

Lei Wang

List of Publications by Year in descending order

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78
papers

2,375
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186265
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all docs

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docs citations

78
times ranked

805
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel interval dynamic reliability computation approach for the risk evaluation of vibration active control systems based on PID controllers. <i>Applied Mathematical Modelling</i> , 2021, 92, 422-446.	4.2	112
2	A novel method of non-probabilistic reliability-based topology optimization corresponding to continuum structures with unknown but bounded uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 326, 573-595.	6.6	103
3	A dimension-wise method and its improvement for multidisciplinary interval uncertainty analysis. <i>Applied Mathematical Modelling</i> , 2018, 59, 680-695.	4.2	100
4	An inverse method for distributed dynamic load identification of structures with interval uncertainties. <i>Advances in Engineering Software</i> , 2019, 131, 77-89.	3.8	89
5	Reliability estimation of fatigue crack growth prediction via limited measured data. <i>International Journal of Mechanical Sciences</i> , 2017, 121, 44-57.	6.7	86
6	Artificial Neural Network (ANN) - Bayesian Probability Framework (BPF) based method of dynamic force reconstruction under multi-source uncertainties. <i>Knowledge-Based Systems</i> , 2022, 237, 107796.	7.1	83
7	Hybrid reliability analysis of structures with multi-source uncertainties. <i>Acta Mechanica</i> , 2014, 225, 413-430.	2.1	78
8	A novel methodology of reliability-based multidisciplinary design optimization under hybrid interval and fuzzy uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 337, 439-457.	6.6	74
9	Time-dependent reliability-based optimization for structural-topological configuration design under convex-bounded uncertain modeling. <i>Reliability Engineering and System Safety</i> , 2022, 221, 108361.	8.9	70
10	A non-probabilistic time-variant reliable control method for structural vibration suppression problems with interval uncertainties. <i>Mechanical Systems and Signal Processing</i> , 2019, 115, 301-322.	8.0	65
11	An iterative dimension-by-dimension method for structural interval response prediction with multidimensional uncertain variables. <i>Aerospace Science and Technology</i> , 2019, 86, 572-581.	4.8	59
12	A novel method of distributed dynamic load identification for aircraft structure considering multi-source uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1929-1952.	3.5	57
13	Evidence theory-based reliability optimization for cross-scale topological structures with global stress, local displacement, and micro-manufacturing constraints. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	3.5	57
14	Structural time-dependent reliability assessment of the vibration active control system with unknown-but-bounded uncertainties. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1965.	4.0	53
15	Sequential multidisciplinary design optimization and reliability analysis under interval uncertainty. <i>Aerospace Science and Technology</i> , 2018, 80, 508-519.	4.8	52
16	Uncertainty quantification and propagation analysis of structures based on measurement data. <i>Mathematical and Computer Modelling</i> , 2011, 54, 2725-2735.	2.0	49
17	The need for introduction of non-probabilistic interval conceptions into structural analysis and design. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	5.1	49
18	Comparison of the reliability-based and safety factor methods for structural design. <i>Applied Mathematical Modelling</i> , 2019, 72, 68-84.	4.2	49

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19	A feasible implementation procedure for interval analysis method from measurement data. <i>Applied Mathematical Modelling</i> , 2014, 38, 2377-2397.	4.2	48
20	A novel dynamic reliability-based topology optimization (DRBTO) framework for continuum structures via interval-process collocation and the first-passage theories. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 386, 114107.	6.6	48
21	A radial basis function artificial neural network (RBF ANN) based method for uncertain distributed force reconstruction considering signal noises and material dispersion. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 364, 112954.	6.6	46
22	Hybrid time-variant reliability estimation for active control structures under aleatory and epistemic uncertainties. <i>Journal of Sound and Vibration</i> , 2018, 419, 469-492.	3.9	44
23	Optimal Maintenance Design-Oriented Nonprobabilistic Reliability Methodology for Existing Structures Under Static and Dynamic Mixed Uncertainties. <i>IEEE Transactions on Reliability</i> , 2019, 68, 496-513.	4.6	44
24	Time-variant reliability model and its measure index of structures based on a non-probabilistic interval process. <i>Acta Mechanica</i> , 2015, 226, 3221-3241.	2.1	36
25	Time-dependent reliability assessment of fatigue crack growth modeling based on perturbation series expansions and interval mathematics. <i>Theoretical and Applied Fracture Mechanics</i> , 2018, 95, 104-118.	4.7	36
26	Multiscale reliability-based topology optimization methodology for truss-like microstructures with unknown-but-bounded uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 339, 358-388.	6.6	33
27	Sequential optimization and fuzzy reliability analysis for multidisciplinary systems. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 1079-1095.	3.5	33
28	A novel methodology of sequential optimization and non-probabilistic time-dependent reliability analysis for multidisciplinary systems. <i>Aerospace Science and Technology</i> , 2019, 94, 105389.	4.8	32
29	Interval uncertainty analysis for static response of structures using radial basis functions. <i>Applied Mathematical Modelling</i> , 2019, 69, 425-440.	4.2	31
30	A support vector regression (SVR)-based method for dynamic load identification using heterogeneous responses under interval uncertainties. <i>Applied Soft Computing Journal</i> , 2021, 110, 107599.	7.2	31
31	An efficient single-loop strategy for reliability-based multidisciplinary design optimization under non-probabilistic set theory. <i>Aerospace Science and Technology</i> , 2018, 73, 148-163.	4.8	29
32	A dynamic evolution scheme for structures with interval uncertainties by using bidirectional sequential Kriging method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 348, 712-729.	6.6	29
33	A dynamic force reconstruction method based on modified Kalman filter using acceleration responses under multi-source uncertain samples. <i>Mechanical Systems and Signal Processing</i> , 2021, 159, 107761.	8.0	29
34	Structural design optimization based on hybrid time-variant reliability measure under non-probabilistic convex uncertainties. <i>Applied Mathematical Modelling</i> , 2019, 69, 330-354.	4.2	27
35	Non-probabilistic time-variant reliability assessment (NTRA) for the active control of vibration systems with convex uncertainties. <i>ISA Transactions</i> , 2018, 83, 276-289.	5.7	25
36	The optimal controller design framework for PID-based vibration active control systems via non-probabilistic time-dependent reliability measure. <i>ISA Transactions</i> , 2020, 105, 129-145.	5.7	25

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37	Reliability-based topology optimization framework of two-dimensional phononic crystal band-gap structures based on interval series expansion and mapping conversion method. <i>International Journal of Mechanical Sciences</i> , 2021, 196, 106265.	6.7	25
38	A Bayesian collocation method for static analysis of structures with unknown-but-bounded uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 727-745.	6.6	23
39	Non-probabilistic Reliability-based Topology Optimization (NRBTO) Scheme for Continuum Structures Based on the parameterized Level-Set method and Interval Mathematics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113477.	6.6	21
40	A novel reliability-based two-level optimization method for composite laminated structures. <i>Composite Structures</i> , 2018, 192, 336-346.	5.8	20
41	Non-probabilistic reliability-based topology optimization of continuum structures considering local stiffness and strength failure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 788-809.	6.6	20
42	Active force control of structure-borne sound based on robust optimization subjected to an irregular cavity with uncertainties. <i>Aerospace Science and Technology</i> , 2018, 73, 318-331.	4.8	19
43	Reliability-based topology optimization for heterogeneous composite structures under interval and convex mixed uncertainties. <i>Applied Mathematical Modelling</i> , 2021, 99, 628-652.	4.2	19
44	Safety estimation of structural systems via interval analysis. <i>Chinese Journal of Aeronautics</i> , 2013, 26, 614-623.	5.3	18
45	Size-controlled cross-scale robust topology optimization based on adaptive subinterval dimension-wise method considering interval uncertainties. <i>Engineering With Computers</i> , 2022, 38, 5321-5338.	6.1	17
46	Interval prediction of responses for uncertain multidisciplinary system. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1945-1964.	3.5	16
47	Non-probabilistic Bayesian update method for model validation. <i>Applied Mathematical Modelling</i> , 2018, 58, 388-403.	4.2	16
48	A nonprobabilistic reliability-based topology optimization method of compliant mechanisms with interval uncertainties. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 119, 1419-1438.	2.8	16
49	Nonprobabilistic reliability oriented topological optimization for multi-material heat-transfer structures with interval uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1599-1620.	3.5	16
50	Uncertainty quantification of multi-dimensional parameters for composite laminates based on grey mathematical theory. <i>Applied Mathematical Modelling</i> , 2018, 55, 299-313.	4.2	15
51	A novel method of Newton iteration-based interval analysis for multidisciplinary systems. <i>Science China: Physics, Mechanics and Astronomy</i> , 2017, 60, 1.	5.1	14
52	Non-probabilistic reliability-based robust design of micro-scale topology optimization (NRRD-MTO) for structural vibro-acoustic problem under harmonic excitation and natural frequency constraints. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	3.5	14
53	A robust topology optimization method considering bounded field parameters with uncertainties based on the variable time step parametric level-set method. <i>Applied Mathematical Modelling</i> , 2022, 107, 441-463.	4.2	13
54	Non-probabilistic stability reliability measure for active vibration control system with interval parameters. <i>Journal of Sound and Vibration</i> , 2017, 387, 1-15.	3.9	12

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55	Uncertainty-oriented topology optimization of interval parametric structures with local stress and displacement reliability constraints. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 358, 112644.	6.6	12
56	A two-step interval structural damage identification approach based on model updating and set-membership technique. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 182, 109464.	5.0	11
57	Time-Dependent Reliability Modeling and Analysis Method for Mechanics Based on Convex Process. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-16.	1.1	10
58	A novel reliability-based topology optimization framework for the concurrent design of solid and truss-like material structures with unknown-but-bounded uncertainties. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 119, 239-260.	2.8	10
59	Convexity-oriented reliability-based topology optimization (CRBTO) in the time domain using the equivalent static loads method. <i>Aerospace Science and Technology</i> , 2022, 123, 107490.	4.8	10
60	Response analysis based on smallest interval-set of parameters for structures with uncertainty. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2012, 33, 1153-1166.	3.6	9
61	Structural Design Optimization Based on the Moving Baseline Strategy. <i>Acta Mechanica Solida Sinica</i> , 2020, 33, 307-326.	1.9	9
62	A dual-layer dimension-wise fuzzy finite element method for structural analysis with epistemic uncertainties. <i>Fuzzy Sets and Systems</i> , 2019, 367, 68-81.	2.7	8
63	A nonprobabilistic structural damage identification approach based on orthogonal polynomial expansion and interval mathematics. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2378.	4.0	8
64	Truss layout design under nonprobabilistic reliability-based topology optimization framework with interval uncertainties. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 119, 1307-1324.	2.8	8
65	Set-membership identification technique for structural damage based on the dynamic responses with noises. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1868.	4.0	7
66	Scale-span stress-constrained topology optimization for continuum structures integrating truss-like microstructures and solid material. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 355, 900-925.	6.6	7
67	Kalman filter-based random forest-based method of dynamic load identification for structures with interval uncertainties. <i>Structural Control and Health Monitoring</i> , 2022, 29, .	4.0	7
68	Reliability-based topology optimization for freely vibrating continuum structures with unknown-but-bounded uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2751-2770.	3.5	6
69	An interval-oriented dynamic robust topology optimization (DRTO) approach for continuum structures based on the parametric Level-Set method (PLSM) and the equivalent static loads method (ESLM). <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	3.5	6
70	Uncertainty-oriented double-scale topology optimization with macroreliability limitation and micromanufacturing control. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2254-2286.	2.8	5
71	A nonprobabilistic time-variant reliability-based optimization approach to the reliable active controller design of structural vibration considering convex uncertainties. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2269.	4.0	3
72	An adaptive collocation method for structural fuzzy uncertainty analysis. <i>Engineering Computations</i> , 2020, 37, 2983-2998.	1.4	3

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73	Importance measure analysis of design variables and uncertain parameters in multidisciplinary systems. <i>Applied Mathematical Modelling</i> , 2022, 107, 296-315.	4.2	3
74	Multisource uncertain dynamic load identification fitted by Legendre polynomial based on precise integration and the Savitzky-Golay filters. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 4974-5006.	2.8	3
75	Two-step damage identification method for composite laminates using distributed piezoelectric and strain sensors. <i>Structural Control and Health Monitoring</i> , 2022, 29, .	4.0	2
76	Dynamic Uncertainty Quantification and Risk Prediction Based on the Grey Mathematics and Outcrossing Theory. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5389.	2.5	2
77	Anisotropic reduction factor-based damage identification method for fiber-reinforced composite laminates. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2253.	4.0	1
78	A Stress-Influence Function with Adaptive Strength Feature (SIF-ASF) Approach for Stress Constrained Continuum Topology Optimization via Small-loop Sequential Strategy. <i>International Journal for Numerical Methods in Engineering</i> , 0, , .	2.8	0