

Qi Zhou

List of Publications by Year in descending order

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97
papers

2,212
citations

218677

26
h-index

289244

40
g-index

98
all docs

98
docs citations

98
times ranked

1069
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of sensing techniques and artificial intelligence-based methods to laser welding real-time monitoring: A critical review of recent literature. <i>Journal of Manufacturing Systems</i> , 2020, 57, 1-18.	13.9	95
2	Optimization of laser welding process parameters of stainless steel 316L using FEM, Kriging and NSGA-II. <i>Advances in Engineering Software</i> , 2016, 99, 147-160.	3.8	84
3	A sequential constraints updating approach for Kriging surrogate model-assisted engineering optimization design problem. <i>Engineering With Computers</i> , 2020, 36, 993-1009.	6.1	83
4	A sequential multi-fidelity metamodeling approach for data regression. <i>Knowledge-Based Systems</i> , 2017, 134, 199-212.	7.1	79
5	Optimization of surface roughness and dimensional accuracy in LPBF additive manufacturing. <i>Optics and Laser Technology</i> , 2021, 142, 107246.	4.6	74
6	An adaptive global variable fidelity metamodeling strategy using a support vector regression based scaling function. <i>Simulation Modelling Practice and Theory</i> , 2015, 59, 18-35.	3.8	70
7	An active learning metamodeling approach by sequentially exploiting difference information from variable-fidelity models. <i>Advanced Engineering Informatics</i> , 2016, 30, 283-297.	8.0	62
8	A two-stage adaptive multi-fidelity surrogate model-assisted multi-objective genetic algorithm for computationally expensive problems. <i>Engineering With Computers</i> , 2021, 37, 623-639.	6.1	62
9	A variable fidelity information fusion method based on radial basis function. <i>Advanced Engineering Informatics</i> , 2017, 32, 26-39.	8.0	59
10	Parameters optimization of hybrid fiber laser-arc butt welding on 316L stainless steel using Kriging model and GA. <i>Optics and Laser Technology</i> , 2016, 83, 153-162.	4.6	57
11	Deep Transfer Convolutional Neural Network and Extreme Learning Machine for lung nodule diagnosis on CT images. <i>Knowledge-Based Systems</i> , 2020, 204, 106230.	7.1	55
12	A robust optimization approach based on multi-fidelity metamodel. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 775-797.	3.5	51
13	An active learning variable-fidelity metamodeling approach based on ensemble of metamodels and objective-oriented sequential sampling. <i>Journal of Engineering Design</i> , 2016, 27, 205-231.	2.3	50
14	Surrogate Model-Based Engineering Design and Optimization. <i>Springer Tracts in Mechanical Engineering</i> , 2020, , .	0.3	47
15	Multi-objective process parameters optimization of hot-wire laser welding using ensemble of metamodels and NSGA-II. <i>Robotics and Computer-Integrated Manufacturing</i> , 2018, 53, 141-152.	9.9	45
16	Optimization of laser brazing onto galvanized steel based on ensemble of metamodels. <i>Journal of Intelligent Manufacturing</i> , 2018, 29, 1417-1431.	7.3	41
17	An active learning radial basis function modeling method based on self-organization maps for simulation-based design problems. <i>Knowledge-Based Systems</i> , 2017, 131, 10-27.	7.1	41
18	A generalized hierarchical co-Kriging model for multi-fidelity data fusion. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1885-1904.	3.5	39

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19	Optimization of welding process parameters by combining Kriging surrogate with particle swarm optimization algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 86, 2473-2483.	3.0	37
20	An active-learning method based on multi-fidelity Kriging model for structural reliability analysis. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 173-195.	3.5	37
21	Efficient adaptive Kriging-based reliability analysis combining new learning function and error-based stopping criterion. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2517-2536.	3.5	33
22	Multi-objective process parameters optimization of SLM using the ensemble of metamodels. <i>Journal of Manufacturing Processes</i> , 2021, 68, 198-209.	5.9	33
23	Variable-fidelity probability of improvement method for efficient global optimization of expensive black-box problems. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 3021-3052.	3.5	32
24	Multi-objective process parameters optimization of Laser-magnetic hybrid welding combining Kriging and NSGA-II. <i>Robotics and Computer-Integrated Manufacturing</i> , 2018, 49, 253-262.	9.9	28
25	A multi-fidelity information fusion metamodeling assisted laser beam welding process parameter optimization approach. <i>Advances in Engineering Software</i> , 2017, 110, 85-97.	3.8	27
26	A multi-objective robust optimization approach based on Gaussian process model. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 213-233.	3.5	27
27	A deterministic robust optimisation method under interval uncertainty based on the reverse model. <i>Journal of Engineering Design</i> , 2015, 26, 416-444.	2.3	26
28	Variable-Fidelity Lower Confidence Bounding Approach for Engineering Optimization Problems with Expensive Simulations. <i>AIAA Journal</i> , 2019, 57, 5416-5430.	2.6	26
29	Mechanism investigation of the influence of the magnetic field on the molten pool behavior during laser welding of aluminum alloy. <i>International Journal of Heat and Mass Transfer</i> , 2020, 162, 120390.	4.8	26
30	An adaptive sampling method for variable-fidelity surrogate models using improved hierarchical kriging. <i>Engineering Optimization</i> , 2018, 50, 145-163.	2.6	25
31	Robust optimization for reducing welding-induced angular distortion in fiber laser keyhole welding under process parameter uncertainty. <i>Applied Thermal Engineering</i> , 2018, 129, 893-906.	6.0	25
32	Multi-physics simulation of dendritic growth in magnetic field assisted solidification. <i>International Journal of Heat and Mass Transfer</i> , 2019, 144, 118673.	4.8	25
33	In situ quality inspection with layer-wise visual images based on deep transfer learning during selective laser melting. <i>Journal of Intelligent Manufacturing</i> , 2023, 34, 853-867.	7.3	24
34	Optimization of Process Parameters of Hybrid Laser-Arc Welding onto 316L Using Ensemble of Metamodels. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016, 47, 2182-2196.	2.1	22
35	Optimization of processing parameters of AISI 316L laser welding influenced by external magnetic field combining RBFNN and GA. <i>Results in Physics</i> , 2017, 7, 1329-1338.	4.1	22
36	Multi-output Gaussian process prediction for computationally expensive problems with multiple levels of fidelity. <i>Knowledge-Based Systems</i> , 2021, 227, 107151.	7.1	22

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37	A model validation framework based on parameter calibration under aleatory and epistemic uncertainty. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 645-660.	3.5	21
38	A multi-fidelity surrogate model based on moving least squares: fusing different fidelity data for engineering design. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 3637-3652.	3.5	21
39	In situ porosity intelligent classification of selective laser melting based on coaxial monitoring and image processing. <i>Measurement: Journal of the International Measurement Confederation</i> , 2022, 187, 110232.	5.0	21
40	A kriging metamodel-assisted robust optimization method based on a reverse model. <i>Engineering Optimization</i> , 2018, 50, 253-272.	2.6	20
41	Advanced Multi-Objective Robust Optimization Under Interval Uncertainty Using Kriging Model and Support Vector Machine. <i>Journal of Computing and Information Science in Engineering</i> , 2018, 18, .	2.7	20
42	Novel Approach for Selecting Low-Fidelity Scale Factor in Multifidelity Metamodeling. <i>AIAA Journal</i> , 2019, 57, 5320-5330.	2.6	20
43	Real-time identification of molten pool and keyhole using a deep learning-based semantic segmentation approach in penetration status monitoring. <i>Journal of Manufacturing Processes</i> , 2022, 76, 695-707.	5.9	20
44	Real-time monitoring of laser keyhole welding penetration state based on deep belief network. <i>Journal of Manufacturing Processes</i> , 2021, 72, 203-214.	5.9	19
45	A novel sequential exploration-exploitation sampling strategy for global metamodeling. <i>IFAC-PapersOnLine</i> , 2015, 48, 532-537.	0.9	18
46	An on-line variable fidelity metamodel assisted Multi-objective Genetic Algorithm for engineering design optimization. <i>Applied Soft Computing Journal</i> , 2018, 66, 438-448.	7.2	18
47	An adaptive sampling strategy for Kriging metamodel based on Delaunay triangulation and TOPSIS. <i>Applied Intelligence</i> , 2018, 48, 1644-1656.	5.3	18
48	Multi-objective optimization of weld geometry in hybrid fiber laser-arc butt welding using Kriging model and NSGA-II. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	17
49	Metamodel-based design optimization employing a novel sequential sampling strategy. <i>Engineering Computations</i> , 2017, 34, 2547-2564.	1.4	17
50	A multi-fidelity surrogate modeling approach for incorporating multiple non-hierarchical low-fidelity data. <i>Advanced Engineering Informatics</i> , 2022, 51, 101430.	8.0	17
51	Study on droplet transfer and weld quality in laser-MIG hybrid welding of 316L stainless steel. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 88, 483-493.	3.0	16
52	An online variable-fidelity optimization approach for multi-objective design optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 1059-1077.	3.5	16
53	Optimization design of metamaterial vibration isolator with honeycomb structure based on multi-fidelity surrogate model. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 423-439.	3.5	16
54	Multi-objective optimization of laser brazing with the crimping joint using ANN and NSGA-II. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 85, 1239-1247.	3.0	15

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55	A space mapping method based on Gaussian process model for variable fidelity metamodeling. <i>Simulation Modelling Practice and Theory</i> , 2018, 81, 64-84.	3.8	15
56	Effects of Welding Speed on Microstructure and Mechanical Property of Fiber Laser Welded Dissimilar Butt Joints between AISI316L and EH36. <i>Metals</i> , 2017, 7, 270.	2.3	14
57	Robust optimization of a dual-stage bistable nonlinear vibration energy harvester considering parametric uncertainties. <i>Smart Materials and Structures</i> , 2019, 28, 115018.	3.5	14
58	A lower confidence bounding approach based on the coefficient of variation for expensive global design optimization. <i>Engineering Computations</i> , 2019, 36, 830-849.	1.4	14
59	An active learning multi-fidelity metamodeling method based on the bootstrap estimator. <i>Aerospace Science and Technology</i> , 2020, 106, 106116.	4.8	14
60	Prediction of angular distortion in the fiber laser keyhole welding process based on a variable-fidelity approximation modeling approach. <i>Journal of Intelligent Manufacturing</i> , 2018, 29, 719-736.	7.3	12
61	Surrogate-Model-Based Design and Optimization. <i>Springer Tracts in Mechanical Engineering</i> , 2020, , 135-236.	0.3	11
62	Predicting the weld width from high-speed successive images of the weld zone using different machine learning algorithms during laser welding. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 5595-5612.	1.9	11
63	Real-time laser keyhole welding penetration state monitoring based on adaptive fusion images using convolutional neural networks. <i>Journal of Intelligent Manufacturing</i> , 2023, 34, 1259-1273.	7.3	11
64	Accurate Prediction of the Weld Bead Characteristic in Laser Keyhole Welding Based on the Stochastic Kriging Model. <i>Metals</i> , 2018, 8, 486.	2.3	10
65	A multi-fidelity surrogate modeling method based on variance-weighted sum for the fusion of multiple non-hierarchical low-fidelity data. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 3797-3818.	3.5	10
66	An Enhanced Analytical Target Cascading and Kriging Model Combined Approach for Multidisciplinary Design Optimization. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-11.	1.1	9
67	An on-line Kriging metamodel assisted robust optimization approach under interval uncertainty. <i>Engineering Computations</i> , 2017, 34, 420-446.	1.4	9
68	A multi-objective robust optimization approach for engineering design under interval uncertainty. <i>Engineering Computations</i> , 2018, 35, 580-603.	1.4	9
69	Comparative studies of error metrics in variable fidelity model uncertainty quantification. <i>Journal of Engineering Design</i> , 2018, 29, 512-538.	2.3	9
70	A sequential multi-fidelity surrogate model-assisted contour prediction method for engineering problems with expensive simulations. <i>Engineering With Computers</i> , 2022, 38, 31-49.	6.1	9
71	A conservative multi-fidelity surrogate model-based robust optimization method for simulation-based optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2525-2551.	3.5	9
72	A Transfer Learning-Based Multi-Fidelity Point-Cloud Neural Network Approach for Melt Pool Modeling in Additive Manufacturing. <i>ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering</i> , 2022, 8, .	1.1	9

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73	A parallel constrained lower confidence bounding approach for computationally expensive constrained optimization problems. <i>Applied Soft Computing Journal</i> , 2021, 106, 107276.	7.2	8
74	A screening-based gradient-enhanced Gaussian process regression model for multi-fidelity data fusion. <i>Advanced Engineering Informatics</i> , 2021, 50, 101437.	8.0	8
75	A modified BLISCO method and its combination with variable fidelity metamodel for engineering design. <i>Engineering Computations</i> , 2016, 33, 1353-1377.	1.4	7
76	A prediction approach of SLM based on the ensemble of metamodels considering material efficiency, energy consumption, and tensile strength. <i>Journal of Intelligent Manufacturing</i> , 2022, 33, 687-702.	7.3	7
77	An adaptive space preselection method for the multi-fidelity global optimization. <i>Aerospace Science and Technology</i> , 2021, 113, 106728.	4.8	6
78	An improved sequential multi-objective robust optimisation approach considering interval uncertainty reduction under mixed uncertainties. <i>Journal of Engineering Design</i> , 2021, 32, 61-89.	2.3	6
79	Modified Multifidelity Surrogate Model Based on Radial Basis Function with Adaptive Scale Factor. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2022, 35, .	3.7	6
80	Metamodel Assisted Robust Optimization under Interval Uncertainty Based on Reverse Model. <i>IFAC-PapersOnLine</i> , 2015, 48, 1178-1183.	0.9	5
81	Aggregate multiple radial basis function models for identifying promising process parameters in magnetic field assisted laser welding. <i>Journal of Manufacturing Processes</i> , 2017, 28, 21-32.	5.9	5
82	An On-Line Multi-Fidelity Metamodel Assisted Multi-Objective Genetic Algorithm. , 2017, , .		5
83	An ensemble weighted average conservative multi-fidelity surrogate modeling method for engineering optimization. <i>Engineering With Computers</i> , 2022, 38, 2221-2244.	6.1	5
84	An Improved Co-Kriging Multi-fidelity Surrogate Modeling Method for Non-nested Sampling Data. <i>International Journal of Mechanical Engineering and Robotics Research</i> , 2019, , 559-564.	1.0	5
85	A variable-fidelity multi-objective optimization method for aerospace structural design optimization. <i>Engineering Optimization</i> , 2023, 55, 1133-1148.	2.6	5
86	A Three-Stage Surrogate Model Assisted Multi-Objective Genetic Algorithm for Computationally Expensive Problems. , 2019, , .		4
87	Model Validation Methods for Multiple Correlated Responses via Covariance-Overlap Based Distance. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .	2.9	3
88	An active learning variable-fidelity metamodeling approach for engineering design. , 2015, , .		2
89	A sequential multi-objective robust optimization approach under interval uncertainty based on support vector machines. , 2017, , .		2
90	Verification Methods for Surrogate Models. <i>Springer Tracts in Mechanical Engineering</i> , 2020, , 89-113.	0.3	2

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91	Editorial for the Special Issue: Computer-Aided Manufacturing and Design. Applied Sciences (Switzerland), 2020, 10, 5650.	2.5	1
92	A variable-fidelity modeling method based on self-organizing maps spatial reduction. , 2016, , .		0
93	A Multi-Objective Robust Optimization Approach Under Interval Uncertainty Based on Kriging and Support Vector Machine. , 2018, , .		0
94	Multi-fidelity Surrogate Models. Springer Tracts in Mechanical Engineering, 2020, , 55-87.	0.3	0
95	Sampling Approaches. Springer Tracts in Mechanical Engineering, 2020, , 115-134.	0.3	0
96	Classic Types of Surrogate Models. Springer Tracts in Mechanical Engineering, 2020, , 7-34.	0.3	0
97	Reply by the Authors to S. Yang and K. Yee. AIAA Journal, 2022, 60, 2716-2717.	2.6	0