Nicola Pio Belfiore

List of Publications by Year
in descending order

81	1,373	304368 22	377514 34
papers	citations	h-index	g-index

85	85	85	674
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Downsizing Effects on Micro and Nano Comb Drives. Actuators, 2022, 11, 71.	1.2	5
2	Dynamic Model of a Conjugate-Surface Flexure Hinge Considering Impacts between Cylinders. Micromachines, 2022, 13, 957.	1.4	2
3	Analytical Modeling of a New Compliant Microsystem for Atherectomy Operations. Micromachines, 2022, 13, 1094.	1.4	4
4	Advanced Multi-Body Modelling of DCCSS Isolators: Geometrical Compatibility and Kinematics. Buildings, 2021, 11, 50.	1.4	2
5	Quadrupedal Robotsâ€™ Gaits Identification via Contact Forces Optimization. Applied Sciences (Switzerland), 2021, 11, 2102.	1.3	3
6	A preliminary study on the dynamic characterization of a MEMS microgripper for biomedical applications. , 2021, , .		5
7	A novel method to fully suppress single and bi-modal excitations due to the support vibration by means of piezoelectric actuators. Journal of Sound and Vibration, 2021, 510, 116260.	2.1	12
8	Design, Fabrication, Testing and Simulation of a Rotary Double Comb Drives Actuated Microgripper. Micromachines, 2021, 12, 1263.	1.4	10
9	Compliant Nano-Pliers as a Biomedical Tool at the Nanoscale: Design, Simulation and Fabrication. Micromachines, 2020, 11, 1087.	1.4	14
10	Engineering-Aided Inventive Surgery. Applied Sciences (Switzerland), 2020, 10, 3957.	1.3	1
11	Active isotropic compliance in redundant manipulators. Multibody System Dynamics, 2020, 49, 421-445.	1.7	0
12	A Genetic Algorithm for the Estimation of Viscoelastic Parameters of Biological Samples Manipulated by Mems Tweezers. Lecture Notes in Mechanical Engineering, 2020, , 920-931.	0.3	0
13	Grasping and Releasing Agarose micro Beads in Water Drops. Micromachines, 2019, 10, 436.	1.4	15
14	A New Concept Compliant Platform with Spatial Mobility and Remote Actuation. Applied Sciences (Switzerland), 2019, 9, 3966.	1.3	1
15	A Feasibility Study of a Novel Piezo MEMS Tweezer for Soft Materials Characterization. Applied Sciences (Switzerland), 2019, 9, 2277.	1.3	7
16	A new NEMS Based Linear-to-Rotary Displacement-Capacity Transducer. , 2019, , .		4
17	Design and Validation of a Single-SOI-Wafer 4-DOF Crawling Microgripper. Micromachines, 2019, 10, 376.	1.4	6
18	Toward Operations in a Surgical Scenario: Characterization of a Microgripper via Light Microscopy Approach. Applied Sciences (Switzerland), 2019, 9, 1901.	1.3	7

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19	A genetic algorithm-based method for the mechanical characterization of biosamples using a MEMS microgripper: numerical simulations. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 96, 88-95.	1.5	22
20	FINE-TUNING OF MODELLING STRATEGY TO SIMULATE THERMO-MECHANICAL BEHAVIOUR OF DOUBLE FRICTION PENDULUM SEISMIC ISOLATORS UST ESTIMATOR. NED University Journal of Research, 2019, 3, 165-172.	0.4	3
21	An accelerated test stand to assess wear in offshore wind turbines rolling bearings. Wind Engineering, 2018, 42, 136-140.	1.1	0
22	Operational characterization of CSFH MEMS technology based hinges. Journal of Micromechanics and Microengineering, 2018, 28, 055012.	1.5	32
23	Development of a NEMS-Technology BasedÂNano Gripper. Mechanisms and Machine Science, 2018, , 601-611.	0.3	8
24	Micromanipulation: A Challenge for Actuation. Actuators, 2018, 7, 85.	1.2	14
25	Mechanical Response of Four-Bar Linkage Microgrippers with Bidirectional Electrostatic Actuation. Actuators, 2018, 7, 78.	1.2	11
26	An Interdisciplinary Approach to the Nanomanipulation of SiO2 Nanoparticles: Design, Fabrication and Feasibility. Applied Sciences (Switzerland), 2018, 8, 2645.	1.3	12
27	Scalloping and Stress Concentration in DRIE-Manufactured Comb-Drives. Actuators, 2018, 7, 57.	1.2	9
28	An Approach to the Extreme Miniaturization of Rotary Comb Drives. Actuators, 2018, 7, 70.	1.2	16
29	Kinematic Synthesis of a D-Drive MEMS Device With Rigid-Body Replacement Method. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	26
30	New MEMS Tweezers for the Viscoelastic Characterization of Soft Materials at the Microscale. Micromachines, 2018, 9, 15.	1.4	28
31	Innovative Silicon Microgrippers for Biomedical Applications: Design, Mechanical Simulation and Evaluation of Protein Fouling. Actuators, 2018, 7, 12.	1.2	21
32	A Review on Parametric Dynamic Models of Magnetorheological Dampers and Their Characterization Methods. Actuators, 2018, 7, 16.	1.2	53
33	Mechanical Modelling of Friction Pendulum Isolation Devices. Lecture Notes in Civil Engineering, 2018, , 133-146.	0.3	2
34	Compliance Synthesis of CSFH MEMS-Based Microgrippers. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	41
35	Fabrication of Novel MEMS Microgrippers by Deep Reactive Ion Etching With Metal Hard Mask. Journal of Microelectromechanical Systems, 2017, 26, 926-934.	1.7	59
36	A Comprehensive Survey on Microgrippers Design: Operational Strategy. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	69

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37	A Comprehensive Survey on Microgrippers Design: Mechanical Structure. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	87
38	COMPLETE ANALYTICAL THERMOMECHANICAL MODEL OF DOUBLE FRICTION PENDULUM DEVICES. , 2017, , .		2
39	New strategy for testing new high nitrogen bearing steel for offshore wind turbines. Wind Engineering, 2016, 40, 426-430.	1.1	2
40	Isotropic Compliance in E(3): Feasibility and Workspace Mapping. Journal of Mechanisms and Robotics, 2016, 8, .	1.5	15
41	Isotropic compliance in the Special Euclidean Group SE(3). Mechanism and Machine Theory, 2016, 98, 263-281.	2.7	17
42	Development of Micro-Grippers for Tissue and Cell Manipulation with Direct Morphological Comparison. Micromachines, 2015, 6, 1710-1728.	1.4	61
43	MEMS-Based Conjugate Surfaces Flexure Hinge. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	54
44	On Crossley's contribution to the development of graph based algorithms for the analysis of mechanisms and gear trains. Mechanism and Machine Theory, 2015, 89, 92-106.	2.7	28
45	Development of a MEMS technology CSFH based microgripper. , 2014, , .		3
46	A Simple Application of Conjugate Profile Theory to the Development of a Silicon Micro Tribometer. , 2014, , .		8
47	Isotropic compliance in RRP planar manipulators. , 2014, , .		0
48	Applications of computational intelligence to mechanical engineering. , 2014, , .		7
49	Optimal Joint Stiffness Regulation in a Planar Robot for Packaging Operations. , 2014, , .		0
50	Attitudes toward Sustainability and Green Economy Issues Related to Some Students Learning Their Characteristics: A Preliminary Study. Sustainability, 2014, 6, 3484-3503.	1.6	18
51	Functional Synthesis of a New Class of Micro Electro-Mechanical Systems. Topics in Intelligent Engineering and Informatics, 2014, , 81-93.	0.4	5
52	Global efficiency of an UPS module integrated with PV, H2, and CAES systems. , 2013, , .		2
53	Inverse kinetostatic analysis of compliant four-bar linkages. Mechanism and Machine Theory, 2013, 69, 350-372.	2.7	41
54	Design, optimization and construction of MEMS-based micro grippers for cell manipulation. , 2013, , .		10

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55	Closed-form symbolic computation of the global efficiency of complex systems by means of digraphs. , 2013, , .		2
56	Kinetostatic optimization of a MEMS-based compliant 3 DOF plane parallel platform. , 2013, , .		11
57	Analysis of a teaching and learning method supported by open source codes and web activities. , 2012, , .		0
58	High density compliant contacting technology for integrated high power modules in automotive applications. , 2012, , .		3
59	Performance Analysis of Compliant MEMS Parallel Robots Through Pseudo-Rigid-Body Model Synthesis. , 2012, , .		7
60	Active Joint Stiffness Regulation to Achieve Isotropic Compliance in the Euclidean Space. Journal of Mechanisms and Robotics, 2012, 4, .	1.5	20
61	Comparison of solution strategies for multibody dynamics equations. International Journal for Numerical Methods in Engineering, 2011, 88, 637-656.	1.5	46
62	Damage resistance and roughness retention of work rolls in cold rolling mills. Revue De Metallurgie, 2010, 107, 245-255.	0.3	6
63	Isotropy in any RR planar dyad under active joint stiffness regulation. , 2010, , .		7
64	The development of a MEMS/NEMS-based 3 D.O.F. compliant micro robot. , 2010, , .		10
65	An investigation on Cognitive Styles and multiple intelligences model based learning preferences in a group of students in engineering. , 2010, , .		6
66	Simulation of verbal and mathematical learning by means of simple neural networks. , 2010, , .		3
67	A Comprehensive Evaluation of the Efficiency of an Integrated Biogas, Trigen, PV and Greenhouse Plant, Using Digraph Theory. Studies in Computational Intelligence, 2009, , 595-605.	0.7	3
68	Product information with enhanced background description for improved revision of decisions. , 2008, , .		0
69	A hybrid approach to the development of a multilayer neural network for wear and fatigue prediction in metal forming. Tribology International, 2007, 40, 1705-1717.	3.0	17
70	Analysis of driving seat vibrations in high forward speed tractors. Biosystems Engineering, 2007, 97, 171-180.	1.9	68
71	The development of a feasible method for the tribological characterization of gear teeth surface treatments. Tribology International, 2006, 39, 789-795.	3.0	6
72	A method for the identification of the connectivity in multi-loop kinematic chains: Analysis of chains with total and partial mobility. Mechanism and Machine Theory, 2006, 41, 1443-1466.	2.7	25

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73	On a test bench for studying lubrication in a spherical bearing: simulations and experimental validation. TriboTest Journal: Tribology and Lubrication in Practice, 2006, 12, 287-308.	0.7	5
74	Ball toroidal CVT: a feasibility study based on topology, kinematics, statics and lubrication. International Journal of Vehicle Design, 2003, 32, 304.	0.1	12
75	A brief note on the concept of planarity for kinematic chains. Mechanism and Machine Theory, 2000, 35, 1745-1750.	2.7	25
76	Distributed Databases for the development of Mechanisms Topology. Mechanism and Machine Theory, 2000, 35, 1727-1744.	2.7	21
77	Theoretical and Experimental Study of Crossover Operators of Genetic Algorithms. Journal of Optimization Theory and Applications, 1998, 99, 271-302.	0.8	12
78	An atlas of linkage-type robotic grippers. Mechanism and Machine Theory, 1997, 32, 811-833.	2.7	43
79	On the numerical computation of Generalized Burmester Points. Meccanica, 1995, 30, 147-153.	1.2	28
80	Automatic sketching of planar kinematic chains. Mechanism and Machine Theory, 1994, 29, 177-193.	2.7	41
81	An Atlas of Remote Actuated Bevel Gear Wrist Mechanisms of up to Nine Links. International Journal of Robotics Research, 1993, 12, 448-459.	5.8	26