Fengwen Wang

List of Publications by Year
in descending order

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209 papers	21,846 citations	14655 66 h-index	10158 140 g-index
210 all docs	210 docs citations	210 times ranked	6306 citing authors

#	Article	IF	Citations
1	Topology optimization approaches. Structural and Multidisciplinary Optimization, 2013, 48, 1031-1055.	3.5	1,851
2	Morphology-based black and white filters for topology optimization. Structural and Multidisciplinary Optimization, 2007, 33, 401-424.	3.5	1,219
3	On projection methods, convergence and robust formulations in topology optimization. Structural and Multidisciplinary Optimization, 2011, 43, 767-784.	3.5	1,078
4	Topology Optimization. , 2004, , .		1,033
5	Efficient topology optimization in MATLAB using 88 lines of code. Structural and Multidisciplinary Optimization, 2011, 43, 1-16.	3.5	969
6	On the Design of Compliant Mechanisms Using Topology Optimization*. Mechanics Based Design of Structures and Machines, 1997, 25, 493-524.	0.6	956
7	Materials with prescribed constitutive parameters: An inverse homogenization problem. International Journal of Solids and Structures, 1994, 31, 2313-2329.	2.7	791
8	Systematic design of phononic bandâ€“gap materials and structures by topology optimization. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1001-1019.	3.4	551
9	Giga-voxel computational morphogenesis for structural design. Nature, 2017, 550, 84-86.	27.8	463
10	Tailoring materials with prescribed elastic properties. Mechanics of Materials, 1995, 20, 351-368.	3.2	438
11	Topology synthesis of large-displacement compliant mechanisms. International Journal for Numerical Methods in Engineering, 2001, 50, 2683-2705.	2.8	392
12	Topology Optimized Architectures with Programmable Poisson's Ratio over Large Deformations. Advanced Materials, 2015, 27, 5523-5527.	21.0	380
13	Manufacturing tolerant topology optimization. Acta Mechanica Sinica/Lixue Xuebao, 2009, 25, 227-239.	3.4	328
14	Infill Optimization for Additive Manufacturingâ€”Approaching Bone-Like Porous Structures. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1127-1140.	4.4	326
15	On the usefulness of non-gradient approaches in topology optimization. Structural and Multidisciplinary Optimization, 2011, 43, 589-596.	3.5	317
16	Slope constrained topology optimization. International Journal for Numerical Methods in Engineering, 1998, 41, 1417-1434.	2.8	290
17	A new class of extremal composites. Journal of the Mechanics and Physics of Solids, 2000, 48, 397-428.	4.8	290
18	Multiphase composites with extremal bulk modulus. Journal of the Mechanics and Physics of Solids, 2000, 48, 461-498.	4.8	283

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19	Minimum length scale in topology optimization by geometric constraints. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 266-282.	6.6	275
20	Design of manufacturable 3D extremal elastic microstructure. Mechanics of Materials, 2014, 69, 1-10.	3.2	258
21	Systematic design of photonic crystal structures using topology optimization: Low-loss waveguide bends. Applied Physics Letters, 2004, 84, 2022-2024.	3.3	249
22	Homogenizationâ€based topology optimization for highâ€resolution manufacturable microstructures. International Journal for Numerical Methods in Engineering, 2018, 113, 1148-1163.	2.8	224
23	Large scale three-dimensional topology optimisation of heat sinks cooled by natural convection. International Journal of Heat and Mass Transfer, 2016, 100, 876-891.	4.8	214
24	Topology optimization of multi-scale structures: a review. Structural and Multidisciplinary Optimization, 2021, 63, 1455-1480.	3.5	206
25	Length scale and manufacturability in density-based topology optimization. Archive of Applied Mechanics, 2016, 86, 189-218.	2.2	203
26	Topology optimization of photonic crystal structures: a high-bandwidth low-loss T-junction waveguide. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1191.	2.1	199
27	Exploiting Additive Manufacturing Infill in Topology Optimization for Improved Buckling Load. Engineering, 2016, 2, 250-257.	6.7	176
28	Topology optimization of acousticâ€“structure interaction problems using a mixed finite element formulation. International Journal for Numerical Methods in Engineering, 2007, 70, 1049-1075.	2.8	171
29	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.	6.6	171
30	A topology optimization method for design of negative permeability metamaterials. Structural and Multidisciplinary Optimization, 2010, 41, 163-177.	3.5	156
31	Geometric Properties of Optimal Photonic Crystals. Physical Review Letters, 2008, 100, 153904.	7.8	154
32	Topology optimisation for natural convection problems. International Journal for Numerical Methods in Fluids, 2014, 76, 699-721.	1.6	149
33	Minimum compliance topology optimization of shellâ€infill composites for additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 358-375.	6.6	149
34	Design of materials with prescribed nonlinear properties. Journal of the Mechanics and Physics of Solids, 2014, 69, 156-174.	4.8	143
35	Topology optimization of coated structures and material interface problems. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 524-541.	6.6	142
36	Maximizing band gaps in plate structures. Structural and Multidisciplinary Optimization, 2006, 32, 263-275.	3.5	140

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37	Topology optimization of turbulent flows. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 363-393.	6.6	138
38	Robust topology optimization of photonic crystal waveguides with tailored dispersion properties. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 387.	2.1	133
39	Topology optimized low-contrast all-dielectric optical cloak. Applied Physics Letters, 2011, 98, .	3.3	126
40	Topology optimization of microfluidic mixers. International Journal for Numerical Methods in Fluids, 2009, 61, 498-513.	1.6	120
41	On the (non-)optimality of Michell structures. Structural and Multidisciplinary Optimization, 2016, 54, 361-373.	3.5	119
42	Density based topology optimization of turbulent flow heat transfer systems. Structural and Multidisciplinary Optimization, 2018, 57, 1905-1918.	3.5	116
43	A new generation 99 line Matlab code for compliance topology optimization and its extension to 3D. Structural and Multidisciplinary Optimization, 2020, 62, 2211-2228.	3.5	114
44	Topology optimization of large scale stokes flow problems. Structural and Multidisciplinary Optimization, 2008, 35, 175-180.	3.5	113
45	Systematic design of 3D auxetic lattice materials with programmable Poissonâ€™s ratio for finite strains. Journal of the Mechanics and Physics of Solids, 2018, 114, 303-318.	4.8	112
46	Homogenization-based stiffness optimization and projection of 2D coated structures with orthotropic infill. Computer Methods in Applied Mechanics and Engineering, 2019, 349, 722-742.	6.6	112
47	Topology optimization of a pseudo 3D thermofluid heat sink model. International Journal of Heat and Mass Transfer, 2018, 121, 1073-1088.	4.8	107
48	Inverse design in photonics by topology optimization: tutorial. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 496.	2.1	103
49	Topology optimization considering material and geometric uncertainties using stochastic collocation methods. Structural and Multidisciplinary Optimization, 2012, 46, 597-612.	3.5	102
50	Stress-constrained topology optimization for compliant mechanism design. Structural and Multidisciplinary Optimization, 2015, 52, 929-943.	3.5	97
51	Stress-constrained topology optimization considering uniform manufacturing uncertainties. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 512-537.	6.6	96
52	Topology optimization of fail-safe structures using a simplified local damage model. Structural and Multidisciplinary Optimization, 2014, 49, 657-666.	3.5	95
53	Reinforcement layout design for concrete structures based on continuum damage and truss topology optimization. Structural and Multidisciplinary Optimization, 2013, 47, 157-174.	3.5	93
54	Topology optimization of periodic microstructures with a penalization of highly localized buckling modes. International Journal for Numerical Methods in Engineering, 2002, 54, 809-834.	2.8	91

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55	A â€œpoor manâ€™s approachâ€•to topology optimization of cooling channels based on a Darcy flow model. International Journal of Heat and Mass Transfer, 2018, 116, 1108-1123.	4.8	89
56	Buckling strength topology optimization of 2D periodic materials based on linearized bifurcation analysis. Computer Methods in Applied Mechanics and Engineering, 2018, 339, 115-136.	6.6	88
57	Topology optimization: a tool for the tailoring of structures and materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 211-227.	3.4	86
58	Using strain energy-based prediction of effective elastic properties in topology optimization of material microstructures. Acta Mechanica Sinica/Lixue Xuebao, 2007, 23, 77-89.	3.4	85
59	Industrial application of topology optimization for combined conductive and convective heat transfer problems. Structural and Multidisciplinary Optimization, 2016, 54, 1045-1060.	3.5	83
60	Approximate reanalysis in topology optimization. International Journal for Numerical Methods in Engineering, 2009, 78, 1474-1491.	2.8	81
61	Topology optimization for transient wave propagation problems in one dimension. Structural and Multidisciplinary Optimization, 2008, 36, 585-595.	3.5	79
62	On the non-optimality of tree structures for heat conduction. International Journal of Heat and Mass Transfer, 2018, 122, 660-680.	4.8	79
63	Revisiting topology optimization with buckling constraints. Structural and Multidisciplinary Optimization, 2019, 59, 1401-1415.	3.5	79
64	Topological Insulators by Topology Optimization. Physical Review Letters, 2019, 122, 234502.	7.8	78
65	Design of passive coolers for light-emitting diode lamps using topology optimisation. International Journal of Heat and Mass Transfer, 2018, 122, 138-149.	4.8	77
66	Topological design of electromechanical actuators with robustness toward over- and under-etching. Computer Methods in Applied Mechanics and Engineering, 2013, 253, 237-251.	6.6	76
67	Combined shape and topology optimization for minimization of maximal von Mises stress. Structural and Multidisciplinary Optimization, 2017, 55, 1541-1557.	3.5	74
68	Efficient use of iterative solvers in nested topology optimization. Structural and Multidisciplinary Optimization, 2010, 42, 55-72.	3.5	68
69	Topology Optimization of Sub-Wavelength Antennas. IEEE Transactions on Antennas and Propagation, 2011, 59, 58-69.	5.1	68
70	Topology optimization using an explicit interface representation. Structural and Multidisciplinary Optimization, 2014, 49, 387-399.	3.5	67
71	Maximizing the quality factor to mode volume ratio for ultra-small photonic crystal cavities. Applied Physics Letters, 2018, 113, .	3.3	67
72	De-homogenization of optimal multi-scale 3D topologies. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112979.	6.6	67

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73	Topology optimization of unsteady flow problems using the lattice Boltzmann method. Journal of Computational Physics, 2016, 307, 291-307.	3.8	66
74	Experimental validation of additively manufactured optimized shapes for passive cooling. Applied Energy, 2018, 226, 330-339.	10.1	64
75	Sensitivity filtering from a continuum mechanics perspective. Structural and Multidisciplinary Optimization, 2012, 46, 471-475.	3.5	63
76	Towards all-dielectric, polarization-independent optical cloaks. Applied Physics Letters, 2012, 100, 101106.	3.3	62
77	Creating geometrically robust designs for highly sensitive problems using topology optimization. Structural and Multidisciplinary Optimization, 2015, 52, 737-754.	3.5	62
78	Robust topology optimization accounting for misplacement of material. Structural and Multidisciplinary Optimization, 2013, 47, 317-333.	3.5	61
79	Investment casting and experimental testing of heat sinks designed by topology optimization. International Journal of Heat and Mass Transfer, 2018, 127, 396-412.	4.8	59
80	Topology optimization of microchannel heat sinks using a two-layer model. International Journal of Heat and Mass Transfer, 2019, 143, 118462.	4.8	58
81	Maximum length scale in density based topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 826-844.	6.6	57
82	Topology optimization of 3D shell structures with porous infill. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 778-791.	3.4	57
83	Higherâ€order multiâ€resolution topology optimization using the finite cell method. International Journal for Numerical Methods in Engineering, 2017, 110, 903-920.	2.8	57
84	A comprehensive review of educational articles on structural and multidisciplinary optimization. Structural and Multidisciplinary Optimization, 2021, 64, 2827-2880.	3.5	57
85	Quasiperiodic mechanical metamaterials with extreme isotropic stiffness. Extreme Mechanics Letters, 2020, 34, 100596.	4.1	56
86	Additive manufacturing oriented topology optimization of structures with self-supported enclosed voids. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113385.	6.6	56
87	Topology optimization of compliant mechanisms with stress constraints and manufacturing error robustness. Computer Methods in Applied Mechanics and Engineering, 2019, 354, 397-421.	6.6	53
88	Efficient reanalysis techniques for robust topology optimization. Computer Methods in Applied Mechanics and Engineering, 2012, 245-246, 217-231.	6.6	50
89	Closing the gap towards super-long suspension bridges using computational morphogenesis. Nature Communications, 2020, 11, 2735.	12.8	49
90	On reducing computational effort in topology optimization: how far can we go?. Structural and Multidisciplinary Optimization, 2011, 44, 25-29.	3.5	48

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91	On the realization of the bulk modulus bounds for two-phase viscoelastic composites. Journal of the Mechanics and Physics of Solids, 2014, 63, 228-241.	4.8	48
92	Designing photonic topological insulators with quantum-spin-Hall edge states using topology optimization. Nanophotonics, 2019, 8, 1363-1369.	6.0	48
93	Designing meta material slabs exhibiting negative refraction using topology optimization. Structural and Multidisciplinary Optimization, 2016, 54, 469-482.	3.5	47
94	A â€œpoor manâ€™sâ€•approach to topology optimization of natural convection problems. Structural and Multidisciplinary Optimization, 2019, 59, 1105-1124.	3.5	46
95	Fundamental Limitations to Gain Enhancement in Periodic Media and Waveguides. Physical Review Letters, 2012, 108, 183903.	7.8	45
96	A monolithic approach for topology optimization of electrostatically actuated devices. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4062-4075.	6.6	44
97	Topology optimization of two fluid heat exchangers. International Journal of Heat and Mass Transfer, 2020, 163, 120543.	4.8	43
98	Revisiting density-based topology optimization for fluid-structure-interaction problems. Structural and Multidisciplinary Optimization, 2018, 58, 969-995.	3.5	42
99	A non-linear material interpolation for design of metallic nano-particles using topology optimization. Computer Methods in Applied Mechanics and Engineering, 2019, 343, 23-39.	6.6	42
100	Threeâ€dimensional manufacturing tolerant topology optimization with hundreds of millions of local stress constraints. International Journal for Numerical Methods in Engineering, 2021, 122, 548-578.	2.8	42
101	Interactive topology optimization on hand-held devices. Structural and Multidisciplinary Optimization, 2013, 47, 1-6.	3.5	41
102	Inverse design of nanostructured surfaces for color effects. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 164.	2.1	41
103	Reproducing the hierarchy of disorder for Morpho-inspired, broad-angle color reflection. Scientific Reports, 2017, 7, 46023.	3.3	39
104	High-performance slow light photonic crystal waveguides with topology optimized or circular-hole based material layouts. Photonics and Nanostructures - Fundamentals and Applications, 2012, 10, 378-388.	2.0	37
105	Ultra-coherent nanomechanical resonators based on inverse design. Nature Communications, 2021, 12, 5766.	12.8	37
106	Topology Optimization of Stressed Capacitive RF MEMS Switches. Journal of Microelectromechanical Systems, 2013, 22, 206-215.	2.5	36
107	Topology optimization of compliant mechanisms considering stress constraints, manufacturing uncertainty and geometric nonlinearity. Computer Methods in Applied Mechanics and Engineering, 2020, 365, 112972.	6.6	36
108	Towards solving large-scale topology optimization problems with buckling constraints at the cost of linear analyses. Computer Methods in Applied Mechanics and Engineering, 2020, 363, 112911.	6.6	36

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109	A â€œpoor manâ€™sâ€•approach for high-resolution three-dimensional topology design for natural convection problems. Advances in Engineering Software, 2020, 140, 102736.	3.8	35
110	Topology optimized electrothermal polysilicon microgrippers. Microelectronic Engineering, 2008, 85, 1096-1099.	2.4	34
111	Topology optimization for optical projection lithography with manufacturing uncertainties. Applied Optics, 2014, 53, 2720.	1.8	34
112	Eigenvalue topology optimization via efficient multilevel solution of the frequency response. International Journal for Numerical Methods in Engineering, 2018, 115, 872-892.	2.8	34
113	Topology optimization with linearized buckling criteria in 250 lines of Matlab. Structural and Multidisciplinary Optimization, 2021, 63, 3045-3066.	3.5	34
114	Local versus global stress constraint strategies in topology optimization: A comparative study. International Journal for Numerical Methods in Engineering, 2021, 122, 6003-6036.	2.8	34
115	On the competition for ultimately stiff and strong architected materials. Materials and Design, 2021, 198, 109356.	7.0	32
116	Reduced-order methods for dynamic problems in topology optimization: A comparative study. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114149.	6.6	32
117	On fully stressed design and p-norm measures in structural optimization. Structural and Multidisciplinary Optimization, 2017, 56, 731-736.	3.5	31
118	Shape optimization of the stokes flow problem based on isogeometric analysis. Structural and Multidisciplinary Optimization, 2013, 48, 965-977.	3.5	30
119	Compact 200 line MATLAB code for inverse design in photonics by topology optimization: tutorial. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 510.	2.1	30
120	Experimental validation of systematically designed acoustic hyperbolic meta material slab exhibiting negative refraction. Applied Physics Letters, 2016, 109, .	3.3	29
121	Topology Optimal Design of Material Microstructures Using Strain Energy-based Method. Chinese Journal of Aeronautics, 2007, 20, 320-326.	5.3	28
122	Topology optimization with flexible void area. Structural and Multidisciplinary Optimization, 2014, 50, 927-943.	3.5	28
123	Frequency response as a surrogate eigenvalue problem in topology optimization. International Journal for Numerical Methods in Engineering, 2018, 113, 1214-1229.	2.8	28
124	Experimental Validation of Topology Optimization for RF MEMS Capacitive Switch Design. Journal of Microelectromechanical Systems, 2013, 22, 1296-1309.	2.5	27
125	Shape morphing and topology optimization of fluid channels by explicit boundary tracking. International Journal for Numerical Methods in Fluids, 2018, 88, 296-313.	1.6	27
126	Topological material layout in plates for vibration suppression and wave propagation control. Structural and Multidisciplinary Optimization, 2009, 37, 585-594.	3.5	26

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127	Inverse design of nanoparticles for enhanced Raman scattering. Optics Express, 2020, 28, 4444.	3.4	26
128	Plasmonic versus dielectric enhancement in thin-film solar cells. Applied Physics Letters, 2012, 100, 211914.	3.3	25
129	Simple optimal lattice structures for arbitrary loadings. Extreme Mechanics Letters, 2019, 29, 100447.	4.1	25
130	Design of segmented off-diagonal thermoelectric generators using topology optimization. Applied Energy, 2019, 236, 950-960.	10.1	25
131	On the similarities between micro/nano lithography and topology optimization projection methods. Structural and Multidisciplinary Optimization, 2013, 48, 717-730.	3.5	24
132	Optimal design of robust piezoelectric unimorph microgrippers. Applied Mathematical Modelling, 2018, 55, 1-12.	4.2	24
133	Design of one-dimensional optical pulse-shaping filters by time-domain topology optimization. Applied Physics Letters, 2009, 95, .	3.3	23
134	Topology optimization of ultra high resolution shell structures. Thin-Walled Structures, 2021, 160, 107349.	5.3	23
135	Saturated poroelastic actuators generated by topology optimization. Structural and Multidisciplinary Optimization, 2011, 43, 693-706.	3.5	20
136	Systematic design of loss-engineered slow-light waveguides. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2657.	1.5	20
137	A density-based topology optimization methodology for thermoelectric energy conversion problems. Structural and Multidisciplinary Optimization, 2018, 57, 1427-1442.	3.5	20
138	Shape preserving design of geometrically nonlinear structures using topology optimization. Structural and Multidisciplinary Optimization, 2019, 59, 1033-1051.	3.5	20
139	Numerical investigation of stiffness and buckling response of simple and optimized infill structures. Structural and Multidisciplinary Optimization, 2020, 61, 2629-2639.	3.5	20
140	Design of composite structures with programmable elastic responses under finite deformations. Journal of the Mechanics and Physics of Solids, 2021, 151, 104356.	4.8	20
141	On the implementation and effectiveness of morphological close-open and open-close filters for topology optimization. Structural and Multidisciplinary Optimization, 2016, 54, 15-21.	3.5	19
142	Nonlinear compressive stability of hyperelastic 2D lattices at finite volume fractions. Journal of the Mechanics and Physics of Solids, 2020, 137, 103851.	4.8	19
143	Self-supporting structure design with feature-driven optimization approach for additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2021, 386, 114110.	6.6	19
144	Systematic design of slow-light photonic waveguides. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 2374.	2.1	18

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145	Improving the acousto-optical interaction in a Machâ€“Zehnder interferometer. Journal of Applied Physics, 2009, 105, 083529.	2.5	17
146	3D architected isotropic materials with tunable stiffness and buckling strength. Journal of the Mechanics and Physics of Solids, 2021, 152, 104415.	4.8	17
147	Digital synthesis of free-form multimaterial structures for realization of arbitrary programmed mechanical responses. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120563119.	7.1	17
148	Benchmarking five numerical simulation techniques for computing resonance wavelengths and quality factors in photonic crystal membrane line defect cavities. Optics Express, 2018, 26, 11366.	3.4	16
149	EML webinar overview: Topology Optimization â€" Status and Perspectives. Extreme Mechanics Letters, 2020, 39, 100855.	4.1	15
150	Experimental validation of a topology optimized acoustic cavity. Journal of the Acoustical Society of America, 2015, 138, 3470-3474.	1.1	14
151	Strongly enhanced upconversion in trivalent erbium ions by tailored gold nanostructures: Toward high-efficient silicon-based photovoltaics. Solar Energy Materials and Solar Cells, 2020, 208, 110406.	6.2	14
152	Design of metamaterial mechanisms using robust topology optimization and variable linking scheme. Structural and Multidisciplinary Optimization, 2021, 63, 1975-1988.	3.5	14
153	Internal contact modeling for finite strain topology optimization. Computational Mechanics, 2021, 67, 1099-1114.	4.0	14
154	Topology optimized gold nanostrips for enhanced near-infrared photon upconversion. Applied Physics Letters, 2017, 111, .	3.3	13
155	A density-based topology optimization methodology for thermal energy storage systems. Structural and Multidisciplinary Optimization, 2019, 60, 2189-2204.	3.5	13
156	Systematic design of high-Q prestressed micro membrane resonators. Computer Methods in Applied Mechanics and Engineering, 2020, 361, 112692.	6.6	13
157	Topology Optimization of Large-Scale 3D Morphing Wing Structures. Actuators, 2021, 10, 217.	2.3	13
158	Robust topology design of periodic grating surfaces. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2935.	2.1	12
159	3D interactive topology optimization on hand-held devices. Structural and Multidisciplinary Optimization, 2015, 51, 1385-1391.	3.5	12
160	Efficient hybrid topology and shape optimization combining implicit and explicit design representations. Structural and Multidisciplinary Optimization, 2020, 62, 1061-1069.	3.5	12
161	De-homogenization using convolutional neural networks. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114197.	6.6	12
162	Ultra-broadband edge-state pair for zigzag-interfaced valley Hall insulators. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	5.1	12

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163	Topology Optimization of Graded Truss Lattices Based on On-the-Fly Homogenization. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	12
164	Topology optimization for simplified structural fire safety. Engineering Structures, 2016, 124, 333-343.	5.3	11
165	Shape preserving design of thermo-elastic structures considering geometrical nonlinearity. Structural and Multidisciplinary Optimization, 2020, 61, 1787-1804.	3.5	11
166	On approaches for avoiding low-stiffness regions in variable thickness sheet and homogenization-based topology optimization. Structural and Multidisciplinary Optimization, 2021, 64, 39-52.	3.5	11
167	Dose regularization via filtering and projection: An open-source code for optimization-based proximity-effect-correction for nanoscale lithography. Microelectronic Engineering, 2018, 199, 52-57.	2.4	10
168	Topology optimization for optical microlithography with partially coherent illumination. International Journal for Numerical Methods in Engineering, 2017, 109, 631-647.	2.8	9
169	TOPOLOGY OPTIMIZATION. , 2007, , 161-194.		8
170	On nanostructured silicon success. Nature Photonics, 2016, 10, 142-143.	31.4	8
171	Plate microstructures with extreme stiffness for arbitrary multi-loadings. Computer Methods in Applied Mechanics and Engineering, 2021, 381, 113778.	6.6	8
172	A short numerical study on the optimization methods influence on topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 1603-1612.	3.5	7
173	Topology optimization guided by a geometrical pattern library. Structural and Multidisciplinary Optimization, 2022, 65, 1.	3.5	7
174	Phase-Field Model for the Chemical Vapor Infiltration of Silicon Carbide. Journal of the Electrochemical Society, 2010, 157, D377.	2.9	6
175	Topology optimization of damageâ€resistant structures with a predefined loadâ€bearing capacity. International Journal for Numerical Methods in Engineering, 2022, 123, 1114-1145.	2.8	5
176	Three-dimensional topology optimized electrically-small conformal antenna. , 2008, , .		4
177	Improving topology optimization intuition through games. Structural and Multidisciplinary Optimization, 2016, 54, 775-781.	3.5	4
178	Topology optimization and experimental verification of compact Eâ€plane waveguide filters. Microwave and Optical Technology Letters, 2019, 61, 1208-1215.	1.4	4
179	Complementary lecture notes for teaching the 99/88-line topology optimization codes. Structural and Multidisciplinary Optimization, 2021, 64, 3227-3231.	3.5	4
180	Discontinuous Galerkin solution of a phase-field model in isothermal chemical vapor infiltration of SiC. Journal of Engineering Mathematics, 2013, 78, 261-274.	1.2	3

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181	Optimization of photonic crystal cavities. , 2017, , .		3
182	Sparse basis pursuit for compliance minimization in the vanishing volume ratio limit. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2020, 100, e202000008.	1.6	3
183	Topology optimization of structures with infill-supported enclosed voids for additive manufacturing. Additive Manufacturing, 2022, 55, 102795.	3.0	3
184	Special issue for the 13th world congress on structural and multidisciplinary optimizationâ€"editorial note. Structural and Multidisciplinary Optimization, 2020, 61, 2225-2226.	3.5	2
185	Acoustic and photonic topological insulators by topology optimization. , 2019, , .		2
186	Topology Optimization for Photonic Crystal Waveguide with Wide and Flat Bandwidths in Ultra-Fast All-Optical Switch (PC-SMZ). , 2006, , .		1
187	Topology-optimized broadband surface relief transmission grating. Proceedings of SPIE, 2014, , .	0.8	1
188	Benchmarking five computational methods for analyzing large photonic crystal membrane cavities. , 2017, , .		1
189	Revisiting the optimal thickness profile of cooling fins: A one-dimensional analytical study using optimality conditions. , 2021, , .		1
190	Topology optimization of microvascular composites for active-cooling applications using a geometrical reduced-order model. Structural and Multidisciplinary Optimization, 2021, 64, 563.	3.5	1
191	Topology Optimized Architectures with Programmable Poisson's Ratio over Large Deformations. , 2015, 27, 5523.		1
192	Homogenization-based topology optimization for high-resolution manufacturable microstructures. , 2018, 113, 1148.		1
193	On projection methods, convergence and robust formulations in topology optimization. , 2011, 43, 767.		1
194	Structural topology optimization of bridge girders in cable supported bridges. , 2018, , .		1
195	Photonic cavity design by topology optimization. , 2019, , .		1
196	Experimental Realization of Topology-Optimized InP Photonic Cavities with Extreme Dielectric Confinement. , 2021, , .		1
197	Optical characterisation of photonic wire and photonic crystal waveguides fabricated using nanoimprint lithography. , 2006, , .		0
198	Systematic and robust design of photonic crystal waveguides by topology optimization. , 2010, , .		0

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199	Modelling of active semiconductor photonic crystal waveguides and robust designs based on topology optimization. , 2011, , .		0
200	Comparison between different dispersion engineering methods in slow light photonic crystal waveguides. , 2011, , .		0
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