

Yaoyao Fiona Zhao

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9539762/publications.pdf>

Version: 2024-02-01

90
papers

3,609
citations

126907

33
h-index

144013

57
g-index

92
all docs

92
docs citations

92
times ranked

2767
citing authors

#	ARTICLE	IF	CITATIONS
1	Additive manufacturing-enabled design theory and methodology: a critical review. International Journal of Advanced Manufacturing Technology, 2015, 80, 327-342.	3.0	246
2	A Survey of Modeling of Lattice Structures Fabricated by Additive Manufacturing. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	2.9	195
3	A framework to reduce product environmental impact through design optimization for additive manufacturing. Journal of Cleaner Production, 2016, 137, 1560-1572.	9.3	161
4	Energy and Material Flow Analysis of Binder-jetting Additive Manufacturing Processes. Procedia CIRP, 2014, 15, 19-25.	1.9	147
5	A survey of the design methods for additive manufacturing to improve functional performance. Rapid Prototyping Journal, 2016, 22, 569-590.	3.2	142
6	A new part consolidation method to embrace the design freedom of additive manufacturing. Journal of Manufacturing Processes, 2015, 20, 444-449.	5.9	134
7	Bidirectional Evolutionary Structural Optimization (BESO) based design method for lattice structure to be fabricated by additive manufacturing. CAD Computer Aided Design, 2015, 69, 91-101.	2.7	134
8	Process parameters optimization for improving surface quality and manufacturing accuracy of binder jetting additive manufacturing process. Rapid Prototyping Journal, 2016, 22, 527-538.	3.2	125
9	A survey of finite element analysis of temperature and thermal stress fields in powder bed fusion Additive Manufacturing. Additive Manufacturing, 2018, 21, 318-332.	3.0	124
10	Computer-Aided Inspection Planning—The state of the art. Computers in Industry, 2009, 60, 453-466.	9.9	107
11	Optimizing process parameters of fused deposition modeling by Taguchi method for the fabrication of lattice structures. Additive Manufacturing, 2018, 19, 62-72.	3.0	107
12	A 149 Line Homogenization Code for Three-Dimensional Cellular Materials Written in matlab. Journal of Engineering Materials and Technology, Transactions of the ASME, 2019, 141, .	1.4	94
13	Lattice Structure Design and Optimization With Additive Manufacturing Constraints. IEEE Transactions on Automation Science and Engineering, 2018, 15, 1546-1562.	5.2	85
14	Design and Optimization of Graded Cellular Structures With Triply Periodic Level Surface-Based Topological Shapes. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	81
15	Energy consumption model of Binder-jetting additive manufacturing processes. International Journal of Production Research, 2015, 53, 7005-7015.	7.5	78
16	AlCoCuFeNi high-entropy alloy with tailored microstructure and outstanding compressive properties fabricated via selective laser melting with heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 773-784.	5.6	76
17	Investigation of Sintering Shrinkage in Binder Jetting Additive Manufacturing Process. Procedia Manufacturing, 2017, 10, 779-790.	1.9	74
18	STEP-NC enabled on-line inspection in support of closed-loop machining. Robotics and Computer-Integrated Manufacturing, 2008, 24, 200-216.	9.9	68

#	ARTICLE	IF	CITATIONS
19	Selective laser melting and heat treatment of precipitation hardening stainless steel with a refined microstructure and excellent mechanical properties. Scripta Materialia, 2020, 178, 7-12.	5.2	65
20	Understanding the sustainability potential of part consolidation design supported by additive manufacturing. Journal of Cleaner Production, 2019, 232, 722-738.	9.3	57
21	Elastic modulus of 316 stainless steel lattice structure fabricated via binder jetting process. Materials Science and Technology, 2016, 32, 648-656.	1.6	56
22	Design and optimization of solid lattice hybrid structures fabricated by additive manufacturing. Additive Manufacturing, 2020, 33, 101116.	3.0	48
23	A roadmap for STEP-NC-enabled interoperable manufacturing. International Journal of Advanced Manufacturing Technology, 2013, 68, 1023-1037.	3.0	46
24	Modeling of the laser powderâ€based directed energy deposition process for additive manufacturing: a review. International Journal of Advanced Manufacturing Technology, 2020, 107, 1959-1982.	3.0	46
25	Research into integrated design and manufacturing based on STEP. International Journal of Advanced Manufacturing Technology, 2009, 44, 606-624.	3.0	44
26	Investigation of electrochemical post-processing procedure for Ti-6Al-4V lattice structure manufactured by direct metal laser sintering (DMLS). International Journal of Advanced Manufacturing Technology, 2019, 104, 3401-3417.	3.0	44
27	Multi-Objective Build Orientation Optimization for Powder Bed Fusion by Laser. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	2.2	43
28	Recycling of CFRP for High Value Applications: Effect of Sizing Removal and Environmental Analysis of the SuperCritical Fluid Solvolysis. Procedia CIRP, 2015, 29, 734-739.	1.9	40
29	Additive Manufacturing-Enabled Part Count Reduction: A Lifecycle Perspective. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	40
30	Towards an automated decision support system for the identification of additive manufacturing part candidates. Journal of Intelligent Manufacturing, 2020, 31, 1917-1933.	7.3	40
31	Enabling cognitive manufacturing through automated on-machine measurement planning and feedback. Advanced Engineering Informatics, 2010, 24, 269-284.	8.0	39
32	Mechanical Properties of Continuous Kevlar Fiber Reinforced Composites Fabricated by Fused Deposition Modeling Process. Procedia Manufacturing, 2018, 26, 774-781.	1.9	39
33	Numerical simulation of part-level temperature fields during selective laser melting of stainless steel 316L. International Journal of Advanced Manufacturing Technology, 2019, 104, 1615-1635.	3.0	39
34	Solidification microstructure simulation of Ti-6Al-4V in metal additive manufacturing: A review. Additive Manufacturing, 2020, 31, 100989.	3.0	36
35	A hybrid geometric modeling method for lattice structures fabricated by additive manufacturing. International Journal of Advanced Manufacturing Technology, 2019, 102, 4011-4030.	3.0	31
36	Combination of polyetherketoneketone scaffold and human mesenchymal stem cells from temporomandibular joint synovial fluid enhances bone regeneration. Scientific Reports, 2019, 9, 472.	3.3	30

#	ARTICLE	IF	CITATIONS
37	Dimensional metrology interoperability and standardization in manufacturing systems. Computer Standards and Interfaces, 2011, 33, 541-555.	5.4	29
38	Microstructure-Properties Relationships of Ti-6Al-4V Parts Fabricated by Selective Laser Melting. International Journal of Precision Engineering and Manufacturing - Green Technology, 2018, 5, 605-612.	4.9	28
39	Rapid Modeling and Design Optimization of Multi-Topology Lattice Structure Based on Unit-Cell Library. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	2.9	28
40	A Generic Sustainability Assessment Model towards Consolidated Parts Fabricated by Additive Manufacturing Process. Procedia Manufacturing, 2017, 10, 831-844.	1.9	27
41	Towards a Numerical Approach of Finding Candidates for Additive Manufacturing-Enabled Part Consolidation. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	27
42	Numerical and experimental investigation of the joint stiffness in lattice structures fabricated by additive manufacturing. International Journal of Mechanical Sciences, 2018, 148, 475-485.	6.7	26
43	Microstructures and properties of SLM-manufactured Cu-15Ni-8Sn alloy. Additive Manufacturing, 2020, 31, 100921.	3.0	26
44	Multifunctional design of heterogeneous cellular structures. Structural and Multidisciplinary Optimization, 2018, 58, 1121-1138.	3.5	24
45	A numerical-based part consolidation candidate detection approach with modularization considerations. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2019, 30, 63-83.	2.1	24
46	The Verification of the Mechanical Properties of Binder Jetting Manufactured Parts by Instrumented Indentation Testing. Procedia Manufacturing, 2015, 1, 327-342.	1.9	23
47	Understanding the Role of Additive Manufacturing Knowledge in Stimulating Design Innovation for Novice Designers. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	22
48	Manufacturability analysis of metal laser-based powder bed fusion additive manufacturing—a survey. International Journal of Advanced Manufacturing Technology, 2020, 110, 57-78.	3.0	21
49	Numerical modeling of coaxial powder stream in laser-powder-based Directed Energy Deposition process. Additive Manufacturing, 2020, 34, 101226.	3.0	20
50	Sustainable Design for Additive Manufacturing Through Functionality Integration and Part Consolidation. Environmental Footprints and Eco-design of Products and Processes, 2016, , 101-144.	1.1	19
51	Design of Shoe Soles Using Lattice Structures Fabricated by Additive Manufacturing. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 719-728.	0.6	19
52	Simulation of Elastic Properties of Solid-lattice Hybrid Structures Fabricated by Additive Manufacturing. Procedia Manufacturing, 2017, 10, 760-770.	1.9	18
53	Silicon-doped hydroxyapatite prepared by a thermal technique for hard tissue engineering applications. Ceramics International, 2018, 44, 17612-17622.	4.8	17
54	Machine Learning-Enabled Competitive Grain Growth Behavior Study in Directed Energy Deposition Fabricated Ti6Al4V. Jom, 2020, 72, 458-464.	1.9	17

#	ARTICLE	IF	CITATIONS
55	Hybrid sparse convolutional neural networks for predicting manufacturability of visual defects of laser powder bed fusion processes. Journal of Manufacturing Systems, 2022, 62, 835-845.	13.9	17
56	Assembly-Level Design for Additive Manufacturing: Issues and Benchmark. , 2016, , .		15
57	Integration of Topological and Functional Optimization in Design for Additive Manufacturing. , 2014, , .		14
58	Design of Conformal Porous Structures for the Cooling System of an Injection Mold Fabricated by Additive Manufacturing Process. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	14
59	Orientation Optimization in Layer-Based Additive Manufacturing Process. , 2016, , .		13
60	A Survey of Modeling and Optimization Methods for Multi-Scale Heterogeneous Lattice Structures. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	2.9	13
61	Quality Information Framework “ Integrating Metrology Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1301-1308.	0.4	12
62	Automated Candidate Detection for Additive Manufacturing: A Framework Proposal. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 679-688.	0.6	12
63	Predictive manufacturability assessment system for laser powder bed fusion based on a hybrid machine learning model. Additive Manufacturing, 2021, 41, 101946.	3.0	12
64	Machine learning aided design of conformal cooling channels for injection molding. Journal of Intelligent Manufacturing, 2023, 34, 1183-1201.	7.3	12
65	Web-enabled, Real-time, Quality Assurance for Machining Production Systems. Procedia CIRP, 2013, 10, 332-339.	1.9	11
66	Machine Learning Assisted Prediction of the Manufacturability of Laser-Based Powder Bed Fusion Process. , 2019, , .		10
67	Challenges and Opportunities in Geometric Modeling of Complex Bio-Inspired Three-Dimensional Objects Designed for Additive Manufacturing. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	2.9	9
68	Crack path-engineered 2D octet-truss lattice with bio-inspired crack deflection. Additive Manufacturing, 2020, 36, 101539.	3.0	8
69	A Web-based Automated Manufacturability Analyzer and Recommender for Additive Manufacturing (MAR-AM) via a Hybrid Machine Learning Model. Expert Systems With Applications, 2022, , 117189.	7.6	7
70	Simulation and optimization framework for additive manufacturing processes. , 2014, , .		4
71	Design Method for Conformal Lattice-Skin Structure Fabricated by AM Technologies. , 2016, , .		4
72	Random walks for unorganized point cloud segmentation with application to aerospace repair. Procedia Manufacturing, 2018, 26, 1483-1491.	1.9	4

#	ARTICLE	IF	CITATIONS
73	APPLICATION OF DOMAIN INTEGRATED DESIGN METHODOLOGY FOR BIO-INSPIRED DESIGN- A CASE STUDY OF SUTURE PIN DESIGN. Proceedings of the Design Society, 2021, 1, 487-496.	0.8	4
74	An Integrated Process Planning System Architecture for Machining and On-Machine Inspection. , 2008, , .		3
75	Reactive Process Planning: Incorporating Machining, Inspection, and Feedback. , 2009, , .		3
76	Machining simulation – a technical review and a proposed concept model. International Journal of Internet Manufacturing and Services, 2011, 3, 59.	0.1	3
77	Integration of machining and inspection. International Journal of Computer Aided Engineering and Technology, 2012, 4, 1.	0.2	3
78	Design Method for Lattice-Skin Structure Fabricated by Additive Manufacturing. , 2014, , .		3
79	Understanding the Role of Additive Manufacturing Knowledge in Stimulating Design Innovation for Novice Designers. , 2018, , .		3
80	Material-Unit Network for Multi-Material-Property and Multiscale Components. Computer-Aided Design and Applications, 2019, 17, 547-560.	0.6	3
81	Machine Learning Aided Design and Optimization of Conformal Porous Structures. , 2020, , .		3
82	Manufacturability of Overhang Structures Fabricated by Binder Jetting Process. , 2016, , .		2
83	Multi-Objective Build Orientation Optimization for Powder Bed Fusion by Laser. , 2017, , .		2
84	A Comparative Study of Metal Additive Manufacturing Processes for Elevated Sustainability. , 2019, , .		2
85	Towards optimal engineering multitasking level through stochastic modelling. International Journal of Operational Research, 2017, 28, 263.	0.2	1
86	Deterministic modeling of solidification microstructure formation in directed energy deposition fabricated Ti6Al4V. Additive Manufacturing, 2021, 46, 102182.	3.0	1
87	Finite Element Thermal Analysis of Melt Pool in Selective Laser Melting Process. , 2018, , .		0
88	Journal Commitment to Diversity, Equity, and Inclusion. Applied Mechanics Reviews, 2021, 73, .	10.1	0
89	Towards optimal engineering multitasking level through stochastic modelling. International Journal of Operational Research, 2017, 28, 263.	0.2	0
90	Machine Learning for Competitive Grain Growth Behavior in Additive Manufacturing Ti6Al4V. MATEC Web of Conferences, 2020, 321, 03004.	0.2	0