

Kazuhiro Saitou

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76
papers

1,547
citations

21
h-index

37
g-index

80
ext. papers

1,782
ext. citations

4
avg, IF

5.18
L-index

#	Paper	IF	Citations
76	Large-Scale Three-Dimensional Anisotropic Topology Optimization of Variable-Axial Lightweight Composite Structures. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022 , 144,	3	1
75	Topology optimization with wall thickness and piecewise developability constraints for foldable shape-changing structures. <i>Structural and Multidisciplinary Optimization</i> , 2022 , 65, 1	3.6	
74	Anisotropic Multicomponent Topology Optimization for Additive Manufacturing With Build Orientation Design and Stress-Constrained Interfaces. <i>Journal of Computing and Information Science in Engineering</i> , 2021 , 21,	2.4	3
73	Multicomponent topology optimization of functionally graded lattice structures with bulk solid interfaces. <i>International Journal for Numerical Methods in Engineering</i> , 2021 , 122, 4219-4249	2.4	1
72	Evolutionary Black-Box Topology Optimization: Challenges and Promises. <i>IEEE Transactions on Evolutionary Computation</i> , 2020 , 24, 613-633	15.6	10
71	Predictive-Reactive Rescheduling for New Order Arrivals with Optimal Dynamic Pegging 2020 ,		2
70	Configuration design of scalable reconfigurable manufacturing systems for part family. <i>International Journal of Production Research</i> , 2020 , 58, 2974-2996	7.8	29
69	Multicomponent Topology Optimization for Additive Manufacturing With Build Volume and Cavity Free Constraints. <i>Journal of Computing and Information Science in Engineering</i> , 2019 , 19,	2.4	13
68	Topology optimization of functionally-graded lattice structures with buckling constraints. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 354, 593-619	5.7	29
67	Real-Time Traffic Prediction and Probing Strategy for Lagrangian Traffic Data. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019 , 20, 497-506	6.1	8
66	On optimal dynamic pegging in rescheduling for new order arrival. <i>Computers and Industrial Engineering</i> , 2019 , 136, 46-56	6.4	8
65	Multi-component topology optimization for die casting (MTO-D). <i>Structural and Multidisciplinary Optimization</i> , 2019 , 60, 2265-2279	3.6	7
64	Gradient-based multi-component topology optimization for stamped sheet metal assemblies (MTO-S). <i>Structural and Multidisciplinary Optimization</i> , 2018 , 58, 83-94	3.6	22
63	Multi-component topology and material orientation design of composite structures (MTO-C). <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 342, 438-457	5.7	39
62	Multi-Component Topology Optimization for Powder Bed Additive Manufacturing (MTO-A) 2018 ,		6
61	Topology optimization of composite structures with data-driven resin filling time manufacturing constraint. <i>Structural and Multidisciplinary Optimization</i> , 2017 , 55, 2073-2086	3.6	7
60	Gradient-Based Multi-Component Topology Optimization for Additive Manufacturing (MTO-A) 2017 ,		5

59	Multi-material topology optimization using ordered SIMP interpolation. <i>Structural and Multidisciplinary Optimization</i> , 2017 , 55, 477-491	3.6	203
58	Replacement policy of residential lighting optimized for cost, energy, and greenhouse gas emissions. <i>Environmental Research Letters</i> , 2017 , 12, 114034	6.2	11
57	Stochastic Lagrangian Traffic flow modeling and real-time traffic prediction 2016 ,		4
56	A finite element head and neck model as a supportive tool for deformable image registration. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016 , 11, 1311-7	3.9	3
55	Optimal Integration of Alternative Energy Sources in Production Systems With Customer Demand Forecast. <i>IEEE Transactions on Automation Science and Engineering</i> , 2016 , 13, 206-214	4.9	4
54	Multi-objective topology optimization of multi-component continuum structures via a Kriging-interpolated level set approach. <i>Structural and Multidisciplinary Optimization</i> , 2015 , 51, 733-748	3.6	33
53	Optimal integration of alternative energy sources in production systems for minimum grid dependency and outage risk 2014 ,		1
52	ROTAS: a rotamer-dependent, atomic statistical potential for assessment and prediction of protein structures. <i>BMC Bioinformatics</i> , 2014 , 15, 307	3.6	14
51	Optimization of probe vehicle deployment for traffic status estimation 2013 ,		3
50	Distance-preserving rigidity penalty on deformable image registration of multiple skeletal components in the neck. <i>Medical Physics</i> , 2013 , 40, 121907	4.4	8
49	A Co-Evolutionary Approach for Design Optimization via Ensembles of Surrogates With Application to Vehicle Crashworthiness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2012 , 134,	3	11
48	Topology Synthesis of Multicomponent Structural Assemblies in Continuum Domains. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011 , 133,	3	139
47	Validation of stochastic traffic flow model with microscopic traffic simulation 2011 ,		13
46	Automated Vehicle Structural Crashworthiness Design via a Crash Mode Matching Algorithm. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011 , 133,	3	9
45	Local compression in automated breast ultrasound in the mammographic geometry 2010 ,		3
44	Optimal outsourcing for intellectual property protection and production cost minimization 2009 ,		1
43	Optimal heat-reversible snap joints for frame-panel assembly in aluminium space frame automotive bodies. <i>International Journal of Sustainable Manufacturing</i> , 2009 , 1, 302	0.4	1
42	Tunable machine vision-based strategy for automated annotation of chemical databases. <i>Journal of Chemical Information and Modeling</i> , 2009 , 49, 1993-2001	6.1	4

41	Decision support for optimal adaptation of product and supply chain systems based on real options theory 2009 ,		1
40	Robust Design of RF-MEMS Cantilever Switches Using Contact Physics Modeling. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 1012-1021	8.9	33
39	Design of Spring Coupling for High- Q High-Frequency MEMS Filters for Wireless Applications. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 1022-1030	8.9	40
38	High-Stiffness, Lock-and-Key Heat-Reversible Locator-Snap Systems for the Design for Disassembly. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2009 , 131,	3	6
37	Design for Disassembly With High-Stiffness Heat-Reversible Locator-Snap Systems. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2008 , 130,	3	12
36	Adapting product and supply chain systems under severe uncertainty 2008 ,		1
35	Variation Analysis of Three Dimensional non-rigid Assemblies 2007 ,		6
34	Lifetime Extension of RF MEMS Direct Contact Switches in Hot Switching Operations by Ball Grid Array Dimple Design. <i>IEEE Electron Device Letters</i> , 2007 , 28, 479-481	4.4	32
33	Assembly synthesis with subassembly partitioning for optimal in-process dimensional adjustability. <i>Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM</i> , 2007 , 21, 31-43	1.3	5
32	Design For Existing Lines: Part and Process Plan Optimization to Best Utilize Existing Production Lines. <i>Journal of Computing and Information Science in Engineering</i> , 2007 , 7, 126-131	2.4	2
31	Skin-Effect Self-Heating in Air-Suspended RF MEMS Transmission-Line Structures. <i>Journal of Microelectromechanical Systems</i> , 2006 , 15, 1622-1631	2.5	12
30	Three-Dimensional Assembly Synthesis for Robust Dimensional Integrity Based on Screw Theory. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2006 , 128, 243-251	3	9
29	Optimal Subassembly Partitioning of Space Frame Structures for In-Process Dimensional Adjustability and Stiffness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2006 , 128, 527-535	3	11
28	Decomposition-Based Assembly Synthesis of Space Frame Structures Using Joint Library. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2006 , 128, 57-65	3	16
27	Multiobjective evolutionary optimization of periodic layered materials for desired wave dispersion characteristics. <i>Structural and Multidisciplinary Optimization</i> , 2006 , 31, 60-75	3.6	121
26	Design Optimization with Discrete Variables. <i>Journal of the Society of Mechanical Engineers</i> , 2006 , 109, 392-394	0	
25	A Survey of Structural Optimization in Mechanical Product Development. <i>Journal of Computing and Information Science in Engineering</i> , 2005 , 5, 214-226	2.4	71
24	Topology Optimization of Multicomponent Beam Structure via Decomposition-Based Assembly Synthesis. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2005 , 127, 170	3	31

23	Design Optimization of Vehicle Structures for Crashworthiness Using Equivalent Mechanism Approximations. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2005 , 127, 485-492	3	24
22	Decomposition-Based Assembly Synthesis of Multiple Structures for Minimum Manufacturing Cost. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2005 , 127, 572-579	3	3
21	Decomposition-Based Assembly Synthesis of a Three-Dimensional Body-in-White Model for Structural Stiffness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2005 , 127, 34-48	3	16
20	F12-(8) Design Optimization with Discrete Variables. <i>The Reference Collection of Annual Meeting</i> , 2005 , 2005.8, 232-234		
19	Off-line error prediction, diagnosis and recovery using virtual assembly systems. <i>Journal of Intelligent Manufacturing</i> , 2004 , 15, 679-692	6.7	9
18	A sensitivity-based commonality strategy for family products of mild variation, with application to automotive body structures. <i>Structural and Multidisciplinary Optimization</i> , 2004 , 27, 89-96	3.6	34
17	Topology optimization of thermally actuated compliant mechanisms considering time-transient effect. <i>Finite Elements in Analysis and Design</i> , 2004 , 40, 1317-1331	2.2	50
16	Decomposition-Based Assembly Synthesis for Structural Stiffness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2003 , 125, 452-463	3	21
15	Decomposition-Based Assembly Synthesis for In-Process Dimensional Adjustability. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2003 , 125, 464-473	3	10
14	Design optimization of N-shaped roof trusses using reactive taboo search. <i>Applied Soft Computing Journal</i> , 2003 , 3, 221-235	7.5	9
13	Multi-criteria decision-making for optimization of product disassembly under multiple situations. <i>Environmental Science & Technology</i> , 2003 , 37, 5303-13	10.3	71
12	Design Optimization of Vehicle Structures for Crashworthiness via Equivalent Mechanism Approximations. <i>The Proceedings of Design & Systems Conference</i> , 2003 , 2003.13, 309-311	0	
11	Simultaneous Assembly Planning and Assembly System Design Using Multi-objective Genetic Algorithms. <i>Lecture Notes in Computer Science</i> , 2003 , 2096-2108	0.9	1
10	Decomposition-based assembly synthesis of 3D Body-In-White models for structural stiffness. <i>The Proceedings of Design & Systems Conference</i> , 2003 , 2003.13, 347-350	0	
9	Design of part family robust-to-production plan variations based on quantitative manufacturability evaluation. <i>Research in Engineering Design - Theory, Applications, and Concurrent Engineering</i> , 2002 , 13, 199-212	3.5	4
8	Robust design of flexible manufacturing systems using, colored Petri net and genetic algorithm. <i>Journal of Intelligent Manufacturing</i> , 2002 , 13, 339-351	6.7	31
7	Design for Fixturability (DFF) Methodology for Commodity Parts: A Case Study With Connecting Rod Designs. <i>Journal of Computing and Information Science in Engineering</i> , 2002 , 2, 21-27	2.4	2
6	Prediction and Diagnosis of Propagated Errors in Assembly Systems Using Virtual Factories. <i>Journal of Computing and Information Science in Engineering</i> , 2001 , 1, 261-265	2.4	4

5	Automated generation of robust error recovery logic in assembly systems using genetic programming. <i>Journal of Manufacturing Systems</i> , 2001 , 20, 55-68	9.1	8
4	Continuum structural topology design with genetic algorithms. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 186, 339-356	5.7	149
3	Externally resonated linear microvibromotor for microassembly. <i>Journal of Microelectromechanical Systems</i> , 2000 , 9, 336-346	2.5	22
2	Subassembly generation via mechanical conformational switches. <i>Artificial Life</i> , 1995 , 2, 377-416	1.4	6
1	Automated Optimal Design of Mechanical Conformational Switches. <i>Artificial Life</i> , 1995 , 2, 129-156	1.4	9