Junho Song

List of Publications by Year
in descending order

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	Bayesian updating methodology for probabilistic model of bridge traffic loads using in-service data of traffic environment. Structure and Infrastructure Engineering, 2023, 19, 77-92.	2.0	6
2	Riemannian Manifold Hamiltonian Monte Carlo based subset simulation for reliability analysis in non-Gaussian space. Structural Safety, 2022, 94, 102134.	2.8	9
3	Optimal inspection of binary systems via Value of Information analysis. Reliability Engineering and System Safety, 2022, 217, 107944.	5.1	8
4	Near-Real-Time Identification of Seismic Damage Using Unsupervised Deep Neural Network. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	8
5	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
6	Bayesianâ€networkâ€based risk modeling and inference for structures under a sequence of main and aftershocks. Earthquake Engineering and Structural Dynamics, 2022, 51, 1058-1075.	2.5	6
7	System-reliability-based disaster resilience analysis: Framework and applications to structural systems. Structural Safety, 2022, 96, 102202.	2.8	11
8	Quantifying uncertainties and correlations of engineering demand parameters of building structures for regional seismic loss assessment. Earthquake Engineering and Structural Dynamics, 2022, 51, 1751-1769.	2.5	5
9	Clusteringâ€based adaptive ground motion selection algorithm for efficient estimation of structural fragilities. Earthquake Engineering and Structural Dynamics, 2021, 50, 1755-1776.	2.5	11
10	Multiâ€scale seismic reliability assessment of networks by centralityâ€based selective recursive decomposition algorithm. Earthquake Engineering and Structural Dynamics, 2021, 50, 2174-2194.	2.5	6
11	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
12	First-passage probability estimation by Poisson branching process model. Structural Safety, 2021, 90, 102027.	2.8	6
13	Reliability-Based Design Optimization Using Quantile Surrogates by Adaptive Gaussian Process. Journal of Engineering Mechanics - ASCE, 2021, 147, .	1.6	9
14	Structural System Reliability: Overview of Theories and Applications to Optimization. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2021, 7, .	1.1	21
15	Generalized matrix-based Bayesian network for multi-state systems. Reliability Engineering and System Safety, 2021, 211, 107468.	5.1	12
16	Evaluation of correlation between engineering demand parameters of structures for seismic system reliability analysis. Structural Safety, 2021, 93, 102133.	2.8	5
17	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
18	A general framework of Bayesian network for system reliability analysis using junction tree. Reliability Engineering and System Safety, 2021, 216, 107952.	5.1	6

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19	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
20	Risk intelligence of structural systems: concepts and recent developments. , 2021, , .		0
21	Probability-Adaptive Kriging in n-Ball (PAK-Bn) for reliability analysis. Structural Safety, 2020, 85, 101924.	2.8	46
22	Cost-effective retrofits of power grids based on critical cascading failure scenarios identified by multi-group non-dominated sorting genetic algorithm. International Journal of Disaster Risk Reduction, 2020, 49, 101640.	1.8	12
23	Bounds on Reliability of Larger Systems by Linear Programming with Delayed Column Generation. Journal of Engineering Mechanics - ASCE, 2020, 146, .	1.6	28
24	Preâ€•and postâ€•earthquake regional loss assessment using deep learning. Earthquake Engineering and Structural Dynamics, 2020, 49, 657-678.	2.5	33
25	Efficient probabilistic multi-objective optimization of complex systems using matrix-based Bayesian network. Reliability Engineering and System Safety, 2020, 200, 106899.	5.1	9
26	The effect of triaxiality on finite element deletion strategies for simulating collapse of full-scale steel structures. Engineering Structures, 2020, 210, 110364.	2.6	10
27	Probabilistic evaluation of seismic responses using deep learning method. Structural Safety, 2020, 84, 101913.	2.8	50
28	Regularization-Based Dual Adaptive Kalman Filter for Identification of Sudden Structural Damage Using Sparse Measurements. Applied Sciences (Switzerland), 2020, 10, 850.	1.3	8
29	Probabilistic Modeling and Inference for Structures under Sequence of Hazardous Events Using Matrix-based Bayesian Network. IABSE Symposium Report, 2020, , .	0.0	1
30	Hamiltonian Monte Carlo methods for Subset Simulation in reliability analysis. Structural Safety, 2019, 76, 51-67.	2.8	75
31	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
32	Reliability-based topology optimization by ground structure method employing a discrete filtering technique. Structural and Multidisciplinary Optimization, 2019, 60, 1035-1058.	1.7	11
33	A Comprehensive Probabilistic Model of Traffic Loads based on Weigh-in-Motion Data for Applications to Bridge Structures. KSCE Journal of Civil Engineering, 2019, 23, 3628-3643.	0.9	23
34	Gaussian mixtureâ€"based equivalent linearization method (GMâ€ELM) for fragility analysis of structures under nonstationary excitations. Earthquake Engineering and Structural Dynamics, 2019, 48, 1195-1214.	2.5	6
35	Multi-scale Dynamic System Reliability Analysis of Actively-controlled Structures under Random Stationary Ground Motions. KSCE Journal of Civil Engineering, 2019, 23, 1259-1270.	0.9	3
36	System-reliability-based design and topology optimization of structures under constraints on first-passage probability. Structural Safety, 2019, 76, 81-94.	2.8	18

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37	Response prediction of nonlinear hysteretic systems by deep neural networks. Neural Networks, 2019, 111, 1-10.	3.3	67
38	Matrix-based Bayesian Network for efficient memory storage and flexible inference. Reliability Engineering and System Safety, 2019, 185, 533-545.	5.1	16
39	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
40	Generalized Reliability Importance Measure (GRIM) using Gaussian mixture. Reliability Engineering and System Safety, 2018, 173, 105-115.	5.1	39
41	Hyper-spherical extrapolation method (HEM) for general high dimensional reliability problems. Structural Safety, 2018, 72, 65-73.	2.8	9
42	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
43	Multi-state system reliability analysis of HVDC transmission systems using matrix-based system reliability method. International Journal of Electrical Power and Energy Systems, 2018, 100, 265-278.	3.3	25
44	Bivariate Gaussian mixture–based equivalent linearization method for stochastic seismic analysis of nonlinear structures. Earthquake Engineering and Structural Dynamics, 2018, 47, 678-696.	2.5	10
45	Particle Filter Based Monitoring and Prediction of Spatiotemporal Corrosion Using Successive Measurements of Structural Responses. Sensors, 2018, 18, 3909.	2.1	7
46	Multiobjective Optimization Approach for Robust Bridge Damage Identification against Sensor Noise. Shock and Vibration, 2018, 2018, 1-12.	0.3	0
47	Energy-based sidesway collapse fragilities for ductile structural frames under earthquake loadings. Engineering Structures, 2018, 174, 282-294.	2.6	18
48	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
49	Structural System Reliability, Reloaded. Springer Series in Reliability Engineering, 2017, , 27-46.	0.3	2
50	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
51	Material characterization using finite element deletion strategies for collapse modeling of steel structures. Engineering Structures, 2017, 147, 125-133.	2.6	9
52	Energy-based seismic collapse criterion for ductile planar structural frames. Engineering Structures, 2017, 141, 1-13.	2.6	32
53	A new approach to system reliability analysis of offshore structures using dominant failure modes identified by selective searching technique. KSCE Journal of Civil Engineering, 2017, 21, 2360-2372.	0.9	13
54	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

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55	System Identification of Spatial Distribution of Structural Parameters Using Modified Transitional Markov Chain Monte Carlo Method. Journal of Engineering Mechanics - ASCE, 2017, 143, .	1.6	9
56	Equivalent linearization method using Gaussian mixture (GM-ELM) for nonlinear random vibration analysis. Structural Safety, 2017, 64, 9-19.	2.8	31
57	Reliability-based structural design framework against accidental loads â€" ship collision. Structure and Infrastructure Engineering, 2017, 13, 171-180.	2.0	9
58	Probabilistic Assessment of High-Throughput Wireless Sensor Networks. Sensors, 2016, 16, 792.	2.1	5
59	Seismic Reliability Analysis of Deteriorating Representative U.S. West Coast Bridge Transportation Networks. Journal of Structural Engineering, 2016, 142, .	1.7	29
60	Polygonal multiresolution topology optimization (PolyMTOP) for structural dynamics. Structural and Multidisciplinary Optimization, 2016, 53, 673-694.	1.7	33
61	Structural topology optimization under constraints on instantaneous failure probability. Structural and Multidisciplinary Optimization, 2016, 53, 773-799.	1.7	27
62	Bayesian-network-based system identification of spatial distribution of structural parameters. Engineering Structures, 2016, 127, 260-277.	2.6	21
63	Estimating post-disaster traffic conditions using real-time data streams. Structure and Infrastructure Engineering, 2016, 12, 904-917.	2.0	5
64	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
65	A Framework for Developing an Estimation Model of Damages on Bridge Elements Using Big Data Analytics. , 2016, , .		3
66	Strategic Planning for Drought Mitigation under Climate Change. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	1.3	45
67	Parameter sensitivity of system reliability using sequential compounding method. Structural Safety, 2015, 55, 26-36.	2.8	18
68	Seismic reliability assessment of lifeline networks using clusteringâ€based multiâ€scale approach. Earthquake Engineering and Structural Dynamics, 2015, 44, 355-369.	2.5	19
69	Validation of a Finite Element Approach to Modeling of Structural Collapse of Steel Structures. , 2014, , .		4
70	System Reliability Updating of Fatigue-Induced Sequential Failures. Journal of Structural Engineering, 2014, 140, .	1.7	8
71	New strut-and-tie-models for shear strength prediction and design of RC deep beams. Computers and Concrete, 2014, 14, 19-40.	0.7	25
72	System reliability analysis using dominant failure modes identified by selective searching technique. Reliability Engineering and System Safety, 2013, 119, 316-331.	5.1	44

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73	Cross-entropy-based adaptive importance sampling using Gaussian mixture. Structural Safety, 2013, 42, 35-44.	2.8	127
74	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
75	Further development of matrix-based system reliability method and applications to structural systems. Structure and Infrastructure Engineering, 2012, 8, 441-457.	2.0	40
76	Finite-element-based system reliability analysis of fatigue-induced sequential failures. Reliability Engineering and System Safety, 2012, 108, 131-141.	5.1	27
77	Improving multiresolution topology optimization via multiple discretizations. International Journal for Numerical Methods in Engineering, 2012, 92, 507-530.	1.5	75
78	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
79	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
80	Damage Detection in Water Distribution Pipe Network Using Bayesian Framework and System Reliability Analysis. , 2011, , .		1
81	Single-loop system reliability-based topology optimization considering statistical dependence between limit-states. Structural and Multidisciplinary Optimization, 2011, 44, 593-611.	1.7	82
82	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
83	Structural Damage Identification Based on Multi-objective Optimization. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 1239-1244.	0.3	1
84	Post-hazard flow capacity of bridge transportation network considering structural deterioration of bridges. Structure and Infrastructure Engineering, 2011, 7, 509-521.	2.0	76
85	System Reliability Analysis of Fatigue-Induced Sequential Failure. , 2011, , .		1
86	Multi€scale system reliability analysis of lifeline networks under earthquake hazards. Earthquake Engineering and Structural Dynamics, 2010, 39, 259-279.	2.5	22
87	Robust structural damage identification based on multi€objective optimization. International Journal for Numerical Methods in Engineering, 2010, 81, 786-804.	1.5	15
88	Enhancing Single-loop Approach for Component and System Reliability-Based Topology Optimization. , 2010, , .		0
89	A computational paradigm for multiresolution topology optimization (MTOP). Structural and Multidisciplinary Optimization, 2010, 41, 525-539.	1.7	188
90	Evaluation of multivariate normal integrals for general systems by sequential compounding. Structural Safety, 2010, 32, 35-41.	2.8	68

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91	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
92	Identification of Critical Sequences of Fatigue-Induced Failures by Branch-and-Bound Method Employing System Reliability Bounds. , 2010, , .		1
93	Challenges and Advances in System Reliability-Based Optimization of Structural Topology. , 2010, , .		3
94	Probabilistic shear strength models for reinforced concrete beams without shear reinforcement. Structural Engineering and Mechanics, 2010, 34, 15-38.	1.0	38
95	Rapid Stochastic Assessment of Post-Hazard Connectivity and Flow Capacity of Urban Infrastructure Network. , 2009, , .		0
96	Joint shear behaviour of reinforced concrete beam–column connections. Magazine of Concrete Research, 2009, 61, 119-132.	0.9	56
97	System reliability and sensitivity under statistical dependence by matrix-based system reliability method. Structural Safety, 2009, 31, 148-156.	2.8	174
98	Ductility capacity models for buckling-restrained braces. Journal of Constructional Steel Research, 2009, 65, 1712-1720.	1.7	34
99	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
100	Development of optimal design formula for bi-tuned mass dampers using multi-objective optimization. Journal of Sound and Vibration, 2009, 322, 60-77.	2.1	27
101	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
102	Reliability-based evaluation of the performance of the damage locating vector method. Probabilistic Engineering Mechanics, 2008, 23, 489-495.	1.3	14
103	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
104	Matrix-based system reliability method and applications to bridge networks. Reliability Engineering and System Safety, 2008, 93, 1584-1593.	5.1	160
105	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
106	Finite Element System Reliability Analysis of a Wing Torque Box. , 2008, , .		1
107	Evaluation of Multinormal Integral and Sensitivity by Matrix-Based System Reliability Method. , 2008, , .		6
108	Fragility Relationships for Populations of Woodframe Structures Based on Inelastic Response. Journal of Earthquake Engineering, 2008, 12, 119-128.	1.4	9

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109	Probabilistic Fracture Analysis of Functionally Graded Materials—Part II: Implementation and Numerical Examples. AIP Conference Proceedings, 2008, , .	0.3	3
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	Ductility Capacity Models for Buckling-Restrained Braces Using a Bayesian Methodology. , 2008, , .		4
112	Probabilistic Fracture Analysis of Functionally Graded Materials—Part I: Uncertainty and Probabilistic Analysis Method. AIP Conference Proceedings, 2008, , .	0.3	2
113	Uncertainties in Paleoliquefaction Analysis: Preliminary Findings. , 2007, , 1.		0
114	Seismic interaction in electrical substation equipment connected by non-linear rigid bus conductors. Earthquake Engineering and Structural Dynamics, 2007, 36, 167-190.	2.5	28
115	Availability, reliability and downtime of systems with repairable components. Reliability Engineering and System Safety, 2007, 92, 231-242.	5.1	50
116	A new statistical approach for joint shear strength determination of RC beam-column connections subjected to lateral earthquake loading. Structural Engineering and Mechanics, 2007, 27, 439-456.	1.0	16
117	Generalized Bouc–Wen Model for Highly Asymmetric Hysteresis. Journal of Engineering Mechanics - ASCE, 2006, 132, 610-618.	1.6	195
118	Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation. Journal of Engineering Mechanics - ASCE, 2006, 132, 65-77.	1.6	73
119	Discussion of "Bounds on System Reliability by Linear Programming" by Junho Song and Armen Der Kiureghian. Journal of Engineering Mechanics - ASCE, 2005, 131, 458-459.	1.6	1
120	Closure to "Bounds on System Reliability by Linear Programming" by Junho Song and Armen Der Kiureghian. Journal of Engineering Mechanics - ASCE, 2005, 131, 459-460.	1.6	1
121	Cost-effectiveness analysis of seismically isolated pool structures for the storage of nuclear spent-fuel assemblies. Nuclear Engineering and Design, 2004, 231, 259-270.	0.8	12
122	Bounds on System Reliability by Linear Programming. Journal of Engineering Mechanics - ASCE, 2003, 129, 627-636.	1.6	177
123	Cost-Effectiveness Evaluation of Seismically Isolated Pool Structures Considering Fluid-Structure Interaction. , 2002, , 83.		0