Bin Xu

List of Publications by Year
in descending order

43 papers	568 citations	623734 14 h-index	713466 21 g-index
43 all docs	43 docs citations	43 times ranked	280 citing authors

#	Article	IF	Citations
1	A cascadic multilevel optimization framework for the concurrent design of the fiber-reinforced composite structure through the NURBS surface. Engineering With Computers, 2023, 39, 2735-2756.	6.1	2
2	Material microstructure topology optimization of piezoelectric composite beam under initial disturbance for vibration suppression. JVC/Journal of Vibration and Control, 2022, 28, 1364-1378.	2.6	5
3	Concurrent design of the free damping structure for minimizing the frequency response in a broad frequency band. Engineering Optimization, 2022, 54, 1273-1288.	2.6	3
4	Optimal design of laminated plate for minimizing frequency response based on discrete material model and mode reduction method. Engineering With Computers, 2022, 38, 2919-2951.	6.1	1
5	Topology optimization of thermoâ€elastic structures considering stiffness, strength, and temperature constraintsÂover a wide range of temperatures. International Journal for Numerical Methods in Engineering, 2022, 123, 1627-1653.	2.8	6
6	Stress-based topology optimization of continuum structures for the elastic contact problems with friction. Structural and Multidisciplinary Optimization, 2022, 65, 54.	3.5	6
7	Stress-based multi-material structural topology optimization considering graded interfaces. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114602.	6.6	17
8	Stress-based bi-directional evolutionary structural topology optimization considering nonlinear continuum damage. Computer Methods in Applied Mechanics and Engineering, 2022, 396, 115086.	6.6	9
9	Size-dependent two-scale topological design for maximizing structural fundamental eigenfrequency. JVC/Journal of Vibration and Control, 2021, 27, 2600-2615.	2.6	1
10	Topological optimization of continuum structures for additive manufacturing considering thin feature and support structure constraints. Engineering Optimization, 2021, 53, 2122-2143.	2.6	15
11	Bi-directional evolutionary stress-based topology optimization of material nonlinear structures. Structural and Multidisciplinary Optimization, 2021, 63, 1287-1305.	3.5	11
12	Concurrent design of composite macrostructure and cellular microstructure with respect to dynamic stress response under random excitations. Composite Structures, 2021, 257, 113123.	5.8	6
13	Structural topology optimization considering both performance and manufacturability: strength, stiffness, and connectivity. Structural and Multidisciplinary Optimization, 2021, 63, 1427-1453.	3.5	9
14	An efficient 137-line MATLAB code for geometrically nonlinear topology optimization using bi-directional evolutionary structural optimization method. Structural and Multidisciplinary Optimization, 2021, 63, 2571-2588.	3.5	22
15	Thermoâ€elastic topology optimization with stress and temperature constraints. International Journal for Numerical Methods in Engineering, 2021, 122, 2919-2944.	2.8	12
16	A multi-scale discrete material optimization model for optimization of structural topology and material orientations to minimize dynamic compliance. Structural and Multidisciplinary Optimization, 2021, 64, 1343-1365.	3.5	8
17	Topology optimization of material nonlinear continuum structures under stress constraints. Computer Methods in Applied Mechanics and Engineering, 2021, 378, 113731.	6.6	17
18	Bi-directional evolutionary topology optimization of continuum structures subjected to inertial loads. Advances in Engineering Software, 2021, 155, 102897.	3.8	17

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19	Electro-thermal-mechanical modeling of quench and stress evolution triggered by various factors in high-temperature superconducting coils. Journal of Applied Physics, 2021, 129, .	2.5	11
20	Optimal design of vibrating composite plate considering discreteâ€“continuous parameterization model and resonant peak constraint. International Journal of Mechanics and Materials in Design, 2021, 17, 679-705.	3.0	7
21	Stressâ€related topology optimization for castable design. International Journal for Numerical Methods in Engineering, 2021, 122, 6203.	2.8	2
22	Lightweight topology optimization of thermal structures under compliance, stress and temperature constraints. Journal of Thermal Stresses, 2021, 44, 1121-1149.	2.0	4
23	Controlling the maximum stress in structural stiffness topology optimization of geometrical and material nonlinear structures. Structural and Multidisciplinary Optimization, 2021, 64, 3971-3998.	3.5	3
24	A new method for concurrent multi-scale design optimization of fiber-reinforced composite frames with fundamental frequency constraints. Structural and Multidisciplinary Optimization, 2021, 64, 3773-3795.	3.5	5
25	A novel discreteâ€“continuous material orientation optimization model for stiffness-based concurrent design of fiber composite. Composite Structures, 2021, 273, 114288.	5.8	17
26	Structural topological optimization with dynamic fatigue constraints subject to dynamic random loads. Engineering Structures, 2020, 205, 110089.	5.3	18
27	Numerical study on the impact response of aircraft fuselage structures subjected to large-size tire fragment. Science Progress, 2020, 103, 003685041987774.	1.9	4
28	Bi-directional evolutionary topology optimization of geometrically nonlinear continuum structures with stress constraints. Applied Mathematical Modelling, 2020, 80, 771-791.	4.2	44
29	Topology optimization of cast parts considering parting surface position. Advances in Engineering Software, 2020, 149, 102886.	3.8	11
30	Numerical performance of Poisson method for restricting enclosed voids in topology optimization. Computers and Structures, 2020, 239, 106337.	4.4	17
31	Stress constrained thermo-elastic topology optimization based on stabilizing control schemes. Journal of Thermal Stresses, 2020, 43, 1040-1068.	2.0	16
32	Continuum structural topological optimization with dynamic stress response constraints. Advances in Engineering Software, 2020, 148, 102834.	3.8	16
33	Topology optimization of continuum structures under hybrid additive-subtractive manufacturing constraints. Structural and Multidisciplinary Optimization, 2019, 60, 2571-2595.	3.5	31
34	Research on the Blow-Off Impulse Effect of a Composite Reinforced Panel Subjected to Lightning Strike. Applied Sciences (Switzerland), 2019, 9, 1168.	2.5	10
35	Topology optimization of dynamic stress response reliability of continuum structures involving multi-phase materials. Structural and Multidisciplinary Optimization, 2019, 59, 851-876.	3.5	9
36	Study on vibration of dragon wash basin and free surface waves inside. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 15-23.	3.4	2

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37	Topology optimization of continuum structures for natural frequencies considering casting constraints. Engineering Optimization, 2019, 51, 941-960.	2.6	25
38	Topology optimization of continuum structures with uncertain-but-bounded parameters for maximum non-probabilistic reliability of frequency requirement. JVC/Journal of Vibration and Control, 2017, 23, 2557-2566.	2.6	12
39	Optimal design of material microstructure for maximizing damping dissipation velocity of piezoelectric composite beam. International Journal of Mechanical Sciences, 2017, 128-129, 527-540.	6.7	17
40	Dynamic response reliability based topological optimization of continuum structures involving multi-phase materials. Composite Structures, 2016, 149, 134-144.	5.8	16
41	Concurrent design of composite macrostructure and multi-phase material microstructure for minimum dynamic compliance. Composite Structures, 2015, 128, 221-233.	5.8	52
42	Concurrent design of composite macrostructure and cellular microstructure under random excitations. Composite Structures, 2015, 123, 65-77.	5.8	44
43	Integrated optimization of structural topology and control for piezoelectric smart trusses with interval variables. JVC/Journal of Vibration and Control, 2014, 20, 576-588.	2.6	8