

# Xiao Mi

## List of Publications by Year in descending order

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98  
papers

3,183  
citations

136940

32  
h-index

175241

52  
g-index

99  
all docs

99  
docs citations

99  
times ranked

1629  
citing authors

#	ARTICLE	IF	CITATIONS
1	Queuing search algorithm: A novel metaheuristic algorithm for solving engineering optimization problems. <i>Applied Mathematical Modelling</i> , 2018, 63, 464-490.	4.2	160
2	A novel projection outline based active learning method and its combination with Kriging metamodel for hybrid reliability analysis with random and interval variables. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 32-52.	6.6	124
3	A surrogate thermal modeling and parametric optimization of battery pack with air cooling for EVs. <i>Applied Thermal Engineering</i> , 2019, 147, 90-100.	6.0	124
4	An efficient Kriging-based subset simulation method for hybrid reliability analysis under random and interval variables with small failure probability. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 2077-2092.	3.5	112
5	A system active learning Kriging method for system reliability-based design optimization with a multiple response model. <i>Reliability Engineering and System Safety</i> , 2020, 199, 106935.	8.9	107
6	An active learning reliability method combining Kriging constructed with exploration and exploitation of failure region and subset simulation. <i>Reliability Engineering and System Safety</i> , 2019, 188, 90-102.	8.9	104
7	A combined projection-outline-based active learning Kriging and adaptive importance sampling method for hybrid reliability analysis with small failure probabilities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 344, 13-33.	6.6	103
8	Topological shape optimization of 3D micro-structured materials using energy-based homogenization method. <i>Advances in Engineering Software</i> , 2018, 116, 89-102.	3.8	92
9	Multi-objective design optimization for mini-channel cooling battery thermal management system in an electric vehicle. <i>International Journal of Energy Research</i> , 2019, 43, 3668-3680.	4.5	85
10	Maximizing natural frequencies of inhomogeneous cellular structures by Kriging-assisted multiscale topology optimization. <i>Computers and Structures</i> , 2020, 230, 106197.	4.4	78
11	Multiscale concurrent topology optimization for cellular structures with multiple microstructures based on ordered SIMP interpolation. <i>Computational Materials Science</i> , 2018, 155, 74-91.	3.0	75
12	Stress-based multi-material topology optimization of compliant mechanisms. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 113, 1021-1044.	2.8	68
13	Design of shell-infill structures by a multiscale level set topology optimization method. <i>Computers and Structures</i> , 2019, 212, 162-172.	4.4	67
14	Multiscale topology optimization for minimizing frequency responses of cellular composites with connectable graded microstructures. <i>Mechanical Systems and Signal Processing</i> , 2020, 135, 106369.	8.0	66
15	Robustly printable freeform thermal metamaterials. <i>Nature Communications</i> , 2021, 12, 7228.	12.8	64
16	A Comprehensive Review of Isogeometric Topology Optimization: Methods, Applications and Prospects. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2020, 33, .	3.7	63
17	Data Mining Techniques for Wireless Sensor Networks: A Survey. <i>International Journal of Distributed Sensor Networks</i> , 2013, 9, 406316.	2.2	61
18	Probability and interval hybrid reliability analysis based on adaptive local approximation of projection outlines using support vector machine. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2019, 34, 991-1009.	9.8	59

#	ARTICLE	IF	CITATIONS
19	Design of graded lattice sandwich structures by multiscale topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 384, 113949.	6.6	57
20	A Comprehensive Approach for the Clustering of Similar-Performance Cells for the Design of a Lithium-Ion Battery Module for Electric Vehicles. <i>Engineering</i> , 2019, 5, 795-802.	6.7	56
21	Topological design of sandwich structures with graded cellular cores by multiscale optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112749.	6.6	54
22	A NURBS-based Multi-Material Interpolation (N-MMI) for isogeometric topology optimization of structures. <i>Applied Mathematical Modelling</i> , 2020, 81, 818-843.	4.2	49
23	A new methodology for multi-objective multidisciplinary design optimization problems based on game theory. <i>Expert Systems With Applications</i> , 2015, 42, 1602-1612.	7.6	46
24	Robust topology optimization of thermoelastic metamaterials considering hybrid uncertainties of material property. <i>Composite Structures</i> , 2020, 248, 112477.	5.8	44
25	Concurrent topology optimization for cellular structures with nonuniform microstructures based on the kriging metamodel. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1273-1299.	3.5	42
26	Topology optimization of multi-material structures with graded interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 1096-1117.	6.6	42
27	A new multiscale topology optimization method for multiphase composite structures of frequency response with level sets. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 356, 116-144.	6.6	41
28	Isogeometric topology optimization for computational design of re-entrant and chiral auxetic composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112876.	6.6	41
29	A hybrid sufficient performance measure approach to improve robustness and efficiency of reliability-based design optimization. <i>Engineering With Computers</i> , 2021, 37, 1695.	6.1	40
30	Isogeometric topology optimization for rational design of ultra-lightweight architected materials. <i>International Journal of Mechanical Sciences</i> , 2020, 166, 105103.	6.7	39
31	An efficient method for reliability analysis under epistemic uncertainty based on evidence theory and support vector regression. <i>Journal of Engineering Design</i> , 2015, 26, 340-364.	2.3	36
32	An improved two-stage framework of evidence-based design optimization. <i>Structural and Multidisciplinary Optimization</i> , 2018, 58, 1673-1693.	3.5	36
33	Robust topology optimization for multi-material structures under interval uncertainty. <i>Applied Mathematical Modelling</i> , 2020, 78, 627-647.	4.2	34
34	Topology optimization of shell-infill structures using a distance regularized parametric level-set method. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 249-262.	3.5	33
35	Inverse design of rotating metadvice for adaptive thermal cloaking. <i>International Journal of Heat and Mass Transfer</i> , 2021, 176, 121417.	4.8	32
36	Intelligent optimization methodology of battery pack for electric vehicles: A multidisciplinary perspective. <i>International Journal of Energy Research</i> , 2020, 44, 9686-9706.	4.5	31

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37	A new hybrid reliability-based design optimization method under random and interval uncertainties. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 4435-4457.	2.8	31
38	Design of sandwich panels with truss cores using explicit topology optimization. <i>Composite Structures</i> , 2019, 210, 892-905.	5.8	30
39	Illusion thermotics with topology optimization. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	30
40	Optimization for Liquid Cooling Cylindrical Battery Thermal Management System Based on Gaussian Process Model. <i>Journal of Thermal Science and Engineering Applications</i> , 2021, 13, .	1.5	30
41	A generalised collaborative optimisation method and its combination with kriging metamodels for engineering design. <i>Journal of Engineering Design</i> , 2012, 23, 379-399.	2.3	29
42	Analysis of gene expression programming for approximation in engineering design. <i>Structural and Multidisciplinary Optimization</i> , 2012, 46, 399-413.	3.5	29
43	A new method for reliability analysis of structures with mixed random and convex variables. <i>Applied Mathematical Modelling</i> , 2019, 70, 206-220.	4.2	28
44	Kriging-assisted design of functionally graded cellular structures with smoothly-varying lattice unit cells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 390, 114466.	6.6	28
45	Topology Optimization of Periodic Structures With Substructuring. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	2.9	25
46	Multidisciplinary robust design optimization considering parameter and metamodeling uncertainties. <i>Engineering With Computers</i> , 2022, 38, 191-208.	6.1	25
47	A multiscale topological design method of geometrically asymmetric porous sandwich structures for minimizing dynamic compliance. <i>Materials and Design</i> , 2022, 214, 110404.	7.0	25
48	A new method based on adaptive volume constraint and stress penalty for stress-constrained topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 1163-1185.	3.5	23
49	Multiscale topology optimization for coated structures with multifarious-microstructural infill. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1473-1494.	3.5	23
50	A New Approach to Solve Uncertain Multidisciplinary Design Optimization Based on Conditional Value at Risk. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021, 18, 356-368.	5.2	23
51	Maximum variation analysis based analytical target cascading for multidisciplinary robust design optimization under interval uncertainty. <i>Advanced Engineering Informatics</i> , 2019, 40, 81-92.	8.0	22
52	Multidisciplinary robust design optimization under parameter and model uncertainties. <i>Engineering Optimization</i> , 2020, 52, 426-445.	2.6	22
53	A new level set based multi-material topology optimization method using alternating active-phase algorithm. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 377, 113674.	6.6	21
54	Robust topology optimization for fiber-reinforced composite structures under loading uncertainty. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 384, 113935.	6.6	20

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55	Topology optimization of material microstructures using energy-based homogenization method under specified initial material layout. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 677-693.	1.5	19
56	Improved collaboration pursuing method for multidisciplinary robust design optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1949-1968.	3.5	19
57	An improved Q-learning based rescheduling method for flexible job-shops with machine failures. , 2019, , .		18
58	Heat Transfer Efficiency Enhancement of Lithium-Ion Battery Packs by Using Novel Design of Herringbone Fins. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2020, 17, .	2.1	18
59	Construction of nested maximin designs based on successive local enumeration and modified novel global harmony search algorithm. <i>Engineering Optimization</i> , 2017, 49, 161-180.	2.6	17
60	A Kriging-assisted sampling method for reliability analysis of structures with hybrid uncertainties. <i>Reliability Engineering and System Safety</i> , 2021, 210, 107552.	8.9	17
61	An isogeometric approach to topological optimization design of auxetic composites with tri-material micro-architectures. <i>Composite Structures</i> , 2021, 271, 114163.	5.8	17
62	Isogeometric topology and shape optimization for composite structures using level-sets and adaptive Gauss quadrature. <i>Composite Structures</i> , 2022, 285, 115263.	5.8	17
63	A level set-based method for stress-constrained multimaterial topology optimization of minimizing a global measure of stress. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 117, 800-818.	2.8	16
64	An active learning Kriging-assisted method for reliability-based design optimization under distributional probability-box model. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2341-2356.	3.5	15
65	Explicit topology optimization of novel polyline-based core sandwich structures using surrogate-assisted evolutionary algorithm. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113215.	6.6	15
66	A new local update-based method for reliability-based design optimization. <i>Engineering With Computers</i> , 2021, 37, 3591-3603.	6.1	14
67	Reliability Analysis of Stiffened Aircraft Panels Using Adjusting Mean Value Method. <i>AIAA Journal</i> , 2020, 58, 5448-5458.	2.6	13
68	Sampling-based system reliability-based design optimization using composite active learning Kriging. <i>Computers and Structures</i> , 2020, 239, 106321.	4.4	13
69	Robust topology optimization for periodic structures by combining sensitivity averaging with a semianalytical method. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 117, 475-497.	2.8	12
70	A bounding-limit-state-surface-based active learning Kriging method for hybrid reliability analysis under random and probability-box variables. <i>Mechanical Systems and Signal Processing</i> , 2019, 134, 106310.	8.0	11
71	A Computational Fluid Dynamics Coupled Multi-Objective Optimization Framework for Thermal System Design for Li-Ion Batteries With Metal Separators. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2021, 18, .	2.1	10
72	Risk-based design optimization under hybrid uncertainties. <i>Engineering With Computers</i> , 2022, 38, 2037-2049.	6.1	9

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73	A composite-projection-outline-based approximation method for system reliability analysis with hybrid uncertainties. Reliability Engineering and System Safety, 2020, 204, 107169.	8.9	8
74	Quantile-based topology optimization under uncertainty using Kriging metamodel. Computer Methods in Applied Mechanics and Engineering, 2022, 393, 114690.	6.6	8
75	Marching cubes-based isogeometric topology optimization method with parametric level set. Applied Mathematical Modelling, 2022, 107, 275-295.	4.2	8
76	Support Vector enhanced Kriging for metamodeling with noisy data. Structural and Multidisciplinary Optimization, 2018, 57, 1611-1623.	3.5	7
77	Structural Topology Optimization based on Parametric Level Set Method under the Environment of ANSYS Secondary Development. , 2017, , .		6
78	Topological shape optimization design of continuum structures via an effective level set method. Cogent Engineering, 2016, 3, 1250430.	2.2	5
79	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.	2.9	5
80	Robust topology optimization considering load uncertainty based on a semi-analytical method. International Journal of Advanced Manufacturing Technology, 2018, 94, 3537-3551.	3.0	5
81	A set strategy approach for multidisciplinary robust design optimization under interval uncertainty. Advances in Mechanical Engineering, 2019, 11, 168781401882038.	1.6	5
82	A Hybrid Method for Density-Related Topology Optimization. International Journal of Computational Methods, 2019, 16, 1850116.	1.3	4
83	An Approach Based on Enhanced Collaborative Optimization and Kriging Approximation in Multidisciplinary Design Optimization. Advanced Materials Research, 0, 118-120, 399-403.	0.3	3
84	DOE-Based Numerical Investigation on Factors Affecting Temperature Field during Line Heating. Advanced Materials Research, 0, 314-316, 620-625.	0.3	3
85	An Efficient Topology Optimization Method for Structures with Uniform Stress. International Journal of Computational Methods, 2018, 15, 1850073.	1.3	3
86	Conditional Value at Riskbased Multidisciplinary Robust Design Optimization. , 2019, , .		3
87	An Efficient Method for Structural Reliability Analysis Using Evidence Theory. , 2014, , .		2
88	Probabilistic analytical target cascading combined with Kriging metamodel for multidisciplinary robust design optimization. , 2015, , .		2
89	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	2
90	An effective method for quantifying and incorporating uncertainty in metamodel selection. Journal of Mechanical Science and Technology, 2019, 33, 1279-1291.	1.5	2

#	ARTICLE	IF	CITATIONS
91	Comparison of Gene Expression Programming and Common Metamodeling Techniques in Engineering Design. , 2011, , .		1
92	An effective structural boundary processing method based on support vector machine for discrete topology optimization. , 2016, , .		1
93	An Enhanced Collaborative Optimization Methodology for Multidisciplinary Design Optimization. , 0, , 275-280.		1
94	Homotopy method for inverse design of the bulbous bow of a container ship. China Ocean Engineering, 2017, 31, 98-102.	1.6	0
95	Improved parametric level set based structural topology optimization for minimizing a global frequency response. , 2017, , .		0
96	Mode Pursuing Sampling Method for Multidisciplinary Design Optimization in Ship Conceptual Design. , 2018, , .		0
97	Robust Analytical Target Cascading Method for Multidisciplinary Design Optimization under Uncertainty. , 2018, , .		0
98	A Gene Expression Programming Based Kriging Method for Metamodel Construction. , 2011, , 179-182.		0