Zhiliang Huang

List of Publications by Year
in descending order

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65 papers	3,086 citations	172207 29 h-index	155451 55 g-index
65 all docs	65 docs citations	65 times ranked	1207 citing authors

#	Article	IF	Citations
1	Concurrent topology optimization for thermoelastic structures with random and interval hybrid uncertainties. International Journal for Numerical Methods in Engineering, 2022, 123, 1078-1097.	1.5	8
2	Robust topology optimization for structures under thermo-mechanical loadings considering hybrid uncertainties. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	6
3	A novel imprecise stochastic process model for time-variant or dynamic uncertainty quantification. Chinese Journal of Aeronautics, 2022, 35, 255-267.	2.8	5
4	A single-loop method for reliability-based design optimization with interval distribution parameters. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114372.	3.4	6
5	Uncertainty propagation method for high-dimensional black-box problems via Bayesian deep neural network. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	5
6	Nanoscale Characterization and Impurities of Fused Silica Optical Surfaces. Advances in Materials Science and Engineering, 2022, 2022, 1-8.	1.0	1
7	A time-variant uncertainty propagation analysis method based on a new technique for simulating non-Gaussian stochastic processes. Mechanical Systems and Signal Processing, 2021, 150, 107299.	4.4	8
8	Evidence-theory-based structural reliability analysis with epistemic uncertainty: a review. Structural and Multidisciplinary Optimization, 2021, 63, 2935-2953.	1.7	19
9	Interval Differential Evolution Algorithm. Springer Tracts in Mechanical Engineering, 2021, , 259-284.	0.1	0
10	An effective teaching strategy for engineering mechanics to develop structural optimization modeling skills of undergraduates. International Journal of Mechanical Engineering Education, 2020, 48, 271-283.	0.6	2
11	Reliability-based design optimization for vehicle body crashworthiness based on copula functions. Engineering Optimization, 2020, 52, 1362-1381.	1.5	8
12	Efficient uncertainty propagation for parameterized p-box using sparse-decomposition-based polynomial chaos expansion. Mechanical Systems and Signal Processing, 2020, 138, 106589.	4.4	23
13	Time-dependent reliability-based design optimization with probabilistic and interval uncertainties. Applied Mathematical Modelling, 2020, 80, 268-289.	2.2	14
14	Advanced solution strategies for time-dependent reliability based design optimization. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112916.	3.4	30
15	Interval K-L expansion of interval process model for dynamic uncertainty analysis. Journal of Sound and Vibration, 2020, 474, 115254.	2.1	17
16	Sequential approximate reliability-based design optimization for structures with multimodal random variables. Structural and Multidisciplinary Optimization, 2020, 62, 511-528.	1.7	4
17	A Design-Based Learning Approach for Fostering Sustainability Competency in Engineering Education. Sustainability, 2020, 12, 2958.	1.6	25
18	Time-Variant Reliability-Based Design Optimization Using an Equivalent Most Probable Point. IEEE Transactions on Reliability, 2019, 68, 175-186.	3.5	25

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19	Robust Optimization for Micromachine Design Problems Involving Multimodal Distributions. IEEE Access, 2019, 7, 91838-91849.	2.6	4
20	Real-Time Control Strategy for CVT-Based Hybrid Electric Vehicles Considering Drivability Constraints. Applied Sciences (Switzerland), 2019, 9, 2074.	1.3	14
21	A frequency domain reliability analysis method for electromagnetic problems based on univariate dimension reduction method. Science China Technological Sciences, 2019, 62, 787-798.	2.0	2
22	A new uncertainty propagation method considering multimodal probability density functions. Structural and Multidisciplinary Optimization, 2019, 60, 1983-1999.	1.7	15
23	Evidence-Theory-Based Robust Optimization and Its Application in Micro-Electromechanical Systems. Applied Sciences (Switzerland), 2019, 9, 1457.	1.3	4
24	Evidence-theory-based reliability design optimization with parametric correlations. Structural and Multidisciplinary Optimization, 2019, 60, 565-580.	1.7	15
25	A high-precision probabilistic uncertainty propagation method for problems involving multimodal distributions. Mechanical Systems and Signal Processing, 2019, 126, 21-41.	4.4	28
26	Uncertainty propagation analysis using sparse grid technique and saddlepoint approximation based on parameterized p-box representation. Structural and Multidisciplinary Optimization, 2019, 59, 61-74.	1.7	19
27	Robust topology optimization for concurrent design of dynamic structures under hybrid uncertainties. Mechanical Systems and Signal Processing, 2019, 120, 540-559.	4.4	50
28	Levelâ€set topology optimization for robust design of structures under hybrid uncertainties. International Journal for Numerical Methods in Engineering, 2019, 117, 523-542.	1.5	18
29	Discussions on non-probabilistic convex modelling for uncertain problems. Applied Mathematical Modelling, 2018, 59, 54-85.	2.2	65
30	Non-probabilistic reliability-based topology optimization with multidimensional parallelepiped convex model. Structural and Multidisciplinary Optimization, 2018, 57, 2205-2221.	1.7	42
31	Robust topology optimization for cellular composites with hybrid uncertainties. International Journal for Numerical Methods in Engineering, 2018, 115, 695-713.	1.5	29
32	A novel evidence theory model dealing with correlated variables and the corresponding structural reliability analysis method. Structural and Multidisciplinary Optimization, 2018, 57, 1749-1764.	1.7	10
33	Probability-interval hybrid uncertainty analysis for structures with both aleatory and epistemic uncertainties: a review. Structural and Multidisciplinary Optimization, 2018, 57, 2485-2502.	1.7	115
34	A new uncertainty propagation method for problems with parameterized probability-boxes. Reliability Engineering and System Safety, 2018, 172, 64-73.	5.1	46
35	Reliability-based multidisciplinary design optimization using incremental shifting vector strategy and its application in electronic product design. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 285-302.	1.5	9
36	An improved TRPD method for time-variant reliability analysis. Structural and Multidisciplinary Optimization, 2018, 58, 1935-1946.	1.7	46

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37	A decoupling algorithm with first-order asymptotic integration for reliability-based design optimization. Advances in Mechanical Engineering, 2018, 10, 168781401879333.	0.8	3
38	A time-variant reliability analysis method for structural systems based on stochastic process discretization. International Journal of Mechanics and Materials in Design, 2017, 13, 173-193.	1.7	28
39	Reliability-based design optimization for problems with interval distribution parameters. Structural and Multidisciplinary Optimization, 2017, 55, 513-528.	1.7	48
40	An Outcrossing Rate Model and Its Efficient Calculation for Time-Dependent System Reliability Analysis. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	70
41	A general solution framework for time-variant reliability based design optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 323, 330-352.	3.4	50
42	A Single-Loop Approach for Time-Variant Reliability-Based Design Optimization. IEEE Transactions on Reliability, 2017, 66, 651-661.	3.5	36
43	A decoupling approach for evidence-theory-based reliability design optimization. Structural and Multidisciplinary Optimization, 2017, 56, 647-661.	1.7	42
44	Improved Differential Evolution with Shrinking Space Technique for Constrained Optimization. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 553-565.	1.9	15
45	An improved multidimensional parallelepiped non-probabilistic model for structural uncertainty analysis. Applied Mathematical Modelling, 2016, 40, 4727-4745.	2.2	68
46	An incremental shifting vector approach for reliability-based design optimization. Structural and Multidisciplinary Optimization, 2016, 53, 523-543.	1.7	61
47	An efficient uncertainty propagation method for parameterized probability boxes. Acta Mechanica, 2016, 227, 633-649.	1.1	28
48	Multidimensional parallelepiped modelâ€”a new type of nonâ€probabilistic convex model for structural uncertainty analysis. International Journal for Numerical Methods in Engineering, 2015, 103, 31-59.	1.5	101
49	A Vine-Copula-Based Reliability Analysis Method for Structures With Multidimensional Correlation. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	68
50	First and second order approximate reliability analysis methods using evidence theory. Reliability Engineering and System Safety, 2015, 137, 40-49.	5.1	110
51	A Probabilistic and Interval Hybrid Reliability Analysis Method for Structures with Correlated Uncertain Parameters. International Journal of Computational Methods, 2015, 12, 1540006.	0.8	29
52	Reliability-based design optimization of structural systems under hybrid probabilistic and interval model. Computers and Structures, 2015, 160, 126-134.	2.4	77
53	The interval PHI2 analysis method for time-dependent reliability. Scientia Sinica: Physica, Mechanica Et Astronomica, 2015, 45, 054601-054601.	0.2	9
54	A non-probabilistic structural reliability analysis method based on a multidimensional parallelepiped convex model. Acta Mechanica, 2014, 225, 383-395.	1.1	74

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55	Structural reliability analysis using a copula-function-based evidence theory model. Computers and Structures, 2014, 143, 19-31.	2.4	69
56	A Time-Variant Reliability Analysis Method Based on Stochastic Process Discretization. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	93
57	A novel evidence-theory-based reliability analysis method for structures with epistemic uncertainty. Computers and Structures, 2013, 129, 1-12.	2.4	125
58	A Hybrid Reliability Approach Based on Probability and Interval for Uncertain Structures. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	87
59	A new reliability analysis method for uncertain structures with random and interval variables. International Journal of Mechanics and Materials in Design, 2012, 8, 169-182.	1.7	75
60	Structural reliability analysis based on random distributions with interval parameters. Computers and Structures, 2011, 89, 2292-2302.	2.4	155
61	Correlation analysis of non-probabilistic convex model and corresponding structural reliability technique. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 2528-2546.	3.4	241
62	A nonlinear interval number programming method for uncertain optimization problems. European Journal of Operational Research, 2008, 188, 1-13.	3.5	318
63	A sequential nonlinear interval number programming method for uncertain structures. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4250-4265.	3.4	87
64	Optimization of structures with uncertain constraints based on convex model and satisfaction degree of interval. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 4791-4800.	3.4	150
65	The optimization of the variable binder force in U-shaped forming with uncertain friction coefficient. Journal of Materials Processing Technology, 2007, 182, 262-267.	3.1	32