Ping Jiang

List of Publications by Year
in descending order

139 papers	3,263 citations	147726 31 h-index	214721 47 g-index
143 all docs	143 docs citations	143 times ranked	1903 citing authors

#	Article	IF	Citations
1	Morphologies, microstructures, and mechanical properties of samples produced using laser metal deposition with 316 L stainless steel wire. Optics and Lasers in Engineering, 2017, 94, 1-11.	2.0	103
2	Application of sensing techniques and artificial intelligence-based methods to laser welding real-time monitoring: A critical review of recent literature. Journal of Manufacturing Systems, 2020, 57, 1-18.	7.6	95
3	Fabrication and characterization of carbon fiber reinforced SiC ceramic matrix composites based on 3D printing technology. Journal of the European Ceramic Society, 2018, 38, 4604-4613.	2.8	89
4	Optimization of laser welding process parameters of stainless steel 316L using FEM, Kriging and NSGA-II. Advances in Engineering Software, 2016, 99, 147-160.	1.8	84
5	A sequential multi-fidelity metamodeling approach for data regression. Knowledge-Based Systems, 2017, 134, 199-212.	4.0	79
6	Heat transfer and fluid flow and their effects on the solidification microstructure in full-penetration laser welding of aluminum sheet. Journal of Materials Science and Technology, 2020, 46, 50-63.	5.6	79
7	Morphologies, microstructures and properties of TiC particle reinforced Inconel 625 coatings obtained by laser cladding with wire. Journal of Alloys and Compounds, 2018, 740, 16-27.	2.8	73
8	An adaptive global variable fidelity metamodeling strategy using a support vector regression based scaling function. Simulation Modelling Practice and Theory, 2015, 59, 18-35.	2.2	70
9	Research on microstructures and properties of Inconel 625 coatings obtained by laser cladding with wire. Journal of Alloys and Compounds, 2017, 715, 362-373.	2.8	70
10	Effect of axial magnetic field in the laser beam welding of stainless steel to aluminum alloy. Materials and Design, 2016, 109, 146-152.	3.3	66
11	A hybrid variable-fidelity global approximation modelling method combining tuned radial basis function base and kriging correction. Journal of Engineering Design, 2013, 24, 604-622.	1.1	62
12	An active learning metamodeling approach by sequentially exploiting difference information from variable-fidelity models. Advanced Engineering Informatics, 2016, 30, 283-297.	4.0	62
13	Experimental and numerical analysis of molten pool and keyhole profile during high-power deep-penetration laser welding. International Journal of Heat and Mass Transfer, 2018, 126, 779-789.	2.5	62
14	A variable fidelity information fusion method based on radial basis function. Advanced Engineering Informatics, 2017, 32, 26-39.	4.0	59
15	Parameters optimization of hybrid fiber laser-arc butt welding on 316L stainless steel using Kriging model and GA. Optics and Laser Technology, 2016, 83, 153-162.	2.2	57
16	A three-dimensional numerical simulation model for weld characteristics analysis in fiber laser keyhole welding. International Journal of Heat and Mass Transfer, 2017, 108, 614-626.	2.5	57
17	Investigation on the weld bead profile transformation with the keyhole and molten pool dynamic behavior simulation in high power laser welding. International Journal of Heat and Mass Transfer, 2018, 116, 1304-1313.	2.5	52
18	Effects of back-diffusion on solidification cracking susceptibility of Al-Mg alloys during welding: A phase-field study. Acta Materialia, 2018, 160, 85-96.	3.8	52

#	ARTICLE	IF	CITATIONS
19	A robust optimization approach based on multi-fidelity metamodel. Structural and Multidisciplinary Optimization, 2018, 57, 775-797.	1.7	51
20	An active learning variable-fidelity metamodelling approach based on ensemble of metamodels and objective-oriented sequential sampling. Journal of Engineering Design, 2016, 27, 205-231.	1.1	50
21	Welded joints integrity analysis and optimization for fiber laser welding of dissimilar materials. Optics and Lasers in Engineering, 2016, 86, 62-74.	2.0	47
22	Surrogate Model-Based Engineering Design and Optimization. Springer Tracts in Mechanical Engineering, 2020, , .	0.1	47
23	Multi-objective process parameters optimization of hot-wire laser welding using ensemble of metamodels and NSGA-II. Robotics and Computer-Integrated Manufacturing, 2018, 53, 141-152.	6.1	45
24	The prediction of the whole weld in fiber laser keyhole welding based on numerical simulation. Applied Thermal Engineering, 2017, 113, 980-993.	3.0	41
25	Optimization of laser brazing onto galvanized steel based on ensemble of metamodels. Journal of Intelligent Manufacturing, 2018, 29, 1417-1431.	4.4	41
26	An active learning radial basis function modeling method based on self-organization maps for simulation-based design problems. Knowledge-Based Systems, 2017, 131, 10-27.	4.0	41
27	The influence of heat input on microstructure and mechanical properties for dissimilar welding of galvanized steel to 6061 aluminum alloy in a zero-gap lap joint configuration. Journal of Alloys and Compounds, 2017, 726, 556-566.	2.8	40
28	Improvement of low-temperature impact toughness for 304 weld joint produced by laser-MIG hybrid welding under magnetic field. Journal of Materials Processing Technology, 2017, 247, 306-314.	3.1	39
29	Optimization of welding process parameters by combining Kriging surrogate with particle swarm optimization algorithm. International Journal of Advanced Manufacturing Technology, 2016, 86, 2473-2483.	1.5	37
30	Correlation of high power laser welding parameters with real weld geometry and microstructure. Optics and Laser Technology, 2017, 94, 59-67.	2.2	35
31	Investigation of the humping formation in the high power and high speed laser welding. Optics and Lasers in Engineering, 2018, 107, 102-111.	2.0	34
32	Multi-scale simulation of grain/sub-grain structure evolution during solidification in laser welding of aluminum alloys. International Journal of Heat and Mass Transfer, 2020, 149, 119252.	2.5	32
33	Variable-fidelity probability of improvement method for efficient global optimization of expensive black-box problems. Structural and Multidisciplinary Optimization, 2020, 62, 3021-3052.	1.7	32
34	Effect of magnetic field applied during laser-arc hybrid welding in improving the pitting resistance of the welded zone in austenitic stainless steel. Corrosion Science, 2017, 126, 385-391.	3.0	31
35	Effects of energy density attenuation on the stability of keyhole and molten pool during deep penetration laser welding process: A combined numerical and experimental study. International Journal of Heat and Mass Transfer, 2021, 176, 121410.	2.5	31
36	Multi-physics multi-scale simulation of the solidification process in the molten pool during laser welding of aluminum alloys. International Journal of Heat and Mass Transfer, 2020, 161, 120316.	2.5	30

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37	A generalised collaborative optimisation method and its combination with kriging metamodels for engineering design. Journal of Engineering Design, 2012, 23, 379-399.	1.1	29
38	Analysis of gene expression programming for approximation in engineering design. Structural and Multidisciplinary Optimization, 2012, 46, 399-413.	1.7	29
39	A defect-responsive optimization method for the fiber laser butt welding of dissimilar materials. Materials and Design, 2016, 90, 669-681.	3.3	29
40	Comparison of solidification cracking susceptibility between Al-Mg and Al-Cu alloys during welding: A phase-field study. Scripta Materialia, 2018, 150, 120-124.	2.6	29
41	A New Multi-Objective Bayesian Optimization Formulation With the Acquisition Function for Convergence and Diversity. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	29
42	Interoperability of Cross-organizational Workflows based on Process-view for Collaborative Product Development. Concurrent Engineering Research and Applications, 2008, 16, 73-87.	2.0	28
43	A prior-knowledge input LSSVR metamodeling method with tuning based on cellular particle swarm optimization for engineering design. Expert Systems With Applications, 2014, 41, 2111-2125.	4.4	28
44	Multi-objective process parameters optimization of Laser-magnetic hybrid welding combining Kriging and NSGA-II. Robotics and Computer-Integrated Manufacturing, 2018, 49, 253-262.	6.1	28
45	Three-dimensional transient thermoelectric currents in deep penetration laser welding of austenite stainless steel. Optics and Lasers in Engineering, 2017, 91, 196-205.	2.0	27
46	A multi-fidelity information fusion metamodeling assisted laser beam welding process parameter optimization approach. Advances in Engineering Software, 2017, 110, 85-97.	1.8	27
47	A multi-objective robust optimization approach based on Gaussian process model. Structural and Multidisciplinary Optimization, 2018, 57, 213-233.	1.7	27
48	A deterministic robust optimisation method under interval uncertainty based on the reverse model. Journal of Engineering Design, 2015, 26, 416-444.	1.1	26
49	Variable-Fidelity Lower Confidence Bounding Approach for Engineering Optimization Problems with Expensive Simulations. AIAA Journal, 2019, 57, 5416-5430.	1.5	26
50	An adaptive sampling method for variable-fidelity surrogate models using improved hierarchical kriging. Engineering Optimization, 2018, 50, 145-163.	1.5	25
51	Multi-physics simulation of dendritic growth in magnetic field assisted solidification. International Journal of Heat and Mass Transfer, 2019, 144, 118673.	2.5	25
52	A Web services and process-view combined approach for process management of collaborative product development. Computers in Industry, 2009, 60, 416-427.	5.7	24
53	Microstructure and performance of hybrid laser-arc welded 40â€¯mm thick 316â€¯L steel plates. Journal of Materials Processing Technology, 2018, 259, 312-319.	3.1	24
54	Optimization of Process Parameters of Hybrid Laserâ€“Arc Welding onto 316L Using Ensemble of Metamodels. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 2182-2196.	1.0	22

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55	Optimization of processing parameters of AISI 316L laser welding influenced by external magnetic field combining RBFNN and GA. Results in Physics, 2017, 7, 1329-1338.	2.0	22
56	Enhancement of fatigue resistance for 316L welds produced by magnetic field assisted laser-MIG hybrid welding. Journal of Materials Processing Technology, 2018, 254, 114-123.	3.1	22
57	Sequential optimisation and reliability assessment for multidisciplinary design optimisation under hybrid uncertainty of randomness and fuzziness. Journal of Engineering Design, 2013, 24, 363-382.	1.1	21
58	Effect of static magnetic field on microstructures and mechanical properties of laser-MIG hybrid welding for 304 stainless steel. International Journal of Advanced Manufacturing Technology, 2017, 91, 3437-3447.	1.5	21
59	Numerical and experimental analysis for morphology evolution of 6061 aluminum alloy during nanosecond pulsed laser cleaning. Surface and Coatings Technology, 2022, 432, 128056.	2.2	21
60	Process modeling and parameter optimization using radial basis function neural network and genetic algorithm for laser welding of dissimilar materials. Applied Physics A: Materials Science and Processing, 2015, 121, 555-569.	1.1	20
61	Difference mapping method using least square support vector regression for variable-fidelity metamodelling. Engineering Optimization, 2015, 47, 719-736.	1.5	20
62	Advanced Multi-Objective Robust Optimization Under Interval Uncertainty Using Kriging Model and Support Vector Machine. Journal of Computing and Information Science in Engineering, 2018, 18, .	1.7	20
63	Novel Approach for Selecting Low-Fidelity Scale Factor in Multifidelity Metamodeling. AIAA Journal, 2019, 57, 5320-5330.	1.5	20
64	Real-time identification of molten pool and keyhole using a deep learning-based semantic segmentation approach in penetration status monitoring. Journal of Manufacturing Processes, 2022, 76, 695-707.	2.8	20
65	Numerical study of keyhole dynamics and porosity formation during highâ€power oscillating laser welding of mediumâ€thick aluminum alloy plates. International Journal of Heat and Mass Transfer, 2022, 194, 123084.	2.5	20
66	Real-time monitoring of laser keyhole welding penetration state based on deep belief network. Journal of Manufacturing Processes, 2021, 72, 203-214.	2.8	19
67	A novel sequential exploration-exploitation sampling strategy for global metamodeling. IFAC-PapersOnLine, 2015, 48, 532-537.	0.5	18
68	An on-line variable fidelity metamodel assisted Multi-objective Genetic Algorithm for engineering design optimization. Applied Soft Computing Journal, 2018, 66, 438-448.	4.1	18
69	Effect of magnetic field on crystallographic orientation for stainless steel 316L laser-MIG hybrid welds and its strengthening mechanism on fatigue resistance. International Journal of Fatigue, 2018, 112, 308-317.	2.8	18
70	An adaptive sampling strategy for Kriging metamodel based on Delaunay triangulation and TOPSIS. Applied Intelligence, 2018, 48, 1644-1656.	3.3	18
71	A process-view approach for cross-organizational workflows management. Advanced Engineering Informatics, 2010, 24, 229-240.	4.0	17
72	Multi-objective optimization of weld geometry in hybrid fiber laser-arc butt welding using Kriging model and NSGA-II. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	17

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73	Metamodel-based design optimization employing a novel sequential sampling strategy. Engineering Computations, 2017, 34, 2547-2564.	0.7	17
74	A multi-fidelity surrogate modeling approach for incorporating multiple non-hierarchical low-fidelity data. Advanced Engineering Informatics, 2022, 51, 101430.	4.0	17
75	Study on droplet transfer and weld quality in laser-MIG hybrid welding of 316L stainless steel. International Journal of Advanced Manufacturing Technology, 2017, 88, 483-493.	1.5	16
76	An online variable-fidelity optimization approach for multi-objective design optimization. Structural and Multidisciplinary Optimization, 2019, 60, 1059-1077.	1.7	16
77	Identification of nucleation mechanism in laser welds of aluminum alloy. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	16
78	A space mapping method based on Gaussian process model for variable fidelity metamodeling. Simulation Modelling Practice and Theory, 2018, 81, 64-84.	2.2	15
79	EBSD study on magnetic field altering crystal texture and grain growth during laser-hybrid welding. Materials and Design, 2022, 216, 110587.	3.3	15
80	Effects of Welding Speed on Microstructure and Mechanical Property of Fiber Laser Welded Dissimilar Butt Joints between AISI316L and EH36. Metals, 2017, 7, 270.	1.0	14
81	Cellular automaton modeling for dendritic growth during laser beam welding solidification process. Journal of Laser Applications, 2018, 30, .	0.8	14
82	A lower confidence bounding approach based on the coefficient of variation for expensive global design optimization. Engineering Computations, 2019, 36, 830-849.	0.7	14
83	Multiphase-field simulation of grain coalescence behavior and its effects on solidification cracking susceptibility during welding of Al-Cu alloys. Materials and Design, 2021, 211, 110146.	3.3	12
84	Sub-microsecond vapor plume dynamics under different keyhole penetration regimes in deep penetration laser welding. Journal Physics D: Applied Physics, 2017, 50, 205601.	1.3	11
85	In situ Weak Magnetic-Assisted Thermal Stress Field Reduction Effect in Laser Welding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 198-209.	1.1	11
86	Numerical and experimental investigation of vacuum-assisted laser welding for DP590 galvanized steel lap joint without prescribed gap. International Journal of Advanced Manufacturing Technology, 2018, 94, 4177-4185.	1.5	11
87	A multi-fidelity Bayesian optimization approach based on the expected further improvement. Structural and Multidisciplinary Optimization, 2021, 63, 1709-1719.	1.7	11
88	Surrogate-Model-Based Design and Optimization. Springer Tracts in Mechanical Engineering, 2020, , 135-236.	0.1	11
89	Predicting the weld width from high-speed successive images of the weld zone using different machine learning algorithms during laser welding. Mathematical Biosciences and Engineering, 2019, 16, 5595-5612.	1.0	11
90	Real-time laser keyhole welding penetration state monitoring based on adaptive fusion images using convolutional neural networks. Journal of Intelligent Manufacturing, 2023, 34, 1259-1273.	4.4	11

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91	Influence of axial magnetic field on shape and microstructure of stainless steel laser welding joint. International Journal of Advanced Manufacturing Technology, 2017, 91, 3051-3060.	1.5	10
92	Parameters optimization and objective trend analysis for fiber laser keyhole welding based on Taguchi-FEA. International Journal of Advanced Manufacturing Technology, 2017, 90, 1419-1432.	1.5	10
93	Fine Grains Reduce Cracking Susceptibility During Solidification: Insights from Phase-Field Simulations. Jom, 2019, 71, 3223-3229.	0.9	10
94	A multi-fidelity surrogate modeling method based on variance-weighted sum for theÂfusion of multiple non-hierarchical low-fidelity data. Structural and Multidisciplinary Optimization, 2021, 64, 3797-3818.	1.7	10
95	An Enhanced Analytical Target Cascading and Kriging Model Combined Approach for Multidisciplinary Design Optimization. Mathematical Problems in Engineering, 2015, 2015, 1-11.	0.6	9
96	An on-line Kriging metamodel assisted robust optimization approach under interval uncertainty. Engineering Computations, 2017, 34, 420-446.	0.7	9
97	A multi-objective robust optimization approach for engineering design under interval uncertainty. Engineering Computations, 2018, 35, 580-603.	0.7	9
98	Comparative studies of error metrics in variable fidelity model uncertainty quantification. Journal of Engineering Design, 2018, 29, 512-538.	1.1	9
99	Analysis of crack tip transformation zone in austenitic stainless steel laser-MIG hybrid welded joint. Materials Characterization, 2017, 132, 260-268.	1.9	8
100	Numerical analysis of hybrid plasma in fiber laser-arc welding. Journal Physics D: Applied Physics, 2019, 52, 025206.	1.3	8
101	The Interaction between Grains during Columnar-to-Equiaxed Transition in Laser Welding: A Phase-Field Study. Metals, 2020, 10, 1647.	1.0	8
102	A parallel constrained lower confidence bounding approach for computationally expensive constrained optimization problems. Applied Soft Computing Journal, 2021, 106, 107276.	4.1	8
103	Influence of the wrinkle surface structures on the vapor flow and keyhole stability in 20 kW high power laser welding. International Journal of Heat and Mass Transfer, 2022, 193, 122958.	2.5	8
104	A modified BLISCO method and its combination with variable fidelity metamodel for engineering design. Engineering Computations, 2016, 33, 1353-1377.	0.7	7
105	Equipment and Machine Learning in Welding Monitoring. , 2019, , .		7
106	Multi-fidelity surrogate model-assisted fatigue analysis of welded joints. Structural and Multidisciplinary Optimization, 2021, 63, 2771-2787.	1.7	7
107	Variable fidelity metamodel-based analytical target cascading method for green design. International Journal of Advanced Manufacturing Technology, 2016, 87, 1203-1216.	1.5	6
108	An improved sequential multi-objective robust optimisation approach considering interval uncertainty reduction under mixed uncertainties. Journal of Engineering Design, 2021, 32, 61-89.	1.1	6

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109	Process parameter selection for laser welding of aluminium alloy from the perspective of energy effectiveness. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2022, 236, 1574-1588.	1.5	6
110	An Improved Bi-Level Integrated System Collaborative Optimization method for multidisciplinary design optimization. , 2014, , .		5
111	Metamodel Assisted Robust Optimization under Interval Uncertainly Based on Reverse Model. IFAC-PapersOnLine, 2015, 48, 1178-1183.	0.5	5
112	An optimization method for defects reduction in fiber laser keyhole welding. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	5
113	An On-Line Multi-Fidelity Metamodel Assisted Multi-Objective Genetic Algorithm. , 2017, , .		5
114	Workflow Modeling for Virtual Enterprise: a Petri Net Based Process-View Approach. , 2006, , .		4
115	Collaborative execution mechanisms for the TCPN-enhanced process-view approach based inter-enterprises workflow. , 2009, , .		4
116	Dendrite remelting during arc oscillation welding of magnesium alloys: a phase-field study. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	4
117	Analytical Target Cascading Based on the Quadratic Exterior Penalty Method for Complex System Design. Advanced Materials Research, 2012, 544, 164-169.	0.3	3
118	The Simulation of the Ship Production Design Process Based on Hierarchical Timed Petri Net. Advanced Materials Research, 0, 544, 170-175.	0.3	3
119	A distributed Workflow Management System for Collaborative Product Development. , 2010, , .		2
120	An active learning variable-fidelity metamodeling approach for engineering design. , 2015, , .		2
121	A sequential multi-objective robust optimization approach under interval uncertainty based on support vector machines. , 2017, , .		2
122	Verification Methods for Surrogate Models. Springer Tracts in Mechanical Engineering, 2020, , 89-113.	0.1	2
123	A Web services based distributed multidisciplinary design optimization framework to ship design. , 2011, , .		1
124	Modeling of cutting forces in a face-milling operation with Gene Expression Programming. , 2012, , .		1
125	A Quadratic Exterior Penalty Function Based Probabilistic Analytical Target Cascading Method. , 2013, , .		1
126	A sequential sampling strategy for Kriging metamodel based on Delaunay triangulation and TOPSIS. , 2016, , .		1

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127	A Sequential Sampling Strategy for Multiresponse Radial Basis Function. , 2016, , .		1
128	Laser Welding Process Parameters Optimization Using Variable-Fidelity Metamodel and NSGA-II. MATEC Web of Conferences, 2017, 95, 05002.	0.1	1
129	A fitness approximation and on-line variable-fidelity metamodel based multi-objective genetic algorithm. , 2017, , .		1
130	A global support vector regression based on sorted K-fold method. , 2017, , .		1
131	An Improved Hierarchical Kriging for Variable-Fidelity Surrogate Modeling. , 2016, , .		1
132	A Variable-Fidelity Approximate Modelling Method Based on Nested Design of Experiments. , 2015, , .		0
133	Prediction of weld bead for fiber laser keyhole welding based on FEA. , 2015, , .		0
134	A variable-fidelity modeling method based on self-organizing maps spatial reduction. , 2016, , .		0
135	A Multi-Objective Robust Optimization Approach Under Interval Uncertainty Based on Kriging and Support Vector Machine. , 2018, , .		0
136	Improving Multi-Objective Genetic Algorithm Efficiency for Computational Expensive Problems Adopting Online Variable-Fidelity Metamodel. , 2018, , .		0
137	Multi-fidelity Surrogate Models. Springer Tracts in Mechanical Engineering, 2020, , 55-87.	0.1	0
138	Sampling Approaches. Springer Tracts in Mechanical Engineering, 2020, , 115-134.	0.1	0
139	Classic Types of Surrogate Models. Springer Tracts in Mechanical Engineering, 2020, , 7-34.	0.1	0