

Jianguang Fang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/352302/publications.pdf>

Version: 2024-02-01

84
papers

4,679
citations

94433

37
h-index

102487

66
g-index

85
all docs

85
docs citations

85
times ranked

1803
citing authors

#	ARTICLE	IF	CITATIONS
1	On design optimization for structural crashworthiness and its state of the art. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1091-1119.	3.5	312
2	On design of multi-cell tubes under axial and oblique impact loads. <i>Thin-Walled Structures</i> , 2015, 95, 115-126.	5.3	221
3	Crashworthiness analysis and design of multi-cell hexagonal columns under multiple loading cases. <i>Finite Elements in Analysis and Design</i> , 2015, 104, 89-101.	3.2	220
4	Dynamic crashing behavior of new extrudable multi-cell tubes with a functionally graded thickness. <i>International Journal of Mechanical Sciences</i> , 2015, 103, 63-73.	6.7	186
5	Crashworthiness of vertex based hierarchical honeycombs in out-of-plane impact. <i>Materials and Design</i> , 2016, 110, 705-719.	7.0	176
6	Parameterization of criss-cross configurations for multiobjective crashworthiness optimization. <i>International Journal of Mechanical Sciences</i> , 2017, 124-125, 145-157.	6.7	174
7	On hierarchical honeycombs under out-of-plane crushing. <i>International Journal of Solids and Structures</i> , 2018, 135, 1-13.	2.7	168
8	Design of bionic-bamboo thin-walled structures for energy absorption. <i>Thin-Walled Structures</i> , 2019, 135, 400-413.	5.3	168
9	Parametric analysis and multiobjective optimization for functionally graded foam-filled thin-wall tube under lateral impact. <i>Computational Materials Science</i> , 2014, 90, 265-275.	3.0	139
10	Theoretical prediction and optimization of multi-cell hexagonal tubes under axial crashing. <i>Thin-Walled Structures</i> , 2016, 102, 111-121.	5.3	125
11	Crashworthiness design for functionally graded foam-filled bumper beam. <i>Advances in Engineering Software</i> , 2015, 85, 81-95.	3.8	109
12	Multiobjective reliability-based optimization for design of a vehicledoor. <i>Finite Elements in Analysis and Design</i> , 2013, 67, 13-21.	3.2	103
13	Crashworthiness design for foam-filled thin-walled structures with functionally lateral graded thickness sheets. <i>Thin-Walled Structures</i> , 2015, 91, 63-71.	5.3	102
14	A new multi-objective discrete robust optimization algorithm for engineering design. <i>Applied Mathematical Modelling</i> , 2018, 53, 602-621.	4.2	98
15	Multi-objective and multi-case reliability-based design optimization for tailor rolled blank (TRB) structures. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1899-1916.	3.5	97
16	Dynamic response of sandwich panel with hierarchical honeycomb cores subject to blast loading. <i>Thin-Walled Structures</i> , 2019, 142, 499-515.	5.3	96
17	Dynamic impact response of aluminum honeycombs filled with Expanded Polypropylene foam. <i>Composites Part B: Engineering</i> , 2019, 156, 17-27.	12.0	94
18	Multiobjective robust design optimization of fatigue life for a truck cab. <i>Reliability Engineering and System Safety</i> , 2015, 135, 1-8.	8.9	89

#	ARTICLE	IF	CITATIONS
19	Design of transversely-graded foam and wall thickness structures for crashworthiness criteria. <i>Composites Part B: Engineering</i> , 2016, 92, 338-349.	12.0	89
20	Hybrid Learning Algorithm of Radial Basis Function Networks for Reliability Analysis. <i>IEEE Transactions on Reliability</i> , 2021, 70, 887-900.	4.6	86
21	Energy absorption mechanism of axially-varying thickness (AVT) multicell thin-walled structures under out-of-plane loading. <i>Engineering Structures</i> , 2019, 196, 109130.	5.3	79
22	Phase field fracture in elasto-plastic solids: Abaqus implementation and case studies. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 103, 102252.	4.7	76
23	Dynamical bending analysis and optimization design for functionally graded thickness (FGT) tube. <i>International Journal of Impact Engineering</i> , 2015, 78, 128-137.	5.0	73
24	Crashworthiness design of foam-filled bitubal structures with uncertainty. <i>International Journal of Non-Linear Mechanics</i> , 2014, 67, 120-132.	2.6	72
25	Configurational optimization of multi-cell topologies for multiple oblique loads. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 469-488.	3.5	67
26	Energy absorption of additively manufactured functionally bi-graded thickness honeycombs subjected to axial loads. <i>Thin-Walled Structures</i> , 2021, 164, 107810.	5.3	67
27	A novel multi-cell tubal structure with circular corners for crashworthiness. <i>Thin-Walled Structures</i> , 2018, 122, 329-343.	5.3	66
28	Discrete topology optimization of ply orientation for a carbon fiber reinforced plastic (CFRP) laminate vehicle door. <i>Materials and Design</i> , 2017, 128, 9-19.	7.0	64
29	Phase field fracture in elasto-plastic solids: Variational formulation for multi-surface plasticity and effects of plastic yield surfaces and hardening. <i>International Journal of Mechanical Sciences</i> , 2019, 156, 382-396.	6.7	62
30	Topological design of multi-cell hexagonal tubes under axial and lateral loading cases using a modified particle swarm algorithm. <i>Applied Mathematical Modelling</i> , 2018, 53, 567-583.	4.2	57
31	Discrete robust optimization algorithm based on Taguchi method for structural crashworthiness design. <i>Expert Systems With Applications</i> , 2015, 42, 4482-4492.	7.6	56
32	Multiobjective optimization of perforated square CFRP tubes for crashworthiness. <i>Thin-Walled Structures</i> , 2020, 149, 106628.	5.3	55
33	Multi-material topology optimization for thermal buckling criteria. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 1136-1155.	6.6	54
34	A modified HJC model for improved dynamic response of brittle materials under blasting loads. <i>Computers and Geotechnics</i> , 2020, 123, 103584.	4.7	52
35	Crash responses under multiple impacts and residual properties of CFRP and aluminum tubes. <i>Composite Structures</i> , 2018, 194, 87-103.	5.8	51
36	Crashworthiness of hierarchical circular-joint quadrangular honeycombs. <i>Thin-Walled Structures</i> , 2018, 133, 180-191.	5.3	46

#	ARTICLE	IF	CITATIONS
37	Robust topology optimization for multiple fiber-reinforced plastic (FRP) composites under loading uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 695-711.	3.5	42
38	Time-dependent topology optimization of bone plates considering bone remodeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 359, 112702.	6.6	36
39	Topology Optimization of Multicell Tubes Under Out-of-Plane Crushing Using a Modified Artificial Bee Colony Algorithm. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	2.9	34
40	Phase field fracture in elasto-plastic solids: a length-scale insensitive model for quasi-brittle materials. <i>Computational Mechanics</i> , 2020, 66, 931-961.	4.0	34
41	Crashworthiness optimization with uncertainty from surrogate model and numerical error. <i>Thin-Walled Structures</i> , 2018, 129, 457-472.	5.3	32
42	Load characteristics of triangular honeycomb structures with self-similar hierarchical features. <i>Engineering Structures</i> , 2022, 257, 114114.	5.3	31
43	Crashworthiness of tailored-property multi-cell tubular structures under axial crushing and lateral bending. <i>Thin-Walled Structures</i> , 2020, 149, 106640.	5.3	29
44	Parallelized multiobjective efficient global optimization algorithm and its applications. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 763-786.	3.5	28
45	Level-set topology optimization for maximizing fracture resistance of brittle materials using phase-field fracture model. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 2929-2945.	2.8	28
46	Multiobjective sequential optimization for a vehicle door using hybrid materials tailor-welded structure. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2016, 230, 3092-3100.	2.1	25
47	Crashworthiness design of a steel-aluminum hybrid rail using multi-response objective-oriented sequential optimization. <i>Advances in Engineering Software</i> , 2017, 112, 192-199.	3.8	25
48	Topographical design of stiffener layout for plates against blast loading using a modified ant colony optimization algorithm. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 335-350.	3.5	25
49	Ceramic balls protected ultra-high performance concrete structure against projectile impact—A numerical study. <i>International Journal of Impact Engineering</i> , 2019, 125, 143-162.	5.0	24
50	Fatigue optimization with combined ensembles of surrogate modeling for a truck cab. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 4641-4649.	1.5	23
51	A time-dependent mechanobiology-based topology optimization to enhance bone growth in tissue scaffolds. <i>Journal of Biomechanics</i> , 2021, 117, 110233.	2.1	23
52	Parallelized optimization design of bumper systems under multiple low-speed impact loads. <i>Thin-Walled Structures</i> , 2021, 167, 108197.	5.3	21
53	Mechanical performance of triply periodic minimal surface structures with a novel hybrid gradient fabricated by selective laser melting. <i>Engineering Structures</i> , 2022, 263, 114377.	5.3	21
54	Yielding behaviors of polymeric scaffolds with implications to tissue engineering. <i>Materials Letters</i> , 2016, 184, 108-111.	2.6	20

#	ARTICLE	IF	CITATIONS
55	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
56	Smoothed finite element method for analysis of multi-layered systems “ Applications in biomaterials. Computers and Structures, 2016, 168, 16-29.	4.4	19
57	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
58	Multiobjective discrete optimization using the TOPSIS and entropy method for protection of pedestrian lower extremity. Thin-Walled Structures, 2020, 152, 106349.	5.3	19
59	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
60	Fracture modeling of brittle biomaterials by the phase-field method. Engineering Fracture Mechanics, 2020, 224, 106752.	4.3	18
61	Investigation on masticatory muscular functionality following oral reconstruction “ An inverse identification approach. Journal of Biomechanics, 2019, 90, 1-8.	2.1	17
62	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
63	A machine learning-based multiscale model to predict bone formation in scaffolds. Nature Computational Science, 2021, 1, 532-541.	8.0	17
64	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
65	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
66	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
67	Optimal placement of fixation system for scaffold-based mandibular reconstruction. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 104855.	3.1	11
68	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
69	Axial mechanical properties and robust optimization of foam-filled hierarchical structures. Composite Structures, 2022, 289, 115501.	5.8	11
70	Sensitivity-Based Parameter Calibration and Model Validation Under Model Error. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	9
71	Multi-objective robust design optimization of fatigue life for a welded box girder. Engineering Optimization, 2018, 50, 1252-1269.	2.6	9
72	Effects of static eccentricity on the no-load back electromotive force of external rotor permanent magnet brushless DC motor used as in-wheel motor. IET Electric Power Applications, 2019, 13, 604-613.	1.8	9

#	ARTICLE	IF	CITATIONS
73	Multi-objective design optimization using hybrid search algorithms with interval uncertainty for thin-walled structures. <i>Thin-Walled Structures</i> , 2022, 175, 109218.	5.3	8
74	Injury biomechanics-based nondeterministic optimization of front-end structures for safety in pedestrian-vehicle impact. <i>Thin-Walled Structures</i> , 2021, 167, 108087.	5.3	7
75	Eccentric position diagnosis of static eccentricity fault of external rotor permanent magnet synchronous motor as an in-wheel motor. <i>IET Electric Power Applications</i> , 2020, 14, 2263-2272.	1.8	7
76	Energy absorption behaviors and optimization design of thin-walled double-hat beam under bending. <i>Thin-Walled Structures</i> , 2022, 179, 109577.	5.3	7
77	Multi-objective optimisation of hybrid S-shaped rails under oblique impact loading. <i>International Journal of Heavy Vehicle Systems</i> , 2015, 22, 137.	0.2	6
78	Implicit Integration of the Unified Yield Criterion in the Principal Stress Space. <i>Journal of Engineering Mechanics - ASCE</i> , 2019, 145, .	2.9	6
79	A feasible identification method of uncertainty responses for vehicle structures. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 3861-3876.	3.5	5
80	Effect of discretized transfer paths on abnormal vibration analysis and door structure improvement to reduce its vibration in the door slamming event. <i>Applied Acoustics</i> , 2021, 183, 108306.	3.3	5
81	Development of a novel identification platform for automotive dampers. <i>International Journal of Vehicle Design</i> , 2014, 66, 272.	0.3	4
82	G-UHPC slabs strengthened with high toughness and lightweight energy absorption materials under contact explosions. <i>Journal of Building Engineering</i> , 2022, 50, 104138.	3.4	4
83	Characteristic analysis and direct measurement for air gap magnetic field of external rotor permanent magnet synchronous motors in electric vehicles. <i>IET Electric Power Applications</i> , 2020, 14, 1784-1794.	1.8	3
84	Multi-objective optimization framework of a vehicle door design in the slamming event for optimal dynamic performances. <i>Applied Acoustics</i> , 2022, 187, 108526.	3.3	2