

# Dina D'Ayala

## List of Publications by Year in descending order

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113  
papers

2,961  
citations

186265

28  
h-index

189892

50  
g-index

124  
all docs

124  
docs citations

124  
times ranked

2193  
citing authors

#	ARTICLE	IF	CITATIONS
1	Transcending disciplines in architecture, structural and building services engineering: a new multidisciplinary educational approach. <i>International Journal of Technology and Design Education</i> , 2022, 32, 1247-1265.	2.6	3
2	Surrogate-based fragility analysis and probabilistic optimisation of cable-stayed bridges subject to seismic loads. <i>Engineering Structures</i> , 2022, 256, 113949.	5.3	12
3	Rapid earthquake loss updating of spatially distributed systems via sampling-based bayesian inference. <i>Bulletin of Earthquake Engineering</i> , 2022, 20, 3995-4023.	4.1	2
4	Bayesian networks for assessment of disruption to school systems under combined hazards. <i>International Journal of Disaster Risk Reduction</i> , 2022, 74, 102924.	3.9	4
5	Urban seismic resilience mapping: a transportation network in Istanbul, Turkey. <i>Scientific Reports</i> , 2022, 12, 8188.	3.3	6
6	A simplified component-based methodology for the seismic vulnerability assessment of school buildings using nonlinear static procedures: application to RC school buildings. <i>Bulletin of Earthquake Engineering</i> , 2022, 20, 6555-6585.	4.1	4
7	Rocking of offshore lighthouses under extreme wave impacts: Limit analysis, analytic formulations and distinct element method. <i>Engineering Structures</i> , 2021, 228, 111534.	5.3	4
8	Influence of the Spatial Pressure Distribution of Breaking Wave Loading on the Dynamic Response of Wolf Rock Lighthouse. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 55.	2.6	2
9	Methodology for the assessment and refinement of friction-based dissipative devices. <i>Engineering Structures</i> , 2021, 229, 111666.	5.3	8
10	Classification and seismic fragility assessment of confined masonry school buildings. <i>Bulletin of Earthquake Engineering</i> , 2021, 19, 2213-2263.	4.1	9
11	Wind Driven Rain (WDR) Laboratory Tests on Cavity Wall Specimens treated with surface waterproofing products. , 2021, , .		0
12	Performance Comparison of Surface Waterproofing Products with Various Chemical Compositions on Brick Masonry. , 2021, , .		0
13	Effect of slab and transverse beam on the FRP retrofit effectiveness for existing reinforced concrete structures under seismic loading. <i>Engineering Structures</i> , 2021, 234, 111991.	5.3	14
14	Impact of surface waterproofing on the performance of brick masonry through the moisture exposure life-cycle. <i>Building and Environment</i> , 2021, 197, 107844.	6.9	9
15	Displacement-based design procedure of grouted anchoring systems for the seismic upgrade of heritage buildings. <i>Construction and Building Materials</i> , 2021, 301, 124348.	7.2	2
16	A Bayesian inverse dynamic approach for impulsive wave loading reconstruction: Theory, laboratory and field application. <i>Coastal Engineering</i> , 2021, 168, 103920.	4.0	4
17	Agent-based model on resilience-oriented rapid responses of road networks under seismic hazard. <i>Reliability Engineering and System Safety</i> , 2021, 216, 108030.	8.9	29
18	Analytical and numerical seismic assessment of heritage masonry towers. <i>Bulletin of Earthquake Engineering</i> , 2020, 18, 969-1008.	4.1	57

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19	Resilient communities through safer schools. <i>International Journal of Disaster Risk Reduction</i> , 2020, 45, 101446.	3.9	32
20	A multi-hazard risk prioritisation framework for cultural heritage assets. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 1391-1414.	3.6	56
21	Outdoor Thermal Comfort and Building Energy Use Potential in Different Land-Use Areas in Tropical Cities: Case of Kuala Lumpur. <i>Atmosphere</i> , 2020, 11, 652.	2.3	8
22	2015 Nepal earthquake: seismic performance and post-earthquake reconstruction of stone in mud mortar masonry buildings. <i>Bulletin of Earthquake Engineering</i> , 2020, 18, 3863-3896.	4.1	36
23	Flood vulnerability and risk assessment of urban traditional buildings in a heritage district of Kuala Lumpur, Malaysia. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 2221-2241.	3.6	30
24	Seismic vulnerability assessment of a high-rise molten-salt solar tower based on incremental dynamic analysis. <i>E3S Web of Conferences</i> , 2020, 194, 01005.	0.5	1
25	Environmental loading of heritage structures. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20190276.	3.4	2
26	Use of the Knowledge-Based System LOG-IDEAH to Assess Failure Modes of Masonry Buildings, Damaged by L'Aquila Earthquake in 2009. <i>Frontiers in Built Environment</i> , 2019, 5, .	2.3	8
27	Bayesian operational modal analysis of offshore rock lighthouses: Close modes, alignment, symmetry and uncertainty. <i>Mechanical Systems and Signal Processing</i> , 2019, 133, 106306.	8.0	20
28	Survivability assessment of fastnet lighthouse. <i>Coastal Engineering</i> , 2019, 150, 18-38.	4.0	10
29	Effectiveness of seismic strengthening to repeated earthquakes in historic urban contexts. <i>Disaster Prevention and Management</i> , 2019, 29, 47-64.	1.2	9
30	Modelling Pan-European ground motions for seismic hazard applications. <i>Bulletin of Earthquake Engineering</i> , 2019, 17, 2821-2840.	4.1	3
31	Structural Response of Masonry Infilled Timber Frames to Flood and Wind Driven Rain Exposure. <i>Journal of Performance of Constructed Facilities</i> , 2019, 33, .	2.0	8
32	Experimental and numerical study of the dynamic behaviour of masonry circular arches with non-negligible tensile capacity. <i>Journal of Mechanics of Materials and Structures</i> , 2019, 14, 621-644.	0.6	5
33	Finite Element Modelling and Limit Analysis of Fastnet Lighthouse Under Impulsive Ocean Waves. <i>RILEM Bookseries</i> , 2019, , 881-890.	0.4	1
34	APPLIED ELEMENT MODELLING AND PUSHOVER ANALYSIS OF UNREINFORCED MASONRY BUILDINGS WITH FLEXIBLE ROOF DIAPHRAGM. , 2019, , .		3
35	COMPUTATIONAL VALIDATION OF DISSIPATIVE DEVICE FOR THE SEISMIC UPGRADE OF HISTORIC BUILDINGS. , 2019, , .		2
36	NORCIA AND AMATRICE: A COMPARISON OF THE TWO HISTORIC CENTRESâ€™ PERFORMANCE UNDER THE CENTRAL ITALY EARTHQUAKE SEQUENCE. , 2019, , .		2

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37	System loss assessment of bridge networks accounting for multi-hazard interactions. <i>Structure and Infrastructure Engineering</i> , 2018, 14, 1355-1371.	3.7	23
38	Stress tests for a road network using fragility functions and functional capacity loss functions. <i>Reliability Engineering and System Safety</i> , 2018, 173, 78-93.	8.9	16
39	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. <i>Bulletin of Earthquake Engineering</i> , 2018, 16, 2943-2969.	4.1	29
40	Assessment of heritage timber structures: Review of standards, guidelines and procedures. <i>Journal of Cultural Heritage</i> , 2018, 31, 220-235.	3.3	50
41	Indoor mould testing in a historic building: Blickling Hall. <i>Heritage Science</i> , 2018, 6, 51.	2.3	7
42	Methodology for tensile testing historic tapestries. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 364, 012003.	0.6	4
43	Earthquake Damage Data Collection Using Omnidirectional Imagery. <i>Frontiers in Built Environment</i> , 2018, 4, .	2.3	12
44	Experimental Comparison of Novel CFRP Retrofit Schemes for Realistic Full-Scale RC Beam-Column Joints. <i>Journal of Composites for Construction</i> , 2018, 22, .	3.2	28
45	Surface and passive/active air mould sampling: A testing exercise in a North London housing estate. <i>Science of the Total Environment</i> , 2018, 643, 1631-1643.	8.0	22
46	An assessment of moisture induced damage in Blickling Hall in Norfolk, England, via environmental monitoring. <i>Heritage Science</i> , 2017, 5, .	2.3	2
47	Seismic loss estimation of mid-rise masonry infilled steel frame structures through incremental dynamic analysis. <i>International Journal of Forensic Engineering</i> , 2017, 3, 255.	0.1	3
48	Bayesian Networks and Infrastructure Systems: Computational and Methodological Challenges. <i>Springer Series in Reliability Engineering</i> , 2017, , 385-415.	0.5	6
49	Inferring Earthquake Ground-Motion Fields with Bayesian Networks. <i>Bulletin of the Seismological Society of America</i> , 2017, 107, 2792-2808.	2.3	15
50	Moisture dynamics in the masonry fabric of historic buildings subjected to wind-driven rain and flooding. <i>Building and Environment</i> , 2016, 104, 208-220.	6.9	56
51	Development of Bayesian Networks for the multi-hazard fragility assessment of bridge systems. <i>Structural Safety</i> , 2016, 60, 37-46.	5.3	79
52	Possible Precursors of Pombalino Cage. <i>Lecture Notes in Civil Engineering</i> , 2016, , 87-99.	0.4	0
53	Numerical Modeling and Seismic Assessment of Historic Planked Timber Arches. <i>International Journal of Architectural Heritage</i> , 2015, 9, 712-729.	3.1	5
54	Climate threats to the earth-built heritage of Scotland. <i>Proceedings of the ICE - Engineering History and Heritage</i> , 2015, 168, 17-30.	0.2	3

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55	Environmental performance assessment using monitoring and DVS testing. Proceedings of the ICE - Engineering History and Heritage, 2015, 168, 3-16.	0.2	3
56	Pull-out strength of anchor pins for brickwork masonry and earth block masonry / Auszugsfestigkeit von Verpressankern für Ziegel- und Lehmsteinmauerwerk. Mauerwerk, 2015, 19, 383-393.	0.1	2
57	Structural characterisation and Numerical Modelling of Historic Quincha Walls. International Journal of Architectural Heritage, 2015, , .	3.1	9
58	Assessment of structural timber members by non- and semi-destructive methods. Construction and Building Materials, 2015, 101, 1155-1156.	7.2	9
59	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
60	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
61	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
62	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
63	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
64	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
65	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
66	Seismic Strengthening Strategies for Heritage Structures. , 2015, , 3090-3117.		0
67	Seismic Vulnerability Assessment: Masonry Structures. , 2015, , 3163-3182.		0
68	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
69	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
70	The value of multiple earthquake missions: the EEFIT L&AQUILA Earthquake experience. Bulletin of Earthquake Engineering, 2014, 12, 277-305.	4.1	29
71	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
72	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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73	Seismic Vulnerability Assessment: Masonry Structures. , 2014, , 1-20.		2
74	Seismic Vulnerability and Risk Assessment of Historic Masonry Buildings. Building Pathology and Rehabilitation, 2014, , 307-348.	0.2	20
75	Evaluation of Existing Fragility Curves. Geotechnical, Geological and Earthquake Engineering, 2014, , 47-93.	0.2	30
76	Construction Systems. Building Pathology and Rehabilitation, 2014, , 1-35.	0.2	2
77	Seismic Strengthening Strategies for Heritage Structures. , 2014, , 1-31.		1
78	Assessing the seismic vulnerability of masonry buildings. , 2013, , 334-365.		44
79	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
80	Local site conditions and seismic risk assessment of historic buildings. , 2013, , 45-56.		2
81	Historic and Traditional Structures during the 2010 Chile Earthquake: Observations, Codes, and Conservation Strategies. Earthquake Spectra, 2012, 28, 425-451.	3.1	39
82	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
83	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
84	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
85	The role of intangible assets in the conservation of Bam and its cultural landscape as a World Heritage site. , 2012, , .		1
86	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
87	Assessment and analysis of damage in L'Aquila historic city centre after 6th April 2009. Bulletin of Earthquake Engineering, 2011, 9, 81-104.	4.1	280
88	Guest editorial: L'Aquila earthquake: seismic sequence of 6th April 2009, Abruzzo, Italy. Bulletin of Earthquake Engineering, 2011, 9, 1-10.	4.1	12
89	Performance-based seismic assessment method for Taiwanese historic Dieh-Dou timber structures. Earthquake Engineering and Structural Dynamics, 2011, 40, 709-729.	4.4	21
90	Modeling Masonry Historic Buildings by Multi-Body Dynamics. International Journal of Architectural Heritage, 2011, 5, 483-512.	3.1	30

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91	Developing Empirical Collapse Fragility Functions for Global Building Types. <i>Earthquake Spectra</i> , 2011, 27, 775-795.	3.1	99
92	Experimental and Computational Validation of Dissipative Prototype for the Seismic Protection of Heritage Buildings. <i>Advanced Materials Research</i> , 2010, 133-134, 831-836.	0.3	7
93	PERPETUATE Project: The Proposal of a Performance-Based Approach to Earthquake Protection of Cultural Heritage. <i>Advanced Materials Research</i> , 2010, 133-134, 1119-1124.	0.3	40
94	Realistic shear capacity assessment of infill frames: Comparison of two numerical procedures. <i>Engineering Structures</i> , 2009, 31, 1745-1761.	5.3	33
95	Seismic vulnerability of historic Diehâ€“Dou timber structures in Taiwan. <i>Engineering Structures</i> , 2008, 30, 2101-2113.	5.3	73
96	Strength characteristics of hydraulic lime mortared brickwork. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2008, 161, 139-146.	1.1	19
97	Numerical Modelling of Masonry Structures. , 2008, , 151-172.		3
98	Effects of carbonation on the pore structure of non-hydraulic lime mortars. <i>Cement and Concrete Research</i> , 2007, 37, 1059-1069.	11.0	124
99	Structural Preservation of Chinese Architectural Heritage. <i>Journal of Architectural Conservation</i> , 2006, 12, 53-70.	0.9	6
100	Conservation Practice of Chinese Timber Structures. <i>Journal of Architectural Conservation</i> , 2006, 12, 7-26.	0.9	16
101	Determination of carbonation profiles in non-hydraulic lime mortars using thermogravimetric analysis. <i>Thermochimica Acta</i> , 2006, 444, 179-189.	2.7	83
102	The use of tg to measure different concentrations of lime in non-hydraulic lime mortars. <i>Journal of Thermal Analysis and Calorimetry</i> , 2006, 85, 377-382.	3.6	14
103	Non-Hydraulic Lime Mortars. <i>Journal of Architectural Conservation</i> , 2006, 12, 7-33.	0.9	12
104	Force and Displacement Based Vulnerability Assessment for Traditional Buildings. <i>Bulletin of Earthquake Engineering</i> , 2005, 3, 235-265.	4.1	77
105	A Challenge to Earthquake Engineering Professionals. <i>Earthquake Spectra</i> , 2004, 20, 1049-1056.	3.1	19
106	Definition of Collapse Mechanisms and Seismic Vulnerability of Historic Masonry Buildings. <i>Earthquake Spectra</i> , 2003, 19, 479-509.	3.1	330
107	Architectural and Structural Modelling for the Conservation of Cathedrals. <i>Journal of Architectural Conservation</i> , 2003, 9, 51-72.	0.9	7
108	Damage Assessment and Analysis of the 1997 Umbria-Marche Earthquakes. <i>Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE)</i> , 1999, 9, 229-233.	0.8	27

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109	Earthquake Loss Estimation for Europe's Historic Town Centres. Earthquake Spectra, 1997, 13, 773-793.	3.1	76
110	What is Conservation Engineering?. , 0, , 1-11.		2
111	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
112	Numerical Modelling of Historic Vaulted Timber Structures. Advanced Materials Research, 0, 778, 517-525.	0.3	9
113	Review of Out-of-Plane Seismic Assessment Techniques Applied To Existing Masonry Buildings. International Journal of Architectural Heritage, 0, , 1-20.	3.1	51