Jianguang Fang

List of Publications by Year
in descending order

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84	4,679	94433	102487
papers	citations	37 h-index	66 g-index

85	85	85	1803
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimal placement of fixation system for scaffold-based mandibular reconstruction. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 104855.	3.1	11
2	Multi-objective optimization framework of a vehicle door design in the slamming event for optimal dynamic performances. Applied Acoustics, 2022, 187, 108526.	3.3	2
3	G-UHPC slabs strengthened with high toughness and lightweight energy absorption materials under contact explosions. Journal of Building Engineering, 2022, 50, 104138.	3.4	4
4	Phase field fracture in elasto-plastic solids: Incorporating phenomenological failure criteria for ductile materials. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114580.	6.6	15
5	Load characteristics of triangular honeycomb structures with self-similar hierarchical features. Engineering Structures, 2022, 257, 114114.	5.3	31
6	Multi-objective design optimization using hybrid search algorithms with interval uncertainty for thin-walled structures. Thin-Walled Structures, 2022, 175, 109218.	5.3	8
7	Axial mechanical properties and robust optimization of foam-filled hierarchical structures. Composite Structures, 2022, 289, 115501.	5.8	11
8	Mechanical performance of triply periodic minimal surface structures with a novel hybrid gradient fabricated by selective laser melting. Engineering Structures, 2022, 263, 114377.	5.3	21
9	Energy absorption behaviors and optimization design of thin-walled double-hat beam under bending. Thin-Walled Structures, 2022, 179, 109577.	5.3	7
10	Hybrid Learning Algorithm of Radial Basis Function Networks for Reliability Analysis. IEEE Transactions on Reliability, 2021, 70, 887-900.	4.6	86
11	Analytical Model of Open-Circuit Air-Gap Field Distribution in Interior Permanent Magnet Machines Based on Magnetic Equivalent Circuit Method and Boundary Conditions of Macroscopic Equations. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	17
12	A time-dependent mechanobiology-based topology optimization to enhance bone growth in tissue scaffolds. Journal of Biomechanics, 2021, 117, 110233.	2.1	23
13	On lower confidence bound improvement matrix-based approaches for multiobjective Bayesian optimization and its applications to thin-walled structures. Thin-Walled Structures, 2021, 161, 107248.	5.3	12
14	Energy absorption of additively manufactured functionally bi-graded thickness honeycombs subjected to axial loads. Thin-Walled Structures, 2021, 164, 107810.	5.3	67
15	A machine learning-based multiscale model to predict bone formation in scaffolds. Nature Computational Science, 2021, 1, 532-541.	8.0	17
16	A feasible identification method of uncertainty responses for vehicle structures. Structural and Multidisciplinary Optimization, 2021, 64, 3861-3876.	3.5	5
17	Machine learning based topology optimization of fiber orientation for variable stiffness composite structures. International Journal for Numerical Methods in Engineering, 2021, 122, 6736-6755.	2.8	14
18	Nondeterministic multi-objective and multi-case discrete optimization of functionally-graded front-bumper structures for pedestrian protection. Thin-Walled Structures, 2021, 167, 106921.	5.3	11

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19	Injury biomechanics-based nondeterministic optimization of front-end structures for safety in pedestrianâ€“vehicle impact. Thin-Walled Structures, 2021, 167, 108087.	5.3	7
20	Parallelized optimization design of bumper systems under multiple low-speed impact loads. Thin-Walled Structures, 2021, 167, 108197.	5.3	21
21	Effect of discretized transfer paths on abnormal vibration analysis and door structure improvement to reduce its vibration in the door slamming event. Applied Acoustics, 2021, 183, 108306.	3.3	5
22	Fracture modeling of brittle biomaterials by the phase-field method. Engineering Fracture Mechanics, 2020, 224, 106752.	4.3	18
23	Parallelized multiobjective efficient global optimization algorithm and its applications. Structural and Multidisciplinary Optimization, 2020, 61, 763-786.	3.5	28
24	Time-dependent topology optimization of bone plates considering bone remodeling. Computer Methods in Applied Mechanics and Engineering, 2020, 359, 112702.	6.6	36
25	Phase field fracture in elasto-plastic solids: a length-scale insensitive model for quasi-brittle materials. Computational Mechanics, 2020, 66, 931-961.	4.0	34
26	Multiobjective discrete optimization using the TOPSIS and entropy method for protection of pedestrian lower extremity. Thin-Walled Structures, 2020, 152, 106349.	5.3	19
27	Levelâ€set topology optimization for maximizing fracture resistance of brittle materials using phaseâ€field fracture model. International Journal for Numerical Methods in Engineering, 2020, 121, 2929-2945.	2.8	28
28	Crashworthiness of tailored-property multi-cell tubular structures under axial crushing and lateral bending. Thin-Walled Structures, 2020, 149, 106640.	5.3	29
29	Multiobjective optimization of perforated square CFRP tubes for crashworthiness. Thin-Walled Structures, 2020, 149, 106628.	5.3	55
30	A modified HJC model for improved dynamic response of brittle materials under blasting loads. Computers and Geotechnics, 2020, 123, 103584.	4.7	52
31	Eccentric position diagnosis of static eccentricity fault of external rotor permanent magnet synchronous motor as an inâ€wheel motor. IET Electric Power Applications, 2020, 14, 2263-2272.	1.8	7
32	Characteristic analysis and direct measurement for air gap magnetic field of external rotor permanent magnet synchronous motors in electric vehicles. IET Electric Power Applications, 2020, 14, 1784-1794.	1.8	3
33	Multi-material topology optimization for thermal buckling criteria. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 1136-1155.	6.6	54
34	Dynamic impact response of aluminum honeycombs filled with Expanded Polypropylene foam. Composites Part B: Engineering, 2019, 156, 17-27.	12.0	94
35	Dynamic response of sandwich panel with hierarchical honeycomb cores subject to blast loading. Thin-Walled Structures, 2019, 142, 499-515.	5.3	96
36	Energy absorption mechanism of axially-varying thickness (AVT) multicell thin-walled structures under out-of-plane loading. Engineering Structures, 2019, 196, 109130.	5.3	79

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37	Effects of static eccentricity on the noâ€load back electromotive force of external rotor permanent magnet brushless DC motor used as inâ€wheel motor. IET Electric Power Applications, 2019, 13, 604-613.	1.8	9
38	Phase field fracture in elasto-plastic solids: Abaqus implementation and case studies. Theoretical and Applied Fracture Mechanics, 2019, 103, 102252.	4.7	76
39	Implicit Integration of the Unified Yield Criterion in the Principal Stress Space. Journal of Engineering Mechanics - ASCE, 2019, 145, .	2.9	6
40	Phase field fracture in elasto-plastic solids: Variational formulation for multi-surface plasticity and effects of plastic yield surfaces and hardening. International Journal of Mechanical Sciences, 2019, 156, 382-396.	6.7	62
41	Investigation on masticatory muscular functionality following oral reconstruction â€“ An inverse identification approach. Journal of Biomechanics, 2019, 90, 1-8.	2.1	17
42	Topographical design of stiffener layout for plates against blast loading using a modified ant colony optimization algorithm. Structural and Multidisciplinary Optimization, 2019, 59, 335-350.	3.5	25
43	Simultaneous Discrete Topology Optimization of Ply Orientation and Thickness for Carbon Fiber Reinforced Plastic-Laminated Structures. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	19
44	Ceramic balls protected ultra-high performance concrete structure against projectile impactâ€“A numerical study. International Journal of Impact Engineering, 2019, 125, 143-162.	5.0	24
45	Robust topology optimization for multiple fiber-reinforced plastic (FRP) composites under loading uncertainties. Structural and Multidisciplinary Optimization, 2019, 59, 695-711.	3.5	42
46	Design of bionic-bamboo thin-walled structures for energy absorption. Thin-Walled Structures, 2019, 135, 400-413.	5.3	168
47	Analytical Calculation of No-Load Magnetic Field of External Rotor Permanent Magnet Brushless Direct Current Motor Used as In-Wheel Motor of Electric Vehicle. IEEE Transactions on Magnetics, 2018, 54, 1-6.	2.1	20
48	Crash responses under multiple impacts and residual properties of CFRP and aluminum tubes. Composite Structures, 2018, 194, 87-103.	5.8	51
49	Sensitivity-Based Parameter Calibration and Model Validation Under Model Error. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	9
50	A new multi-objective discrete robust optimization algorithm for engineering design. Applied Mathematical Modelling, 2018, 53, 602-621.	4.2	98
51	On hierarchical honeycombs under out-of-plane crushing. International Journal of Solids and Structures, 2018, 135, 1-13.	2.7	168
52	Topological design of multi-cell hexagonal tubes under axial and lateral loading cases using a modified particle swarm algorithm. Applied Mathematical Modelling, 2018, 53, 567-583.	4.2	57
53	Configurational optimization of multi-cell topologies for multiple oblique loads. Structural and Multidisciplinary Optimization, 2018, 57, 469-488.	3.5	67
54	Multi-objective robust design optimization of fatigue life for a welded box girder. Engineering Optimization, 2018, 50, 1252-1269.	2.6	9

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55	A novel multi-cell tubal structure with circular corners for crashworthiness. Thin-Walled Structures, 2018, 122, 329-343.	5.3	66
56	Crashworthiness of hierarchical circular-joint quadrangular honeycombs. Thin-Walled Structures, 2018, 133, 180-191.	5.3	46
57	Crashworthiness optimization with uncertainty from surrogate model and numerical error. Thin-Walled Structures, 2018, 129, 457-472.	5.3	32
58	Discrete topology optimization of ply orientation for a carbon fiber reinforced plastic (CFRP) laminate vehicle door. Materials and Design, 2017, 128, 9-19.	7.0	64
59	Topology Optimization of Multicell Tubes Under Out-of-Plane Crushing Using a Modified Artificial Bee Colony Algorithm. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	2.9	34
60	Parameterization of criss-cross configurations for multiobjective crashworthiness optimization. International Journal of Mechanical Sciences, 2017, 124-125, 145-157.	6.7	174
61	Crashworthiness design of a steelâ€“aluminum hybrid rail using multi-response objective-oriented sequential optimization. Advances in Engineering Software, 2017, 112, 192-199.	3.8	25
62	On functionally-graded crashworthy shape of conical structures for multiple load cases. Journal of Mechanical Science and Technology, 2017, 31, 2861-2873.	1.5	18
63	Multi-objective and multi-case reliability-based design optimization for tailor rolled blank (TRB) structures. Structural and Multidisciplinary Optimization, 2017, 55, 1899-1916.	3.5	97
64	On design optimization for structural crashworthiness and its state of the art. Structural and Multidisciplinary Optimization, 2017, 55, 1091-1119.	3.5	312
65	Yielding behaviors of polymeric scaffolds with implications to tissue engineering. Materials Letters, 2016, 184, 108-111.	2.6	20
66	Crashworthiness of vertex based hierarchical honeycombs in out-of-plane impact. Materials and Design, 2016, 110, 705-719.	7.0	176
67	Design of transversely-graded foam and wall thickness structures for crashworthiness criteria. Composites Part B: Engineering, 2016, 92, 338-349.	12.0	89
68	Multiobjective sequential optimization for a vehicle door using hybrid materials tailor-welded structure. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3092-3100.	2.1	25
69	Smoothed finite element method for analysis of multi-layered systems â€“ Applications in biomaterials. Computers and Structures, 2016, 168, 16-29.	4.4	19
70	Theoretical prediction and optimization of multi-cell hexagonal tubes under axial crashing. Thin-Walled Structures, 2016, 102, 111-121.	5.3	125
71	Multi-objective optimisation of hybrid S-shaped rails under oblique impact loading. International Journal of Heavy Vehicle Systems, 2015, 22, 137.	0.2	6
72	Dynamic crashing behavior of new extrudable multi-cell tubes with a functionally graded thickness. International Journal of Mechanical Sciences, 2015, 103, 63-73.	6.7	186

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73	Discrete robust optimization algorithm based on Taguchi method for structural crashworthiness design. Expert Systems With Applications, 2015, 42, 4482-4492.	7.6	56
74	Dynamical bending analysis and optimization design for functionally graded thickness (FGT) tube. International Journal of Impact Engineering, 2015, 78, 128-137.	5.0	73
75	On design of multi-cell tubes under axial and oblique impact loads. Thin-Walled Structures, 2015, 95, 115-126.	5.3	221
76	Crashworthiness design for foam-filled thin-walled structures with functionally lateral graded thickness sheets. Thin-Walled Structures, 2015, 91, 63-71.	5.3	102
77	Crashworthiness analysis and design of multi-cell hexagonal columns under multiple loading cases. Finite Elements in Analysis and Design, 2015, 104, 89-101.	3.2	220
78	Crashworthiness design for functionally graded foam-filled bumper beam. Advances in Engineering Software, 2015, 85, 81-95.	3.8	109
79	Multiobjective robust design optimization of fatigue life for a truck cab. Reliability Engineering and System Safety, 2015, 135, 1-8.	8.9	89
80	Fatigue optimization with combined ensembles of surrogate modeling for a truck cab. Journal of Mechanical Science and Technology, 2014, 28, 4641-4649.	1.5	23
81	Crashworthiness design of foam-filled bitubal structures with uncertainty. International Journal of Non-Linear Mechanics, 2014, 67, 120-132.	2.6	72
82	Parametric analysis and multiobjective optimization for functionally graded foam-filled thin-wall tube under lateral impact. Computational Materials Science, 2014, 90, 265-275.	3.0	139
83	Development of a novel identification platform for automotive dampers. International Journal of Vehicle Design, 2014, 66, 272.	0.3	4
84	Multiobjective reliability-based optimization for design of a vehicledoor. Finite Elements in Analysis and Design, 2013, 67, 13-21.	3.2	103