## Yao Chen

## List of Publications by Year in descending order

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| #  | Article   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Synthesis, Mobility, and Multifurcation of Deployable Polyhedral Mechanisms With Radially<br>Reciprocating Motion. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .                                 | 2.9 | 111       |
| 2  | Generalized Eigenvalue Analysis of Symmetric Prestressed Structures Using Group Theory. Journal of<br>Computing in Civil Engineering, 2012, 26, 488-497.  | 4.7 | 76        |
| 3  | Particle Swarm Optimization-Based Metaheuristic Design Generation of Non-Trivial Flat-Foldable<br>Origami Tessellations With Degree-4 Vertices. Journal of Mechanical Design, Transactions of the<br>ASME, 2021, 143, . | 2.9 | 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.                                  | 2.7 | 63        |
| 5  | Feasible Prestress Modes for Cable-Strut Structures with Multiple Self-Stress States Using Particle<br>Swarm Optimization. Journal of Computing in Civil Engineering, 2020, 34, .                                       | 4.7 | 62        |
| 6  | Machine learning applied to the design and inspection of reinforced concrete bridges: Resilient methods and emerging applications. Structures, 2021, 33, 3954-3963.   | 3.6 | 58        |
| 7  | An Integrated Geometric-Graph-Theoretic Approach to Representing Origami Structures and Their<br>Corresponding Truss Frameworks. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .                   | 2.9 | 54        |
| 8  | A computational method for automated detection of engineering structures with cyclic symmetries.<br>Computers and Structures, 2017, 191, 153-164.   | 4.4 | 52        |
| 9  | Kinematic of symmetric deployable scissor-hinge structures with integral mechanism mode.<br>Computers and Structures, 2017, 191, 140-152.   | 4.4 | 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.  | 6.7 | 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.   | 4.4 | 47        |
| 12 | Novel Form-Finding of Tensegrity Structures Using Ant Colony Systems. Journal of Mechanisms and Robotics, 2012, 4, .  | 2.2 | 45        |
| 13 | Structural symmetry recognition in planar structures using Convolutional Neural Networks.<br>Engineering Structures, 2022, 260, 114227.   | 5.3 | 42        |
| 14 | Efficient Symmetry Method for Calculating Integral Prestress Modes of Statically Indeterminate<br>Cable-Strut Structures. Journal of Structural Engineering, 2015, 141, .   | 3.4 | 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.                                      | 2.7 | 37        |
| 16 | Prestress stability of pin-jointed assemblies using ant colony systems. Mechanics Research<br>Communications, 2012, 41, 30-36.  | 1.8 | 35        |
| 17 | Symmetry representations and elastic redundancy for members of tensegrity structures. Composite Structures, 2018, 203, 672-680.   | 5.8 | 33        |
| 18 | A group-theoretic approach to the mobility and kinematic of symmetric over-constrained structures.<br>Mechanism and Machine Theory, 2016, 105, 91-107.  | 4.5 | 32        |

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|----|--|-----|-----------|
| 19 | Improved Form-Finding of Tensegrity Structures Using Blocks of Symmetry-Adapted Force Density<br>Matrix. Journal of Structural Engineering, 2018, 144, .                                     | 3.4 | 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.             | 6.7 | 31        |
| 21 | A hybrid symmetry–PSO approach to finding the self-equilibrium configurations of prestressable pin-jointed assemblies. Acta Mechanica, 2020, 231, 1485-1501.                                 | 2.1 | 31        |
| 22 | Geometric design classification of kirigami-inspired metastructures and metamaterials. Structures, 2021, 33, 3633-3643.  | 3.6 | 31        |
| 23 | Improved Symmetry Method for the Mobility of Regular Structures Using Graph Products. Journal of<br>Structural Engineering, 2016, 142, .   | 3.4 | 30        |
| 24 | A necessary condition for stability of kinematically indeterminate pin-jointed structures with symmetry. Mechanics Research Communications, 2014, 60, 64-73.                                 | 1.8 | 29        |
| 25 | Geometric and Kinematic Analyses and Novel Characteristics of Origami-Inspired Structures.<br>Symmetry, 2019, 11, 1101.  | 2.2 | 28        |
| 26 | Efficient Method for Moore-Penrose Inverse Problems Involving Symmetric Structures Based on<br>Group Theory. Journal of Computing in Civil Engineering, 2014, 28, 182-190.                   | 4.7 | 27        |
| 27 | FOLDING OF A TYPE OF DEPLOYABLE ORIGAMI STRUCTURES. International Journal of Structural Stability and Dynamics, 2012, 12, 1250054.   | 2.4 | 26        |
| 28 | Experimental Study on Shear Resistance of Precast RC Shear Walls with Novel Bundled Connections.<br>Journal of Earthquake and Tsunami, 2019, 13, .   | 1.3 | 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. | 6.7 | 19        |
| 31 | Life cycle strengthening of high-strength steels by nanosecond laser shock. Applied Surface Science, 2021, 569, 151118.  | 6.1 | 16        |
| 32 | Mobility of symmetric deployable structures subjected to external loads. Mechanism and Machine<br>Theory, 2015, 93, 98-111.  | 4.5 | 15        |
| 33 | Group-theoretic method for efficient buckling analysis of prestressed space structures. Acta<br>Mechanica, 2015, 226, 957-973.   | 2.1 | 14        |
| 34 | Stiffness degradation of prestressed cable-strut structures observed from variations of lower frequencies. Acta Mechanica, 2018, 229, 3319-3332.   | 2.1 | 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. | 2.4 | 11        |
| 36 | Numerical approach for detecting bifurcation points of the compatibility paths of symmetric deployable structures. Mechanics Research Communications, 2016, 71, 7-15.                        | 1.8 | 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, .  | 4.7 | 10        |
| 38 | Elastic stability of shallow pin-ended parabolic arches subjected to step loads. Central South<br>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.  | 1.8 | 9         |
| 40 | A self-equilibrated load method to locate singular configurations of symmetric foldable structures.<br>Acta Mechanica, 2016, 227, 2749-2763.   | 2.1 | 8         |
| 41 | Group-Theoretic Exploitations of Symmetry in Novel Prestressed Structures. Symmetry, 2018, 10, 229.  | 2.2 | 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. | 2.1 | 7         |
| 43 | The topology finding algorithm of tensegrity structures based on scheme matrix strategy. Composite Structures, 2021, 275, 114429.  | 5.8 | 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.   | 4.2 | 4         |
| 45 | Kinematic indeterminacy and folding behavior of a class of overconstrained frameworks with symmetry. Acta Mechanica, 2018, 229, 1157-1169.   | 2.1 | 3         |
| 46 | Mechanism Design with Singularity Avoidance of Crystal-Inspired Deployable Structures. Crystals, 2019, 9, 421.   | 2.2 | 3         |
| 47 | Nonlinear form-finding of symmetric cable–strut structures using stiffness submatrices associated with full symmetry subspace. Archive of Applied Mechanics, 2020, 90, 1783-1794.  | 2.2 | 3         |
| 48 | Equivalent analytical modeling of adequate reinforcement noncontact lap splices under monotonic loads. Structural Concrete, 2021, 22, 593-606.   | 3.1 | 3         |
| 49 | Determination of active members and zero-stress states for symmetric prestressed cable–strut structures. Acta Mechanica, 2020, 231, 3607-3620.   | 2.1 | 2         |