

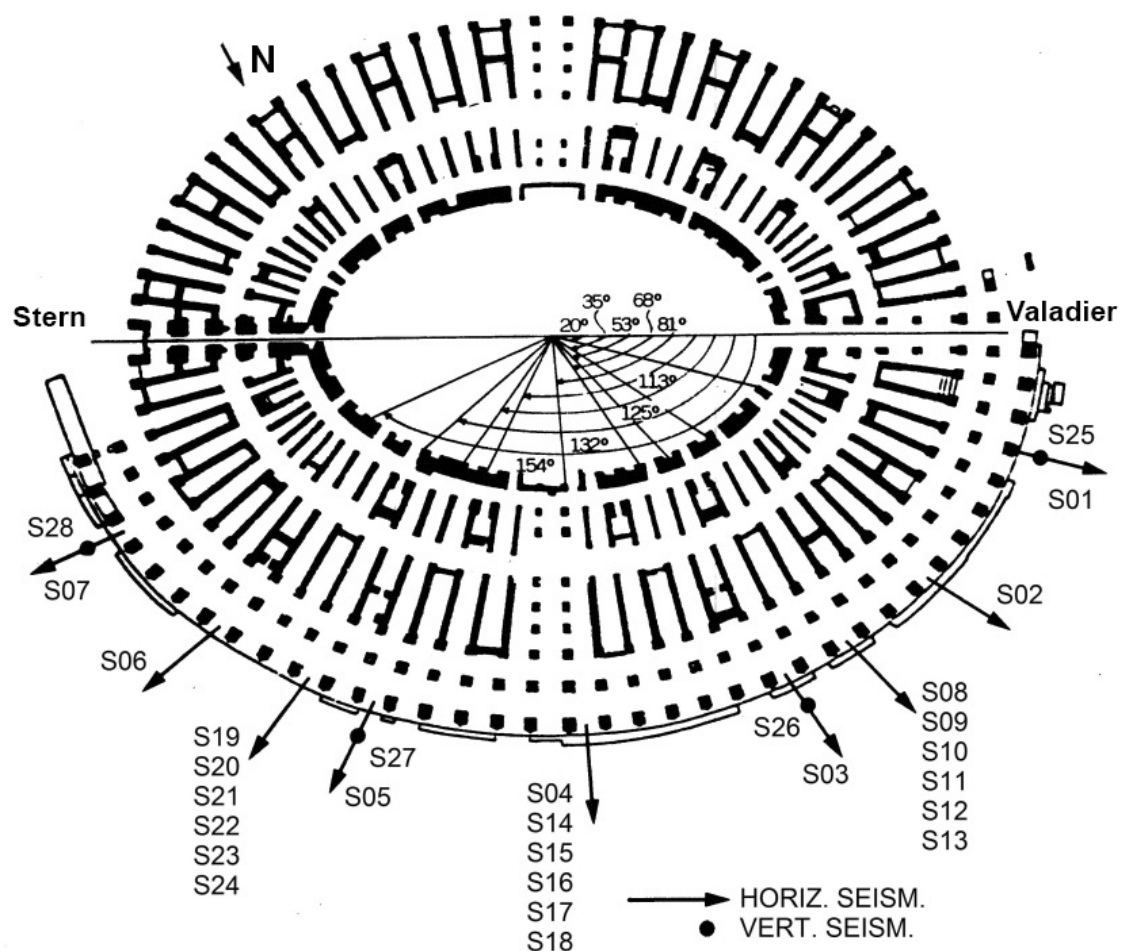
Caratterizzazione dinamica di strutture: Un caso speciale

Giovanni Bongiovanni

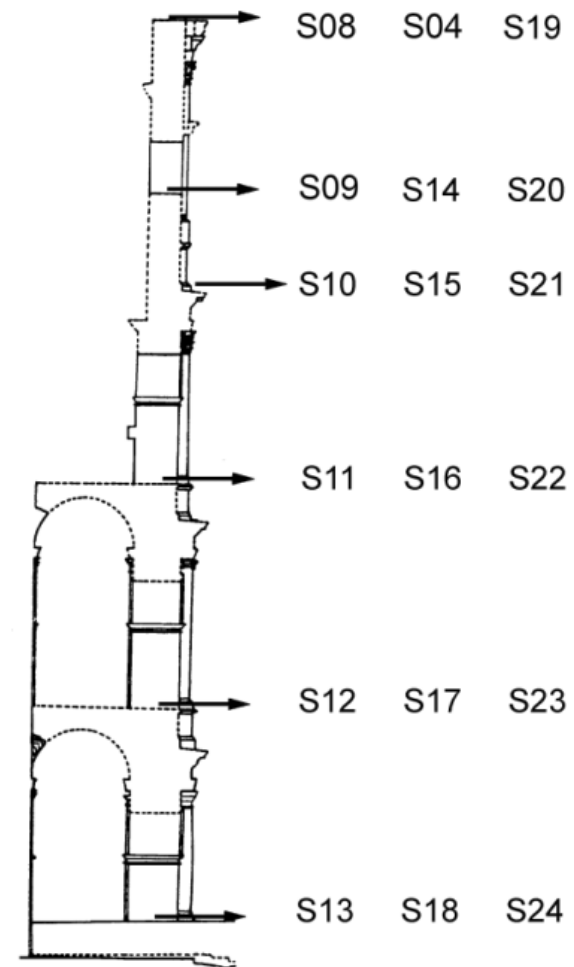
Il Colosseo



Misure del 1985 con 13 S13800 Teledyne

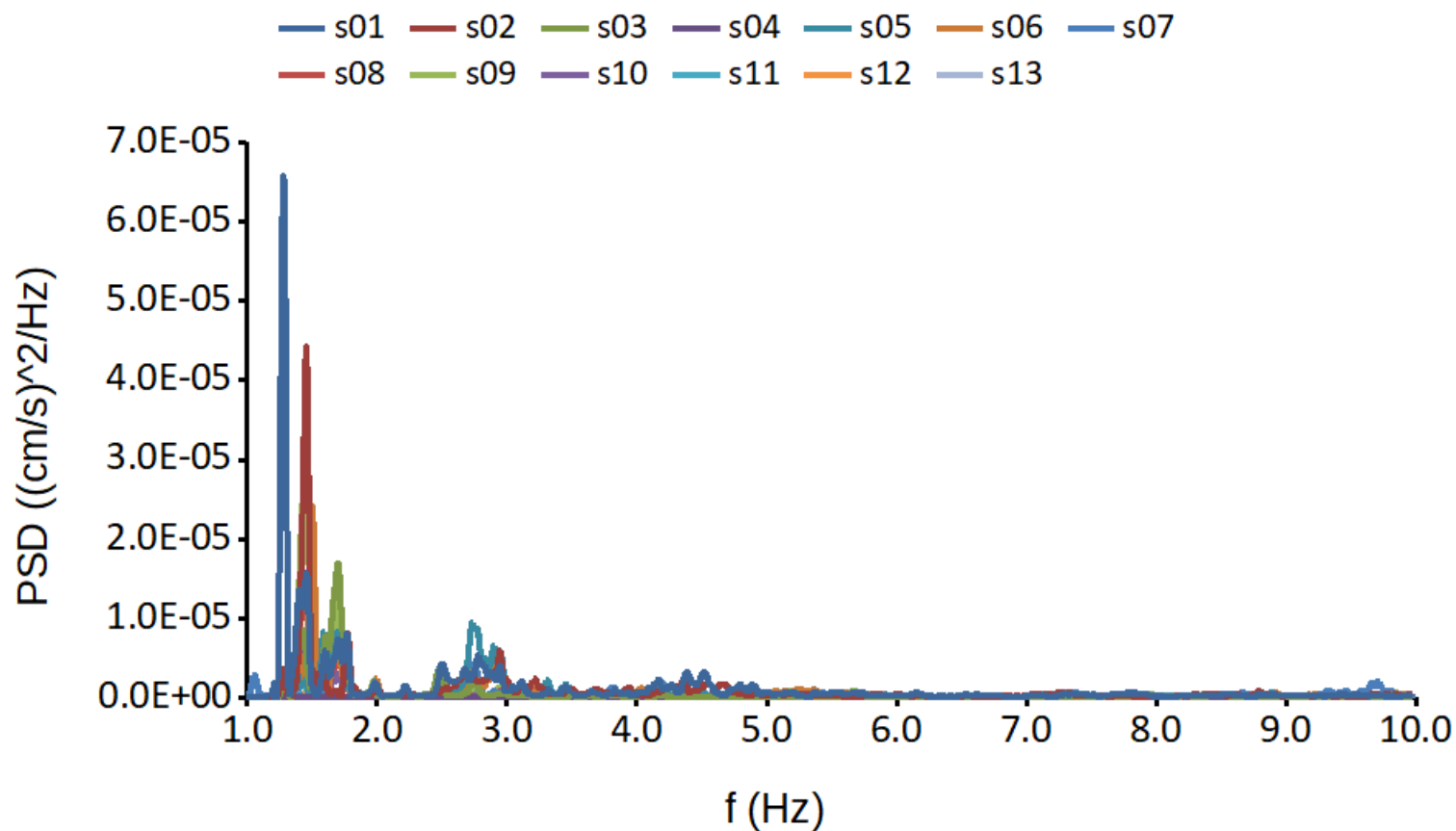


**Quattro configurazioni
7 radiali fissi in sommità
3 allineamenti verticali
in figura
4 verticali al suolo
Qui esaminiamo la
prima configurazione
con i 7 sensori in alto e
l'allineamento s09-s13**



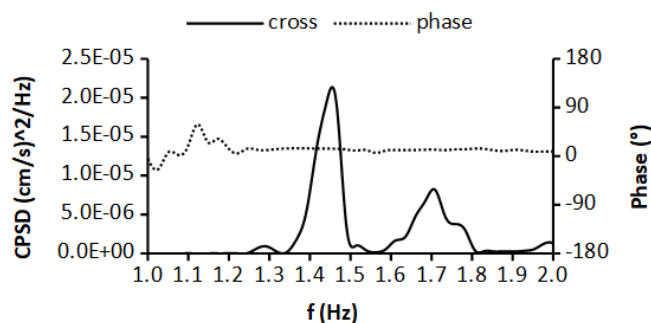
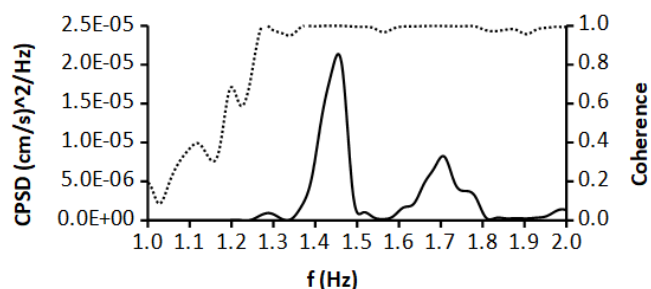
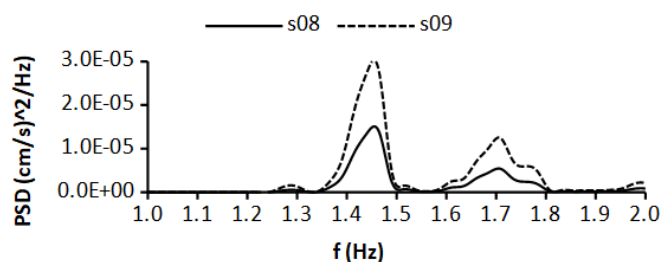
Contenuto in frequenza

P1



Analisi spettrale lungo la verticale, solo due frequenze

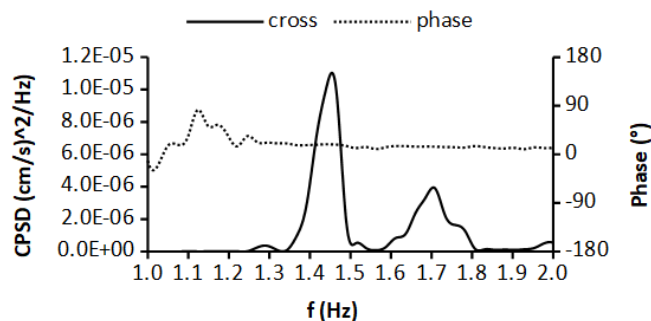
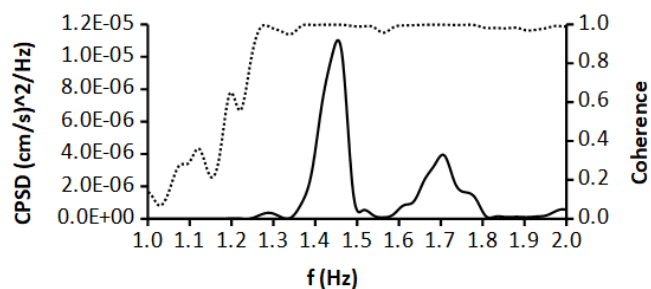
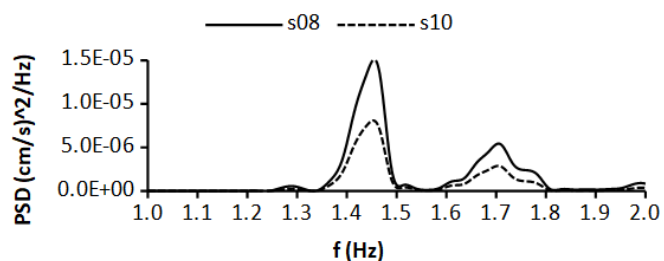
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.46	13	1.00	s08	1.38E-05	3.72E-03
			s09	2.75E-05	5.25E-03
1.71	12	1.00	s08	5.37E-06	2.32E-03
			s09	1.24E-05	3.52E-03

Analisi spettrale lungo la verticale, solo due frequenze

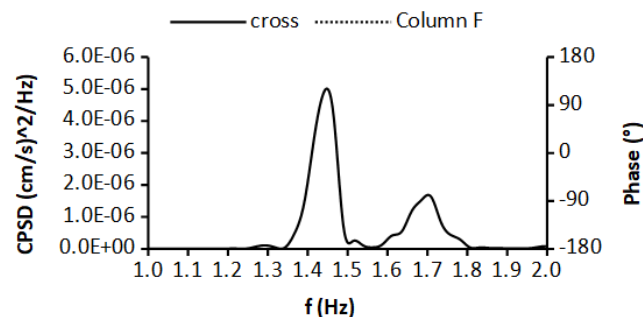
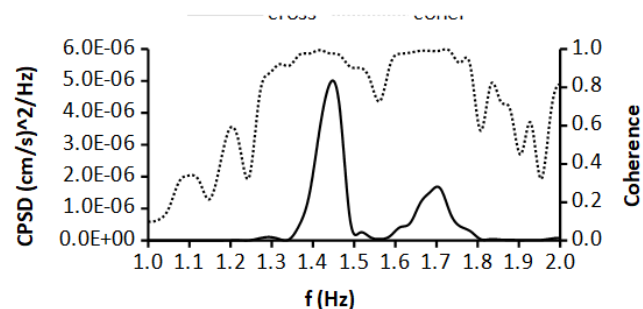
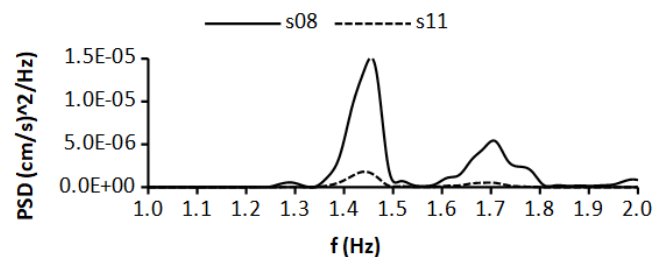
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.46	18	1.00	s08	1.38E-05	3.72E-03
			s10	7.22E-06	2.69E-03
1.71	14	1.00	s08	5.37E-06	2.32E-03
			s10	2.83E-06	1.68E-03

Analisi spettrale lungo la verticale, solo due frequenze

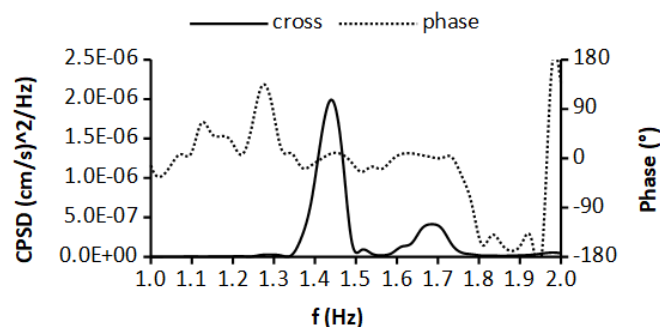
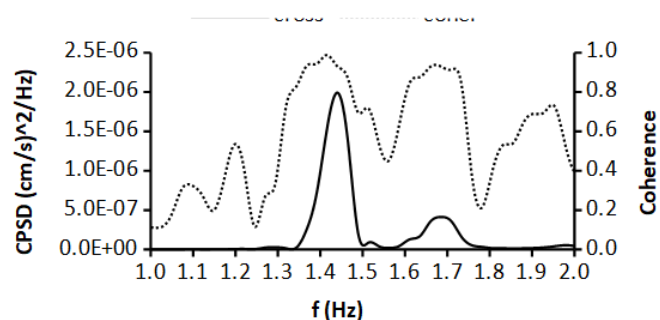
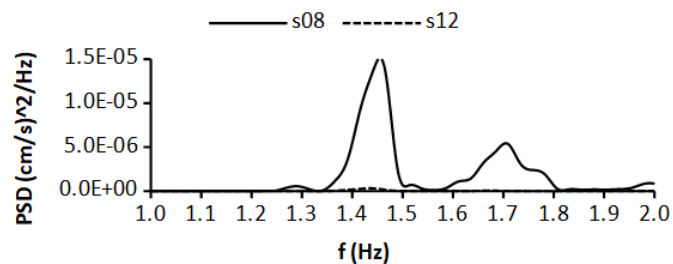
Colosseo 1985 P1



f	Fase ($^\circ$)	Coher		PSD	AMP
1.46	13	0.97	s08	1.38E-05	3.72E-03
			s11	1.29E-06	1.14E-03
1.71	9	0.99	s08	5.37E-06	2.32E-03
			s11	5.02E-07	7.08E-04

Analisi spettrale lungo la verticale, solo due frequenze

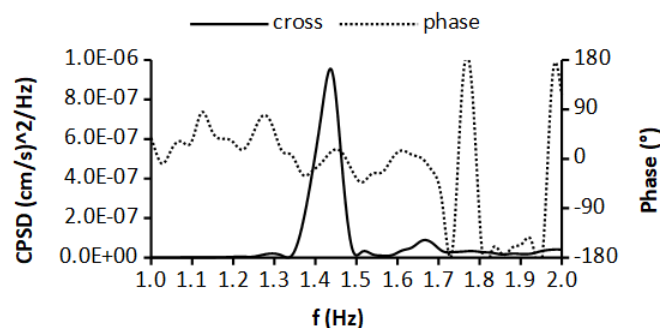
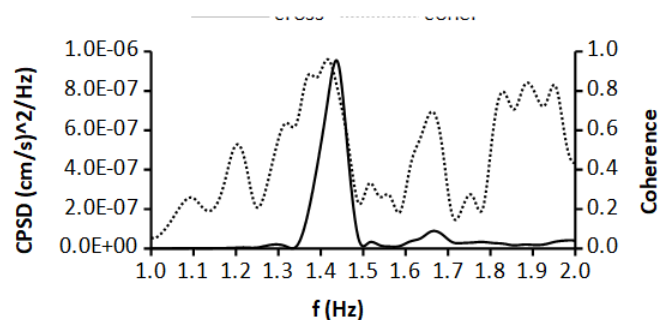
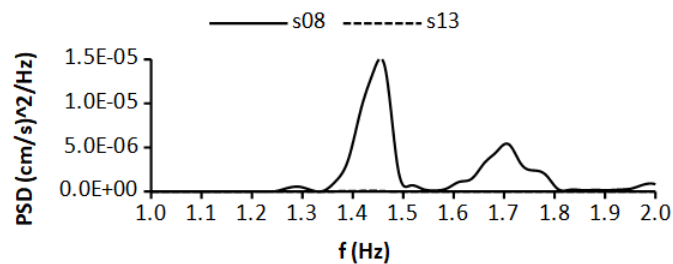
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.46	7	0.87	s08	1.38E-05	3.72E-03
			s12	1.61E-07	4.01E-04
1.71	0	0.91	s08	5.37E-06	2.32E-03
			s12	2.66E-08	1.63E-04

Analisi spettrale lungo la verticale, solo due frequenze

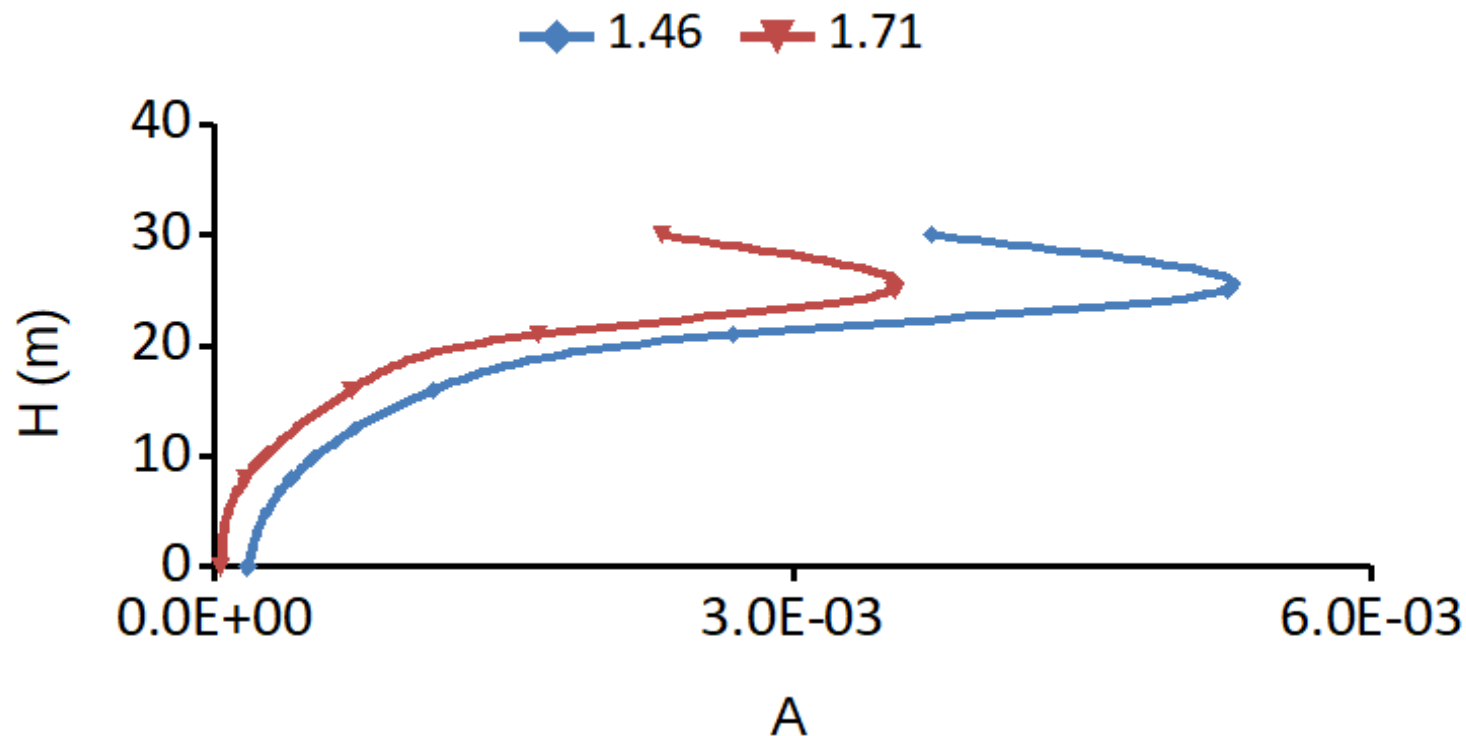
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.46	12	0.53	s08	1.38E-05	3.72E-03
			s13	2.96E-08	1.72E-04
1.71	-81	0.18	s08	5.37E-06	2.32E-03
			s13	1.17E-09	3.42E-05

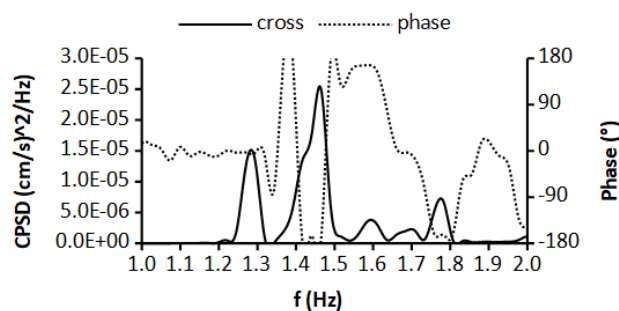
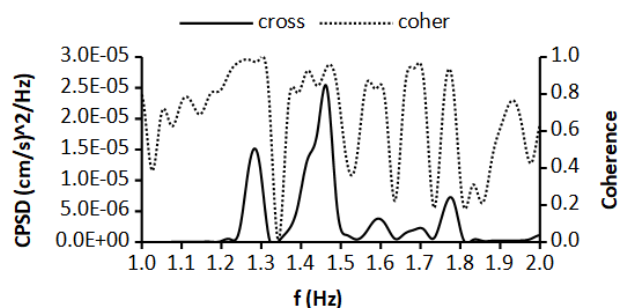
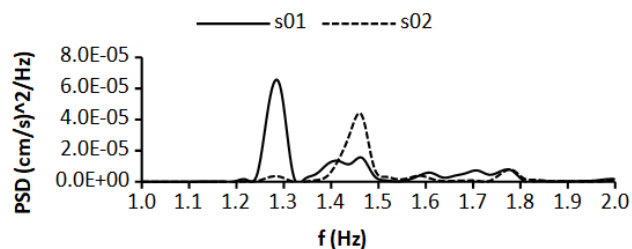
Rappresentando le ampiezze rispetto alla quota otteniamo le forme modali, che dovrebbero essere normalizzate.

Colosseo 1985 P1



Analisi spettrale lungo la sommità, solo due frequenze

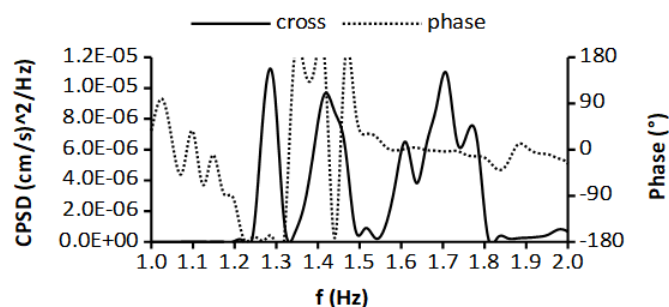
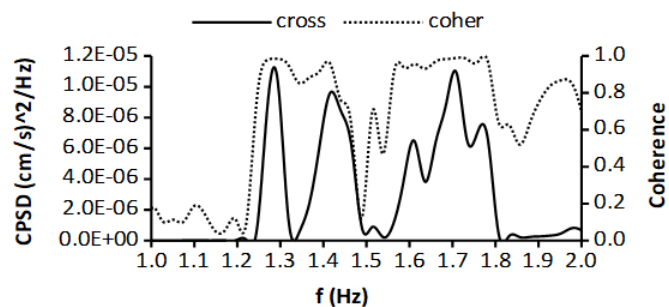
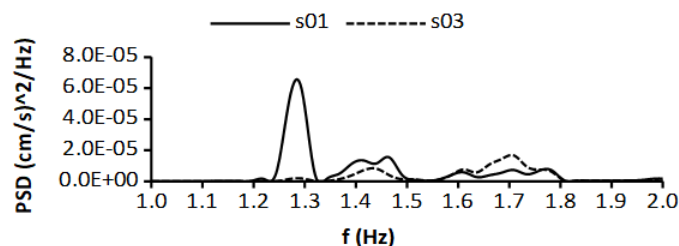
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	-4	0.98	s01	5.91E-05	7.69E-03
			s02	3.07E-06	1.75E-03
1.46	-175	0.95	s01	1.55E-05	3.93E-03
			s02	4.27E-05	6.54E-03

Analisi spettrale lungo la sommità, solo due frequenze

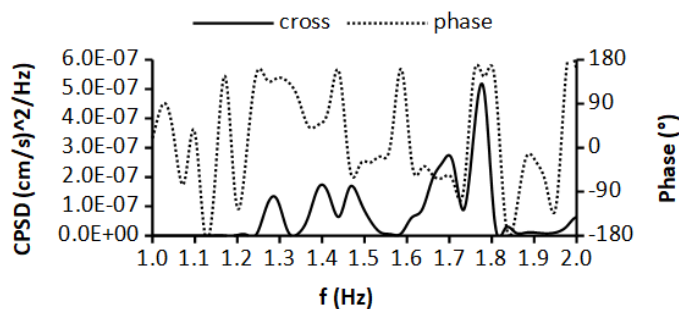
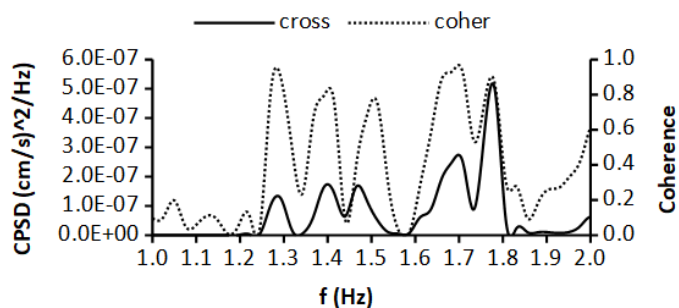
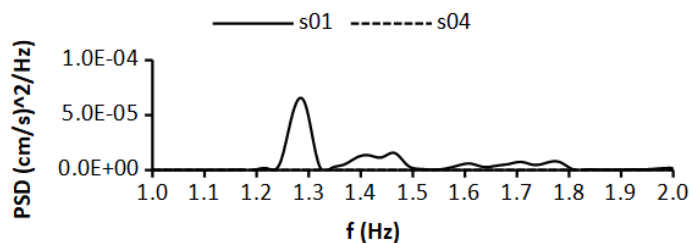
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	-176	0.98	s01	5.91E-05	7.69E-03
			s03	1.83E-06	1.35E-03
1.46	174	0.62	s01	1.55E-05	3.93E-03
			s03	4.01E-06	2.00E-03

Analisi spettrale lungo la sommità, solo due frequenze

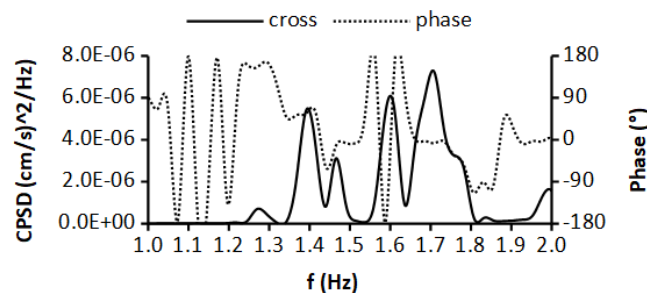
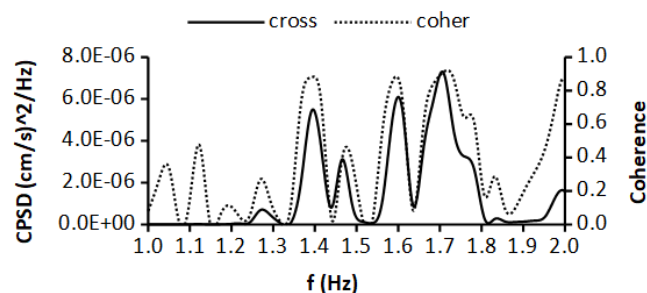
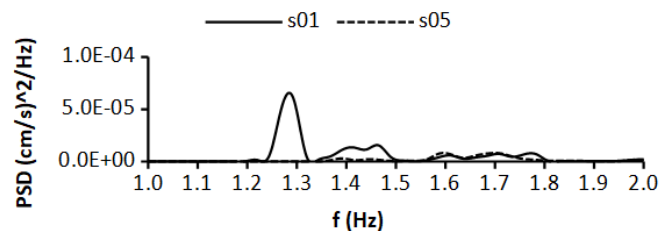
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	142	0.89	s01	5.91E-05	7.69E-03
			s04	2.90E-10	1.70E-05
1.46	-40	0.39	s01	1.55E-05	3.93E-03
			s04	4.48E-09	6.69E-05

Analisi spettrale lungo la sommità, solo due frequenze

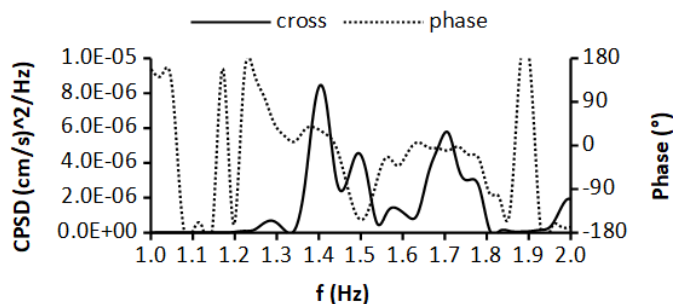
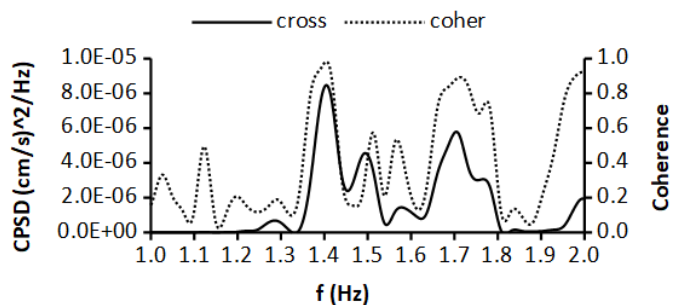
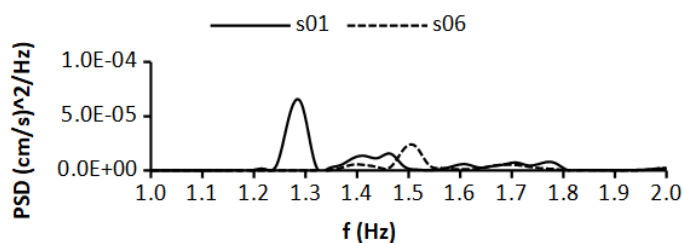
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	167	0.13	s01	5.91E-05	7.69E-03
			s05	2.44E-08	1.56E-04
1.46	-14	0.39	s01	1.55E-05	3.93E-03
			s05	1.61E-06	1.27E-03

Analisi spettrale lungo la sommità, solo due frequenze

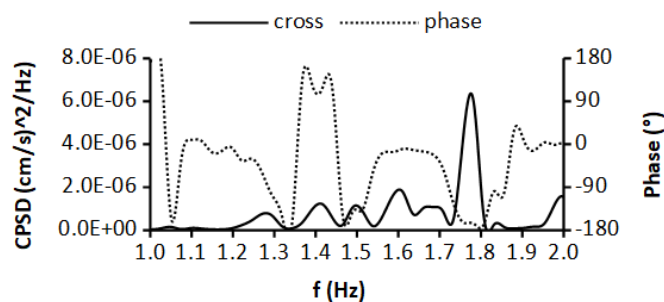
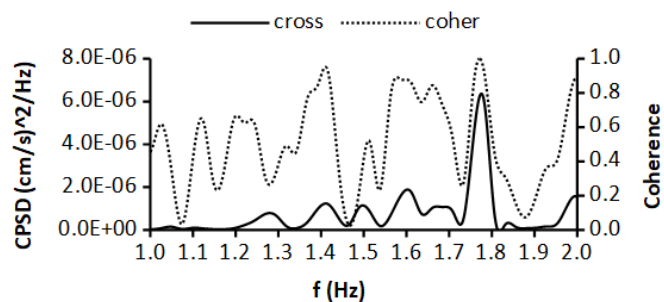
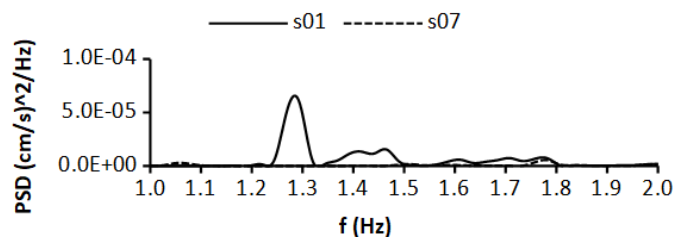
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	46	0.19	s01	5.91E-05	7.69E-03
			s06	3.77E-08	1.94E-04
1.46	-74	0.16	s01	1.55E-05	3.93E-03
			s06	3.22E-06	1.80E-03

Analisi spettrale lungo la sommità, solo due frequenze

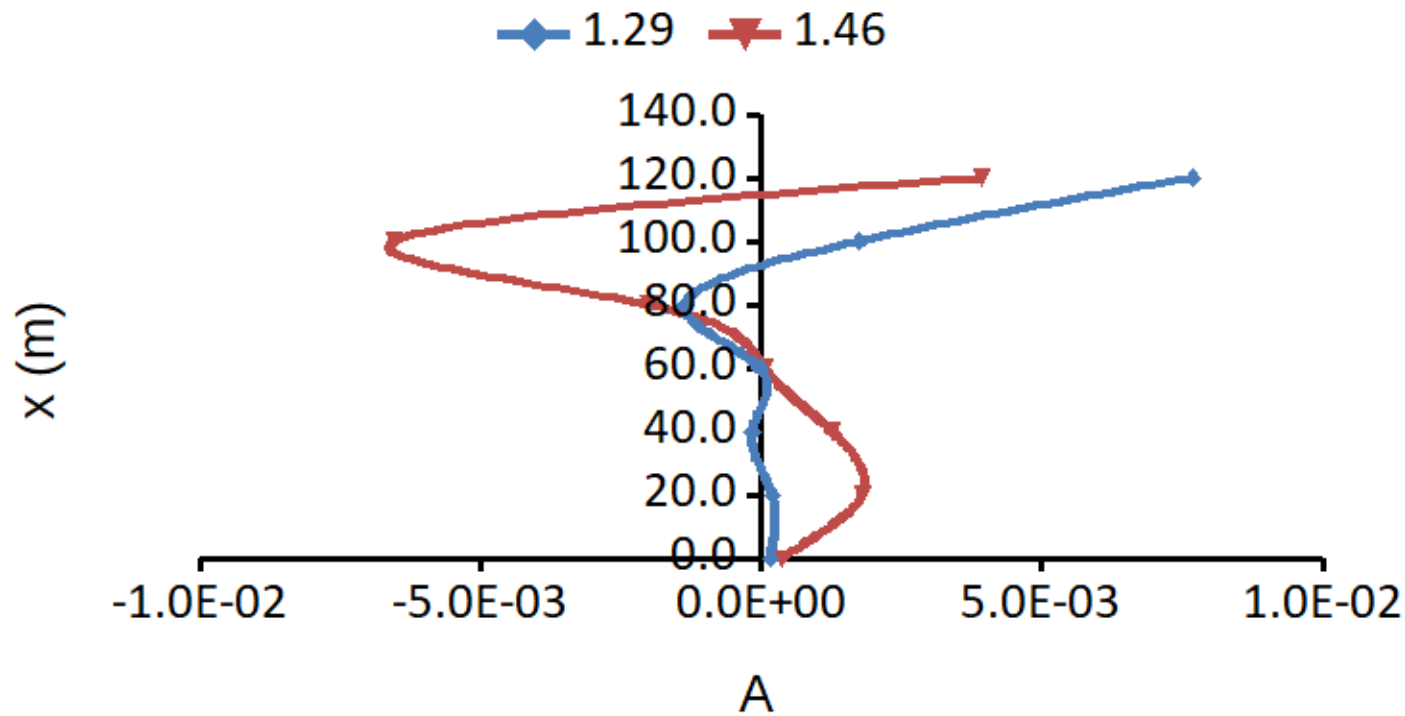
Colosseo 1985 P1



f	Fase (°)	Coher		PSD	AMP
1.29	-106	0.33	s01	5.91E-05	7.69E-03
			s07	2.41E-08	1.55E-04
1.46	-145	0.03	s01	1.55E-05	3.93E-03
			s07	1.27E-07	3.57E-04

Rappresentando le ampiezze rispetto alla posizione otteniamo le forme modali, che dovrebbero essere normalizzate.

Colosseo 1985 P1 Sommità



Case history

Vista spaziale di alcune frequenze.

