.45e-03	10.1	10.1	10.1	10.1	3.7	16.8	-8.9	3.0	22.2	-4.6
334	ok	0.13	0.3	4.51e-03	10.1	10.1	10.1	10.1	-9.5	-3.4	-11.1	1.0	24.0	-2.7
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
		0.13	0.50	0.01	10.05	10.05	10.05	10.05	-20.17	-39.20	-31.08	-9.60	-47.24	-5.75
									17.38	56.13	31.08	5.74	36.74	5.75

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		N/mm2					kN/ m	kN/ m
1	ok	2.23						
2	ok	2.23						
5	ok	4.55						
6	ok	4.55						
14	ok	1.96						
19	ok	3.07						
24	ok	1.71						
25	ok	1.46						
26	ok	1.71						
45	ok	1.95						
46	ok	2.00						
47	ok	2.08						
48	ok	1.44						
49	ok	2.01						
62	ok	2.08						
66	ok	3.19						
73	ok	3.19						
83	ok	2.74						
84	ok	1.56						
85	ok	1.50						
86	ok	2.00						
87	ok	1.44						
88	ok	1.95						
89	ok	1.56						
90	ok	2.74						
115	ok	2.23						
116	ok	2.23						
117	ok	2.23						
118	ok	1.95						
119	ok	2.08						
168	ok	1.56						
169	ok	1.56						
170	ok	1.71						
171	ok	2.74						
172	ok	1.04						
173	ok	2.01						
174	ok	2.02						
175	ok	2.02						
176	ok	2.01						
177	ok	2.08						
178	ok	1.02						
179	ok	1.04						
180	ok	1.46						
181	ok	1.52						
182	ok	1.04						
223	ok	1.83						
224	ok	1.83						
225	ok	1.79						
226	ok	2.02						
227	ok	2.02						
228	ok	2.01						
229	ok	1.82						
230	ok	1.46						
231	ok	1.82						
262	ok	2.23						
266	ok	4.55						
271	ok	3.07						
283	ok	3.07						
289	ok	4.55						
313	ok	4.55						
314	ok	4.55						
315	ok	3.19						
316	ok	1.04						
317	ok	1.52						
318	ok	3.07						
319	ok	3.07						
320	ok	1.82						
321	ok	1.79						
322	ok	2.23						
323	ok	1.95						
324	ok	2.23						

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
325	ok	1.83						
326	ok	1.71						
327	ok	1.83						
328	ok	3.07						
329	ok	3.19						
330	ok	1.56						
331	ok	2.74						
332	ok	1.56						
333	ok	4.55						
334	ok	4.55						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.55						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
5	14.00	4	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									kN/ m	kN/ m	kN/ m	kN	kN	kN
7	ok	0.33	0.6	8.01e-03	10.1	10.1	10.1	10.1	-4.7	6.2	-2.0	0.6	20.0	0.4
8	ok	0.33	0.6	8.01e-03	10.1	10.1	10.1	10.1	-4.7	6.2	2.0	0.6	20.0	-0.4
9	ok	0.33	9.32e-03	4.33e-04	10.1	10.1	10.1	10.1	-2.21e-02	-2.25e-03	-6.14e-03	0.2	-4.50e-03	-9.91e-02
10	ok	0.33	9.32e-03	4.33e-04	10.1	10.1	10.1	10.1	-2.21e-02	-2.25e-03	6.14e-03	0.2	-4.50e-03	9.91e-02
18	ok	0.33	0.6	2.69e-03	10.1	10.1	10.1	10.1	2.1	-0.2	-1.0	4.5	22.6	-1.65e-02
27	ok	0.33	0.2	2.26e-03	10.1	10.1	10.1	10.1	-1.88e-02	0.7	0.1	0.2	5.8	-0.4
28	ok	0.33	0.2	1.75e-03	10.1	10.1	10.1	10.1	0.4	0.1	-1.02e-03	1.1	5.6	-1.11e-03
29	ok	0.33	1.06e-02	3.95e-04	10.1	10.1	10.1	10.1	-0.6	3.59e-02	0.4	-0.1	-1.90e-02	-0.2
30	ok	0.33	0.2	2.26e-03	10.1	10.1	10.1	10.1	-1.88e-02	0.7	-0.1	0.2	5.8	0.4
38	ok	0.33	0.6	3.08e-03	10.1	10.1	10.1	10.1	1.0	-0.8	2.1	4.7	22.9	0.1
50	ok	0.33	0.4	5.06e-03	10.1	10.1	10.1	10.1	0.3	3.0	0.9	0.3	12.9	-9.70e-02
51	ok	0.33	0.3	2.24e-03	10.1	10.1	10.1	10.1	0.1	-0.3	-8.08e-02	2.5	12.6	5.45e-02
52	ok	0.33	0.2	2.05e-03	10.1	10.1	10.1	10.1	0.4	-0.3	-5.05e-02	1.0	5.6	0.1
53	ok	0.33	0.3	2.29e-03	10.1	10.1	10.1	10.1	0.9	0.1	-6.12e-03	2.5	12.7	1.05e-03
69	ok	0.33	0.6	3.08e-03	10.1	10.1	10.1	10.1	1.0	-0.8	-2.1	4.7	22.9	-0.1
91	ok	0.33	4.04e-02	8.40e-04	10.1	10.1	10.1	10.1	-1.66e-02	7.38e-02	1.63e-02	0.3	1.4	-0.3
92	ok	0.33	3.93e-02	1.18e-03	10.1	10.1	10.1	10.1	0.3	-6.88e-02	-3.00e-03	9.32e-02	1.4	5.46e-02
93	ok	0.33	1.29e-02	7.61e-04	10.1	10.1	10.1	10.1	-1.0	0.2	-0.2	-0.2	3.30e-03	-0.2
94	ok	0.33	3.79e-02	1.10e-03	10.1	10.1	10.1	10.1	0.2	4.60e-02	4.23e-03	0.2	1.4	1.08e-03
95	ok	0.33	0.3	2.24e-03	10.1	10.1	10.1	10.1	0.1	-0.3	8.08e-02	2.5	12.6	-5.45e-02
96	ok	0.33	0.2	2.05e-03	10.1	10.1	10.1	10.1	0.4	-0.3	5.05e-02	1.0	5.6	-0.1
97	ok	0.33	0.4	5.06e-03	10.1	10.1	10.1	10.1	0.3	3.0	-0.9	0.3	12.9	9.70e-02
98	ok	0.33	3.93e-02	1.18e-03	10.1	10.1	10.1	10.1	0.3	-6.88e-02	3.00e-03	9.32e-02	1.4	-5.46e-02
99	ok	0.33	1.29e-02	7.61e-04	10.1	10.1	10.1	10.1	-1.0	0.2	-0.6	-0.2	3.30e-03	0.2
100	ok	0.33	4.04e-02	8.40e-04	10.1	10.1	10.1	10.1	-1.66e-02	7.38e-02	-1.63e-02	0.3	1.4	0.3
108	ok	0.33	0.6	4.36e-03	10.1	10.1	10.1	10.1	-8.7	-5.1	1.0	5.3	23.6	0.2
120	ok	0.33	0.5	7.02e-03	10.1	10.1	10.1	10.1	1.7	5.6	2.5	0.6	17.4	0.7
121	ok	0.33	0.5	3.65e-03	10.1	10.1	10.1	10.1	-0.7	-3.8	8.92e-02	3.2	17.0	0.5
122	ok	0.33	0.3	3.33e-03	10.1	10.1	10.1	10.1	0.4	-1.1	0.1	2.0	12.5	0.3
123	ok	0.33	0.5	2.82e-03	10.1	10.1	10.1	10.1	-3.65e-02	5.36e-02	0.6	3.5	17.4	2.69e-02
146	ok	0.33	0.6	3.00e-03	10.1	10.1	10.1	10.1	1.9	-0.2	-1.5	4.5	22.7	-5.01e-02
183	ok	0.33	8.93e-02	1.36e-03	10.1	10.1	10.1	10.1	-2.21e-02	0.3	5.58e-02	0.2	3.2	-0.4
184	ok	0.33	8.76e-02	1.79e-03	10.1	10.1	10.1	10.1	0.3	-8.39e-02	0.2	0.3	3.2	3.01e-02
185	ok	0.33	0.2	2.33e-03	10.1	10.1	10.1	10.1	0.4	-0.2	0.3	0.6	5.6	9.14e-02
186	ok	0.33	4.07e-02	1.20e-03	10.1	10.1	10.1	10.1	0.1	3.81e-02	0.2	-1.63e-02	1.4	-7.61e-02
187	ok	0.33	8.61e-02	1.66e-03	10.1	10.1	10.1	10.1	0.4	-0.2	2.17e-03	0.4	3.1	8.59e-02
188	ok	0.33	0.5	2.65e-03	10.1	10.1	10.1	10.1	1.4	-1.05e-02	3.41e-02	3.5	17.3	-4.67e-03
189	ok	0.33	0.5	2.74e-03	10.1	10.1	10.1	10.1	1.1	1.52e-02	-0.5	3.5	17.3	-1.48e-02
190	ok	0.33	0.3	2.35e-03	10.1	10.1	10.1	10.1	0.7	9.14e-02	-0.1	2.5	12.7	-1.25e-02
191	ok	0.33	0.5	2.82e-03	10.1	10.1	10.1	10.1	-3.65e-02	5.36e-02	-0.6	3.5	17.4	-2.69e-02
192	ok	0.33	8.60e-02	1.47e-03	10.1	10.1	10.1	10.1	0.3	8.54e-02	3.58e-03	0.6	3.1	7.71e-04
193	ok	0.33	8.59e-02	1.52e-03	10.1	10.1	10.1	10.1	0.3	1.51e-02	7.88e-02	0.6	3.1	-3.51e-02
194	ok	0.33	0.2	1.79e-03	10.1	10.1	10.1	10.1	0.4	4.33e-02	7.43e-02	1.1	5.6	-3.15e-02
195	ok	0.33	3.87e-02	1.21e-03	10.1	10.1	10.1	10.1	0.2	1.13e-02	5.89e-02	0.2	1.4	-3.10e-02
196	ok	0.33	8.61e-02	1.66e-03	10.1	10.1	10.1	10.1	0.4	-0.2	-2.17e-03	0.4	3.1	-8.59e-02
210	ok	0.33	0.6	3.00e-03	10.1	10.1	10.1	10.1	1.9	-0.2	1.5	4.5	22.7	5.01e-02
232	ok	0.33	0.2	3.46e-03	10.1	10.1	10.1	10.1	2.54e-02	1.4	0.4	0.2	9.0	-0.3
233	ok	0.33	0.2	2.97e-03	10.1	10.1	10.1	10.1	0.6	-0.6	0.4	1.2	8.7	0.2
234	ok	0.33	0.2	2.30e-03	10.1	10.1	10.1	10.1	0.4	-0.4	-0.1	1.7	8.7	9.74e-02

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
235	ok	0.33	0.5	2.74e-03	10.1	10.1	10.1	10.1	1.1	1.52e-02	0.5	3.5	17.3	1.48e-02
236	ok	0.33	0.3	2.35e-03	10.1	10.1	10.1	10.1	0.7	9.14e-02	0.1	2.5	12.7	1.25e-02
237	ok	0.33	0.2	2.04e-03	10.1	10.1	10.1	10.1	0.5	8.54e-02	-1.63e-02	1.7	8.8	2.18e-02
238	ok	0.33	0.2	1.79e-03	10.1	10.1	10.1	10.1	0.4	4.33e-02	-7.43e-02	1.1	5.6	3.15e-02
239	ok	0.33	0.2	2.01e-03	10.1	10.1	10.1	10.1	0.6	0.1	-2.67e-03	1.7	8.8	1.32e-03
276	ok	0.33	0.6	4.36e-03	10.1	10.1	10.1	10.1	-8.7	-5.1	-1.0	5.3	23.6	-0.2
335	ok	0.33	1.35e-02	4.78e-04	10.1	10.1	10.1	10.1	-1.11e-02	2.88e-03	-5.13e-03	0.3	0.3	-0.2
336	ok	0.33	1.37e-02	7.77e-04	10.1	10.1	10.1	10.1	9.52e-02	1.96e-02	7.40e-02	-0.2	0.4	-7.66e-02
337	ok	0.33	1.19e-02	8.61e-04	10.1	10.1	10.1	10.1	-1.3	-3.34e-02	0.6	-0.3	-3.96e-02	-0.2
338	ok	0.33	1.41e-02	9.35e-04	10.1	10.1	10.1	10.1	-0.7	-9.82e-03	5.09e-02	-0.2	0.2	-0.2
339	ok	0.33	8.59e-02	1.52e-03	10.1	10.1	10.1	10.1	0.3	1.51e-02	-7.88e-02	0.6	3.1	3.51e-02
340	ok	0.33	3.87e-02	1.21e-03	10.1	10.1	10.1	10.1	0.2	1.13e-02	-5.89e-02	0.2	1.4	3.10e-02
341	ok	0.33	1.49e-02	8.53e-04	10.1	10.1	10.1	10.1	-0.7	7.01e-02	0.3	-0.2	0.2	-0.2
342	ok	0.33	1.19e-02	6.37e-04	10.1	10.1	10.1	10.1	-0.5	0.1	0.4	-0.1	-7.22e-03	-0.3
343	ok	0.33	1.34e-02	7.66e-04	10.1	10.1	10.1	10.1	-0.3	5.79e-02	0.4	-6.35e-02	0.2	-0.3
344	ok	0.33	0.2	2.04e-03	10.1	10.1	10.1	10.1	0.5	8.54e-02	1.63e-02	1.7	8.8	-2.18e-02
345	ok	0.33	0.2	2.30e-03	10.1	10.1	10.1	10.1	0.4	-0.4	0.1	1.7	8.7	-9.74e-02
346	ok	0.33	0.5	3.65e-03	10.1	10.1	10.1	10.1	-0.7	-3.8	-8.92e-02	3.2	17.0	-0.5
347	ok	0.33	0.3	3.33e-03	10.1	10.1	10.1	10.1	0.4	-1.1	-0.1	2.0	12.5	-0.3
348	ok	0.33	0.5	7.02e-03	10.1	10.1	10.1	10.1	1.7	5.6	-2.5	0.6	17.4	-0.7
349	ok	0.33	0.2	2.97e-03	10.1	10.1	10.1	10.1	0.6	-0.6	-0.4	1.2	8.7	-0.2
350	ok	0.33	0.2	2.33e-03	10.1	10.1	10.1	10.1	0.4	-0.2	-0.3	0.6	5.6	-9.14e-02
351	ok	0.33	0.2	3.46e-03	10.1	10.1	10.1	10.1	2.54e-02	1.4	-0.4	0.2	9.0	0.3
352	ok	0.33	1.49e-02	8.53e-04	10.1	10.1	10.1	10.1	-0.7	7.01e-02	-0.3	-0.2	0.2	0.2
353	ok	0.33	1.19e-02	6.37e-04	10.1	10.1	10.1	10.1	-0.5	0.1	-0.4	-0.1	-7.22e-03	0.3
354	ok	0.33	1.41e-02	9.35e-04	10.1	10.1	10.1	10.1	-0.7	-9.82e-03	-5.09e-02	-0.2	0.2	0.2
355	ok	0.33	8.76e-02	1.79e-03	10.1	10.1	10.1	10.1	0.3	-8.39e-02	-0.2	0.3	3.2	-3.01e-02
356	ok	0.33	4.07e-02	1.20e-03	10.1	10.1	10.1	10.1	0.1	3.81e-02	-0.2	-1.63e-02	1.4	7.61e-02
357	ok	0.33	8.93e-02	1.36e-03	10.1	10.1	10.1	10.1	-2.21e-02	0.3	-5.58e-02	0.2	3.2	0.4
358	ok	0.33	1.37e-02	7.77e-04	10.1	10.1	10.1	10.1	9.52e-02	1.96e-02	-7.40e-02	-0.2	0.4	7.66e-02
359	ok	0.33	1.19e-02	8.61e-04	10.1	10.1	10.1	10.1	-1.3	-3.34e-02	-0.6	-0.3	-3.96e-02	0.2
360	ok	0.33	1.35e-02	4.78e-04	10.1	10.1	10.1	10.1	-1.11e-02	2.88e-03	5.13e-03	0.3	0.3	0.2
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
									-8.72	-5.09	-2.52	-0.30	-0.04	-0.69
		0.33	0.64	8.01e-03	10.05	10.05	10.05	10.05	2.06	6.19	2.52	5.29	23.58	0.69

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		N/mm2					kN/ m	kN/ m
7	ok	3.75						
8	ok	3.75						
9	ok	0.23						
10	ok	0.23						
18	ok	3.33						
27	ok	1.75						
28	ok	2.02						
29	ok	0.30						
30	ok	1.75						
38	ok	3.54						
50	ok	2.69						
51	ok	3.02						
52	ok	2.02						
53	ok	2.92						
69	ok	3.54						
91	ok	0.95						
92	ok	1.11						
93	ok	0.27						
94	ok	1.12						
95	ok	3.02						
96	ok	2.02						
97	ok	2.69						
98	ok	1.11						
99	ok	0.27						
100	ok	0.95						
108	ok	3.75						
120	ok	3.75						
121	ok	3.75						
122	ok	3.02						
123	ok	3.54						
146	ok	3.37						
183	ok	1.35						
184	ok	1.51						

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
185	ok	1.98						
186	ok	1.07						
187	ok	1.56						
188	ok	3.33						
189	ok	3.37						
190	ok	2.95						
191	ok	3.54						
192	ok	1.57						
193	ok	1.57						
194	ok	2.02						
195	ok	1.12						
196	ok	1.56						
210	ok	3.37						
232	ok	2.19						
233	ok	2.48						
234	ok	2.48						
235	ok	3.37						
236	ok	2.95						
237	ok	2.48						
238	ok	2.02						
239	ok	2.47						
276	ok	3.75						
335	ok	0.57						
336	ok	0.65						
337	ok	0.25						
338	ok	0.67						
339	ok	1.57						
340	ok	1.12						
341	ok	0.67						
342	ok	0.30						
343	ok	0.67						
344	ok	2.48						
345	ok	2.48						
346	ok	3.75						
347	ok	3.02						
348	ok	3.75						
349	ok	2.48						
350	ok	1.98						
351	ok	2.19						
352	ok	0.67						
353	ok	0.30						
354	ok	0.67						
355	ok	1.51						
356	ok	1.07						
357	ok	1.35						
358	ok	0.65						
359	ok	0.25						
360	ok	0.57						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		3.75						

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 soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

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

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

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

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
					mm	mm	mm	
1	0.07	0.16	0.07	136,136,150	0.0	0.0	0.0	0,0,0
2	0.02	0.03	0.02	136,136,150	0.0	0.0	0.0	0,0,0
6	0.11	0.23	0.11	136,136,150	0.0	0.0	0.0	0,0,0
7	0.06	0.11	0.07	136,136,150	0.0	0.0	0.0	0,0,0
8	0.10	0.20	0.10	136,136,150	0.0	0.0	0.0	0,0,0
9	0.03	0.03	0.04	127,127,149	0.0	0.0	0.0	0,0,0
10	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
11	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
21	0.09	0.18	0.09	136,136,150	0.0	0.0	0.0	0,0,0
22	0.06	0.11	0.07	136,136,150	0.0	0.0	0.0	0,0,0
23	0.08	0.15	0.09	136,136,150	0.0	0.0	0.0	0,0,0
24	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
25	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
26	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
36	0.12	0.28	0.12	136,136,150	0.0	0.0	0.0	0,0,0
37	0.10	0.20	0.11	136,136,150	0.0	0.0	0.0	0,0,0
38	0.12	0.24	0.12	136,136,150	0.0	0.0	0.0	0,0,0
39	0.08	0.16	0.09	136,136,150	0.0	0.0	0.0	0,0,0
40	0.07	0.12	0.07	136,136,150	0.0	0.0	0.0	0,0,0
41	0.09	0.16	0.09	136,136,150	0.0	0.0	0.0	0,0,0
42	0.12	0.25	0.12	136,136,150	0.0	0.0	0.0	0,0,0
43	0.10	0.20	0.11	136,136,150	0.0	0.0	0.0	0,0,0
44	0.12	0.24	0.12	136,136,150	0.0	0.0	0.0	0,0,0
45	0.05	0.05	0.06	127,127,149	0.0	0.0	0.0	0,0,0
46	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
47	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
48	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
49	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
50	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
51	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
52	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
53	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
81	0.08	0.17	0.08	136,136,150	0.0	0.0	0.0	0,0,0
82	0.07	0.12	0.07	136,136,150	0.0	0.0	0.0	0,0,0
83	0.08	0.14	0.08	136,136,150	0.0	0.0	0.0	0,0,0
84	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
85	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
86	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
96	0.11	0.25	0.12	136,136,150	0.0	0.0	0.0	0,0,0
97	0.10	0.20	0.11	136,136,150	0.0	0.0	0.0	0,0,0
98	0.11	0.22	0.12	136,136,150	0.0	0.0	0.0	0,0,0
99	0.07	0.14	0.08	136,136,150	0.0	0.0	0.0	0,0,0
100	0.06	0.11	0.07	136,136,150	0.0	0.0	0.0	0,0,0
101	0.07	0.13	0.08	136,136,150	0.0	0.0	0.0	0,0,0
102	0.11	0.22	0.11	136,136,150	0.0	0.0	0.0	0,0,0
103	0.10	0.20	0.11	136,136,150	0.0	0.0	0.0	0,0,0
104	0.11	0.22	0.11	136,136,150	0.0	0.0	0.0	0,0,0
105	0.04	0.04	0.05	127,127,149	0.0	0.0	0.0	0,0,0
106	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
107	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
108	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
109	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
110	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
111	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
112	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
113	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
141	0.10	0.20	0.10	136,136,150	0.0	0.0	0.0	0,0,0
142	0.09	0.16	0.09	136,136,150	0.0	0.0	0.0	0,0,0
143	0.10	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
144	0.07	0.13	0.08	136,136,150	0.0	0.0	0.0	0,0,0
145	0.06	0.11	0.07	136,136,150	0.0	0.0	0.0	0,0,0
146	0.07	0.14	0.08	136,136,150	0.0	0.0	0.0	0,0,0
147	0.09	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
148	0.08	0.16	0.09	136,136,150	0.0	0.0	0.0	0,0,0
149	0.09	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
150	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
151	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
152	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
153	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
154	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
155	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
156	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
157	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
158	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
186	0.14	0.28	0.14	136,136,150	0.0	0.0	0.0	0,0,0
187	0.12	0.24	0.12	136,136,150	0.0	0.0	0.0	0,0,0
188	0.14	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
189	0.11	0.22	0.11	136,136,150	0.0	0.0	0.0	0,0,0
190	0.10	0.20	0.10	136,136,150	0.0	0.0	0.0	0,0,0
191	0.11	0.22	0.11	136,136,150	0.0	0.0	0.0	0,0,0
192	0.14	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
193	0.12	0.25	0.12	136,136,150	0.0	0.0	0.0	0,0,0
194	0.13	0.27	0.13	136,136,150	0.0	0.0	0.0	0,0,0
195	0.09	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
196	0.08	0.15	0.09	136,136,150	0.0	0.0	0.0	0,0,0
197	0.09	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
198	0.08	0.14	0.08	136,136,150	0.0	0.0	0.0	0,0,0
199	0.07	0.16	0.07	136,136,150	0.0	0.0	0.0	0,0,0
200	0.08	0.17	0.08	136,136,150	0.0	0.0	0.0	0,0,0
201	0.10	0.18	0.10	136,136,150	0.0	0.0	0.0	0,0,0
202	0.09	0.18	0.09	136,136,150	0.0	0.0	0.0	0,0,0
203	0.10	0.20	0.10	136,136,150	0.0	0.0	0.0	0,0,0
204	0.13	0.27	0.13	136,136,150	0.0	0.0	0.0	0,0,0
205	0.12	0.24	0.12	136,136,150	0.0	0.0	0.0	0,0,0
206	0.14	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
207	0.11	0.22	0.12	136,136,150	0.0	0.0	0.0	0,0,0
208	0.11	0.23	0.11	136,136,150	0.0	0.0	0.0	0,0,0
209	0.11	0.25	0.12	136,136,150	0.0	0.0	0.0	0,0,0
210	0.14	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
211	0.12	0.28	0.12	136,136,150	0.0	0.0	0.0	0,0,0
212	0.14	0.28	0.14	136,136,150	0.0	0.0	0.0	0,0,0
213	0.06	0.07	0.07	127,127,149	0.0	0.0	0.0	0,0,0
214	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
215	0.05	0.07	0.07	127,127,149	0.0	0.0	0.0	0,0,0
216	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
217	0.03	0.02	0.04	127,127,149	0.0	0.0	0.0	0,0,0
218	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
219	0.05	0.06	0.07	127,127,149	0.0	0.0	0.0	0,0,0
220	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
221	0.05	0.06	0.07	127,127,149	0.0	0.0	0.0	0,0,0
222	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
223	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
224	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
225	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
226	0.02	0.03	0.02	136,136,150	0.0	0.0	0.0	0,0,0
227	0.02	0.01	0.02	136,136,150	0.0	0.0	0.0	0,0,0
228	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
229	0.02	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
230	0.03	0.02	0.03	136,136,150	0.0	0.0	0.0	0,0,0
231	0.05	0.06	0.07	127,127,149	0.0	0.0	0.0	0,0,0
232	0.05	0.04	0.06	127,127,149	0.0	0.0	0.0	0,0,0
233	0.05	0.06	0.07	127,127,149	0.0	0.0	0.0	0,0,0
234	0.04	0.03	0.05	127,127,149	0.0	0.0	0.0	0,0,0
235	0.03	0.03	0.04	127,127,149	0.0	0.0	0.0	0,0,0
236	0.04	0.04	0.05	127,127,149	0.0	0.0	0.0	0,0,0
237	0.05	0.07	0.07	127,127,149	0.0	0.0	0.0	0,0,0
238	0.05	0.05	0.06	127,127,149	0.0	0.0	0.0	0,0,0
239	0.06	0.07	0.07	127,127,149	0.0	0.0	0.0	0,0,0
Setto	rRfck	rRfyk	rPfck		wR	wF	wP	
	0.14	0.28	0.14		0.0	0.0	0.0	

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
					mm	mm	mm	
3	0.38	0.47	0.42	136,136,150	0.11	0.10	0.10	136,140,150
4	0.18	0.39	0.18	136,136,150	0.0	0.0	0.0	0,0,0
5	0.46	0.51	0.49	136,136,150	0.12	0.11	0.10	136,140,150
12	0.27	0.32	0.29	136,136,150	0.07	0.0	0.0	136,0,0
13	0.36	0.41	0.40	136,136,150	0.09	0.08	0.08	136,140,150
14	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
15	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
16	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
17	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
18	0.11	0.13	0.12	136,136,150	0.0	0.0	0.0	0,0,0
19	0.44	0.49	0.47	136,136,150	0.12	0.10	0.10	136,140,150
20	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0
27	0.25	0.29	0.25	136,136,150	0.06	0.0	0.0	136,0,0
28	0.37	0.41	0.41	136,136,150	0.09	0.08	0.08	136,140,150
29	0.24	0.28	0.24	136,136,150	0.0	0.0	0.0	0,0,0
30	0.07	0.14	0.08	127,127,149	0.0	0.0	0.0	0,0,0
31	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
32	0.07	0.13	0.08	127,127,149	0.0	0.0	0.0	0,0,0
33	0.25	0.28	0.27	136,136,150	0.06	0.0	0.0	136,0,0
34	0.44	0.50	0.47	136,136,150	0.12	0.10	0.10	136,140,150
35	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
54	0.19	0.24	0.19	136,136,150	0.0	0.0	0.0	0,0,0
55	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
56	0.18	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
57	0.23	0.27	0.24	136,136,150	0.0	0.0	0.0	0,0,0
58	0.38	0.42	0.42	136,136,150	0.09	0.09	0.08	136,140,150
59	0.24	0.28	0.25	136,136,150	0.06	0.0	0.0	136,0,0
60	0.18	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
61	0.27	0.31	0.28	136,136,150	0.07	0.0	0.0	136,0,0
62	0.19	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
63	0.14	0.28	0.15	136,136,150	0.0	0.0	0.0	0,0,0
64	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0
65	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
66	0.07	0.13	0.08	127,127,149	0.0	0.0	0.0	0,0,0
67	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
68	0.07	0.14	0.08	127,127,149	0.0	0.0	0.0	0,0,0
69	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
70	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
71	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
72	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
73	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0
74	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
75	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
76	0.45	0.50	0.47	136,136,150	0.12	0.11	0.10	136,140,150
77	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
78	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
79	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0
80	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
87	0.13	0.16	0.13	136,136,150	0.0	0.0	0.0	0,0,0
88	0.38	0.42	0.42	136,136,150	0.09	0.09	0.08	136,140,150
89	0.13	0.15	0.12	136,136,150	0.0	0.0	0.0	0,0,0
90	0.10	0.22	0.09	136,136,150	0.0	0.0	0.0	0,0,0
91	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
92	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
93	0.33	0.38	0.35	136,136,150	0.08	0.07	0.07	136,140,150
94	0.45	0.50	0.47	136,136,150	0.12	0.11	0.10	136,140,150
95	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
114	0.21	0.25	0.23	136,136,150	0.0	0.0	0.0	0,0,0
115	0.27	0.31	0.28	136,136,150	0.07	0.0	0.0	136,0,0
116	0.20	0.25	0.22	136,136,150	0.0	0.0	0.0	0,0,0
117	0.12	0.14	0.12	136,136,150	0.0	0.0	0.0	0,0,0
118	0.37	0.41	0.41	136,136,150	0.09	0.08	0.08	136,140,150
119	0.12	0.15	0.12	136,136,150	0.0	0.0	0.0	0,0,0
120	0.20	0.24	0.21	136,136,150	0.0	0.0	0.0	0,0,0
121	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
122	0.20	0.25	0.21	136,136,150	0.0	0.0	0.0	0,0,0
123	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
124	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
125	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
126	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
127	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
128	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
129	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0
130	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0
131	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
132	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
133	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0
134	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
135	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
136	0.44	0.50	0.47	136,136,150	0.12	0.10	0.10	136,140,150
137	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
138	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
139	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
140	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
159	0.27	0.32	0.29	136,136,150	0.07	0.0	0.0	136,0,0
160	0.24	0.28	0.25	136,136,150	0.06	0.0	0.0	136,0,0
161	0.27	0.31	0.28	136,136,150	0.06	0.0	0.0	136,0,0
162	0.12	0.15	0.12	136,136,150	0.0	0.0	0.0	0,0,0
163	0.36	0.41	0.40	136,136,150	0.09	0.08	0.08	136,140,150
164	0.12	0.14	0.12	136,136,150	0.0	0.0	0.0	0,0,0
165	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
166	0.23	0.27	0.24	136,136,150	0.0	0.0	0.0	0,0,0
167	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
168	0.11	0.23	0.13	136,136,150	0.0	0.0	0.0	0,0,0
169	0.07	0.14	0.08	127,127,149	0.0	0.0	0.0	0,0,0
170	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
171	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
172	0.18	0.35	0.18	136,136,150	0.0	0.0	0.0	0,0,0
173	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
174	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
175	0.07	0.13	0.08	127,127,149	0.0	0.0	0.0	0,0,0
176	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
177	0.18	0.20	0.19	136,136,150	0.0	0.0	0.0	0,0,0
178	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
179	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
180	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
181	0.44	0.49	0.47	136,136,150	0.12	0.10	0.10	136,140,150
182	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
183	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
184	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
185	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
240	0.53	0.61	0.54	136,136,150	0.16	0.13	0.12	136,140,150
241	0.19	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
242	0.52	0.61	0.53	136,136,150	0.16	0.13	0.13	136,140,150
243	0.20	0.25	0.21	136,136,150	0.0	0.0	0.0	0,0,0
244	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
245	0.20	0.24	0.21	136,136,150	0.0	0.0	0.0	0,0,0
246	0.51	0.60	0.52	136,136,150	0.15	0.13	0.12	136,140,150
247	0.18	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
248	0.51	0.59	0.51	136,136,150	0.15	0.12	0.12	136,140,150
249	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
250	0.24	0.28	0.24	136,136,150	0.0	0.0	0.0	0,0,0
251	0.26	0.31	0.27	136,136,150	0.06	0.0	0.0	136,0,0
252	0.13	0.15	0.12	136,136,150	0.0	0.0	0.0	0,0,0
253	0.38	0.47	0.42	136,136,150	0.11	0.10	0.10	136,140,150
254	0.13	0.16	0.13	136,136,150	0.0	0.0	0.0	0,0,0
255	0.27	0.31	0.28	136,136,150	0.06	0.0	0.0	136,0,0
256	0.25	0.29	0.25	136,136,150	0.06	0.0	0.0	136,0,0
257	0.27	0.32	0.29	136,136,150	0.07	0.0	0.0	136,0,0
258	0.51	0.59	0.51	136,136,150	0.15	0.12	0.12	136,140,150
259	0.18	0.23	0.18	136,136,150	0.0	0.0	0.0	0,0,0
260	0.51	0.60	0.52	136,136,150	0.15	0.13	0.12	136,140,150
261	0.20	0.25	0.22	136,136,150	0.0	0.0	0.0	0,0,0
262	0.27	0.32	0.29	136,136,150	0.07	0.0	0.0	136,0,0
263	0.21	0.25	0.23	136,136,150	0.0	0.0	0.0	0,0,0
264	0.52	0.61	0.53	136,136,150	0.16	0.13	0.13	136,140,150
265	0.19	0.24	0.19	136,136,150	0.0	0.0	0.0	0,0,0
266	0.53	0.61	0.54	136,136,150	0.16	0.13	0.12	136,140,150
267	0.08	0.17	0.09	136,127,149	0.0	0.0	0.0	0,0,0
268	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
269	0.07	0.15	0.09	127,136,149	0.0	0.0	0.0	0,0,0
270	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
271	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0
272	0.14	0.28	0.16	136,136,150	0.0	0.0	0.0	0,0,0
273	0.07	0.14	0.09	127,127,149	0.0	0.0	0.0	0,0,0
274	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
275	0.07	0.14	0.09	127,127,149	0.0	0.0	0.0	0,0,0
276	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
277	0.07	0.13	0.08	127,127,149	0.0	0.0	0.0	0,0,0
278	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
279	0.10	0.19	0.09	136,136,150	0.0	0.0	0.0	0,0,0
280	0.18	0.39	0.18	136,136,150	0.0	0.0	0.0	0,0,0
281	0.10	0.22	0.09	136,136,150	0.0	0.0	0.0	0,0,0
282	0.11	0.22	0.13	136,136,150	0.0	0.0	0.0	0,0,0
283	0.07	0.14	0.08	127,127,149	0.0	0.0	0.0	0,0,0
284	0.11	0.23	0.13	136,136,150	0.0	0.0	0.0	0,0,0
285	0.07	0.14	0.09	127,127,149	0.0	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
286	0.13	0.27	0.14	136,136,150	0.0	0.0	0.0	0,0,0
287	0.07	0.14	0.09	127,127,149	0.0	0.0	0.0	0,0,0
288	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
289	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
290	0.14	0.29	0.16	136,136,150	0.0	0.0	0.0	0,0,0
291	0.07	0.15	0.09	127,136,149	0.0	0.0	0.0	0,0,0
292	0.14	0.28	0.15	136,136,150	0.0	0.0	0.0	0,0,0
293	0.08	0.17	0.09	136,127,149	0.0	0.0	0.0	0,0,0
294	7.89e-03	8.85e-03	8.39e-03	136,136,150	0.0	0.0	0.0	0,0,0
295	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
296	7.43e-03	8.32e-03	7.89e-03	136,136,150	0.0	0.0	0.0	0,0,0
297	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
298	0.11	0.12	0.12	136,136,150	0.0	0.0	0.0	0,0,0
299	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
300	7.03e-03	7.86e-03	7.47e-03	136,136,150	0.0	0.0	0.0	0,0,0
301	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
302	6.77e-03	7.58e-03	7.20e-03	136,136,150	0.0	0.0	0.0	0,0,0
303	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
304	0.25	0.28	0.26	136,136,150	0.06	0.0	0.0	136,0,0
305	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
306	0.34	0.38	0.36	136,136,150	0.08	0.07	0.07	136,140,150
307	0.46	0.51	0.49	136,136,150	0.12	0.11	0.10	136,140,150
308	0.33	0.38	0.35	136,136,150	0.08	0.07	0.07	136,140,150
309	0.17	0.19	0.18	136,136,150	0.0	0.0	0.0	0,0,0
310	0.25	0.28	0.27	136,136,150	0.06	0.0	0.0	136,0,0
311	0.18	0.20	0.19	136,136,150	0.0	0.0	0.0	0,0,0
312	6.77e-03	7.58e-03	7.20e-03	136,136,150	0.0	0.0	0.0	0,0,0
313	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
314	7.03e-03	7.86e-03	7.47e-03	136,136,150	0.0	0.0	0.0	0,0,0
315	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
316	0.11	0.13	0.12	136,136,150	0.0	0.0	0.0	0,0,0
317	0.06	0.07	0.07	136,136,150	0.0	0.0	0.0	0,0,0
318	7.43e-03	8.32e-03	7.89e-03	136,136,150	0.0	0.0	0.0	0,0,0
319	0.03	0.03	0.03	136,136,150	0.0	0.0	0.0	0,0,0
320	7.89e-03	8.85e-03	8.39e-03	136,136,150	0.0	0.0	0.0	0,0,0
Guscio	rRfck	rRfyk	rPfck		wR	wF	wP	
	0.53	0.61	0.54		0.16	0.13	0.13	

STATO LIMITE D' ESERCIZIO: SLD DANNO SISMICO

LEGENDA TABELLA STATI LIMITE DI DANNO (VERIFICHE RES)

Le verifiche RES per SLD sono effettuate in accordo alle Norme Tecniche 17 Gennaio 2018 e alla circolare n.7 del 21 gennaio 2019 nonché alle linee guida del Consiglio Superiore LL.PP. “Linee guida per la Progettazione, l’Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP”.

Le verifiche RES per SLD, sono riportate nelle successive tabelle nella forma di rapporto “domanda” su “capacità” e hanno esito positivo quando il rapporto è non superiore al valore unitario.

La “domanda” è ottenuta direttamente dall’analisi per le previste combinazioni SLD (NTC18 2.5.3. COMBINAZIONI DELLE AZIONI formula [2.5.5]).

Per “capacità” si intende qui il valore della sollecitazione corrispondente al raggiungimento dello stato limite di danno per la sezione: per la resistenza flessionale questo stato limite si identifica con la tensione di snervamento dell’acciaio o la resistenza massima a compressione per il calcestruzzo e la muratura. Lo stato limite di danno si ritiene attinto anche in caso di superamento della resistenza a taglio.

Le resistenze flessionali sono valutate utilizzando i legami costitutivi del materiale limitati al solo tratto elastico, ottenendo così resistenze sostanzialmente elastiche come previsto dalla norma.

La seguente tabella identifica per quali configurazioni (materiale nuovo, esistente, con rinforzi e metodo di analisi) sono state condotte le verifiche di seguito riportate.

Configurazione	Verifica SLD	NOTE
1) c.a. nuovo e esist. Verifica SLU con $q>1$	Verifica N/M SE Verifica V/T	Sono verifiche per struttura non dissipativa condotte secondo il cap.4 NTC18 in regime sostanzialmente elastico; si verificano travi, pilastri, setti e gusci.
2) Muratura nuova Verifica SLU con $q>1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap.7
3) Muratura esis. AO Verifica SLU con $q>1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap. 7 e 8
4) Muratura esis. PO Verifica SLU con $q>1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap. 7 e 8; Anche per rinforzi FRP è prevista verifica N/M SE e V

Simbologia adottata nelle tabelle di verifica

Per le verifiche agli SLD di pilastri, travi setti e gusci in c.a. è presente una tabella con i simboli di seguito descritti:

Pilas./Trave/ Setto/Guscio	numero identificativo dell'elemento D2 o D3
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Pos.	Posizione nell'elemento della sezione per la quale si riporta la verifica

V N/M	Verifica a pressoflessione con rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} lato cls: valore minore o uguale a 1 per verifica positiva
V V/T acc	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} lato acciaio: valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il pilastro

Per le verifiche agli SLD di maschi e fasce in *muratura* è presente una tabella con i simboli di seguito descritti:

Setto/Fascia/Elem.	numero del macroelemento (D3) o elemento (D2) considerato	
Mat.	Materiale	
s=,m=	Indice della sezione e del materiale assegnati all' elemento (per D2)	
Spessore	spessore dell'elemento	
Stato	ok	elemento verificato (SLD)
	NV	elemento non verificato (SLD)

e a seguire:

Nodo/Pos.	numero del nodo appartenente al setto / posizione relativa al nodo I per D2
h0/t	valore della snellezza convenzionale
P/Ap	tensione verticale media utilizzata per la verifica a pressoflessione nel piano del muro
P/Acv	tensione verticale media nella parte compressa, utilizzata nella verifica a taglio nel piano del muro
Ver. Mp	rapporto tra il momento di progetto e il momento M_{rd} in relazione alla verifica Par. 7.8.2.2.1 (pressoflessione complanare) effettuato per tutte le combinazioni
Ver. V	rapporto il taglio di progetto e il taglio ultimo in relazione alla verifica Par. 7.8.2.2.2 (taglio complanare) o C8.7.1.16 della circolare 21-01-19 per edifici esistenti effettuato per tutte le combinazioni (solo per elementi maschi)
Ver. V	rapporto tra il taglio di progetto e il minore dei tagli resistenti V_p e V_t in relazione alla verifica del par. 7.8.2.2.3 (solo per elementi fasce)
Rif. cmb	Combinazioni in cui si hanno i massimi valori dei rapporti Ver. Mp, Ver. V

Per elementi consolidati secondo il paragrafo C8.5.3.1 il programma opera come per gli elementi non rinforzati, considerando ai fini delle analisi e delle verifiche gli opportuni coefficienti correttivi delle rigidezze e delle resistenze.

Per elementi consolidati con FRP il programma implementa le verifiche previste dalle "Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP" approvate dal CSLPP il 24/07/2009.

Per elementi consolidati con FRCM il programma implementa le verifiche previste dalle CNR-DT 215/2018 "Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati a Matrice Inorganica"

Per semplicità la simbologia adottata nelle tabelle è uniformata a quella degli elementi non rinforzati.

Le tabelle riportano inoltre i seguenti parametri:

Fibra	Tipo di fibra del fibrorinforzo
E fibra	Modulo elastico del fibrorinforzo
epsr	Dilatazione di rottura del fibrorinforzo
epsd	Dilatazione di calcolo
epsd(s)	Dilatazione di calcolo per combinazioni sismiche
Spess.	Spessore del fibrorinforzo, il programma prevede l' applicazione di uno strato di spessore s su entrambe le facce della parete (o sui quattro lati della sezione in caso di confinamento)
AO fib.	Area orizzontale complessiva di fibrorinforzo per metro lineare

AV fib. Area verticale complessiva di fibrorinforzo per metro lineare

Affinché l'elemento sia verificato deve essere:

Ver. Mp, Ver.V non superiore a 1

TABELLA VERIFICHE ELEMENTI D3 SETTI C.A.

Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
1	ok	3	0.11	0.0	0.0	89,0,0	103	0.07	0.0	0.0	80,0,0
		102	0.09	0.0	0.0	82,0,0	101	0.14	0.0	0.0	89,0,0
2	ok	7	0.03	0.0	0.0	77,0,0	108	0.02	0.0	0.0	89,0,0
		107	0.03	0.0	0.0	71,0,0	106	0.02	0.0	0.0	89,0,0
6	ok	11	0.22	0.0	0.0	85,0,0	126	0.20	0.0	0.0	85,0,0
		125	0.22	0.0	0.0	85,0,0	124	0.23	0.0	0.0	85,0,0
7	ok	13	0.08	0.0	0.0	76,0,0	131	0.09	0.0	0.0	70,0,0
		130	0.10	0.0	0.0	70,0,0	129	0.09	0.0	0.0	76,0,0
8	ok	12	0.19	0.0	0.0	83,0,0	136	0.19	0.0	0.0	83,0,0
		135	0.20	0.0	0.0	83,0,0	134	0.20	0.0	0.0	83,0,0
9	ok	16	0.04	0.0	0.0	76,0,0	141	0.03	0.0	0.0	76,0,0
		140	0.04	0.0	0.0	92,0,0	139	0.04	0.0	0.0	76,0,0
10	ok	18	0.01	0.0	0.0	91,0,0	146	0.02	0.0	0.0	83,0,0
		145	0.02	0.0	0.0	83,0,0	144	0.02	0.0	0.0	77,0,0
11	ok	17	0.03	0.0	0.0	70,0,0	151	0.03	0.0	0.0	82,0,0
		150	0.04	0.0	0.0	82,0,0	149	0.04	0.0	0.0	82,0,0
21	ok	31	0.17	0.0	0.0	89,0,0	104	0.14	0.0	0.0	89,0,0
		198	0.16	0.0	0.0	89,0,0	197	0.18	0.0	0.0	89,0,0
22	ok	33	0.09	0.0	0.0	76,0,0	201	0.08	0.0	0.0	82,0,0
		200	0.09	0.0	0.0	76,0,0	105	0.10	0.0	0.0	76,0,0
23	ok	32	0.13	0.0	0.0	83,0,0	202	0.13	0.0	0.0	89,0,0
		203	0.15	0.0	0.0	89,0,0	199	0.15	0.0	0.0	83,0,0
24	ok	36	0.02	0.0	0.0	67,0,0	109	0.02	0.0	0.0	67,0,0
		207	0.02	0.0	0.0	75,0,0	206	0.02	0.0	0.0	87,0,0
25	ok	38	0.02	0.0	0.0	89,0,0	210	0.02	0.0	0.0	89,0,0
		209	0.02	0.0	0.0	89,0,0	110	0.02	0.0	0.0	89,0,0
26	ok	37	0.02	0.0	0.0	87,0,0	211	0.02	0.0	0.0	87,0,0
		212	0.03	0.0	0.0	76,0,0	208	0.02	0.0	0.0	76,0,0
36	ok	54	0.28	0.0	0.0	85,0,0	127	0.25	0.0	0.0	85,0,0
		241	0.26	0.0	0.0	85,0,0	240	0.30	0.0	0.0	85,0,0
37	ok	34	0.19	0.0	0.0	85,0,0	204	0.19	0.0	0.0	89,0,0
		243	0.20	0.0	0.0	85,0,0	128	0.20	0.0	0.0	85,0,0
38	ok	55	0.24	0.0	0.0	85,0,0	244	0.25	0.0	0.0	85,0,0
		245	0.26	0.0	0.0	85,0,0	242	0.26	0.0	0.0	85,0,0
39	ok	35	0.13	0.0	0.0	83,0,0	132	0.13	0.0	0.0	89,0,0
		247	0.15	0.0	0.0	89,0,0	205	0.15	0.0	0.0	83,0,0
40	ok	58	0.08	0.0	0.0	70,0,0	250	0.10	0.0	0.0	70,0,0
		249	0.10	0.0	0.0	70,0,0	133	0.09	0.0	0.0	70,0,0
41	ok	57	0.13	0.0	0.0	83,0,0	251	0.14	0.0	0.0	83,0,0
		253	0.15	0.0	0.0	83,0,0	248	0.15	0.0	0.0	83,0,0
42	ok	56	0.25	0.0	0.0	83,0,0	137	0.25	0.0	0.0	79,0,0
		256	0.26	0.0	0.0	81,0,0	246	0.26	0.0	0.0	83,0,0
43	ok	59	0.19	0.0	0.0	79,0,0	254	0.19	0.0	0.0	79,0,0
		258	0.21	0.0	0.0	79,0,0	138	0.20	0.0	0.0	79,0,0
44	ok	61	0.24	0.0	0.0	79,0,0	259	0.24	0.0	0.0	79,0,0
		261	0.26	0.0	0.0	79,0,0	257	0.26	0.0	0.0	79,0,0
45	ok	64	0.06	0.0	0.0	76,0,0	142	0.06	0.0	0.0	76,0,0
		265	0.07	0.0	0.0	92,0,0	264	0.07	0.0	0.0	92,0,0
46	ok	39	0.03	0.0	0.0	92,0,0	213	0.03	0.0	0.0	92,0,0
		268	0.04	0.0	0.0	92,0,0	143	0.04	0.0	0.0	92,0,0
47	ok	65	0.06	0.0	0.0	92,0,0	269	0.05	0.0	0.0	92,0,0
		270	0.06	0.0	0.0	92,0,0	267	0.07	0.0	0.0	92,0,0
48	ok	40	0.02	0.0	0.0	70,0,0	147	0.02	0.0	0.0	76,0,0
		273	0.03	0.0	0.0	76,0,0	214	0.03	0.0	0.0	70,0,0
49	ok	69	0.02	0.0	0.0	83,0,0	276	0.02	0.0	0.0	83,0,0
		275	0.02	0.0	0.0	83,0,0	148	0.02	0.0	0.0	83,0,0
50	ok	68	0.02	0.0	0.0	77,0,0	277	0.02	0.0	0.0	69,0,0
		279	0.02	0.0	0.0	69,0,0	274	0.02	0.0	0.0	77,0,0
51	ok	67	0.05	0.0	0.0	88,0,0	152	0.05	0.0	0.0	82,0,0

Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		282	0.07	0.0	0.0	82,0,0	272	0.06	0.0	0.0	88,0,0
52	ok	70	0.03	0.0	0.0	82,0,0	280	0.03	0.0	0.0	70,0,0
		285	0.04	0.0	0.0	82,0,0	153	0.04	0.0	0.0	82,0,0
53	ok	72	0.05	0.0	0.0	82,0,0	286	0.06	0.0	0.0	82,0,0
		288	0.07	0.0	0.0	82,0,0	284	0.07	0.0	0.0	82,0,0
81	ok	101	0.15	0.0	0.0	89,0,0	102	0.11	0.0	0.0	89,0,0
		104	0.13	0.0	0.0	89,0,0	31	0.15	0.0	0.0	89,0,0
82	ok	103	0.10	0.0	0.0	76,0,0	33	0.08	0.0	0.0	76,0,0
		105	0.09	0.0	0.0	76,0,0	102	0.10	0.0	0.0	76,0,0
83	ok	102	0.11	0.0	0.0	89,0,0	105	0.11	0.0	0.0	89,0,0
		32	0.12	0.0	0.0	89,0,0	104	0.12	0.0	0.0	89,0,0
84	ok	106	0.02	0.0	0.0	89,0,0	107	0.02	0.0	0.0	87,0,0
		109	0.02	0.0	0.0	89,0,0	36	0.02	0.0	0.0	89,0,0
85	ok	108	0.02	0.0	0.0	89,0,0	38	0.02	0.0	0.0	89,0,0
		110	0.02	0.0	0.0	89,0,0	107	0.02	0.0	0.0	89,0,0
86	ok	107	0.02	0.0	0.0	89,0,0	110	0.02	0.0	0.0	87,0,0
		37	0.02	0.0	0.0	89,0,0	109	0.02	0.0	0.0	89,0,0
96	ok	124	0.25	0.0	0.0	85,0,0	125	0.23	0.0	0.0	85,0,0
		127	0.24	0.0	0.0	85,0,0	54	0.27	0.0	0.0	85,0,0
97	ok	126	0.19	0.0	0.0	85,0,0	34	0.19	0.0	0.0	85,0,0
		128	0.20	0.0	0.0	85,0,0	125	0.21	0.0	0.0	85,0,0
98	ok	125	0.22	0.0	0.0	85,0,0	128	0.21	0.0	0.0	85,0,0
		55	0.23	0.0	0.0	85,0,0	127	0.23	0.0	0.0	85,0,0
99	ok	129	0.11	0.0	0.0	83,0,0	130	0.11	0.0	0.0	89,0,0
		132	0.12	0.0	0.0	89,0,0	35	0.12	0.0	0.0	83,0,0
100	ok	131	0.08	0.0	0.0	92,0,0	58	0.09	0.0	0.0	70,0,0
		133	0.10	0.0	0.0	70,0,0	130	0.09	0.0	0.0	70,0,0
101	ok	130	0.10	0.0	0.0	83,0,0	133	0.11	0.0	0.0	89,0,0
		57	0.12	0.0	0.0	89,0,0	132	0.12	0.0	0.0	89,0,0
102	ok	134	0.22	0.0	0.0	83,0,0	135	0.22	0.0	0.0	79,0,0
		137	0.23	0.0	0.0	79,0,0	56	0.23	0.0	0.0	83,0,0
103	ok	136	0.19	0.0	0.0	83,0,0	59	0.19	0.0	0.0	79,0,0
		138	0.20	0.0	0.0	79,0,0	135	0.20	0.0	0.0	79,0,0
104	ok	135	0.22	0.0	0.0	79,0,0	138	0.21	0.0	0.0	79,0,0
		61	0.23	0.0	0.0	79,0,0	137	0.23	0.0	0.0	79,0,0
105	ok	139	0.05	0.0	0.0	76,0,0	140	0.05	0.0	0.0	92,0,0
		142	0.05	0.0	0.0	92,0,0	64	0.05	0.0	0.0	76,0,0
106	ok	141	0.03	0.0	0.0	76,0,0	39	0.03	0.0	0.0	92,0,0
		143	0.04	0.0	0.0	92,0,0	140	0.04	0.0	0.0	92,0,0
107	ok	140	0.05	0.0	0.0	92,0,0	143	0.04	0.0	0.0	92,0,0
		65	0.05	0.0	0.0	92,0,0	142	0.05	0.0	0.0	92,0,0
108	ok	144	0.02	0.0	0.0	77,0,0	145	0.02	0.0	0.0	83,0,0
		147	0.02	0.0	0.0	71,0,0	40	0.02	0.0	0.0	73,0,0
109	ok	146	0.02	0.0	0.0	83,0,0	69	0.02	0.0	0.0	83,0,0
		148	0.02	0.0	0.0	83,0,0	145	0.02	0.0	0.0	83,0,0
110	ok	145	0.02	0.0	0.0	77,0,0	148	0.02	0.0	0.0	83,0,0
		68	0.02	0.0	0.0	71,0,0	147	0.02	0.0	0.0	83,0,0
111	ok	149	0.04	0.0	0.0	82,0,0	150	0.04	0.0	0.0	82,0,0
		152	0.05	0.0	0.0	82,0,0	67	0.05	0.0	0.0	92,0,0
112	ok	151	0.03	0.0	0.0	82,0,0	70	0.03	0.0	0.0	82,0,0
		153	0.04	0.0	0.0	82,0,0	150	0.04	0.0	0.0	82,0,0
113	ok	150	0.04	0.0	0.0	82,0,0	153	0.04	0.0	0.0	82,0,0
		72	0.05	0.0	0.0	82,0,0	152	0.05	0.0	0.0	82,0,0
141	ok	197	0.19	0.0	0.0	89,0,0	198	0.17	0.0	0.0	89,0,0
		126	0.19	0.0	0.0	89,0,0	11	0.20	0.0	0.0	89,0,0
142	ok	104	0.14	0.0	0.0	89,0,0	32	0.13	0.0	0.0	89,0,0
		199	0.15	0.0	0.0	89,0,0	198	0.15	0.0	0.0	89,0,0
143	ok	198	0.17	0.0	0.0	89,0,0	199	0.16	0.0	0.0	89,0,0
		34	0.17	0.0	0.0	89,0,0	126	0.18	0.0	0.0	89,0,0
144	ok	105	0.11	0.0	0.0	83,0,0	200	0.10	0.0	0.0	89,0,0
		202	0.12	0.0	0.0	83,0,0	32	0.12	0.0	0.0	83,0,0
145	ok	201	0.09	0.0	0.0	76,0,0	13	0.08	0.0	0.0	70,0,0
		129	0.09	0.0	0.0	70,0,0	200	0.10	0.0	0.0	76,0,0
146	ok	200	0.11	0.0	0.0	83,0,0	129	0.11	0.0	0.0	89,0,0
		35	0.12	0.0	0.0	89,0,0	202	0.12	0.0	0.0	83,0,0
147	ok	199	0.16	0.0	0.0	89,0,0	203	0.16	0.0	0.0	89,0,0
		204	0.17	0.0	0.0	89,0,0	34	0.17	0.0	0.0	89,0,0
148	ok	202	0.13	0.0	0.0	83,0,0	35	0.13	0.0	0.0	89,0,0
		205	0.15	0.0	0.0	89,0,0	203	0.15	0.0	0.0	83,0,0
149	ok	203	0.16	0.0	0.0	89,0,0	205	0.16	0.0	0.0	89,0,0
		12	0.17	0.0	0.0	89,0,0	204	0.17	0.0	0.0	89,0,0
150	ok	206	0.03	0.0	0.0	75,0,0	207	0.03	0.0	0.0	75,0,0
		141	0.03	0.0	0.0	72,0,0	16	0.03	0.0	0.0	72,0,0
151	ok	109	0.02	0.0	0.0	75,0,0	37	0.02	0.0	0.0	87,0,0

Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		208	0.02	0.0	0.0	87,0,0	207	0.02	0.0	0.0	75,0,0
152	ok	207	0.03	0.0	0.0	72,0,0	208	0.03	0.0	0.0	75,0,0
		39	0.03	0.0	0.0	75,0,0	141	0.03	0.0	0.0	72,0,0
153	ok	110	0.02	0.0	0.0	89,0,0	209	0.02	0.0	0.0	87,0,0
		211	0.02	0.0	0.0	89,0,0	37	0.02	0.0	0.0	73,0,0
154	ok	210	0.02	0.0	0.0	89,0,0	18	0.01	0.0	0.0	81,0,0
		144	0.02	0.0	0.0	87,0,0	209	0.02	0.0	0.0	89,0,0
155	ok	209	0.02	0.0	0.0	89,0,0	144	0.02	0.0	0.0	87,0,0
		40	0.02	0.0	0.0	71,0,0	211	0.02	0.0	0.0	73,0,0
156	ok	208	0.02	0.0	0.0	75,0,0	212	0.03	0.0	0.0	76,0,0
		213	0.03	0.0	0.0	76,0,0	39	0.03	0.0	0.0	72,0,0
157	ok	211	0.02	0.0	0.0	70,0,0	40	0.02	0.0	0.0	76,0,0
		214	0.03	0.0	0.0	76,0,0	212	0.03	0.0	0.0	70,0,0
158	ok	212	0.03	0.0	0.0	70,0,0	214	0.03	0.0	0.0	76,0,0
		17	0.03	0.0	0.0	76,0,0	213	0.03	0.0	0.0	70,0,0
186	ok	240	0.31	0.0	0.0	85,0,0	241	0.27	0.0	0.0	85,0,0
		117	0.29	0.0	0.0	85,0,0	1	0.30	0.0	0.0	85,0,0
187	ok	127	0.24	0.0	0.0	85,0,0	55	0.24	0.0	0.0	85,0,0
		242	0.26	0.0	0.0	85,0,0	241	0.26	0.0	0.0	85,0,0
188	ok	241	0.27	0.0	0.0	91,0,0	242	0.27	0.0	0.0	85,0,0
		47	0.29	0.0	0.0	85,0,0	117	0.29	0.0	0.0	91,0,0
189	ok	128	0.21	0.0	0.0	85,0,0	243	0.22	0.0	0.0	85,0,0
		244	0.23	0.0	0.0	85,0,0	55	0.23	0.0	0.0	85,0,0
190	ok	204	0.19	0.0	0.0	89,0,0	12	0.19	0.0	0.0	89,0,0
		134	0.20	0.0	0.0	89,0,0	243	0.20	0.0	0.0	89,0,0
191	ok	243	0.22	0.0	0.0	85,0,0	134	0.22	0.0	0.0	89,0,0
		56	0.23	0.0	0.0	89,0,0	244	0.23	0.0	0.0	85,0,0
192	ok	242	0.28	0.0	0.0	91,0,0	245	0.28	0.0	0.0	85,0,0
		227	0.29	0.0	0.0	85,0,0	47	0.30	0.0	0.0	91,0,0
193	ok	244	0.25	0.0	0.0	85,0,0	56	0.25	0.0	0.0	89,0,0
		246	0.26	0.0	0.0	89,0,0	245	0.26	0.0	0.0	91,0,0
194	ok	245	0.28	0.0	0.0	91,0,0	246	0.28	0.0	0.0	89,0,0
		14	0.29	0.0	0.0	85,0,0	227	0.29	0.0	0.0	91,0,0
195	ok	205	0.16	0.0	0.0	83,0,0	247	0.16	0.0	0.0	83,0,0
		136	0.17	0.0	0.0	83,0,0	12	0.17	0.0	0.0	83,0,0
196	ok	132	0.13	0.0	0.0	83,0,0	57	0.13	0.0	0.0	89,0,0
		248	0.15	0.0	0.0	89,0,0	247	0.15	0.0	0.0	83,0,0
197	ok	247	0.16	0.0	0.0	83,0,0	248	0.16	0.0	0.0	83,0,0
		59	0.17	0.0	0.0	83,0,0	136	0.17	0.0	0.0	83,0,0
198	ok	133	0.11	0.0	0.0	83,0,0	249	0.11	0.0	0.0	83,0,0
		251	0.12	0.0	0.0	83,0,0	57	0.12	0.0	0.0	83,0,0
199	ok	250	0.07	0.0	0.0	86,0,0	4	0.11	0.0	0.0	83,0,0
		252	0.14	0.0	0.0	83,0,0	249	0.09	0.0	0.0	92,0,0
200	ok	249	0.11	0.0	0.0	83,0,0	252	0.15	0.0	0.0	83,0,0
		60	0.15	0.0	0.0	83,0,0	251	0.13	0.0	0.0	83,0,0
201	ok	248	0.16	0.0	0.0	83,0,0	253	0.17	0.0	0.0	83,0,0
		254	0.18	0.0	0.0	83,0,0	59	0.17	0.0	0.0	83,0,0
202	ok	251	0.14	0.0	0.0	83,0,0	60	0.17	0.0	0.0	83,0,0
		255	0.18	0.0	0.0	83,0,0	253	0.16	0.0	0.0	83,0,0
203	ok	253	0.17	0.0	0.0	83,0,0	255	0.19	0.0	0.0	83,0,0
		15	0.20	0.0	0.0	83,0,0	254	0.19	0.0	0.0	83,0,0
204	ok	246	0.28	0.0	0.0	83,0,0	256	0.28	0.0	0.0	81,0,0
		175	0.29	0.0	0.0	81,0,0	14	0.29	0.0	0.0	79,0,0
205	ok	137	0.25	0.0	0.0	79,0,0	61	0.24	0.0	0.0	79,0,0
		257	0.26	0.0	0.0	79,0,0	256	0.26	0.0	0.0	79,0,0
206	ok	256	0.28	0.0	0.0	79,0,0	257	0.28	0.0	0.0	81,0,0
		62	0.30	0.0	0.0	81,0,0	175	0.29	0.0	0.0	79,0,0
207	ok	138	0.21	0.0	0.0	79,0,0	258	0.22	0.0	0.0	79,0,0
		259	0.23	0.0	0.0	79,0,0	61	0.23	0.0	0.0	79,0,0
208	ok	254	0.20	0.0	0.0	79,0,0	15	0.22	0.0	0.0	79,0,0
		260	0.23	0.0	0.0	79,0,0	258	0.22	0.0	0.0	79,0,0
209	ok	258	0.23	0.0	0.0	79,0,0	260	0.25	0.0	0.0	79,0,0
		63	0.27	0.0	0.0	79,0,0	259	0.24	0.0	0.0	79,0,0
210	ok	257	0.27	0.0	0.0	79,0,0	261	0.27	0.0	0.0	81,0,0
		262	0.29	0.0	0.0	81,0,0	62	0.29	0.0	0.0	79,0,0
211	ok	259	0.25	0.0	0.0	79,0,0	63	0.28	0.0	0.0	79,0,0
		263	0.30	0.0	0.0	79,0,0	261	0.26	0.0	0.0	79,0,0
212	ok	261	0.27	0.0	0.0	79,0,0	263	0.31	0.0	0.0	79,0,0
		2	0.30	0.0	0.0	79,0,0	262	0.29	0.0	0.0	79,0,0
213	ok	264	0.09	0.0	0.0	92,0,0	265	0.08	0.0	0.0	92,0,0
		266	0.11	0.0	0.0	92,0,0	5	0.09	0.0	0.0	76,0,0
214	ok	142	0.06	0.0	0.0	92,0,0	65	0.05	0.0	0.0	92,0,0
		267	0.07	0.0	0.0	92,0,0	265	0.07	0.0	0.0	92,0,0
215	ok	265	0.09	0.0	0.0	92,0,0	267	0.08	0.0	0.0	92,0,0

Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		66	0.10	0.0	0.0	84,0,0	266	0.11	0.0	0.0	92,0,0
216	ok	143	0.04	0.0	0.0	92,0,0	268	0.04	0.0	0.0	92,0,0
		269	0.05	0.0	0.0	92,0,0	65	0.05	0.0	0.0	92,0,0
217	ok	213	0.03	0.0	0.0	92,0,0	17	0.03	0.0	0.0	76,0,0
		149	0.04	0.0	0.0	92,0,0	268	0.04	0.0	0.0	92,0,0
218	ok	268	0.04	0.0	0.0	92,0,0	149	0.04	0.0	0.0	92,0,0
		67	0.05	0.0	0.0	82,0,0	269	0.05	0.0	0.0	92,0,0
219	ok	267	0.08	0.0	0.0	92,0,0	270	0.08	0.0	0.0	92,0,0
		271	0.10	0.0	0.0	80,0,0	66	0.10	0.0	0.0	92,0,0
220	ok	269	0.05	0.0	0.0	92,0,0	67	0.05	0.0	0.0	78,0,0
		272	0.06	0.0	0.0	78,0,0	270	0.07	0.0	0.0	92,0,0
221	ok	270	0.08	0.0	0.0	84,0,0	272	0.07	0.0	0.0	86,0,0
		19	0.09	0.0	0.0	80,0,0	271	0.10	0.0	0.0	92,0,0
222	ok	214	0.03	0.0	0.0	70,0,0	273	0.03	0.0	0.0	76,0,0
		151	0.03	0.0	0.0	76,0,0	17	0.03	0.0	0.0	70,0,0
223	ok	147	0.02	0.0	0.0	77,0,0	68	0.02	0.0	0.0	77,0,0
		274	0.02	0.0	0.0	70,0,0	273	0.03	0.0	0.0	70,0,0
224	ok	273	0.03	0.0	0.0	70,0,0	274	0.02	0.0	0.0	69,0,0
		70	0.03	0.0	0.0	74,0,0	151	0.03	0.0	0.0	70,0,0
225	ok	148	0.02	0.0	0.0	77,0,0	275	0.02	0.0	0.0	83,0,0
		277	0.02	0.0	0.0	83,0,0	68	0.02	0.0	0.0	83,0,0
226	ok	276	0.02	0.0	0.0	83,0,0	8	0.03	0.0	0.0	87,0,0
		278	0.02	0.0	0.0	83,0,0	275	0.03	0.0	0.0	73,0,0
227	ok	275	0.02	0.0	0.0	77,0,0	278	0.02	0.0	0.0	83,0,0
		71	0.02	0.0	0.0	83,0,0	277	0.02	0.0	0.0	83,0,0
228	ok	274	0.03	0.0	0.0	69,0,0	279	0.03	0.0	0.0	74,0,0
		280	0.03	0.0	0.0	74,0,0	70	0.03	0.0	0.0	69,0,0
229	ok	277	0.02	0.0	0.0	61,0,0	71	0.02	0.0	0.0	61,0,0
		281	0.02	0.0	0.0	77,0,0	279	0.02	0.0	0.0	69,0,0
230	ok	279	0.03	0.0	0.0	69,0,0	281	0.03	0.0	0.0	69,0,0
		20	0.03	0.0	0.0	74,0,0	280	0.03	0.0	0.0	74,0,0
231	ok	272	0.07	0.0	0.0	80,0,0	282	0.08	0.0	0.0	90,0,0
		283	0.10	0.0	0.0	82,0,0	19	0.09	0.0	0.0	86,0,0
232	ok	152	0.05	0.0	0.0	82,0,0	72	0.06	0.0	0.0	82,0,0
		284	0.07	0.0	0.0	82,0,0	282	0.06	0.0	0.0	82,0,0
233	ok	282	0.08	0.0	0.0	82,0,0	284	0.08	0.0	0.0	82,0,0
		73	0.10	0.0	0.0	82,0,0	283	0.10	0.0	0.0	86,0,0
234	ok	153	0.04	0.0	0.0	82,0,0	285	0.05	0.0	0.0	82,0,0
		286	0.05	0.0	0.0	82,0,0	72	0.05	0.0	0.0	82,0,0
235	ok	280	0.03	0.0	0.0	70,0,0	20	0.04	0.0	0.0	70,0,0
		287	0.04	0.0	0.0	70,0,0	285	0.04	0.0	0.0	82,0,0
236	ok	285	0.05	0.0	0.0	82,0,0	287	0.05	0.0	0.0	70,0,0
		74	0.05	0.0	0.0	70,0,0	286	0.05	0.0	0.0	82,0,0
237	ok	284	0.08	0.0	0.0	82,0,0	288	0.09	0.0	0.0	82,0,0
		289	0.11	0.0	0.0	82,0,0	73	0.10	0.0	0.0	90,0,0
238	ok	286	0.06	0.0	0.0	70,0,0	74	0.06	0.0	0.0	70,0,0
		290	0.07	0.0	0.0	82,0,0	288	0.07	0.0	0.0	82,0,0
239	ok	288	0.08	0.0	0.0	82,0,0	290	0.09	0.0	0.0	82,0,0
		6	0.09	0.0	0.0	70,0,0	289	0.11	0.0	0.0	82,0,0
Setto			V N/M	V V/T cls	V V/T acc			V N/M	V V/T cls	V V/T acc	
			0.31	0.0	0.0						

TABELLA VERIFICHE ELEMENTI D3 GUSCI C.A.

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
3	ok	3	0.42	0.0	0.0	80,0,0	103	0.38	0.0	0.0	80,0,0
		112	0.12	0.0	0.0	80,0,0	111	0.14	0.0	0.0	76,0,0
4	ok	1	0.41	0.0	0.0	89,0,0	117	0.35	0.0	0.0	89,0,0
		116	0.24	0.0	0.0	89,0,0	115	0.27	0.0	0.0	89,0,0
5	ok	7	0.40	0.0	0.0	80,0,0	108	0.46	0.0	0.0	80,0,0
		121	0.35	0.0	0.0	87,0,0	120	0.36	0.0	0.0	87,0,0
12	ok	21	0.29	0.0	0.0	87,0,0	156	0.28	0.0	0.0	91,0,0
		155	0.23	0.0	0.0	91,0,0	154	0.24	0.0	0.0	87,0,0
13	ok	13	0.37	0.0	0.0	84,0,0	131	0.37	0.0	0.0	86,0,0
		160	0.12	0.0	0.0	90,0,0	159	0.11	0.0	0.0	92,0,0
14	ok	22	0.27	0.0	0.0	83,0,0	165	0.27	0.0	0.0	81,0,0

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
15	ok	164	0.22	0.0	0.0	81,0,0	163	0.22	0.0	0.0	77,0,0
		24	0.25	0.0	0.0	63,0,0	170	0.25	0.0	0.0	64,0,0
		169	0.29	0.0	0.0	64,0,0	168	0.29	0.0	0.0	64,0,0
16	ok	14	0.37	0.0	0.0	83,0,0	175	0.38	0.0	0.0	83,0,0
		174	0.24	0.0	0.0	83,0,0	173	0.24	0.0	0.0	81,0,0
17	ok	25	0.20	0.0	0.0	82,0,0	180	0.22	0.0	0.0	70,0,0
		179	0.26	0.0	0.0	70,0,0	178	0.24	0.0	0.0	82,0,0
18	ok	27	0.12	0.0	0.0	87,0,0	185	0.11	0.0	0.0	87,0,0
		184	0.07	0.0	0.0	87,0,0	183	0.07	0.0	0.0	87,0,0
19	ok	18	0.45	0.0	0.0	85,0,0	146	0.45	0.0	0.0	81,0,0
		189	0.36	0.0	0.0	81,0,0	188	0.36	0.0	0.0	85,0,0
20	ok	28	0.11	0.0	0.0	77,0,0	194	0.11	0.0	0.0	81,0,0
		193	0.07	0.0	0.0	81,0,0	192	0.07	0.0	0.0	77,0,0
27	ok	41	0.17	0.0	0.0	85,0,0	113	0.17	0.0	0.0	89,0,0
		216	0.27	0.0	0.0	89,0,0	215	0.28	0.0	0.0	85,0,0
28	ok	33	0.38	0.0	0.0	84,0,0	201	0.37	0.0	0.0	92,0,0
		218	0.12	0.0	0.0	84,0,0	114	0.12	0.0	0.0	84,0,0
29	ok	42	0.16	0.0	0.0	89,0,0	219	0.16	0.0	0.0	89,0,0
		220	0.26	0.0	0.0	89,0,0	217	0.26	0.0	0.0	89,0,0
30	ok	45	0.11	0.0	0.0	92,0,0	118	0.10	0.0	0.0	88,0,0
		224	0.22	0.0	0.0	92,0,0	223	0.22	0.0	0.0	92,0,0
31	ok	47	0.38	0.0	0.0	89,0,0	227	0.38	0.0	0.0	89,0,0
		226	0.24	0.0	0.0	89,0,0	119	0.24	0.0	0.0	89,0,0
32	ok	46	0.09	0.0	0.0	92,0,0	228	0.08	0.0	0.0	92,0,0
		229	0.20	0.0	0.0	92,0,0	225	0.21	0.0	0.0	92,0,0
33	ok	50	0.26	0.0	0.0	87,0,0	122	0.25	0.0	0.0	87,0,0
		233	0.19	0.0	0.0	87,0,0	232	0.19	0.0	0.0	87,0,0
34	ok	38	0.46	0.0	0.0	87,0,0	210	0.45	0.0	0.0	91,0,0
		235	0.36	0.0	0.0	91,0,0	123	0.36	0.0	0.0	87,0,0
35	ok	51	0.25	0.0	0.0	91,0,0	236	0.25	0.0	0.0	91,0,0
		237	0.19	0.0	0.0	91,0,0	234	0.19	0.0	0.0	87,0,0
54	ok	75	0.11	0.0	0.0	80,0,0	157	0.10	0.0	0.0	84,0,0
		292	0.22	0.0	0.0	89,0,0	291	0.23	0.0	0.0	89,0,0
55	ok	43	0.28	0.0	0.0	91,0,0	221	0.27	0.0	0.0	91,0,0
		294	0.22	0.0	0.0	91,0,0	158	0.23	0.0	0.0	91,0,0
56	ok	76	0.10	0.0	0.0	84,0,0	295	0.10	0.0	0.0	84,0,0
		296	0.21	0.0	0.0	89,0,0	293	0.21	0.0	0.0	89,0,0
57	ok	44	0.15	0.0	0.0	83,0,0	161	0.16	0.0	0.0	83,0,0
		298	0.26	0.0	0.0	83,0,0	222	0.26	0.0	0.0	83,0,0
58	ok	58	0.38	0.0	0.0	90,0,0	250	0.39	0.0	0.0	74,0,0
		300	0.12	0.0	0.0	74,0,0	162	0.12	0.0	0.0	82,0,0
59	ok	78	0.16	0.0	0.0	83,0,0	301	0.17	0.0	0.0	83,0,0
		303	0.27	0.0	0.0	83,0,0	299	0.26	0.0	0.0	83,0,0
60	ok	77	0.09	0.0	0.0	92,0,0	166	0.10	0.0	0.0	82,0,0
		306	0.21	0.0	0.0	83,0,0	297	0.21	0.0	0.0	81,0,0
61	ok	79	0.28	0.0	0.0	81,0,0	304	0.28	0.0	0.0	81,0,0
		308	0.23	0.0	0.0	81,0,0	167	0.23	0.0	0.0	81,0,0
62	ok	81	0.10	0.0	0.0	90,0,0	309	0.10	0.0	0.0	90,0,0
		311	0.22	0.0	0.0	83,0,0	307	0.21	0.0	0.0	83,0,0
63	ok	83	0.28	0.0	0.0	89,0,0	171	0.29	0.0	0.0	89,0,0
		314	0.18	0.0	0.0	79,0,0	313	0.17	0.0	0.0	89,0,0
64	ok	48	0.23	0.0	0.0	76,0,0	230	0.22	0.0	0.0	76,0,0
		316	0.26	0.0	0.0	76,0,0	172	0.28	0.0	0.0	76,0,0
65	ok	84	0.28	0.0	0.0	89,0,0	317	0.28	0.0	0.0	89,0,0
		318	0.17	0.0	0.0	83,0,0	315	0.17	0.0	0.0	79,0,0
66	ok	49	0.08	0.0	0.0	80,0,0	176	0.09	0.0	0.0	82,0,0
		320	0.20	0.0	0.0	82,0,0	231	0.19	0.0	0.0	82,0,0
67	ok	62	0.38	0.0	0.0	83,0,0	262	0.38	0.0	0.0	83,0,0
		322	0.24	0.0	0.0	83,0,0	177	0.24	0.0	0.0	83,0,0
68	ok	86	0.09	0.0	0.0	82,0,0	323	0.11	0.0	0.0	78,0,0
		325	0.22	0.0	0.0	82,0,0	321	0.21	0.0	0.0	82,0,0
69	ok	85	0.28	0.0	0.0	83,0,0	181	0.28	0.0	0.0	83,0,0
		328	0.17	0.0	0.0	89,0,0	319	0.17	0.0	0.0	89,0,0
70	ok	87	0.23	0.0	0.0	74,0,0	326	0.25	0.0	0.0	74,0,0
		330	0.29	0.0	0.0	74,0,0	182	0.28	0.0	0.0	74,0,0
71	ok	89	0.28	0.0	0.0	83,0,0	331	0.29	0.0	0.0	83,0,0
		333	0.18	0.0	0.0	85,0,0	329	0.17	0.0	0.0	85,0,0
72	ok	91	0.03	0.0	0.0	87,0,0	186	0.03	0.0	0.0	89,0,0
		336	0.01	0.0	0.0	89,0,0	335	0.01	0.0	0.0	91,0,0
73	ok	52	0.11	0.0	0.0	87,0,0	238	0.11	0.0	0.0	87,0,0
		339	0.07	0.0	0.0	87,0,0	187	0.07	0.0	0.0	87,0,0
74	ok	92	0.03	0.0	0.0	87,0,0	340	0.03	0.0	0.0	87,0,0
		341	9.97e-03	0.0	0.0	87,0,0	338	0.01	0.0	0.0	87,0,0
75	ok	53	0.25	0.0	0.0	85,0,0	190	0.25	0.0	0.0	77,0,0

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		344	0.19	0.0	0.0	81,0,0	239	0.19	0.0	0.0	85,0,0
76	ok	69	0.46	0.0	0.0	77,0,0	276	0.46	0.0	0.0	77,0,0
		346	0.36	0.0	0.0	77,0,0	191	0.36	0.0	0.0	77,0,0
77	ok	95	0.25	0.0	0.0	81,0,0	347	0.25	0.0	0.0	77,0,0
		349	0.19	0.0	0.0	77,0,0	345	0.19	0.0	0.0	81,0,0
78	ok	94	0.03	0.0	0.0	80,0,0	195	0.03	0.0	0.0	77,0,0
		352	9.73e-03	0.0	0.0	77,0,0	343	8.59e-03	0.0	0.0	66,0,0
79	ok	96	0.11	0.0	0.0	77,0,0	350	0.11	0.0	0.0	77,0,0
		355	0.07	0.0	0.0	77,0,0	196	0.07	0.0	0.0	77,0,0
80	ok	98	0.03	0.0	0.0	77,0,0	356	0.03	0.0	0.0	83,0,0
		358	0.01	0.0	0.0	77,0,0	354	0.01	0.0	0.0	77,0,0
87	ok	111	0.14	0.0	0.0	80,0,0	112	0.12	0.0	0.0	80,0,0
		113	0.17	0.0	0.0	89,0,0	41	0.18	0.0	0.0	89,0,0
88	ok	103	0.39	0.0	0.0	72,0,0	33	0.38	0.0	0.0	84,0,0
		114	0.12	0.0	0.0	92,0,0	112	0.12	0.0	0.0	72,0,0
89	ok	112	0.12	0.0	0.0	88,0,0	114	0.11	0.0	0.0	88,0,0
		42	0.16	0.0	0.0	89,0,0	113	0.17	0.0	0.0	89,0,0
90	ok	115	0.28	0.0	0.0	89,0,0	116	0.25	0.0	0.0	89,0,0
		118	0.14	0.0	0.0	92,0,0	45	0.14	0.0	0.0	92,0,0
91	ok	117	0.38	0.0	0.0	89,0,0	47	0.38	0.0	0.0	89,0,0
		119	0.24	0.0	0.0	89,0,0	116	0.24	0.0	0.0	89,0,0
92	ok	116	0.24	0.0	0.0	89,0,0	119	0.23	0.0	0.0	89,0,0
		46	0.13	0.0	0.0	92,0,0	118	0.14	0.0	0.0	92,0,0
93	ok	120	0.35	0.0	0.0	87,0,0	121	0.34	0.0	0.0	87,0,0
		122	0.26	0.0	0.0	87,0,0	50	0.27	0.0	0.0	87,0,0
94	ok	108	0.46	0.0	0.0	87,0,0	38	0.46	0.0	0.0	87,0,0
		123	0.36	0.0	0.0	87,0,0	121	0.36	0.0	0.0	87,0,0
95	ok	121	0.34	0.0	0.0	87,0,0	123	0.35	0.0	0.0	91,0,0
		51	0.27	0.0	0.0	91,0,0	122	0.26	0.0	0.0	87,0,0
114	ok	154	0.22	0.0	0.0	67,0,0	155	0.21	0.0	0.0	75,0,0
		157	0.09	0.0	0.0	75,0,0	75	0.09	0.0	0.0	67,0,0
115	ok	156	0.28	0.0	0.0	91,0,0	43	0.28	0.0	0.0	91,0,0
		158	0.23	0.0	0.0	91,0,0	155	0.23	0.0	0.0	91,0,0
116	ok	155	0.21	0.0	0.0	75,0,0	158	0.21	0.0	0.0	75,0,0
		76	0.08	0.0	0.0	75,0,0	157	0.08	0.0	0.0	75,0,0
117	ok	159	0.11	0.0	0.0	84,0,0	160	0.11	0.0	0.0	82,0,0
		161	0.16	0.0	0.0	83,0,0	44	0.15	0.0	0.0	83,0,0
118	ok	131	0.37	0.0	0.0	82,0,0	58	0.38	0.0	0.0	90,0,0
		162	0.12	0.0	0.0	90,0,0	160	0.12	0.0	0.0	90,0,0
119	ok	160	0.11	0.0	0.0	90,0,0	162	0.11	0.0	0.0	78,0,0
		78	0.16	0.0	0.0	83,0,0	161	0.16	0.0	0.0	83,0,0
120	ok	163	0.20	0.0	0.0	77,0,0	164	0.20	0.0	0.0	69,0,0
		166	0.07	0.0	0.0	69,0,0	77	0.07	0.0	0.0	83,0,0
121	ok	165	0.27	0.0	0.0	81,0,0	79	0.28	0.0	0.0	81,0,0
		167	0.23	0.0	0.0	81,0,0	164	0.22	0.0	0.0	81,0,0
122	ok	164	0.20	0.0	0.0	69,0,0	167	0.21	0.0	0.0	69,0,0
		81	0.08	0.0	0.0	69,0,0	166	0.07	0.0	0.0	69,0,0
123	ok	168	0.29	0.0	0.0	87,0,0	169	0.29	0.0	0.0	87,0,0
		171	0.27	0.0	0.0	87,0,0	83	0.26	0.0	0.0	87,0,0
124	ok	170	0.25	0.0	0.0	72,0,0	48	0.23	0.0	0.0	72,0,0
		172	0.28	0.0	0.0	72,0,0	169	0.29	0.0	0.0	72,0,0
125	ok	169	0.29	0.0	0.0	87,0,0	172	0.29	0.0	0.0	79,0,0
		84	0.26	0.0	0.0	79,0,0	171	0.27	0.0	0.0	87,0,0
126	ok	173	0.23	0.0	0.0	87,0,0	174	0.23	0.0	0.0	83,0,0
		176	0.12	0.0	0.0	82,0,0	49	0.11	0.0	0.0	80,0,0
127	ok	175	0.38	0.0	0.0	83,0,0	62	0.38	0.0	0.0	83,0,0
		177	0.24	0.0	0.0	83,0,0	174	0.24	0.0	0.0	83,0,0
128	ok	174	0.23	0.0	0.0	83,0,0	177	0.23	0.0	0.0	83,0,0
		86	0.13	0.0	0.0	82,0,0	176	0.12	0.0	0.0	82,0,0
129	ok	178	0.28	0.0	0.0	89,0,0	179	0.28	0.0	0.0	85,0,0
		181	0.26	0.0	0.0	85,0,0	85	0.25	0.0	0.0	89,0,0
130	ok	180	0.22	0.0	0.0	70,0,0	87	0.23	0.0	0.0	70,0,0
		182	0.28	0.0	0.0	70,0,0	179	0.26	0.0	0.0	70,0,0
131	ok	179	0.28	0.0	0.0	85,0,0	182	0.29	0.0	0.0	85,0,0
		89	0.26	0.0	0.0	85,0,0	181	0.26	0.0	0.0	85,0,0
132	ok	183	0.07	0.0	0.0	87,0,0	184	0.06	0.0	0.0	89,0,0
		186	0.03	0.0	0.0	89,0,0	91	0.03	0.0	0.0	89,0,0
133	ok	185	0.11	0.0	0.0	87,0,0	52	0.11	0.0	0.0	87,0,0
		187	0.07	0.0	0.0	87,0,0	184	0.07	0.0	0.0	87,0,0
134	ok	184	0.06	0.0	0.0	89,0,0	187	0.06	0.0	0.0	87,0,0
		92	0.03	0.0	0.0	87,0,0	186	0.03	0.0	0.0	89,0,0
135	ok	188	0.34	0.0	0.0	85,0,0	189	0.35	0.0	0.0	81,0,0
		190	0.27	0.0	0.0	81,0,0	53	0.26	0.0	0.0	85,0,0
136	ok	146	0.45	0.0	0.0	81,0,0	69	0.46	0.0	0.0	77,0,0

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		191	0.36	0.0	0.0	77,0,0	189	0.36	0.0	0.0	81,0,0
137	ok	189	0.35	0.0	0.0	81,0,0	191	0.35	0.0	0.0	81,0,0
		95	0.27	0.0	0.0	81,0,0	190	0.27	0.0	0.0	81,0,0
138	ok	192	0.06	0.0	0.0	80,0,0	193	0.06	0.0	0.0	77,0,0
		195	0.03	0.0	0.0	77,0,0	94	0.03	0.0	0.0	80,0,0
139	ok	194	0.11	0.0	0.0	77,0,0	96	0.11	0.0	0.0	77,0,0
		196	0.07	0.0	0.0	77,0,0	193	0.07	0.0	0.0	77,0,0
140	ok	193	0.06	0.0	0.0	77,0,0	196	0.06	0.0	0.0	77,0,0
		98	0.03	0.0	0.0	77,0,0	195	0.03	0.0	0.0	77,0,0
159	ok	215	0.27	0.0	0.0	89,0,0	216	0.26	0.0	0.0	89,0,0
		156	0.29	0.0	0.0	89,0,0	21	0.30	0.0	0.0	89,0,0
160	ok	113	0.17	0.0	0.0	89,0,0	42	0.16	0.0	0.0	89,0,0
		217	0.26	0.0	0.0	89,0,0	216	0.27	0.0	0.0	89,0,0
161	ok	216	0.26	0.0	0.0	85,0,0	217	0.26	0.0	0.0	85,0,0
		43	0.28	0.0	0.0	85,0,0	156	0.29	0.0	0.0	85,0,0
162	ok	114	0.11	0.0	0.0	88,0,0	218	0.11	0.0	0.0	84,0,0
		219	0.16	0.0	0.0	89,0,0	42	0.16	0.0	0.0	89,0,0
163	ok	201	0.37	0.0	0.0	80,0,0	13	0.37	0.0	0.0	90,0,0
		159	0.11	0.0	0.0	82,0,0	218	0.12	0.0	0.0	84,0,0
164	ok	218	0.11	0.0	0.0	92,0,0	159	0.11	0.0	0.0	90,0,0
		44	0.15	0.0	0.0	89,0,0	219	0.16	0.0	0.0	89,0,0
165	ok	217	0.26	0.0	0.0	85,0,0	220	0.25	0.0	0.0	89,0,0
		221	0.28	0.0	0.0	89,0,0	43	0.29	0.0	0.0	85,0,0
166	ok	219	0.16	0.0	0.0	89,0,0	44	0.15	0.0	0.0	89,0,0
		222	0.26	0.0	0.0	89,0,0	220	0.26	0.0	0.0	89,0,0
167	ok	220	0.25	0.0	0.0	89,0,0	222	0.25	0.0	0.0	89,0,0
		22	0.28	0.0	0.0	89,0,0	221	0.28	0.0	0.0	85,0,0
168	ok	223	0.19	0.0	0.0	76,0,0	224	0.18	0.0	0.0	76,0,0
		170	0.27	0.0	0.0	76,0,0	24	0.27	0.0	0.0	76,0,0
169	ok	118	0.11	0.0	0.0	88,0,0	46	0.09	0.0	0.0	92,0,0
		225	0.21	0.0	0.0	92,0,0	224	0.22	0.0	0.0	92,0,0
170	ok	224	0.18	0.0	0.0	76,0,0	225	0.16	0.0	0.0	92,0,0
		48	0.25	0.0	0.0	92,0,0	170	0.27	0.0	0.0	76,0,0
171	ok	119	0.23	0.0	0.0	89,0,0	226	0.23	0.0	0.0	89,0,0
		228	0.12	0.0	0.0	92,0,0	46	0.13	0.0	0.0	92,0,0
172	ok	227	0.38	0.0	0.0	89,0,0	14	0.37	0.0	0.0	89,0,0
		173	0.24	0.0	0.0	91,0,0	226	0.24	0.0	0.0	89,0,0
173	ok	226	0.23	0.0	0.0	89,0,0	173	0.23	0.0	0.0	77,0,0
		49	0.11	0.0	0.0	86,0,0	228	0.12	0.0	0.0	92,0,0
174	ok	225	0.16	0.0	0.0	92,0,0	229	0.16	0.0	0.0	92,0,0
		230	0.24	0.0	0.0	92,0,0	48	0.25	0.0	0.0	92,0,0
175	ok	228	0.09	0.0	0.0	92,0,0	49	0.08	0.0	0.0	86,0,0
		231	0.19	0.0	0.0	92,0,0	229	0.20	0.0	0.0	92,0,0
176	ok	229	0.16	0.0	0.0	92,0,0	231	0.15	0.0	0.0	92,0,0
		25	0.24	0.0	0.0	92,0,0	230	0.24	0.0	0.0	92,0,0
177	ok	232	0.18	0.0	0.0	87,0,0	233	0.18	0.0	0.0	87,0,0
		185	0.12	0.0	0.0	87,0,0	27	0.13	0.0	0.0	87,0,0
178	ok	122	0.25	0.0	0.0	87,0,0	51	0.25	0.0	0.0	91,0,0
		234	0.19	0.0	0.0	91,0,0	233	0.19	0.0	0.0	87,0,0
179	ok	233	0.18	0.0	0.0	87,0,0	234	0.18	0.0	0.0	87,0,0
		52	0.12	0.0	0.0	87,0,0	185	0.12	0.0	0.0	87,0,0
180	ok	123	0.35	0.0	0.0	91,0,0	235	0.35	0.0	0.0	91,0,0
		236	0.27	0.0	0.0	91,0,0	51	0.27	0.0	0.0	91,0,0
181	ok	210	0.45	0.0	0.0	91,0,0	18	0.45	0.0	0.0	79,0,0
		188	0.36	0.0	0.0	79,0,0	235	0.36	0.0	0.0	91,0,0
182	ok	235	0.35	0.0	0.0	91,0,0	188	0.34	0.0	0.0	79,0,0
		53	0.26	0.0	0.0	79,0,0	236	0.27	0.0	0.0	91,0,0
183	ok	234	0.18	0.0	0.0	87,0,0	237	0.18	0.0	0.0	87,0,0
		238	0.12	0.0	0.0	87,0,0	52	0.12	0.0	0.0	87,0,0
184	ok	236	0.25	0.0	0.0	87,0,0	53	0.25	0.0	0.0	79,0,0
		239	0.19	0.0	0.0	79,0,0	237	0.19	0.0	0.0	91,0,0
185	ok	237	0.18	0.0	0.0	91,0,0	239	0.18	0.0	0.0	87,0,0
		28	0.12	0.0	0.0	83,0,0	238	0.12	0.0	0.0	91,0,0
240	ok	291	0.29	0.0	0.0	89,0,0	292	0.25	0.0	0.0	89,0,0
		108	0.55	0.0	0.0	89,0,0	7	0.55	0.0	0.0	89,0,0
241	ok	157	0.10	0.0	0.0	84,0,0	76	0.10	0.0	0.0	84,0,0
		293	0.21	0.0	0.0	89,0,0	292	0.22	0.0	0.0	89,0,0
242	ok	292	0.26	0.0	0.0	89,0,0	293	0.26	0.0	0.0	89,0,0
		38	0.54	0.0	0.0	89,0,0	108	0.55	0.0	0.0	89,0,0
243	ok	158	0.21	0.0	0.0	75,0,0	294	0.20	0.0	0.0	75,0,0
		295	0.07	0.0	0.0	75,0,0	76	0.08	0.0	0.0	75,0,0
244	ok	221	0.27	0.0	0.0	91,0,0	22	0.27	0.0	0.0	89,0,0
		163	0.22	0.0	0.0	87,0,0	294	0.22	0.0	0.0	91,0,0
245	ok	294	0.20	0.0	0.0	75,0,0	163	0.20	0.0	0.0	87,0,0

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		77	0.07	0.0	0.0	89,0,0	295	0.07	0.0	0.0	75,0,0
246	ok	293	0.25	0.0	0.0	89,0,0	296	0.25	0.0	0.0	89,0,0
		210	0.53	0.0	0.0	89,0,0	38	0.54	0.0	0.0	89,0,0
247	ok	295	0.10	0.0	0.0	92,0,0	77	0.09	0.0	0.0	82,0,0
		297	0.21	0.0	0.0	91,0,0	296	0.21	0.0	0.0	89,0,0
248	ok	296	0.25	0.0	0.0	89,0,0	297	0.25	0.0	0.0	87,0,0
		18	0.52	0.0	0.0	87,0,0	210	0.53	0.0	0.0	89,0,0
249	ok	222	0.25	0.0	0.0	83,0,0	298	0.25	0.0	0.0	83,0,0
		165	0.28	0.0	0.0	79,0,0	22	0.28	0.0	0.0	83,0,0
250	ok	161	0.16	0.0	0.0	83,0,0	78	0.16	0.0	0.0	83,0,0
		299	0.26	0.0	0.0	83,0,0	298	0.26	0.0	0.0	83,0,0
251	ok	298	0.25	0.0	0.0	83,0,0	299	0.26	0.0	0.0	79,0,0
		79	0.29	0.0	0.0	79,0,0	165	0.28	0.0	0.0	83,0,0
252	ok	162	0.11	0.0	0.0	78,0,0	300	0.12	0.0	0.0	78,0,0
		301	0.17	0.0	0.0	83,0,0	78	0.16	0.0	0.0	83,0,0
253	ok	250	0.38	0.0	0.0	86,0,0	4	0.42	0.0	0.0	86,0,0
		302	0.14	0.0	0.0	70,0,0	300	0.12	0.0	0.0	86,0,0
254	ok	300	0.12	0.0	0.0	86,0,0	302	0.14	0.0	0.0	86,0,0
		80	0.18	0.0	0.0	83,0,0	301	0.17	0.0	0.0	83,0,0
255	ok	299	0.26	0.0	0.0	79,0,0	303	0.26	0.0	0.0	79,0,0
		304	0.29	0.0	0.0	79,0,0	79	0.28	0.0	0.0	79,0,0
256	ok	301	0.17	0.0	0.0	83,0,0	80	0.17	0.0	0.0	79,0,0
		305	0.28	0.0	0.0	79,0,0	303	0.27	0.0	0.0	83,0,0
257	ok	303	0.26	0.0	0.0	83,0,0	305	0.27	0.0	0.0	83,0,0
		23	0.30	0.0	0.0	83,0,0	304	0.29	0.0	0.0	83,0,0
258	ok	297	0.25	0.0	0.0	77,0,0	306	0.25	0.0	0.0	83,0,0
		146	0.53	0.0	0.0	83,0,0	18	0.52	0.0	0.0	77,0,0
259	ok	166	0.10	0.0	0.0	90,0,0	81	0.10	0.0	0.0	90,0,0
		307	0.21	0.0	0.0	83,0,0	306	0.21	0.0	0.0	83,0,0
260	ok	306	0.25	0.0	0.0	83,0,0	307	0.25	0.0	0.0	83,0,0
		69	0.54	0.0	0.0	83,0,0	146	0.53	0.0	0.0	83,0,0
261	ok	167	0.21	0.0	0.0	69,0,0	308	0.21	0.0	0.0	69,0,0
		309	0.08	0.0	0.0	69,0,0	81	0.08	0.0	0.0	69,0,0
262	ok	304	0.28	0.0	0.0	81,0,0	23	0.29	0.0	0.0	77,0,0
		310	0.24	0.0	0.0	77,0,0	308	0.23	0.0	0.0	81,0,0
263	ok	308	0.21	0.0	0.0	69,0,0	310	0.22	0.0	0.0	61,0,0
		82	0.09	0.0	0.0	61,0,0	309	0.09	0.0	0.0	69,0,0
264	ok	307	0.26	0.0	0.0	83,0,0	311	0.26	0.0	0.0	83,0,0
		276	0.55	0.0	0.0	83,0,0	69	0.54	0.0	0.0	83,0,0
265	ok	309	0.10	0.0	0.0	90,0,0	82	0.11	0.0	0.0	86,0,0
		312	0.23	0.0	0.0	83,0,0	311	0.22	0.0	0.0	83,0,0
266	ok	311	0.25	0.0	0.0	83,0,0	312	0.29	0.0	0.0	83,0,0
		8	0.55	0.0	0.0	83,0,0	276	0.55	0.0	0.0	83,0,0
267	ok	313	0.20	0.0	0.0	73,0,0	314	0.21	0.0	0.0	89,0,0
		266	0.19	0.0	0.0	92,0,0	5	0.25	0.0	0.0	92,0,0
268	ok	171	0.29	0.0	0.0	89,0,0	84	0.28	0.0	0.0	89,0,0
		315	0.17	0.0	0.0	79,0,0	314	0.18	0.0	0.0	79,0,0
269	ok	314	0.20	0.0	0.0	73,0,0	315	0.19	0.0	0.0	89,0,0
		66	0.19	0.0	0.0	92,0,0	266	0.20	0.0	0.0	92,0,0
270	ok	172	0.29	0.0	0.0	79,0,0	316	0.28	0.0	0.0	79,0,0
		317	0.26	0.0	0.0	79,0,0	84	0.26	0.0	0.0	79,0,0
271	ok	230	0.22	0.0	0.0	76,0,0	25	0.20	0.0	0.0	92,0,0
		178	0.24	0.0	0.0	92,0,0	316	0.26	0.0	0.0	76,0,0
272	ok	316	0.28	0.0	0.0	79,0,0	178	0.28	0.0	0.0	83,0,0
		85	0.25	0.0	0.0	83,0,0	317	0.26	0.0	0.0	79,0,0
273	ok	315	0.19	0.0	0.0	89,0,0	318	0.18	0.0	0.0	89,0,0
		271	0.19	0.0	0.0	92,0,0	66	0.20	0.0	0.0	92,0,0
274	ok	317	0.28	0.0	0.0	89,0,0	85	0.28	0.0	0.0	89,0,0
		319	0.17	0.0	0.0	83,0,0	318	0.17	0.0	0.0	83,0,0
275	ok	318	0.18	0.0	0.0	89,0,0	319	0.17	0.0	0.0	89,0,0
		19	0.18	0.0	0.0	88,0,0	271	0.19	0.0	0.0	92,0,0
276	ok	231	0.15	0.0	0.0	82,0,0	320	0.16	0.0	0.0	82,0,0
		180	0.24	0.0	0.0	82,0,0	25	0.24	0.0	0.0	82,0,0
277	ok	176	0.08	0.0	0.0	82,0,0	86	0.09	0.0	0.0	82,0,0
		321	0.21	0.0	0.0	82,0,0	320	0.20	0.0	0.0	82,0,0
...											
320	ok	10	7.00e-03	0.0	0.0	69,0,0	359	4.31e-03	0.0	0.0	73,0,0
Guscio			V N/M	V V/T cls	V V/T acc			V N/M	V V/T cls	V V/T acc	
			0.55	0.0	0.0						

Scafati, 02/05/2023

Il Capogruppo Mandatario

Dott. Ing. Massimo VIGLIANISI
 Iscrizione all'Albo n° A 3245
 alla Sezione A-11 Ingegneri (Bez. A)
 della Provincia di Reggio Calabria

