Xiao Mi

List of Publications by Citations

91	1,825	25	39
papers	citations	h-index	g-index
99	2,444	4.2	5.98
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
91	A novel projection outline based active learning method and its combination with Kriging metamodel for hybrid reliability analysis with random and interval variables. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 341, 32-52	5.7	94
90	An efficient Kriging-based subset simulation method for hybrid reliability analysis under random and interval variables with small failure probability. *Structural and Multidisciplinary Optimization*, **2019**, 59, 2077-2092	3.6	83
89	Queuing search algorithm: A novel metaheuristic algorithm for solving engineering optimization problems. *Applied Mathematical Modelling*, **2018**, 63, 464-490	4.5	79
88	A combined projection-outline-based active learning Kriging and adaptive importance sampling method for hybrid reliability analysis with small failure probabilities. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 344, 13-33	5.7	77
87	A surrogate thermal modeling and parametric optimization of battery pack with air cooling for EVs. *Applied Thermal Engineering*, **2019**, 147, 90-100	5.8	72
86	A system active learning Kriging method for system reliability-based design optimization with a multiple response model. *Reliability Engineering and System Safety*, **2020**, 199, 106935	6.3	71
85	An active learning reliability method combining Kriging constructed with exploration and exploitation of failure region and subset simulation. *Reliability Engineering and System Safety*, **2019**, 188, 90-102	6.3	62
84	Topological shape optimization of 3D micro-structured materials using energy-based homogenization method. *Advances in Engineering Software*, **2018**, 116, 89-102	3.6	62
83	Multi-objective design optimization for mini-channel cooling battery thermal management system in an electric vehicle. *International Journal of Energy Research*, **2019**, 43, 3668-3680	4.5	56
82	Maximizing natural frequencies of inhomogeneous cellular structures by Kriging-assisted multiscale topology optimization. *Computers and Structures*, **2020**, 230, 106197	4.5	56
81	Probability and interval hybrid reliability analysis based on adaptive local approximation of projection outlines using support vector machine. *Computer-Aided Civil and Infrastructure Engineering*, **2019**, 34, 991-1009	8.4	48
80	Multiscale concurrent topology optimization for cellular structures with multiple microstructures based on ordered SIMP interpolation. *Computational Materials Science*, **2018**, 155, 74-91	3.2	47
79	Stress-based multi-material topology optimization of compliant mechanisms. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 1021-1044	2.4	46
78	Data Mining Techniques for Wireless Sensor Networks: A Survey. *International Journal of Distributed Sensor Networks*, **2013**, 9, 406316	1.7	43
77	Multiscale topology optimization for minimizing frequency responses of cellular composites with connectable graded microstructures. *Mechanical Systems and Signal Processing*, **2020**, 135, 106369	7.8	42
76	A new methodology for multi-objective multidisciplinary design optimization problems based on game theory. *Expert Systems With Applications*, **2015**, 42, 1602-1612	7.8	35
75	A Comprehensive Approach for the Clustering of Similar-Performance Cells for the Design of a Lithium-Ion Battery Module for Electric Vehicles. *Engineering*, **2019**, 5, 795-802	9.7	35

74	Design of shell-infill structures by a multiscale level set topology optimization method. *Computers and Structures*, **2019**, 212, 162-172	4.5	34
73	Topological design of sandwich structures with graded cellular cores by multiscale optimization. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 361, 112749	5.7	33
72	An efficient method for reliability analysis under epistemic uncertainty based on evidence theory and support vector regression. *Journal of Engineering Design*, **2015**, 26, 340-364	1.8	31
71	An improved two-stage framework of evidence-based design optimization. *Structural and Multidisciplinary Optimization*, **2018**, 58, 1673-1693	3.6	31
70	A new multiscale topology optimization method for multiphase composite structures of frequency response with level sets. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 356, 116-144	5.7	28
69	Analysis of gene expression programming for approximation in engineering design. *Structural and Multidisciplinary Optimization*, **2012**, 46, 399-413	3.6	28
68	A generalised collaborative optimisation method and its combination with kriging metamodels for engineering design. *Journal of Engineering Design*, **2012**, 23, 379-399	1.8	26
67	Topology optimization of multi-material structures with graded interfaces. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 346, 1096-1117	5.7	25
66	A NURBS-based Multi-Material Interpolation (N-MMI) for isogeometric topology optimization of structures. *Applied Mathematical Modelling*, **2020**, 81, 818-843	4.5	24
65	Topology Optimization of Periodic Structures With Substructuring. *Journal of Mechanical Design, Transactions of the ASME*, **2019**, 141,	3	23
64	Isogeometric topology optimization for computational design of re-entrant and chiral auxetic composites. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 362, 112876	5.7	23
63	A hybrid sufficient performance measure approach to improve robustness and efficiency of reliability-based design optimization. *Engineering With Computers*, **2020**, 37, 1695	4.5	23
62	Isogeometric topology optimization for rational design of ultra-lightweight architected materials. *International Journal of Mechanical Sciences*, **2020**, 166, 105103	5.5	23
61	Robust topology optimization of thermoelastic metamaterials considering hybrid uncertainties of material property. *Composite Structures*, **2020**, 248, 112477	5.3	22
60	Concurrent topology optimization for cellular structures with nonuniform microstructures based on the kriging metamodel. *Structural and Multidisciplinary Optimization*, **2019**, 59, 1273-1299	3.6	22
59	Robust topology optimization for multi-material structures under interval uncertainty. *Applied Mathematical Modelling*, **2020**, 78, 627-647	4.5	22
58	A new method based on adaptive volume constraint and stress penalty for stress-constrained topology optimization. *Structural and Multidisciplinary Optimization*, **2018**, 57, 1163-1185	3.6	20
57	Topology optimization of shell-infill structures using a distance regularized parametric level-set method. *Structural and Multidisciplinary Optimization*, **2019**, 59, 249-262	3.6	20

56	A new hybrid reliability-based design optimization method under random and interval uncertainties. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 4435-4457	2.4	19
55	A Comprehensive Review of Isogeometric Topology Optimization: Methods, Applications and Prospects. *Chinese Journal of Mechanical Engineering (English Edition)*, **2020**, 33,	2.5	18
54	Design of sandwich panels with truss cores using explicit topology optimization. *Composite Structures*, **2019**, 210, 892-905	5.3	18
53	A new method for reliability analysis of structures with mixed random and convex variables. *Applied Mathematical Modelling*, **2019**, 70, 206-220	4.5	17
52	Maximum variation analysis based analytical target cascading for multidisciplinary robust design optimization under interval uncertainty. *Advanced Engineering Informatics*, **2019**, 40, 81-92	7.4	16
51	Illusion thermotics with topology optimization. *Journal of Applied Physics*, **2020**, 128, 045106	2.5	13
50	Multidisciplinary robust design optimization under parameter and model uncertainties. *Engineering Optimization*, **2020**, 52, 426-445	2	13
49	Topology optimization of material microstructures using energy-based homogenization method under specified initial material layout. *Journal of Mechanical Science and Technology*, **2019**, 33, 677-693	1.6	11
48	Construction of nested maximin designs based on successive local enumeration and modified novel global harmony search algorithm. *Engineering Optimization*, **2017**, 49, 161-180	2	10
47	Multidisciplinary robust design optimization considering parameter and metamodeling uncertainties. *Engineering With Computers*, **2020**, 1	4.5	10
46	Multiscale topology optimization for coated structures with multifarious-microstructural infill. *Structural and Multidisciplinary Optimization*, **2020**, 61, 1473-1494	3.6	10
45	Intelligent optimization methodology of battery pack for electric vehicles: A multidisciplinary perspective. *International Journal of Energy Research*, **2020**, 44, 9686-9706	4.5	10
44	Improved collaboration pursuing method for multidisciplinary robust design optimization. *Structural and Multidisciplinary Optimization*, **2019**, 59, 1949-1968	3.6	10
43	Design of graded lattice sandwich structures by multiscale topology optimization. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 384, 113949	5.7	10
42	An improved Q-learning based rescheduling method for flexible job-shops with machine failures **2019**,		9
41	Optimization for Liquid Cooling Cylindrical Battery Thermal Management System Based on Gaussian Process Model. *Journal of Thermal Science and Engineering Applications*, **2021**, 13,	1.9	9
40	A New Approach to Solve Uncertain Multidisciplinary Design Optimization Based on Conditional Value at Risk. *IEEE Transactions on Automation Science and Engineering*, **2021**, 18, 356-368	4.9	9
39	Robustly printable freeform thermal metamaterials. *Nature Communications*, **2021**, 12, 7228	17.4	8

38	An active learning Kriging-assisted method for reliability-based design optimization under distributional probability-box model. *Structural and Multidisciplinary Optimization*, **2020**, 62, 2341-2356	3.6	8
37	A level set based method for stress-constrained multimaterial topology optimization of minimizing a global measure of stress. *International Journal for Numerical Methods in Engineering*, **2019**, 117, 800-818	2.4	8
36	Robust topology optimization for periodic structures by combining sensitivity averaging with a semianalytical method. *International Journal for Numerical Methods in Engineering*, **2019**, 117, 475-497	2.4	8
35	Inverse design of rotating metadevice for adaptive thermal cloaking. *International Journal of Heat and Mass Transfer*, **2021**, 176, 121417	4.9	8
34	A new level set based multi-material topology optimization method using alternating active-phase algorithm. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 377, 113674	5.7	7
33	Explicit topology optimization of novel polyline-based core sandwich structures using surrogate-assisted evolutionary algorithm. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 369, 113215	5.7	6
32	Reliability Analysis of Stiffened Aircraft Panels Using Adjusting Mean Value Method. *AIAA Journal*, **2020**, 58, 5448-5458	2.1	6
31	Robust topology optimization for fiber-reinforced composite structures under loading uncertainty. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 384, 113935	5.7	6
30	Heat Transfer Efficiency Enhancement of Lithium-Ion Battery Packs by Using Novel Design of Herringbone Fins. *Journal of Electrochemical Energy Conversion and Storage*, **2020**, 17,	2	5
29	Support Vector enhanced Kriging for metamodeling with noisy data. *Structural and Multidisciplinary Optimization*, **2018**, 57, 1611-1623	3.6	5
28	A bounding-limit-state-surface-based active learning Kriging method for hybrid reliability analysis under random and probability-box variables. *Mechanical Systems and Signal Processing*, **2019**, 134, 106310	7.8	4
27	Sampling-based system reliability-based design optimization using composite active learning Kriging. *Computers and Structures*, **2020**, 239, 106321	4.5	4
26	A new local update-based method for reliability-based design optimization. *Engineering With Computers*, **2020**, 37, 3591	4.5	4
25	Robust topology optimization considering load uncertainty based on a semi-analytical method. *International Journal of Advanced Manufacturing Technology*, **2018**, 94, 3537-3551	3.2	4
24	A new vortex search algorithm with gradient-based approximation for optimization of the fore part of KCS container ship. *Journal of Marine Science and Technology*, **2017**, 22, 403-413	1.7	4
23	Kriging-assisted design of functionally graded cellular structures with smoothly-varying lattice unit cells. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 390, 114466	5.7	4
22	A composite-projection-outline-based approximation method for system reliability analysis with hybrid uncertainties. *Reliability Engineering and System Safety*, **2020**, 204, 107169	6.3	4
21	A Computational Fluid Dynamics Coupled Multi-Objective Optimization Framework for Thermal System Design for Li-Ion Batteries With Metal Separators. *Journal of Electrochemical Energy Conversion and Storage*, **2021**, 18,	2	4

20	An isogeometric approach to topological optimization design of auxetic composites with tri-material micro-architectures. *Composite Structures*, **2021**, 271, 114163	5.3	4
19	An Approach Based on Enhanced Collaborative Optimization and Kriging Approximation in Multidisciplinary Design Optimization. *Advanced Materials Research*, **2010**, 118-120, 399-403	0.5	3
18	A Kriging-assisted sampling method for reliability analysis of structures with hybrid uncertainties. *Reliability Engineering and System Safety*, **2021**, 210, 107552	6.3	3
17	A set strategy approach for multidisciplinary robust design optimization under interval uncertainty. *Advances in Mechanical Engineering*, **2019**, 11, 168781401882038	1.2	3
16	A Hybrid Method for Density-Related Topology Optimization. *International Journal of Computational Methods*, **2019**, 16, 1850116	1.1	3
15	An Efficient Topology Optimization Method for Structures with Uniform Stress. *International Journal of Computational Methods*, **2018**, 15, 1850073	1.1	2
14	Topological shape optimization design of continuum structures via an effective level set method. *Cogent Engineering*, **2016**, 3, 1250430	1.5	2
13	Conditional Value at Riskbased Multidisciplinary Robust Design Optimization **2019**,		2
12	Probabilistic analytical target cascading combined with Kriging metamodel for multidisciplinary robust design optimization **2015**,		2
11	An Efficient Method for Structural Reliability Analysis Using Evidence Theory **2014**,		2
10	DOE-Based Numerical Investigation on Factors Affecting Temperature Field during Line Heating. *Advanced Materials Research*, **2011**, 314-316, 620-625	0.5	2
9	A multiscale topological design method of geometrically asymmetric porous sandwich structures for minimizing dynamic compliance. *Materials and Design*, **2022**, 214, 110404	8.1	2
8	An effective method for quantifying and incorporating uncertainty in metamodel selection. *Journal of Mechanical Science and Technology*, **2019**, 33, 1279-1291	1.6	1
7	Modeling of the Feed-Motor Transient Current in End Milling by Using Varying-Coefficient Model. *Mathematical Problems in Engineering*, **2015**, 2015, 1-9	1.1	1
6	Comparison of Gene Expression Programming and Common Metamodeling Techniques in Engineering Design **2011**,		1
5	Isogeometric topology and shape optimization for composite structures using level-sets and adaptive Gauss quadrature. *Composite Structures*, **2022**, 285, 115263	5.3	1
4	Risk-based design optimization under hybrid uncertainties. *Engineering With Computers*, **2020**, 1	4.5	0
3	Quantile-based topology optimization under uncertainty using Kriging metamodel. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 393, 114690	5.7	0

2	Marching cubes-based isogeometric topology optimization method with parametric level set. *Applied Mathematical Modelling*, **2022**, 107, 275-295	4.5	0
1	Homotopy method for inverse design of the bulbous bow of a container ship. *China Ocean Engineering*, **2017**, 31, 98-102	1.1	