

Zongliang Du

List of Publications by Year in descending order

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46
papers

1,635
citations

361296

20
h-index

289141

40
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46
all docs

46
docs citations

46
times ranked

1028
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Explicit Topology Optimization with Moving Morphable Component (MMC) Introduction Mechanism. <i>Acta Mechanica Solida Sinica</i> , 2022, 35, 384-408.	1.0	5
3	Topology Optimization on Complex Surfaces Based on the Moving Morphable Component Method and Computational Conformal Mapping. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2022, 89, .	1.1	7
4	An efficient and easy-to-extend Matlab code of the Moving Morphable Component (MMC) method for three-dimensional topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	30
5	A meshless moving morphable component-based method for structural topology optimization without weak material. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2022, 38, .	1.5	4
6	A unified framework for explicit layout/topology optimization of thin-walled structures based on Moving Morphable Components (MMC) method and adaptive ground structure approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 396, 115047.	3.4	17
7	Optimized Design of Multi-Material Cellular Structures by a Level-Set Method With Guyan Reduction. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	4
8	Moving Morphable Components-based inverse design formulation for quantum valley/spin hall insulators. <i>Extreme Mechanics Letters</i> , 2021, 45, 101276.	2.0	18
9	A New Uncertainty Analysis-Based Framework for Data-Driven Computational Mechanics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021, 88, .	1.1	7
10	Combined model-based topology optimization of stiffened plate structures via MMC approach. <i>International Journal of Mechanical Sciences</i> , 2021, 208, 106682.	3.6	17
11	Design of optimized architected structures with exact size and connectivity via an enhanced multidomain topology optimization strategy. <i>Computational Mechanics</i> , 2021, 67, 743-762.	2.2	7
12	Moving Morphable Inclusion Approach: An Explicit Framework to Solve Inverse Problem in Elasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021, 88, .	1.1	6
13	Multi-class, multi-functional design of photonic topological insulators by rational symmetry-indicators engineering. <i>Nanophotonics</i> , 2021, 10, 4523-4531.	2.9	21
14	Optimal quantum valley Hall insulators by rationally engineering Berry curvature and band structure. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 135, 103784.	2.3	52
15	Optimal design of shell-graded-infill structures by a hybrid MMC-MMV approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113187.	3.4	32
16	Physical Realization of Elastic Cloaking with a Polar Material. <i>Physical Review Letters</i> , 2020, 124, 114301.	2.9	51
17	Tension-compression asymmetry at finite strains: A theoretical model and exact solutions. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 143, 104084.	2.3	19
18	Design of Architected Materials for Thermoelastic Macrostructures Using Level Set Method. <i>Jom</i> , 2020, 72, 1734-1744.	0.9	8

#	ARTICLE	IF	CITATIONS
19	Topology Optimization Based on Explicit Geometry Description. , 2020, , 2556-2563.		0
20	Structural topology optimization involving bi-modulus materials with asymmetric properties in tension and compression. Computational Mechanics, 2019, 63, 335-363.	2.2	21
21	A level set shape metamorphosis with mechanical constraints for geometrically graded microstructures. Structural and Multidisciplinary Optimization, 2019, 60, 1-16.	1.7	28
22	Machine Learning-Driven Real-Time Topology Optimization Under Moving Morphable Component-Based Framework. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	112
23	A novel asymptotic-analysis-based homogenisation approach towards fast design of infill graded microstructures. Journal of the Mechanics and Physics of Solids, 2019, 124, 612-633.	2.3	46
24	Explicit structural topology optimization under finite deformation via Moving Morphable Void (MMV) approach. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 798-818.	3.4	37
25	Topology Optimization Based on Explicit Geometry Description. , 2019, , 1-8.		0
26	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
27	Multiscale Design Considering Microstructure Connectivity. , 2018, , .		5
28	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
29	An efficient moving morphable component (MMC)-based approach for multi-resolution topology optimization. Structural and Multidisciplinary Optimization, 2018, 58, 2455-2479.	1.7	67
30	The mechanical principles behind the golden ratio distribution of veins in plant leaves. Scientific Reports, 2018, 8, 13859.	1.6	26
31	OpenLSTO: Open-Source Software for Level Set Topology Optimization. , 2018, , .		5
32	Exact response bound analysis of truss structures via linear mixed 0â€”1 programming and sensitivity bounding technique. International Journal for Numerical Methods in Engineering, 2018, 116, 21-42.	1.5	4
33	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
34	Connecting Microstructures for Multiscale Topology Optimization With Connectivity Index Constraints. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	84
35	Self-supporting structure design in additive manufacturing through explicit topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 323, 27-63.	3.4	224
36	Additive Manufacturing-Oriented Design of Graded Lattice Structures Through Explicit Topology Optimization. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	1.1	112

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37	Kirigami pattern design of mechanically driven formation of complex 3D structures through topology optimization. <i>Extreme Mechanics Letters</i> , 2017, 15, 139-144.	2.0	39
38	A level set approach for damage identification of continuum structures based on dynamic responses. <i>Journal of Sound and Vibration</i> , 2017, 386, 100-115.	2.1	15
39	A new computational framework for materials with different mechanical responses in tension and compression and its applications. <i>International Journal of Solids and Structures</i> , 2016, 100-101, 54-73.	1.3	63
40	Symmetry analysis for structural optimization problems involving reliability measure and bi-modulus materials. <i>Structural and Multidisciplinary Optimization</i> , 2016, 53, 973-984.	1.7	6
41	Frequency-Preserved Acoustic Diode Model with High Forward-Power-Transmission Rate. <i>Physical Review Applied</i> , 2015, 3, .	1.5	63
42	Direct kinematic method for exactly constructing influence lines of forces of statically indeterminate structures. <i>Structural Engineering and Mechanics</i> , 2015, 54, 793-807.	1.0	0
43	Variational principles and the related bounding theorems for bi-modulus materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 73, 183-211.	2.3	56
44	A confirmation of a conjecture on the existence of symmetric optimal solution under multiple loads. <i>Structural and Multidisciplinary Optimization</i> , 2014, 50, 659-661.	1.7	4
45	Symmetry properties in structural optimization: some extensions. <i>Structural and Multidisciplinary Optimization</i> , 2013, 47, 783-794.	1.7	11
46	Some symmetry results for optimal solutions in structural optimization. <i>Structural and Multidisciplinary Optimization</i> , 2012, 46, 631-645.	1.7	20