Dina D'Ayala

List of Publications by Year
in descending order

113	2,961	186265 28	189892 50
papers	citations	h-index	g-index

124	124	124	2193
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Definition of Collapse Mechanisms and Seismic Vulnerability of Historic Masonry Buildings. Earthquake Spectra, 2003, 19, 479-509.	3.1	330
2	Assessment and analysis of damage in Lâ€™Aquila historic city centre after 6th April 2009. Bulletin of Earthquake Engineering, 2011, 9, 81-104.	4.1	280
3	Effects of carbonation on the pore structure of non-hydraulic lime mortars. Cement and Concrete Research, 2007, 37, 1059-1069.	11.0	124
4	Assessment of wind-driven rain impact, related surface erosion and surface strength reduction of historic building materials. Building and Environment, 2012, 57, 336-348.	6.9	109
5	Developing Empirical Collapse Fragility Functions for Global Building Types. Earthquake Spectra, 2011, 27, 775-795.	3.1	99
6	Determination of carbonation profiles in non-hydraulic lime mortars using thermogravimetric analysis. Thermochimica Acta, 2006, 444, 179-189.	2.7	83
7	Development of Bayesian Networks for the multi-hazard fragility assessment of bridge systems. Structural Safety, 2016, 60, 37-46.	5.3	79
8	Force and Displacement Based Vulnerability Assessment for Traditional Buildings. Bulletin of Earthquake Engineering, 2005, 3, 235-265.	4.1	77
9	Earthquake Loss Estimation for Europe's Historic Town Centres. Earthquake Spectra, 1997, 13, 773-793.	3.1	76
10	Seismic vulnerability of historic Diehâ€“Dou timber structures in Taiwan. Engineering Structures, 2008, 30, 2101-2113.	5.3	73
11	A new approach to flood vulnerability assessment for historic buildings in England. Natural Hazards and Earth System Sciences, 2014, 14, 1035-1048.	3.6	61
12	Analytical and numerical seismic assessment of heritage masonry towers. Bulletin of Earthquake Engineering, 2020, 18, 969-1008.	4.1	57
13	Three-Dimensional Analysis of Masonry Vaults Using Limit State Analysis with Finite Friction. International Journal of Architectural Heritage, 2011, 5, 140-171.	3.1	56
14	Moisture dynamics in the masonry fabric of historic buildings subjected to wind-driven rain and flooding. Building and Environment, 2016, 104, 208-220.	6.9	56
15	A multi-hazard risk prioritisation framework for cultural heritage assets. Natural Hazards and Earth System Sciences, 2020, 20, 1391-1414.	3.6	56
16	Testing and design procedure for corner connections of masonry heritage buildings strengthened by metallic grouted anchors. Engineering Structures, 2014, 70, 278-293.	5.3	52
17	Review of Out-of-Plane Seismic Assessment Techniques Applied To Existing Masonry Buildings. International Journal of Architectural Heritage, 0, , 1-20.	3.1	51
18	Assessment of heritage timber structures: Review of standards, guidelines and procedures. Journal of Cultural Heritage, 2018, 31, 220-235.	3.3	50

#	Article	IF	Citations
19	Assessing the seismic vulnerability of masonry buildings. , 2013, , 334-365.		44
20	PERPETUATE Project: The Proposal of a Performance-Based Approach to Earthquake Protection of Cultural Heritage. Advanced Materials Research, 2010, 133-134, 1119-1124.	0.3	40
21	Historic and Traditional Structures during the 2010 Chile Earthquake: Observations, Codes, and Conservation Strategies. Earthquake Spectra, 2012, 28, 425-451.	3.1	39
22	2015 Nepal earthquake: seismic performance and post-earthquake reconstruction of stone in mud mortar masonry buildings. Bulletin of Earthquake Engineering, 2020, 18, 3863-3896.	4.1	36
23	Realistic shear capacity assessment of infill frames: Comparison of two numerical procedures. Engineering Structures, 2009, 31, 1745-1761.	5.3	33
24	Resilient communities through safer schools. International Journal of Disaster Risk Reduction, 2020, 45, 101446.	3.9	32
25	Sensitivity analysis for setting up the investigation protocol and defining proper confidence factors for masonry buildings. Bulletin of Earthquake Engineering, 2015, 13, 129-151.	4.1	31
26	A procedure for the identification of the seismic vulnerability at territorial scale. Application to the Casbah of Algiers. Bulletin of Earthquake Engineering, 2015, 13, 177-202.	4.1	31
27	Modeling Masonry Historic Buildings by Multi-Body Dynamics. International Journal of Architectural Heritage, 2011, 5, 483-512.	3.1	30
28	Evaluation of Existing Fragility Curves. Geotechnical, Geological and Earthquake Engineering, 2014, , 47-93.	0.2	30
29	Flood vulnerability and risk assessment of urban traditional buildings in a heritage district of Kuala Lumpur, Malaysia. Natural Hazards and Earth System Sciences, 2020, 20, 2221-2241.	3.6	30
30	Non linear push over assessment of heritage buildings in Istanbul to define seismic risk. Bulletin of Earthquake Engineering, 2012, 10, 285-306.	4.1	29
31	The value of multiple earthquake missions: the EEFIT Lâ€™Aquila Earthquake experience. Bulletin of Earthquake Engineering, 2014, 12, 277-305.	4.1	29
32	RC infilled building performance against the evidence of the 2016 EEFIT Central Italy post-earthquake reconnaissance mission: empirical fragilities and comparison with the FAST method. Bulletin of Earthquake Engineering, 2018, 16, 2943-2969.	4.1	29
33	Agent-based model on resilience-oriented rapid responses of road networks under seismic hazard. Reliability Engineering and System Safety, 2021, 216, 108030.	8.9	29
34	Experimental Comparison of Novel CFRP Retrofit Schemes for Realistic Full-Scale RC Beamâ€“Column Joints. Journal of Composites for Construction, 2018, 22, .	3.2	28
35	Damage Assessment and Analysis of the 1997 Umbria-Marche Earthquakes. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 1999, 9, 229-233.	0.8	27
36	System loss assessment of bridge networks accounting for multi-hazard interactions. Structure and Infrastructure Engineering, 2018, 14, 1355-1371.	3.7	23

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37	Surface and passive/active air mould sampling: A testing exercise in a North London housing estate. Science of the Total Environment, 2018, 643, 1631-1643.	8.0	22
38	Performance-based seismic assessment method for Taiwanese historic Dieh-Dou timber structures. Earthquake Engineering and Structural Dynamics, 2011, 40, 709-729.	4.4	21
39	Bayesian operational modal analysis of offshore rock lighthouses: Close modes, alignment, symmetry and uncertainty. Mechanical Systems and Signal Processing, 2019, 133, 106306.	8.0	20
40	Seismic Vulnerability and Risk Assessment of Historic Masonry Buildings. Building Pathology and Rehabilitation, 2014, , 307-348.	0.2	20
41	A Challenge to Earthquake Engineering Professionals. Earthquake Spectra, 2004, 20, 1049-1056.	3.1	19
42	Strength characteristics of hydraulic lime mortared brickwork. Proceedings of Institution of Civil Engineers: Construction Materials, 2008, 161, 139-146.	1.1	19
43	Conservation Practice of Chinese Timber Structures. Journal of Architectural Conservation, 2006, 12, 7-26.	0.9	16
44	Evaluation of uncertainties in determining the seismic vulnerability of historic masonry buildings in Slovenia: use of macro-element and structural element modelling. Bulletin of Earthquake Engineering, 2015, 13, 311-329.	4.1	16
45	LOG-IDEAH: LOGic trees for identification of damage due to earthquakes for architectural heritage. Bulletin of Earthquake Engineering, 2015, 13, 153-176.	4.1	16
46	Stress tests for a road network using fragility functions and functional capacity loss functions. Reliability Engineering and System Safety, 2018, 173, 78-93.	8.9	16
47	Inferring Earthquake Groundâ€Motion Fields with Bayesian Networks. Bulletin of the Seismological Society of America, 2017, 107, 2792-2808.	2.3	15
48	The use of tg to measure different concentrations of lime in non-hydraulic lime mortars. Journal of Thermal Analysis and Calorimetry, 2006, 85, 377-382.	3.6	14
49	Testing and design protocol of dissipative devices for out-of-plane damage. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2014, 167, 26-40.	0.8	14
50	Effect of slab and transverse beam on the FRP retrofit effectiveness for existing reinforced concrete structures under seismic loading. Engineering Structures, 2021, 234, 111991.	5.3	14
51	Non-Hydraulic Lime Mortars. Journal of Architectural Conservation, 2006, 12, 7-33.	0.9	12
52	Guest editorial: Lâ€™Aquila earthquake: seismic sequence of 6th April 2009, Abruzzo, Italy. Bulletin of Earthquake Engineering, 2011, 9, 1-10.	4.1	12
53	Earthquake Damage Data Collection Using Omnidirectional Imagery. Frontiers in Built Environment, 2018, 4, .	2.3	12
54	Conservation Principles and Performance Based Strengthening of Heritage Buildings in Post-event Reconstruction. Geotechnical, Geological and Earthquake Engineering, 2014, , 489-514.	0.2	12

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55	Surrogate-based fragility analysis and probabilistic optimisation of cable-stayed bridges subject to seismic loads. Engineering Structures, 2022, 256, 113949.	5.3	12
56	Performance-based assessment of cultural heritage assets: outcomes of the European FP7 PERPETUATE project. Bulletin of Earthquake Engineering, 2015, 13, 5-12.	4.1	10
57	Survivability assessment of fastnet lighthouse. Coastal Engineering, 2019, 150, 18-38.	4.0	10
58	Realistic FE Models to Enable Push-Over Non Linear Analysis of Masonry Infilled Frames. Open Construction and Building Technology Journal, 2012, 6, 213-235.	0.7	10
59	Numerical Modelling of Historic Vaulted Timber Structures. Advanced Materials Research, 0, 778, 517-525.	0.3	9
60	Evaluation of environmental impact on historical stone masonry through on-site monitoring appraisal. Quarterly Journal of Engineering Geology and Hydrogeology, 2013, 46, 449-458.	1.4	9
61	Structural characterisation and Numerical Modelling of Historic Quincha Walls. International Journal of Architectural Heritage, 2015, , .	3.1	9
62	Assessment of structural timber members by non- and semi-destructive methods. Construction and Building Materials, 2015, 101, 1155-1156.	7.2	9
63	Effectiveness of seismic strengthening to repeated earthquakes in historic urban contexts. Disaster Prevention and Management, 2019, 29, 47-64.	1.2	9
64	Classification and seismic fragility assessment of confined masonry school buildings. Bulletin of Earthquake Engineering, 2021, 19, 2213-2263.	4.1	9
65	Impact of surface waterproofing on the performance of brick masonry through the moisture exposure life-cycle. Building and Environment, 2021, 197, 107844.	6.9	9
66	Use of the Knowledge-Based System LOG-IDEAH to Assess Failure Modes of Masonry Buildings, Damaged by L'Aquila Earthquake in 2009. Frontiers in Built Environment, 2019, 5, .	2.3	8
67	Structural Response of Masonry Infilled Timber Frames to Flood and Wind Driven Rain Exposure. Journal of Performance of Constructed Facilities, 2019, 33, .	2.0	8
68	Outdoor Thermal Comfort and Building Energy Use Potential in Different Land-Use Areas in Tropical Cities: Case of Kuala Lumpur. Atmosphere, 2020, 11, 652.	2.3	8
69	Methodology for the assessment and refinement of friction-based dissipative devices. Engineering Structures, 2021, 229, 111666.	5.3	8
70	Architectural and Structural Modelling for the Conservation of Cathedrals. Journal of Architectural Conservation, 2003, 9, 51-72.	0.9	7
71	Experimental and Computational Validation of Dissipative Prototype for the Seismic Protection of Heritage Buildings. Advanced Materials Research, 2010, 133-134, 831-836.	0.3	7
72	Indoor mould testing in a historic building: Blickling Hall. Heritage Science, 2018, 6, 51.	2.3	7

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73	Structural Preservation of Chinese Architectural Heritage. Journal of Architectural Conservation, 2006, 12, 53-70.	0.9	6
74	Bayesian Networks and Infrastructure Systems: Computational and Methodological Challenges. Springer Series in Reliability Engineering, 2017, , 385-415.	0.5	6
75	Urban seismic resilience mapping: a transportation network in Istanbul, Turkey. Scientific Reports, 2022, 12, 8188.	3.3	6
76	Numerical Modeling and Seismic Assessment of Historic Planked Timber Arches. International Journal of Architectural Heritage, 2015, 9, 712-729.	3.1	5
77	Experimental and numerical study of the dynamic behaviour of masonry circular arches with non-negligible tensile capacity. Journal of Mechanics of Materials and Structures, 2019, 14, 621-644.	0.6	5
78	Assessment of Historical Timber Structures: Select Papers from the Second International Conference on Structural Health Assessment of Timber Structures (SHATIS13). International Journal of Architectural Heritage, 2015, 9, 639-640.	3.1	4
79	Methodology for tensile testing historic tapestries. IOP Conference Series: Materials Science and Engineering, 2018, 364, 012003.	0.6	4
80	Rocking of offshore lighthouses under extreme wave impacts: Limit analysis, analytic formulations and distinct element method. Engineering Structures, 2021, 228, 111534.	5.3	4
81	A Bayesian inverse dynamic approach for impulsive wave loading reconstruction: Theory, laboratory and field application. Coastal Engineering, 2021, 168, 103920.	4.0	4
82	Bayesian networks for assessment of disruption to school systems under combined hazards. International Journal of Disaster Risk Reduction, 2022, 74, 102924.	3.9	4
83	A simplified component-based methodology for the seismic vulnerability assessment of school buildings using nonlinear static procedures: application to RC school buildings. Bulletin of Earthquake Engineering, 2022, 20, 6555-6585.	4.1	4
84	Numerical Modelling of Masonry Structures. , 2008, , 151-172.		3
85	Assessment of the Realistic Stiffness and Capacity of the Connections in Quincha Frames to Develop Numerical Models. Advanced Materials Research, 0, 778, 526-533.	0.3	3
86	Climate threats to the earth-built heritage of Scotland. Proceedings of the ICE - Engineering History and Heritage, 2015, 168, 17-30.	0.2	3
87	Environmental performance assessment using monitoring and DVS testing. Proceedings of the ICE - Engineering History and Heritage, 2015, 168, 3-16.	0.2	3
88	Seismic loss estimation of mid-rise masonry infilled steel frame structures through incremental dynamic analysis. International Journal of Forensic Engineering, 2017, 3, 255.	0.1	3
89	Modelling Pan-European ground motions for seismic hazard applications. Bulletin of Earthquake Engineering, 2019, 17, 2821-2840.	4.1	3
90	Transcending disciplines in architecture, structural and building services engineering: a new multidisciplinary educational approach. International Journal of Technology and Design Education, 2022, 32, 1247-1265.	2.6	3

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91	APPLIED ELEMENT MODELLING AND PUSHOVER ANALYSIS OF UNREINFORCED MASONRY BUILDINGS WITH FLEXIBLE ROOF DIAPHRAGM. , 2019, , .		3
92	What is Conservation Engineering?. , 0, , 1-11.		2
93	Local site conditions and seismic risk assessment of historic buildings. , 2013, , 45-56.		2
94	Pull-out strength of anchor pins for brickwork masonry and earth block masonry / Auszugsfestigkeit von Verpressankern fÃ¼r Ziegel- und Lehmsteinmauerwerk. Mauerwerk, 2015, 19, 383-393.	0.1	2
95	Laboratory testing of non-standard original historic building materials and related implications for conservation. Quarterly Journal of Engineering Geology and Hydrogeology, 2015, 48, 15-28.	1.4	2
96	An assessment of moisture induced damage in Blickling Hall in Norfolk, England, via environmental monitoring. Heritage Science, 2017, 5, .	2.3	2
97	Environmental loading of heritage structures. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190276.	3.4	2
98	Influence of the Spatial Pressure Distribution of Breaking Wave Loading on the Dynamic Response of Wolf Rock Lighthouse. Journal of Marine Science and Engineering, 2021, 9, 55.	2.6	2
99	Displacement-based design procedure of grouted anchoring systems for the seismic upgrade of heritage buildings. Construction and Building Materials, 2021, 301, 124348.	7.2	2
100	Seismic Vulnerability Assessment: Masonry Structures. , 2014, , 1-20.		2
101	COMPUTATIONAL VALIDATION OF DISSIPATIVE DEVICE FOR THE SEISMIC UPGRADE OF HISTORIC BUILDINGS. , 2019, , .		2
102	Construction Systems. Building Pathology and Rehabilitation, 2014, , 1-35.	0.2	2
103	NORCIA AND AMATRICE: A COMPARISON OF THE TWO HISTORIC CENTRESâ€™ PERFORMANCE UNDER THE CENTRAL ITALY EARTHQUAKE SEQUENCE. , 2019, , .		2
104	Rapid earthquake loss updating of spatially distributed systems via sampling-based bayesian inference. Bulletin of Earthquake Engineering, 2022, 20, 3995-4023.	4.1	2
105	Finite Element Modelling and Limit Analysis of Fastnet Lighthouse Under Impulsive Ocean Waves. RILEM Bookseries, 2019, , 881-890.	0.4	1
106	The role of intangible assets in the conservation of Bam and its cultural landscape as a World Heritage site. , 2012, , .		1
107	Seismic Strengthening Strategies for Heritage Structures. , 2014, , 1-31.		1
108	Seismic vulnerability assessment of a high-rise molten-salt solar tower based on incremental dynamic analysis. E3S Web of Conferences, 2020, 194, 01005.	0.5	1

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109	Possible Precursors of Pombalino Cage. Lecture Notes in Civil Engineering, 2016, , 87-99.	0.4	0
110	Wind Driven Rain (WDR) Laboratory Tests on Cavity Wall Specimens treated with surface waterproofing products. , 2021, , .		0
111	Performance Comparison of Surface Waterproofing Products with Various Chemical Compositions on Brick Masonry. , 2021, , .		0
112	Seismic Strengthening Strategies for Heritage Structures. , 2015, , 3090-3117.		0
113	Seismic Vulnerability Assessment: Masonry Structures. , 2015, , 3163-3182.		0