

Analisi della vulnerabilità sismica di edifici storici rinascimentali in muratura: casi studio a Ferrara

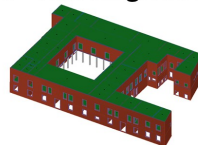
F. Minghini, N. Tullini, B. Travasoni, M. Calzolari, M. Nale

Valutazione del danno e modellazioni FEM su casi studio di edifici rinascimentali

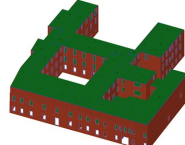
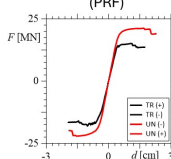
1. Edifici oggetto di analisi



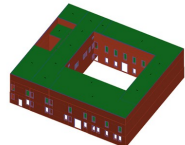
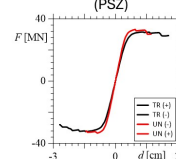
2. Analisi globali



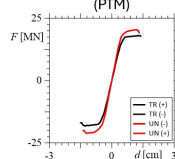
Palazzo Renata di Francia (PRF)



Palazzo Strozzi (PSZ)



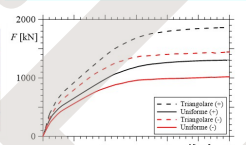
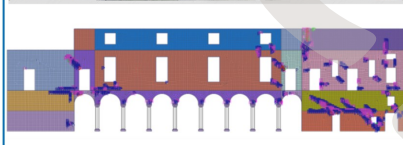
Palazzo Tassoni - Miroglio (PTM)



3. Analisi limite di strutture complesse - Porticati



1. Valutazione del quadro fessurativo;
2. Modellazione della parete porticata tramite elementi FEM;
3. Pushover;
4. Analisi limite;
5. Confronto quadro fessurativo.



	Mean compressive strength	Mean shear strength for zero vertical compression	Elastic modulus	Shear modulus	
	$f_{m,0}^{(1)}$ [MPa]	$f_{s,0,0}^{(1)}$ [MPa]	E_m [MPa]	G [MPa]	
Italian code	3.14	3.72	0.24	1734	578
Eurocode 6	2.49	2.90	0.16	1448	483

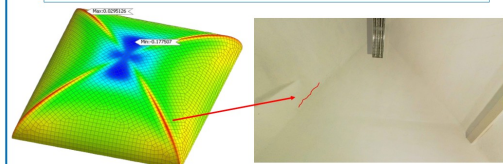
⁽¹⁾ Value calculated using the interpolation method.

⁽²⁾ Value calculated using the component method.

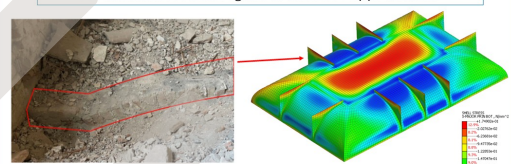
(a) PRF: Analisi parete porticata

4. Analisi di strutture voltate

Tensioni principali → Confronto con quadro fessurativo esistente



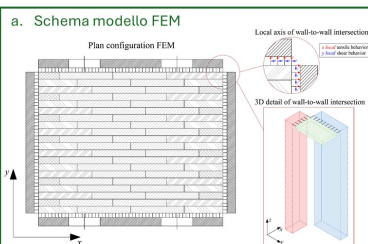
Modellazione FEM a seguito di un rilievo approfondito



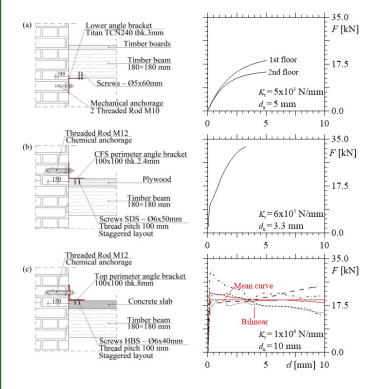
(b) PSZ: Analisi strutture voltate

Meccanismi di collasso fuori piano: influenza delle connessioni

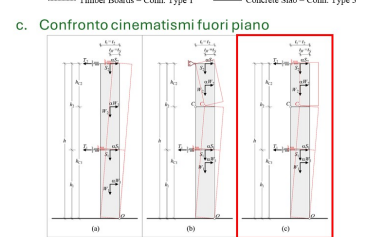
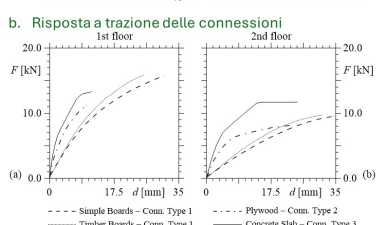
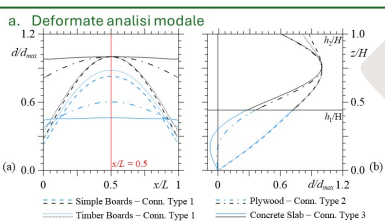
1. Modellazione FEM



b. Tipologie di connessioni



2. Analisi modale



3. Analisi cinematica

