

Jian Zhang

List of Publications by Year in descending order

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75
papers

2,688
citations

159358

30
h-index

189595

50
g-index

75
all docs

75
docs citations

75
times ranked

1536
citing authors

#	ARTICLE	IF	CITATIONS
1	Rocking Response of Free-Standing Blocks under Cycloidal Pulses. Journal of Engineering Mechanics - ASCE, 2001, 127, 473-483.	1.6	314
2	Evaluating effectiveness and optimum design of isolation devices for highway bridges using the fragility function method. Engineering Structures, 2009, 31, 1648-1660.	2.6	281
3	Rocking Response of Anchored Blocks under Pulse-Type Motions. Journal of Engineering Mechanics - ASCE, 2001, 127, 484-493.	1.6	95
4	Benchmark structural control problem for a seismically excited highway bridge-Part I: Phase I Problem definition. Structural Control and Health Monitoring, 2009, 16, 509-529.	1.9	87
5	Seismic response analysis of highway overcrossings including soil-structure interaction. Earthquake Engineering and Structural Dynamics, 2002, 31, 1967-1991.	2.5	80
6	Probabilistic seismic demand analysis of a slender RC shear wall considering soil-structure interaction effects. Engineering Structures, 2011, 33, 218-229.	2.6	76
7	Seismic behavior of precast segmental UHPC bridge columns with replaceable external cover plates and internal dissipaters. Engineering Structures, 2018, 177, 540-555.	2.6	76
8	Kinematic response functions and dynamic stiffnesses of bridge embankments. Earthquake Engineering and Structural Dynamics, 2002, 31, 1933-1966.	2.5	73
9	Cyclic loading test of self-centering precast segmental unbonded posttensioned UHPFRC bridge columns. Bulletin of Earthquake Engineering, 2018, 16, 5227-5255.	2.3	69
10	Experimental study on concrete columns reinforced by hybrid steel-fiber reinforced polymer (FRP) bars under horizontal cyclic loading. Construction and Building Materials, 2017, 130, 202-211.	3.2	67
11	Effects of Near-Fault Motions and Artificial Pulse-Type Ground Motions on Super-Span Cable-Stayed Bridge Systems. Journal of Bridge Engineering, 2017, 22, .	1.4	65
12	Response spectrum-oriented pulse identification and magnitude scaling of forward directivity pulses in near-fault ground motions. Soil Dynamics and Earthquake Engineering, 2011, 31, 59-76.	1.9	60
13	Hysteretic shear-flexure interaction model of reinforced concrete columns for seismic response assessment of bridges. Earthquake Engineering and Structural Dynamics, 2011, 40, 315-337.	2.5	59
14	Effects of Pounding and Skewness on Seismic Responses of Typical Multispan Highway Bridges Using the Fragility Function Method. Journal of Bridge Engineering, 2013, 18, 499-515.	1.4	59
15	Structural performance of unstiffened low yield point steel plate shear walls. Journal of Constructional Steel Research, 2015, 112, 40-53.	1.7	59
16	Seismic Response Analysis of a Highway Overcrossing Equipped with Elastomeric Bearings and Fluid Dampers. Journal of Structural Engineering, 2004, 130, 830-845.	1.7	56
17	Effects of structural characterizations on fragility functions of bridges subject to seismic shaking and lateral spreading. Earthquake Engineering and Engineering Vibration, 2008, 7, 369-382.	1.1	55
18	Seismic fragilities of single-column highway bridges with rocking column-footing. Earthquake Engineering and Structural Dynamics, 2019, 48, 843-864.	2.5	50

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19	Dimensional analysis of structures with translating and rocking foundations under near-fault ground motions. <i>Soil Dynamics and Earthquake Engineering</i> , 2009, 29, 1330-1346.	1.9	48
20	Cost-Effective UHPC for Accelerated Bridge Construction: Material Properties, Structural Elements, and Structural Applications. <i>Journal of Bridge Engineering</i> , 2021, 26, .	1.4	45
21	Time-domain viscoelastic analysis of earth structures. <i>Earthquake Engineering and Structural Dynamics</i> , 2000, 29, 745-768.	2.5	42
22	Lateral Behavior of Precast Segmental UHPC Bridge Columns Based on the Equivalent Plastic-Hinge Model. <i>Journal of Bridge Engineering</i> , 2019, 24, .	1.4	40
23	Seismic responses of super-span cable-stayed bridges induced by ground motions in different sites relative to fault rupture considering soil-structure interaction. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 101, 295-310.	1.9	35
24	Design and Optimization of Seismic Isolation and Damping Devices for Highway Bridges Based on Probabilistic Repair Cost Ratio. <i>Journal of Structural Engineering</i> , 2018, 144, .	1.7	34
25	Effects of fault rupture on seismic responses of fault-crossing simply-supported highway bridges. <i>Engineering Structures</i> , 2020, 206, 110104.	2.6	34
26	Fragility Functions for Bridges in Liquefaction-Induced Lateral Spreads. <i>Earthquake Spectra</i> , 2011, 27, 683-717.	1.6	33
27	Nonlinear Behavior and Simulation of Concrete Columns Reinforced by Steel-FRP Composite Bars. <i>Journal of Bridge Engineering</i> , 2014, 19, 220-234.	1.4	33
28	Optimum seismic design of a power plant building with pendulum tuned mass damper system by its heavy suspended buckets. <i>Engineering Structures</i> , 2017, 136, 114-132.	2.6	33
29	Large-scale quasi-static testing of precast bridge column with pocket connections using noncontact lap-spliced bars and UHPC grout. <i>Bulletin of Earthquake Engineering</i> , 2019, 17, 5021-5044.	2.3	33
30	Axial-shear-flexure interaction hysteretic model for RC columns under combined actions. <i>Engineering Structures</i> , 2012, 34, 548-563.	2.6	32
31	Optimal Design of Seismic Protective Devices for Highway Bridges Using Performance-Based Methodology and Multiobjective Genetic Optimization. <i>Journal of Bridge Engineering</i> , 2017, 22, .	1.4	32
32	An explicit analytical model for seismic performance of an unbonded post-tensioned precast segmental rocking hollow pier. <i>Engineering Structures</i> , 2018, 161, 176-191.	2.6	29
33	Seismic responses of bridges with rocking column-foundation: A dimensionless regression analysis. <i>Earthquake Engineering and Structural Dynamics</i> , 2019, 48, 152-170.	2.5	26
34	Probabilistic assessment of structures with SPSW systems and LYP steel infill plates using fragility function method. <i>Engineering Structures</i> , 2015, 85, 195-205.	2.6	25
35	Dimensional Analysis of Inelastic Structures with Negative Stiffness and Supplemental Damping Devices. <i>Journal of Structural Engineering</i> , 2017, 143, .	1.7	25
36	Experimental study on a novel UHPC grout-filled pipe sleeve with mechanical interlocking for large-diameter deformed bars. <i>Engineering Structures</i> , 2021, 226, 111358.	2.6	25

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37	Buckling and yielding behavior of unstiffened slender, moderate, and stocky low yield point steel plates. <i>Thin-Walled Structures</i> , 2015, 88, 105-118.	2.7	24
38	Seismic design and behavior of low yield point steel plate shear walls. <i>International Journal of Steel Structures</i> , 2015, 15, 135-151.	0.6	22
39	Performance-based seismic design and optimization of damper devices for cable-stayed bridge. <i>Engineering Structures</i> , 2021, 237, 112043.	2.6	22
40	Experimental study on damage-controllable rocking walls with resilient corners. <i>Magazine of Concrete Research</i> , 2019, 71, 1113-1129.	0.9	20
41	Development and validation of p-Δ modeling approach for seismic response predictions of highway bridges. <i>Earthquake Engineering and Structural Dynamics</i> , 2017, 46, 585-604.	2.5	19
42	Design criterion for the self-centering capacity of precast segmental UHPC bridge columns with unbonded post-tensioning tendons. <i>Engineering Structures</i> , 2019, 200, 109706.	2.6	19
43	Multiple-variable frequency pendulum isolator with high-performance materials. <i>Smart Materials and Structures</i> , 2020, 29, 075002.	1.8	19
44	Structural Characterization of Modern Highway Overcrossings—Case Study. <i>Journal of Structural Engineering</i> , 2004, 130, 846-860.	1.7	18
45	Effectiveness evaluation and optimal design of nonlinear viscous dampers for inelastic structures under pulse-type ground motions. <i>Earthquake Engineering and Structural Dynamics</i> , 2018, 47, 2802-2820.	2.5	17
46	Optimal design of isolation devices for mid-rise steel moment frames using performance based methodology. <i>Bulletin of Earthquake Engineering</i> , 2018, 16, 4315-4338.	2.3	16
47	Simplified Drift Demand Prediction of Bridges under Liquefaction-Induced Lateral Spreading. <i>Journal of Bridge Engineering</i> , 2018, 23, .	1.4	15
48	Energy dissipation and self-centering capacities of posttensioning precast segmental ultra-high performance concrete bridge columns. <i>Structural Concrete</i> , 2020, 21, 517-532.	1.5	15
49	Inelastic displacement demand of bridge columns considering shear-flexure interaction. <i>Earthquake Engineering and Structural Dynamics</i> , 2011, 40, 731-748.	2.5	14
50	Buckling mechanism and global stability design method of buckling-restrained braces. <i>Journal of Constructional Steel Research</i> , 2017, 138, 473-487.	1.7	13
51	Seismic response simulations of bridges considering shear-flexural interaction of columns. <i>Structural Engineering and Mechanics</i> , 2009, 31, 545-566.	1.0	13
52	Seismic response of a Reduced-scale continuous girder bridge with rocking Columns: Experiment and analysis. <i>Engineering Structures</i> , 2021, 248, 113265.	2.6	12
53	A simplified method to assess seismic behavior of reinforced concrete columns. <i>Structural Concrete</i> , 2020, 21, 151-168.	1.5	11
54	Comment on "Estimates of the Ground Accelerations at Point Reyes Station during the 1906 San Francisco Earthquake" by A. Anooshehpour, T. H. Heaton, B. Shi, and J. N. Brune. <i>Bulletin of the Seismological Society of America</i> , 2000, 90, 1342-1348.	1.1	10

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55	Modeling seismic behavior of precast segmental UHPC bridge columns in a simplified method. Bulletin of Earthquake Engineering, 2020, 18, 3317-3349.	2.3	10
56	A machine-learning-based model for predicting the effective stiffness of precast concrete columns. Engineering Structures, 2022, 260, 114224.	2.6	10
57	Optimal Nonlinear Damping for Inelastic Structures Using Dimensional Analysis. , 2012, , .		8
58	Optimization Method and Experimental Study on the Shear Strength of Externally Prestressed Concrete Beams. Advances in Structural Engineering, 2014, 17, 607-615.	1.2	7
59	Dimensional Estimation of Residual-Drift Demands for Bilinear Bridges under Near-Fault Ground Motions. Journal of Bridge Engineering, 2018, 23, .	1.4	7
60	Experimental verification of an accessible geographically distributed real-time hybrid simulation platform. Structural Control and Health Monitoring, 2020, 27, e2483.	1.9	7
61	Numerical study on seismic behavior of precast bridge columns with large-diameter bars and UHPC grout considering the bar-slip effect. Bulletin of Earthquake Engineering, 2020, 18, 4963-4984.	2.3	7
62	Evaluation of Dynamic Earth Pressure Cells for Subgrade. Transportation Research Record, 1997, 1596, 1-6.	1.0	6
63	Seismic fragility of approach backfill differential settlement for statewide bridges in California. Soil Dynamics and Earthquake Engineering, 2022, 153, 107049.	1.9	6
64	Finite Element Modeling of Shallow Foundations on Nonlinear Soil Medium. , 2007, , 1.		5
65	Fragility Analysis of a Self-Anchored Suspension Bridge Based on Structural Health Monitoring Data. Advances in Civil Engineering, 2019, 2019, 1-19.	0.4	5
66	Study on seismic retrofit of structures using SPSW systems and LYP steel material. Earthquake and Structures, 2016, 10, 1-23.	1.0	5
67	Sensitivity Study of an Older-Vintage Bridge Subjected to Lateral Spreading. , 2008, , .		4
68	UHPC grout-filled pipe sleeve with bolts for large-diameter deformed bars: Analytical model on the tensile resistance and design method. Engineering Structures, 2021, 245, 112851.	2.6	4
69	ELASTIC DISTORTIONAL BUCKLING OF SINGLY SYMMETRIC I-SHAPED FLEXURAL MEMBERS WITH SLENDER WEBS. International Journal of Structural Stability and Dynamics, 2012, 12, 359-376.	1.5	3
70	Feasible region of post-tensioning force for precast segmental post-tensioned UHPC bridge columns. Engineering Structures, 2019, 200, 109685.	2.6	3
71	Time-domain viscoelastic analysis of earth structures. Earthquake Engineering and Structural Dynamics, 2000, 29, 745-768.	2.5	3
72	Post-Yielding Behavior of Hinge-Supported Wall with Buckling-Restrained Braces in Base. Journal of Earthquake and Tsunami, 2019, 13, .	0.7	2

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73	Numerical study on the seismic performance of precast UHPC bridge columns considering the buckling behavior of replaceable energy dissipaters. Structure and Infrastructure Engineering, 2022, 18, 230-248.	2.0	2
74	Special Issue on Recent Advances in Seismic Design, Analysis, and Protection of Highway Bridges. Journal of Bridge Engineering, 2014, 19, .	1.4	0
75	Evaluating the Effectiveness and Optimal Design of Isolation Bearings and Fluid Dampers for a Highway Bridge Using a Fragility Function Method and Genetic Optimization. , 2016, , .		0