Yao Chen

List of Publications by Year
in descending order

49 papers	1,436 citations	218592 26 h-index	330025 37 g-index
49 all docs	49 docs citations	49 times ranked	508 citing authors

#	Article	IF	Citations
1	Structural symmetry recognition in planar structures using Convolutional Neural Networks. Engineering Structures, 2022, 260, 114227.	2.6	42
2	Local damage identification of high-strength circular concrete-filled steel tubes under low cycle fatigue. International Journal of Damage Mechanics, 2021, 30, 559-574.	2.4	4
3	Equivalent analytical modeling of adequate reinforcement noncontact lap splices under monotonic loads. Structural Concrete, 2021, 22, 593-606.	1.5	3
4	Geometric design classification of kirigami-inspired metastructures and metamaterials. Structures, 2021, 33, 3633-3643.	1.7	31
5	Machine learning applied to the design and inspection of reinforced concrete bridges: Resilient methods and emerging applications. Structures, 2021, 33, 3954-3963.	1.7	58
6	The topology finding algorithm of tensegrity structures based on scheme matrix strategy. Composite Structures, 2021, 275, 114429.	3.1	6
7	Life cycle strengthening of high-strength steels by nanosecond laser shock. Applied Surface Science, 2021, 569, 151118.	3.1	16
8	Particle Swarm Optimization-Based Metaheuristic Design Generation of Non-Trivial Flat-Foldable Origami Tessellations With Degree-4 Vertices. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	75
9	A hybrid symmetry–PSO approach to finding the self-equilibrium configurations of prestressable pin-jointed assemblies. Acta Mechanica, 2020, 231, 1485-1501.	1.1	31
10	Intrinsic non-flat-foldability of two-tile DDC surfaces composed of glide-reflected irregular quadrilaterals. International Journal of Mechanical Sciences, 2020, 185, 105881.	3.6	47
11	Nonlinear form-finding of symmetric cable–strut structures using stiffness submatrices associated with full symmetry subspace. Archive of Applied Mechanics, 2020, 90, 1783-1794.	1.2	3
12	Determination of active members and zero-stress states for symmetric prestressed cable–strut structures. Acta Mechanica, 2020, 231, 3607-3620.	1.1	2
13	Assigning mountain-valley fold lines of flat-foldable origami patterns based on graph theory and mixed-integer linear programming. Computers and Structures, 2020, 239, 106328.	2.4	47
14	Feasible Prestress Modes for Cable-Strut Structures with Multiple Self-Stress States Using Particle Swarm Optimization. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	62
15	Mechanism Design with Singularity Avoidance of Crystal-Inspired Deployable Structures. Crystals, 2019, 9, 421.	1.0	3
16	Geometric and Kinematic Analyses and Novel Characteristics of Origami-Inspired Structures. Symmetry, 2019, 11, 1101.	1.1	28
17	Stiffness contributions of tension structures evaluated from the levels of components and symmetry subspaces. Mechanics Research Communications, 2019, 100, 103401.	1.0	9
18	Nodal flexibility and kinematic indeterminacy analyses of symmetric tensegrity structures using orbits of nodes. International Journal of Mechanical Sciences, 2019, 155, 41-49.	3.6	31

#	Article	IF	Citations
19	An Integrated Geometric-Graph-Theoretic Approach to Representing Origami Structures and Their Corresponding Truss Frameworks. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	54
20	Experimental Study on Shear Resistance of Precast RC Shear Walls with Novel Bundled Connections. Journal of Earthquake and Tsunami, 2019, 13, .	0.7	24
21	Automatic and Exact Symmetry Recognition of Structures Exhibiting High-Order Symmetries. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	10
22	Kinematic indeterminacy and folding behavior of a class of overconstrained frameworks with symmetry. Acta Mechanica, 2018, 229, 1157-1169.	1.1	3
23	Group-Theoretic Exploitations of Symmetry in Novel Prestressed Structures. Symmetry, 2018, 10, 229.	1.1	8
24	Improved Form-Finding of Tensegrity Structures Using Blocks of Symmetry-Adapted Force Density Matrix. Journal of Structural Engineering, 2018, 144, .	1.7	31
25	Symmetry representations and elastic redundancy for members of tensegrity structures. Composite Structures, 2018, 203, 672-680.	3.1	33
26	Stiffness degradation of prestressed cable-strut structures observed from variations of lower frequencies. Acta Mechanica, 2018, 229, 3319-3332.	1.1	14
27	Group-theoretical form-finding of cable-strut structures based on irreducible representations for rigid-body translations. International Journal of Mechanical Sciences, 2018, 144, 205-215.	3.6	19
28	Lower-order symmetric mechanism modes and bifurcation behavior of deployable bar structures with cyclic symmetry. International Journal of Solids and Structures, 2018, 139-140, 1-14.	1.3	63
29	Kinematic of symmetric deployable scissor-hinge structures with integral mechanism mode. Computers and Structures, 2017, 191, 140-152.	2.4	47
30	A computational method for automated detection of engineering structures with cyclic symmetries. Computers and Structures, 2017, 191, 153-164.	2.4	52
31	Improved Symmetry Method for the Mobility of Regular Structures Using Graph Products. Journal of Structural Engineering, 2016, 142, .	1.7	30
32	A group-theoretic approach to the mobility and kinematic of symmetric over-constrained structures. Mechanism and Machine Theory, 2016, 105, 91-107.	2.7	32
33	A self-equilibrated load method to locate singular configurations of symmetric foldable structures. Acta Mechanica, 2016, 227, 2749-2763.	1.1	8
34	Numerical approach for detecting bifurcation points of the compatibility paths of symmetric deployable structures. Mechanics Research Communications, 2016, 71, 7-15.	1.0	11
35	Mobility of symmetric deployable structures subjected to external loads. Mechanism and Machine Theory, 2015, 93, 98-111.	2.7	15
36	Efficient Symmetry Method for Calculating Integral Prestress Modes of Statically Indeterminate Cable-Strut Structures. Journal of Structural Engineering, 2015, 141, .	1.7	37

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37	Effective insights into the geometric stability of symmetric skeletal structures under symmetric variations. International Journal of Solids and Structures, 2015, 69-70, 277-290.	1.3	37
38	Group-theoretic method for efficient buckling analysis of prestressed space structures. Acta Mechanica, 2015, 226, 957-973.	1.1	14
39	A necessary condition for stability of kinematically indeterminate pin-jointed structures with symmetry. Mechanics Research Communications, 2014, 60, 64-73.	1.0	29
40	Efficient Method for Moore-Penrose Inverse Problems Involving Symmetric Structures Based on Group Theory. Journal of Computing in Civil Engineering, 2014, 28, 182-190.	2.5	27
41	Synthesis, Mobility, and Multifurcation of Deployable Polyhedral Mechanisms With Radially Reciprocating Motion. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	111
42	Mobility and kinematic simulations of cyclically symmetric deployable truss structures. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2013, 227, 2218-2227.	1.1	7
43	FOLDING OF A TYPE OF DEPLOYABLE ORIGAMI STRUCTURES. International Journal of Structural Stability and Dynamics, 2012, 12, 1250054.	1.5	26
44	INITIAL PRESTRESS DISTRIBUTION AND NATURAL VIBRATION ANALYSIS OF TENSEGRITY STRUCTURES BASED ON GROUP THEORY. International Journal of Structural Stability and Dynamics, 2012, 12, 213-231.	1.5	11
45	Novel Form-Finding of Tensegrity Structures Using Ant Colony Systems. Journal of Mechanisms and Robotics, 2012, 4, .	1.5	45
46	Generalized Eigenvalue Analysis of Symmetric Prestressed Structures Using Group Theory. Journal of Computing in Civil Engineering, 2012, 26, 488-497.	2.5	76
47	Prestress stability of pin-jointed assemblies using ant colony systems. Mechanics Research Communications, 2012, 41, 30-36.	1.0	35
48	Elastic stability of shallow pin-ended parabolic arches subjected to step loads. Central South University, 2010, 17, 156-162.	0.5	9
49	In-plane elastic stability of fixed parabolic shallow arches. Science in China Series D: Earth Sciences, 2009, 52, 596-602.	0.9	20