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	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
2	Generalized Eigenvalue Analysis of Symmetric Prestressed Structures Using Group Theory. Journal of Computing in Civil Engineering, 2012, 26, 488-497.	2.5	76
3	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
4	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
5	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
6	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
7	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
8	A computational method for automated detection of engineering structures with cyclic symmetries. Computers and Structures, 2017, 191, 153-164.	2.4	52
9	Kinematic of symmetric deployable scissor-hinge structures with integral mechanism mode. Computers and Structures, 2017, 191, 140-152.	2.4	47
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	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
12	Novel Form-Finding of Tensegrity Structures Using Ant Colony Systems. Journal of Mechanisms and Robotics, 2012, 4, .	1.5	45
13	Structural symmetry recognition in planar structures using Convolutional Neural Networks. Engineering Structures, 2022, 260, 114227.	2.6	42
14	Efficient Symmetry Method for Calculating Integral Prestress Modes of Statically Indeterminate Cable-Strut Structures. Journal of Structural Engineering, 2015, 141, .	1.7	37
15	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
16	Prestress stability of pin-jointed assemblies using ant colony systems. Mechanics Research Communications, 2012, 41, 30-36.	1.0	35
17	Symmetry representations and elastic redundancy for members of tensegrity structures. Composite Structures, 2018, 203, 672-680.	3.1	33
18	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

#	Article	IF	Citations
19	Improved Form-Finding of Tensegrity Structures Using Blocks of Symmetry-Adapted Force Density Matrix. Journal of Structural Engineering, 2018, 144, .	1.7	31
20	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
21	A hybrid symmetryâ€“PSO approach to finding the self-equilibrium configurations of prestressable pin-jointed assemblies. Acta Mechanica, 2020, 231, 1485-1501.	1.1	31
22	Geometric design classification of kirigami-inspired metastructures and metamaterials. Structures, 2021, 33, 3633-3643.	1.7	31
23	Improved Symmetry Method for the Mobility of Regular Structures Using Graph Products. Journal of Structural Engineering, 2016, 142, .	1.7	30
24	A necessary condition for stability of kinematically indeterminate pin-jointed structures with symmetry. Mechanics Research Communications, 2014, 60, 64-73.	1.0	29
25	Geometric and Kinematic Analyses and Novel Characteristics of Origami-Inspired Structures. Symmetry, 2019, 11, 1101.	1.1	28
26	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
27	FOLDING OF A TYPE OF DEPLOYABLE ORIGAMI STRUCTURES. International Journal of Structural Stability and Dynamics, 2012, 12, 1250054.	1.5	26
28	Experimental Study on Shear Resistance of Precast RC Shear Walls with Novel Bundled Connections. Journal of Earthquake and Tsunami, 2019, 13, .	0.7	24
29	In-plane elastic stability of fixed parabolic shallow arches. Science in China Series D: Earth Sciences, 2009, 52, 596-602.	0.9	20
30	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
31	Life cycle strengthening of high-strength steels by nanosecond laser shock. Applied Surface Science, 2021, 569, 151118.	3.1	16
32	Mobility of symmetric deployable structures subjected to external loads. Mechanism and Machine Theory, 2015, 93, 98-111.	2.7	15
33	Group-theoretic method for efficient buckling analysis of prestressed space structures. Acta Mechanica, 2015, 226, 957-973.	1.1	14
34	Stiffness degradation of prestressed cable-strut structures observed from variations of lower frequencies. Acta Mechanica, 2018, 229, 3319-3332.	1.1	14
35	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
36	Numerical approach for detecting bifurcation points of the compatibility paths of symmetric deployable structures. Mechanics Research Communications, 2016, 71, 7-15.	1.0	11

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37	Automatic and Exact Symmetry Recognition of Structures Exhibiting High-Order Symmetries. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	10
38	Elastic stability of shallow pin-ended parabolic arches subjected to step loads. Central South University, 2010, 17, 156-162.	0.5	9
39	Stiffness contributions of tension structures evaluated from the levels of components and symmetry subspaces. Mechanics Research Communications, 2019, 100, 103401.	1.0	9
40	A self-equilibrated load method to locate singular configurations of symmetric foldable structures. Acta Mechanica, 2016, 227, 2749-2763.	1.1	8
41	Group-Theoretic Exploitations of Symmetry in Novel Prestressed Structures. Symmetry, 2018, 10, 229.	1.1	8
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	The topology finding algorithm of tensegrity structures based on scheme matrix strategy. Composite Structures, 2021, 275, 114429.	3.1	6
44	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
45	Kinematic indeterminacy and folding behavior of a class of overconstrained frameworks with symmetry. Acta Mechanica, 2018, 229, 1157-1169.	1.1	3
46	Mechanism Design with Singularity Avoidance of Crystal-Inspired Deployable Structures. Crystals, 2019, 9, 421.	1.0	3
47	Nonlinear form-finding of symmetric cableâ€“strut structures using stiffness submatrices associated with full symmetry subspace. Archive of Applied Mechanics, 2020, 90, 1783-1794.	1.2	3
48	Equivalent analytical modeling of adequate reinforcement noncontact lap splices under monotonic loads. Structural Concrete, 2021, 22, 593-606.	1.5	3
49	Determination of active members and zero-stress states for symmetric prestressed cableâ€“strut structures. Acta Mechanica, 2020, 231, 3607-3620.	1.1	2