Boyan S Lazarov

List of Publications by Year
in descending order

186	22,423	13865 67	9345 143
papers	citations	h-index	g-index

187	187	187	6362
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	De-homogenization using convolutional neural networks. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114197.	6.6	12
2	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
3	Synthesis of Frame Field-Aligned Multi-Laminar Structures. ACM Transactions on Graphics, 2022, 41, 1-20.	7.2	7
4	Ultra-broadband edge-state pair for zigzag-interfaced valley Hall insulators. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	5.1	12
5	Topology optimization of structures with infill-supported enclosed voids for additive manufacturing. Additive Manufacturing, 2022, 55, 102795.	3.0	3
6	Topology Optimization of Graded Truss Lattices Based on On-the-Fly Homogenization. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	12
7	Topology optimization of ultra high resolution shell structures. Thin-Walled Structures, 2021, 160, 107349.	5.3	23
8	Inverse design in photonics by topology optimization: tutorial. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 496.	2.1	103
9	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
10	Design of metamaterial mechanisms using robust topology optimization and variable linking scheme. Structural and Multidisciplinary Optimization, 2021, 63, 1975-1988.	3.5	14
11	Internal contact modeling for finite strain topology optimization. Computational Mechanics, 2021, 67, 1099-1114.	4.0	14
12	Topology optimization of multi-scale structures: a review. Structural and Multidisciplinary Optimization, 2021, 63, 1455-1480.	3.5	206
13	Topology optimization with linearized buckling criteria in 250 lines of Matlab. Structural and Multidisciplinary Optimization, 2021, 63, 3045-3066.	3.5	34
14	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
15	Fast multiscale contrast independent preconditioners for linear elastic topology optimization problems. Journal of Computational and Applied Mathematics, 2021, 389, 113366.	2.0	2
16	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
17	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
18	3D architected isotropic materials with tunable stiffness and buckling strength. Journal of the Mechanics and Physics of Solids, 2021, 152, 104415.	4.8	17

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19	Complementary lecture notes for teaching the 99/88-line topology optimization codes. Structural and Multidisciplinary Optimization, 2021, 64, 3227-3231.	3.5	4
20	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
21	Topology Optimization of Large-Scale 3D Morphing Wing Structures. Actuators, 2021, 10, 217.	2.3	13
22	Ultra-coherent nanomechanical resonators based on inverse design. Nature Communications, 2021, 12, 5766.	12.8	37
23	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
24	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
25	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
26	A comprehensive review of educational articles on structural and multidisciplinary optimization. Structural and Multidisciplinary Optimization, 2021, 64, 2827-2880.	3.5	57
27	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
28	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
29	Topology optimization of two fluid heat exchangers. International Journal of Heat and Mass Transfer, 2020, 163, 120543.	4.8	43
30	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
31	Closing the gap towards super-long suspension bridges using computational morphogenesis. Nature Communications, 2020, 11, 2735.	12.8	49
32	Shape preserving design of thermo-elastic structures considering geometrical nonlinearity. Structural and Multidisciplinary Optimization, 2020, 61, 1787-1804.	3.5	11
33	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
34	De-homogenization of optimal multi-scale 3D topologies. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112979.	6.6	67
35	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
36	EML webinar overview: Topology Optimization â€" Status and Perspectives. Extreme Mechanics Letters, 2020, 39, 100855.	4.1	15

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37	Numerical investigation of stiffness and buckling response of simple and optimized infill structures. Structural and Multidisciplinary Optimization, 2020, 61, 2629-2639.	3.5	20
38	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
39	Inverse design of nanoparticles for enhanced Raman scattering. Optics Express, 2020, 28, 4444.	3.4	26
40	A density-based topology optimization methodology for thermal energy storage systems. Structural and Multidisciplinary Optimization, 2019, 60, 2189-2204.	3.5	13
41	Shape preserving design of geometrically nonlinear structures using topology optimization. Structural and Multidisciplinary Optimization, 2019, 59, 1033-1051.	3.5	20
42	Topology optimization and experimental verification of compact Eâ€plane waveguide filters. Microwave and Optical Technology Letters, 2019, 61, 1208-1215.	1.4	4
43	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
44	Topological Insulators by Topology Optimization. Physical Review Letters, 2019, 122, 234502.	7.8	78
45	Designing photonic topological insulators with quantum-spin-Hall edge states using topology optimization. Nanophotonics, 2019, 8, 1363-1369.	6.0	48
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	Revisiting topology optimization with buckling constraints. Structural and Multidisciplinary Optimization, 2019, 59, 1401-1415.	3.5	79
48	A â€œpoor manâ€™sâ€•approach to topology optimization of natural convection problems. Structural and Multidisciplinary Optimization, 2019, 59, 1105-1124.	3.5	46
49	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
50	Combined length scale and overhang angle control in minimum compliance topology optimization for additive manufacturing. Structural and Multidisciplinary Optimization, 2019, 59, 2005-2022.	3.5	19
51	Design of segmented off-diagonal thermoelectric generators using topology optimization. Applied Energy, 2019, 236, 950-960.	10.1	25
52	Stress-constrained topology optimization considering uniform manufacturing uncertainties. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 512-537.	6.6	96
53	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
54	A density-based topology optimization methodology for thermoelectric energy conversion problems. Structural and Multidisciplinary Optimization, 2018, 57, 1427-1442.	3.5	20

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55	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
56	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
57	Revisiting density-based topology optimization for fluid-structure-interaction problems. Structural and Multidisciplinary Optimization, 2018, 58, 969-995.	3.5	42
58	Density based topology optimization of turbulent flow heat transfer systems. Structural and Multidisciplinary Optimization, 2018, 57, 1905-1918.	3.5	116
59	Topology optimization of a pseudo 3D thermofluid heat sink model. International Journal of Heat and Mass Transfer, 2018, 121, 1073-1088.	4.8	107
60	Frequency response as a surrogate eigenvalue problem in topology optimization. International Journal for Numerical Methods in Engineering, 2018, 113, 1214-1229.	2.8	28
61	Homogenizationâ€based topology optimization for highâ€resolution manufacturable microstructures. International Journal for Numerical Methods in Engineering, 2018, 113, 1148-1163.	2.8	224
62	Infill Optimization for Additive Manufacturingâ€”Approaching Bone-Like Porous Structures. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1127-1140.	4.4	326
63	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
64	Optimal design of robust piezoelectric unimorph microgrippers. Applied Mathematical Modelling, 2018, 55, 1-12.	4.2	24
65	Topology optimization of turbulent flows. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 363-393.	6.6	138
66	Maximizing the quality factor to mode volume ratio for ultra-small photonic crystal cavities. Applied Physics Letters, 2018, 113, .	3.3	67
67	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
68	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
69	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
70	Field-enhancing photonic devices utilizing waveguide coupling and plasmonics - a selection rule for optimization-based design. Optics Express, 2018, 26, A788.	3.4	4
71	Achieving stress-constrained topological design via length scale control. Structural and Multidisciplinary Optimization, 2018, 58, 2053-2071.	3.5	20
72	Experimental validation of additively manufactured optimized shapes for passive cooling. Applied Energy, 2018, 226, 330-339.	10.1	64

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73	Topology optimization for optical microlithography with partially coherent illumination. International Journal for Numerical Methods in Engineering, 2017, 109, 631-647.	2.8	9
74	Combined shape and topology optimization for minimization of maximal von Mises stress. Structural and Multidisciplinary Optimization, 2017, 55, 1541-1557.	3.5	74
75	Maximum length scale in density based topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 826-844.	6.6	57
76	Applications of automatic differentiation in topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 1135-1146.	3.5	21
77	Topology optimization of 3D shell structures with porous infill. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 778-791.	3.4	57
78	On fully stressed design and p-norm measures in structural optimization. Structural and Multidisciplinary Optimization, 2017, 56, 731-736.	3.5	31
79	A short numerical study on the optimization methods influence on topology optimization. Structural and Multidisciplinary Optimization, 2017, 56, 1603-1612.	3.5	7
80	Giga-voxel computational morphogenesis for structural design. Nature, 2017, 550, 84-86.	27.8	463
81	Topology optimized gold nanostrips for enhanced near-infrared photon upconversion. Applied Physics Letters, 2017, 111, .	3.3	13
82	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
83	Topology optimization of nanoparticles for localized electromagnetic field enhancement. , 2017, , .		0
84	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
85	Accuracy of an efficient framework for structural analysis of wind turbine blades. Wind Energy, 2016, 19, 1603-1621.	4.2	29
86	Topology optimization for simplified structural fire safety. Engineering Structures, 2016, 124, 333-343.	5.3	11
87	A design approach for integrating thermoelectric devices using topology optimization. Applied Energy, 2016, 176, 49-64.	10.1	57
88	Inverse design engineering of all-silicon polarization beam splitters. Proceedings of SPIE, 2016, , .	0.8	10
89	Industrial application of topology optimization for combined conductive and convective heat transfer problems. Structural and Multidisciplinary Optimization, 2016, 54, 1045-1060.	3.5	83
90	Topology optimized mode multiplexing in silicon-on-insulator photonic wire waveguides. Optics Express, 2016, 24, 16866.	3.4	181

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91	Topology optimized design of a transverse electric higher order mode converter. , 2016, , .		1
92	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
93	Topology optimization of two-dimensional elastic wave barriers. Journal of Sound and Vibration, 2016, 376, 95-111.	3.9	33
94	Length scale and manufacturability in density-based topology optimization. Archive of Applied Mechanics, 2016, 86, 189-218.	2.2	203
95	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
96	Designing meta material slabs exhibiting negative refraction using topology optimization. Structural and Multidisciplinary Optimization, 2016, 54, 469-482.	3.5	47
97	Topology optimization of unsteady flow problems using the lattice Boltzmann method. Journal of Computational Physics, 2016, 307, 291-307.	3.8	66
98	On nanostructured silicon success. Nature Photonics, 2016, 10, 142-143.	31.4	8
99	On the (non-)optimality of Michell structures. Structural and Multidisciplinary Optimization, 2016, 54, 361-373.	3.5	119
100	Topology-optimized mode converter in a silicon-on-insulator photonic wire waveguide. , 2016, , .		3
101	Experimental validation of a topology optimized acoustic cavity. Journal of the Acoustical Society of America, 2015, 138, 3470-3474.	1.1	14
102	Topology Optimized Architectures with Programmable Poisson's Ratio over Large Deformations. Advanced Materials, 2015, 27, 5523-5527.	21.0	380
103	Topology-optimized silicon photonic wire mode (de)multiplexer. Proceedings of SPIE, 2015, , .	0.8	1
104	Minimum length scale in topology optimization by geometric constraints. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 266-282.	6.6	275
105	Topology optimized design for silicon-on-insulator mode converter. , 2015, , .		1
106	Topology optimization of coated structures and material interface problems. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 524-541.	6.6	142
107	Stress-constrained topology optimization for compliant mechanism design. Structural and Multidisciplinary Optimization, 2015, 52, 929-943.	3.5	97
108	Creating geometrically robust designs for highly sensitive problems using topology optimization. Structural and Multidisciplinary Optimization, 2015, 52, 737-754.	3.5	62

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109	Topology optimisation of manufacturable microstructural details without length scale separation using a spectral coarse basis preconditioner. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 156-182.	6.6	99
110	3D interactive topology optimization on hand-held devices. Structural and Multidisciplinary Optimization, 2015, 51, 1385-1391.	3.5	12
111	Topology optimization using PETSc: An easy-to-use, fully parallel, open source topology optimization framework. Structural and Multidisciplinary Optimization, 2015, 51, 565-572.	3.5	215
112	Flat-top Drop Filter based on a Single Topology Optimized Photonic Crystal Cavity. , 2015, , .		0
113	Inverse design of nanostructured surfaces for color effects. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 164.	2.1	41
114	Topology optimization for optical projection lithography with manufacturing uncertainties. Applied Optics, 2014, 53, 2720.	1.8	34
115	Topology optimized mode conversion in a photonic crystal waveguide fabricated in silicon-on-insulator material. Optics Express, 2014, 22, 8525.	3.4	124
116	Topology optimisation for natural convection problems. International Journal for Numerical Methods in Fluids, 2014, 76, 699-721.	1.6	149
117	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
118	On multigrid-CG for efficient topology optimization. Structural and Multidisciplinary Optimization, 2014, 49, 815-829.	3.5	128
119	Design of manufacturable 3D extremal elastic microstructure. Mechanics of Materials, 2014, 69, 1-10.	3.2	258
120	Topology optimization of fail-safe structures using a simplified local damage model. Structural and Multidisciplinary Optimization, 2014, 49, 657-666.	3.5	95
121	Topology optimization with flexible void area. Structural and Multidisciplinary Optimization, 2014, 50, 927-943.	3.5	28
122	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
123	Time domain topology optimization of 3D nanophotonic devices. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 23-33.	2.0	42
124	Topology-optimized broadband surface relief transmission grating. Proceedings of SPIE, 2014, , .	0.8	1
125	Topology Optimization Using Multiscale Finite Element Method for High-Contrast Media. Lecture Notes in Computer Science, 2014, , 339-346.	1.3	10
126	On the similarities between micro/nano lithography and topology optimization projection methods. Structural and Multidisciplinary Optimization, 2013, 48, 717-730.	3.5	24

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127	Parallel framework for topology optimization using the method of moving asymptotes. Structural and Multidisciplinary Optimization, 2013, 47, 493-505.	3.5	141
128	Robust topology optimization accounting for misplacement of material. Structural and Multidisciplinary Optimization, 2013, 47, 317-333.	3.5	61
129	Topology optimization approaches. Structural and Multidisciplinary Optimization, 2013, 48, 1031-1055.	3.5	1,851
130	Topology optimization of fluidâ€“structure-interaction problems in poroelasticity. Computer Methods in Applied Mechanics and Engineering, 2013, 258, 55-62.	6.6	51
131	Experimental Validation of Topology Optimization for RF MEMS Capacitive Switch Design. Journal of Microelectromechanical Systems, 2013, 22, 1296-1309.	2.5	27
132	Topology optimized mode conversion in a photonic crystal waveguide. , 2013, , .		2
133	Interactive topology optimization on hand-held devices. Structural and Multidisciplinary Optimization, 2013, 47, 1-6.	3.5	41
134	Topology Optimization of Stressed Capacitive RF MEMS Switches. Journal of Microelectromechanical Systems, 2013, 22, 206-215.	2.5	36
135	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
136	Robust topology design of periodic grating surfaces. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2935.	2.1	12
137	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
138	Towards all-dielectric, polarization-independent optical cloaks. Applied Physics Letters, 2012, 100, 101106.	3.3	62
139	Topology optimization considering material and geometric uncertainties using stochastic collocation methods. Structural and Multidisciplinary Optimization, 2012, 46, 597-612.	3.5	102
140	Sensitivity filtering from a continuum mechanics perspective. Structural and Multidisciplinary Optimization, 2012, 46, 471-475.	3.5	63
141	Efficient reanalysis techniques for robust topology optimization. Computer Methods in Applied Mechanics and Engineering, 2012, 245-246, 217-231.	6.6	50
142	Plasmonic versus dielectric enhancement in thin-film solar cells. Applied Physics Letters, 2012, 100, 211914.	3.3	25
143	Topology optimization with geometric uncertainties by perturbation techniques. International Journal for Numerical Methods in Engineering, 2012, 90, 1321-1336.	2.8	110
144	Design of robust and efficient photonic switches using topology optimization. Photonics and Nanostructures - Fundamentals and Applications, 2012, 10, 153-165.	2.0	52

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145	Factorized parallel preconditioner for the saddle point problem. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1398-1410.	2.1	3
146	Robust topology optimization accounting for spatially varying manufacturing errors. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 3613-3627.	6.6	212
147	On reducing computational effort in topology optimization: how far can we go?. Structural and Multidisciplinary Optimization, 2011, 44, 25-29.	3.5	48
148	Efficient topology optimization in MATLAB using 88 lines of code. Structural and Multidisciplinary Optimization, 2011, 43, 1-16.	3.5	969
149	On projection methods, convergence and robust formulations in topology optimization. Structural and Multidisciplinary Optimization, 2011, 43, 767-784.	3.5	1,078
150	On the usefulness of non-gradient approaches in topology optimization. Structural and Multidisciplinary Optimization, 2011, 43, 589-596.	3.5	317
151	Topology optimization of pulse shaping filters using the Hilbert transform envelope extraction. Structural and Multidisciplinary Optimization, 2011, 44, 409-419.	3.5	10
152	Filters in topology optimization based on Helmholtzâ€type differential equations. International Journal for Numerical Methods in Engineering, 2011, 86, 765-781.	2.8	594
153	Comparison between different dispersion engineering methods in slow light photonic crystal waveguides. , 2011, , .		0
154	Topology optimization of ultra-fast nano-photonic switches. , 2011, , .		0
155	On projection methods, convergence and robust formulations in topology optimization. , 2011, 43, 767.		1
156	A topology optimization method for design of negative permeability metamaterials. Structural and Multidisciplinary Optimization, 2010, 41, 163-177.	3.5	156
157	Efficient use of iterative solvers in nested topology optimization. Structural and Multidisciplinary Optimization, 2010, 42, 55-72.	3.5	68
158	Topology optimization for transient response of photonic crystal structures. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2040.	2.1	26
159	Design of one-dimensional optical pulse-shaping filters by time-domain topology optimization. Applied Physics Letters, 2009, 95, .	3.3	23
160	Topology optimization of microfluidic mixers. International Journal for Numerical Methods in Fluids, 2009, 61, 498-513.	1.6	120
161	Approximate reanalysis in topology optimization. International Journal for Numerical Methods in Engineering, 2009, 78, 1474-1491.	2.8	81
162	Manufacturing tolerant topology optimization. Acta Mechanica Sinica/Lixue Xuebao, 2009, 25, 227-239.	3.4	328

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163	Using high-frequency vibrations and non-linear inclusions to create metamaterials with adjustable effective properties. International Journal of Non-Linear Mechanics, 2009, 44, 90-97.	2.6	8
164	Topology optimization of large scale stokes flow problems. Structural and Multidisciplinary Optimization, 2008, 35, 175-180.	3.5	113
165	Topology optimization for transient wave propagation problems in one dimension. Structural and Multidisciplinary Optimization, 2008, 36, 585-595.	3.5	79
166	Acoustic design by topology optimization. Journal of Sound and Vibration, 2008, 317, 557-575.	3.9	262
167	A monolithic approach for topology optimization of electrostatically actuated devices. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4062-4075.	6.6	44
168	Topology optimized electrothermal polysilicon microgrippers. Microelectronic Engineering, 2008, 85, 1096-1099.	2.4	34
169	Geometric Properties of Optimal Photonic Crystals. Physical Review Letters, 2008, 100, 153904.	7.8	154
170	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
171	Low-frequency band gaps in chains with attached non-linear oscillators. International Journal of Non-Linear Mechanics, 2007, 42, 1186-1193.	2.6	157
172	Morphology-based black and white filters for topology optimization. Structural and Multidisciplinary Optimization, 2007, 33, 401-424.	3.5	1,219
173	Slepian simulation of distributions of plastic displacements of earthquake excited shear frames with a large number of stories. Probabilistic Engineering Mechanics, 2005, 20, 251-262.	2.7	7
174	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
175	Systematic design of photonic crystal structures using topology optimization: Low-loss waveguide bends. Applied Physics Letters, 2004, 84, 2022-2024.	3.3	249
176	Topology Optimization. , 2004, , .		1,033
177	Simulation by Slepian method of plastic displacements of Gaussian process excited multistory shear frame. Probabilistic Engineering Mechanics, 2004, 19, 113-126.	2.7	2
178	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
179	Topology synthesis of large-displacement compliant mechanisms. International Journal for Numerical Methods in Engineering, 2001, 50, 2683-2705.	2.8	392
180	A new class of extremal composites. Journal of the Mechanics and Physics of Solids, 2000, 48, 397-428.	4.8	290

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181	Multiphase composites with extremal bulk modulus. Journal of the Mechanics and Physics of Solids, 2000, 48, 461-498.	4.8	283
182	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
183	Compliant thermal microactuators. Sensors and Actuators A: Physical, 1999, 76, 463-469.	4.1	39
184	On the Design of Compliant Mechanisms Using Topology Optimization*. Mechanics Based Design of Structures and Machines, 1997, 25, 493-524.	0.6	956
185	Tailoring materials with prescribed elastic properties. Mechanics of Materials, 1995, 20, 351-368.	3.2	438
186	Materials with prescribed constitutive parameters: An inverse homogenization problem. International Journal of Solids and Structures, 1994, 31, 2313-2329.	2.7	791