Luca PelÃ

List of Publications by Year
in descending order

77 papers	2,676 citations	172443 29 h-index	197805 49 g-index
79 all docs	79 docs citations	79 times ranked	1346 citing authors

#	Article	IF	Citations
1	Numerical Modelling of Traditional Buildings Composed of Timber Frames and Masonry Walls under Seismic Loading. International Journal of Architectural Heritage, 2023, 17, 1256-1289.	3.1	2
2	On the reliability of the equivalent frame models: the case study of the permanently monitored Pizzoliâ€™s town hall. Bulletin of Earthquake Engineering, 2022, 20, 2187-2217.	4.1	13
3	A simplified model for seismic safety assessment of reinforced concrete buildings: framework and application to a 3-storey plan-irregular moment resisting frame. Engineering Structures, 2022, 250, 113348.	5.3	10
4	Nonlinear finite and discrete element simulations of multi-storey masonry walls. Bulletin of Earthquake Engineering, 2022, 20, 2219-2244.	4.1	16
5	Experimental cyclic behaviour of shear masonry walls reinforced with single and double layered Steel Reinforced Grout. Construction and Building Materials, 2022, 320, 126053.	7.2	10
6	Validation of non-linear equivalent-frame models for irregular masonry walls. Engineering Structures, 2022, 253, 113755.	5.3	9
7	Cyclic shear-compression testing of brick masonry walls repaired and retrofitted with basalt textile reinforced mortar. Composite Structures, 2022, 283, 115068.	5.8	25
8	Experimental and Numerical Mechanical Characterization of Unreinforced and Reinforced Masonry Elements with Weak Air Lime Mortar Joints. Sustainability, 2022, 14, 3990.	3.2	3
9	Modelling of in-plane seismic behaviour of one-way steel or timber jack arch floors in existing buildings. Application to the Eixample district of Barcelona. Engineering Structures, 2022, 262, 114343.	5.3	2
10	Anisotropy and compressive strength evaluation of solid fired clay bricks by testing small specimens. Construction and Building Materials, 2022, 344, 128195.	7.2	7
11	A Risk Index for the Structural Diagnosis of Masonry Heritage (RISDiMaH). Construction and Building Materials, 2021, 284, 122433.	7.2	10
12	Experimental and numerical insights on the diagonal compression test for the shear characterisation of masonry. Construction and Building Materials, 2021, 287, 122964.	7.2	18
13	Seismic vulnerability index method for hybrid timberâ€“masonry structures. Numerical calibration and application to the city of ValparaÃso, Chile. Journal of Building Engineering, 2021, 44, 103185.	3.4	8
14	Experimental comparison of two testing setups for characterizing the shear mechanical properties of masonry. Journal of Building Engineering, 2021, 44, 103277.	3.4	2
15	Experimental setup and numerical evaluation of the compression test on thin tiles for masonry timbrel vaults. Construction and Building Materials, 2021, 313, 125294.	7.2	1
16	In-plane shear behaviour by diagonal compression testing of brick masonry walls strengthened with basalt and steel textile reinforced mortars. Construction and Building Materials, 2020, 240, 117905.	7.2	35
17	Influence of recycled limestone filler additions on the mechanical behaviour of commercial premixed hydraulic lime based mortars. Construction and Building Materials, 2020, 238, 117722.	7.2	24
18	A Multilevel Approach for the Cultural Heritage Vulnerability and Strengthening: Application to the Melfi Castle. Buildings, 2020, 10, 158.	3.1	7

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19	Relationship between the static and dynamic elastic modulus of brick masonry constituents. Construction and Building Materials, 2020, 259, 120386.	7.2	19
20	Automated data analysis for static structural health monitoring of masonry heritage structures. Structural Control and Health Monitoring, 2020, 27, e2581.	4.0	15
21	Nonlinear Numerical Modeling of Complex Masonry Heritage Structures Considering History-Related Phenomena in Staged Construction Analysis and Material Uncertainty in Seismic Assessment. Journal of Performance of Constructed Facilities, 2020, 34, .	2.0	15
22	Assessing community resilience, housing recovery and impact of mitigation strategies at the urban scale: a case study after the 2012 Northern Italy Earthquake. Bulletin of Earthquake Engineering, 2020, 18, 6039-6074.	4.1	22
23	Static structural health monitoring and automated data analysis procedures applied to the diagnosis of a complex medieval masonry monastery. , 2020, , .		2
24	Challenges, Tools and Applications of Tracking Algorithms in the Numerical Modelling of Cracks in Concrete and Masonry Structures. Archives of Computational Methods in Engineering, 2019, 26, 961-1005.	10.2	26
25	Tracking of Localized Cracks in the Finite Element Analysis of Masonry Walls. RILEM Bookseries, 2019, , 919-928.	0.4	3
26	Analytical Derivation of Seismic Fragility Curves for Historical Masonry Structures Based on Stochastic Analysis of Uncertain Material Parameters. International Journal of Architectural Heritage, 2019, 13, 1142-1164.	3.1	23
27	Multi directional pushover analysis of irregular masonry buildings without box behavior. Engineering Structures, 2019, 201, 109534.	5.3	17
28	Experimental analysis of the size effect on the compressive behaviour of cylindrical samples core-drilled from existing brick masonry. Construction and Building Materials, 2019, 228, 116759.	7.2	25
29	Nonlinear analysis of masonry structures using fiberâ€section line elements. Earthquake Engineering and Structural Dynamics, 2019, 48, 1345-1364.	4.4	14
30	Cyclic Analyses of Reinforced Concrete Masonry Panels Using a Force-Based Frame Element. Journal of Structural Engineering, 2019, 145, .	3.4	8
31	Cylindrical samples of brick masonry with aerial lime mortar under compression: Experimental and numerical study. Construction and Building Materials, 2019, 227, 116782.	7.2	11
32	Dynamic elastic properties of brick masonry constituents. Construction and Building Materials, 2019, 199, 756-770.	7.2	27
33	Tracking multi-directional intersecting cracks in numerical modelling of masonry shear walls under cyclic loading. Meccanica, 2018, 53, 1757-1776.	2.0	28
34	Combined In-Situ and Laboratory Minor Destructive Testing of Historical Mortars. International Journal of Architectural Heritage, 2018, 12, 334-349.	3.1	42
35	An Enhanced Finite Element Macro-Model for the Realistic Simulation of Localized Cracks in Masonry Structures: A Large-Scale Application. International Journal of Architectural Heritage, 2018, 12, 432-447.	3.1	31
36	Monotonic and cyclic testing of clay brick and lime mortar masonry in compression. Construction and Building Materials, 2018, 193, 453-466.	7.2	50

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37	New Trends and Challenges in Large-Scale and Urban Assessment of Seismic Risk in Historical Centres. International Journal of Architectural Heritage, 2018, 12, 1051-1054.	3.1	13
38	Building survey forms for heterogeneous urban areas in seismically hazardous zones. Application to the historical center of ValparaÃso, Chile. International Journal of Architectural Heritage, 2018, 12, 1076-1111.	3.1	21
39	Seismic Risk Assessment and Mitigation at Emergency Limit Condition of Historical Buildings along Strategic Urban Roadways. Application to the â€œAntiga Esquerra de Lâ€™Eixampleâ€•Neighborhood of Barcelona. International Journal of Architectural Heritage, 2018, 12, 1055-1075.	3.1	29
40	Numerical investigation of non-linear equivalent-frame models for regular masonry walls. Engineering Structures, 2018, 173, 512-529.	5.3	38
41	Performance-based Seismic Risk Assessment of Urban Systems. International Journal of Architectural Heritage, 2018, 12, 1131-1149.	3.1	32
42	Seismic vulnerability assessment of historic centers: description of a predictive method and application to the case study of scanno (Abruzzi, Italy). International Journal of Architectural Heritage, 2018, 12, 1171-1195.	3.1	41
43	Experimental evaluation of the shear strength of aerial lime mortar brickwork by standard tests on triplets and non-standard tests on core samples. Engineering Structures, 2017, 136, 441-453.	5.3	32
44	Performance-Based Urban Planning: Framework and Lâ€™Aquila Historic City Center Case Study. International Journal of Architectural Heritage, 2017, , 1-14.	3.1	4
45	Analysis of the performance in the linear field of Equivalent-Frame Models for regular and irregular masonry walls. Engineering Structures, 2017, 145, 190-210.	5.3	24
46	Micro-scale continuous and discrete numerical models for nonlinear analysis of masonry shear walls. Construction and Building Materials, 2017, 149, 296-314.	7.2	92
47	Dynamic Identification and Static Loading Tests of Timbrel Vaults: Application to a Modernist 20th Century Heritage Structure. International Journal of Architectural Heritage, 2017, 11, 607-620.	3.1	5
48	Open-source digital technologies for low-cost monitoring of historical constructions. Journal of Cultural Heritage, 2017, 25, 31-40.	3.3	15
49	Predictive model for the seismic vulnerability assessment of small historic centres: Application to the inner Abruzzi Region in Italy. Engineering Structures, 2017, 153, 81-96.	5.3	72
50	Torque Penetrometric Test for the in-situ characterisation of historical mortars: fracture mechanics interpretation and experimental validation. Construction and Building Materials, 2017, 157, 509-520.	7.2	36
51	Finite element modelling of internal and multiple localized cracks. Computational Mechanics, 2017, 59, 299-316.	4.0	39
52	Multiscale computational first order homogenization of thick shells for the analysis of out-of-plane loaded masonry walls. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 273-301.	6.6	56
53	Review of Different Pushover Analysis Methods Applied to Masonry Buildings and Comparison with Nonlinear Dynamic Analysis. Journal of Earthquake Engineering, 2017, 21, 1234-1255.	2.5	47
54	Compression test of masonry core samples extracted from existing brickwork. Construction and Building Materials, 2016, 119, 230-240.	7.2	32

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55	Analysis of the Effect of Provisional Ties on the Construction and Current Deformation of Mallorca Cathedral. International Journal of Architectural Heritage, 2016, 10, 418-437.	3.1	17
56	Regularization of first order computational homogenization for multiscale analysis of masonry structures. Computational Mechanics, 2016, 57, 257-276.	4.0	63
57	Combining Brazilian tests on masonry cores and double punch tests for the mechanical characterization of historical mortars. Construction and Building Materials, 2016, 112, 112-127.	7.2	35
58	Effect of pier-spandrel geometry on the in-plane response of masonry structures. , 2016, , 339-346.		1
59	NUMERICAL VALIDATION OF EQUIVALENT-FRAME MODELS FOR URM WALLS. , 2016, , .		7
60	Complete experimental characterization of lime mortar and clay brick masonry. , 2016, , 1799-1806.		1
61	Evaluation of mortar strength in existing masonry structures through a Minor Destructive Technique. , 2016, , 1699-1706.		0
62	A crack-tracking technique for localized cohesiveâ€“frictional damage. Engineering Fracture Mechanics, 2015, 150, 96-114.	4.3	32
63	Advanced frame element for seismic analysis of masonry structures: model formulation and validation. Earthquake Engineering and Structural Dynamics, 2015, 44, 2489-2506.	4.4	69
64	Comparison of seismic analysis methods applied to a historical church struck by 2009 Lâ€™Aquila earthquake. Bulletin of Earthquake Engineering, 2015, 13, 3749-3778.	4.1	41
65	Numerical analysis of structural damage in the church of the Poblet Monastery. Engineering Failure Analysis, 2015, 48, 41-61.	4.0	77
66	A localized mapped damage model for orthotropic materials. Engineering Fracture Mechanics, 2014, 124-125, 196-216.	4.3	35
67	An orthotropic damage model for the analysis of masonry structures. Construction and Building Materials, 2013, 41, 957-967.	7.2	120
68	Comparison of seismic assessment procedures for masonry arch bridges. Construction and Building Materials, 2013, 38, 381-394.	7.2	76
69	Continuum FE models for the analysis of Mallorca Cathedral. Engineering Structures, 2013, 46, 653-670.	5.3	79
70	Seismic Assessment of the Milano Centrale Railway Station. International Journal of Architectural Heritage, 2013, 7, 609-627.	3.1	4
71	Experimental study of retrofit solutions for damaged concrete bridge slabs. Composites Part B: Engineering, 2012, 43, 2471-2479.	12.0	12
72	Viscoelasticity and Damage Model for Creep Behavior of Historical Masonry Structures. Open Civil Engineering Journal, 2012, 6, 188-199.	0.8	9

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73	Continuum damage model for orthotropic materials: Application to masonry. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 917-930.	6.6	98
74	Structural Analysis of Masonry Historical Constructions. Classical and Advanced Approaches. Archives of Computational Methods in Engineering, 2010, 17, 299-325.	10.2	473
75	A crack-tracking technique for localized damage in quasi-brittle materials. Engineering Fracture Mechanics, 2010, 77, 2431-2450.	4.3	74
76	Seismic assessment of masonry arch bridges. Engineering Structures, 2009, 31, 1777-1788.	5.3	131
77	Mechanical Characterization of Historical Masonry by Core Drilling and Testing of Cylindrical Samples. International Journal of Architectural Heritage, 0, , 150817093153002.	3.1	9