

Topology optimization approaches

Structural and Multidisciplinary Optimization
48, 1031-1055

DOI: [10.1007/s00158-013-0978-6](https://doi.org/10.1007/s00158-013-0978-6)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Structural Optimization of a Brake Disc. Journal of the Japan Society for Precision Engineering, 2014, 80, 763-770.	0.0	1
2	BIOMIMETIC STRUCTURE DESIGN OF DRAGONFLY WING VENATION USING TOPOLOGY OPTIMIZATION METHOD. Journal of Mechanics in Medicine and Biology, 2014, 14, 1450078.	0.3	5
3	Structural optimization methods and techniques to design light and efficient automatic transmission of vehicles with low radiated noise. Structural and Multidisciplinary Optimization, 2014, 50, 1137-1150.	1.7	22
4	Integration of topology optimized designs into CAD/CAM via an IGES translator. Structural and Multidisciplinary Optimization, 2014, 50, 1115-1125.	1.7	30
5	The Extended Finite Element Method. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2014, , 439-456.	0.3	0
6	The lightweight design of the humanoid robot frameworks based on evolutionary structural optimization. , 2014, , .		9
7	Doing Topology Optimization Explicitly and Geometricallyâ€”A New Moving Morphable Components Based Framework. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	1.1	731
8	Numerical instabilities in level set topology optimization with the extended finite element method. Structural and Multidisciplinary Optimization, 2014, 49, 185-197.	1.7	59
9	A reduced multiscale model for nonlinear structural topology optimization. Computer Methods in Applied Mechanics and Engineering, 2014, 280, 117-134.	3.4	57
10	Concurrent topology optimization design of material and structure within ϵ -multiscale nonlinear multiscale analysis framework. Computer Methods in Applied Mechanics and Engineering, 2014, 278, 524-542.	3.4	238
11	Inverse methods for material design. AIChE Journal, 2014, 60, 2732-2740.	1.8	77
12	An explicit length scale control approach in SIMP-based topology optimization. Computer Methods in Applied Mechanics and Engineering, 2014, 282, 71-86.	3.4	133
13	Density and level set-XFEM schemes for topology optimization of 3-D structures. Computational Mechanics, 2014, 54, 133-150.	2.2	65
14	Interpolation scheme for fictitious domain techniques and topology optimization of finite strain elastic problems. Computer Methods in Applied Mechanics and Engineering, 2014, 276, 453-472.	3.4	171
15	Topology optimization using the lattice Boltzmann method incorporating level set boundary expressions. Journal of Computational Physics, 2014, 274, 158-181.	1.9	75
16	State space Newton's method for topology optimization. Computer Methods in Applied Mechanics and Engineering, 2014, 278, 272-290.	3.4	15
17	Topology Optimization of Thermoelastic Structures using Stress-based Design Criteria. , 2014, , .		1
18	Robust Topology Optimization Under Random Load Locations. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
19	A NOTE ON FORMULATIONS OF ROBUST COMPLIANCE OPTIMIZATION UNDER UNCERTAIN LOADS. Journal of Structural and Construction Engineering, 2015, 80, 601-607.	0.2	2
20	Topology Optimization on the Cloud: A Confluence of Technologies. , 2015, , .		3
21	H-DGTPâ€”a Heaviside-function based directional growth topology parameterization for design optimization of stiffener layout and height of thin-walled structures. Structural and Multidisciplinary Optimization, 2015, 52, 903-913.	1.7	46
22	Large strain phaseâ€”based multiâ€”material topology optimization. International Journal for Numerical Methods in Engineering, 2015, 104, 887-904.	1.5	26
23	Topology optimization for the development of eco-efficient masonry units. , 2015, , 425-445.		1
24	Shape and Topology Optimization for Complicated Engineering Structures. Mathematical Problems in Engineering, 2015, 2015, 1-2.	0.6	3
25	Minimum length scale in topology optimization by geometric constraints. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 266-282.	3.4	275
26	Stiffness analysis of corrugated flexure beam used in compliant mechanisms. Chinese Journal of Mechanical Engineering (English Edition), 2015, 28, 776-784.	1.9	14
27	Benchmarking optimization solvers for structural topology optimization. Structural and Multidisciplinary Optimization, 2015, 52, 527-547.	1.7	80
28	Structure and appearance optimization for controllable shape design. ACM Transactions on Graphics, 2015, 34, 1-11.	4.9	48
29	(Re)Designing for Part Consolidation: Understanding the Challenges of Metal Additive Manufacturing. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	140
30	Level Set Topology Optimization of Printed Active Composites. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	74
31	A Pareto-Optimal Approach to Multimaterial Topology Optimization. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	43
32	Multi-Material Topology Optimization for Additive Manufacturing. , 2015, , .		1
33	Implementation of a Contact Model in a Topology Optimization Method for the Design of Compliant Mechanisms for Thermal Control. , 2015, , .		0
34	Topology optimization of geometrically nonlinear structures based on an additive hyperelasticity technique. Computer Methods in Applied Mechanics and Engineering, 2015, 286, 422-441.	3.4	87
35	Topology optimization and fabrication of low frequency vibration energy harvesting microdevices. Smart Materials and Structures, 2015, 24, 025005.	1.8	19
36	Stress constrained topology optimization with free-form design domains. Computer Methods in Applied Mechanics and Engineering, 2015, 289, 267-290.	3.4	68

#	ARTICLE	IF	CITATIONS
37	Topology optimization of coated structures and material interface problems. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 524-541.	3.4	142
38	Integrated optimization of the material and structure of composites based on the Heaviside penalization of discrete material model. Structural and Multidisciplinary Optimization, 2015, 51, 721-732.	1.7	45
39	Topology optimization utilizing inverse motion based form finding. Computer Methods in Applied Mechanics and Engineering, 2015, 289, 316-331.	3.4	12
40	Multi-objective topology optimization of multi-component continuum structures via a Kriging-interpolated level set approach. Structural and Multidisciplinary Optimization, 2015, 51, 733-748.	1.7	45
41	Topology optimization of magnetorheological fluid layers in sandwich plates for semi-active vibration control. Smart Materials and Structures, 2015, 24, 085024.	1.8	14
42	Level set topology optimization of problems with sliding contact interfaces. Structural and Multidisciplinary Optimization, 2015, 52, 1107-1119.	1.7	38
43	Constraints of distance from boundary to skeleton: For the control of length scale in level set based structural topology optimization. Computer Methods in Applied Mechanics and Engineering, 2015, 295, 525-542.	3.4	84
44	Design of materials using topology optimization and energy-based homogenization approach in Matlab. Structural and Multidisciplinary Optimization, 2015, 52, 1229-1241.	1.7	250
45	Topology optimization applied to 2D elasticity problems considering the geometrical nonlinearity. Engineering Structures, 2015, 100, 116-127.	2.6	13
46	Level set topology optimization of stationary fluid-structure interaction problems. Structural and Multidisciplinary Optimization, 2015, 52, 179-195.	1.7	47
47	Topology and shape optimization methods using evolutionary algorithms: a review. Structural and Multidisciplinary Optimization, 2015, 52, 613-631.	1.7	145
48	Neuro-evolutionary Topology Optimization with Adaptive Improvement Threshold. Lecture Notes in Computer Science, 2015, , 655-666.	1.0	4
49	An identification method for enclosed voids restriction in manufacturability design for additive manufacturing structures. Frontiers of Mechanical Engineering, 2015, 10, 126-137.	2.5	113
50	Evolutionary topology optimization for natural frequency maximization problems considering acoustic-structure interaction. Finite Elements in Analysis and Design, 2015, 106, 56-64.	1.7	55
51	Structural optimization of multibody system components described using level set techniques. Structural and Multidisciplinary Optimization, 2015, 52, 959-971.	1.7	21
52	Differential evolution for optimization of functionally graded beams. Composite Structures, 2015, 133, 1191-1197.	3.1	52
53	By-example synthesis of structurally sound patterns. ACM Transactions on Graphics, 2015, 34, 1-12.	4.9	46
54	A multi-resolution method for 3D multi-material topology optimization. Computer Methods in Applied Mechanics and Engineering, 2015, 285, 571-586.	3.4	79

#	ARTICLE	IF	CITATIONS
55	3D interactive topology optimization on hand-held devices. Structural and Multidisciplinary Optimization, 2015, 51, 1385-1391.	1.7	12
56	Robust topology optimization of structures with imperfect geometry based on geometric nonlinear analysis. Computer Methods in Applied Mechanics and Engineering, 2015, 285, 452-467.	3.4	64
57	Multi-scale robust design and optimization considering load uncertainties. Computer Methods in Applied Mechanics and Engineering, 2015, 283, 994-1009.	3.4	99
58	Introducing the sequential linear programming level-set method for topology optimization. Structural and Multidisciplinary Optimization, 2015, 51, 631-643.	1.7	94
59	A topology optimization method for a coupled thermal–fluid problem using level set boundary expressions. International Journal of Heat and Mass Transfer, 2015, 81, 878-888.	2.5	150
60	A multi-material level set-based topology and shape optimization method. Computer Methods in Applied Mechanics and Engineering, 2015, 283, 1570-1586.	3.4	208
61	Integrated topology and controller optimization of motion systems in the frequency domain. Structural and Multidisciplinary Optimization, 2015, 51, 673-685.	1.7	10
62	Level set topology optimization of scalar transport problems. Structural and Multidisciplinary Optimization, 2015, 51, 267-285.	1.7	21
64	An ϵ -material thresholding method for improving integerness of solutions in topology optimization. International Journal for Numerical Methods in Engineering, 2016, 108, 1498-1524.	1.5	12
65	Feature-driven topology optimization method with signed distance function. Computer Methods in Applied Mechanics and Engineering, 2016, 310, 1-32.	3.4	115
66	Maximizing the effective Young's modulus of a composite material by exploiting the Poisson effect. Composite Structures, 2016, 153, 593-600.	3.1	32
67	A comprehensive survey on topology optimization of phononic crystals. Structural and Multidisciplinary Optimization, 2016, 54, 1315-1344.	1.7	112
68	Topology Optimization for Architected Materials Design. Annual Review of Materials Research, 2016, 46, 211-233.	4.3	163
69	Topology Optimization Formulations for Circuit Board Heat Spreader Design. , 2016, , .		3
70	Level-set topology optimization with many linear buckling constraints using an efficient and robust eigensolver. International Journal for Numerical Methods in Engineering, 2016, 107, 1029-1053.	1.5	54
71	Multi-Objective Optimal Design of Functionally Gradient Materials. , 2016, , .		3
72	Topology Optimization of Hyperelastic Continua. , 2016, , .		0
73	State-based representation for structural topology optimization and application to crashworthiness. , 2016, , .		17

#	ARTICLE	IF	CITATIONS
74	Topology optimization and 3D-printing fabrication feasibility of high voltage FGM insulator. , 2016, , .		31
75	Topology Optimization Software for Additive Manufacturing: A Review of Current Capabilities and a Real-World Example. , 2016, , .		12
76	Differential evolution for free vibration optimization of functionally graded nano beams. Composite Structures, 2016, 156, 29-34.	3.1	29
77	Data-driven performance-based topology optimization of uncertain wind-excited tall buildings. Structural and Multidisciplinary Optimization, 2016, 54, 1379-1402.	1.7	24
78	A design approach for integrating thermoelectric devices using topology optimization. Applied Energy, 2016, 176, 49-64.	5.1	57
79	An immersed boundary approach for shape and topology optimization of stationary fluid-structure interaction problems. Structural and Multidisciplinary Optimization, 2016, 54, 1191-1208.	1.7	50
80	Concurrent topological design of composite thermoelastic macrostructure and microstructure with multi-phase material for maximum stiffness. Composite Structures, 2016, 150, 84-102.	3.1	42
81	Smoothed finite element method for topology optimization involving incompressible materials. Engineering Optimization, 2016, 48, 2064-2089.	1.5	13
82	Structural topology optimization with minimum distance control of multiphase embedded components by level set method. Computer Methods in Applied Mechanics and Engineering, 2016, 306, 299-318.	3.4	38
83	Structure-material integrated design by level sets. Structural and Multidisciplinary Optimization, 2016, 54, 1145-1156.	1.7	53
84	Weakly and fully coupled methods for structural optimization of flexible mechanisms. Multibody System Dynamics, 2016, 38, 391-417.	1.7	14
85	Improving topology optimization intuition through games. Structural and Multidisciplinary Optimization, 2016, 54, 775-781.	1.7	4
86	Shape and topology optimization based on the convected level set method. Structural and Multidisciplinary Optimization, 2016, 54, 659-672.	1.7	19
87	Generalized incremental frequency method for topological design of continuum structures for minimum dynamic compliance subject to forced vibration at a prescribed low or high value of the excitation frequency. Structural and Multidisciplinary Optimization, 2016, 54, 1113-1141.	1.7	59
88	Minimum void length scale control in level set topology optimization subject to machining radii. CAD Computer Aided Design, 2016, 81, 70-80.	1.4	25
89	An effective structural boundary processing method based on support vector machine for discrete topology optimization. , 2016, , .		1
90	An efficient and scalable approach for generating topologically optimized cellular structures for additive manufacturing. Additive Manufacturing, 2016, 12, 296-304.	1.7	73
91	Explicit structural topology optimization based on moving morphable components (MMC) with curved skeletons. Computer Methods in Applied Mechanics and Engineering, 2016, 310, 711-748.	3.4	245

#	ARTICLE	IF	CITATIONS
92	A survey of manufacturing oriented topology optimization methods. <i>Advances in Engineering Software</i> , 2016, 100, 161-175.	1.8	242
93	Minimum length scale control in structural topology optimization based on the Moving Morphable Components (MMC) approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 311, 327-355.	3.4	99
94	Topology optimization of thermo-elastic structures with multiple materials under mass constraint. <i>Computers and Structures</i> , 2016, 173, 150-160.	2.4	78
95	A review of synthesis methods for additive manufacturing. <i>Virtual and Physical Prototyping</i> , 2016, 11, 305-317.	5.3	48
96	Fail-safe topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 1225-1243.	1.7	58
97	Robust topology optimization for dynamic compliance minimization under uncertain harmonic excitations with inhomogeneous eigenvalue analysis. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 1469-1484.	1.7	30
98	Evolutionary computation for topology optimization of mechanical structures: An overview of representations. , 2016, , .		14
99	Structural topology optimization considering connectivity constraint. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 971-984.	1.7	95
100	Large scale three-dimensional topology optimisation of heat sinks cooled by natural convection. <i>International Journal of Heat and Mass Transfer</i> , 2016, 100, 876-891.	2.5	214
101	Minimizing the vibrational response of a lightweight building by topology and volume optimization of a base plate for excitatory machinery. <i>Structural and Multidisciplinary Optimization</i> , 2016, 53, 567-588.	1.7	13
102	Dynamic response reliability based topological optimization of continuum structures involving multi-phase materials. <i>Composite Structures</i> , 2016, 149, 134-144.	3.1	16
103	Topology optimization of 3D self-supporting structures for additive manufacturing. <i>Additive Manufacturing</i> , 2016, 12, 60-70.	1.7	271
104	Length scale control for structural optimization by level sets. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 305, 891-909.	3.4	38
105	Topological design of all-ceramic dental bridges for enhancing fracture resistance. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016, 32, e02749.	1.0	30
106	On the equivalent static load method for flexible multibody systems described with a nonlinear finite element formalism. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 108, 646-664.	1.5	10
107	Lightweight design of automotive wheel made of long glass fiber reinforced thermoplastic. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2016, 230, 1634-1643.	1.1	14
108	Anisotropic Mesh Adaptation and Topology Optimization in Three Dimensions. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2016, 138, .	1.7	10
109	Optimization Indexes to Identify the Optimal Design Solution of Shell-Supported Bridges. <i>Journal of Bridge Engineering</i> , 2016, 21, .	1.4	16

#	ARTICLE	IF	CITATIONS
110	Experimental Validation of Structures Optimised for Frequency Constraints and Dynamic Loading. , 2016, , .		0
111	Combined mesh and penalization adaptivity based topology optimization. , 2016, , .		2
112	Topology optimization: a review for structural designs under vibration problems. Structural and Multidisciplinary Optimization, 2016, 53, 1157-1177.	1.7	101
113	Length scale and manufacturability in density-based topology optimization. Archive of Applied Mechanics, 2016, 86, 189-218.	1.2	203
114	Level set topology optimization of cooling and heating devices using a simplified convection model. Structural and Multidisciplinary Optimization, 2016, 53, 985-1003.	1.7	64
115	A new topology optimization approach based on Moving Morphable Components (MMC) and the ersatz material model. Structural and Multidisciplinary Optimization, 2016, 53, 1243-1260.	1.7	387
116	Shape preserving design with structural topology optimization. Structural and Multidisciplinary Optimization, 2016, 53, 893-906.	1.7	31
117	Topology optimization in thermal-fluid flow using the lattice Boltzmann method. Journal of Computational Physics, 2016, 307, 355-377.	1.9	82
118	Multi-material plastic part design via the level set shape and topology optimization method. Engineering Optimization, 2016, 48, 1910-1931.	1.5	5
119	Stepwise optimization of endplate of fuel cell stack assembled by steel belts. International Journal of Hydrogen Energy, 2016, 41, 2911-2918.	3.8	19
120	A System for High-Resolution Topology Optimization. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 1195-1208.	2.9	114
121	TIMP method for topology optimization of plate structures with displacement constraints under multiple loading cases. Structural and Multidisciplinary Optimization, 2016, 53, 1185-1196.	1.7	6
122	An Adaptive Approach to Adjust Constraint Bounds and its Application in Structural Topology Optimization. Journal of Optimization Theory and Applications, 2016, 169, 656-670.	0.8	5
123	Design for structural flexibility using connected morphable components based topology optimization. Science China Technological Sciences, 2016, 59, 839-851.	2.0	34
124	Shape optimisation with multiresolution subdivision surfaces and immersed finite elements. Computer Methods in Applied Mechanics and Engineering, 2016, 300, 510-539.	3.4	62
125	A level-set method for steady-state and transient natural convection problems. Structural and Multidisciplinary Optimization, 2016, 53, 1047-1067.	1.7	52
126	Lagrangian Description Based Topology Optimizationâ€™A Revival of Shape Optimization. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	59
127	Topology optimization design of 3D electrothermomechanical actuators by using GPU as a co-processor. Computer Methods in Applied Mechanics and Engineering, 2016, 302, 44-69.	3.4	15

#	ARTICLE	IF	CITATIONS
128	Topology optimization of hyperelastic structures with frictionless contact supports. International Journal of Solids and Structures, 2016, 81, 373-382.	1.3	33
129	Structural optimization methods of nonlinear static analysis with contact and its application to design lightweight gear box of automatic transmission of vehicles. Structural and Multidisciplinary Optimization, 2016, 53, 1383-1394.	1.7	12
130	Stress-based design of thermal structures via topology optimization. Structural and Multidisciplinary Optimization, 2016, 53, 253-270.	1.7	66
131	Dimensional accuracy of Electron Beam Melting (EBM) additive manufacture with regard to weight optimized truss structures. Journal of Materials Processing Technology, 2016, 229, 128-138.	3.1	78
132	Dynamic response topology optimization in the time domain using model reduction method. Structural and Multidisciplinary Optimization, 2016, 53, 101-114.	1.7	66
133	Challenges of using topology optimization for the design of pressurized stiffened panels. Structural and Multidisciplinary Optimization, 2016, 53, 303-320.	1.7	27
134	Topology optimization of multiscale elastoviscoplastic structures. International Journal for Numerical Methods in Engineering, 2016, 106, 430-453.	1.5	47
135	Bridging topology optimization and additive manufacturing. Structural and Multidisciplinary Optimization, 2016, 53, 175-192.	1.7	334
136	Topology Optimization in Aircraft and Aerospace Structures Design. Archives of Computational Methods in Engineering, 2016, 23, 595-622.	6.0	564
137	Recent Advances on Topology Optimization of Multiscale Nonlinear Structures. Archives of Computational Methods in Engineering, 2017, 24, 227-249.	6.0	119
138	Structural optimization of contact problems using Cahn-Hilliard model. Computers and Structures, 2017, 180, 52-59.	2.4	24
139	Structural optimization using global stress-deviation objective function via the level-set method. Structural and Multidisciplinary Optimization, 2017, 55, 91-104.	1.7	18
140	Evolutionary topology optimization of elastoplastic structures. Structural and Multidisciplinary Optimization, 2017, 55, 569-581.	1.7	48
141	An isogeometric approach to topology optimization of multi-material and functionally graded structures. International Journal for Numerical Methods in Engineering, 2017, 109, 668-696.	1.5	44
142	The relevance of reliability-based topology optimization in preliminary phases of aerospace structural design. , 2017, , .		0
143	Structural shape and topology optimization of cast parts using level set method. International Journal for Numerical Methods in Engineering, 2017, 111, 1252-1273.	1.5	50
144	Concurrent topology optimization of composite macrostructure and microstructure constructed by constituent phases of distinct Poisson's ratios for maximum frequency. Computational Materials Science, 2017, 129, 194-201.	1.4	48
145	Efficient biscale design of semiregular porous structures with desired deformation behavior. Computers and Structures, 2017, 182, 284-295.	2.4	5

#	ARTICLE	IF	CITATIONS
146	Sustainable Design-Oriented Level Set Topology Optimization. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	23
147	Design of materials using hybrid cellular automata. Structural and Multidisciplinary Optimization, 2017, 56, 131-137.	1.7	24
148	Topology optimization of energy absorbing structures with maximum damage constraint. International Journal for Numerical Methods in Engineering, 2017, 112, 737-775.	1.5	55
149	Nonlinear filters in topology optimization: existence of solutions and efficient implementation for minimum compliance problems. Structural and Multidisciplinary Optimization, 2017, 55, 1017-1028.	1.7	19
150	A multi-material topology optimization approach for wrinkle-free design of cable-suspended membrane structures. Computational Mechanics, 2017, 59, 967-980.	2.2	21
151	Structural Topology Optimization Through Explicit Boundary Evolution. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	1.1	149
152	A novel substructure-based topology optimization method for the design of wing structure. International Journal for Simulation and Multidisciplinary Design Optimization, 2017, 8, A5.	0.6	5
153	Generating optimal heat conduction paths based on bionic growth simulation. International Communications in Heat and Mass Transfer, 2017, 83, 55-63.	2.9	24
154	Wrinkle-free design of thin membrane structures using stress-based topology optimization. Journal of the Mechanics and Physics of Solids, 2017, 102, 277-293.	2.3	61
155	A Prenecking Strategy Makes Stretched Membranes With Clamped Ends Wrinkle-Free. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	1.1	7
156	Transition from adjoint level set topology to shape optimization for 2D fluid mechanics. Computers and Fluids, 2017, 150, 123-138.	1.3	14
157	Parametric structural shape & topology optimization with a variational distance-regularized level set method. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 316-336.	3.4	51
158	Metallic bone fixation implants: a novel design approach for reducing the stress shielding phenomenon. Virtual and Physical Prototyping, 2017, 12, 141-151.	5.3	57
159	Optimization of a butterfly valve disc using 3D topology and genetic algorithms. Structural and Multidisciplinary Optimization, 2017, 56, 941-957.	1.7	13
160	CBS-based topology optimization including design-dependent body loads. Computer Methods in Applied Mechanics and Engineering, 2017, 322, 1-22.	3.4	26
161	A novel displacement constrained optimization approach for black and white structural topology designs under multiple load cases. Structural and Multidisciplinary Optimization, 2017, 56, 865-884.	1.7	9
162	Optimisation of functionally graded lattice structures using isostatic lines. Materials and Design, 2017, 127, 215-223.	3.3	131
163	Design of energy dissipating elastoplastic structures under cyclic loads using topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 391-412.	1.7	27

#	ARTICLE	IF	CITATIONS
164	Multi-layered UL700 arch-grid module with inelastic buckling for localized reinforcement of soft ground. <i>Advances in Engineering Software</i> , 2017, 110, 14-25.	1.8	4
165	Applications of automatic differentiation in topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 1135-1146.	1.7	21
166	Explicit three dimensional topology optimization via Moving Morphable Void (MMV) approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 322, 590-614.	3.4	172
167	A Bi-directional Evolutionary Structural Optimisation algorithm with an added connectivity constraint. <i>Finite Elements in Analysis and Design</i> , 2017, 131, 25-42.	1.7	18
168	Topology optimization of flexoelectric structures. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 105, 217-234.	2.3	93
169	Topology optimization of pressure dependent elastoplastic energy absorbing structures with material damage constraints. <i>Finite Elements in Analysis and Design</i> , 2017, 133, 42-61.	1.7	28
170	GOTICA - generation of optimal topologies by irregular cellular automata. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1989-2001.	1.7	22
171	Optimized microwave illusion device. <i>Scientific Reports</i> , 2017, 7, 3929.	1.6	10
172	Topology optimization of periodic microstructures for enhanced loss factor using acoustic-structure interaction. <i>International Journal of Solids and Structures</i> , 2017, 122-123, 59-68.	1.3	25
173	Stiffeners layout design of thin-walled structures with constraints on multi-fastener joint loads. <i>Chinese Journal of Aeronautics</i> , 2017, 30, 1441-1450.	2.8	12
174	Design framework for multifunctional additive manufacturing: Coupled optimization strategy for structures with embedded functional systems. <i>Additive Manufacturing</i> , 2017, 16, 98-106.	1.7	38
175	Topology optimization for minimizing the maximum dynamic response in the time domain using aggregation functional method. <i>Computers and Structures</i> , 2017, 190, 41-60.	2.4	52
176	Methodology for optimizing composite towers for use on floating wind turbines. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	0.8	17
177	Topology optimization-based design method of dual-band antennas. <i>Multidiscipline Modeling in Materials and Structures</i> , 2017, 13, 11-25.	0.6	1
178	Topology optimization for heat transfer enhancement in Latent Heat Thermal Energy Storage. <i>International Journal of Heat and Mass Transfer</i> , 2017, 113, 875-888.	2.5	91
179	Topology optimization of structures with gradient elastic material. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 371-390.	1.7	10
180	Computational material design for acoustic cloaking. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 112, 1353-1380.	1.5	25
181	GPU parallel strategy for parameterized LSM-based topology optimization using isogeometric analysis. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 413-434.	1.7	42

#	ARTICLE	IF	CITATIONS
182	3-D phononic crystals with ultra-wide band gaps. <i>Scientific Reports</i> , 2017, 7, 43407.	1.6	50
183	Additive manufacturing: Toward holistic design. <i>Scripta Materialia</i> , 2017, 135, 141-147.	2.6	144
184	Level set topology optimization of structural problems with interface cohesion. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 112, 990-1016.	1.5	37
185	Bounds for decoupled design and analysis discretizations in topology optimization. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 111, 88-100.	1.5	7
186	A new three-dimensional topology optimization method based on moving morphable components (MMCs). <i>Computational Mechanics</i> , 2017, 59, 647-665.	2.2	88
187	Soft Actuators for Small-Scale Robotics. <i>Advanced Materials</i> , 2017, 29, 1603483.	11.1	973
188	GPU acceleration for evolutionary topology optimization of continuum structures using isosurfaces. <i>Computers and Structures</i> , 2017, 182, 119-136.	2.4	38
189	Integrated layout and topology optimization design of multi-frame and multi-component fuselage structure systems. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 21-45.	1.7	26
190	Topology optimization of structures with anisotropic plastic materials using enhanced assumed strain elements. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1965-1988.	1.7	32
191	A short numerical study on the optimization methods influence on topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 1603-1612.	1.7	7
192	Computational design hits record resolution. <i>Nature</i> , 2017, 550, 50-51.	13.7	2
193	Modeling, Evaluation and Optimization of Interlocking Shell Pieces. <i>Computer Graphics Forum</i> , 2017, 36, 1-13.	1.8	13
194	Topological shape optimization scheme based on the artificial bee colony algorithm. <i>International Journal of Precision Engineering and Manufacturing</i> , 2017, 18, 1393-1401.	1.1	7
195	Parametric Topology Optimization Toward Rational Design and Efficient Prefabrication for Additive Manufacturing. , 2017, , .		4
196	Optimization of composite structures with continuous spatial variation of fiber angle through Shepard interpolation. <i>Composite Structures</i> , 2017, 182, 273-282.	3.1	42
197	Design of effective fins for fast PCM melting and solidification in shell-and-tube latent heat thermal energy storage through topology optimization. <i>Applied Energy</i> , 2017, 208, 210-227.	5.1	224
198	Minimum compliance topology optimization of shell-infill composites for additive manufacturing. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 326, 358-375.	3.4	149
199	Topology optimization for additive manufacturing: Accounting for overhang limitations using a virtual skeleton. <i>Additive Manufacturing</i> , 2017, 18, 58-73.	1.7	48

#	ARTICLE	IF	CITATIONS
200	Explicit isogeometric topology optimization using moving morphable components. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 694-712.	3.4	72
201	Effect of fluid-thermal structural interactions on the topology optimization of a hypersonic transport aircraft wing. Journal of Fluids and Structures, 2017, 75, 45-76.	1.5	24
203	Design Optimization of Irregular Cellular Structure for Additive Manufacturing. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 1184-1192.	1.9	19
204	On filter boundary conditions in topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 1147-1155.	1.7	86
205	Two-Scale Topology Optimization with Microstructures. ACM Transactions on Graphics, 2017, 36, 1-16.	4.9	49
206	Topology optimization for reduction of thermo-elastic dissipation in MEMS resonators. , 2017, , .		8
207	Truss optimization with buckling considerations using geometrically nonlinear beam modeling. Computers and Structures, 2017, 192, 233-247.	2.4	34
208	Topology optimisation of micro fluidic mixers considering fluid-structure interactions with a coupled Lattice Boltzmann algorithm. Journal of Computational Physics, 2017, 349, 11-32.	1.9	16
209	Computational Design and Additive Manufacturing of Conformal Metasurfaces by Combining Topology Optimization With Riemann Mapping Theorem. , 2017, , .		0
210	Optimal Design of Topology and Gradient Orthotropic Material. , 2017, , .		0
211	Design of Variable-Density Structures for Additive Manufacturing Using Gyroid Lattices. , 2017, , .		1
212	Integrated design optimization of structural size and control system of piezoelectric curved shells with respect to sound radiation. Structural and Multidisciplinary Optimization, 2017, 56, 1287-1304.	1.7	17
213	Arbitrary void feature control in level set topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 595-618.	3.4	16
214	Structural complexity control in topology optimization via moving morphable component (MMC) approach. Structural and Multidisciplinary Optimization, 2017, 56, 535-552.	1.7	66
215	Design of fracture resistant energy absorbing structures using elastoplastic topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 1447-1475.	1.7	29
216	Topology optimization of continuum structures subjected to the variance constraint of reaction forces. Structural and Multidisciplinary Optimization, 2017, 56, 755-765.	1.7	15
217	Explicit control of structural complexity in topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 149-169.	3.4	26
218	An Evolutionary Soft-Add Topology Optimization Method for Synthesis of Compliant Mechanisms With Maximum Output Displacement. Journal of Mechanisms and Robotics, 2017, 9, .	1.5	25

#	ARTICLE	IF	CITATIONS
219	Optimal topology design for stress-isolation of soft hyperelastic composite structures under imposed boundary displacements. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1747-1758.	1.7	4
220	Design of pipeline opening layout through level set topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1613-1628.	1.7	6
221	Stability-ensured topology optimization of boom structures with volume and stress considerations. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 493-512.	1.7	6
222	Comparison of various algorithms for improving acoustic attenuation performance and flow characteristic of reactive mufflers. <i>Applied Acoustics</i> , 2017, 116, 291-296.	1.7	16
223	Topology optimization of multi-material negative Poisson's ratio metamaterials using a reconciled level set method. <i>CAD Computer Aided Design</i> , 2017, 83, 15-32.	1.4	177
224	Level set-based topology optimization for the design of a peltier effect thermoelectric actuator. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1671-1683.	1.7	6
225	Concurrent topology design of structure and material using a two-scale topology optimization. <i>Computers and Structures</i> , 2017, 178, 119-128.	2.4	69
226	A review about the engineering design of optimal heat transfer systems using topology optimization. <i>Applied Thermal Engineering</i> , 2017, 112, 841-854.	3.0	266
227	Integrated Front-Rear-Grid Optimization of Free-Form Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 294-302.	1.5	4
228	Stress-based topology optimization of frame structures under geometric uncertainty. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 315, 121-140.	3.4	22
229	Multiscale isogeometric topology optimization for lattice materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 316, 568-585.	3.4	178
230	Topology optimization based on level set for a flexible multibody system modeled via ANCF. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1159-1177.	1.7	22
231	Topology optimization for hybrid additive-subtractive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1281-1299.	1.7	33
232	Topology optimization of reflector antennas based on integrated thermal-structural-electromagnetic analysis. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 715-722.	1.7	7
233	A simple alternative formulation for structural optimisation with dynamic and buckling objectives. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 969-986.	1.7	18
234	Identifying boundaries of topology optimization results using basic parametric features. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 1641-1654.	1.7	25
235	Higher-order multi-resolution topology optimization using the finite cell method. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 110, 903-920.	1.5	57
236	A polytree-based adaptive polygonal finite element method for topology optimization. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 110, 972-1000.	1.5	57

#	ARTICLE	IF	CITATIONS
237	Topology optimization for heat conduction using generative design algorithms. Structural and Multidisciplinary Optimization, 2017, 55, 1063-1077.	1.7	66
238	Assessment of differential evolution for multi-objective optimization in a natural convection problem solved by a local meshless method. Engineering Optimization, 2017, 49, 675-692.	1.5	1
239	Stress-constrained continuum topology optimization: a new approach based on elasto-plasticity. Structural and Multidisciplinary Optimization, 2017, 55, 1797-1818.	1.7	34
240	Topology optimization with closed B-splines and Boolean operations. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 652-670.	3.4	69
241	Concurrent topological design of composite structures and the underlying multi-phase materials. Computers and Structures, 2017, 179, 1-14.	2.4	50
242	Topology optimization of plane structures using smoothed particle hydrodynamics method. International Journal for Numerical Methods in Engineering, 2017, 110, 726-744.	1.5	15
243	Design explorations of heat conductive pathways. International Journal of Heat and Mass Transfer, 2017, 104, 835-851.	2.5	29
244	Design and development of a soft gripper with topology optimization. , 2017, , .		34
245	Size and Topology Optimization of Inertial Amplification Induced Phononic Band Gap Structures. , 2017, , .		3
246	Level set topology optimization considering damage. Structural and Multidisciplinary Optimization, 2017, 56, 737-753.	1.7	16
247	A MATLAB Script for Solving 2D/3D Minimum Compliance Problems using Anisotropic Mesh Adaptation. Procedia Engineering, 2017, 203, 102-114.	1.2	4
248	Proposal of a decision method of workpiece shapes during a rough machining operation based on topology optimization. Transactions of the JSME (in Japanese), 2017, 83, 17-00249-17-00249.	0.1	1
249	Local-in-time adjoint-based topology optimization of unsteady fluid flows using the lattice Boltzmann method. Mechanical Engineering Journal, 2017, 4, 17-00120-17-00120.	0.2	14
250	Topology and material orientation optimization based on evolution equations. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 739-740.	0.2	1
251	Improved parametric level set based structural topology optimization for minimizing a global frequency response. , 2017, , .		0
252	MOEA/D-GO+FTD FOR OPTIMIZATION DESIGN OF FRAGMENT-TYPE STRUCTURE. Progress in Electromagnetics Research M, 2017, 58, 117-124.	0.5	2
254	A case study on topology optimized design for additive manufacturing. IOP Conference Series: Materials Science and Engineering, 2017, 276, 012026.	0.3	54
255	On the non-optimality of tree structures for heat conduction. International Journal of Heat and Mass Transfer, 2018, 122, 660-680.	2.5	79

#	ARTICLE	IF	CITATIONS
256	Structural optimization design for antenna bracket manufactured by selective laser melting. Rapid Prototyping Journal, 2018, 24, 539-547.	1.6	10
257	A sequential element rejection and admission (SERA) topology optimization code written in Matlab. Structural and Multidisciplinary Optimization, 2018, 58, 1297-1310.	1.7	26
258	A unified framework for nonlinear path-dependent sensitivity analysis in topology optimization. International Journal for Numerical Methods in Engineering, 2018, 115, 1-56.	1.5	39
259	Topology optimization of pressure structures based on regional contour tracking technology. Structural and Multidisciplinary Optimization, 2018, 58, 687-700.	1.7	7
260	Topology optimization of density type for a linear elastic body by using the second derivative of a KS function with respect to von Mises stress. Structural and Multidisciplinary Optimization, 2018, 58, 935-953.	1.7	2
261	Eigenvalue topology optimization via efficient multilevel solution of the frequency response. International Journal for Numerical Methods in Engineering, 2018, 115, 872-892.	1.5	34
262	Robust topology optimization using a posteriori error estimator for the finite element method. Structural and Multidisciplinary Optimization, 2018, 58, 1619-1632.	1.7	6
263	Layout design of piezoelectric patches in structural linear quadratic regulator optimal control using topology optimization. Journal of Intelligent Material Systems and Structures, 2018, 29, 2277-2294.	1.4	15
264	Applying functional principal components to structural topology optimization. International Journal for Numerical Methods in Engineering, 2018, 115, 189-208.	1.5	9
265	Using finite element analysis to influence the infill design of fused deposition modelled parts. Progress in Additive Manufacturing, 2018, 3, 145-163.	2.5	34
266	Modelling theory of functional element design for metamaterials with arbitrary negative Poisson's ratio. Computational Materials Science, 2018, 150, 121-133.	1.4	19
267	On the effect of fluid-structure interactions and choice of algorithm in multi-physics topology optimisation. Finite Elements in Analysis and Design, 2018, 145, 32-54.	1.7	13
268	Evolutionary topology optimization of continuum structures with smooth boundary representation. Structural and Multidisciplinary Optimization, 2018, 57, 2143-2159.	1.7	85
269	Multi-material topology optimization for practical lightweight design. Structural and Multidisciplinary Optimization, 2018, 58, 1081-1094.	1.7	79
270	Topology optimization of thermal fluid flows with an adjoint Lattice Boltzmann Method. Journal of Computational Physics, 2018, 365, 376-404.	1.9	41
271	A density-based topology optimization methodology for thermoelectric energy conversion problems. Structural and Multidisciplinary Optimization, 2018, 57, 1427-1442.	1.7	20
272	A Moving Morphable Void (MMV)-based explicit approach for topology optimization considering stress constraints. Computer Methods in Applied Mechanics and Engineering, 2018, 334, 381-413.	3.4	118
273	Manufactured chemistry: Rethinking unit operation design in the age of additive manufacturing. AIChE Journal, 2018, 64, 1162-1173.	1.8	9

#	ARTICLE	IF	CITATIONS
274	Integrated optimization of actuators and structural topology of piezoelectric composite structures for static shape control. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 334, 440-469.	3.4	33
275	A Realization Method for Transforming a Topology Optimization Design into Additive Manufacturing Structures. <i>Engineering</i> , 2018, 4, 277-285.	3.2	58
276	Multiobjective Optimization Design for Electrically Large Coverage: Fragment-Type Near-Field/Far-Field UHF RFID Reader Antenna Design. <i>IEEE Antennas and Propagation Magazine</i> , 2018, 60, 27-37.	1.2	14
277	An Overview on Additive Manufacturing of Polymers. <i>Jom</i> , 2018, 70, 275-283.	0.9	97
278	Non-probabilistic reliability-based topology optimization with multidimensional parallelepiped convex model. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 2205-2221.	1.7	42
279	On the influence of local and global stress constraint and filtering radius on the design of hinge-free compliant mechanisms. <i>Structural and Multidisciplinary Optimization</i> , 2018, 58, 641-655.	1.7	27
280	An Indirect Design Representation for Topology Optimization Using Variational Autoencoder and Style Transfer. , 2018, , .		39
281	Efficient Large-Scale Thermoelastic Topology Optimization of CAD Geometry with Automated Adaptive Mesh Generation. , 2018, , .		3
282	A Continuous Adjoint Framework for Shape and Topology Optimization and their Synergistic Use. , 2018, , .		1
283	Design of passive coolers for light-emitting diode lamps using topology optimisation. <i>International Journal of Heat and Mass Transfer</i> , 2018, 122, 138-149.	2.5	77
284	Stress-constrained topology optimization based on maximum stress measures. <i>Computers and Structures</i> , 2018, 198, 23-39.	2.4	87
285	An 88-line MATLAB code for the parameterized level set method based topology optimization using radial basis functions. <i>Structural and Multidisciplinary Optimization</i> , 2018, 58, 831-849.	1.7	187
286	Multi-material topology optimization for the transient heat conduction problem using a sequential quadratic programming algorithm. <i>Engineering Optimization</i> , 2018, 50, 2091-2107.	1.5	48
287	Conceptual Design of Aircraft Structure Based on Topology Optimization Method. , 2018, , 1083-1093.		1
288	Topology optimisation of bridge input structures with maximal amplification for design of flexure mechanisms. <i>Mechanism and Machine Theory</i> , 2018, 122, 113-131.	2.7	45
289	Reliability-Based Topology Optimization for Continuum Structures with Non-probabilistic Uncertainty. , 2018, , 390-395.		1
290	Topological shape optimization of 3D micro-structured materials using energy-based homogenization method. <i>Advances in Engineering Software</i> , 2018, 116, 89-102.	1.8	92
291	Evaluation of topology-optimized lattice structures manufactured via selective laser melting. <i>Materials and Design</i> , 2018, 143, 27-37.	3.3	248

#	ARTICLE	IF	CITATIONS
292	CMA-ES-based structural topology optimization using a level set boundary expression"Application to optical and carpet cloaks. Computer Methods in Applied Mechanics and Engineering, 2018, 332, 624-643.	3.4	46
293	Review of topology optimisation refinement processes for sheet metal manufacturing in the automotive industry. Structural and Multidisciplinary Optimization, 2018, 58, 305-330.	1.7	13
294	Coupling lattice structure topology optimization with design-dependent feature evolution for additive manufactured heat conduction design. Computer Methods in Applied Mechanics and Engineering, 2018, 332, 408-439.	3.4	110
295	A cascadic multilevel optimization algorithm for the design of composite structures with curvilinear fiber based on Shepard interpolation. Composite Structures, 2018, 188, 209-219.	3.1	27
296	An Efficient Topology Optimization Method for Structures with Uniform Stress. International Journal of Computational Methods, 2018, 15, 1850073.	0.8	3
297	Local optimum in multi-material topology optimization and solution by reciprocal variables. Structural and Multidisciplinary Optimization, 2018, 57, 1283-1295.	1.7	26
298	Minimum length-scale constraints for parameterized implicit function based topology optimization. Structural and Multidisciplinary Optimization, 2018, 58, 155-169.	1.7	15
299	Robust topology optimization for cellular composites with hybrid uncertainties. International Journal for Numerical Methods in Engineering, 2018, 115, 695-713.	1.5	29
300	Revisiting density-based topology optimization for fluid-structure-interaction problems. Structural and Multidisciplinary Optimization, 2018, 58, 969-995.	1.7	42
301	Design of buckling-induced mechanical metamaterials for energy absorption using topology optimization. Structural and Multidisciplinary Optimization, 2018, 58, 1395-1410.	1.7	47
302	Generative design method for lattice structure with hollow struts of variable wall thickness. Advances in Mechanical Engineering, 2018, 10, 168781401775248.	0.8	7
303	Topology optimization of a flexible multibody system with variable-length bodies described by ALE"ANCF. Nonlinear Dynamics, 2018, 93, 413-441.	2.7	40
304	Concurrent topology optimization for minimization of total mass considering load-carrying capabilities and thermal insulation simultaneously. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 315-326.	1.5	18
305	Topology optimization of piezoelectric smart structures for minimum energy consumption under active control. Structural and Multidisciplinary Optimization, 2018, 58, 185-199.	1.7	27
306	Accuracy and reliability: A computational tool to minimise steel mass and carbon emissions at early-stage structural design. Energy and Buildings, 2018, 168, 236-250.	3.1	27
307	Bi-directional Evolutionary Structural Optimization on Advanced Structures and Materials: A Comprehensive Review. Archives of Computational Methods in Engineering, 2018, 25, 437-478.	6.0	214
308	Optimal Design of Piezoelectric Modal Transducers. Archives of Computational Methods in Engineering, 2018, 25, 313-347.	6.0	11
309	System-Based Approaches for Structural Optimization of Flexible Mechanisms. Archives of Computational Methods in Engineering, 2018, 25, 817-844.	6.0	19

#	ARTICLE	IF	CITATIONS
310	Homogenization-based topology optimization for high-resolution manufacturable microstructures. International Journal for Numerical Methods in Engineering, 2018, 113, 1148-1163.	1.5	224
311	Infill Optimization for Additive Manufacturing—Approaching Bone-Like Porous Structures. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1127-1140.	2.9	326
312	Two-scale topology optimization for composite plates with in-plane periodicity. International Journal for Numerical Methods in Engineering, 2018, 113, 1164-1188.	1.5	18
313	The relevance of reliability-based topology optimization in early design stages of aircraft structures. Structural and Multidisciplinary Optimization, 2018, 57, 417-439.	1.7	19
314	Preference-based topology optimization for vehicle concept design with concurrent static and crash load cases. Structural and Multidisciplinary Optimization, 2018, 57, 251-266.	1.7	17
315	Achieving directional propagation of elastic waves via topology optimization. Ultrasonics, 2018, 82, 1-10.	2.1	35
316	Topology optimization with multiple materials via moving morphable component (MMC) method. International Journal for Numerical Methods in Engineering, 2018, 113, 1653-1675.	1.5	112
317	Topology optimization for design of segmented permanent magnet arrays with ferromagnetic materials. Journal of Magnetism and Magnetic Materials, 2018, 449, 571-581.	1.0	18
318	Topology optimization for staged construction. Structural and Multidisciplinary Optimization, 2018, 57, 1679-1694.	1.7	28
319	Topology optimization of industrial robots: Application to a five-bar mechanism. Mechanism and Machine Theory, 2018, 120, 30-56.	2.7	43
320	Computational design and additive manufacturing of periodic conformal metasurfaces by synthesizing topology optimization with conformal mapping. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 477-497.	3.4	45
321	Optimal design accounting for uncertainty in loading amplitudes: A numerical investigation. Mechanics Based Design of Structures and Machines, 2018, 46, 552-566.	3.4	8
322	Structural topology optimization for directional deformation behavior design with the orthotropic artificial weak element method. Structural and Multidisciplinary Optimization, 2018, 57, 1251-1266.	1.7	7
323	Uniform thickness control without pre-specifying the length scale target under the level set topology optimization framework. Advances in Engineering Software, 2018, 115, 204-216.	1.8	22
324	Topology optimization design of cast parts based on virtual temperature method. CAD Computer Aided Design, 2018, 94, 28-40.	1.4	43
325	Simultaneous topology optimization of supporting structure and loci of isolators in an active vibration isolation system. Computers and Structures, 2018, 194, 74-85.	2.4	16
326	A combined parametric shape optimization and ersatz material approach. Structural and Multidisciplinary Optimization, 2018, 57, 1297-1315.	1.7	7
327	Concurrent topological design of composite structures and materials containing multiple phases of distinct Poisson's ratios. Engineering Optimization, 2018, 50, 599-614.	1.5	11

#	ARTICLE	IF	CITATIONS
328	Topology optimization for linear thermo-mechanical transient problems: Modal reduction and adjoint sensitivities. International Journal for Numerical Methods in Engineering, 2018, 113, 1230-1257.	1.5	29
329	Topology optimization of three-phase interpolation models in Darcy-stokes flow. Structural and Multidisciplinary Optimization, 2018, 57, 1663-1677.	1.7	8
330	Simultaneous shape and topology optimization of prestressed concrete beams. Structural and Multidisciplinary Optimization, 2018, 57, 1831-1843.	1.7	34
331	Topology optimization for concurrent design of structures with multi-patch microstructures by level sets. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 536-561.	3.4	139
332	Parametric shape and topology optimization: A new level set approach based on cardinal basis functions. International Journal for Numerical Methods in Engineering, 2018, 114, 66-87.	1.5	27
333	Reaction-diffusion equation based topology optimization combined with the modified conjugate gradient method. Finite Elements in Analysis and Design, 2018, 140, 84-95.	1.7	11
334	Topology optimization of fluid flow channel in cold plate for active phased array antenna. Structural and Multidisciplinary Optimization, 2018, 57, 2223-2232.	1.7	30
335	Phase Field Modeling of Microstructural Evolution. , 2018, , 67-87.		7
336	Structural topology optimization under harmonic base acceleration excitations. Structural and Multidisciplinary Optimization, 2018, 57, 1061-1078.	1.7	33
337	A level set method for shape and topology optimization of coated structures. Computer Methods in Applied Mechanics and Engineering, 2018, 329, 553-574.	3.4	64
338	System-wise equivalent static loads for the design of flexible mechanisms. Computer Methods in Applied Mechanics and Engineering, 2018, 329, 312-331.	3.4	11
339	Topology optimization with a time-integral cost functional. Finite Elements in Analysis and Design, 2018, 140, 11-22.	1.7	9
340	Stiffness optimization of non-linear elastic structures. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 292-307.	3.4	37
341	Multiobjective topology optimization with the sko-method. Structural and Multidisciplinary Optimization, 2018, 57, 325-340.	1.7	0
342	Topology optimization for the design of flow fields in a redox flow battery. Structural and Multidisciplinary Optimization, 2018, 57, 535-546.	1.7	53
343	Multiobjective and multi-physics topology optimization using an updated smart normal constraint bi-directional evolutionary structural optimization method. Structural and Multidisciplinary Optimization, 2018, 57, 665-688.	1.7	22
344	Two-scale topology optimization of macrostructure and porous microstructure composed of multiphase materials with distinct Poisson's ratios. Latin American Journal of Solids and Structures, 2018, 15, .	0.6	1
345	Optimal orthotropy and density distribution of two-dimensional structures. Mathematics and Mechanics of Complex Systems, 2018, 6, 293-305.	0.5	1

#	ARTICLE	IF	CITATIONS
346	Design of MIMO Antenna Isolation Structure by Material Distribution Method Optimization. , 2018, , .		0
347	Lightweight Design of a Fuel Tank Stand by Means of Topology Optimization with Frequency Target. , 2018, , .		0
348	Topology and shape optimization with explicit geometric constraints using a spline-based representation and a fixed grid. Procedia Manufacturing, 2018, 21, 189-196.	1.9	21
349	Finding Better Local Optima in Topology Optimization via Tunneling. , 2018, , .		4
350	An improved parametric level set method for structural frequency response optimization problems. Advances in Engineering Software, 2018, 126, 75-89.	1.8	18
351	Design Automation by Integrating Generative Adversarial Networks and Topology Optimization. , 2018, , .		13
352	Overhanging Feature Analysis for the Additive Manufacturing of Topology Optimized Structures. , 2018, , .		1
353	Data-Driven Additive Manufacturing Constraints for Topology Optimization. , 2018, , .		5
354	Multi-Material Topology Optimization of Structures Infilled With Conformal Metamaterials. , 2018, , .		2
355	RobEcolo: Optimal Design of a Wooden Five-Bar Mechanism. , 2018, , .		1
356	Tailoring near and Far Electromagnetic Fields Through Optimization. , 2018, , .		1
357	Topology Synthesis, Prototype, and Test of an Industrial Robot Gripper with 3D Printed Compliant Fingers for Handling of Fragile Objects. , 2018, , .		4
358	A bidirectional evolutionary structural optimization algorithm for mass minimization with multiple structural constraints. International Journal for Numerical Methods in Engineering, 2019, 118, 93-120.	1.5	15
359	Performance assessment of density and level-set topology optimisation methods for three dimensional heat sink design. Journal of Algorithms and Computational Technology, 2018, 12, 273-287.	0.4	6
360	A new overhang constraint for topology optimization of self-supporting structures in additive manufacturing. Structural and Multidisciplinary Optimization, 2018, 58, 2003-2017.	1.7	66
361	Topology optimization of pretensioned reflector antennas with unified cable-bar model. Acta Astronautica, 2018, 152, 872-879.	1.7	7
362	Generation of structural topologies using efficient technique based on sorted compliances. AIP Conference Proceedings, 2018, , .	0.3	0
363	Design Method of Lightweight Metamaterials with Arbitrary Poisson's Ratio. Materials, 2018, 11, 1574.	1.3	7

#	ARTICLE	IF	CITATIONS
364	Immersed Boundary Eigenvalue Analysis of Timoshenko Beams and Mindlin Plates. , 2018, , .		1
365	A Soft Robotic Gripper Module with 3D Printed Compliant Fingers for Grasping Fruits. , 2018, , .		16
366	Optimal Design of an Elastomeric Engine Mount with Desired Stiffness using Topology Optimization. , 2018, , .		3
367	Optimization of Structures Made From Composites With Elliptical Inclusions. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	3
368	A modified method for estimating inherent strains from detailed process simulation for fast residual distortion prediction of single-walled structures fabricated by directed energy deposition. Additive Manufacturing, 2018, 23, 471-486.	1.7	106
369	Discrete multi-material topology optimization under total mass constraint. CAD Computer Aided Design, 2018, 102, 182-192.	1.4	19
370	An asymptotically concentrated method for structural topology optimization based on the SIMLF interpolation. International Journal for Numerical Methods in Engineering, 2018, 115, 1175-1216.	1.5	8
371	Design of small-scale gradient coils in magnetic resonance imaging by using the topology optimization method. Chinese Physics B, 2018, 27, 050201.	0.7	9
372	Evolutionary topology optimization of continuum structures under uncertainty using sensitivity analysis and smooth boundary representation. Computers and Structures, 2018, 205, 15-27.	2.4	15
373	Level set-based topology optimization with overhang constraint: Towards support-free additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2018, 339, 591-614.	3.4	90
374	Tuning of Calcite Crystallographic Orientation to Support Brachiopod Lophophore. Advanced Engineering Materials, 2018, 20, 1800191.	1.6	0
375	Concurrent topology optimization design of structures and non-uniform parameterized lattice microstructures. Structural and Multidisciplinary Optimization, 2018, 58, 35-50.	1.7	78
376	Multiscale shape-based material modeling by composition. CAD Computer Aided Design, 2018, 102, 194-203.	1.4	17
377	Topology optimization of reactive acoustic mufflers using a bi-directional evolutionary optimization method. Structural and Multidisciplinary Optimization, 2018, 58, 2239-2252.	1.7	18
378	A velocity field level set method for shape and topology optimization. International Journal for Numerical Methods in Engineering, 2018, 115, 1315-1336.	1.5	49
379	Evolution of Stresses and Deformations in Hollow Cylinder with Variable Material Composition: Mathematical Modeling and Optimization – The work was performed with financial support from the RFBR No. 18-08-01346 and RFBR No. 18-01-00812.. IFAC-PapersOnLine, 2018, 51, 577-582.	0.5	0
380	Bidirectional Evolutionary Structural Optimization with Stationary Steps. , 2018, , .		0
381	A phase field model for stress-based evolution of load-bearing structures. International Journal for Numerical Methods in Engineering, 2018, 115, 1580-1600.	1.5	7

#	ARTICLE	IF	CITATIONS
382	On the internal architecture of emergent plants. Journal of the Mechanics and Physics of Solids, 2018, 119, 224-239.	2.3	55
383	Inversely designed micro-textures for robust Cassie-Baxter mode of super-hydrophobicity. Computer Methods in Applied Mechanics and Engineering, 2018, 341, 113-132.	3.4	22
384	Topology optimization of electrode patterns for electroosmotic micromixer. International Journal of Heat and Mass Transfer, 2018, 126, 1299-1315.	2.5	31
385	Optimized vibro-acoustic design of suspended glass panels. Structural and Multidisciplinary Optimization, 2018, 58, 2253-2268.	1.7	6
386	Multimaterial multijoint topology optimization. International Journal for Numerical Methods in Engineering, 2018, 115, 1552-1579.	1.5	32
387	Design of cellular based structures in sandwiched morphing skin via topology optimization. Structural and Multidisciplinary Optimization, 2018, 58, 2085-2098.	1.7	4
388	2D Design of Channels in Vapor Chamber with Topological Optimization. , 2018, , .		0
389	Investment casting and experimental testing of heat sinks designed by topology optimization. International Journal of Heat and Mass Transfer, 2018, 127, 396-412.	2.5	59
390	Topology Optimization and Prototype of a Three-Dimensional Printed Compliant Finger for Grasping Vulnerable Objects With Size and Shape Variations. Journal of Mechanisms and Robotics, 2018, 10, .	1.5	22
391	An explicit optimization model for integrated layout design of planar multi-component systems using moving morphable bars. Computer Methods in Applied Mechanics and Engineering, 2018, 342, 46-70.	3.4	34
392	Extraction of Structural System Designs from Topologies via Morphological Analysis and Artificial Intelligence. Designs, 2018, 2, 8.	1.3	3
393	Topology optimization for microstructural design under stress constraints. Structural and Multidisciplinary Optimization, 2018, 58, 2677-2695.	1.7	53
394	Optimal design and modeling of gyroid-based functionally graded cellular structures for additive manufacturing. CAD Computer Aided Design, 2018, 104, 87-99.	1.4	183
395	Design and Development of a Topology-Optimized Three-Dimensional Printed Soft Gripper. Soft Robotics, 2018, 5, 650-661.	4.6	45
396	On topology optimization and canonical duality method. Computer Methods in Applied Mechanics and Engineering, 2018, 341, 249-277.	3.4	12
397	Topology optimized design, fabrication and evaluation of a multimaterial soft gripper. , 2018, , .		19
398	Robust topology optimization of phononic crystals with random field uncertainty. International Journal for Numerical Methods in Engineering, 2018, 115, 1154-1173.	1.5	50
399	Optimal Design of a Soft Robotic Gripper for Grasping Unknown Objects. Soft Robotics, 2018, 5, 452-465.	4.6	66

#	ARTICLE	IF	CITATIONS
400	Current and future trends in topology optimization for additive manufacturing. Structural and Multidisciplinary Optimization, 2018, 57, 2457-2483.	1.7	533
401	Systematic Design of a Grating Structure to Induce the Surface Plasmon Resonance at a Target Wavelength. IEEE Transactions on Magnetics, 2018, 54, 1-4.	1.2	1
402	Topology optimization of fusiform muscles with a maximum contraction. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3096.	1.0	4
403	Continuous optimization of adaptive quadtree structures. CAD Computer Aided Design, 2018, 102, 72-82.	1.4	17
404	A Moving Morphable Component Based Topology Optimization Approach for Rib-Stiffened Structures Considering Buckling Constraints. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	50
405	Design and prototype of monolithic compliant grippers for adaptive grasping. , 2018, , .		6
406	Multi-Material Topology Optimization: A Practical Approach and Application. , 0, , .		17
407	Isogeometric analysis based topology optimization design with global stress constraint. Computer Methods in Applied Mechanics and Engineering, 2018, 342, 625-652.	3.4	55
408	Multiscale concurrent topology optimization for cellular structures with multiple microstructures based on ordered SIMP interpolation. Computational Materials Science, 2018, 155, 74-91.	1.4	75
409	Modeling and Optimization of Layer-by-Layer Structures. Journal of Physics: Conference Series, 2018, 1009, 012014.	0.3	6
410	Achieving stress-constrained topological design via length scale control. Structural and Multidisciplinary Optimization, 2018, 58, 2053-2071.	1.7	20
411	Integration of cutting time into the structural optimization process: application to a spreader bar design. Structural and Multidisciplinary Optimization, 2018, 58, 2269-2289.	1.7	2
412	Topology optimization of multiple anisotropic materials, with application to self-assembling diblock copolymers. Computer Methods in Applied Mechanics and Engineering, 2018, 338, 562-596.	3.4	15
413	Light-weighting in aerospace component and system design. Propulsion and Power Research, 2018, 7, 103-119.	2.0	263
414	Principles for Optimal Cooperativity in Allosteric Materials. Biophysical Journal, 2018, 114, 2787-2798.	0.2	30
415	Shepard Interpolation Based on Geodesic Distance for Optimization of Fiber Reinforced Composite Structures with Non-Convex Shape. Applied Composite Materials, 2019, 26, 575-590.	1.3	5
417	Conceptual design of efficient heat conductors using multi-material topology optimization. Engineering Optimization, 2019, 51, 796-814.	1.5	14
418	Topology optimization for the computationally poor: efficient high resolution procedures using beam modeling. Structural and Multidisciplinary Optimization, 2019, 59, 165-184.	1.7	7

#	ARTICLE	IF	CITATIONS
419	Topology optimization of shell-infill structures using a distance regularized parametric level-set method. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 249-262.	1.7	33
420	Robust topology optimization formulation including local failure and load uncertainty using sequential quadratic programming. <i>International Journal of Mechanics and Materials in Design</i> , 2019, 15, 317-332.	1.7	24
421	A Structure Topology Optimization With the First-Order Saddlepoint Approximation. <i>IEEE Access</i> , 2019, 7, 98174-98181.	2.6	2
422	Achieving Minimum Length Scale in Heaviside-based Morphological Filters. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 562, 012030.	0.3	2
423	A Contrastive Study of Two Heaviside-based Morphological Filters. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 585, 012099.	0.3	0
424	Deep Generative Design: Integration of Topology Optimization and Generative Models. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	1.7	190
425	Velocity field level-set method for topological shape optimization using freely distributed design variables. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 120, 1411-1427.	1.5	10
426	Lightweight Splint Design for Individualized Treatment of Distal Radius Fracture. <i>Journal of Medical Systems</i> , 2019, 43, 284.	2.2	13
427	Topology optimization of unsaturated flows in multi-material porous media: Application to a simple diaper model. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 78, 104871.	1.7	7
428	Experimental investigation of strut-and-tie layouts in deep RC beams designed with hybrid bi-linear topology optimization. <i>Engineering Structures</i> , 2019, 197, 109322.	2.6	31
429	Concurrent topology optimization with uniform microstructure for minimizing dynamic response in the time domain. <i>Computers and Structures</i> , 2019, 222, 98-117.	2.4	22
430	Variational approach to relaxed topological optimization: Closed form solutions for structural problems in a sequential pseudo-time framework. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 355, 779-819.	3.4	9
431	3D multi-material and multi-joint topology optimization with tooling accessibility constraints. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2531-2558.	1.7	27
432	Combination of Isogeometric analysis and level-set method in topology optimization of heat-conduction systems. <i>Applied Thermal Engineering</i> , 2019, 161, 114134.	3.0	21
433	Density-based topology optimization for 3D-printable building structures. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2391-2403.	1.7	22
434	A new stabilisation approach for level-set based topology optimisation of hyperelastic materials. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2343-2371.	1.7	6
435	Multiobjective optimization of modular structures: Weight versus geometric versatility in a Truss system. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2019, 34, 1026-1040.	6.3	20
436	3D printing of Aluminium alloys: Additive Manufacturing of Aluminium alloys using selective laser melting. <i>Progress in Materials Science</i> , 2019, 106, 100578.	16.0	872

#	ARTICLE	IF	CITATIONS
437	Structural topology optimization under stationary random base acceleration excitations. Chinese Journal of Aeronautics, 2019, 32, 1416-1427.	2.8	11
438	Fail-safe optimization of beam structures. Journal of Computational Design and Engineering, 2019, 6, 260-268.	1.5	21
439	Topology optimization of heat and mass transfer problems in two fluidsâ€™one solid domains. Numerical Heat Transfer, Part B: Fundamentals, 2019, 76, 130-151.	0.6	14
440	Robust topology optimization under load position uncertainty. International Journal for Numerical Methods in Engineering, 2019, 120, 1249-1272.	1.5	14
441	Exploring feasible design spaces for heterogeneous constraints. CAD Computer Aided Design, 2019, 115, 323-347.	1.4	17
442	Topology optimization of tungsten/copper structures for plasma-facing component applications. Nuclear Fusion, 2019, 59, 086003.	1.6	7
443	Design of MIMO Antenna Isolation Structure Based on a Hybrid Topology Optimization Method. IEEE Transactions on Antennas and Propagation, 2019, 67, 6298-6307.	3.1	17
444	Topological Design of a Lightweight Sandwich Aircraft Spoiler. Materials, 2019, 12, 3225.	1.3	16
445	Topology optimization of nonlinear heat conduction problems involving large temperature gradient. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112600.	3.4	30
446	Toward holistic tension- or compression-biased structural designs using topology optimization. Engineering Structures, 2019, 199, 109632.	2.6	24
447	Additive manufacturing in construction: A review on processes, applications, and digital planning methods. Additive Manufacturing, 2019, 30, 100894.	1.7	243
448	Hybrid reinforcement design of longitudinal joints for segmental concrete linings. Structural Concrete, 2019, 20, 1926-1940.	1.5	30
449	Heaviside-Based Morphological Filters for Topology Optimization. IOP Conference Series: Materials Science and Engineering, 0, 472, 012034.	0.3	6
450	Impact Optimization of 3Dâ€™Printed Poly(methyl methacrylate) for Cranial Implants. Macromolecular Materials and Engineering, 2019, 304, 1900263.	1.7	21
451	A material-field series-expansion method for topology optimization of continuum structures. Computers and Structures, 2019, 225, 106122.	2.4	76
452	Effect of joint stiffness on torsional stiffness of open lattice composite structures. Journal of Industrial Textiles, 2019, , 152808371988181.	1.1	2
453	Review on design and structural optimisation in additive manufacturing: Towards next-generation lightweight structures. Materials and Design, 2019, 183, 108164.	3.3	397
454	Genetic algorithm vs finite differences in an optimization procedure including FEM with fixed mesh. AIP Conference Proceedings, 2019, , .	0.3	1

#	ARTICLE	IF	CITATIONS
455	Direct design to stress mapping for cellular structures. Visual Informatics, 2019, 3, 69-80.	2.5	0
456	High-Resolution Topology Optimization with Stress and Natural Frequency Constraints. AIAA Journal, 2019, 57, 3562-3578.	1.5	24
457	Isogeometric Bi-Directional Evolutionary Structural Optimization. IEEE Access, 2019, 7, 91134-91145.	2.6	18
458	Multi-scale topology optimization of multi-material structures with controllable geometric complexity – Applications to heat transfer problems. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112552.	3.4	32
459	EJBot-II: an optimized skid-steering propeller-type climbing robot with transition mechanism. Advanced Robotics, 2019, 33, 1042-1059.	1.1	13
460	Multiscale optimal design and fabrication of laminated composites. Composite Structures, 2019, 228, 111366.	3.1	16
461	Systemic inflammation and the effects of short-term antibiotic treatment for PPM positive patients with stable COPD. International Journal of COPD, 2019, Volume 14, 1923-1932.	0.9	1
462	Topology optimization design of multi-scale structures with alterable microstructural length-width ratios. Composite Structures, 2019, 230, 111454.	3.1	26
463	Design for X-Ray Computed Tomography. Procedia CIRP, 2019, 84, 173-178.	1.0	5
464	Structural design optimization of knee replacement implants for Additive Manufacturing. Procedia Manufacturing, 2019, 34, 574-583.	1.9	17
465	Design and Topology Optimization of 3D-Printed Wax Patterns for Rapid Investment Casting. Procedia Manufacturing, 2019, 34, 683-694.	1.9	40
466	Topology optimization of cracked structures using peridynamics. Continuum Mechanics and Thermodynamics, 2019, 31, 1645-1672.	1.4	51
467	Design for metal additive manufacturing. , 2019, , 193-244.		2
468	Qualification for metal additive manufacturing. , 2019, , 245-307.		1
469	Design and additive manufacture of functionally graded structures based on digital materials. Additive Manufacturing, 2019, 30, 100839.	1.7	40
470	Aeroelastic Topology Optimization of a Morphing Airfoil in Supersonic Flow using Evolutionary Design. , 2019, , .		9
471	Shape preserving design of geometrically nonlinear structures using topology optimization. Structural and Multidisciplinary Optimization, 2019, 59, 1033-1051.	1.7	20
472	A novel optimization design method of additive manufacturing oriented porous structures and experimental validation. Materials and Design, 2019, 163, 107550.	3.3	30

#	ARTICLE	IF	CITATIONS
473	Robust topology optimization of hinge-free compliant mechanisms with material uncertainties based on a non-probabilistic field model. <i>Frontiers of Mechanical Engineering</i> , 2019, 14, 201-212.	2.5	12
474	Topology optimization of truncated cone insulator with graded permittivity using variable density method. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 1-9.	1.8	45
475	Topology optimization via sequential integer programming and Canonical relaxation algorithm. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 348, 64-96.	3.4	53
476	Topology and Size-Shape Optimization of an Adaptive Compliant Gripper with High Mechanical Advantage for Grasping Irregular Objects. <i>Robotica</i> , 2019, 37, 1383-1400.	1.3	30
477	A novel minimum weight formulation of topology optimization implemented with reanalysis approach. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 120, 567-579.	1.5	17
478	Double-grid quadrature with interpolation-projection (DoGIP) as a novel discretisation approach: An application to FEM on simplexes. <i>Computers and Mathematics With Applications</i> , 2019, 78, 3501-3513.	1.4	2
479	Additive Technologies in Airplane-Engine Manufacture. <i>Russian Engineering Research</i> , 2019, 39, 262-267.	0.2	3
480	Topology optimization of bimorph piezoelectric energy harvesters considering variable electrode location. <i>Smart Materials and Structures</i> , 2019, 28, 085030.	1.8	13
481	A comparison of topology optimization and genetic algorithms for the optimization of thermal energy storage composites. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 29, 3454-3471.	1.6	2
482	Bi-material topology optimization for energy dissipation with inertia and material rate effects under finite deformations. <i>Finite Elements in Analysis and Design</i> , 2019, 164, 18-41.	1.7	14
483	Topological Optimization of Phononic Crystal Thin Plate by a Genetic Algorithm. <i>Scientific Reports</i> , 2019, 9, 8331.	1.6	36
484	Free isotropic material optimization via second order cone programming. <i>CAD Computer Aided Design</i> , 2019, 115, 52-63.	1.4	5
485	An aggregation strategy of maximum size constraints in density-based topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2113-2130.	1.7	29
486	A multi-objective optimization problem in mixed and natural convection for a vertical channel asymmetrically heated. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2001-2020.	1.7	6
487	Topology optimization of compliant mechanisms with stress constraints and manufacturing error robustness. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 354, 397-421.	3.4	53
488	A novel subdomain level set method for structural topology optimization and its application in graded cellular structure design. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 2221-2247.	1.7	37
489	Cut topology optimization for linear elasticity with coupling to parametric nondesign domain regions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 350, 462-479.	3.4	13
490	Topology optimization of thermal conductive support structures for laser additive manufacturing. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 353, 24-43.	3.4	69

#	ARTICLE	IF	CITATIONS
491	Characterization of effective Young's modulus for Fused Deposition Modeling manufactured topology optimization designs. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 103, 2879-2892.	1.5	14
492	Nested Topology Optimization Methodology for Designing Two-Wheel Chassis. <i>Frontiers in Built Environment</i> , 2019, 5, .	1.2	6
493	Optimizing Weight of Housing Elements of Two-stage Reducer by Using the Topology Management Optimization Capabilities Integrated in SOLIDWORKS: A Case Study. <i>Machines</i> , 2019, 7, 9.	1.2	14
494	Shape optimization for the design of passive mid-infrared photonic components. <i>Optical and Quantum Electronics</i> , 2019, 51, 1.	1.5	8
495	Efficient quantification of material uncertainties in reliability-based topology optimization using random matrices. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 351, 548-570.	3.4	17
496	A two-material topology optimization method for structures under steady thermo-mechanical loading. <i>Journal of Intelligent Material Systems and Structures</i> , 2019, 30, 1717-1726.	1.4	5
497	A novel approach for length scale control in structural topology optimization. <i>Engineering Optimization</i> , 2019, 51, 1668-1686.	1.5	2
498	On structural topology optimization using graded porosity control. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 1437-1453.	1.7	26
499	Topology Optimization of Photonic and Phononic Crystals and Metamaterials: A Review. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900017.	1.3	107
500	Continuous transportation as a material distribution topology optimization problem. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1471-1482.	1.7	1
501	SoftFEM: The Soft Finite Element Method. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 118, 606-630.	1.5	7
502	Shape Optimization of a Compression Driver Phase Plug. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, B181-B204.	1.3	3
503	Topology optimization under topologically dependent material uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 1283-1287.	1.7	8
504	Topology optimization of acoustic mechanical interaction problems: a comparative review. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 779-801.	1.7	50
505	Three-dimensional stress-based topology optimization using SIMP method. <i>International Journal for Simulation and Multidisciplinary Design Optimization</i> , 2019, 10, A1.	0.6	11
506	Research on Multiobjective Topology Optimization of Diesel Engine Cylinder Block Based on Analytic Hierarchy Process. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-16.	0.6	3
507	A Novel Canonical Duality Theory for Solving 3-D Topology Optimization Problems. <i>Advances in Mechanics and Mathematics</i> , 2019, , 209-246.	0.2	1
508	ICM method for topology optimization of multimaterial continuum structure with displacement constraint. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2019, 35, 552-562.	1.5	22

#	ARTICLE	IF	CITATIONS
509	GHOSTâ€”Gate to Hybrid Optimization of Structural Topologies. <i>Materials</i> , 2019, 12, 1152.	1.3	3
510	Topology optimization of oilstone components considering carbon emissions associated with honing processes. <i>Journal of Cleaner Production</i> , 2019, 225, 181-195.	4.6	6
511	Machine-learning based design of active composite structures for 4D printing. <i>Smart Materials and Structures</i> , 2019, 28, 065005.	1.8	87
512	Manufacturing cost constrained topology optimization for additive manufacturing. <i>Frontiers of Mechanical Engineering</i> , 2019, 14, 213-221.	2.5	30
513	Deep learningâ€”based inverse method for layout design. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 527-536.	1.7	29
514	Mechanical Metamaterials and Their Engineering Applications. <i>Advanced Engineering Materials</i> , 2019, 21, 1800864.	1.6	493
515	Boundary element method applied to topology optimization using the level set method and an alternative velocity regularization. <i>Meccanica</i> , 2019, 54, 549-563.	1.2	10
516	Optimization of passive grooved micromixers based on genetic algorithm and graph theory. <i>Microfluidics and Nanofluidics</i> , 2019, 23, 1.	1.0	24
517	Topology Optimization of Periodic Structures With Substructuring. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	1.7	25
518	Topology optimization driven by anisotropic mesh adaptation: Towards a free-form design. <i>Computers and Structures</i> , 2019, 214, 60-72.	2.4	22
519	Topology optimization for eigenfrequencies of a rotating thin plate via moving morphable components. <i>Journal of Sound and Vibration</i> , 2019, 448, 83-107.	2.1	20
520	A regularization scheme for explicit level-set XFEM topology optimization. <i>Frontiers of Mechanical Engineering</i> , 2019, 14, 153-170.	2.5	14
521	POD-assisted strategies for structural topology optimization. <i>Computers and Mathematics With Applications</i> , 2019, 77, 2804-2820.	1.4	18
522	Design and Optimization of Graded Cellular Structures With Triply Periodic Level Surface-Based Topological Shapes. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	1.7	81
523	Robust regularization of topology optimization problems with a posteriori error estimators. <i>Russian Journal of Numerical Analysis and Mathematical Modelling</i> , 2019, 34, 57-69.	0.2	1
524	Robust topology optimization of solid continua for peak response serviceability to uncertain quasi-static loads with temporal correlation. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 443-460.	1.7	1
525	Topology optimization of material microstructures using energy-based homogenization method under specified initial material layout. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 677-693.	0.7	19
526	Introduction to the design rules for Metal Big Area Additive Manufacturing. <i>Additive Manufacturing</i> , 2019, 27, 159-166.	1.7	67

#	ARTICLE	IF	CITATIONS
527	Cellular level set in B-splines (CLIBS): A method for modeling and topology optimization of cellular structures. Computer Methods in Applied Mechanics and Engineering, 2019, 349, 378-404.	3.4	29
528	Multiscale structural optimization towards three-dimensional printable structures. Structural and Multidisciplinary Optimization, 2019, 60, 513-525.	1.7	41
529	Topology-optimized design, construction and experimental evaluation of concrete beams. Automation in Construction, 2019, 102, 59-67.	4.8	51
530	On the emergence of negative effective density and modulus in 2-phase phononic crystals. Journal of the Mechanics and Physics of Solids, 2019, 126, 256-271.	2.3	31
531	Tension/compression anisotropy enhanced topology design. Structural and Multidisciplinary Optimization, 2019, 59, 2227-2255.	1.7	22
532	3D topology optimization of continuous fiber-reinforced structures via natural evolution method. Composite Structures, 2019, 215, 289-297.	3.1	79
533	Parametric Topology Optimization Toward Rational Design and Efficient Prefabrication for Additive Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	1.3	11
534	Integrated layout and topology optimization design of multi-component systems under harmonic base acceleration excitations. Structural and Multidisciplinary Optimization, 2019, 59, 1053-1073.	1.7	15
535	Topology optimization of continuum structures for the uniformity of contact pressures. Structural and Multidisciplinary Optimization, 2019, 60, 185-210.	1.7	25
536	Case study on topology optimized design for additive manufacturing. IOP Conference Series: Materials Science and Engineering, 2019, 659, 012020.	0.3	2
537	Design of fluid components using the topological optimization method. Engineering Computations, 2019, 36, 1430-1448.	0.7	0
538	Manufacturable Gradient-Variable Cellular Structures Design. IOP Conference Series: Materials Science and Engineering, 2019, 692, 012010.	0.3	3
539	A Predicting Initial Layout of Components Method Using Machine Learning. , 2019, , .		0
541	Topology Optimization for Coils of Electric Machine with Level-set Method. , 2019, , .		2
542	Simulator-based training of generative neural networks for the inverse design of metasurfaces. Nanophotonics, 2020, 9, 1059-1069.	2.9	96
543	Influence of Density-Based Topology Optimization Parameters on the Design of Periodic Cellular Materials. Materials, 2019, 12, 3736.	1.3	4
544	Waveform-Based Geometrical Inversion of Obstacles. Physical Review Applied, 2019, 12, .	1.5	4
545	Topology Optimization With Selective Problem Setups. IEEE Access, 2019, 7, 180846-180855.	2.6	5

#	ARTICLE	IF	CITATIONS
546	Wing box topology optimization of tourist class reusable space vehicle. AIP Conference Proceedings, 2019, , .	0.3	1
547	Comparison of thermodynamic topology optimization with SIMP. Continuum Mechanics and Thermodynamics, 2019, 31, 521-548.	1.4	11
548	A Heuristic Approach to Subdomain Oriented Multi-material Topology Optimization. , 2019, , 949-958.		0
549	A Generalized SNC-BESO Method for Multi-objective Topology Optimization. , 2019, , 3-14.		0
550	Topology optimization of the wick geometry in a flat plate heat pipe. International Journal of Heat and Mass Transfer, 2019, 128, 239-247.	2.5	15
551	Machine Learning-Driven Real-Time Topology Optimization Under Moving Morphable Component-Based Framework. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	112
552	Concurrent two-scale topological design of multiple unit cells and structure using combined velocity field level set and density model. Computer Methods in Applied Mechanics and Engineering, 2019, 347, 340-364.	3.4	48
553	Novel methodology of Non-probabilistic Reliability-based Topology Optimization (NRBTO) for multi-material layout design via interval and convex mixed uncertainties. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 550-573.	3.4	19
554	Narrow-band topology optimization on a sparsely populated grid. ACM Transactions on Graphics, 2018, 37, 1-14.	4.9	37
555	A multi-objective approach for multi-material topology and shape optimization. Engineering Optimization, 2019, 51, 915-940.	1.5	6
556	Texture-guided generative structural designs under local control. CAD Computer Aided Design, 2019, 108, 1-11.	1.4	11
557	Material distributive topology design of UWB antenna using parallel computation of improved BPSO with FDTD. International Journal of Microwave and Wireless Technologies, 2019, 11, 190-198.	1.5	1
558	Combination of topology optimization and Lie derivative-based shape optimization for electro-mechanical design. Structural and Multidisciplinary Optimization, 2019, 59, 1723-1731.	1.7	13
559	Stress-constrained topology optimization of continuum structures subjected to harmonic force excitation using sequential quadratic programming. Structural and Multidisciplinary Optimization, 2019, 59, 1747-1759.	1.7	55
560	Multimaterial topology design for optimal elastic and thermal response with material-specific temperature constraints. International Journal for Numerical Methods in Engineering, 2019, 117, 1019-1037.	1.5	18
561	Robust topology optimization for concurrent design of dynamic structures under hybrid uncertainties. Mechanical Systems and Signal Processing, 2019, 120, 540-559.	4.4	50
562	An accurate and fast regularization approach to thermodynamic topology optimization. International Journal for Numerical Methods in Engineering, 2019, 117, 991-1017.	1.5	19
563	Combined Level-Set-XFEM-Density Topology Optimization of Four-Dimensional Printed Structures Undergoing Large Deformation. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	40

#	ARTICLE	IF	CITATIONS
564	Robust topology optimization of vibrating structures considering random diffuse regions via a phase-field method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 344, 766-797.	3.4	21
565	Topology optimization of conjugate heat transfer systems: A competition between heat transfer enhancement and pressure drop reduction. <i>International Journal of Heat and Fluid Flow</i> , 2019, 75, 165-184.	1.1	38
566	Evolutionary topology optimization for acoustic-structure interaction problems using a mixed u/p formulation. <i>Mechanics Based Design of Structures and Machines</i> , 2019, 47, 356-374.	3.4	15
567	Optimal design of a model energy conversion device. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 389-401.	1.7	4
568	Material-integrated cluster computing in self-adaptive robotic materials using mobile multi-agent systems. <i>Cluster Computing</i> , 2019, 22, 1017-1037.	3.5	2
569	Topology Optimization of Composite Self-Deployable Thin Shells with Cutouts. , 2019, , .		4
570	An Intelligent Robotic System for Handling and Laser Marking Fruits. , 2019, , 75-88.		6
571	Concurrent shape and topology optimization involving design-dependent pressure loads using implicit B-spline curves. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 118, 495-518.	1.5	12
572	Topology optimization for brittle fracture resistance. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 347, 238-263.	3.4	36
573	A phase-field based robust topology optimization method for phononic crystals design considering uncertain diffuse regions. <i>Computational Materials Science</i> , 2019, 160, 159-172.	1.4	26
574	Structural Topology Optimisation with R-Snakes Volume of Solid. , 2019, , .		0
575	Topology optimization for multiscale design of porous composites with multi-domain microstructures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 344, 451-476.	3.4	106
576	Optimizing Topology and Gradient Orthotropic Material Properties Under Multiple Loads. <i>Journal of Computing and Information Science in Engineering</i> , 2019, 19, .	1.7	5
577	Explicit model of dual programming and solving method for a class of separable convex programming problems. <i>Engineering Optimization</i> , 2019, 51, 1604-1625.	1.5	5
578	Multi-physics bi-directional evolutionary topology optimization on GPU-architecture. <i>Engineering With Computers</i> , 2019, 35, 1059-1079.	3.5	11
579	Design of shell-infill structures by a multiscale level set topology optimization method. <i>Computers and Structures</i> , 2019, 212, 162-172.	2.4	67
580	Non-probabilistic robust continuum topology optimization with stress constraints. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1181-1197.	1.7	17
581	Stress-constrained topology optimization considering uniform manufacturing uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 344, 512-537.	3.4	96

#	ARTICLE	IF	CITATIONS
582	Concurrent shape and topology optimization for steady conjugate heat transfer. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 919-940.	1.7	13
583	Design of sandwich panels with truss cores using explicit topology optimization. <i>Composite Structures</i> , 2019, 210, 892-905.	3.1	30
584	An adaptive mesh adjustment strategy for continuum topology optimization to achieve manufacturable structural layout. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 117, 1304-1322.	1.5	11
585	Fatigue-based topology optimization with non-proportional loads. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 345, 805-825.	3.4	31
586	Explicit level set and density methods for topology optimization with equivalent minimum length scale constraints. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1775-1788.	1.7	20
587	A Macro-scale Topology Optimization Method for Flows Through Solid Structure Arrays. , 2019, , 153-163.		0
588	Evaluation of surface integrity after high energy machining with EDM, laser beam machining and abrasive water jet machining of alloy 718. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 100, 1575-1591.	1.5	43
589	Topology Optimized Multimaterial Soft Fingers for Applications on Grippers, Rehabilitation, and Artificial Hands. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019, 24, 120-131.	3.7	93
590	Topology optimization of cellular materials with periodic microstructure under stress constraints. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 633-645.	1.7	21
591	Robust topology optimization for periodic structures by combining sensitivity averaging with a semianalytical method. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 117, 475-497.	1.5	12
592	A Hybrid Method for Density-Related Topology Optimization. <i>International Journal of Computational Methods</i> , 2019, 16, 1850116.	0.8	4
593	Re-Thinking Design Methodology for Castings: 3D Sand-Printing and Topology Optimization. <i>International Journal of Metalcasting</i> , 2019, 13, 2-17.	1.5	40
594	An approach for the design of multi-material mechanical components. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2019, 233, 960-974.	1.5	10
595	Concurrent optimization of material spatial distribution and material anisotropy repartition for two-dimensional structures. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 133-146.	1.4	18
596	Development of Compliant Thermoelectric Generators (TEGs) in Aerospace Applications Using Topology Optimization. <i>Energy Harvesting and Systems</i> , 2019, 4, 87-105.	1.7	8
597	Topology Optimization of Micro-Structured Materials Featured with the Specific Mechanical Properties. <i>International Journal of Computational Methods</i> , 2020, 17, 1850144.	0.8	22
598	Virtual element method (VEM)-based topology optimization: an integrated framework. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1089-1114.	1.7	26
599	Fracture strength topology optimization of structural specific position using a bi-directional evolutionary structural optimization method. <i>Engineering Optimization</i> , 2020, 52, 583-602.	1.5	10

#	ARTICLE	IF	CITATIONS
600	From Topology Optimization Design to Additive Manufacturing: Today's Success and Tomorrow's Roadmap. Archives of Computational Methods in Engineering, 2020, 27, 805-830.	6.0	206
601	Mixed projection- and density-based topology optimization with applications to structural assemblies. Structural and Multidisciplinary Optimization, 2020, 61, 687-710.	1.7	11
602	Design of compliant mechanisms using continuum topology optimization: A review. Mechanism and Machine Theory, 2020, 143, 103622.	2.7	218
603	Design and analysis adaptivity in multiresolution topology optimization. International Journal for Numerical Methods in Engineering, 2020, 121, 450-476.	1.5	18
604	An aerospace bracket designed by thermo-elastic topology optimization and manufactured by additive manufacturing. Chinese Journal of Aeronautics, 2020, 33, 1252-1259.	2.8	82
605	Topology Optimization of Truss-Like Structure with Stress Constraints Under Multiple-Load Cases. Acta Mechanica Solida Sinica, 2020, 33, 226-238.	1.0	1
606	Precise output loads control of load-diffusion components with topology optimization. Chinese Journal of Aeronautics, 2020, 33, 933-946.	2.8	4
607	Combination of the phase field method and BESO method for topology optimization. Structural and Multidisciplinary Optimization, 2020, 61, 225-237.	1.7	6
608	Parametric studies and manufacturability experiments on smooth self-supporting topologies. Virtual and Physical Prototyping, 2020, 15, 22-34.	5.3	18
609	Topology-Optimized 4D Printing of a Soft Actuator. Acta Mechanica Solida Sinica, 2020, 33, 418-430.	1.0	61
610	Modified element stacking method for multi-material topology optimization with anisotropic materials. Structural and Multidisciplinary Optimization, 2020, 61, 525-541.	1.7	26
611	Adjoint sensitivity analysis and optimization of transient problems using the mixed Lagrangian formalism as a time integration scheme. Structural and Multidisciplinary Optimization, 2020, 61, 619-634.	1.7	9
612	Explicit topology optimization using IGA-based moving morphable void (MMV) approach. Computer Methods in Applied Mechanics and Engineering, 2020, 360, 112685.	3.4	65
613	Isogeometric topology optimization of anisotropic metamaterials for controlling high-frequency electromagnetic wave. International Journal for Numerical Methods in Engineering, 2020, 121, 1218-1247.	1.5	17
614	A direct approach to controlling the topology in structural optimization. Computers and Structures, 2020, 227, 106141.	2.4	39
615	Morphological optimization of scorpion telson. Journal of the Mechanics and Physics of Solids, 2020, 135, 103773.	2.3	29
616	Solution to the topology optimization problem using a time-evolution equation. International Journal for Numerical Methods in Engineering, 2020, 121, 2246-2261.	1.5	3
617	Topology Optimisation of Engine Cross Members for Lightweight Structure in Light Commercial Vehicles. International Journal of Precision Engineering and Manufacturing, 2020, 21, 465-482.	1.1	4

#	ARTICLE	IF	CITATIONS
618	An adaptive bubble method for structural shape and topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 360, 112778.	3.4	27
619	Structural topological optimization with dynamic fatigue constraints subject to dynamic random loads. <i>Engineering Structures</i> , 2020, 205, 110089.	2.6	18
620	Topology optimization of compliant mechanism considering actual output displacement using adaptive output spring stiffness. <i>Mechanism and Machine Theory</i> , 2020, 146, 103728.	2.7	18
621	Bandgap design of three-phase phononic crystal by topological optimization. <i>Wave Motion</i> , 2020, 93, 102496.	1.0	27
622	Certain trends in uncertainty and sensitivity analysis: An overview of software tools and techniques. <i>Environmental Modelling and Software</i> , 2020, 124, 104588.	1.9	49
623	Topology optimization of freely floating elastic continua using the inertia relief method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112733.	3.4	3
624	Resource analysis model and validation for selective laser melting, constituting the potential of lightweight design for material efficiency. <i>Sustainable Production and Consumption</i> , 2020, 21, 182-191.	5.7	9
625	Simultaneous single-loop multimaterial and multijoint topology optimization. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 1558-1594.	1.5	15
626	Chamber layout design optimization of soft pneumatic robots. <i>Smart Materials and Structures</i> , 2020, 29, 025017.	1.8	12
627	Design, optimization, and validation of mechanical properties of different cellular structures for biomedical application. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 106, 1253-1265.	1.5	42
628	An explicit structural topology optimization method based on the descriptions of areas. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1123-1156.	1.7	8
629	Further elaborations on topology optimization via sequential integer programming and Canonical relaxation algorithm and 128-line MATLAB code. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 411-431.	1.7	42
630	Robust concurrent topology optimization of multiscale structure under single or multiple uncertain load cases. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 1456-1483.	1.5	19
631	A density-and-strain-based K-clustering approach to microstructural topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1399-1415.	1.7	34
632	A "poor man's" approach for high-resolution three-dimensional topology design for natural convection problems. <i>Advances in Engineering Software</i> , 2020, 140, 102736.	1.8	35
633	Designing phononic crystal with anticipated band gap through a deep learning based data-driven method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112737.	3.4	113
634	Evolutionary Black-Box Topology Optimization: Challenges and Promises. <i>IEEE Transactions on Evolutionary Computation</i> , 2020, 24, 613-633.	7.5	20
635	Multifidelity design guided by topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1071-1085.	1.7	13

#	ARTICLE	IF	CITATIONS
636	A performance-based design framework for enhancing decision-making at the conceptual phase of a motorcycle rear suspension development. <i>Optimization and Engineering</i> , 2020, 21, 1283-1317.	1.3	4
637	Designing Ferromagnetic Soft Robots (FerroSoRo) with Level-Set-Based Multiphysics Topology Optimization. , 2020, , .		12
638	Size-dependent two-scale topological design for maximizing structural fundamental eigenfrequency. <i>JVC/Journal of Vibration and Control</i> , 2021, 27, 2600-2615.	1.5	1
639	Impact Response of Hammerhead Pier Fibrous Concrete Beams Designed with Topology Optimization. <i>Periodica Polytechnica: Civil Engineering</i> , 0, , .	0.6	30
640	Optimal design and manufacture of variable stiffness laminated continuous fiber reinforced composites. <i>Scientific Reports</i> , 2020, 10, 16507.	1.6	39
641	Invited review: Machine learning for materials developments in metals additive manufacturing. <i>Additive Manufacturing</i> , 2020, 36, 101641.	1.7	61
642	Additive manufacturing oriented topology optimization of structures with self-supported enclosed voids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 372, 113385.	3.4	56
643	Realization of an ultrawide stop band in a 2-D elastic metamaterial with topologically optimized inertial amplification mechanisms. <i>International Journal of Solids and Structures</i> , 2020, 203, 138-150.	1.3	68
644	Method for generating manufacturable, topology-optimized parts for Laminated Layer Manufacturing. <i>Procedia CIRP</i> , 2020, 93, 38-43.	1.0	3
645	Topology Optimisation and Metal Based Additive Manufacturing of Welding Jig Elements. <i>Procedia CIRP</i> , 2020, 93, 62-67.	1.0	9
646	Topology optimization of impeller blades in baffled stirred tanks. <i>Case Studies in Chemical and Environmental Engineering</i> , 2020, 2, 100043.	2.9	2
647	SEMDOT: Smooth-edged material distribution for optimizing topology algorithm. <i>Advances in Engineering Software</i> , 2020, 150, 102921.	1.8	33
648	Topology optimization under uncertainty using a stochastic gradient-based approach. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2255-2278.	1.7	26
649	Fatigue-resistance topology optimization of continuum structure by penalizing the cumulative fatigue damage. <i>Advances in Engineering Software</i> , 2020, 150, 102924.	1.8	37
650	Topology optimization of dynamic acousticâ€œmechanical structures using the ersatz material model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 372, 113387.	3.4	22
651	Machine learning-based design and optimization of curved beams for multistable structures and metamaterials. <i>Extreme Mechanics Letters</i> , 2020, 41, 101002.	2.0	59
652	Topology optimisation of lattice telecommunication tower and performance-based design considering wind and ice loads. <i>Structures</i> , 2020, 27, 2379-2399.	1.7	11
653	Metallization of diamond. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24634-24639.	3.3	29

#	ARTICLE	IF	CITATIONS
654	Structural optimization with explicit geometric constraints using a B-spline representation. Mechanics Based Design of Structures and Machines, 2020, , 1-32.	3.4	6
655	Topology and Parametric Optimization-Based Design Processes for Lightweight Structures. Applied Sciences (Switzerland), 2020, 10, 4496.	1.3	18
656	A new geometrically nonlinear topology optimization formulation for controlling maximum displacement. Engineering Optimization, 2021, 53, 1283-1297.	1.5	13
657	An efficient gradient projection method for structural topology optimization. Advances in Engineering Software, 2020, 149, 102863.	1.8	6
658	Topology optimization in lightweight design of a 3D-printed flapping-wing micro aerial vehicle. Chinese Journal of Aeronautics, 2020, 33, 3206-3219.	2.8	16
659	Topology optimization of tribological composites for multifunctional performance at sliding interfaces. Composites Part B: Engineering, 2020, 199, 108209.	5.9	6
660	A CAD-oriented structural topology optimization method. Computers and Structures, 2020, 239, 106324.	2.4	29
661	Consistent pseudo-mode informed topology optimization for structural stability applications. Computer Methods in Applied Mechanics and Engineering, 2020, 370, 113276.	3.4	5
662	Inverse-designed spinodoid metamaterials. Npj Computational Materials, 2020, 6, .	3.5	151
663	Structural topology optimization with smoothly varying fiber orientations. Structural and Multidisciplinary Optimization, 2020, 62, 3105-3126.	1.7	41
664	Topology Optimization and Additive Manufacturing of Automotive Component by Coupling Kinetic and Structural Analyses. International Journal of Automotive Technology, 2020, 21, 1455-1463.	0.7	19
665	Topology Optimization considering Nonsmooth Structural Boundaries in the Intersection Areas of the Components. Shock and Vibration, 2020, 2020, 1-14.	0.3	1
666	Topology optimization of transient nonlinear heat conduction using an adaptive parameterized level-set method. Engineering Optimization, 2021, 53, 2017-2039.	1.5	7
667	A simple density filter for the topology optimization of coated structures. Engineering Optimization, 2021, 53, 2088-2107.	1.5	7
668	Design of heterogeneous mesostructures for nonseparated scales and analysis of size effects. International Journal for Numerical Methods in Engineering, 2021, 122, 1333.	1.5	6
669	Layout Design of Stiffened Plates for Large-Scale Box Structure under Moving Loads Based on Topology Optimization. Mathematical Problems in Engineering, 2020, 2020, 1-11.	0.6	2
670	Bi-fidelity stochastic gradient descent for structural optimization under uncertainty. Computational Mechanics, 2020, 66, 745-771.	2.2	17
671	Extruded-geometric-component-based 3D topology optimization. Computer Methods in Applied Mechanics and Engineering, 2020, 371, 113293.	3.4	19

#	ARTICLE	IF	CITATIONS
672	A Deep Learning-Based Method for Heat Source Layout Inverse Design. IEEE Access, 2020, 8, 140038-140053.	2.6	5
673	Topology optimization of hyperelastic structures using a modified evolutionary topology optimization method. Structural and Multidisciplinary Optimization, 2020, 62, 3071-3088.	1.7	9
674	Inverse Design of Nanophotonic Devices with Structural Integrity. ACS Photonics, 2020, 7, 2190-2196.	3.2	36
675	Structural topology optimization with positive and negative Poisson's ratio materials. Engineering Computations, 2020, 37, 1805-1822.	0.7	5
676	Topology Optimization for FDM Parts Considering the Hybrid Deposition Path Pattern. Micromachines, 2020, 11, 709.	1.4	9
677	Adaptive level set topology optimization using hierarchical B-splines. Structural and Multidisciplinary Optimization, 2020, 62, 1669-1699.	1.7	18
678	High-risk prediction localization: evaluating the reliability of black box models for topology optimization. Structural and Multidisciplinary Optimization, 2020, 62, 3053-3069.	1.7	2
679	A review on feature-mapping methods for structural optimization. Structural and Multidisciplinary Optimization, 2020, 62, 1597-1638.	1.7	72
680	Sequentially coupled gradient-based topology and domain shape optimization. Optimization and Engineering, 2022, 23, 25-58.	1.3	5
681	Lattice structure optimization and homogenization through finite element analyses. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2020, 234, 1490-1502.	0.7	4
682	Topology optimization of steady-state heat conduction structures using meshless generalized finite difference method. Engineering Analysis With Boundary Elements, 2020, 119, 13-24.	2.0	19
683	h-adaptive topology optimization considering variations of material properties and energy error density recovery. Engineering Computations, 2020, 37, 3209-3241.	0.7	1
684	Inversion of convection-diffusion equation with discrete sources. Optimization and Engineering, 2020, 22, 1419.	1.3	1
685	Numerical performance of Poisson method for restricting enclosed voids in topology optimization. Computers and Structures, 2020, 239, 106337.	2.4	17
686	Design of lattice structures with direct multiscale topology optimization. Composite Structures, 2020, 252, 112718.	3.1	47
687	Fracture resistance design through biomimicry and topology optimization. Extreme Mechanics Letters, 2020, 40, 100890.	2.0	28
688	Experimental verification of robust topology optimization for compliant mechanism. Rapid Prototyping Journal, 2020, 26, 1485-1502.	1.6	5
689	Topology Optimization for Maximizing the Fracture Resistance of Periodic Quasi-Brittle Composites Structures. Materials, 2020, 13, 3279.	1.3	23

#	ARTICLE	IF	CITATIONS
690	Topology optimization of two fluid heat exchangers. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120543.	2.5	43
692	Proposal of a standard for 2D representation of bio-inspired lightweight lattice structures in drawings. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, , 095440622095159.	1.1	3
693	Simultaneous material, shape and topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 371, 113321.	3.4	11
694	Topology Optimization of Energy-Dissipating Plastic Structures with Shear Modified Gursonâ€™Tvergaardâ€™Needleman Model. <i>Journal of Structural Engineering</i> , 2020, 146, .	1.7	5
695	Soft Actuators for Soft Robotic Applications: A Review. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000128.	3.3	244
696	Uncertainty Estimation and Design Optimization of 2D Diffraction-Based Overlay Metrology Targets. <i>ACS Photonics</i> , 2020, 7, 2765-2777.	3.2	4
697	Discrete variable topology optimization for compliant mechanism design via Sequential Approximate Integer Programming with Trust Region (SAIP-TR). <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2851-2879.	1.7	18
698	Multiscale topology optimization for frequency domain response with bi-material interpolation schemes. <i>Optimization and Engineering</i> , 2021, 22, 2707-2739.	1.3	5
699	Employing B-Spline approach in parametric assessment of catenary shaped fabric-formed concrete beams. <i>Structures</i> , 2020, 27, 474-486.	1.7	2
700	Geometric Boundary Feature Extraction Method Based on Moving Morphable Components (MMC) for Topology Optimization Results. , 2020, , .		1
701	Topology optimization of dissipative metamaterials at finite strains based on nonlinear homogenization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1419-1455.	1.7	8
702	Robust topology optimization for heat conduction with polynomial chaos expansion. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	0.8	4
703	Concurrent shape and topology optimization for unsteady conjugate heat transfer. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1275-1297.	1.7	5
704	DL-Scale: Deep Learning for model upgrading in topology optimization. <i>Procedia Manufacturing</i> , 2020, 44, 433-440.	1.9	5
705	Topology optimization of the hip bone for gait cycle. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2035-2049.	1.7	9
706	Stress constrained thermo-elastic topology optimization based on stabilizing control schemes. <i>Journal of Thermal Stresses</i> , 2020, 43, 1040-1068.	1.1	16
707	Imposing minimum and maximum member size, minimum cavity size, and minimum separation distance between solid members in topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 368, 113157.	3.4	39
708	DzAlâ„•: Deep learning based generative design. <i>Procedia Manufacturing</i> , 2020, 44, 591-598.	1.9	28

#	ARTICLE	IF	CITATIONS
709	Generative Design by Using Exploration Approaches of Reinforcement Learning in Density-Based Structural Topology Optimization. <i>Designs</i> , 2020, 4, 10.	1.3	26
710	A Novel Topology Optimization Approach for Flow Power Loss Minimization Across Fin Arrays. <i>Energies</i> , 2020, 13, 1987.	1.6	8
711	Fiber bundle topology optimization of hierarchical microtextures for wetting behavior in Cassie-Baxter mode. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2523-2556.	1.7	1
712	Simultaneous optimization of build orientation and topology for additive manufacturing. <i>Additive Manufacturing</i> , 2020, 34, 101246.	1.7	34
713	Structural topology optimization of tall buildings for dynamic seismic excitation using modal decomposition. <i>Engineering Structures</i> , 2020, 216, 110717.	2.6	27
714	Polygonal topology optimization for Reissner-Mindlin plates. <i>Engineering With Computers</i> , 2020, , 1.	3.5	4
715	Hierarchical Infills for Additive Manufacturing Through a Multiscale Approach. <i>Journal of Optimization Theory and Applications</i> , 2020, 187, 654-682.	0.8	2
716	Adaptive and highly accurate numerical treatment for a gradient-enhanced brittle damage model. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 3108-3131.	1.5	9
717	Designing stress for optimizing and toughening truss-like structures. <i>Meccanica</i> , 2020, 55, 1603-1622.	1.2	9
718	Inverse homogenization using isogeometric shape optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 368, 113170.	3.4	11
719	Ambiguous phase assignment of discretized 3D geometries in topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113201.	3.4	4
720	Product design: An optimization-based approach for targeting of particulate composite microstructure. <i>Computers and Chemical Engineering</i> , 2020, 140, 106975.	2.0	2
721	A new data-driven topology optimization framework for structural optimization. <i>Computers and Structures</i> , 2020, 239, 106310.	2.4	34
722	Topology and fibre orientation simultaneous optimisation: A design methodology for fibre-reinforced composite components. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2020, 234, 1267-1279.	0.7	8
723	Additive manufacturing-driven design optimization: Building direction and structural topology. <i>Additive Manufacturing</i> , 2020, 36, 101406.	1.7	36
724	A novel formulation for the explicit discretisation of evolving boundaries with application to topology optimisation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 367, 113077.	3.4	2
725	Topology optimization of continuum supporting structures for microwave antenna applications. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2409-2422.	1.7	5
726	An Enhanced Topology Optimization Approach Based on the Combined MMC and NURBS-Curve Boundaries. <i>International Journal of Precision Engineering and Manufacturing</i> , 2020, 21, 1529-1538.	1.1	7

#	ARTICLE	IF	CITATIONS
727	A phase-field-based graded-material topology optimization with stress constraint. <i>Mathematical Models and Methods in Applied Sciences</i> , 2020, 30, 1461-1483.	1.7	25
728	Topology optimization of thermal problems in a nonsmooth variational setting: closed-form optimality criteria. <i>Computational Mechanics</i> , 2020, 66, 259-286.	2.2	6
729	An ANSYS APDL code for topology optimization of structures with multi-constraints using the BESO method with dynamic evolution rate (DER-BESO). <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2229-2254.	1.7	28
730	Topology optimization of a cable-driven soft robotic gripper. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 2749-2763.	1.7	41
731	New method for controlling minimum length scales of real and void phase materials in topology optimization. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 805-826.	1.5	7
732	Topologically robust CAD model generation for structural optimisation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113102.	3.4	22
733	Topology and shape optimization of dissipative and hybrid mufflers. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 269-284.	1.7	9
734	Multiscale topology optimization for non-uniform microstructures with hybrid cellular automata. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 757-770.	1.7	28
735	Shape preserving design of thermo-elastic structures considering geometrical nonlinearity. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1787-1804.	1.7	11
736	A projection approach for topology optimization of porous structures through implicit local volume control. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 835-850.	1.7	17
737	Topology optimization of compliant mechanisms considering stress constraints, manufacturing uncertainty and geometric nonlinearity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 365, 112972.	3.4	36
738	A stabilisation approach for topology optimisation of hyperelastic structures with the SIMP method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 364, 112924.	3.4	18
739	Topology optimization using material-field series expansion and Kriging-based algorithm: An effective non-gradient method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 364, 112966.	3.4	63
740	Topology Optimization of Ferromagnetic Components in Electrical Machines. <i>IEEE Transactions on Energy Conversion</i> , 2020, 35, 786-798.	3.7	9
741	Misalignment topology optimization with manufacturing constraints. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2467-2480.	1.7	0
742	Level set topology and shape optimization by density methods using cut elements with length scale control. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 685-707.	1.7	49
743	A MATLAB code for topology optimization using the geometry projection method. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1579-1594.	1.7	30
744	Biomimetic design and laser additive manufacturing – A perfect symbiosis?. <i>Journal of Laser Applications</i> , 2020, 32, .	0.8	21

#	ARTICLE	IF	CITATIONS
745	Topology optimization applied to the design of actuators driven by pressure loads. Structural and Multidisciplinary Optimization, 2020, 61, 1763-1786.	1.7	20
746	Accelerated topology optimization by means of deep learning. Structural and Multidisciplinary Optimization, 2020, 62, 1185-1212.	1.7	59
747	Inverse design of an indoor environment using a filter-based topology method with experimental verification. Indoor Air, 2020, 30, 1039-1051.	2.0	11
748	A Review of Topology Optimisation for Fluid-Based Problems. Fluids, 2020, 5, 29.	0.8	138
749	An optimization method based on the evolutionary and topology approaches to reduce the mass of composite wind turbine blades. Structural and Multidisciplinary Optimization, 2020, 62, 619-643.	1.7	15
750	Recent Advances on the Design Automation for Performance-Optimized Fiber Reinforced Polymer Composite Components. Journal of Composites Science, 2020, 4, 61.	1.4	16
751	A topology optimization implementation for depth-of-focus extension of binary phase filters. Structural and Multidisciplinary Optimization, 2020, 62, 2731-2748.	1.7	7
752	Topology optimization incorporating external variables with metamodeling. Structural and Multidisciplinary Optimization, 2020, 62, 2455-2466.	1.7	3
753	Discrete topology optimization in augmented space: integrated element removal for minimum size and mesh sensitivity control. Structural and Multidisciplinary Optimization, 2020, 62, 2615-2627.	1.7	2
754	AN APPROACH FOR TOPOLOGY OPTIMIZATION-DRIVEN DESIGN FOR ADDITIVE MANUFACTURING. Proceedings of the Design Society DESIGN Conference, 2020, 1, 325-334.	0.8	0
755	Topology optimization of 3D continuum structures under geometric self-supporting constraint. Additive Manufacturing, 2020, 36, 101422.	1.7	26
756	Robust topology optimization under multiple independent uncertainties of loading positions. International Journal for Numerical Methods in Engineering, 2020, 121, 4944-4970.	1.5	10
757	Machine Learning based parameter tuning strategy for MMC based topology optimization. Advances in Engineering Software, 2020, 149, 102841.	1.8	16
758	Overhang control based on front propagation in 3D topology optimization for additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113169.	3.4	34
759	Explicit topology optimization of novel polyline-based core sandwich structures using surrogate-assisted evolutionary algorithm. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113215.	3.4	15
760	Topology optimization of elastic contact problems with friction using efficient adjoint sensitivity analysis with load increment reduction. Computers and Structures, 2020, 238, 106296.	2.4	19
761	Net-based topology optimization approach for cooling channels. International Journal of Thermal Sciences, 2020, 156, 106494.	2.6	8
762	Toptimiz3D: A topology optimization software using unstructured meshes. Advances in Engineering Software, 2020, 148, 102875.	1.8	12

#	ARTICLE	IF	CITATIONS
763	Topology optimization of functionally graded anisotropic composite structures using homogenization design method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113220.	3.4	48
764	Extensions of the coating approach for topology optimization of composite sandwich structures. <i>Composite Structures</i> , 2020, 252, 112682.	3.1	12
765	A scaled boundary finite element based explicit topology optimization approach for three-dimensional structures. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 4878-4900.	1.5	12
766	Inverse Design of Mechanical Metamaterials That Undergo Buckling. <i>Advanced Functional Materials</i> , 2020, 30, 1909033.	7.8	34
767	Yield limited optimal topology design of elastoplastic structures. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1953-1976.	1.7	14
768	Comparison of robust, reliability-based and non-probabilistic topology optimization under uncertain loads and stress constraints. <i>Probabilistic Engineering Mechanics</i> , 2020, 59, 103039.	1.3	13
769	A novel topology optimization formulation for enhancing fracture resistance with a single quasi-brittle material. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 2827-2856.	1.5	23
770	Structural optimisation for medical implants through additive manufacturing. <i>Progress in Additive Manufacturing</i> , 2020, 5, 95-110.	2.5	14
771	Structural Topology Design Optimization Using the Binary Bat Algorithm. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1481.	1.3	9
772	Conceptual design of a high temperature superconducting magnet for a particle physics experiment in space. <i>Superconductor Science and Technology</i> , 2020, 33, 044012.	1.8	12
773	A subtractive manufacturing constraint for level set topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1573-1588.	1.7	14
774	Rapid strain energy density evaluation for V-notches under mode I loading conditions. <i>Engineering Failure Analysis</i> , 2020, 110, 104361.	1.8	16
775	Smooth topological design of structures using the floating projection. <i>Engineering Structures</i> , 2020, 208, 110330.	2.6	47
776	Advancing building engineering through structural and topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 915-935.	1.7	11
777	Topology optimization for periodic multi-component structures with stiffness and frequency criteria. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2271-2289.	1.7	16
778	New hybrid reliability-based topology optimization method combining fuzzy and probabilistic models for handling epistemic and aleatory uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 363, 112886.	3.4	71
779	Coupling between topology optimization and digital image correlation for the design of specimen dedicated to selected material parameters identification. <i>International Journal of Solids and Structures</i> , 2020, 193-194, 270-286.	1.3	12
780	Design, Optimization, and Evaluation of Additively Manufactured Vintiles Cellular Structure for Acetabular Cup Implant. <i>Processes</i> , 2020, 8, 25.	1.3	12

#	ARTICLE	IF	CITATIONS
781	Hole seeding in level set topology optimization via density fields. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1319-1343.	1.7	16
782	Data-driven design approach to hierarchical hybrid structures with multiple lattice configurations. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2227-2235.	1.7	25
783	Multi-objective topology optimization and structural analysis of periodic spaceframe structures. <i>Materials and Design</i> , 2020, 190, 108552.	3.3	36
784	Topology optimization with anisotropic materials, including a filter to smooth fiber pathways. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2135-2154.	1.7	27
785	Topology optimization with accessibility constraint for multi-axis machining. <i>CAD Computer Aided Design</i> , 2020, 122, 102825.	1.4	33
786	Smooth topological design of 3D continuum structures using elemental volume fractions. <i>Computers and Structures</i> , 2020, 231, 106213.	2.4	19
787	Thermomechanical topology optimization of shape-memory alloy structures using a transient bilevel adjoint method. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 2558-2580.	1.5	8
788	Nonlinear homogenization for topology optimization. <i>Mechanics of Materials</i> , 2020, 145, 103324.	1.7	19
789	A discrete-continuous parameterization (DCP) for concurrent optimization of structural topologies and continuous material orientations. <i>Composite Structures</i> , 2020, 236, 111900.	3.1	43
790	Topology optimization of shear wall structures under seismic loading. <i>Earthquake Engineering and Engineering Vibration</i> , 2020, 19, 105-116.	1.1	15
791	Reactive fluid flow topology optimization with the multi-relaxation time lattice Boltzmann method and a level-set function. <i>Journal of Computational Physics</i> , 2020, 409, 109252.	1.9	19
792	A method using successive iteration of analysis and design for large-scale topology optimization considering eigenfrequencies. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112847.	3.4	30
793	Stress-constrained level set topology optimization for compliant mechanisms. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112777.	3.4	32
794	Design of phononic-like structures and band gap tuning by concurrent two-scale topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 943-962.	1.7	10
795	A parameterized level set method combined with polygonal finite elements in topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1913-1928.	1.7	15
796	Truncated hierarchical B-spline-based topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 83-105.	1.7	13
797	Structure optimization design of ground heat exchanger by topology method to mitigate the geothermal imbalance. <i>Applied Thermal Engineering</i> , 2020, 170, 115023.	3.0	14
798	Mechanical performance of topology-optimized 3D lattice materials manufactured via selective laser sintering. <i>Composite Structures</i> , 2020, 238, 111985.	3.1	41

#	ARTICLE	IF	CITATIONS
799	Topology optimization of easy-removal support structures for additive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2423-2435.	1.7	24
800	Topology optimization parallel-computing framework based on the inherent strain method for support structure design in laser powder-bed fusion additive manufacturing. <i>International Journal of Mechanics and Materials in Design</i> , 2020, 16, 897-923.	1.7	48
801	Comparative Study on the Uniaxial Behaviour of Topology-Optimised and Crystal-Inspired Lattice Materials. <i>Metals</i> , 2020, 10, 491.	1.0	9
802	On topology optimization with elliptical masks and honeycomb tessellation with explicit length scale constraints. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1227-1251.	1.7	5
803	Topology Optimization Applications on Engineering Structures. , 0, , .		9
804	Efficient limitation of resonant peaks by topology optimization including modal truncation augmentation. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2557-2575.	1.7	11
805	Improved proportional topology optimization algorithm for solving minimum compliance problem. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 475-493.	1.7	17
806	Topology optimization of plate structures using plate element-based moving morphable component (MMC) approach. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 412-421.	1.5	8
807	Multi-material topology optimization of lattice structures using geometry projection. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 363, 112895.	3.4	49
808	A density gradient approach to topology optimization under design-dependent boundary loading. <i>Journal of Computational Physics</i> , 2020, 411, 109398.	1.9	14
809	Micro Motion Amplification—A Review. <i>IEEE Access</i> , 2020, 8, 64037-64055.	2.6	27
810	A Bayesian experimental autonomous researcher for mechanical design. <i>Science Advances</i> , 2020, 6, eaaz1708.	4.7	127
811	An isogeometric boundary element approach for topology optimization using the level set method. <i>Applied Mathematical Modelling</i> , 2020, 84, 536-553.	2.2	27
812	Adaptive mesh refinement for topology optimization with discrete geometric components. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 364, 112930.	3.4	31
813	Topology optimization of heat sinks for instantaneous chip cooling using a transient pseudo-3D thermofluid model. <i>International Journal of Heat and Mass Transfer</i> , 2020, 154, 119681.	2.5	26
814	Topology optimization for heat transfer enhancement in thermochemical heat storage. <i>International Journal of Heat and Mass Transfer</i> , 2020, 154, 119785.	2.5	39
815	A meshless method for topology optimization of structures under multiple load cases. <i>Structures</i> , 2020, 25, 173-179.	1.7	14
816	Design of a double-optimized lattice structure using the solid isotropic material with penalization method and material extrusion additive manufacturing. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 3447-3458.	1.1	3

#	ARTICLE	IF	CITATIONS
817	Stress-related topology optimization of shell structures using IGA/TSA-based Moving Morphable Void (MMV) approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 366, 113036.	3.4	41
818	CNN-based image recognition for topology optimization. <i>Knowledge-Based Systems</i> , 2020, 198, 105887.	4.0	60
819	Error analysis for the finite element approximation of the Darcy-Brinkman-Forchheimer model for porous media with mixed boundary conditions. <i>Journal of Computational and Applied Mathematics</i> , 2021, 381, 113008.	1.1	10
820	A novel application framework for self-supporting topology optimization. <i>Visual Computer</i> , 2021, 37, 1169-1184.	2.5	13
821	Structural topology optimization through implicit boundary evolution based on the Allen-Cahn equation. <i>Engineering Optimization</i> , 2021, 53, 125-144.	1.5	1
822	Generation of strut-and-tie models in concrete structures by topology optimization based on moving morphable components. <i>Engineering Optimization</i> , 2021, 53, 1251-1272.	1.5	6
823	Design of a distributed compliant mechanism using spring-lever model and topology optimization for piezoelectrically actuated flapping wings. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 118-126.	1.5	13
824	Bi-directional evolutionary stress-based topology optimization of material nonlinear structures. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1287-1305.	1.7	11
825	DL-SCALE: a novel deep learning-based model order upscaling scheme for solving topology optimization problems. <i>Neural Computing and Applications</i> , 2021, 33, 7125-7144.	3.2	8
826	Concurrent optimization of the internal flow channel, inlets, and outlets in forced convection heat sinks. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 121-136.	1.7	12
827	Explicit multi-material topology optimization embedded with variable-size movable holes using moving morphable bars. <i>Engineering Optimization</i> , 2021, 53, 1212-1229.	1.5	10
828	Improved proportional topology optimization algorithm for minimum volume problem with stress constraints. <i>Engineering Computations</i> , 2021, 38, 392-412.	0.7	9
829	2D topology optimization MATLAB codes for piezoelectric actuators and energy harvesters. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 983-1014.	1.7	19
830	Computational design of thermo-mechanical metadevices using topology optimization. <i>Applied Mathematical Modelling</i> , 2021, 90, 758-776.	2.2	14
831	Simultaneous design of the topology and the build orientation of Wire-and-Arc Additively Manufactured structural elements. <i>Computers and Structures</i> , 2021, 242, 106370.	2.4	23
832	Mathematical Modelling and Numerical Analysis of Size-Dependent Structural Members in Temperature Fields. <i>Advanced Structured Materials</i> , 2021, , .	0.3	3
833	A review of topology optimization for additive manufacturing: Status and challenges. <i>Chinese Journal of Aeronautics</i> , 2021, 34, 91-110.	2.8	316
834	Multi-scale design and optimization for solid-lattice hybrid structures and their application to aerospace vehicle components. <i>Chinese Journal of Aeronautics</i> , 2021, 34, 386-398.	2.8	44

#	ARTICLE	IF	CITATIONS
835	Topology design of two-fluid heat exchange. Structural and Multidisciplinary Optimization, 2021, 63, 821-834.	1.7	18
836	Adaptive thermodynamic topology optimization. Structural and Multidisciplinary Optimization, 2021, 63, 95-119.	1.7	9
837	Concurrent design of composite macrostructure and cellular microstructure with respect to dynamic stress response under random excitations. Composite Structures, 2021, 257, 113123.	3.1	6
838	Realization of full and directional band gap design by non-gradient topology optimization in acoustic metamaterials. Extreme Mechanics Letters, 2021, 42, 101126.	2.0	55
839	Form-finding and shape optimization of bio-inspired branching structures based on graphic statics. Structures, 2021, 29, 392-407.	1.7	12
840	Generative adversarial network guided topology optimization of periodic structures via Subset Simulation. Composite Structures, 2021, 260, 113254.	3.1	14
841	A new methodology for thermostructural topology optimization: Analytical definition and validation. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 481-500.	0.7	6
842	Topology optimization and 3D printing of large deformation compliant mechanisms for straining biological tissues. Structural and Multidisciplinary Optimization, 2021, 63, 1351-1366.	1.7	19
843	Stress constrained multi-material topology optimization with the ordered SIMP method. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113453.	3.4	56
844	Topology optimization of vibrating structures with frequency band constraints. Structural and Multidisciplinary Optimization, 2021, 63, 1203-1218.	1.7	31
845	Manipulation of topologically optimized structures using graphic statics. Materials and Design, 2021, 198, 109286.	3.3	2
846	Parallel computing for the topology optimization method: Performance metrics and energy consumption analysis in multiphysics problems. Sustainable Computing: Informatics and Systems, 2021, 30, 100481.	1.6	1
847	TOuNN: Topology Optimization using Neural Networks. Structural and Multidisciplinary Optimization, 2021, 63, 1135-1149.	1.7	87
848	A density-based boundary evolving method for buckling-induced design under large deformation. International Journal for Numerical Methods in Engineering, 2021, 122, 1770-1796.	1.5	1
849	A novel isogeometric topology optimization framework for planar compliant mechanisms. Applied Mathematical Modelling, 2021, 92, 931-950.	2.2	13
850	Hollow structural topology optimization to improve manufacturability using three-dimensional moving morphable bars. Advances in Engineering Software, 2021, 152, 102955.	1.8	12
851	A novel lightweight aerodynamic design for the wings of hypersonic vehicles cruising in the upper atmosphere. Aerospace Science and Technology, 2021, 109, 106418.	2.5	6
852	Multiscale Topology Optimization Combining Density-Based Optimization and Lattice Enhancement for Additive Manufacturing. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 1197-1208.	2.7	15

#	ARTICLE	IF	CITATIONS
853	A novel bionic-based substructure division method for topology optimization. Structures, 2021, 29, 937-946.	1.7	12
854	Simultaneous topology and fastener layout optimization of assemblies considering joint failure. International Journal for Numerical Methods in Engineering, 2021, 122, 294-319.	1.5	10
855	An incremental form interpolation model together with the Smolyak method for multi-material topology optimization. Applied Mathematical Modelling, 2021, 90, 955-976.	2.2	5
856	An all-movable rudder designed by thermo-elastic topology optimization and manufactured by additive manufacturing. Computers and Structures, 2021, 243, 106405.	2.4	20
857	Large deformation of TPU re-entrant auxetic structures designed by TO approach. Journal of Elastomers and Plastics, 2021, 53, 347-369.	0.7	15
858	Material interface control in multi-material topology optimization using pseudo-cost domain method. International Journal for Numerical Methods in Engineering, 2021, 122, 455-482.	1.5	9
859	An 89-line code for geometrically nonlinear topology optimization written in FreeFEM. Structural and Multidisciplinary Optimization, 2021, 63, 1015-1027.	1.7	23
860	Stacking sequences in composite laminates through design optimization. Meccanica, 2021, 56, 1555-1574.	1.2	12
861	Accessibility of support structures in topology optimization for additive manufacturing. International Journal for Numerical Methods in Engineering, 2021, 122, 2038-2056.	1.5	11
862	Achieving length scale control in topology optimization. , 2021, , .		0
863	Topology and Shape Optimization of 2-D and 3-D Micro-Architected Thermoelastic Metamaterials Using a Parametric Level Set Method. CMES - Computer Modeling in Engineering and Sciences, 2021, 127, 819-854.	0.8	3
864	A practical redesign method for functional additive manufacturing. Procedia CIRP, 2021, 100, 566-570.	1.0	5
865	Linear versus nonlinear reliability-based topology optimization with application to bridge structures. E3S Web of Conferences, 2021, 273, 04009.	0.2	0
866	Nonlinearity investigation of reliability-based topology optimization strategies with application to total hip replacement. E3S Web of Conferences, 2021, 273, 02004.	0.2	0
867	Topology optimization of structural frames considering material nonlinearity and time-varying excitation. Structural and Multidisciplinary Optimization, 2021, 63, 1789-1811.	1.7	4
868	Stress-constrained multi-material topology optimization via an improved alternating active-phase algorithm. Engineering Optimization, 2022, 54, 305-328.	1.5	6
869	Feature-driven optimization for structures under design-dependent loads. , 2021, , 241-284.		0
870	An Effective Feature Modeling Approach for 3D Structural Topology Design Optimization. CMES - Computer Modeling in Engineering and Sciences, 2021, 127, 43-57.	0.8	1

#	ARTICLE	IF	CITATIONS
871	A level-set approach based on reaction-diffusion equation applied to inversion problems in acoustic wave propagation. <i>Inverse Problems</i> , 2021, 37, 025009.	1.0	12
872	Optimization of UAV structure and evaluation of vibrational and fatigue characteristics through simulation studies. <i>International Journal for Simulation and Multidisciplinary Design Optimization</i> , 2021, 12, 17.	0.6	2
873	An Improved Data-Driven Topology Optimization Method Using Feature Pyramid Networks with Physical Constraints. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2021, 128, 823-848.	0.8	4
874	Multi-body Topology Optimization of Connecting Rod Using Equivalent Static Load Method. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 427-435.	0.3	0
875	Two-stage convolutional encoder-decoder network to improve the performance and reliability of deep learning models for topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1927-1950.	1.7	41
876	Evolutionary Structural Optimization—A Trial Review. <i>Springer Tracts in Nature-inspired Computing</i> , 2021, , 277-308.	1.2	0
877	Topology optimization of continuum structures using element free Galerkin method on irregular nodal distribution. <i>International Journal of Mechanics and Materials in Design</i> , 2021, 17, 333-344.	1.7	2
878	A Topology Optimization Method for Stochastic Lattice Structures. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 235-240.	0.3	2
879	ARTIFICIAL INTELLIGENCE DESIGN OF NUCLEAR SYSTEMS EMPOWERED BY ADVANCED MANUFACTURING*. <i>EPJ Web of Conferences</i> , 2021, 247, 06032.	0.1	1
880	h-Adaptive Topology Optimization of Thermally Loaded Structures. , 2021, , .		0
881	Topology Optimization Benchmark Problems for Assessing the Performance of Optimization Algorithms. , 2021, , .		4
882	A rigorous approach to optimal profile design for acoustic black holes. <i>Journal of the Acoustical Society of America</i> , 2021, 149, 447-456.	0.5	3
883	Structural topology optimization considering both performance and manufacturability: strength, stiffness, and connectivity. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1427-1453.	1.7	9
884	Topological Design of Microstructures of Materials Containing Multiple Phases of Distinct Poisson's Ratios. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2021, 126, 293-310.	0.8	0
885	Feature-driven optimization method and applications. , 2021, , 157-240.		2
886	3D Topology Optimization of Continuous Fiber-Reinforced Structures. , 2021, , 14-26.		1
887	Optimal Design of Functionally Graded Power Cable Joint Utilizing Silicone Rubber/Carbon Nanotube Composites. <i>IEEE Access</i> , 2021, 9, 123689-123703.	2.6	2
888	Design Optimization of Asymmetric Patterns for Variable Stiffness of Continuum Tubular Robots. <i>IEEE Transactions on Industrial Electronics</i> , 2022, 69, 8190-8200.	5.2	12

#	ARTICLE	IF	CITATIONS
889	Combining Structural Optimization Solutions Using FFF Manufacturing. <i>Advanced Structured Materials</i> , 2021, , 113-137.	0.3	0
890	Topology Optimisation in Structural Steel Design for Additive Manufacturing. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2112.	1.3	36
891	Topology optimization of elastic contact problems using B-spline parameterization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1669-1686.	1.7	6
893	TopologyGAN: Topology Optimization Using Generative Adversarial Networks Based on Physical Fields Over the Initial Domain. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	82
894	A microarchitecture design methodology to achieve extreme isotropic elastic properties of composites based on crystal symmetries. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2459-2472.	1.7	5
895	A normalization strategy for BESO-based structural optimization and its application to frequency response suppression. <i>Acta Mechanica</i> , 2021, 232, 1307-1327.	1.1	14
896	Topology optimization of lattices with anisotropic struts. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1653-1668.	1.7	5
897	Topology optimization of self-supporting infill structures. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2289-2304.	1.7	17
898	Topological design of microstructures using periodic material-field series-expansion and gradient-free optimization algorithm. <i>Materials and Design</i> , 2021, 199, 109437.	3.3	26
899	An efficient 137-line MATLAB code for geometrically nonlinear topology optimization using bi-directional evolutionary structural optimization method. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2571-2588.	1.7	22
900	On topology optimization of designâ€dependent pressureâ€loaded threeâ€dimensional structures and compliant mechanisms. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2205-2220.	1.5	16
901	A new method for optimizing the topology of hingeâ€free and fully decoupled compliant mechanisms with multiple inputs and multiple outputs. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2863-2890.	1.5	6
902	A globally convergent method to accelerate topology optimization using on-the-fly model reduction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 375, 113635.	3.4	11
903	A gradient-based optimization method with functional principal component analysis for efficient structural topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 177-188.	1.7	3
904	Simultaneous isotropic and anisotropic multi-material topology optimization for conceptual-level design of aerospace components. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 441-456.	1.7	15
905	Optimized One-Click Development for Topology-Optimized Structures. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2400.	1.3	6
906	A deep convolutional neural network for topology optimization with perceptible generalization ability. <i>Engineering Optimization</i> , 2022, 54, 973-988.	1.5	24
907	Topology optimization employing a condensation method for nonlinear structural frames with supplemental mass. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2829-2857.	1.5	1

#	ARTICLE	IF	CITATIONS
908	Topology Optimization Design of a Microchannel Plate Based on Velocity Distribution. <i>Chemical Engineering and Technology</i> , 2021, 44, 681-689.	0.9	2
909	Lagrangianâ€Eulerian multidensity topology optimization with the material point method. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 3400-3424.	1.5	14
910	Topology optimization of multi-scale structures: a review. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1455-1480.	1.7	206
911	Damping ratio maximization in thickness direction using viscoelastic and structural materials based on constrained layer damping. <i>Engineering Optimization</i> , 0, , 1-13.	1.5	2
912	Thermoâ€Elastic topology optimization with stress and temperature constraints. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2919-2944.	1.5	12
913	Structural multi-objective topology optimization and application based on the criteria importance through intercriteria correlation method. <i>Engineering Optimization</i> , 2022, 54, 830-846.	1.5	17
914	A Parametric Level Set Method for Topology Optimization Based on Deep Neural Network. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	31
915	Deep Generative Design Models for Improved Door Frame Performance. , 0, , .		0
916	Using simulation to accelerate autonomous experimentation: A case study using mechanics. <i>IScience</i> , 2021, 24, 102262.	1.9	35
917	Design and topology optimization of a rack and pinion steering system using structural and vibrational analysis. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1123, 012060.	0.3	0
918	A projective transformation-based topology optimization using moving morphable components. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 376, 113646.	3.4	7
919	Length scale control for high-resolution three-dimensional level setâ€Ebased topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 1127-1139.	1.7	9
920	Multiobjective Topology Optimization of Spatial-Structure Joints. <i>Advances in Civil Engineering</i> , 2021, 2021, 1-13.	0.4	2
921	Design of Center Pillar with Composite Reinforcements Using Hybrid Molding Method. <i>Materials</i> , 2021, 14, 2047.	1.3	9
922	A Review on Tailoring Stiffness in Compliant Systems, via Removing Material: Cellular Materials and Topology Optimization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3538.	1.3	10
923	Mechanical Characteristics of Superimposed 316L Lattice Structures under Static and Dynamic Loading. <i>Advanced Engineering Materials</i> , 2021, 23, 2001536.	1.6	11
924	Numerical Investigation and Mold Optimization of the Automobile Coat Rack Compression Molding. <i>Advances in Materials Science and Engineering</i> , 2021, 2021, 1-19.	1.0	0
925	Spectral decomposition for graded multi-scale topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 377, 113670.	3.4	7

#	ARTICLE	IF	CITATIONS
926	Topology optimization design of quasi-periodic cellular structures based on erode"dilate operators. Computer Methods in Applied Mechanics and Engineering, 2021, 377, 113720.	3.4	26
927	A subinterval dimension-wise method for robust topology optimization of structures with truss-like lattice material under unknown but bounded uncertainties. Structural and Multidisciplinary Optimization, 2021, 64, 1241-1258.	1.7	10
928	A Cost-Efficient Data-Driven Approach to Design Space Exploration for Personalized Geometric Design in Additive Manufacturing. Journal of Computing and Information Science in Engineering, 2021, 21, .	1.7	3
930	Genetic algorithm based topology optimization of heat exchanger fins used in aerospace applications. International Journal of Heat and Mass Transfer, 2021, 170, 121002.	2.5	65
931	On approaches for avoiding low-stiffness regions in variable thickness sheet and homogenization-based topology optimization. Structural and Multidisciplinary Optimization, 2021, 64, 39-52.	1.7	11
932	Improvement of a topological level-set approach to find optimal topology by considering body forces. Engineering Computations, 2021, 38, 3174-3192.	0.7	0
933	Compression deformation analysis of cellular lattice structure for structural optimization in additive manufacturing. Materials Today: Proceedings, 2021, 47, 4214-4214.	0.9	1
934	Geometry Optimization for a Rubber Mount with Desired Stiffness Values in Two Loading Directions Considering Hyperelasticity and Viscoelasticity. International Journal of Automotive Technology, 2021, 22, 609-619.	0.7	3
935	An approach for the design and validation of high frequency vibration energy harvesting devices. Smart Materials and Structures, 2021, 30, 065018.	1.8	2
936	Investigation of the Parameter-Dependence of Topology-Optimized Heat Sinks in Natural Convection. Heat Transfer Engineering, 2022, 43, 922-936.	1.2	10
937	Does Topology Optimization Exist in Nature?. The National Academy of Sciences, India, 2022, 45, 69-73.	0.8	12
938	Progress on different topology optimization approaches and optimization for additive manufacturing: a review. Journal of Physics: Conference Series, 2021, 1939, 012101.	0.3	3
939	Topology optimization of degradable composite structures with time"changeable stiffness. International Journal for Numerical Methods in Engineering, 2021, 122, 4751-4773.	1.5	4
940	Design of Kinematic Connectors for Microstructured Materials Produced by Additive Manufacturing. Polymers, 2021, 13, 1500.	2.0	0
941	Transient thermal dissipation efficiency based method for topology optimization of transient heat conduction structures. International Journal of Heat and Mass Transfer, 2021, 170, 121004.	2.5	12
942	Topology Optimization of Structures Obtained by Additive Manufacturing: Case of 3D beam. , 2021, , .		2
943	A novel method for concurrent thickness and material optimization of non-laminate structures. Structural and Multidisciplinary Optimization, 2021, 64, 1421-1437.	1.7	1
944	Concurrent material and structure optimization of multiphase hierarchical systems within a continuum micromechanics framework. Structural and Multidisciplinary Optimization, 2021, 64, 1175-1197.	1.7	6

#	ARTICLE	IF	CITATIONS
945	Photonic Band Gap Material Topological Design at Specified Target Frequency. <i>Advanced Theory and Simulations</i> , 2021, 4, 2100125.	1.3	8
946	Topology optimization of nonlinear periodically microstructured materials for tailored homogenized constitutive properties. <i>Composite Structures</i> , 2021, 266, 113729.	3.1	15
947	Real-Time Topology Optimization in 3D via Deep Transfer Learning. <i>CAD Computer Aided Design</i> , 2021, 135, 103014.	1.4	19
948	Constructing self-supporting structures in biscale topology optimization. <i>Visual Computer</i> , 2022, 38, 1065-1082.	2.5	3
949	Photonic topology optimization with semiconductor-foundry design-rule constraints. <i>Optics Express</i> , 2021, 29, 23916.	1.7	50
950	Part consolidation for additive manufacturing: A multilayered topology optimization approach. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 4987-5027.	1.5	3
951	Momentum-based accelerated mirror descent stochastic approximation for robust topology optimization under stochastic loads. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 4431-4457.	1.5	7
952	Topology optimization of load-bearing capacity. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 1367-1383.	1.7	5
953	lbIPP for topology optimization – An Image-based Initialization and Post-Processing code written in MATLAB. <i>SoftwareX</i> , 2021, 14, 100701.	1.2	13
954	Structural System Reliability: Overview of Theories and Applications to Optimization. <i>ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering</i> , 2021, 7, .	1.1	21
955	Concurrent stringer topology and skin steered fiber pattern optimization for grid stiffened composite shell structures. <i>Composite Structures</i> , 2021, 266, 113804.	3.1	2
956	Innovative formulation for topological fatigue optimisation based on material defects distribution and TopFat algorithm. <i>International Journal of Fatigue</i> , 2021, 147, 106176.	2.8	12
957	Minimization of maximal von Mises stress in porous composite microstructures using shape and topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 1781-1799.	1.7	7
958	A hybrid approach of density-based topology, multilayer perceptron, and water cycle-moth flame algorithm for multi-stage optimal design of a flexure mechanism. <i>Engineering With Computers</i> , 2022, 38, 2833-2865.	3.5	6
959	Topology optimization and additive manufacturing in the building and construction industry. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1154, 012029.	0.3	0
960	Smart Topology Optimization Using Adaptive Neighborhood Simulated Annealing. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 5257.	1.3	15
961	TopADD: a 2D/3D integrated topology optimization parallel-computing framework for arbitrary design domains. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 1701-1723.	1.7	10
962	Topology optimization of structures in transient impacts with Coulomb friction. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 5053-5075.	1.5	4

#	ARTICLE	IF	CITATIONS
963	Design Synthesis Through a Markov Decision Process and Reinforcement Learning Framework. Journal of Computing and Information Science in Engineering, 2022, 22, .	1.7	13
964	Topology optimization of tie-down structure for transportation of metal cask containing spent nuclear fuel. Nuclear Engineering and Technology, 2021, 53, 2268-2276.	1.1	3
965	Manufacturable casting parts design with topology optimization of structural assemblies. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 0, , 095440542110350.	1.5	2
966	Topology Optimization Design and Experimental Research of a 3D-Printed Metal Aerospace Bracket Considering Fatigue Performance. Applied Sciences (Switzerland), 2021, 11, 6671.	1.3	17
967	Generative design of microfluidic channel geometry using evolutionary approach. , 2021, , .		3
968	Enhancing Design for Additive Manufacturing Workflow: Optimization, Design and Simulation Tools. Applied Sciences (Switzerland), 2021, 11, 6628.	1.3	14
969	Multi-Material Topology Optimization Using Neural Networks. CAD Computer Aided Design, 2021, 136, 103017.	1.4	32
970	Robust Skin Attachable Sensor for Core Body Temperature Monitoring. IEEE Sensors Journal, 2021, 21, 16118-16123.	2.4	3
971	Topology optimization of unsymmetrical complex plate and shell structures bearing multicondition overload. Journal of Mechanical Science and Technology, 2021, 35, 3497-3506.	0.7	7
972	Topology optimization for infill in MEx. Rapid Prototyping Journal, 2021, 27, 1580-1590.	1.6	1
973	Topology Optimization of an aircraft engine gearbox. Journal of Physics: Conference Series, 2021, 1983, 012023.	0.3	0
974	Simultaneous optimization of topology and print orientation for transversely isotropic fatigue. Structural and Multidisciplinary Optimization, 2021, 64, 1041-1062.	1.7	5
975	Concurrent optimization of sandwich structures lattice core and viscoelastic layers for suppressing resonance response. Structural and Multidisciplinary Optimization, 2021, 64, 1801-1824.	1.7	5
976	Dynamic topology optimization of battery packs for eVTOL aircraft under time-dependent loading. , 2021, , .		0
977	Photonic crystal topological design for polarized and polarization-independent band gaps by gradient-free topology optimization. Optics Express, 2021, 29, 24861.	1.7	10
978	Multi-objective topology optimization of pin-fin heat exchangers using spectral and finite-element methods. Structural and Multidisciplinary Optimization, 2021, 64, 2075-2095.	1.7	8
979	Concurrent design for structures and material microstructures under hybrid uncertainties. Materials and Design, 2021, 205, 109728.	3.3	4
980	Discrete variable topology optimization for simplified convective heat transfer via sequential approximate integer programming with trustâ€region. International Journal for Numerical Methods in Engineering, 2021, 122, 5844-5872.	1.5	12

#	ARTICLE	IF	CITATIONS
981	Topology optimization of rigid interlocking assemblies. <i>Computers and Structures</i> , 2021, 250, 106521.	2.4	4
982	Additively manufactured continuous carbon fiber-reinforced thermoplastic for topology optimized unmanned aerial vehicle structures. <i>Composites Part B: Engineering</i> , 2021, 216, 108840.	5.9	78
983	On a cellular developmental method for layout optimization via multi-fidelity analyses and the two-point topological derivative. , 2021, , .		0
984	Local versus global stress constraint strategies in topology optimization: A comparative study. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 6003-6036.	1.5	34
985	Versatility of Simulated Annealing with Crystallization Heuristic: Its Application to a Great Assortment of Problems. , 0, , .		3
986	Topology optimization of the manifold microchannels with triple-objective functions. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2021, 80, 89-114.	0.6	7
987	Revisiting non-convexity in topology optimization of compliance minimization problems. <i>Engineering Computations</i> , 2022, 39, 893-915.	0.7	5
988	Isogeometric topology optimization of compliant mechanisms using transformable triangular mesh (TTM) algorithm. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2553-2576.	1.7	2
989	Topology Optimization and Microfabrication Constraints. , 2021, , .		3
990	A MATLAB code for the material-field series-expansion topology optimization method. <i>Frontiers of Mechanical Engineering</i> , 2021, 16, 607-622.	2.5	11
991	A SIMP-phase field topology optimization framework to maximize quasi-brittle fracture resistance of 2D and 3D composites. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 114, 102919.	2.1	21
992	Finite periodic topology optimization with oriented unit-cells. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 1765-1779.	1.7	8
993	Robust and Scalable Flat-Optics on Flexible Substrates via Evolutionary Neural Networks. <i>Advanced Intelligent Systems</i> , 2021, 3, 2100105.	3.3	13
994	Topology Optimization of Aircraft Components for Increased Sustainability. <i>AIAA Journal</i> , 0, , 1-16.	1.5	4
995	Robust topology optimization of multi-material structures under load uncertainty using the alternating active-phase method. <i>Composite Structures</i> , 2021, 270, 114065.	3.1	8
996	Explicit structural topology optimization using boundary element method-based moving morphable void approach. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 6155-6179.	1.5	7
997	Multi-electrode layout design of electrorheological composite plates considering energy consumption in semi-active control. <i>Thin-Walled Structures</i> , 2021, 165, 108001.	2.7	2
998	Robust topology optimization for structures under bounded random loads and material uncertainties. <i>Computers and Structures</i> , 2021, 252, 106569.	2.4	24

#	ARTICLE	IF	CITATIONS
999	Analytical relationships for imposing minimum length scale in the robust topology optimization formulation. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2429-2448.	1.7	7
1000	Level set topology optimization of synchronous reluctance machines using a body-fitted mesh representation. <i>Structural and Multidisciplinary Optimization</i> , 0, , 1.	1.7	3
1001	Preliminary design of an injection-molded recycled-carbon fiber-reinforced plastic/metal hybrid automotive structure via combined optimization techniques. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2773-2788.	1.7	15
1002	Coupled topology and shape optimization using an embedding domain discretization method. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2687-2707.	1.7	8
1003	Additively manufactured mechanical metamaterials based on triply periodic minimal surfaces: Performance, challenges, and application. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 5077-5107.	1.5	27
1004	Topology optimization of flexoelectric composites using computational homogenization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 381, 113819.	3.4	14
1005	Designing compliant mechanisms composed of shape memory alloy and actuated by induction heating. <i>Smart Materials and Structures</i> , 2021, 30, 095025.	1.8	3
1006	Study on mechanical performance of 3D printed composite material with topology shape using finite element method. <i>Functional Composites and Structures</i> , 2021, 3, 035003.	1.6	6
1007	Design for Additive Manufacturing and for Machining in the Automotive Field. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7559.	1.3	11
1008	Offshore Platform Topsides Structural Design: Using Topology Optimization to Generate Novel Design Concept. , 2021, , .		0
1009	Lightweight topology optimization of thermal structures under compliance, stress and temperature constraints. <i>Journal of Thermal Stresses</i> , 2021, 44, 1121-1149.	1.1	4
1010	Creating novel furniture through topology optimization and advanced manufacturing. <i>Rapid Prototyping Journal</i> , 2021, 27, 1749-1758.	1.6	21
1011	An Approach for Geometrically Nonlinear Topology Optimization Using Moving Wide-Beam Components With Constrained Ends. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	1.7	10
1012	Topology Optimization Methods for 3D Structural Problems: A Comparative Study. <i>Archives of Computational Methods in Engineering</i> , 2022, 29, 1525-1567.	6.0	14
1013	Effects of infill patterns on the strength and stiffness of 3D printed topologically optimized geometries. <i>Rapid Prototyping Journal</i> , 2021, 27, 1467-1479.	1.6	7
1014	Topology optimization of transient problem with maximum dynamic response constraint using SOAR scheme. <i>Frontiers of Mechanical Engineering</i> , 2021, 16, 593-606.	2.5	12
1015	Isogeometric analysis-based design of post-tensioned concrete beam towards construction-oriented topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 4237-4253.	1.7	5
1016	Multi-material topology optimization of permanent magnet synchronous motors. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2021, 67, 461-472.	0.3	6

#	ARTICLE	IF	CITATIONS
1017	From classical thermodynamics to phase-field method. <i>Progress in Materials Science</i> , 2022, 124, 100868.	16.0	172
1018	An Aggregation-Free Local Volume Fraction Formulation for Topological Design of Porous Structure. <i>Materials</i> , 2021, 14, 5726.	1.3	8
1019	Topology and Shape Optimization of Ultrathin Composite Self-Deployable Shell Structures with Cutouts. <i>AIAA Journal</i> , 2021, 59, 3696-3709.	1.5	6
1020	Energy efficiency enhancement of SCORBOT ER-4U manipulator using topology optimization method. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 4635-4654.	3.4	2
1021	MATLAB implementations of velocity field level set method for topology optimization: an 80-line code for 2D and a 100-line code for 3D problems. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 4325-4342.	1.7	14
1022	Ultra-power-dense heat exchanger development through genetic algorithm design and additive manufacturing. <i>Joule</i> , 2021, 5, 3045-3056.	11.7	32
1023	Data-driven topology optimization of spinodoid metamaterials with seamlessly tunable anisotropy. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 383, 113894.	3.4	77
1024	Design process of patient-specific osteosynthesis plates using topology optimization. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 1257-1266.	1.5	9
1025	Narrow-band filter design of phononic crystals with periodic point defects via topology optimization. <i>International Journal of Mechanical Sciences</i> , 2021, 212, 106829.	3.6	32
1026	Design method and verification of a hybrid prosthetic mechanism with energy-damper clutchable device for transfemoral amputees. <i>Frontiers of Mechanical Engineering</i> , 2021, 16, 747-764.	2.5	5
1027	Crashworthiness design of periodic cellular structures using topology optimization. <i>Composite Structures</i> , 2021, 271, 114164.	3.1	19
1028	An isogeometric approach to topological optimization design of auxetic composites with tri-material micro-architectures. <i>Composite Structures</i> , 2021, 271, 114163.	3.1	17
1029	Topology optimization in fluid mechanics using continuous adjoint and the cut-cell method. <i>Computers and Mathematics With Applications</i> , 2021, 97, 286-297.	1.4	4
1030	Cahn-Hilliard phase field theory coupled to mechanics: Fundamentals, numerical implementation and application to topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 383, 113918.	3.4	12
1031	Multi-scale and multi-material topology optimization of channel-cooling cellular structures for thermomechanical behaviors. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 383, 113896.	3.4	19
1032	An Artificial Intelligence-Assisted Design Method for Topology Optimization without Pre-Optimized Training Data. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9041.	1.3	10
1033	Topology optimization of turbulent forced convective heat sinks using a multi-layer thermofluid model. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 3835-3859.	1.7	9
1034	Simultaneous topology and machine orientation optimization for multi-axis machining. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 7504-7535.	1.5	6

#	ARTICLE	IF	CITATIONS
1035	Combined model-based topology optimization of stiffened plate structures via MMC approach. International Journal of Mechanical Sciences, 2021, 208, 106682.	3.6	17
1036	Design Optimization for the Stability of Concentric Tube Robots. IEEE Robotics and Automation Letters, 2021, 6, 8309-8316.	3.3	5
1037	A non-homogeneous multi-material topology optimization approach for functionally graded structures with cracks. Composite Structures, 2021, 273, 114230.	3.1	21
1038	Topology optimization of flexure hinges with a prescribed compliance matrix based on the adaptive spring model and stress constraint. Precision Engineering, 2021, 72, 397-408.	1.8	8
1039	Topology of leaf veins: Experimental observation and computational morphogenesis. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 123, 104788.	1.5	22
1040	Computational design of microarchitected porous electrodes for redox flow batteries. Journal of Power Sources, 2021, 512, 230453.	4.0	23
1041	Metal additive manufacturing in aerospace: A review. Materials and Design, 2021, 209, 110008.	3.3	743
1042	Stress and stiffness-based topology optimization of two-material thermal structures. Computers and Structures, 2021, 256, 106641.	2.4	7
1043	Elasto-Plastic limit analysis of reliability based geometrically nonlinear bi-directional evolutionary topology optimization. Structures, 2021, 34, 1720-1733.	1.7	15
1044	Topology optimization of arbitrary-shape multi-phase structure with structured meshes based on a virtual phase method. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114138.	3.4	5
1045	TONR: An exploration for a novel way combining neural network with topology optimization. Computer Methods in Applied Mechanics and Engineering, 2021, 386, 114083.	3.4	33
1046	Simultaneously optimizing supports and topology in structural design. Finite Elements in Analysis and Design, 2021, 197, 103633.	1.7	11
1047	Thermoelastic Structural Topology Optimization Based on Moving Morphable Components Framework. CMES - Computer Modeling in Engineering and Sciences, 2021, 128, 1179-1196.	0.8	4
1048	Paved guideway topology optimization for pedestrian traffic under Nash equilibrium. Structural and Multidisciplinary Optimization, 2021, 63, 1405-1426.	1.7	3
1049	Shape and topology optimization. Handbook of Numerical Analysis, 2021, 22, 1-132.	0.9	44
1050	Impact Response of Preplaced Aggregate Fibrous Concrete Hammerhead Pier Beam Designed with Topology Optimization. Crystals, 2021, 11, 147.	1.0	21
1051	Multi-resolution topology optimization using adaptive isosurface variable grouping (MTOP-aIVG) for enhanced computational efficiency. Structural and Multidisciplinary Optimization, 2021, 63, 1743-1766.	1.7	8
1052	Optimal area variation for maximum stiffness isostatic beams under parametric linear distributed loads. Mechanics Research Communications, 2021, 111, 103659.	1.0	1

#	ARTICLE	IF	CITATIONS
1053	Design of optimized architected structures with exact size and connectivity via an enhanced multidomain topology optimization strategy. Computational Mechanics, 2021, 67, 743-762.	2.2	7
1055	Uncertainty-oriented double-scale topology optimization with macroreliability limitation and micromanufacturing control. International Journal for Numerical Methods in Engineering, 2021, 122, 2254-2286.	1.5	5
1056	Multi-material topology optimization based on symmetric level set function using the material definition with perfect symmetric property. Transactions of the JSME (in Japanese), 2021, 87, 20-00412-20-00412.	0.1	3
1057	Structural Strength Improvement of 3D Printing Parts from Topology Optimised Design Using Anisotropic Material Modelling. Lecture Notes in Electrical Engineering, 2021, , 439-448.	0.3	0
1058	Computational design of structured chemical products. Frontiers of Chemical Science and Engineering, 2021, 15, 1033-1049.	2.3	0
1059	Level set shape and topology optimization of finite strain bilateral contact problems. International Journal for Numerical Methods in Engineering, 2018, 113, 1340-1369.	1.5	26
1060	Three-dimensional manufacturing tolerant topology optimization with hundreds of millions of local stress constraints. International Journal for Numerical Methods in Engineering, 2021, 122, 548-578.	1.5	42
1061	Optimization of Multi-part 3D Printing Build Strategies for Lean Product and Process Development. IFIP Advances in Information and Communication Technology, 2018, , 488-497.	0.5	4
1062	A Topology Optimization of a Motorsport Safety Device. Lecture Notes in Mechanical Engineering, 2020, , 400-409.	0.3	7
1063	Multi-objective Topology Optimization Using Simulated Annealing Method. Advances in Intelligent Systems and Computing, 2021, , 343-353.	0.5	6
1065	Canonical Duality Theory for Topology Optimization. Advances in Mechanics and Mathematics, 2017, , 263-276.	0.2	3
1066	Efficient Density Based Topology Optimization Using Dual-Layer Element and Variable Grouping Method for Large 3D Applications. , 2018, , 967-978.		2
1067	An Element Deactivation and Reactivation Scheme for the Topology Optimization Based on the Density Method. , 2018, , 1127-1142.		2
1068	Dynamic response topology optimization in the time domain using model reduction method. , 2016, 53, 101.		1
1069	Topology optimization: a review for structural designs under vibration problems. , 2016, 53, 1157.		1
1070	Robust topology optimization for dynamic compliance minimization under uncertain harmonic excitations with inhomogeneous eigenvalue analysis. , 2016, 54, 1469.		1
1071	Continuous density-based topology optimization of cracked structures using peridynamics. Structural and Multidisciplinary Optimization, 2020, 62, 2375-2389.	1.7	23
1072	A comprehensive review of educational articles on structural and multidisciplinary optimization. Structural and Multidisciplinary Optimization, 2021, 64, 2827-2880.	1.7	57

#	ARTICLE	IF	CITATIONS
1073	A new variational approach for the thermodynamic topology optimization of hyperelastic structures. Computational Mechanics, 2021, 67, 455-480.	2.2	6
1074	A post-processing method to remove stress singularity and minimize local stress concentration for topology optimized designs. Advances in Engineering Software, 2020, 145, 102815.	1.8	10
1075	Robust concurrent topology optimization of structure and its composite material considering uncertainty with imprecise probability. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112927.	3.4	36
1076	A multi-material topology optimization algorithm based on the topological derivative. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113090.	3.4	25
1077	Performance-based multi-hazard topology optimization of wind and seismically excited structural systems. Engineering Structures, 2018, 172, 573-588.	2.6	27
1078	Topology optimization as a powerful tool to design advanced PEMFCs flow fields. International Journal of Heat and Mass Transfer, 2019, 135, 72-92.	2.5	57
1079	Integration of reliability-based topology optimization into biomechanics: Application on hollow stems used in cementless total hip arthroplasty. E3S Web of Conferences, 2020, 210, 06003.	0.2	2
1080	3D Design Using Generative Adversarial Networks and Physics-Based Validation. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	49
1081	An Optimization Design of Contact Interface Material Stiffness for Improving the Uniformity of the Contact Pressure. Journal of Tribology, 2020, 142, .	1.0	11
1082	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, .	1.7	28
1083	Generative Design of Bionic Structures Via Concurrent Multiscale Topology Optimization and Conformal Geometry Method. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	16
1084	A Review of Methods for the Geometric Post-Processing of Topology Optimized Models. Journal of Computing and Information Science in Engineering, 2020, 20, .	1.7	28
1085	Investigation of Parameter Spaces for Topology Optimization With Three-Dimensional Orientation Fields for Multi-Axis Additive Manufacturing. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	8
1086	TopologyGAN: Topology Optimization Using Generative Adversarial Networks Based on Physical Fields Over the Initial Domain. , 2020, , .		16
1087	Optimized phononic crystals for bandGap and metamaterial properties. , 2018, , .		1
1088	Two-Scale Topology Optimization with Microstructures. ACM Transactions on Graphics, 2017, 36, 1.	4.9	76
1089	Two-scale topology optimization with microstructures. ACM Transactions on Graphics, 2017, 36, 1.	4.9	8
1090	Reinforcement of General Shell Structures. ACM Transactions on Graphics, 2020, 39, 1-19.	4.9	12

#	ARTICLE	IF	CITATIONS
1091	An Accelerating Convergence Rate Method for Moving Morphable Components. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-15.	0.6	5
1092	A Comprehensive Review of Isogeometric Topology Optimization: Methods, Applications and Prospects. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2020, 33, .	1.9	63
1093	Leveraging continuous material averaging for inverse electromagnetic design. <i>Optics Express</i> , 2018, 26, 31717.	1.7	45
1095	Reference Systems in the Navigation of Moving Objects. <i>Mekhatronika, Avtomatizatsiya, Upravlenie</i> , 2019, 20, 189-192.	0.2	1
1096	Revised Level Set-Based Method for Topology Optimization and Its Applications in Bridge Construction. <i>Open Civil Engineering Journal</i> , 2017, 11, 153-166.	0.4	1
1097	Structural Topology Optimization Method for Morphogenesis of Dendriforms. <i>Open Journal of Civil Engineering</i> , 2016, 06, 526-536.	0.2	7
1098	Multi-Material Topology Optimization: A Practical Method for Efficient Material Selection and Design. , 0, , .		11
1099	Multi-Material Topology Optimization and Multi-Material Selection in Design. , 0, , .		6
1100	Multi-Material Topology Optimization as a Concept Generation and Design Tool. , 0, , .		11
1101	Multi-Material Topology Optimization Considering Manufacturing Constraints. , 0, , .		13
1102	Topology optimization of the volume-to-point heat conduction problem at micro- and nano-scale. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 200201.	0.2	8
1103	A low-carbon, funicular concrete floor system: design and engineering of the HiLo floors. , 2021, , .		9
1104	Reliability-based topology optimization using stochastic gradients. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 3089-3108.	1.7	4
1105	Calibration of elastoplastic constitutive model parameters from full-field data with automatic differentiation-based sensitivities. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 69-100.	1.5	4
1106	A Precisely-Controlled Multichannel Phononic Crystal Resonant Cavity. <i>Advanced Theory and Simulations</i> , 2021, 4, 2100250.	1.3	6
1108	A Gradient-Free Topology Optimization Strategy for Continuum Structures with Design-Dependent Boundary Loads. <i>Symmetry</i> , 2021, 13, 1976.	1.1	3
1109	Designing Composites with Target Effective Young's Modulus using Reinforcement Learning. , 2021, , .		4
1110	From Bioinspiration to Computer Generation: Developments in Autonomous Soft Robot Design. <i>Advanced Intelligent Systems</i> , 2022, 4, 2100086.	3.3	47

#	ARTICLE	IF	CITATIONS
1111	Energy analysis of continuum elastic structures by the generalized finite-volume theory. Acta Mechanica, 2021, 232, 4625-4643.	1.1	0
1112	Revealing the Dynamic Characteristics of Composite Material-Based Miura-Origami Tube. Materials, 2021, 14, 6374.	1.3	4
1113	Topology optimization based on the high-order numerical manifold method by implementing a four-node quadrilateral element. Engineering Optimization, 2023, 55, 89-109.	1.5	1
1114	Gradient-based topology optimization of soft dielectrics as tunable phononic crystals. Composite Structures, 2022, 280, 114846.	3.1	60
1115	Stress-Based topology optimization under the stress relaxation effect. Mechanics Based Design of Structures and Machines, 2023, 51, 5141-5163.	3.4	0
1116	Integrated topology and packaging optimization using coupled material and component pseudo-densities. Structural and Multidisciplinary Optimization, 2021, 64, 3345-3380.	1.7	2
1117	On the design and manufacturing of topologically optimized wings. Rapid Prototyping Journal, 2021, ahead-of-print, .	1.6	2
1118	Topology Optimization and Prototype of a Multimaterial-Like Compliant Finger by Varying the Infill Density in 3D Printing. Soft Robotics, 2022, 9, 837-849.	4.6	10
1119	Algorithmically-consistent deep learning frameworks for structural topology optimization. Engineering Applications of Artificial Intelligence, 2021, 106, 104483.	4.3	26
1120	A deep learning approach for efficient topology optimization based on the element removal strategy. Materials and Design, 2021, 212, 110179.	3.3	16
1121	Optimization Methods for Electromechanical Systems. Simulation Foundations, Methods and Applications, 2014, , 41-59.	0.8	1
1122	Design History Retrieval Based Structural Topology Optimization. Lecture Notes in Computer Science, 2015, , 262-270.	1.0	0
1123	TOPOLOGY OPTIMIZATION WITH AN IMPLICIT FUNCTION AND PARAMETERIZED CUTTING SURFACE. , 2016, , .		1
1124	Motivation and Framework. SEMA SIMAI Springer Series, 2016, , 1-21.	0.4	0
1126	Interpretation of parameters in strain energy density bone adaptation equation when applied to topology optimization of inert structures. Mechanika, 2016, 21, .	0.3	1
1127	Collaborative Optimization of Robot's Mechanical Structure and Control System Parameter. Lecture Notes in Computer Science, 2017, , 686-697.	1.0	0
1128	Topology Optimization of a Reactionless Four-Bar Linkage. Mechanisms and Machine Science, 2018, , 413-421.	0.3	2
1129	Modifications of Bidirectional Evolutionary Structural Optimization for Structure Compliance. , 2018, , 1306-1316.		0

#	ARTICLE	IF	CITATIONS
1131	A Novel Heuristic Generator of Structural Topologies Based on Sorted Compliances. , 2018, , 1296-1305.		0
1132	Producing Smart Pareto Sets for Multi-objective Topology Optimisation Problems. , 2018, , 145-162.		0
1133	Sensitivity-Based Topology and Shape Optimization with Application to Electric Motors. The IMA Volumes in Mathematics and Its Applications, 2018, , 317-340.	0.5	1
1134	Topological Shape Optimization Based on Harmony Search Method. Journal of the Korean Society of Manufacturing Technology Engineers, 2018, 27, 391-400.	0.1	0
1135	Topology Optimization using Explicit Stress Tensor Analysis. Computer-Aided Design and Applications, 2018, 16, .	0.4	0
1136	Evolution of Load-Bearing Structures with Phase Field Modeling. Lecture Notes in Computational Science and Engineering, 2019, , 335-343.	0.1	0
1137	Structural Topology Optimization Based on the Improved Hybrid Filter Method. Mechanical Engineering and Technology, 2019, 08, 466-475.	0.1	0
1138	Modeling of deformation of a plate using piezoelectric elements located on its surface. Computational Continuum Mechanics, 2019, 12, 415-426.	0.1	1
1139	A mathematical programming method for the topology optimization of a truss-like continuum. Journal of Theoretical and Applied Mechanics, 2019, 57, 751-763.	0.2	1
1140	Generative Design of Multi-Material Hierarchical Structures via Concurrent Topology Optimization and Conformal Geometry Method. , 2019, , .		1
1141	Topology Optimization for Beginners. Journal of the Japan Society for Precision Engineering, 2019, 85, 965-968.	0.0	0
1142	AN OVERVIEW ON TOPOLOGY OPTIMIZATION METHODS EMPLOYED IN STRUCTURAL ENGINEERING. KÄ±rkklareli Å±niversitesi MÄ±hendislik Ve Fen Bilimleri Dergisi, 2019, 5, 159-175.	0.2	3
1143	Funktions- & Gestaltoptimierung der Pedalerie eines Elektrofahrzeuges fÄ±r SLM. , 2020, , 105-119.		4
1144	Topology Optimization for Porous Cooling Systems. Mathematics for Industry, 2020, , 147-156.	0.4	0
1145	Topology Optimization Problems of Density Variation Type. Springer Optimization and Its Applications, 2020, , 359-426.	0.6	0
1146	Lattice topology homogenization and crack propagation through finite element analyses. Procedia Structural Integrity, 2020, 28, 637-647.	0.3	1
1147	Optimizing 3D Self-Supporting Topologies for Additive Manufacturing. , 2020, , .		0
1148	Rule-based Distribute Topology Optimization. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
1149	Design of an Accurate and Stiff Wooden Industrial Robot: First Steps Toward Robot Eco-sustainable Mechanical Design. <i>Journal of Mechanisms and Robotics</i> , 2020, 12, .	1.5	1
1150	Optimizing Support for Heat Dissipation in Additive Manufacturing. , 2020, , .		6
1151	Recent Progress in Active Mechanical Metamaterials and Construction Principles. <i>Advanced Science</i> , 2022, 9, e2102662.	5.6	75
1152	Comparison of heuristics and metaheuristics for topology optimisation in acoustic porous materials. <i>Journal of the Acoustical Society of America</i> , 2021, 150, 3164-3175.	0.5	6
1153	Fillet Design in Topology Optimization. , 2020, , .		1
1154	Modeling the Deformation of a Plate Using Piezoelectric Elements Located on its Surface. <i>Journal of Applied Mechanics and Technical Physics</i> , 2020, 61, 1238-1249.	0.1	1
1155	Topology optimization of the hip bone for a few activities of daily living. <i>International Journal of Advances in Engineering Sciences and Applied Mathematics</i> , 2020, 12, 193-210.	0.7	2
1156	On tailoring fracture resistance of brittle structures: A level set interface-enriched topology optimization approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 388, 114189.	3.4	13
1157	Topological design of sandwich structures filling with poroelastic materials for sound insulation. <i>Finite Elements in Analysis and Design</i> , 2022, 199, 103650.	1.7	13
1158	A Multimodal Approach for Automation of Mechanical Design. <i>Advanced Structured Materials</i> , 2020, , 301-323.	0.3	1
1159	Beam steering metasurfaces via inverse design. , 2020, , .		0
1160	Topology Optimization of Rigid-Body Systems Considering Collision Avoidance. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .	1.7	4
1161	Optimization of Electrode Design in Capacitance Liquid Level Sensor. , 2021, , .		0
1162	Graphics Processing Unit-Based Element-by-Element Strategies for Accelerating Topology Optimization of Three-Dimensional Continuum Structures Using Unstructured All-Hexahedral Mesh. <i>Journal of Computing and Information Science in Engineering</i> , 2022, 22, .	1.7	6
1163	A moving morphable component-based topology optimization approach considering transient structural dynamic responses. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 705-728.	1.5	2
1164	Data-Driven Additive Manufacturing Constraints for Topology Optimization. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021, 143, .	1.3	6
1165	Vibrations of Size-Dependent Beams Under Topologic Optimization and Temperature Field. <i>Advanced Structured Materials</i> , 2021, , 333-402.	0.3	1
1166	Functional optimization of fluidic devices with differentiable stokes flow. <i>ACM Transactions on Graphics</i> , 2020, 39, 1-15.	4.9	15

#	ARTICLE	IF	CITATIONS
1167	Structural optimization of additively manufactured polymer tools for flexible sheet metal forming. <i>Procedia CIRP</i> , 2021, 104, 1345-1350.	1.0	7
1168	Simultaneous optimization of build orientation and topology for self-supported enclosed voids in additive manufacturing. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 388, 114227.	3.4	10
1169	Data-driven multifidelity topology design using a deep generative model: Application to forced convection heat transfer problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 388, 114284.	3.4	17
1170	Robust Topology Optimization for Foundry-Photonics Inverse Design: Examining Compact and Arbitrary Power Splitters. , 2021, , .		1
1171	Raising the Speed Limit of Axial Piston Pumps by Optimizing the Suction Duct. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2021, 34, .	1.9	8
1172	Proposal of a modified optimality criteria method for topology optimization analysis in 3-dimensional dynamic oscillation problems. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 866-896.	1.5	8
1173	Influence of the Fractal Geometry on the Mechanical Resistance of Cantilever Beams Designed through Topology Optimization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10554.	1.3	2
1174	Assessment of Computer-Aided Design Tools for Topology Optimization of Additively Manufactured Automotive Components. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10980.	1.3	8
1175	Shape preserving topology optimization for structural radar cross section control. <i>Chinese Journal of Aeronautics</i> , 2022, 35, 198-210.	2.8	5
1176	Machine Learning-Enabled Evolutionary Algorithm Enabled Design for 4D-Printed Active Composite Structures. <i>Advanced Functional Materials</i> , 2022, 32, 2109805.	7.8	47
1177	Topology Optimization of Deformable Bodies with Linear Dynamic Impact and Frictionless Contact Condition. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10518.	1.3	1
1178	Concurrent topology optimization for thermoelastic structures with random and interval hybrid uncertainties. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 1078-1097.	1.5	8
1179	Heat transfer augmentation in microchannel heat sink based on isogeometric topology optimization framework. <i>Applied Mathematical Modelling</i> , 2022, 104, 163-187.	2.2	12
1180	An adaptive method for topology optimization subjected to stationary stochastic forced excitations. <i>Engineering Optimization</i> , 0, , 1-20.	1.5	0
1181	Topology optimization of laminated composite structures under harmonic force excitations. <i>Journal of Composite Materials</i> , 2022, 56, 409-420.	1.2	3
1182	Length scale control schemes for bi-directional evolutionary structural optimization method. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 755-773.	1.5	5
1183	Stress-based structural topology optimization for design-dependent self-weight loads problems using the BESO method. <i>Engineering Optimization</i> , 2023, 55, 197-213.	1.5	3
1184	Physics-Informed Neural Networks with Hard Constraints for Inverse Design. <i>SIAM Journal of Scientific Computing</i> , 2021, 43, B1105-B1132.	1.3	167

#	ARTICLE	IF	CITATIONS
1185	Simulation and Experiments on a Valveless Micropump With Fluidic Diodes Based on Topology Optimization. Journal of Microelectromechanical Systems, 2022, 31, 292-297.	1.7	6
1186	Topology optimization with space orientation of reinforcement. Procedia Structural Integrity, 2021, 33, 843-849.	0.3	1
1187	TopFat methodology implemented in a commercial software: benchmarking validation. Procedia Structural Integrity, 2021, 34, 221-228.	0.3	0
1188	Defect-Driven Topology Optimisation: TopFat algorithm extended to commercial software for wide-ranging applications. Procedia Structural Integrity, 2021, 33, 1095-1102.	0.3	0
1189	Post-Processing of non gradient-based Topology Optimization with Simulated Annealing. IFAC-PapersOnLine, 2021, 54, 755-760.	0.5	6
1190	CPU parallel-based adaptive parameterized level set method for large-scale structural topology optimization. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	8
1191	High-performance hybrid time/frequency-domain topology optimization for large-scale photonics inverse design. Optics Express, 2022, 30, 4467.	1.7	35
1192	Structural topology optimization with an adaptive design domain. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114382.	3.4	29
1193	Conformal topology optimization of multi-material ferromagnetic soft active structures using an extended level set method. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114394.	3.4	24
1194	Concurrent topology optimization of shells with self-supporting infills for additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2022, 390, 114430.	3.4	11
1195	The influence of temperature dependent fluid properties on topology optimization of conjugate heat transfer. International Journal of Thermal Sciences, 2022, 173, 107424.	2.6	12
1196	Computational based investigation of lattice cell optimization under uniaxial compression load. Results in Materials, 2022, 13, 100242.	0.9	3
1197	Topology optimization of acoustic systems with a multiconstrained BESO approach. Finite Elements in Analysis and Design, 2022, 201, 103701.	1.7	7
1198	Topology optimization for transient response problems involving thermoelastic materials. Finite Elements in Analysis and Design, 2022, 201, 103695.	1.7	8
1199	A consistent approximation of the total perimeter functional for topology optimization algorithms. ESAIM - Control, Optimisation and Calculus of Variations, 2022, 28, 18.	0.7	1
1200	Topology optimization of structures made of fiber-reinforced plates. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	5
1201	Cost, Draping, Material and Partitioning Optimization of a Composite Rail Vehicle Structure. Materials, 2022, 15, 449.	1.3	0
1202	Effects of residual stress and equivalent bending stiffness on the dimensional stability of the thin-walled parts. International Journal of Advanced Manufacturing Technology, 2022, 119, 4907-4924.	1.5	8

#	ARTICLE	IF	CITATIONS
1203	Topology optimization of thermo-elastic structures considering stiffness, strength, and temperature constraints over a wide range of temperatures. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 1627-1653.	1.5	6
1204	Topological Design of Nonlinear Permanent Magnet Synchronous Machines Based on Material-Field Series-Expansion. <i>AIAA Journal</i> , 2022, 60, 2668-2677.	1.5	1
1205	Robust topology optimization for structures under thermo-mechanical loadings considering hybrid uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	6
1207	Explicit Topology Optimization with Moving Morphable Component (MMC) Introduction Mechanism. <i>Acta Mechanica Sinica</i> , 2022, 35, 384-408.	1.0	5
1208	The topological ligament in shape optimization: a connection with thin tubular inhomogeneities. <i>SMAL Journal of Computational Mathematics</i> , 0, 7, 185-266.	0.0	4
1209	Topology Optimization of Lightweight Structures With Application to Bone Scaffolds and 3D Printed Shoes for Diabetics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2022, 89, .	1.1	5
1210	Topology optimization of programmable lattices with geometric primitives. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	3
1211	Self-directed online machine learning for topology optimization. <i>Nature Communications</i> , 2022, 13, 388.	5.8	43
1212	A level set-based optimized design of multi-material compliant mechanisms considering stress constraints. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 391, 114556.	3.4	8
1213	Austenitic parent grain reconstruction in martensitic steel using deep learning. <i>Materials Characterization</i> , 2022, 185, 111759.	1.9	8
1214	An advection-diffusion based filter for machinable designs in topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 391, 114488.	3.4	5
1215	Eigenvectors-guided topology optimization to control the mode shape and suppress the vibration of the multi-material plate. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 391, 114560.	3.4	6
1216	3D topology optimization of sandwich structures with anisotropic shells. <i>Composite Structures</i> , 2022, 285, 115237.	3.1	5
1217	Design of compliant mechanisms: An explicit topology optimization method using end-constrained spline curves with variable width. <i>Mechanism and Machine Theory</i> , 2022, 171, 104713.	2.7	6
1219	Design of cellular materials for multiscale topology optimization: application to patient-specific orthopedic devices. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	13
1220	Topology optimization of liquid lubricating zero-leakage mechanical face seals. <i>Tribology International</i> , 2022, 169, 107490.	3.0	10
1221	Design of bendable sandwich sheets with 3D printed CFRP cores via multi-stage topology optimization. <i>Composite Structures</i> , 2022, 287, 115372.	3.1	7
1222	A modified level set method for topology optimization of sparsely-filled and slender structures. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	5

#	ARTICLE	IF	CITATIONS
1223	Variable-thickness optimization method for shell structures based on a regional evolutionary control strategy. <i>Thin-Walled Structures</i> , 2022, 172, 108848.	2.7	3
1225	Enhanced Thermal Performance of a Pin-Fin Cooling Channel for Gas Turbine Blade by Density-Based Topology Optimization. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1227	Variational Autoencoder-Based Topological Optimization of an Anechoic Coating: An Efficient- and Neural Network-Based Design. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1228	Thermodynamic Topology Optimization of Layered Anisotropic Materials. , 2022, , 217-238.		0
1230	GMCAD: an original Synthetic Dataset of 2D Designs along their Geometrical and Mechanical Conditions. <i>Procedia Computer Science</i> , 2022, 200, 337-347.	1.2	4
1231	"Deep Reinforcement Learning for Engineering Design Through Topology Optimization of Elementally Discretized Design Domains". <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1232	A Cell-Based Linear Smoothed Finite Element Method for Polygonal Topology Optimization. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2022, 131, 1-20.	0.8	2
1233	Defect-Driven Topology Optimisation: TopFat algorithm validation via 3D components re-design for real industrial applications. <i>Procedia Structural Integrity</i> , 2022, 39, 81-88.	0.3	3
1234	What Machine Learning Can Do for Computational Solid Mechanics. , 2022, , 275-285.		12
1235	Design of a Serpentine Cooling Channel Under Turbulent Flow Using Density-Based Topology Optimization. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
1236	Topology Optimization of Self-Supporting Structures for Additive Manufacturing with Adaptive Explicit Continuous Constraint. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2022, 131, 1-19.	0.8	1
1237	Recent Developments and Challenges of 3D-Printed Construction: A Review of Research Fronts. <i>Buildings</i> , 2022, 12, 229.	1.4	21
1238	Minimum feature size control in level set topology optimization via density fields. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	4
1239	Accelerated topology optimization design of 3D structures based on deep learning. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	14
1240	Synthesis of Frame Field-Aligned Multi-Laminar Structures. <i>ACM Transactions on Graphics</i> , 2022, 41, 1-20.	4.9	7
1241	Performance-Driven Engineering Design Approaches Based on Generative Design and Topology Optimization Tools: A Comparative Study. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2106.	1.3	14
1242	Regenerative Topology Optimization of Fine Lattice Structures. <i>3D Printing and Additive Manufacturing</i> , 2023, 10, 183-196.	1.4	2
1243	Performance-Based Design of Tall Timber Buildings Under Earthquake and Wind Multi-Hazard Loads: Past, Present, and Future. <i>Frontiers in Built Environment</i> , 2022, 8, .	1.2	9

#	ARTICLE	IF	CITATIONS
1244	A review on additive manufacturing and topology optimization process for weight reduction studies in various industrial applications. <i>Materials Today: Proceedings</i> , 2022, 62, 109-117.	0.9	37
1245	A marker-and-cell method for large-scale flow-based topology optimization on GPU. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	4
1246	Topology optimization of stiff structures under self-weight for given volume using a smooth Heaviside function. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	12
1247	Biomechanical evaluation over level ground walking of user-specific prosthetic feet designed using the lower leg trajectory error framework. <i>Scientific Reports</i> , 2022, 12, 5306.	1.6	4
1248	Gurson's Tvergaard's Needleman model guided fracture-resistant structural designs under finite deformations. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 3344-3388.	1.5	2
1249	Velocity Field Level Set Method Incorporating Topological Derivatives for Topology Optimization. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2022, 89, .	1.1	2
1250	Computational upper-limit of directional light emission in nano-LED via inverse design. <i>Optics Express</i> , 2022, 30, 9008.	1.7	4
1251	A new form of forbidden frequency band constraint for dynamic topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	5
1252	Multi-material and strength-oriented microstructural topology optimization applied to discrete phase and functionally graded materials. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	6
1253	Simultaneous Free-Size, Gauge, and Composite Optimization for Automotive Chassis Design. , 0, , .		0
1254	Topology optimization using the discrete element method. Part 1: Methodology, validation, and geometric nonlinearity. <i>Meccanica</i> , 2022, 57, 1213-1231.	1.2	4
1255	Extended level set method: A multiphase representation with perfect symmetric property, and its application to multi-material topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 393, 114742.	3.4	13
1256	Topology optimization of steel deck building diaphragms. <i>Journal of Constructional Steel Research</i> , 2022, 191, 107186.	1.7	1
1257	The Application of Generative Algorithms in Human-Centered Product Development. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 3682.	1.3	4
1258	Application of Taylor series combined with the weighted least square method to thermodynamic topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 393, 114698.	3.4	3
1259	Improved fracture resistance of 3D-printed elastoplastic structures with respect to their topology and orientation of deposited layers. <i>International Journal of Mechanical Sciences</i> , 2022, 220, 107147.	3.6	8
1260	Design of multiphase auxetic metamaterials by a parametric color level set method. <i>Composite Structures</i> , 2022, 287, 115385.	3.1	17
1261	Topology optimization for enhanced dynamic fracture resistance of structures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 394, 114846.	3.4	8

#	ARTICLE	IF	CITATIONS
1262	Topology optimization of proportionally damped structures under harmonic excitations: Analysis of velocity and acceleration responses. <i>Engineering Structures</i> , 2022, 258, 114140.	2.6	1
1263	An Efficient Threshold Dynamics Method for Topology Optimization for Fluids. <i>CSIAM Transactions on Applied Mathematics</i> , 2022, 3, 26-56.	0.4	1
1264	Topology optimization based channel design for powder-bed additive manufacturing. <i>Additive Manufacturing</i> , 2022, 54, 102717.	1.7	2
1265	Structural topology optimization and path planning for composites manufactured by fiber placement technologies. <i>Composite Structures</i> , 2022, 289, 115488.	3.1	11
1266	Multi-material topology optimization and additive manufacturing for metamaterials incorporating double negative indexes of Poisson's ratio and thermal expansion. <i>Additive Manufacturing</i> , 2022, 54, 102742.	1.7	15
1267	Design of component structure in assemblies for simultaneously regulating contact pressure distribution and natural frequencies. <i>European Journal of Mechanics, A/Solids</i> , 2022, 94, 104557.	2.1	5
1268	Additively manufactured metallic biomaterials. <i>Bioactive Materials</i> , 2022, 15, 214-249.	8.6	75
1269	Density-based shape optimization of 3D structures with mean curvature constraints. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	1
1270	Texture Design and Its Effect of Soft Foods Suitable for Nursing Foods Using Macroscopic 3D Structures Printed by 3D Food Printer. <i>Japan Journal of Food Engineering</i> , 2021, 22, 119-134.	0.1	3
1271	A method of forming a spacecraft adapter layout to meet the requirements of dynamic compatibility by topological and parametric optimization methods. <i>Engineering Journal Science and Innovation</i> , 2021, , .	0.1	0
1272	Multiscale thermal and thermo-structural optimization of three-dimensional lattice structures. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	10
1273	An improved optimality criterion combined with density filtering method for structural topology optimization. <i>Engineering Optimization</i> , 2023, 55, 416-433.	1.5	5
1274	Infill topology optimization of porous structures with discrete variables by the sequential element rejection and admission method. <i>Engineering Optimization</i> , 2023, 55, 457-475.	1.5	1
1275	Evidence theory-based reliability optimization for cross-scale topological structures with global stress, local displacement, and micro-manufacturing constraints. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	57
1276	Hybrid manufacturing of topology optimized machine tool parts through a layer laminated manufacturing method. <i>Production Engineering</i> , 2022, 16, 493-502.	1.1	2
1277	Deep Learning-Based Accuracy Upgrade of Reduced Order Models in Topology Optimization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 12005.	1.3	6
1278	Effects of design sensitivity schemes for incorporating loading uncertainty in robust topology optimization. <i>Engineering Optimization</i> , 0, , 1-18.	1.5	0
1279	An All-Fabric Droplet-Based Energy Harvester with Topology Optimization. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	19

#	ARTICLE	IF	CITATIONS
1280	Robust topology optimization of a flexural structure considering multi-stress performance for force sensing and structural safety. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	3
1281	Advancing statistical learning and artificial intelligence in nanophotonics inverse design. <i>Nanophotonics</i> , 2022, 11, 2483-2505.	2.9	15
1283	A multi-material topology optimization method based on the material-field series-expansion model. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	9
1285	MLGen: Generative Design Framework Based on Machine Learning and Topology Optimization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 12044.	1.3	10
1286	Lightweight design process considering assembly connection and non-probabilistic uncertainty with its application to machine structural design. <i>Engineering Optimization</i> , 0, , 1-22.	1.5	2
1287	Strength-constrained simultaneous optimization of topology and fiber orientation of fiber-reinforced composite structures for additive manufacturing. <i>Advances in Structural Engineering</i> , 2022, 25, 1636-1651.	1.2	9
1288	Relationship between microstructure, mechanical and magnetic properties of pure iron produced by laser powder bed fusion (L-PBF) in the as-built and stress relieved conditions. <i>Progress in Additive Manufacturing</i> , 2022, 7, 1195-1212.	2.5	7
1289	On the Indispensability of Isogeometric Analysis in Topology Optimization for Smooth or Binary Designs. <i>Symmetry</i> , 2022, 14, 845.	1.1	2
1290	HoneyTop90: A 90-line MATLAB code for topology optimization using honeycomb tessellation. <i>Optimization and Engineering</i> , 2023, 24, 1433-1460.	1.3	8
1291	Topological design of phononic crystals for multiple wide band gaps. <i>Journal of Sound and Vibration</i> , 2022, 529, 116962.	2.1	15
1292	Numerical micro-texture optimization for lubricated contacts – A critical discussion. <i>Friction</i> , 2022, 10, 1772-1809.	3.4	65
1293	A finite element level-set method for stress-based topology optimization of plate structures. <i>Computers and Mathematics With Applications</i> , 2022, 115, 26-40.	1.4	12
1294	Frc-Tounn: Topology Optimization of Continuous Fiber Reinforced Composites Using Neural Network. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
1295	Topology optimization with automated derivative computation for multidisciplinary design problems. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	5
1296	Computational Acceleration of Topology Optimization Using Parallel Computing and Machine Learning Methods – Analysis of Research Trends. <i>Journal of Industrial Information Integration</i> , 2022, 28, 100352.	4.3	4
1297	Automated Synthesis of Bending Pneumatic Soft Actuators. , 2022, , .		3
1298	Continuum Modeling of Porous Electrodes for Electrochemical Synthesis. <i>Chemical Reviews</i> , 2022, 122, 11022-11084.	23.0	46
1299	A priori error analysis of shape derivatives of linear functionals in structural topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 395, 114991.	3.4	4

#	ARTICLE	IF	CITATIONS
1300	AlphaTruss: Monte Carlo Tree Search for Optimal Truss Layout Design. Buildings, 2022, 12, 641.	1.4	9
1301	Exhibit supports for sandstone artifacts designed through topology optimization and additive manufacturing techniques. Journal of Cultural Heritage, 2022, 55, 329-338.	1.5	1
1302	Adaptive isogeometric topology optimization using PHT splines. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 114993.	3.4	8
1303	Concurrent topology and fiber orientation optimization method for fiber-reinforced composites based on composite additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 114962.	3.4	15
1304	Topology optimization for realizing tailored self-collimation in phononic crystals. International Journal for Numerical Methods in Engineering, 2022, 123, 4170-4182.	1.5	5
1305	Bi-directional evolutionary topology optimization based on stress minimization under design-dependent surface loads. Engineering Optimization, 2023, 55, 1168-1188.	1.5	4
1306	Reliability-based topology optimization of continuum structure under buckling and compliance constraints. International Journal for Numerical Methods in Engineering, 2022, 123, 4032-4053.	1.5	10
1307	Deep reinforcement learning for engineering design through topology optimization of elementally discretized design domains. Materials and Design, 2022, 218, 110672.	3.3	17
1308	Topological synthesis of fluidic pressure-actuated robust compliant mechanisms. Mechanism and Machine Theory, 2022, 174, 104871.	2.7	5
1309	Geometric dimensionality control of structural components in topology optimization. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	20
1310	Topology optimization design of multi-material quasi-periodic cellular structures for thermoelastic responses. International Journal for Numerical Methods in Engineering, 2022, 123, 4345-4366.	1.5	2
1311	Multi-resolution nonlinear topology optimization with enhanced computational efficiency and convergence. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	10
1312	Topology optimization of magnetorheological smart materials included PnCs for tunable wide bandgap design. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	6
1313	Structural optimization of metamaterials based on periodic surface modeling. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 115057.	3.4	4
1314	Experimental demonstration of robust nanophotonic devices optimized by topological inverse design with energy constraint. Photonics Research, 2022, 10, 1787.	3.4	11
1315	Boundary shape identification method for density based topology optimization. Transactions of the JSME (in Japanese), 2022, 88, 21-00392-21-00392.	0.1	1
1316	A level set-based topology optimization approach for thermally radiating structures. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	2
1317	Topology Optimized Unit Cells for Laser Powder Bed Fusion. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2022, 167, 291-299.	0.4	2

#	ARTICLE	IF	CITATIONS
1318	Density-Based Topology Optimization for a Defined External State of Stress in Individualized Endoprosthesis. Proceedings of the Design Society, 2022, 2, 533-542.	0.5	4
1319	A unified framework for explicit layout/topology optimization of thin-walled structures based on Moving Morphable Components (MMC) method and adaptive ground structure approach. Computer Methods in Applied Mechanics and Engineering, 2022, 396, 115047.	3.4	17
1320	Optimized design and additive manufacture of double-sided metal mirror with self-supporting lattice structure. Materials and Design, 2022, 219, 110759.	3.3	8
1321	Regional sustainable development impact through sustainable bridge optimization. Structures, 2022, 41, 1061-1076.	1.7	5
1322	An AI-Assisted Design Method for Topology Optimization without Pre-Optimized Training Data. Proceedings of the Design Society, 2022, 2, 1589-1598.	0.5	0
1323	Co-generation of Collision-Free Shapes for Arbitrary One-Parametric Motion. CAD Computer Aided Design, 2022, 151, 103323.	1.4	1
1324	Accurate surface normal representation to facilitate gradient coil optimization on curved surface. Magnetic Resonance Letters, 2023, 3, 67-84.	0.7	1
1325	Topology optimization of in-pit codisposal of waste rocks and tailings to reduce advective contaminant transport to the environment. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	2
1326	Synthesising Computational Design Methods for a Human-Centred Design Framework. Proceedings of the Design Society, 2022, 2, 633-642.	0.5	1
1327	Comparison of Manual Setting Weight Reduction and Topology Optimization of the Wing Tips of Electric Vertical Take-Off and Landing Aircraft. Applied Sciences (Switzerland), 2022, 12, 5548.	1.3	1
1328	Topology Optimization of 3D Flow Fields for Flow Batteries. Journal of the Electrochemical Society, 2022, 169, 050540.	1.3	12
1329	New concept carrier of front-end module with structural topology optimization for automotive. Advances in Mechanical Engineering, 2022, 14, 168781322210962.	0.8	1
1330	Ecodesign with topology optimization. Procedia CIRP, 2022, 109, 454-459.	1.0	4
1331	Topology Optimization of Piezoelectric Energy Harvesters for Enhanced Open-Circuit Voltage Subjected to Harmonic Excitations. Materials, 2022, 15, 4423.	1.3	2
1332	Topology optimization of wind farm layouts. Renewable Energy, 2022, 195, 1015-1027.	4.3	9
1333	A level-set-based topology optimization strategy using radial basis functions and a Hilbertian velocity extension. Applied Mathematical Modelling, 2022, , .	2.2	1
1334	Investigation of different topology-optimized fin structures in a cylindrical latent heat thermal energy storage unit. Thermal Science and Engineering Progress, 2022, 33, 101372.	1.3	8
1335	A transient topology optimization with time-varying deformation restriction via augmented Lagrange method. International Journal of Mechanics and Materials in Design, 2022, 18, 683-700.	1.7	5

#	ARTICLE	IF	CITATIONS
1336	Design and optimization of dynamic weighing and energy harvesting system based on piezoelectric materials: Application to transport. <i>Materials Today: Proceedings</i> , 2022, , .	0.9	2
1337	A phase field-based systematic multiscale topology optimization method for porous structures design. <i>Journal of Computational Physics</i> , 2022, 466, 111383.	1.9	16
1338	A Structural Optimization Framework to Design Compliant Constant Force Mechanisms With Large Energy Storage. <i>Journal of Mechanisms and Robotics</i> , 2023, 15, .	1.5	5
1339	Topology optimization for 3D concrete printing with various manufacturing constraints. <i>Additive Manufacturing</i> , 2022, 57, 102982.	1.7	7
1340	Design and manufacturing of graded density components by material extrusion technologies. <i>Additive Manufacturing</i> , 2022, 57, 102950.	1.7	1
1342	Integrated Development of a Topology-Optimized Compliant Mechanism for Precise Positioning. <i>Actuators</i> , 2022, 11, 179.	1.2	1
1343	Generalized Bezier components and successive component refinement using moving morphable components. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	3
1344	Layout optimization of long-span structures subject to self-weight and multiple load-cases. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	0
1345	Functional Requirements of Software Tools for Laser-Based Powder Bed Fusion Additive Manufacturing for Metals. <i>Journal of Computing and Information Science in Engineering</i> , 2023, 23, .	1.7	2
1346	Application of a modular topology optimization framework to an aerospace bracket design. <i>Materialpruefung/Materials Testing</i> , 2022, 64, 1090-1102.	0.8	6
1347	Bézier extraction based isogeometric topology optimization with a locally-adaptive smoothed density model. <i>Journal of Computational Physics</i> , 2022, 467, 111469.	1.9	7
1348	A Dual Solid Method for Topological Optimization of a Conducting Solid Cooled by Gas Conduction and Surface Radiation. <i>Journal of Heat Transfer</i> , 2022, 144, .	1.2	1
1349	Variational autoencoder-based topological optimization of an anechoic coating: An efficient- and neural network-based design. <i>Materials Today Communications</i> , 2022, 32, 103901.	0.9	2
1350	Numerical study and topology optimization of vibration isolation support structures. <i>International Journal of Mechanical Sciences</i> , 2022, 228, 107507.	3.6	13
1351	Solid isotropic material with thickness penalization " A 2.5D method for structural topology optimization. <i>Computers and Structures</i> , 2022, 270, 106857.	2.4	6
1352	Enhanced thermal performance of a pin-fin cooling channel for gas turbine blade by density-based topology optimization. <i>International Journal of Thermal Sciences</i> , 2022, 181, 107783.	2.6	10
1353	Topology optimization of porous solid structures for heat transfer and flow channels in reactors with fluid-solid reaction coupling. <i>International Journal of Thermal Sciences</i> , 2022, 181, 107771.	2.6	10
1354	Multi-layer inverse design of vertical grating couplers for high-density, commercial foundry interconnects. <i>Optics Express</i> , 2022, 30, 31058.	1.7	8

#	ARTICLE	IF	CITATIONS
1355	Modern method of topology optimization of products in additive production. <i>ÄtuÄnjij Ä-ntelekt</i> , 2022, 27, 301-310.	0.1	0
1356	Integrated topology and packaging optimization for conceptual-level electric vehicle chassis design via the component-existence method. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 0, , 095440702211138.	1.1	1
1358	Infill Microstructures for Additive Manufacturing. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 7386.	1.3	8
1359	Improving the diversity of topology-optimized designs by swarm intelligence. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	1
1360	Deployment dynamics and topology optimization of a spinning inflatable structure. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2022, 38, .	1.5	2
1362	A Multidisciplinary Computational Framework for Topology Optimisation of Offshore Helidecks. <i>Journal of Marine Science and Engineering</i> , 2022, 10, 1180.	1.2	1
1363	Topology optimization of scale-dependent non-local plates. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	7
1364	Computational homogenization of additively manufactured lightweight structures with multiscale topology optimization. <i>Journal of Computational Design and Engineering</i> , 2022, 9, 1602-1615.	1.5	3
1365	Eigenvalue Analysis of Timoshenko Beams and Mindlin Plates with Unfitted Finite Element Methods. <i>AIAA Journal</i> , 0, , 1-17.	1.5	0
1366	High Speed Simulation and Freeform Optimization of Nanophotonic Devices with Physics-Augmented Deep Learning. <i>ACS Photonics</i> , 2022, 9, 3110-3123.	3.2	25
1367	Reliability-based optimization of structural topologies using artificial neural networks. <i>Probabilistic Engineering Mechanics</i> , 2022, 70, 103356.	1.3	6
1368	Limiting the first principal stress in topology optimization: a local and consistent approach. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	3
1369	Inverse design of acoustic metasurfaces using space-filling points. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	5
1370	An isogeometric analysis-based topology optimization framework for 2D cross-flow heat exchangers with manufacturability constraints. <i>Engineering With Computers</i> , 2022, 38, 4829-4852.	3.5	11
1371	Inverse design of photonic and phononic topological insulators: a review. <i>Nanophotonics</i> , 2022, 11, 4347-4362.	2.9	22
1372	Concurrent topology optimization of multi-scale cooling channels with inlets and outlets. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	5
1373	The method for solving topology optimization problems using hyper-dual numbers. <i>Archive of Applied Mechanics</i> , 0, , .	1.2	1
1374	A new resonance-based design approach to reduce motor torque requirements in automated machinery. <i>International Journal of Advanced Manufacturing Technology</i> , 0, , .	1.5	0

#	ARTICLE	IF	CITATIONS
1375	A Concurrent Topology Optimization Model for Dynamic Property of Structures with Connectable Graded Microstructures. International Journal of Computational Methods, 2023, 20, .	0.8	1
1376	Three-field floating projection topology optimization of continuum structures. Computer Methods in Applied Mechanics and Engineering, 2022, 399, 115444.	3.4	12
1377	Topology optimization for minimum temperature with mass flow and stiffness constraints. Computer Methods in Applied Mechanics and Engineering, 2022, 400, 115334.	3.4	2
1378	Smoothing topology optimization results using pre-built lookup tables. Advances in Engineering Software, 2022, 173, 103204.	1.8	7
1379	Multi-material topology optimization of coated structures using level set method. Composite Structures, 2022, 300, 116074.	3.1	4
1380	An efficient approach for dynamic-reliability-based topology optimization of braced frame structures with probability density evolution method. Advances in Engineering Software, 2022, 173, 103196.	1.8	8
1381	Defect-Driven topology optimization for fatigue design of additive manufacturing structures: Application on a real industrial aerospace component. Engineering Failure Analysis, 2022, 142, 106737.	1.8	8
1382	Advances in the design and assembly of flexible thermoelectric device. Progress in Materials Science, 2023, 131, 101003.	16.0	140
1383	Structural topology optimization with predetermined breaking points. Computer Methods in Applied Mechanics and Engineering, 2022, 400, 115610.	3.4	4
1384	Problem-independent machine learning (PIML)-based topology optimizationâ€”A universal approach. Extreme Mechanics Letters, 2022, 56, 101887.	2.0	20
1385	Shape morphing structures inspired by multi-material topology optimized bi-functional metamaterials. Composite Structures, 2022, 300, 116135.	3.1	11
1386	A BEM-based topology optimization for acoustic problems considering tangential derivative of sound pressure. Computer Methods in Applied Mechanics and Engineering, 2022, 401, 115619.	3.4	3
1387	Real-time stress-based topology optimization via deep learning. Thin-Walled Structures, 2022, 181, 110055.	2.7	3
1388	Improved convergence in planar nanophotonic topology optimization via the multigradient. Photonics and Nanostructures - Fundamentals and Applications, 2022, 52, 101067.	1.0	4
1389	Topology Optimization for Harmonic Excitation Structures with Minimum Length Scale Control Using the Discrete Variable Method. CMES - Computer Modeling in Engineering and Sciences, 2022, .	0.8	0
1390	Topology Optimization for Electromagnetics: A Survey. IEEE Access, 2022, 10, 98593-98611.	2.6	20
1391	General Process Simulations. Springer Tracts in Additive Manufacturing, 2022, , 119-148.	0.2	0
1392	Topology Optimization of Channel-Cooling Cellular Structures for Thermomechanical Behaviors. Mechanisms and Machine Science, 2022, , 2421-2436.	0.3	0

#	ARTICLE	IF	CITATIONS
1393	Mechanical Metamaterials with Negative Thermal Expansion Designed Through Multi-Material Topology Optimization. SSRN Electronic Journal, 0, , .	0.4	0
1394	Topology optimization of a 3D part virtually printed by FDM. Journal of Achievements in Materials and Manufacturing Engineering, 2022, 112, 25-32.	0.2	3
1395	An explicit approach for simultaneous shape and topology optimization of shell structures. Applied Mathematical Modelling, 2023, 113, 613-639.	2.2	5
1396	Broadband Terahertz Wavefront Engineering Based on Topology Optimization of Refractive Index in Non-Dielectric Structures. , 2022, , .		0
1397	Two-Scale Topology Optimization with Isotropic and Orthotropic Microstructures. Designs, 2022, 6, 73.	1.3	4
1398	Volumetric Metaoptics for Compact and Low-Power Spectroscopy. , 2022, , .		0
1399	Inverse Design of Mechanical Metamaterials with Target Nonlinear Response via a Neural Accelerated Evolution Strategy. Advanced Materials, 2022, 34, .	11.1	29
1401	Multi-material topology optimization for the PMSMs under the consideration of the MTPA control. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	5
1402	Semi-intrusive approach for stiffness and strength topology optimization under uncertainty. Optimization and Engineering, 2023, 24, 2181-2211.	1.3	6
1403	Topology Optimization of a Coupled Aerothermoelastic System. Lecture Notes in Mechanical Engineering, 2023, , 319-329.	0.3	0
1404	Topology optimization of frame structures with stress and stability constraints. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	1
1405	Reverse Design of Solid Propellant Grain for a Performance-Matching Goal: Shape Optimization via Evolutionary Neural Network. Aerospace, 2022, 9, 552.	1.1	1
1406	A Novel Topology Optimization of the Frame Mold for Composite Autoclave Process. Applied Composite Materials, 2022, 29, 2343-2365.	1.3	2
1407	Eurocode-compliant topology optimisation of steel moment splice connections. Journal of Building Engineering, 2022, 62, 105346.	1.6	3
1408	On the use of artificial neural networks in topology optimisation. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	46
1409	Investigation of the potential of topology optimization in additive manufacturing using the example of components subject to bending stress. Materialwissenschaft Und Werkstofftechnik, 2022, 53, 1298-1310.	0.5	1
1410	Neural Network-Assisted Design: A Study of Multiscale Topology Optimization With Smoothly Graded Cellular Structures. Journal of Mechanical Design, Transactions of the ASME, 2023, 145, .	1.7	6
1411	A generalized framework for microstructural optimization using neural networks. Materials and Design, 2022, 223, 111213.	3.3	4

#	ARTICLE	IF	CITATIONS
1412	A phase field method based on multi-level correction for eigenvalue topology optimization. Computer Methods in Applied Mechanics and Engineering, 2022, 401, 115646.	3.4	4
1413	Calibration of Elastoplastic Constitutive Model Parameters from Full-Field Data with Automatic Differentiation-based Sensitivities.. , 2021, , .		0
1414	Towards a complex geometry manufacturing: A case study on metal 3D printing of topology optimised bicycle parts with lattices. IFAC-PapersOnLine, 2022, 55, 1515-1520.	0.5	0
1415	Optimization with Restriction in the Generalized Phase Problem. , 2022, , .		0
1416	Guided Ultrasound Inspection of Small Features Using a Horn-Type Transducer Design. Experimental Mechanics, 0, , .	1.1	0
1417	Manifold-based material field series expansion method for topology optimization on free-form surfaces. Computational Mechanics, 0, , .	2.2	1
1418	On benchmarking and good scientific practise in topology optimization. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	17
1419	A topology description function-enhanced neural network for topology optimization. Computer-Aided Civil and Infrastructure Engineering, 2023, 38, 1020-1040.	6.3	3
1420	A MATLAB code of node-based topology optimization in 3D arbitrary domain for additive manufacturing. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	1
1421	An improved Material Mask Overlay Strategy for the desired discreteness of pressure-loaded optimized topologies. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	2
1422	Topology optimization-driven design of added rib architecture system for enhanced free vibration response of thin-wall plastic components used in the automotive industry. International Journal of Advanced Manufacturing Technology, 2022, 123, 1231-1247.	1.5	2
1423	A Streamline-Guided Dehomogenization Approach for Structural Design. Journal of Mechanical Design, Transactions of the ASME, 2023, 145, .	1.7	4
1424	A Review on the Modeling of the Clinching Process Chain - Part I: Design Phase. Journal of Advanced Joining Processes, 2022, 6, 100133.	1.5	3
1425	2-D Topology Optimization of the Connection Part of the Electric Kickboard in Case of Front Collision. Journal of the Korean Society for Precision Engineering, 2022, 39, 841-848.	0.1	0
1426	Optimum selection of reinforcement, assembly, and formwork system for digital fabrication technique in construction industry – A critical review. Structures, 2022, 46, 725-749.	1.7	6
1427	On the design of mechanical heterogeneous specimens using multilevel topology optimization. Advances in Engineering Software, 2023, 175, 103314.	1.8	4
1428	Multi-objective topology optimization filled with multiple microstructures. Composite Structures, 2023, 304, 116322.	3.1	1
1429	The Mitigation of Eddy-Current Losses in Ferromagnetic Samples Produced by Laser Powder Bed Fusion. IEEE Access, 2022, 10, 115571-115582.	2.6	7

#	ARTICLE	IF	CITATIONS
1430	Basic structure and solutions of PDE-constrained non-parametric optimization problems and its applications to real-world problems. <i>Mechanical Engineering Journal</i> , 2022, , .	0.2	0
1431	Back Frame Optimization of a Large Radio Telescope Based on Force Cone Method. <i>Wuhan University Journal of Natural Sciences</i> , 2022, 27, 424-438.	0.2	0
1432	A Review of Lightweight Design for Space Mirror Core Structure: Tradition and Future. <i>Machines</i> , 2022, 10, 1066.	1.2	5
1433	A Review on Topology Optimization Strategies for Additively Manufactured Continuous Fiber-Reinforced Composite Structures. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 11211.	1.3	6
1434	Optimal Design of Asymmetric Rotor Pole for Interior Permanent Magnet Synchronous Motor Using Topology Optimization. <i>Energies</i> , 2022, 15, 8254.	1.6	2
1435	Phase-Injected Topology Optimization for Scalable and Interferometrically Robust Photonic Integrated Circuits. <i>ACS Photonics</i> , 0, , .	3.2	4
1436	A two-stage neural network via sensitivity learning for 2D photonic crystals bandgap maximization. <i>Applied Optics</i> , 0, , .	0.9	0
1437	FRC-TOuNN: Topology Optimization of Continuous Fiber Reinforced Composites using Neural Network. <i>CAD Computer Aided Design</i> , 2023, 156, 103449.	1.4	7
1438	Design of resonant elastodynamic metasurfaces to control S_0 Lamb waves using topology optimization. <i>JASA Express Letters</i> , 2022, 2, 115601.	0.5	1
1439	Reliability-based topology optimization using the response surface method for stress-constrained problems considering load uncertainty. <i>Engineering Optimization</i> , 2023, 55, 1923-1939.	1.5	4
1440	A framework for plasticity-based topology optimization of continuum structures. <i>International Journal for Numerical Methods in Engineering</i> , 2023, 124, 1493-1509.	1.5	2
1441	Cellular Automaton Mimicking Colliding Bodies for Topology Optimization. <i>Materials</i> , 2022, 15, 8057.	1.3	4
1442	Exploiting geometric biases in inverse nano-optical problems using artificial neural networks. <i>Optics Express</i> , 2022, 30, 45365.	1.7	2
1444	A topology optimization methodology for the offshore wind turbine jacket structure in the concept phase. <i>Ocean Engineering</i> , 2022, 266, 112974.	1.9	12
1445	Additively manufactured meta-biomaterials: A state-of-the-art review. <i>Composite Structures</i> , 2023, 305, 116491.	3.1	26
1446	Review and prospects of metamaterials used to control elastic waves and vibrations. <i>Frontiers in Physics</i> , 0, 10, .	1.0	6
1447	Graded multiscale topology optimization using neural networks. <i>Advances in Engineering Software</i> , 2023, 175, 103359.	1.8	7
1448	A bionic topology optimization method with an additional displacement constraint. <i>Electronic Research Archive</i> , 2023, 31, 754-769.	0.4	1

#	ARTICLE	IF	CITATIONS
1449	Level set-based topological design of multiphase micro-architected materials using alternating active-phase method. <i>Materials and Design</i> , 2023, 225, 111448.	3.3	3
1450	Ultra-wide low-frequency bandgap design of acoustic metamaterial via multi-material topology optimization. <i>Composite Structures</i> , 2023, 306, 116584.	3.1	12
1451	Topology optimization for structures with bi-modulus material properties considering displacement constraints. <i>Computers and Structures</i> , 2023, 276, 106952.	2.4	3
1452	A concurrent fibre orientation and topology optimisation framework for 3D-printed fibre-reinforced composites. <i>Composites Science and Technology</i> , 2023, 232, 109872.	3.8	11
1453	Topology optimization of ribbed slabs and shells. <i>Engineering Structures</i> , 2023, 277, 115454.	2.6	5
1454	Compressive fatigue response of Al-Si10-Mg bionic thin tubes under constant and variable amplitude loading. <i>International Journal of Fatigue</i> , 2023, 168, 107478.	2.8	4
1455	A novel method to design monolithic catalysts for non-isothermal packed-bed reactors using topology optimisation. <i>Chemical Engineering Science</i> , 2023, 267, 118347.	1.9	5
1456	BeNTO: Beam Network Topology Optimization. <i>CAD Computer Aided Design</i> , 2023, 156, 103439.	1.4	0
1457	Thermo-elastic topology optimization of continuum structures subjected to load allocation constraints. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	1
1458	Multi-material topology optimization using Wachspress interpolations for designing a 3-phase electrical machine stator. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, .	1.7	4
1459	Inverse Design of Digital Materials Using Corrected Generative Deep Neural Network and Generative Deep Convolutional Neural Network. <i>Advanced Intelligent Systems</i> , 0, , 2200333.	3.3	2
1460	A fidelity equivalence computation method for topology optimization of geometrically nonlinear structures. <i>Engineering Optimization</i> , 2024, 56, 96-117.	1.5	3
1461	Improved Thermal Performance of a Serpentine Cooling Channel by Topology Optimization Infilled with Triply Periodic Minimal Surfaces. <i>Energies</i> , 2022, 15, 8924.	1.6	4
1462	An augmented Lagrangian method for multiple nodal displacement-constrained topology optimization. <i>Engineering Optimization</i> , 2023, 55, 1832-1846.	1.5	2
1463	In Vivo Penetrating Microelectrodes for Brain Electrophysiology. <i>Sensors</i> , 2022, 22, 9085.	2.1	3
1464	Fluidic Topology Optimization with an Anisotropic Mixture Model. <i>ACM Transactions on Graphics</i> , 2022, 41, 1-14.	4.9	2
1465	XFEM level set-based topology optimization for turbulent conjugate heat transfer problems. <i>Structural and Multidisciplinary Optimization</i> , 2023, 66, .	1.7	2
1466	An efficient combination of topology optimization and parameter optimization for electromagnetic devices. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2022, , S1-S10.	0.3	0

#	ARTICLE	IF	CITATIONS
1467	Geometrically-driven generation of mechanical designs through deep convolutional GANs. <i>Engineering Optimization</i> , 2024, 56, 18-35.	1.5	0
1468	Comparison of Radiation-conduction Transfer Involving Complex Solid Shapes Determined by Topological Optimization and a Heuristic Technique. <i>Journal of Heat Transfer</i> , 2022, , 1-49.	1.2	0
1469	Simultaneous optimization of part and support for heat dissipation in additive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2023, 66, .	1.7	1
1470	A 168-line MATLAB code for topology optimization with the adaptive bubble method (ABM). <i>Structural and Multidisciplinary Optimization</i> , 2023, 66, .	1.7	5
1473	Latest Developments and Insights of Orthopedic Implants in Biomaterials Using Additive Manufacturing Technologies. <i>Journal of Manufacturing and Materials Processing</i> , 2022, 6, 162.	1.0	4
1474	METHODOLOGICAL RECOMMENDATIONS ON TOPOLOGICAL OPTIMIZATION OF POWER STRUCTURES USING NUMERICAL MODELING TOOLS. <i>Mehanika MaÅin, Mehanizmov I Materialov</i> , 2022, 4, 68-79.	0.1	0
1475	Genotype-Phenotype Mapping for Applied Evolutionary Multi-Objective and Multi-Physics Topology Optimization. <i>Applied Mechanics</i> , 2022, 3, 1399-1416.	0.7	0
1476	Topology optimization of structures composed of more than two materials with different tensile and compressive properties. <i>Composite Structures</i> , 2023, 306, 116609.	3.1	7
1477	A detailed introduction to density-based topology optimisation of fluid flow problems with implementation in MATLAB. <i>Structural and Multidisciplinary Optimization</i> , 2023, 66, .	1.7	7
1478	A 172-line Matlab code for structural topology optimization in the body-fitted mesh. <i>Structural and Multidisciplinary Optimization</i> , 2023, 66, .	1.7	6
1479	Thermodynamic topology optimization for sequential additive manufacturing including structural self-weight. <i>Civil Engineering Design</i> , 2022, 4, 162-173.	0.8	1
1480	Polygonal multiresolution topology optimization of multi-material structures subjected to dynamic loads. <i>International Journal of Mechanics and Materials in Design</i> , 0, , .	1.7	0
1481	Simulation-Based Support Generation for Laser Powder Bed Fusion Processes. <i>3D Printing and Additive Manufacturing</i> , 0, , .	1.4	0
1482	A framework for eigenvalue-based topology optimization of torsional resonant microscanner to improve dynamic stability. <i>Journal of Mechanical Science and Technology</i> , 2023, 37, 25-30.	0.7	1
1483	Electromagnetic and Mechanical Topology Optimization for SynRM Rotors Considering High Dimensional Constraints. <i>IEEE Transactions on Industrial Electronics</i> , 2023, , 1-12.	5.2	1
1484	Differentiable physics-enabled closure modeling for Burgers's™ turbulence. <i>Machine Learning: Science and Technology</i> , 2023, 4, 015017.	2.4	2
1485	Constraining Continuous Topology Optimizations to Discrete Solutions for Photonic Applications. <i>ACS Photonics</i> , 0, , .	3.2	2
1486	Reliability-based topology optimization of vibrating structures with frequency constraints. <i>International Journal of Mechanics and Materials in Design</i> , 2023, 19, 467-481.	1.7	2

#	ARTICLE	IF	CITATIONS
1487	First-order topology optimization via inexact Finite Element Analysis. CAD Computer Aided Design, 2023, 157, 103466.	1.4	1
1488	Design Optimization and Finite Element Model Validation of LPBF-Printed Lattice-Structured Beams. Metals, 2023, 13, 184.	1.0	6
1489	Design optimization of integrated cooling inserts in modular Fischer-Tropsch reactors. Chemical Engineering Science, 2023, 268, 118423.	1.9	1
1490	Casting-oriented structural topology optimization with dimensional shrinkage. Applied Mathematical Modelling, 2023, 117, 625-651.	2.2	0
1491	Structural topology optimization considering both manufacturability and manufacturing uncertainties. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	1
1492	Seismic design optimization of engineering structures: a comprehensive review. Acta Mechanica, 2023, 234, 1305-1330.	1.1	24
1493	Topology optimization under microscale uncertainty using stochastic gradients. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	1
1494	Computational Acceleration of Topology Optimization Using Deep Learning. Applied Sciences (Switzerland), 2023, 13, 479.	1.3	0
1495	Efficient hybrid topology optimization using GPU and homogenization-based multigrid approach. Engineering With Computers, 2023, 39, 3593-3615.	3.5	0
1496	Tree Reconstruction Using Topology Optimisation. Remote Sensing, 2023, 15, 172.	1.8	3
1497	Operator Learning for Predicting Mechanical Response of Hierarchical Composites with Applications of Inverse Design. International Journal of Applied Mechanics, 2023, 15, .	1.3	6
1498	Feature-Mapping Topology Optimization of a Wing-box with Geometric Constraints. , 2023, , .		2
1499	Topology Optimization of 2D Approximate Aerothermoelastic System with Internal Radiation. , 2023, , .		0
1500	Implementation of a Plug-and-Play Reusable Level-Set Topology Optimization Framework via COMSOL Multiphysics. , 2023, , .		1
1501	Metric Learning: Harnessing the Power of Machine Learning in Nanophotonics. ACS Photonics, 2023, 10, 900-909.	3.2	8
1502	Multiphysics Simulation and Optimization using High-Order Finite Elements with Structured Differentiation. , 2023, , .		0
1503	Optimization of the Weight and Size Characteristics of the Power Bracket for Additive Manufacturing Based on Topological Optimization Algorithms. Lecture Notes in Mechanical Engineering, 2023, , 79-85.	0.3	0
1504	SoRoForge: End-to-End Soft Actuator Design. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1475-1486.	3.4	3

#	ARTICLE	IF	CITATIONS
1505	An Aircraft from Nothing - Towards Configuration Design of Flying Vehicles using Topology Optimization. , 2023, , .		1
1506	Stress constrained topology optimization of energy storage flywheels using a specific energy formulation. Journal of Energy Storage, 2023, 61, 106733.	3.9	2
1507	Investigation of transport-reaction dynamics and local/global entropy production in topology optimization of two-species reaction-diffusion systems. Chemical Engineering Science, 2023, 275, 118739.	1.9	7
1508	Nonlinear shape optimization of flexible mechanical metamaterials. Extreme Mechanics Letters, 2023, 61, 102015.	2.0	4
1509	Stress-based topology optimization of thermoelastic structures considering self-support constraints. Computer Methods in Applied Mechanics and Engineering, 2023, 408, 115957.	3.4	8
1510	Study of the influence of objective functions on the topology optimization design of battery cold plate. Applied Thermal Engineering, 2023, 226, 120326.	3.0	8
1511	Simple and efficient GPU accelerated topology optimisation: Codes and applications. Computer Methods in Applied Mechanics and Engineering, 2023, 410, 116043.	3.4	7
1512	A stochastic framework for computationally efficient fail-safe topology optimization. Engineering Structures, 2023, 283, 115831.	2.6	2
1513	Level-set topology optimization for Ductile and Brittle fracture resistance using the phase-field method. Computer Methods in Applied Mechanics and Engineering, 2023, 409, 115963.	3.4	4
1514	Enhancing level set-based topology optimization with anisotropic graded meshes. Applied Mathematics and Computation, 2023, 447, 127903.	1.4	0
1515	Thermal characteristics of latent heat sinks based on low melting point metal and topologically optimized fins under lateral hypergravity. Applied Thermal Engineering, 2023, 228, 120569.	3.0	2
1516	Topology optimization of heat sink in turbulent natural convection using $k-\epsilon$ turbulent model. Applied Mathematical Modelling, 2023, 118, 272-302.	2.2	2
1517	Topology Optimization of Continuous Precast Prestressed Concrete Bridge Girders Using Shape Memory Alloys. Journal of Structural Engineering, 2023, 149, .	1.7	1
1518	Thermal design of functionally graded cellular structures with multiple microstructure configurations through topology optimization. Composite Structures, 2023, 313, 116922.	3.1	0
1519	Variant design generation and machine learning aided deformation prediction for auxetic metamaterials. Mechanics of Materials, 2023, 181, 104642.	1.7	2
1520	Improving the manufacturability of highly materially restricted topology-optimized designs with Mixed Integer Linear Programming. Engineering Structures, 2023, 284, 115955.	2.6	1
1521	Concurrent topology optimization of multiscale structure under uncertain dynamic loads. International Journal of Mechanical Sciences, 2023, 251, 108355.	3.6	7
1522	Nonlinear stiffness mechanism designed by topology optimization reduces backpack vibration. International Journal of Mechanical Sciences, 2023, 252, 108345.	3.6	5

#	ARTICLE	IF	CITATIONS
1523	OPS-ITO: Development of Isogeometric Analysis and Topology Optimization in OpenSEES for Free-Form Structural Design. CAD Computer Aided Design, 2023, 160, 103517.	1.4	3
1524	Topology optimization for additive manufacturing with strength constraints considering anisotropy. Journal of Computational Design and Engineering, 2023, 10, 892-904.	1.5	1
1525	A fast method of material, design and process eco-selection via topology optimization, for additive manufactured structures. Cleaner Environmental Systems, 2023, 9, 100114.	2.2	2
1526	Comprehensive performance enhancement of conformal cooling process using thermal-load-based topology optimization. Applied Thermal Engineering, 2023, 227, 120332.	3.0	5
1527	Emergence of elastostatic strain-gradient effects from topological optimization. European Journal of Mechanics, A/Solids, 2023, 100, 104979.	2.1	1
1528	Stress-based form-finding of gridshells for Wire-and-Arc Additive Manufacturing considering overhang constraints. Engineering Structures, 2023, 279, 115654.	2.6	3
1529	Design and additive manufacturing of optimized electrodes for energy storage applications. Carbon, 2023, 205, 262-269.	5.4	8
1530	Topology optimization using super-resolution image reconstruction methods. Advances in Engineering Software, 2023, 177, 103413.	1.8	3
1531	A comparison of manufacturing constraints in 3D topologically optimized heat sinks for forced air cooling. Engineering With Computers, 2023, 39, 1711-1733.	3.5	0
1532	Digital design and manufacturing of spherical joint base on multi-objective topology optimization and 3D printing. Structures, 2023, 49, 479-491.	1.7	8
1533	Structure bionic topology design method based on biological unit cell. Heliyon, 2023, 9, e13529.	1.4	0
1534	Learning topology optimization process via convolutional longâ€shortâ€term memory autoencoderâ€decoder. International Journal for Numerical Methods in Engineering, 2023, 124, 2571-2588.	1.5	1
1535	Using 3D Density-Gradient Vectors in Evolutionary Topology Optimization to Find the Build Direction for Additive Manufacturing. Journal of Manufacturing and Materials Processing, 2023, 7, 46.	1.0	1
1537	Cross-section optimization of vehicle body through multi-objective intelligence adaptive optimization algorithm. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	0
1538	Extending the usability of the force-flow based topology optimization to the process of generative design. Meccanica, 0, , .	1.2	0
1539	Additive manufacturing of fiber-reinforced polymer composites: A technical review and status of design methodologies. Composites Part B: Engineering, 2023, 255, 110603.	5.9	21
1540	Topology optimization of biâ€material shell structures in shallow sea for reducing waveguide sound radiation. International Journal for Numerical Methods in Engineering, 0, , .	1.5	0
1541	Topology optimization design of antennas with complex radiation characteristics. Microwave and Optical Technology Letters, 2024, 66, .	0.9	1

#	ARTICLE	IF	CITATIONS
1542	Process-Specific Topology Optimization Method Based on Laser-Based Additive Manufacturing of AlSi10Mg Components: Material Characterization and Evaluation. Processes, 2023, 11, 648.	1.3	1
1543	Open-Source Codes of Topology Optimization: A Summary for Beginners to Start Their Research. CMES - Computer Modeling in Engineering and Sciences, 2023, 137, 1-34.	0.8	3
1544	Optimal profile design for acoustic black holes using Timoshenko beam theory. Journal of the Acoustical Society of America, 2023, 153, 1554-1563.	0.5	0
1545	Reliability-Based Topology Optimization of Fail-Safe Structures Using Moving Morphable Bars. CMES - Computer Modeling in Engineering and Sciences, 2023, 136, 3173-3195.	0.8	1
1547	Topology optimization of self-supporting lattice structure. Additive Manufacturing, 2023, 67, 103507.	1.7	6
1548	Topological optimization of a composite square lattice structure for bandgap property based on an improved multi-parameter genetic algorithm. Journal of Applied Physics, 2023, 133, 113102.	1.1	0
1549	Reliability-based topology optimization for fundamental frequency maximization with frequency band constraints. Mechanical Systems and Signal Processing, 2023, 195, 110295.	4.4	5
1550	Design of topology optimized compliant legs for bio-inspired quadruped robots. Scientific Reports, 2023, 13, .	1.6	16
1551	A robust-based configuration design method of piezoelectric materials for mechanical load identification considering structural vibration suppression. Computer Methods in Applied Mechanics and Engineering, 2023, 410, 115998.	3.4	14
1552	Static and dynamic topology optimization: an innovative unifying approach. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	0
1553	Peening pattern optimization with integer eigen-moment density for laser peen forming of complex shape. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	3
1554	A Novel Density Based Approach for Topology Optimization of Stokes Flow. SIAM Journal of Scientific Computing, 2023, 45, A338-A368.	1.3	0
1555	Neural Operator-Based Surrogate Solver for Free-Form Electromagnetic Inverse Design. ACS Photonics, 2023, 10, 1547-1557.	3.2	7
1556	A study on the application and accuracy of macro-scale topology optimization for flow devices containing solid microstructures. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	1
1557	Research on Interdisciplinary Design Thinking and Methods Based on Programmable Mechanical Metamaterials. Buildings, 2023, 13, 933.	1.4	2
1558	Rotor Durability Optimization by Means of Finite Element Multiphysics Analysis for High-Speed Surface Permanent Magnet Electric Machines. , 0, , .		0
1559	TOPress: a MATLAB implementation for topology optimization of structures subjected to design-dependent pressure loads. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	3
1560	Challenges in topology optimization for hybrid additiveâ€“subtractive manufacturing: A review. CAD Computer Aided Design, 2023, 161, 103531.	1.4	7

#	ARTICLE	IF	CITATIONS
1561	Quantum Topology Optimization via Quantum Annealing. IEEE Transactions on Quantum Engineering, 2023, 4, 1-15.	2.9	6
1562	Multigrid reduced-order topology optimization scheme for structures subjected to stationary random excitations. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	0
1563	Investigating the effect of surface protrusions on galloping energy harvesting. Applied Physics Letters, 2023, 122, .	1.5	4
1564	A generalized approach for robust topology optimization using the first-order second-moment method for arbitrary response functions. Structural and Multidisciplinary Optimization, 2023, 66, .	1.7	3
1565	Advances in Intellectualization of Transportation Infrastructures. Engineering, 2023, 24, 239-252.	3.2	8
1566	A unified material interpolation for topology optimization of multi-materials. Computers and Structures, 2023, 282, 107041.	2.4	8
1567	A bioinspired programmable Self-Organization approach for designing additively manufactured heat sinks. Energy Conversion and Management, 2023, 286, 116996.	4.4	1
1568	Shape memory mechanical metamaterials. Materials Today, 2023, 66, 36-49.	8.3	19
1569	Concurrent topology optimization of multiple components sharing partial design domain based on distance regularized parameterized level set method. International Journal for Numerical Methods in Engineering, 2023, 124, 3352-3386.	1.5	2
1570	On Non-Penalization SEMDOT Using Discrete Variable Sensitivities. Journal of Optimization Theory and Applications, 2023, 198, 644-677.	0.8	5
1571	Holistic computational design within additive manufacturing through topology optimization combined with multiphysics multi-scale materials and process modelling. Progress in Materials Science, 2023, 138, 101129.	16.0	14
1601	Topology Optimization in Linear Elasticity, Plasticity and Fracture Mechanics. , 2023, , 123-210.		0
1604	Topology Optimization for Design of Resilient Structures using Smart Materials. , 2023, , .		0
1627	Automated design of pneumatic soft grippers through design-dependent multi-material topology optimization. , 2023, , .		2
1628	Differentiable Surrogate Models for Design and Trajectory Optimization of Auxetic Soft Robots. , 2023, , .		0
1649	Differentiable Soft-Robot Generation. , 2023, , .		0
1660	The Impact of Topology Optimization Parameters in the Shape and the Strength of the Structure. Springer Tracts in Additive Manufacturing, 2023, , 103-113.	0.2	0
1661	Numerical Study of Mechanical Behavior of Topologically Optimized Part Produced Virtually by Fused Deposition Modeling. Springer Tracts in Additive Manufacturing, 2023, , 115-125.	0.2	0

#	ARTICLE	IF	CITATIONS
1690	Multi-objective Seismic Design Optimization of Structures: A Review. Archives of Computational Methods in Engineering, 2024, 31, 579-594.	6.0	2
1691	Doubling the Convergence Speed of Planar Topology Optimization Using the Multigradient. , 2023, , .		0
1695	Additive manufacturing for CubeSat structure fabrication. , 2023, , 153-180.		0
1697	Integrating Geometric Metamodel-Assisted Process Assurance into Topology Optimization of Low-Pressure Die Castings. , 2023, , 109-119.		0
1700	Topology Optimization and Additive Manufacturing of Lower Arm of Robotic Manipulator. Mechanisms and Machine Science, 2024, , 278-287.	0.3	0
1707	A Survey on Lightweight Technology of Underwater Robot. Lecture Notes in Electrical Engineering, 2023, , 281-288.	0.3	0
1737	A correlation among industry 4.0, additive manufacturing, and topology optimization: a state-of-the-art review. International Journal of Advanced Manufacturing Technology, 2023, 129, 3771-3797.	1.5	1
1753	Differentiable visual computing for inverse problems and machine learning. Nature Machine Intelligence, 2023, 5, 1189-1199.	8.3	0
1771	Sparse Stress Structures from Optimal Geometric Measures. , 2023, , .		0
1772	Attaining Prescribed Isotropic Effective Thermal Conductivity via Topology Optimization and Symmetry Exploitation. , 2023, , .		0
1784	High-resolution topology optimization of heat sinks for microelectronics and benchmark against conventional designs. , 2023, , .		0
1785	ANALYSIS OF LOCAL-GLOBAL ENTROPY GENERATION IN AN ELECTROCHEMICAL SYSTEM. , 2023, , .		1
1786	Topological Optimization for the Redesigning of Components in Additive Manufacturing: The Case Study of the Connecting Rod. , 0, , .		0
1789	A Unified Circuit View of Multiphysics Finite Element Analysis via Discrete Exterior Calculus Part I: 2D Static Fields. , 2023, , .		0
1792	Wearable Core Body Temperature Sensor and Its Application. , 2024, , 227-247.		0
1795	A Review of Topology Optimisation Software for Additive Manufacturing: Capability Comparison. , 2023, , .		0
1803	Metal Additive Manufacturing in the Space Industry. , 2023, , 438-458.		0
1804	Topology Optimization to Fracture Resistance: A Review and Recent Developments. Archives of Computational Methods in Engineering, 0, , .	6.0	0

#	ARTICLE	IF	CITATIONS
1810	Multi-objective and Multi-load-Conditions Topology Optimization Model for Designing Metamaterial Vibration Isolator with Customized Stiffness. Mechanisms and Machine Science, 2024, , 175-183.	0.3	0
1819	A Comprehensive Review of Explicit Topology Optimization Based on Moving Morphable Components (MMC) Method. Archives of Computational Methods in Engineering, 0, , .	6.0	0
1820	A Skin-Stabilizing Constraint for Feature-Based Topology Optimization of a Wingbox. , 2024, , .		0
1833	Suppression of Galloping Oscillations Using Perforated Bluff Bodies. Lecture Notes in Electrical Engineering, 2024, , 514-528.	0.3	0
1835	Designing a lightweight minisatellite with topology optimization and additive manufacturing. , 2024, , .		0