

David W Rosen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5868890/publications.pdf>

Version: 2024-02-01

119
papers

6,073
citations

159525

30
h-index

168321

53
g-index

128
all docs

128
docs citations

128
times ranked

5201
citing authors

#	ARTICLE	IF	CITATIONS
1	Machine learning integrated design for additive manufacturing. Journal of Intelligent Manufacturing, 2022, 33, 1073-1086.	4.4	83
2	Bayesian inference-based decision of fatigue life model for metal additive manufacturing considering effects of build orientation and post-processing. International Journal of Fatigue, 2022, 155, 106535.	2.8	10
3	Voxel design of additively manufactured digital material with customized thermomechanical properties. Materials and Design, 2021, 197, 109205.	3.3	13
4	Design and Manufacturing Implications of Additive Manufacturing. Journal of Materials Engineering and Performance, 2021, 30, 6426-6438.	1.2	15
5	Design for Additive Manufacturing. , 2021, , 555-607.		18
6	Materials for Additive Manufacturing. , 2021, , 379-428.		29
7	Vat Photopolymerization. , 2021, , 77-124.		4
8	Material Jetting. , 2021, , 203-235.		10
9	Morphable components topology optimization for additive manufacturing. Structural and Multidisciplinary Optimization, 2020, 62, 19-39.	1.7	7
10	Modeling of light field effect in deep vat polymerization for grayscale lithography application. Additive Manufacturing, 2020, 36, 101595.	1.7	8
11	3D printing of multi-material composites with tunable shape memory behavior. Materials and Design, 2020, 193, 108785.	3.3	36
12	A phase evolution based constitutive model for shape memory polymer and its application in 4D printing. Smart Materials and Structures, 2020, 29, 055016.	1.8	30
13	A characterization method for mechanical properties of metal powder bed fusion parts. International Journal of Advanced Manufacturing Technology, 2020, 108, 1189-1201.	1.5	2
14	Modeling for Polymer Additive Manufacturing Processes. , 2020, , 69-78.		0
15	Design and Manufacturing Implications of Additive Manufacturing. , 2020, , 19-29.		3
16	Design and additive manufacture of functionally graded structures based on digital materials. Additive Manufacturing, 2019, 30, 100839.	1.7	40
17	A Design for Additive Manufacturing Ontology to Support Manufacturability Analysis. Journal of Computing and Information Science in Engineering, 2019, 19, .	1.7	41
18	Data-Driven Design Space Exploration and Exploitation for Design for Additive Manufacturing. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	44

#	ARTICLE	IF	CITATIONS
19	A Product Family Design Method for Configuration and Spatial Layout Requirements. Journal of Computing and Information Science in Engineering, 2019, 19, .	1.7	4
20	Form-Finding and Structural Shape Optimization of the Metal 3DPrinted Multi-Branch Node with Complex Geometry. Computer-Aided Design and Applications, 2019, 17, 205-225.	0.4	5
21	Effects of material properties on warpage in fused deposition modeling parts. International Journal of Advanced Manufacturing Technology, 2018, 95, 2059-2070.	1.5	81
22	A Design for Additive Manufacturing Ontology to Support Manufacturability Analysis. , 2018, , .		7
23	A Design for Additive Manufacturing Ontology. Journal of Computing and Information Science in Engineering, 2017, 17, .	1.7	67
24	A Multiscale Materials Modeling Method With Seamless Zooming Capability Based on Surfacelets1. Journal of Computing and Information Science in Engineering, 2017, 17, .	1.7	4
25	Experimental validation and characterization of a real-time metrology system for photopolymerization-based stereolithographic additive manufacturing process. International Journal of Advanced Manufacturing Technology, 2017, 91, 1255-1273.	1.5	5
26	Material feature representation and identification with composite surfacelets. Journal of Computational Design and Engineering, 2016, 3, 370-384.	1.5	6
27	A review of synthesis methods for additive manufacturing. Virtual and Physical Prototyping, 2016, 11, 305-317.	5.3	48
28	A Multilevel Upscaling Method for Material Characterization of Additively Manufactured Part Under Uncertainties. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	33
29	Shape evolution of multiple interacting droplets in inkjet deposition. Rapid Prototyping Journal, 2015, 21, 373-385.	1.6	12
30	Process modeling and advanced control methods for Exposure Controlled Projection Lithography. , 2015, , .		3
31	Vat Photopolymerization Processes. , 2015, , 63-106.		33
32	Material Jetting. , 2015, , 175-203.		6
33	Additive Manufacturing Technologies. , 2015, , .		1,276
34	The Roadmap for Additive Manufacturing and Its Impact. 3D Printing and Additive Manufacturing, 2014, 1, 6-9.	1.4	101
35	Research supporting principles for design for additive manufacturing. Virtual and Physical Prototyping, 2014, 9, 225-232.	5.3	138
36	Design for Additive Manufacturing: Past, Present, and Future Directions. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	47

#	ARTICLE	IF	CITATIONS
37	Multiscale, Heterogeneous Computer Aided Design Representation for Metal Alloy Microstructures. Journal of Computing and Information Science in Engineering, 2014, 14, .	1.7	2
38	Lattice Boltzmann simulations of multiple-droplet interaction dynamics. Physical Review E, 2014, 89, 033311.	0.8	24
39	Inverse Surfacelet Transform for Image Reconstruction With Constrained-Conjugate Gradient Methods. Journal of Computing and Information Science in Engineering, 2014, 14, .	1.7	4
40	Heuristic optimization method for cellular structure design of light weight components. International Journal of Precision Engineering and Manufacturing, 2013, 14, 1071-1078.	1.1	111
41	Material removal during abrasive impregnated brush deburring of micromilled grooves in NiTi foils. International Journal of Machine Tools and Manufacture, 2013, 72, 37-49.	6.2	11
42	Effect of Process Parameters on Burrs Produced in Micromilling of a Thin Nitinol Foil. Journal of Micro and Nano-Manufacturing, 2013, 1, .	0.8	15
43	What controls dynamics of droplet shape evolution upon impingement on a solid surface?. AIChE Journal, 2013, 59, 3071-3082.	1.8	29
44	The size matching and scaling method: a synthesis method for the design of mesoscale cellular structures. International Journal of Computer Integrated Manufacturing, 2013, 26, 907-927.	2.9	61
45	A simple, inexpensive, real-time interferometric cure monitoring system for optically cured polymers. Journal of Applied Polymer Science, 2013, 129, 2653-2662.	1.3	5
46	Customized Titanium Plate Virtual Design and Deformation Simulation Analysis of Human Lateral Mandible Defect. Applied Mechanics and Materials, 2012, 157-158, 227-230.	0.2	0
47	Droplet impingement dynamics in ink-jet deposition. Virtual and Physical Prototyping, 2012, 7, 49-64.	5.3	5
48	Two-Dimensional Real-Time Interferometric Monitoring System for Exposure Controlled Projection Lithography. , 2012, , .		7
49	Exposure controlled projection lithography for microlens fabrication. Proceedings of SPIE, 2012, , .	0.8	3
50	Simulation Methods for Stereolithography. , 2011, , 183-207.		1
51	Pump Design for a Portable Renal Replacement System. Journal of Medical Devices, Transactions of the ASME, 2011, 5, .	0.4	6
52	Additive manufacturing of metallic cellular materials via three-dimensional printing. International Journal of Advanced Manufacturing Technology, 2011, 53, 231-239.	1.5	119
53	A Framework for Self-Realizing Process Models for Additive Manufacturing. , 2011, , .		2
54	A Functional Classification Framework for the Conceptual Design of Additive Manufacturing Technologies. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	67

#	ARTICLE	IF	CITATIONS
55	Modeling effects of oxygen inhibition in mask-based stereolithography. Rapid Prototyping Journal, 2011, 17, 168-175.	1.6	60
56	A Hierarchical, Heterogeneous CAD Modeling Approach. , 2011, , .		0
57	An Empirical Model for the Prediction of Hemodialysis System Performance. , 2011, , .		0
58	Employing Rapid Prototyping biomedical model to assist the surgical planning of defect mandibular reconstruction. , 2010, , .		0
59	Pump Design for a Portable Renal Replacement System. , 2010, , .		0
60	The effects of biological examples in idea generation. Design Studies, 2010, 31, 169-186.	1.9	139
61	Design for Additive Manufacturing. , 2010, , 299-332.		70
62	The Size Matching and Scaling Method: A Synthesis Method for the Design of Mesoscale Cellular Structures. , 2010, , .		3
63	Customer Co-design of Computer Mouse for Mass Customization without Causing Mass Confusion. , 2010, , .		5
64	Ontology Based Knowledge Modeling and Reuse Approach of Supporting Process Planning in Layer-Based Additive Manufacturing. , 2010, , .		10
65	Introduction and Basic Principles. , 2010, , 20-35.		17
66	Micromachined Ultrasonic Print-Head for Deposition of High-Viscosity Materials. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	1.3	9
67	A comparison of synthesis methods for cellular structures with application to additive manufacturing. Rapid Prototyping Journal, 2010, 16, 275-283.	1.6	77
68	Medical Applications for Additive Manufacture. , 2010, , 400-414.		8
69	Additive Manufacturing Technologies. , 2010, , .		1,222
70	Printing Processes. , 2010, , 187-222.		7
71	Ontology based knowledge modeling and reuse approach in product redesign. , 2010, , .		7
72	Direct Digital Manufacturing. , 2010, , 378-399.		87

#	ARTICLE	IF	CITATIONS
73	Development of Additive Manufacturing Technology. , 2010, , 36-58.		31
74	Photopolymerization Processes. , 2010, , 78-119.		15
75	Powder Bed Fusion Processes. , 2010, , 120-159.		7
76	Extrusion-Based Systems. , 2010, , 160-186.		17
77	Sheet Lamination Processes. , 2010, , 223-252.		24
78	Post-Processing. , 2010, , 415-435.		2
79	Direct Write Technologies. , 2010, , 275-298.		0
80	Design of a Portable Renal Replacement System Through Modeling and Experiment. , 2009, , .		3
81	A Process Planning Method for Thin Film Mask Projection Micro-Stereolithography. , 2009, , .		3
82	Reusability-based selection of parametric finite element analysis models. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2009, 23, 197-214.	0.7	0
83	Refined metrics for measuring ideation effectiveness. Design Studies, 2009, 30, 737-743.	1.9	148
84	Design for Additive Manufacturing of Cellular Structures. Computer-Aided Design and Applications, 2008, 5, 686-696.	0.4	234
85	A repository for DFM problems using description logics. Journal of Manufacturing Technology Management, 2008, 19, 755-774.	3.3	12
86	Use of parameter estimation for stereolithography surface finish improvement. Rapid Prototyping Journal, 2008, 14, 213-220.	1.6	32
87	An Inductive Design Exploration Method for Robust Multiscale Materials Design. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	79
88	A Method for Integrating Form Errors Into Geometric Tolerance Analysis. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	19
89	Description Logic Representation of Finite Element Analysis Models for Automated Retrieval. Journal of Computing and Information Science in Engineering, 2008, 8, .	1.7	5
90	Stereolithography and Rapid Prototyping. , 2008, , 175-196.		6

#	ARTICLE	IF	CITATIONS
91	Case-Based Retrieval Approach of Supporting Process Planning in Layer-Based Additive Manufacturing. , 2007, , 841.		3
92	Computer-Aided Design for Additive Manufacturing of Cellular Structures. Computer-Aided Design and Applications, 2007, 4, 585-594.	0.4	290
93	Compensation zone approach to avoid printâ€through errors in mask projection stereolithography builds. Rapid Prototyping Journal, 2006, 12, 283-291.	1.6	22
94	Computers in Education: Activities, Contributions, and Future Trends. Journal of Computing and Information Science in Engineering, 2005, 5, 257-263.	1.7	9
95	Simulation of Mating Between Non-Analytic Surfaces Using a Mathematical Programming Formulation. , 2005, , 179.		1
96	Collaborative multidisciplinary decision making using game theory and design capability indices. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2005, 16, 57-72.	1.2	69
97	Selection for Rapid Manufacturing Under Epistemic Uncertainty. , 2005, , 451.		12
98	The Systems Realization Laboratory, Georgia Institute of Technology. , 2005, , 490-493.		0
99	A configuration design based method for platform commonization for product families. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2004, 18, 21-39.	0.7	19
100	Stereolithography cure modelling and simulation. International Journal of Materials and Product Technology, 2004, 21, 255.	0.1	24
101	Geometric Tailoring: A Design for Manufacturing Method for Rapid Prototyping and Rapid Tooling. Journal of Mechanical Design, Transactions of the ASME, 2004, 126, 571-580.	1.7	18
102	The rapid tooling testbed: a distributed designâ€forâ€manufacturing system. Rapid Prototyping Journal, 2003, 9, 122-132.	1.6	17
103	A Reverse Glue Approach to Automated Construction of Multi-Piece Molds. Journal of Computing and Information Science in Engineering, 2003, 3, 219-230.	1.7	18
104	Common Platform Architecture. , 2003, , 163-182.		2
105	Parametric Modeling Method for Truss Structures. , 2002, , 759.		11
106	Geometric Tailoring: A Design for Manufacturing Method for Rapid Prototyping and Rapid Tooling. , 2002, , 149.		5
107	On combinatorial design spaces for the configuration design of product families. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2001, 15, 91-108.	0.7	48
108	Release behavior for powder injection molding in stereolithography molds. Rapid Prototyping Journal, 2001, 7, 115-121.	1.6	3

#	ARTICLE	IF	CITATIONS
109	A Distributed Product Realization Environment for Design and Manufacturing. Journal of Computing and Information Science in Engineering, 2001, 1, 235-244.	1.7	32
110	Building around inserts: methods for fabricating complex devices in stereolithography. Rapid Prototyping Journal, 2001, 7, 253-262.	1.6	74
111	Layered Manufacturing: Current Status and Future Trends. Journal of Computing and Information Science in Engineering, 2001, 1, 60-71.	1.7	74
112	Computer-Aided Design for Product De- and Remanufacture. Journal of Design and Manufacturing Automation, 2001, 1, 137-154.	0.2	0
113	Usage of accuracy models in stereolithography process planning. Rapid Prototyping Journal, 2000, 6, 77-87.	1.6	69
114	Design-to-Manufacture Information Transfer in the Context of Solid Freeform Fabrication Technologies. , 2000, , 167-196.		5
115	A MODIFIED PATTERN SEARCH METHOD WITH RELAXED LEXICOGRAPHIC MINIMIZATION FOR ENGINEERING DESIGN. Engineering Optimization, 1999, 32, 219-247.	1.5	1
116	Computer-aided build style decision support for stereolithography. Rapid Prototyping Journal, 1998, 4, 4-13.	1.6	48
117	Towards computer-aided configuration design for the life cycle. Journal of Intelligent Manufacturing, 1996, 7, 145.	4.4	14
118	Feature-based design: Four hypotheses for future CAD systems. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 1993, 5, 125-139.	1.2	15
119	Features and Algorithms for Tooling Cost Evaluation in Injection Molding and Die Casting. , 1992, , .		13