Katrin Beyer

List of Publications by Year
in descending order

88 papers	2,758 citations	159585 30 h-index	206112 48 g-index
91 all docs	91 docs citations	91 times ranked	1308 citing authors

#	Article	IF	Citations
1	Relationships between Median Values and between Aleatory Variabilities for Different Definitions of the Horizontal Component of Motion. Bulletin of the Seismological Society of America, 2006, 96, 1512-1522.	2.3	218
2	Quasi-static cyclic tests and plastic hinge analysis of RC structural walls. Engineering Structures, 2009, 31, 1556-1571.	5.3	197
3	Selection and Scaling of Real Accelerograms for Bi-Directional Loading: A Review of Current Practice and Code Provisions. Journal of Earthquake Engineering, 2007, 11, 13-45.	2.5	150
4	Understanding Poor Seismic Performance of Concrete Walls and Design Implications. Earthquake Spectra, 2014, 30, 307-334.	3.1	104
5	Influence of boundary conditions and size effect on the drift capacity of URM walls. Engineering Structures, 2014, 65, 76-88.	5.3	101
6	Estimates for the stiffness, strength and drift capacity of stone masonry walls based on 123 quasi-static cyclic tests reported in the literature. Bulletin of Earthquake Engineering, 2017, 15, 5435-5479.	4.1	93
7	Quasi-Static Cyclic Tests of Two U-Shaped Reinforced Concrete Walls. Journal of Earthquake Engineering, 2008, 12, 1023-1053.	2.5	86
8	Quasi-Static Cyclic Tests on Masonry Spandrels. Earthquake Spectra, 2012, 28, 907-929.	3.1	81
9	Stability of thin reinforced concrete walls under cyclic loads: state-of-the-art and new experimental findings. Bulletin of Earthquake Engineering, 2016, 14, 455-484.	4.1	58
10	Comparison of crack segmentation using digital image correlation measurements and deep learning. Construction and Building Materials, 2020, 261, 120474.	7.2	55
11	Peak and residual strengths of brick masonry spandrels. Engineering Structures, 2012, 41, 533-547.	5.3	51
12	Review of strength models for masonry spandrels. Bulletin of Earthquake Engineering, 2013, 11, 521-542.	4.1	51
13	A threeâ€dimensional macroelement for modelling the inâ€plane and outâ€ofâ€plane response of masonry walls. Earthquake Engineering and Structural Dynamics, 2020, 49, 1365-1387.	4.4	50
14	Upper bound limit analysis of meso-mechanical spandrel models for the pushover analysis of 2D masonry frames. Engineering Structures, 2009, 31, 2696-2710.	5.3	49
15	Influence of boundary conditions on the outâ€ofâ€plane response of brick masonry walls in buildings with RC slabs. Earthquake Engineering and Structural Dynamics, 2016, 45, 1337-1356.	4.4	47
16	Scaling unreinforced masonry for reduced-scale seismic testing. Bulletin of Earthquake Engineering, 2014, 12, 2557-2581.	4.1	45
17	Inelastic Wide-Column Models for U-Shaped Reinforced Concrete Walls. Journal of Earthquake Engineering, 2008, 12, 1-33.	2.5	44
18	Dynamic testing of a four-storey building with reinforced concrete and unreinforced masonry walls: prediction, test results and data set. Bulletin of Earthquake Engineering, 2015, 13, 3015-3064.	4.1	42

#	Article	IF	Citations
19	Experimental seismic performance of a half-scale stone masonry building aggregate. Bulletin of Earthquake Engineering, 2020, 18, 609-643.	4.1	42
20	Sensitivity analysis of fractal dimensions of crack maps on concrete and masonry walls. Automation in Construction, 2020, 117, 103258.	9.8	41
21	Modelling Approaches for Inelastic Behaviour of RC Walls: Multi-level Assessment and Dependability of Results. Archives of Computational Methods in Engineering, 2016, 23, 69-100.	10.2	40
22	Tests on Thin Reinforced Concrete Walls Subjected to In-Plane and Out-of-Plane Cyclic Loading. Earthquake Spectra, 2017, 33, 323-345.	3.1	40
23	Micro-mechanical finite element modeling of diagonal compression test for historical stone masonry structure. International Journal of Solids and Structures, 2017, 112, 122-132.	2.7	38
24	Experimental investigation of strength, stiffness and drift capacity of rubble stone masonry walls. Construction and Building Materials, 2020, 251, 118972.	7.2	36
25	Effective stiffness of reinforced concrete coupling beams. Engineering Structures, 2014, 76, 371-382.	5.3	35
26	Loading protocols for European regions of low to moderate seismicity. Bulletin of Earthquake Engineering, 2014, 12, 2507-2530.	4.1	34
27	Influence of load history on the force-displacement response of in-plane loaded unreinforced masonry walls. Engineering Structures, 2017, 152, 671-682.	5.3	34
28	Response of thin lightly-reinforced concrete walls under cyclic loading. Engineering Structures, 2018, 176, 175-187.	5.3	33
29	Evaluation of forceâ€based and displacementâ€based outâ€ofâ€plane seismic assessment methods for unreinforced masonry walls through refined model simulations. Earthquake Engineering and Structural Dynamics, 2019, 48, 454-475.	4.4	33
30	Behaviour of U-shaped RC walls under quasi-static cyclic diagonal loading. Engineering Structures, 2016, 106, 36-52.	5.3	32
31	Quasi-static shear-compression tests on stone masonry walls with plaster: Influence of load history and axial load ratio. Engineering Structures, 2019, 192, 264-278.	5.3	31
32	Shake-Table Test of a Strengthened Stone Masonry Building Aggregate with Flexible Diaphragms. International Journal of Architectural Heritage, 2019, 13, 1078-1097.	3.1	30
33	Numerical investigation of the role of masonry typology on shear strength. Engineering Structures, 2019, 192, 86-102.	5.3	30
34	Cyclic tensile-compressive tests on thin concrete boundary elements with a single layer of reinforcement prone to out-of-plane instability. Bulletin of Earthquake Engineering, 2018, 16, 859-887.	4.1	28
35	Equivalent-Frame Modeling of Two Shaking Table Tests of Masonry Buildings Accounting for Their Out-Of-Plane Response. Frontiers in Built Environment, 2020, 6, .	2.3	27
36	Forceâ€“displacement response of inâ€planeâ€loaded URM walls with a dominating flexural mode. Earthquake Engineering and Structural Dynamics, 2015, 44, 2551-2573.	4.4	26

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37	Stiffness and Strength Estimation of Damaged Unreinforced Masonry Walls Using Crack Pattern. Journal of Earthquake Engineering, 2022, 26, 837-856.	2.5	22
38	Quasi-Static Monotonic and Cyclic Tests on Composite Spandrels. Earthquake Spectra, 2012, 28, 885-906.	3.1	20
39	Numerical Study on the Peak Strength of Masonry Spandrels with Arches. Journal of Earthquake Engineering, 2014, 18, 169-186.	2.5	20
40	Influence of Lap Splices on the Deformation Capacity of RC Walls. I: Database Assembly, Recent Experimental Data, and Findings for Model Development. Journal of Structural Engineering, 2017, 143, .	3.4	20
41	Analytical model for the outâ€ofâ€plane response of vertically spanning unreinforced masonry walls. Earthquake Engineering and Structural Dynamics, 2017, 46, 2757-2776.	4.4	20
42	Generating LOD3 building models from structure-from-motion and semantic segmentation. Automation in Construction, 2022, 141, 104430.	9.8	20
43	Limit states of modern unreinforced clay brick masonry walls subjected to in-plane loading. Bulletin of Earthquake Engineering, 2015, 13, 1073-1095.	4.1	19
44	Three-Parameter Kinematic Theory for Shear-Dominated Reinforced Concrete Walls. Journal of Structural Engineering, 2016, 142, .	3.4	18
45	The ratio of shear to elastic modulus of in-plane loaded masonry. Materials and Structures/Materiaux Et Constructions, 2020, 53, 40.	3.1	18
46	Forceâ€"displacement response of in-plane loaded unreinforced brick masonry walls: the Critical Diagonal Crack model. Bulletin of Earthquake Engineering, 2017, 15, 2201-2244.	4.1	17
47	Numerical study on factors that influence the inâ€plane drift capacity of unreinforced masonry walls. Earthquake Engineering and Structural Dynamics, 2018, 47, 1440-1459.	4.4	17
48	A 2D typology generator for historical masonry elements. Construction and Building Materials, 2018, 184, 440-453.	7.2	17
49	TOPO-Loss for continuity-preserving crack detection using deep learning. Construction and Building Materials, 2022, 344, 128264.	7.2	17
50	Uncertainties in the Seismic Assessment of Historical Masonry Buildings. Applied Sciences (Switzerland), 2021, 11, 2280.	2.5	16
51	Capacity Design of Coupled RC Walls. Journal of Earthquake Engineering, 2014, 18, 735-758.	2.5	14
52	The effective stiffness of modern unreinforced masonry walls. Earthquake Engineering and Structural Dynamics, 2018, 47, 1683-1705.	4.4	14
53	Quasi-static cyclic tests of two mixed reinforced concreteâ€"unreinforced masonry wall structures. Engineering Structures, 2014, 71, 201-211.	5.3	13
54	Shear-compression tests of URM walls: Various setups and their influence on experimental results. Engineering Structures, 2018, 156, 472-479.	5.3	13

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55	Trilinear Model for the Out-of-Plane Seismic Assessment of Vertically Spanning Unreinforced Masonry Walls. Journal of Structural Engineering, 2019, 145, .	3.4	13
56	RC U-shaped walls subjected to in-plane, diagonal, and torsional loading: New experimental findings. Engineering Structures, 2021, 233, 111873.	5.3	13
57	Seismic performance of slender RC U-shaped walls with a single-layer of reinforcement. Engineering Structures, 2020, 225, 111257.	5.3	12
58	Towards Displacement-Based Seismic Design of Modern Unreinforced Masonry Structures. Geotechnical, Geological and Earthquake Engineering, 2014, , 401-428.	0.2	12
59	Influence of Lap Splices on the Deformation Capacity of RC Walls. II: Shell Element Simulation and Equivalent Uniaxial Model. Journal of Structural Engineering, 2017, 143, .	3.4	11
60	Analytical and empirical models for predicting the drift capacity of modern unreinforced masonry walls. Earthquake Engineering and Structural Dynamics, 2018, 47, 2012-2031.	4.4	11
61	Numerical evaluation of test setups for determining the shear strength of masonry. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	11
62	Pareto-like sequential sampling heuristic for global optimisation. Soft Computing, 2021, 25, 9077-9096.	3.6	11
63	Numerical Simulation of Unreinforced Masonry Buildings with Timber Diaphragms. Buildings, 2021, 11, 205.	3.1	11
64	Investigating the cracking of plastered stone masonry walls under shearâ€“compression loading. Construction and Building Materials, 2021, 306, 124831.	7.2	11
65	Latest findings on the behaviour factor q for the seismic design of URM buildings. Bulletin of Earthquake Engineering, 2022, 20, 5797-5848.	4.1	11
66	Characterization of mortarâ€“timber and timberâ€“timber cyclic friction in timber floor connections of masonry buildings. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	3.1	10
67	Evaluation of seismic assessment procedures for determining deformation demands in RC wall buildings. Earthquake and Structures, 2015, 9, 911-936.	1.0	10
68	Experimental investigation on the deformation capacity of lap splices under cyclic loading. Bulletin of Earthquake Engineering, 2019, 17, 6645-6670.	4.1	9
69	A virtual microstructure generator for 3D stone masonry walls. European Journal of Mechanics, A/Solids, 2022, 96, 104656.	3.7	9
70	Modelling shearâ€“flexure interaction in equivalent frame models of slender reinforced concrete walls. Structural Design of Tall and Special Buildings, 2014, 23, 1171-1189.	1.9	8
71	Experimental investigation of friction stresses between adjacent panels made of Oriented Strand Board (OSB) and between OSB panels and glued laminated timber (GLT) frame members. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	8
72	Decay of Torsional Stiffness in RC U-Shaped Walls. Journal of Structural Engineering, 2020, 146, 04020176.	3.4	8

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73	Comparison of Force-Based and Displacement-Based Design approaches for RC coupled walls in New Zealand. Bulletin of the New Zealand Society for Earthquake Engineering, 2014, 47, 190-205.	0.5	8
74	Seismic shear distribution among interconnected cantilever walls of different lengths. Earthquake Engineering and Structural Dynamics, 2014, 43, 1423-1441.	4.4	7
75	Modeling the Seismic Response of Modern URM Buildings Retrofitted by Adding RC Walls. Journal of Earthquake Engineering, 2016, 20, 587-610.	2.5	7
76	Instability of Thin Concrete Walls with a Single Layer of Reinforcement under Cyclic Loading: Numerical Simulation and Improved Equivalent Boundary Element Model for Assessment. Journal of Earthquake Engineering, 2022, 26, 493-524.	2.5	7
77	Machine-learning for damage assessment of rubble stone masonry piers based on crack patterns. Automation in Construction, 2022, 140, 104313.	9.8	7
78	Displacement-Based Seismic Design of Symmetric Single-Storey Wood-Frame Buildings with the Aid of N2 Method. Frontiers in Built Environment, 2015, 1, .	2.3	6
79	Axially equilibrated displacementâ€based beam element for simulating the cyclic inelastic behaviour of RC members. Earthquake Engineering and Structural Dynamics, 2017, 46, 1471-1492.	4.4	6
80	Spherical cap harmonic analysis (SCHA) for characterising the morphology of rough surface patches. Powder Technology, 2021, 393, 837-856.	4.2	6
81	Uniaxial Cyclic Tests on Reinforced Concrete Members with Lap Splices. Earthquake Spectra, 2019, 35, 1023-1043.	3.1	5
82	Quantifying the out-of-plane response of unreinforced masonry walls subjected to relative support motion. Frattura Ed Integrita Strutturale, 2019, 13, 194-208.	0.9	5
83	Development of a displacement-based design approach for modern mixed RC-URM wall structures. Earthquake and Structures, 2015, 9, 789-830.	1.0	4
84	Prediction of stiffness, force and drift capacity of modern inâ€plane loaded URM walls. Mauerwerk, 2018, 22, 77-90.	0.1	3
85	Extended Tension Chord Model for Boundary Elements of RC Walls Accounting for Anchorage Slip and Lap Splices Presence. International Journal of Concrete Structures and Materials, 2020, 14, .	3.2	2
86	Determining crack kinematics from imaged crack patterns. Construction and Building Materials, 2022, 343, 128054.	7.2	2
87	Special Collection on Recent Advances in Reinforced Concrete Walls Designed to Resist Seismic Loads. Journal of Structural Engineering, 2018, 144, 02018002.	3.4	0
88	Shake Table Testing of a Half-Scaled RC-URM Wall Structure. Geotechnical, Geological and Earthquake Engineering, 2015, , 295-306.	0.2	0