

Guimin Chen

List of Publications by Year in descending order

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2,338
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all docs

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docs citations

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times ranked

903
citing authors

#	ARTICLE	IF	CITATIONS
1	A Comprehensive Elliptic Integral Solution to the Large Deflection Problems of Thin Beams in Compliant Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2013, 5, .	1.5	146
2	Modeling Large Planar Deflections of Flexible Beams in Compliant Mechanisms Using Chained Beam-Constraint-Model1. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	1.5	146
3	A Particle Swarm Optimizer with Multi-stage Linearly-Decreasing Inertia Weight. , 2009, , .		143
4	Kinetostatic and Dynamic Modeling of Flexure-Based Compliant Mechanisms: A Survey. <i>Applied Mechanics Reviews</i> , 2020, 72, .	4.5	127
5	Lamina Emergent Torsional (LET) Joint. <i>Mechanism and Machine Theory</i> , 2009, 44, 2098-2109.	2.7	113
6	Modeling Large Deflections of Initially Curved Beams in Compliant Mechanisms Using Chained Beam Constraint Model. <i>Journal of Mechanisms and Robotics</i> , 2019, 11, .	1.5	106
7	Kinetostatic Modeling of Fully Compliant Bistable Mechanisms Using Timoshenko Beam Constraint Model. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2015, 137, .	1.7	103
8	Elliptical-Arc-Fillet Flexure Hinges: Toward a Generalized Model for Commonly Used Flexure Hinges. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011, 133, .	1.7	95
9	A new generalized model for elliptical arc flexure hinges. <i>Review of Scientific Instruments</i> , 2008, 79, 095103.	0.6	80
10	Synthesis of Compliant Multistable Mechanisms Through Use of a Single Bistable Mechanism. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011, 133, .	1.7	78
11	Finding the optimal characteristic parameters for 3R pseudo-rigid-body model using an improved particle swarm optimizer. <i>Precision Engineering</i> , 2011, 35, 505-511.	1.8	73
12	A generalized model for conic flexure hinges. <i>Review of Scientific Instruments</i> , 2009, 80, 055106.	0.6	71
13	A tensural displacement amplifier employing elliptic-arc flexure hinges. <i>Sensors and Actuators A: Physical</i> , 2016, 247, 307-315.	2.0	67
14	Two general solutions of torsional compliance for variable rectangular cross-section hinges in compliant mechanisms. <i>Precision Engineering</i> , 2009, 33, 268-274.	1.8	60
15	A Tristable Mechanism Configuration Employing Orthogonal Compliant Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2010, 2, .	1.5	57
16	Modeling Large Spatial Deflections of Slender Bisymmetric Beams in Compliant Mechanisms Using Chained Spatial-Beam Constraint Model. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	1.5	56
17	TENG-Bot: Triboelectric nanogenerator powered soft robot made of uni-directional dielectric elastomer. <i>Nano Energy</i> , 2021, 85, 106012.	8.2	55
18	Natural Exponential Inertia Weight Strategy in Particle Swarm Optimization. , 2006, , .		54

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19	Fully compliant double tensural tristable micromechanisms (DTTM). <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 025011.	1.5	54
20	Fully-compliant statically-balanced mechanisms without prestressing assembly: concepts and case studies. <i>Mechanical Sciences</i> , 2011, 2, 169-174.	0.5	54
21	Bi-BCM: A Closed-Form Solution for Fixed-Guided Beams in Compliant Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2017, 9, .	1.5	39
22	Multistable Behaviors of Compliant Sarrus Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2013, 5, .	1.5	37
23	A Mechanically Intelligent Crawling Robot Driven by Shape Memory Alloy and Compliant Bistable Mechanism. <i>Journal of Mechanisms and Robotics</i> , 2020, 12, .	1.5	33
24	Membrane-Enhanced Lamina Emergent Torsional Joints for Surrogate Folds. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2018, 140, .	1.7	29
25	Large-Stroke Constant-Force Mechanisms Utilizing Second Buckling Mode of Flexible Beams: Evaluation Metrics and Design Approach. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .	1.7	25
26	Double-Young Tristable Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2013, 5, .	1.5	24
27	On the Mechanical Power Output Comparisons of Cone Dielectric Elastomer Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 3151-3162.	3.7	23
28	A closed-form model for nonlinear spatial deflections of rectangular beams in intermediate range. <i>International Journal of Mechanical Sciences</i> , 2019, 160, 229-240.	3.6	22
29	Design of a Wireless Sensor Module for Monitoring Conductor Galloping of Transmission Lines. <i>Sensors</i> , 2016, 16, 1657.	2.1	20
30	Kinetostatic Modeling and Optimization of a Novel Horizontal-Displacement Compliant Mechanism. <i>Journal of Mechanisms and Robotics</i> , 2019, 11, .	1.5	18
31	Influence of non-ideal fixed-end constraints on kinetostatic behaviors of compliant bistable mechanisms. <i>Mechanism and Machine Theory</i> , 2019, 133, 267-277.	2.7	18
32	Fully compliant bistable mechanisms with enhanced pitch stiffness. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107926.	4.4	17
33	Understanding coupled factors that affect the modelling accuracy of typical planar compliant mechanisms. <i>Frontiers of Mechanical Engineering</i> , 2016, 11, 129-134.	2.5	15
34	A novel fully compliant tensural-compressural bistable mechanism. <i>Sensors and Actuators A: Physical</i> , 2017, 268, 72-82.	2.0	15
35	A Fully Compliant Tristable Mechanism Employing Both Tensural and Compressural Segments. <i>Journal of Mechanisms and Robotics</i> , 2020, 12, .	1.5	14
36	Toward broad optimal output bandwidth dielectric elastomer actuators. <i>Science China Technological Sciences</i> , 2022, 65, 1137-1148.	2.0	14

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37	Structural Synthesis of Compliant Metamorphic Mechanisms Based on Adjacency Matrix Operations. Chinese Journal of Mechanical Engineering (English Edition), 2011, 24, 522.	1.9	13
38	A function for characterizing complete kinetostatic behaviors of compliant bistable mechanisms. Mechanical Sciences, 2014, 5, 67-78.	0.5	13
39	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
40	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
41	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
42	A bioinspired, electroactive colorable and additive manufactured photonic artificial muscle. Soft Matter, 2022, 18, 1617-1627.	1.2	11
43	Design of Compliant Bistable Mechanism for Rear Trunk Lid of Cars. Lecture Notes in Computer Science, 2011, , 291-299.	1.0	10
44	Analytical solutions for nonlinear deflections of corner-fillet leaf-springs. Mechanism and Machine Theory, 2021, 157, 104182.	2.7	9
45	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
46	Modeling Large Spatial Deflections of Slender Beams of Rectangular Cross Sections in Compliant Mechanisms. Journal of Mechanisms and Robotics, 2021, 13, .	1.5	9
47	Self-Active Inertia Weight Strategy in Particle Swarm Optimization Algorithm. , 2006, , .		8
48	Chained Beam-Constraint-Model (CBCM): A Powerful Tool for Modeling Large and Complicated Deflections of Flexible Beams in Compliant Mechanisms. , 2014, , .		8
49	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
50	Determining the range of allowable axial force for the third-order Beam Constraint Model. Mechanical Sciences, 2018, 9, 71-79.	0.5	7
51	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
52	The constant balancing 6UPS/(3PRRR)+S parallel mechanism and its balancing performance analysis. Mechanism and Machine Theory, 2018, 126, 79-91.	2.7	6
53	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
54	Kinetostatic modeling and characterization of compliant mechanisms containing flexible beams of variable effective length. Mechanism and Machine Theory, 2020, 147, 103770.	2.7	6

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55	A flexure-based displacement reducer capable of achieving very large reduction ratio. Mechanism and Machine Theory, 2022, 170, 104658.	2.7	6
56	A Switchable Dual-Mode Actuator Enabled by Bistable Structure. Advanced Intelligent Systems, 2022, 4, .	3.3	6
57	Design of Constant-Force Compliant Sarrus Mechanism Considering Stiffness Nonlinearity of Compliant Joints. Mechanisms and Machine Science, 2016, , 107-116.	0.3	5
58	Mechanochromics of stretchable nano metasurfaces: non-close-packed hexagonal lattices and tunable structural coloration. Applied Physics Express, 2020, 13, 015008.	1.1	5
59	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
60	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
61	Accuracy Evaluation of PRBM for Predicting Kinetostatic Behavior of Flexible Segments in Compliant Mechanisms. , 2011, , .		4
62	Achieving compliant spherical linkage designs from compliant planar linkages based on PRBM: A spherical Young mechanism case study. , 2012, , .		4
63	Modeling V-shape Thermal In-plane Microactuator using Chained Beam-Constraint-Model. , 2014, , .		4
64	Modeling Large Deflections of Initially Curved Beams in Compliant Mechanisms Using Chained Beam-Constraint-Model. , 2018, , .		4
65	Note: Supplements and corrections to the generalized conic flexure hinge model. Review of Scientific Instruments, 2010, 81, 076101.	0.6	3
66	Patterning coexisted micro-/nanostructures for consequential camouflage via mechanical constraint harnessed surface instability. Applied Physics Letters, 2021, 119, .	1.5	3
67	Bistable sound insulator with an abrupt stiffness shift using magnetic-coupled dielectric elastomer actuator. Smart Materials and Structures, 2022, 31, 065012.	1.8	3
68	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
69	A Framework for Energy-Based Kinetostatic Modeling of Compliant Mechanisms. , 2017, , .		2
70	Isogeometric topology optimization of compliant mechanisms using transformable triangular mesh (TTM) algorithm. Structural and Multidisciplinary Optimization, 2021, 64, 2553-2576.	1.7	2
71	A Compliant 5-bar Tristable Mechanism Utilizing Metamorphic Transformation. , 2012, , 233-242.		2
72	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

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73	Multistage Pixel-Visibility Learning With Cost Regularization for Multiview Stereo. IEEE Transactions on Automation Science and Engineering, 2023, 20, 751-762.	3.4	2
74	Multistability of Compliant Sarrus Mechanisms. , 2012, , .		1
75	Modeling Large Spatial Deflections of Slender Bisymmetric Beams in Compliant Mechanisms Using Chained Spatial-Beam-Constraint-Model (CSBCM). , 2015, , .		1
76	Design of a Variable Stiffness Actuator Based on Beam Flexure and Bistable Mechanism. , 2019, , .		1
77	Electrochromic iontronic devices based on nanoscale cell membrane-inspired hydrated ion channels in Nafion solid polyelectrolyte. Europhysics Letters, 2019, 128, 68001.	0.7	1
78	Asymmetric Soft Î©-robot Utilizing Minimized Energy Structure of Unequally Pre-stretched Dielectric Elastomer. , 2021, , .		1
79	Adaptive control for light-beam stability in mechanical vibration environment. , 0, , .		0
80	Performance Optimization of Elliptical Flexure Hinge Using a Modified Particle Swarm Algorithm. , 0, , .		0
81	Multi-cycle compress technique for high-speed IP in low-cost environment. , 2010, , .		0
82	Legged-wheeled small robot capable of terrain-adaptive locomotion via a soft actuator. Engineering Research Express, 2021, 3, 015032.	0.8	0
83	Fully Compliant Electroactive Bistable Actuator Utilizing Twisting and Coiled Artificial Muscle. Lecture Notes in Computer Science, 2021, , 190-196.	1.0	0
84	Design and Performance Analysis of Lamina Emergent Torsional Joints Based on Double-Laminated Material Structure. Applied Sciences (Switzerland), 2022, 12, 2642.	1.3	0