

Valentina Zega

List of Publications by Year in descending order

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45
papers

695
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516561

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times ranked

577
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced Order Modelling in a Mems Arch Resonator Exhibiting 1:2 Internal Resonance. , 2022, , .		3
2	A Defect-Based MEMS Phononic Crystal Slab Waveguide. , 2022, , .		2
3	Microstructured Phononic Crystal Isolates from Ultrasonic Mechanical Vibrations. Applied Sciences (Switzerland), 2022, 12, 2499.	1.3	4
4	Linear and Nonlinear Mechanics in MEMS. , 2022, , 389-437.		1
5	Mechanics of Microsystems: A Recent Journey in a Fascinating Branch of Mechanics. , 2022, , 419-435.		2
6	A novel low-frequency multi-bandgaps metaplate: Genetic algorithm based optimization and experimental validation. Mechanical Systems and Signal Processing, 2022, 181, 109495.	4.4	8
7	Experimental Evidence of Mechanical Frequency Comb in a Quad-Mass Mems Structure. , 2021, , .		4
8	Reduced order modelling and experimental validation of a MEMS gyroscope test-structure exhibiting 1:2 internal resonance. Scientific Reports, 2021, 11, 16390.	1.6	22
9	A 3D Printed Ti6Al4V Alloy Uniaxial Capacitive Accelerometer. IEEE Sensors Journal, 2021, 21, 19640-19646.	2.4	4
10	Non-linear mechanics in resonant inertial micro sensors. International Journal of Non-Linear Mechanics, 2020, 120, 103386.	1.4	19
11	Dynamic mechanical characterization of two-photon-polymerized SZ2080 photoresist. Journal of Applied Physics, 2020, 128, .	1.1	23
12	Numerical Modelling of Non-Linearities in MEMS Resonators. Journal of Microelectromechanical Systems, 2020, 29, 1443-1454.	1.7	16
13	Design, Fabrication and Experimental Validation of a Metaplate for Vibration Isolation in MEMS. Journal of Microelectromechanical Systems, 2020, 29, 1401-1410.	1.7	17
14	A metaplate for complete 3D vibration isolation. European Journal of Mechanics, A/Solids, 2020, 84, 104016.	2.1	24
15	An Outlook on Potentialities and Limits in Using Epitaxial Polysilicon for MEMS Real-Time Clocks. IEEE Transactions on Industrial Electronics, 2020, 67, 6996-7004.	5.2	4
16	The First Three-Dimensional Printed and Wet-Metallized Coriolis Mass Flowmeter. , 2020, 4, 1-4.		6
17	MEMS Resonators: Numerical Modeling. Lecture Notes in Mechanical Engineering, 2020, , 1159-1166.	0.3	0
18	A Metaplate in MEMS for innovative applications: vibration isolation and tunable mechanical filters. , 2020, , .		4

#	ARTICLE	IF	CITATIONS
19	Interpolation Based Reduced Order Modelling for Non-linearities in MEMS. , 2020, , .		3
20	The First 3D-Printed and Wet-Metallized Three-Axis Accelerometer With Differential Capacitive Sensing. IEEE Sensors Journal, 2019, 19, 9131-9138.	2.4	30
21	Design, fabrication and experimental validation of a MEMS periodic auxetic structure. Smart Materials and Structures, 2019, 28, 095011.	1.8	13
22	High speed vision system for the dynamic characterization of 3D printed sensors. Journal of Physics: Conference Series, 2019, 1249, 012001.	0.3	1
23	Towards 3-Axis FM Mems Gyroscopes: Mechanical Design and Experimental Validation. , 2019, , .		1
24	Hardening, Softening, and Linear Behavior of Elastic Beams in MEMS: An Analytical Approach. Journal of Microelectromechanical Systems, 2019, 28, 189-198.	1.7	13
25	Nonlinear dynamics of MEMS resonators: numerical modelling and experiments. , 2019, , .		1
26	A new MEMS three-axial frequency-modulated (FM) gyroscope: a mechanical perspective. European Journal of Mechanics, A/Solids, 2018, 70, 203-212.	2.1	22
27	The First 3-D-Printed z-Axis Accelerometers With Differential Capacitive Sensing. IEEE Sensors Journal, 2018, 18, 53-60.	2.4	28
28	High Scale-Factor Stability Frequency-Modulated MEMS Gyroscope: 3-Axis Sensor and Integrated Electronics Design. IEEE Transactions on Industrial Electronics, 2018, 65, 5040-5050.	5.2	48
29	3D auxetic single material periodic structure with ultra-wide tunable bandgap. Scientific Reports, 2018, 8, 2262.	1.6	96
30	Nonlinear dynamics under varying temperature conditions of the resonating beams of a differential resonant accelerometer. Journal of Micromechanics and Microengineering, 2018, 28, 075004.	1.5	12
31	3D-printing and wet metallization for uniaxial and multi-axial accelerometers. , 2018, , .		3
32	Analysis of Frequency Stability and Thermoelastic Effects for Slotted Tuning Fork MEMS Resonators. Sensors, 2018, 18, 2157.	2.1	20
33	Synthesis of auxetic structures using optimization of compliant mechanisms and a micropolar material model. Structural and Multidisciplinary Optimization, 2017, 55, 1-12.	1.7	35
34	The First Frequency-Modulated (FM) Pitch Gyroscope. Proceedings (mdpi), 2017, 1, 393.	0.2	5
35	Design, Fabrication and Testing of the First 3D-Printed and Wet Metallized z-Axis Accelerometer. Proceedings (mdpi), 2017, 1, .	0.2	2
36	Sensitivity and temperature behavior of a novel z-axis differential resonant micro accelerometer. Journal of Micromechanics and Microengineering, 2016, 26, 035006.	1.5	23

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37	Torsional Microresonator in the Nonlinear Regime: Experimental, Numerical and Analytical Characterization. <i>Procedia Engineering</i> , 2016, 168, 933-936.	1.2	4
38	Non linear response and optimization of a new z-axis resonant micro-accelerometer. <i>Mechatronics</i> , 2016, 40, 235-243.	2.0	12
39	Optimization of auxetic structures for MEMS applications. , 2016, , .		4
40	Optimal design and nonlinearities in a z-axis resonant accelerometer. , 2015, , .		4
41	Self-induced parametric amplification arising from nonlinear elastic coupling in a micromechanical resonating disk gyroscope. <i>Scientific Reports</i> , 2015, 5, 9036.	1.6	91
42	Predicting the closed-loop stability and oscillation amplitude of nonlinear parametrically amplified oscillators. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	17
43	Dynamic nonlinear behavior of torsional resonators in MEMS. <i>Journal of Micromechanics and Microengineering</i> , 2014, 24, 095025.	1.5	26
44	Integrated structure for a resonant micro-gyroscope and accelerometer. <i>Frattura Ed Integrita Strutturale</i> , 2014, 8, 334-342.	0.5	1
45	A Differential Resonant Micro Accelerometer for Out-of-plane Measurements. <i>Procedia Engineering</i> , 2014, 87, 640-643.	1.2	17