Zhiliang Huang

List of Publications by Year
in descending order

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	A nonlinear interval number programming method for uncertain optimization problems. European Journal of Operational Research, 2008, 188, 1-13.	3.5	318
2	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
3	Structural reliability analysis based on random distributions with interval parameters. Computers and Structures, 2011, 89, 2292-2302.	2.4	155
4	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
5	A novel evidence-theory-based reliability analysis method for structures with epistemic uncertainty. Computers and Structures, 2013, 129, 1-12.	2.4	125
6	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
7	First and second order approximate reliability analysis methods using evidence theory. Reliability Engineering and System Safety, 2015, 137, 40-49.	5.1	110
8	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
9	A Time-Variant Reliability Analysis Method Based on Stochastic Process Discretization. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	93
10	A sequential nonlinear interval number programming method for uncertain structures. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4250-4265.	3.4	87
11	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
12	Reliability-based design optimization of structural systems under hybrid probabilistic and interval model. Computers and Structures, 2015, 160, 126-134.	2.4	77
13	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
14	A non-probabilistic structural reliability analysis method based on a multidimensional parallelepiped convex model. Acta Mechanica, 2014, 225, 383-395.	1.1	74
15	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
16	Structural reliability analysis using a copula-function-based evidence theory model. Computers and Structures, 2014, 143, 19-31.	2.4	69
17	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
18	An improved multidimensional parallelepiped non-probabilistic model for structural uncertainty analysis. Applied Mathematical Modelling, 2016, 40, 4727-4745.	2.2	68

#	Article	IF	Citations
19	Discussions on non-probabilistic convex modelling for uncertain problems. Applied Mathematical Modelling, 2018, 59, 54-85.	2.2	65
20	An incremental shifting vector approach for reliability-based design optimization. Structural and Multidisciplinary Optimization, 2016, 53, 523-543.	1.7	61
21	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
22	Robust topology optimization for concurrent design of dynamic structures under hybrid uncertainties. Mechanical Systems and Signal Processing, 2019, 120, 540-559.	4.4	50
23	Reliability-based design optimization for problems with interval distribution parameters. Structural and Multidisciplinary Optimization, 2017, 55, 513-528.	1.7	48
24	A new uncertainty propagation method for problems with parameterized probability-boxes. Reliability Engineering and System Safety, 2018, 172, 64-73.	5.1	46
25	An improved TRPD method for time-variant reliability analysis. Structural and Multidisciplinary Optimization, 2018, 58, 1935-1946.	1.7	46
26	A decoupling approach for evidence-theory-based reliability design optimization. Structural and Multidisciplinary Optimization, 2017, 56, 647-661.	1.7	42
27	Non-probabilistic reliability-based topology optimization with multidimensional parallelepiped convex model. Structural and Multidisciplinary Optimization, 2018, 57, 2205-2221.	1.7	42
28	A Single-Loop Approach for Time-Variant Reliability-Based Design Optimization. IEEE Transactions on Reliability, 2017, 66, 651-661.	3.5	36
29	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
30	Advanced solution strategies for time-dependent reliability based design optimization. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112916.	3.4	30
31	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
32	Robust topology optimization for cellular composites with hybrid uncertainties. International Journal for Numerical Methods in Engineering, 2018, 115, 695-713.	1.5	29
33	An efficient uncertainty propagation method for parameterized probability boxes. Acta Mechanica, 2016, 227, 633-649.	1.1	28
34	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
35	A high-precision probabilistic uncertainty propagation method for problems involving multimodal distributions. Mechanical Systems and Signal Processing, 2019, 126, 21-41.	4.4	28
36	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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37	A Design-Based Learning Approach for Fostering Sustainability Competency in Engineering Education. Sustainability, 2020, 12, 2958.	1.6	25
38	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
39	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
40	Evidence-theory-based structural reliability analysis with epistemic uncertainty: a review. Structural and Multidisciplinary Optimization, 2021, 63, 2935-2953.	1.7	19
41	Level‐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
42	Interval K-L expansion of interval process model for dynamic uncertainty analysis. Journal of Sound and Vibration, 2020, 474, 115254.	2.1	17
43	Improved Differential Evolution with Shrinking Space Technique for Constrained Optimization. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 553-565.	1.9	15
44	A new uncertainty propagation method considering multimodal probability density functions. Structural and Multidisciplinary Optimization, 2019, 60, 1983-1999.	1.7	15
45	Evidence-theory-based reliability design optimization with parametric correlations. Structural and Multidisciplinary Optimization, 2019, 60, 565-580.	1.7	15
46	Real-Time Control Strategy for CVT-Based Hybrid Electric Vehicles Considering Drivability Constraints. Applied Sciences (Switzerland), 2019, 9, 2074.	1.3	14
47	Time-dependent reliability-based design optimization with probabilistic and interval uncertainties. Applied Mathematical Modelling, 2020, 80, 268-289.	2.2	14
48	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
49	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
50	The interval PHI2 analysis method for time-dependent reliability. Scientia Sinica: Physica, Mechanica Et Astronomica, 2015, 45, 054601-054601.	0.2	9
51	Reliability-based design optimization for vehicle body crashworthiness based on copula functions. Engineering Optimization, 2020, 52, 1362-1381.	1.5	8
52	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
53	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
54	Robust topology optimization for structures under thermo-mechanical loadings considering hybrid uncertainties. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	6

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55	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
56	A novel imprecise stochastic process model for time-variant or dynamic uncertainty quantification. Chinese Journal of Aeronautics, 2022, 35, 255-267.	2.8	5
57	Uncertainty propagation method for high-dimensional black-box problems via Bayesian deep neural network. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	5
58	Robust Optimization for Micromachine Design Problems Involving Multimodal Distributions. IEEE Access, 2019, 7, 91838-91849.	2.6	4
59	Evidence-Theory-Based Robust Optimization and Its Application in Micro-Electromechanical Systems. Applied Sciences (Switzerland), 2019, 9, 1457.	1.3	4
60	Sequential approximate reliability-based design optimization for structures with multimodal random variables. Structural and Multidisciplinary Optimization, 2020, 62, 511-528.	1.7	4
61	A decoupling algorithm with first-order asymptotic integration for reliability-based design optimization. Advances in Mechanical Engineering, 2018, 10, 168781401879333.	0.8	3
62	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
63	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
64	Nanoscale Characterization and Impurities of Fused Silica Optical Surfaces. Advances in Materials Science and Engineering, 2022, 2022, 1-8.	1.0	1
65	Interval Differential Evolution Algorithm. Springer Tracts in Mechanical Engineering, 2021, , 259-284.	0.1	0