Guimin Chen

List of Publications by Year
in descending order

84 papers	2,338 citations	279701 23 h-index	243529 44 g-index
84 all docs	84 docs citations	84 times ranked	903 citing authors

#	ARTICLE	IF	CITATIONS
1	Multistage Pixel-Visibility Learning With Cost Regularization for Multiview Stereo. IEEE Transactions on Automation Science and Engineering, 2023, 20, 751-762.	3.4	2
2	A compliant guiding mechanism utilizing orthogonally oriented flexures with enhanced stiffness in degrees-of-constraint. Mechanism and Machine Theory, 2022, 167, 104555.	2.7	7
3	A flexure-based displacement reducer capable of achieving very large reduction ratio. Mechanism and Machine Theory, 2022, 170, 104658.	2.7	6
4	A bioinspired, electroactive colorable and additive manufactured photonic artificial muscle. Soft Matter, 2022, 18, 1617-1627.	1.2	11
5	A Switchable Dual‐Mode Actuator Enabled by Bistable Structure. Advanced Intelligent Systems, 2022, 4, .	3.3	6
6	Design and Performance Analysis of Lamina Emergent Torsional Joints Based on Double-Laminated Material Structure. Applied Sciences (Switzerland), 2022, 12, 2642.	1.3	0
7	Notch Flexure as Kirigami Cut for Tunable Mechanical Stretchability towards Metamaterial Application. International Journal of Smart and Nano Materials, 2022, 13, 203-217.	2.0	7
8	Toward broad optimal output bandwidth dielectric elastomer actuators. Science China Technological Sciences, 2022, 65, 1137-1148.	2.0	14
9	Bistable sound insulator with an abrupt stiffness shift using magnetic-coupled dielectric elastomer actuator. Smart Materials and Structures, 2022, 31, 065012.	1.8	3
10	A design approach to fully compliant multistable mechanisms employing a single bistable mechanism. Mechanics Based Design of Structures and Machines, 2021, 49, 986-1009.	3.4	6
11	Analytical solutions for nonlinear deflections of corner-fillet leaf-springs. Mechanism and Machine Theory, 2021, 157, 104182.	2.7	9
12	Legged-wheeled small robot capable of terrain-adaptive locomotion via a soft actuator. Engineering Research Express, 2021, 3, 015032.	0.8	0
13	Closed-form solution for nonlinear spatial deflections of strip flexures of large aspect ratio considering second order load-stiffening. Mechanism and Machine Theory, 2021, 161, 104324.	2.7	9
14	TENG-Bot: Triboelectric nanogenerator powered soft robot made of uni-directional dielectric elastomer. Nano Energy, 2021, 85, 106012.	8.2	55
15	Isogeometric topology optimization of compliant mechanisms using transformable triangular mesh (TTM) algorithm. Structural and Multidisciplinary Optimization, 2021, 64, 2553-2576.	1.7	2
16	Fully compliant bistable mechanisms with enhanced pitch stiffness. Mechanical Systems and Signal Processing, 2021, 161, 107926.	4.4	17
17	On the Mechanical Power Output Comparisons of Cone Dielectric Elastomer Actuators. IEEE/ASME Transactions on Mechatronics, 2021, 26, 3151-3162.	3.7	23
18	Modeling Large Spatial Deflections of Slender Beams of Rectangular Cross Sections in Compliant Mechanisms. Journal of Mechanisms and Robotics, 2021, 13, .	1.5	9

#	ARTICLE	IF	CITATIONS
19	Fully Compliant Electroactive Bistable Actuator Utilizing Twisting and Coiled Artificial Muscle. Lecture Notes in Computer Science, 2021, , 190-196.	1.0	0
20	Progress of twisted and coiled polymer fiber artificial muscles and its application in soft robots. Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica, 2021, 51, 119-136.	0.3	5
21	A non-transit fully compliant tristable mechanism capable of direct switching between every two stable positions. Mechanical Systems and Signal Processing, 2021, , 108597.	4.4	5
22	Asymmetric Soft Î©-robot Utilizing Minimized Energy Structure of Unequally Pre-stretched Dielectric Elastomer. , 2021, , .		1
23	Patterning coexisted micro-/nanostructures for consequential camouflage via mechanical constraint harnessed surface instability. Applied Physics Letters, 2021, 119, .	1.5	3
24	Mechanochromics of stretchable nano metasurfaces: non-close-packed hexagonal lattices and tunable structural coloration. Applied Physics Express, 2020, 13, 015008.	1.1	5
25	A flexible morphing wing by soft wing skin actuation utilizing dielectric elastomer: experiments and electro-aerodynamic model. Smart Materials and Structures, 2020, 29, 015031.	1.8	12
26	Kinetostatic modeling and characterization of compliant mechanisms containing flexible beams of variable effective length. Mechanism and Machine Theory, 2020, 147, 103770.	2.7	6
27	A Fully Compliant Tristable Mechanism Employing Both Tensural and Compresural Segments. Journal of Mechanisms and Robotics, 2020, 12, .	1.5	14
28	Kinetostatic and Dynamic Modeling of Flexure-Based Compliant Mechanisms: A Survey. Applied Mechanics Reviews, 2020, 72, .	4.5	127
29	Large-Stroke Constant-Force Mechanisms Utilizing Second Buckling Mode of Flexible Beams: Evaluation Metrics and Design Approach. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	25
30	A Mechanically Intelligent Crawling Robot Driven by Shape Memory Alloy and Compliant Bistable Mechanism. Journal of Mechanisms and Robotics, 2020, 12, .	1.5	33
31	Kinetostatic Modeling and Optimization of a Novel Horizontal-Displacement Compliant Mechanism. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	18
32	Influence of non-ideal fixed-end constraints on kinetostatic behaviors of compliant bistable mechanisms. Mechanism and Machine Theory, 2019, 133, 267-277.	2.7	18
33	A closed-form model for nonlinear spatial deflections of rectangular beams in intermediate range. International Journal of Mechanical Sciences, 2019, 160, 229-240.	3.6	22
34	Design of a Variable Stiffness Actuator Based on Beam Flexure and Bistable Mechanism. , 2019, , .		1
35	Electrochromic iontronic devices based on nanoscale cell membrane-inspired hydrated ion channels in Nafion solid polyelectrolyte. Europhysics Letters, 2019, 128, 68001.	0.7	1
36	Modeling Large Deflections of Initially Curved Beams in Compliant Mechanisms Using Chained Beam Constraint Model. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	106

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37	Modeling Large Deflections of Initially Curved Beams in Compliant Mechanisms Using Chained Beam-Constraint-Model. , 2018, , .		4
38	The constant balancing 6UPS/(3PRRR)+S parallel mechanism and its balancing performance analysis. Mechanism and Machine Theory, 2018, 126, 79-91.	2.7	6
39	A general approach for generating kinetostatic models for planar flexure-based compliant mechanisms using matrix representation. Mechanism and Machine Theory, 2018, 129, 131-147.	2.7	11
40	Membrane-Enhanced Lamina Emergent Torsional Joints for Surrogate Folds. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	29
41	Determining the range of allowable axial force for the third-order Beam Constraint Model. Mechanical Sciences, 2018, 9, 71-79.	0.5	7
42	Bi-BCM: A Closed-Form Solution for Fixed-Guided Beams in Compliant Mechanisms. Journal of Mechanisms and Robotics, 2017, 9, .	1.5	39
43	A novel fully compliant tensural-compresural bistable mechanism. Sensors and Actuators A: Physical, 2017, 268, 72-82.	2.0	15
44	A Framework for Energy-Based Kinetostatic Modeling of Compliant Mechanisms. , 2017, , .		2
45	Design of a Wireless Sensor Module for Monitoring Conductor Galloping of Transmission Lines. Sensors, 2016, 16, 1657.	2.1	20
46	Modeling Large Spatial Deflections of Slender Bisymmetric Beams in Compliant Mechanisms Using Chained Spatial-Beam Constraint Model. Journal of Mechanisms and Robotics, 2016, 8, .	1.5	56
47	A tensural displacement amplifier employing elliptic-arc flexure hinges. Sensors and Actuators A: Physical, 2016, 247, 307-315.	2.0	67
48	Understanding coupled factors that affect the modelling accuracy of typical planar compliant mechanisms. Frontiers of Mechanical Engineering, 2016, 11, 129-134.	2.5	15
49	Modeling Large Planar Deflections of Flexible Beams in Compliant Mechanisms Using Chained Beam-Constraint-Model1. Journal of Mechanisms and Robotics, 2016, 8, .	1.5	146
50	Solving Large-Deflection Problem of Spatial Beam with Circular Cross-Section Using an Optimization-Based Runge–Kutta Method. International Journal of Nonlinear Sciences and Numerical Simulation, 2016, 17, 65-76.	0.4	2
51	Design of Constant-Force Compliant Sarrus Mechanism Considering Stiffness Nonlinearity of Compliant Joints. Mechanisms and Machine Science, 2016, , 107-116.	0.3	5
52	Modeling Large Spatial Deflections of Slender Bisymmetric Beams in Compliant Mechanisms Using Chained Spatial-Beam-Constraint-Model (CSBCM). , 2015, , .		1
53	Kinetostatic Modeling of Fully Compliant Bistable Mechanisms Using Timoshenko Beam Constraint Model. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	103
54	Modeling V-shape Thermal In-plane Microactuator using Chained Beam-Constraint-Model. , 2014, , .		4

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55	Chained Beam-Constraint-Model (CBCM): A Powerful Tool for Modeling Large and Complicated Deflections of Flexible Beams in Compliant Mechanisms. , 2014, , .		8
56	A function for characterizing complete kinetostatic behaviors of compliant bistable mechanisms. Mechanical Sciences, 2014, 5, 67-78.	0.5	13
57	Double-Young Tristable Mechanisms. Journal of Mechanisms and Robotics, 2013, 5, .	1.5	24
58	A Comprehensive Elliptic Integral Solution to the Large Deflection Problems of Thin Beams in Compliant Mechanisms. Journal of Mechanisms and Robotics, 2013, 5, .	1.5	146
59	Multistable Behaviors of Compliant Sarrus Mechanisms. Journal of Mechanisms and Robotics, 2013, 5, .	1.5	37
60	Multistability of Compliant Sarrus Mechanisms. , 2012, , .		1
61	Achieving compliant spherical linkage designs from compliant planar linkages based on PRBM: A spherical Young mechanism case study. , 2012, , .		4
62	A Compliant 5-bar Tristable Mechanism Utilizing Metamorphic Transformation. , 2012, , 233-242.		2
63	Accuracy Evaluation of PRBM for Predicting Kinetostatic Behavior of Flexible Segments in Compliant Mechanisms. , 2011, , .		4
64	Finding the optimal characteristic parameters for 3R pseudo-rigid-body model using an improved particle swarm optimizer. Precision Engineering, 2011, 35, 505-511.	1.8	73
65	Elliptical-Arc-Fillet Flexure Hinges: Toward a Generalized Model for Commonly Used Flexure Hinges. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	95
66	Synthesis of Compliant Multistable Mechanisms Through Use of a Single Bistable Mechanism. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	78
67	Design of Compliant Bistable Mechanism for Rear Trunk Lid of Cars. Lecture Notes in Computer Science, 2011, , 291-299.	1.0	10
68	Structural Synthesis of Compliant Metamorphic Mechanisms Based on Adjacency Matrix Operations. Chinese Journal of Mechanical Engineering (English Edition), 2011, 24, 522.	1.9	13
69	Fully-compliant statically-balanced mechanisms without prestressing assembly: concepts and case studies. Mechanical Sciences, 2011, 2, 169-174.	0.5	54
70	Multi-cycle compress technique for high-speed IP in low-cost environment. , 2010, , .		0
71	Note: Supplements and corrections to the generalized conic flexure hinge model. Review of Scientific Instruments, 2010, 81, 076101.	0.6	3
72	A Tristable Mechanism Configuration Employing Orthogonal Compliant Mechanisms. Journal of Mechanisms and Robotics, 2010, 2, .	1.5	57

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73	A 3-DOF Pseudo-Rigid-Body Model for Tension-Based Compliant Bistable Mechanisms. Chinese Journal of Mechanical Engineering (English Edition), 2010, 23, 149.	1.9	2
74	A generalized model for conic flexure hinges. Review of Scientific Instruments, 2009, 80, 055106.	0.6	71
75	Fully compliant double tensural tristable micromechanisms (DTTM). Journal of Micromechanics and Microengineering, 2009, 19, 025011.	1.5	54
76	Lamina Emergent Torsional (LET) Joint. Mechanism and Machine Theory, 2009, 44, 2098-2109.	2.7	113
77	Two general solutions of torsional compliance for variable rectangular cross-section hinges in compliant mechanisms. Precision Engineering, 2009, 33, 268-274.	1.8	60
78	A Particle Swarm Optimizer with Multi-stage Linearly-Decreasing Inertia Weight. , 2009, , .		143
79	A new generalized model for elliptical arc flexure hinges. Review of Scientific Instruments, 2008, 79, 095103.	0.6	80
80	Self-Active Inertia Weight Strategy in Particle Swarm Optimization Algorithm. , 2006, , .		8
81	Natural Exponential Inertia Weight Strategy in Particle Swarm Optimization. , 2006, , .		54
82	Adaptive control for light-beam stability in mechanical vibration environment. , 0, , .		0
83	Performance Optimization of Elliptical Flexure Hinge Using a Modified Particle Swarm Algorithm. , 0, , .		0
84	An Energy-Based Framework for Nonlinear Kinetostatic Modeling of Compliant Mechanisms Utilizing Beam Flexures. Journal of Computing and Information Science in Engineering, 0, , 1-18.	1.7	11