

Junho Song

List of Publications by Year in descending order

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123
papers

3,596
citations

136740

32
h-index

149479

56
g-index

123
all docs

123
docs citations

123
times ranked

2451
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized Bouc-Wen Model for Highly Asymmetric Hysteresis. Journal of Engineering Mechanics - ASCE, 2006, 132, 610-618.	1.6	195
2	A computational paradigm for multiresolution topology optimization (MTO). Structural and Multidisciplinary Optimization, 2010, 41, 525-539.	1.7	188
3	Bounds on System Reliability by Linear Programming. Journal of Engineering Mechanics - ASCE, 2003, 129, 627-636.	1.6	177
4	System reliability and sensitivity under statistical dependence by matrix-based system reliability method. Structural Safety, 2009, 31, 148-156.	2.8	174
5	Matrix-based system reliability method and applications to bridge networks. Reliability Engineering and System Safety, 2008, 93, 1584-1593.	5.1	160
6	Development of a high-performance anode for lithium ion batteries using novel ordered mesoporous tungsten oxide materials with high electrical conductivity. Physical Chemistry Chemical Physics, 2011, 13, 11060.	1.3	141
7	Cross-entropy-based adaptive importance sampling using Gaussian mixture. Structural Safety, 2013, 42, 35-44.	2.8	127
8	Multi-scale reliability analysis and updating of complex systems by use of linear programming. Reliability Engineering and System Safety, 2008, 93, 288-297.	5.1	88
9	Single-loop system reliability-based topology optimization considering statistical dependence between limit-states. Structural and Multidisciplinary Optimization, 2011, 44, 593-611.	1.7	82
10	Post-hazard flow capacity of bridge transportation network considering structural deterioration of bridges. Structure and Infrastructure Engineering, 2011, 7, 509-521.	2.0	76
11	Improving multiresolution topology optimization via multiple discretizations. International Journal for Numerical Methods in Engineering, 2012, 92, 507-530.	1.5	75
12	Hamiltonian Monte Carlo methods for Subset Simulation in reliability analysis. Structural Safety, 2019, 76, 51-67.	2.8	75
13	Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation. Journal of Engineering Mechanics - ASCE, 2006, 132, 65-77.	1.6	73
14	Cross-entropy-based adaptive importance sampling using von Mises-Fisher mixture for high dimensional reliability analysis. Structural Safety, 2016, 59, 42-52.	2.8	73
15	Optimal design of hysteretic dampers connecting adjacent structures using multi-objective genetic algorithm and stochastic linearization method. Engineering Structures, 2008, 30, 1240-1249.	2.6	72
16	Evaluation of multivariate normal integrals for general systems by sequential compounding. Structural Safety, 2010, 32, 35-41.	2.8	68
17	Response prediction of nonlinear hysteretic systems by deep neural networks. Neural Networks, 2019, 111, 1-10.	3.3	67
18	Single-Loop System Reliability-Based Design Optimization Using Matrix-Based System Reliability Method: Theory and Applications. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	66

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19	Parameterized Seismic Fragility Curves for Curved Multi-frame Concrete Box-Girder Bridges Using Bayesian Parameter Estimation. Journal of Earthquake Engineering, 2019, 23, 954-979.	1.4	57
20	Joint shear behaviour of reinforced concrete beam-column connections. Magazine of Concrete Research, 2009, 61, 119-132.	0.9	56
21	Accelerated Monte Carlo system reliability analysis through machine-learning-based surrogate models of network connectivity. Reliability Engineering and System Safety, 2017, 164, 1-9.	5.1	54
22	Availability, reliability and downtime of systems with repairable components. Reliability Engineering and System Safety, 2007, 92, 231-242.	5.1	50
23	Risk Analysis of Fatigue-Induced Sequential Failures by Branch-and-Bound Method Employing System Reliability Bounds. Journal of Engineering Mechanics - ASCE, 2011, 137, 807-821.	1.6	50
24	Probabilistic evaluation of seismic responses using deep learning method. Structural Safety, 2020, 84, 101913.	2.8	50
25	Efficient risk assessment of lifeline networks under spatially correlated ground motions using selective recursive decomposition algorithm. Earthquake Engineering and Structural Dynamics, 2012, 41, 1861-1882.	2.5	46
26	Probability-Adaptive Kriging in n-Ball (PAK-Bn) for reliability analysis. Structural Safety, 2020, 85, 101924.	2.8	46
27	Strategic Planning for Drought Mitigation under Climate Change. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	1.3	45
28	System reliability analysis using dominant failure modes identified by selective searching technique. Reliability Engineering and System Safety, 2013, 119, 316-331.	5.1	44
29	Further development of matrix-based system reliability method and applications to structural systems. Structure and Infrastructure Engineering, 2012, 8, 441-457.	2.0	40
30	Generalized Reliability Importance Measure (GRIM) using Gaussian mixture. Reliability Engineering and System Safety, 2018, 173, 105-115.	5.1	39
31	Probabilistic shear strength models for reinforced concrete beams without shear reinforcement. Structural Engineering and Mechanics, 2010, 34, 15-38.	1.0	38
32	Ductility capacity models for buckling-restrained braces. Journal of Constructional Steel Research, 2009, 65, 1712-1720.	1.7	34
33	Reliability growth analysis of k-out-of-N systems using matrix-based system reliability method. Reliability Engineering and System Safety, 2017, 165, 410-421.	5.1	34
34	Polygonal multiresolution topology optimization (PolyMTOP) for structural dynamics. Structural and Multidisciplinary Optimization, 2016, 53, 673-694.	1.7	33
35	Pre- and post-earthquake regional loss assessment using deep learning. Earthquake Engineering and Structural Dynamics, 2020, 49, 657-678.	2.5	33
36	Energy-based seismic collapse criterion for ductile planar structural frames. Engineering Structures, 2017, 141, 1-13.	2.6	32

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37	Equivalent linearization method using Gaussian mixture (GM-ELM) for nonlinear random vibration analysis. <i>Structural Safety</i> , 2017, 64, 9-19.	2.8	31
38	Seismic Reliability Analysis of Deteriorating Representative U.S. West Coast Bridge Transportation Networks. <i>Journal of Structural Engineering</i> , 2016, 142, .	1.7	29
39	Seismic interaction in electrical substation equipment connected by non-linear rigid bus conductors. <i>Earthquake Engineering and Structural Dynamics</i> , 2007, 36, 167-190.	2.5	28
40	Bounds on Reliability of Larger Systems by Linear Programming with Delayed Column Generation. <i>Journal of Engineering Mechanics - ASCE</i> , 2020, 146, .	1.6	28
41	Development of optimal design formula for bi-tuned mass dampers using multi-objective optimization. <i>Journal of Sound and Vibration</i> , 2009, 322, 60-77.	2.1	27
42	Finite-element-based system reliability analysis of fatigue-induced sequential failures. <i>Reliability Engineering and System Safety</i> , 2012, 108, 131-141.	5.1	27
43	Structural topology optimization under constraints on instantaneous failure probability. <i>Structural and Multidisciplinary Optimization</i> , 2016, 53, 773-799.	1.7	27
44	Multi-state system reliability analysis of HVDC transmission systems using matrix-based system reliability method. <i>International Journal of Electrical Power and Energy Systems</i> , 2018, 100, 265-278.	3.3	25
45	New strut-and-tie-models for shear strength prediction and design of RC deep beams. <i>Computers and Concrete</i> , 2014, 14, 19-40.	0.7	25
46	A Comprehensive Probabilistic Model of Traffic Loads based on Weigh-in-Motion Data for Applications to Bridge Structures. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 3628-3643.	0.9	23
47	Multi-scale system reliability analysis of lifeline networks under earthquake hazards. <i>Earthquake Engineering and Structural Dynamics</i> , 2010, 39, 259-279.	2.5	22
48	Bayesian-network-based system identification of spatial distribution of structural parameters. <i>Engineering Structures</i> , 2016, 127, 260-277.	2.6	21
49	Structural System Reliability: Overview of Theories and Applications to Optimization. <i>ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering</i> , 2021, 7, .	1.1	21
50	Seismic reliability assessment of lifeline networks using clustering-based multi-scale approach. <i>Earthquake Engineering and Structural Dynamics</i> , 2015, 44, 355-369.	2.5	19
51	Parameter sensitivity of system reliability using sequential compounding method. <i>Structural Safety</i> , 2015, 55, 26-36.	2.8	18
52	Energy-based sidesway collapse fragilities for ductile structural frames under earthquake loadings. <i>Engineering Structures</i> , 2018, 174, 282-294.	2.6	18
53	System-reliability-based design and topology optimization of structures under constraints on first-passage probability. <i>Structural Safety</i> , 2019, 76, 81-94.	2.8	18
54	Matrix-based Bayesian Network for efficient memory storage and flexible inference. <i>Reliability Engineering and System Safety</i> , 2019, 185, 533-545.	5.1	16

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55	A new statistical approach for joint shear strength determination of RC beam-column connections subjected to lateral earthquake loading. <i>Structural Engineering and Mechanics</i> , 2007, 27, 439-456.	1.0	16
56	Robust structural damage identification based on multi-objective optimization. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 81, 786-804.	1.5	15
57	Reliability-based evaluation of the performance of the damage locating vector method. <i>Probabilistic Engineering Mechanics</i> , 2008, 23, 489-495.	1.3	14
58	A new approach to system reliability analysis of offshore structures using dominant failure modes identified by selective searching technique. <i>KSCE Journal of Civil Engineering</i> , 2017, 21, 2360-2372.	0.9	13
59	Cost-effectiveness analysis of seismically isolated pool structures for the storage of nuclear spent-fuel assemblies. <i>Nuclear Engineering and Design</i> , 2004, 231, 259-270.	0.8	12
60	Cost-effective retrofits of power grids based on critical cascading failure scenarios identified by multi-group non-dominated sorting genetic algorithm. <i>International Journal of Disaster Risk Reduction</i> , 2020, 49, 101640.	1.8	12
61	Generalized matrix-based Bayesian network for multi-state systems. <i>Reliability Engineering and System Safety</i> , 2021, 211, 107468.	5.1	12
62	Reliability-based topology optimization by ground structure method employing a discrete filtering technique. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 1035-1058.	1.7	11
63	Clustering-based adaptive ground motion selection algorithm for efficient estimation of structural fragilities. <i>Earthquake Engineering and Structural Dynamics</i> , 2021, 50, 1755-1776.	2.5	11
64	System-reliability-based disaster resilience analysis: Framework and applications to structural systems. <i>Structural Safety</i> , 2022, 96, 102202.	2.8	11
65	Bivariate Gaussian mixture-based equivalent linearization method for stochastic seismic analysis of nonlinear structures. <i>Earthquake Engineering and Structural Dynamics</i> , 2018, 47, 678-696.	2.5	10
66	The effect of triaxiality on finite element deletion strategies for simulating collapse of full-scale steel structures. <i>Engineering Structures</i> , 2020, 210, 110364.	2.6	10
67	Fragility Relationships for Populations of Woodframe Structures Based on Inelastic Response. <i>Journal of Earthquake Engineering</i> , 2008, 12, 119-128.	1.4	9
68	Material characterization using finite element deletion strategies for collapse modeling of steel structures. <i>Engineering Structures</i> , 2017, 147, 125-133.	2.6	9
69	System Identification of Spatial Distribution of Structural Parameters Using Modified Transitional Markov Chain Monte Carlo Method. <i>Journal of Engineering Mechanics - ASCE</i> , 2017, 143, .	1.6	9
70	Reliability-based structural design framework against accidental loads – ship collision. <i>Structure and Infrastructure Engineering</i> , 2017, 13, 171-180.	2.0	9
71	Hyper-spherical extrapolation method (HEM) for general high dimensional reliability problems. <i>Structural Safety</i> , 2018, 72, 65-73.	2.8	9
72	Efficient probabilistic multi-objective optimization of complex systems using matrix-based Bayesian network. <i>Reliability Engineering and System Safety</i> , 2020, 200, 106899.	5.1	9

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73	Reliability-Based Design Optimization Using Quantile Surrogates by Adaptive Gaussian Process. Journal of Engineering Mechanics - ASCE, 2021, 147, .	1.6	9
74	Quantile surrogates and sensitivity by adaptive Gaussian process for efficient reliability-based design optimization. Mechanical Systems and Signal Processing, 2021, 161, 107962.	4.4	9
75	Riemannian Manifold Hamiltonian Monte Carlo based subset simulation for reliability analysis in non-Gaussian space. Structural Safety, 2022, 94, 102134.	2.8	9
76	Optimal performance design of bi-Tuned Mass Damper systems using multi-objective optimization. KSCE Journal of Civil Engineering, 2008, 12, 313-322.	0.9	8
77	Assessment of buckling-restrained braced frame reliability using an experimental limit-state model and stochastic dynamic analysis. Earthquake Engineering and Engineering Vibration, 2009, 8, 373-385.	1.1	8
78	Assessment of Seismic Risk and Importance Measures of Interdependent Networks using a Non Simulation-Based Method. Journal of Earthquake Engineering, 2012, 16, 777-794.	1.4	8
79	System Reliability Updating of Fatigue-Induced Sequential Failures. Journal of Structural Engineering, 2014, 140, .	1.7	8
80	Development of Multi-Group Non-dominated Sorting Genetic Algorithm for identifying critical post-disaster scenarios of lifeline networks. International Journal of Disaster Risk Reduction, 2019, 41, 101299.	1.8	8
81	Optimal inspection of binary systems via Value of Information analysis. Reliability Engineering and System Safety, 2022, 217, 107944.	5.1	8
82	Regularization-Based Dual Adaptive Kalman Filter for Identification of Sudden Structural Damage Using Sparse Measurements. Applied Sciences (Switzerland), 2020, 10, 850.	1.3	8
83	Near-Real-Time Identification of Seismic Damage Using Unsupervised Deep Neural Network. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	8
84	Particle Filter Based Monitoring and Prediction of Spatiotemporal Corrosion Using Successive Measurements of Structural Responses. Sensors, 2018, 18, 3909.	2.1	7
85	Time-Dependent Reliability Assessment and Updating of Post-tensioned Concrete Box Girder Bridges Considering Traffic Environment and Corrosion. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2021, 7, .	1.1	7
86	Clustering-based disaster resilience assessment of South Korea communities building portfolios using open GIS and census data. International Journal of Disaster Risk Reduction, 2022, 71, 102817.	1.8	7
87	Evaluation of Multinormal Integral and Sensitivity by Matrix-Based System Reliability Method. , 2008, , .		6
88	Gaussian mixture-based equivalent linearization method (GM-ELM) for fragility analysis of structures under nonstationary excitations. Earthquake Engineering and Structural Dynamics, 2019, 48, 1195-1214.	2.5	6
89	Multi-scale seismic reliability assessment of networks by centrality-based selective recursive decomposition algorithm. Earthquake Engineering and Structural Dynamics, 2021, 50, 2174-2194.	2.5	6
90	Seismic Performance of a Long-Span Cable-Stayed Bridge under Spatially Varying Bidirectional Spectrum-Compatible Ground Motions. Journal of Structural Engineering, 2021, 147, .	1.7	6

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91	First-passage probability estimation by Poisson branching process model. <i>Structural Safety</i> , 2021, 90, 102027.	2.8	6
92	Bayesian updating methodology for probabilistic model of bridge traffic loads using in-service data of traffic environment. <i>Structure and Infrastructure Engineering</i> , 2023, 19, 77-92.	2.0	6
93	A general framework of Bayesian network for system reliability analysis using junction tree. <i>Reliability Engineering and System Safety</i> , 2021, 216, 107952.	5.1	6
94	Bayesian network-based risk modeling and inference for structures under a sequence of main and aftershocks. <i>Earthquake Engineering and Structural Dynamics</i> , 2022, 51, 1058-1075.	2.5	6
95	Probabilistic Assessment of High-Throughput Wireless Sensor Networks. <i>Sensors</i> , 2016, 16, 792.	2.1	5
96	Estimating post-disaster traffic conditions using real-time data streams. <i>Structure and Infrastructure Engineering</i> , 2016, 12, 904-917.	2.0	5
97	Evaluation of correlation between engineering demand parameters of structures for seismic system reliability analysis. <i>Structural Safety</i> , 2021, 93, 102133.	2.8	5
98	Quantifying uncertainties and correlations of engineering demand parameters of building structures for regional seismic loss assessment. <i>Earthquake Engineering and Structural Dynamics</i> , 2022, 51, 1751-1769.	2.5	5
99	Ductility Capacity Models for Buckling-Restrained Braces Using a Bayesian Methodology. , 2008, , .		4
100	Validation of a Finite Element Approach to Modeling of Structural Collapse of Steel Structures. , 2014, , .		4
101	Probabilistic Fracture Analysis of Functionally Graded Materials Part II: Implementation and Numerical Examples. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	3
102	Challenges and Advances in System Reliability-Based Optimization of Structural Topology. , 2010, , .		3
103	Multi-scale Dynamic System Reliability Analysis of Actively-controlled Structures under Random Stationary Ground Motions. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 1259-1270.	0.9	3
104	A Framework for Developing an Estimation Model of Damages on Bridge Elements Using Big Data Analytics. , 2016, , .		3
105	Probabilistic Fracture Analysis of Functionally Graded Materials Part I: Uncertainty and Probabilistic Analysis Method. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	2
106	Structural System Reliability, Reloaded. <i>Springer Series in Reliability Engineering</i> , 2017, , 27-46.	0.3	2
107	Discussion of "Bounds on System Reliability by Linear Programming" by Junho Song and Armen Der Kiureghian. <i>Journal of Engineering Mechanics - ASCE</i> , 2005, 131, 458-459.	1.6	1
108	Closure to "Bounds on System Reliability by Linear Programming" by Junho Song and Armen Der Kiureghian. <i>Journal of Engineering Mechanics - ASCE</i> , 2005, 131, 459-460.	1.6	1

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109	Finite Element System Reliability Analysis of a Wing Torque Box. , 2008, , .		1
110	Closure to "Generalized Bouc-Wen Model for Highly Asymmetric Hysteresis" by Junho Song and Armen Der Kiureghian. Journal of Engineering Mechanics - ASCE, 2008, 134, 439-439.	1.6	1
111	Identification of Critical Sequences of Fatigue-Induced Failures by Branch-and-Bound Method Employing System Reliability Bounds. , 2010, , .		1
112	Damage Detection in Water Distribution Pipe Network Using Bayesian Framework and System Reliability Analysis. , 2011, , .		1
113	Structural Damage Identification Based on Multi-objective Optimization. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 1239-1244.	0.3	1
114	Cross-entropy-based Adaptive Importance Sampling for Probabilistic Seismic Risk Assessment of Lifeline Networks Considering Spatial Correlation. Procedia Engineering, 2017, 198, 999-1006.	1.2	1
115	System Reliability Analysis of Fatigue-Induced Sequential Failure. , 2011, , .		1
116	Probabilistic Modeling and Inference for Structures under Sequence of Hazardous Events Using Matrix-based Bayesian Network. IABSE Symposium Report, 2020, , .	0.0	1
117	Cost-Effectiveness Evaluation of Seismically Isolated Pool Structures Considering Fluid-Structure Interaction. , 2002, , 83.		0
118	Uncertainties in Paleoliquefaction Analysis: Preliminary Findings. , 2007, , 1.		0
119	Rapid Stochastic Assessment of Post-Hazard Connectivity and Flow Capacity of Urban Infrastructure Network. , 2009, , .		0
120	Enhancing Single-loop Approach for Component and System Reliability-Based Topology Optimization. , 2010, , .		0
121	An Improved Non-parametric Bayesian Independence Test for Probabilistic Learning of the Dependence Structure Among Continuous Random Variables. KSCE Journal of Civil Engineering, 2018, 22, 974-986.	0.9	0
122	Multiobjective Optimization Approach for Robust Bridge Damage Identification against Sensor Noise. Shock and Vibration, 2018, 2018, 1-12.	0.3	0
123	Risk intelligence of structural systems: concepts and recent developments. , 2021, , .		0