Paolo Gaudenzi

List of Publications by Year
in descending order

105	2,580	218592	223716
papers	citations	26 h-index	46 g-index

108	108	108	1927
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Review on Mechanisms for Piezoelectric-Based Energy Harvesters. Energies, 2018, 11, 1850.	1.6	177
2	Damage tolerance of carbon/flax hybrid composites subjected to low velocity impact. Composites Part B: Engineering, 2016, 91, 144-153.	5.9	170
3	Energy Harvesting towards Self-Powered IoT Devices. Energies, 2020, 13, 5528.	1.6	139
4	An Iterative Finite Element Procedure for the Analysis of Piezoelectric Continua. Journal of Intelligent Material Systems and Structures, 1995, 6, 266-273.	1.4	109
5	Optimal placement of PZT actuators for the control of beam dynamics. Smart Materials and Structures, 2000, 9, 110-120.	1.8	90
6	A finite element evaluation of single-layer and multi-layer theories for the analysis of laminated plates. Composite Structures, 1995, 30, 427-440.	3.1	87
7	Control of beam vibrations by means of piezoelectric devices: theory and experiments. Composite Structures, 2000, 50, 373-379.	3.1	85
8	<title>Improving transverse actuation of piezoceramics using interdigitated surface electrodes</title>. , 1993, , .		84
9	High velocity impact behaviour of hybrid basalt-carbon/epoxy composites. Composite Structures, 2017, 168, 305-312.	3.1	78
10	Numerical and experimental investigation of piezoelectric energy harvester based on flag-flutter. Aerospace Science and Technology, 2020, 97, 105634.	2.5	73
11	Low-velocity impact behaviour of hemp fibre reinforced bio-based epoxy laminates. Composites Part B: Engineering, 2016, 91, 162-168.	5.9	69
12	On the evaluation of impact damage on composite materials by comparing different NDI techniques. Composite Structures, 2014, 118, 257-266.	3.1	57
13	On the electromechanical response of active composite materials with piezoelectric inclusions. Computers and Structures, 1997, 65, 157-168.	2.4	56
14	A Review on Applications of Piezoelectric Materials in Aerospace Industry. Integrated Ferroelectrics, 2020, 211, 25-44.	0.3	52
15	Response of piezoelectric materials on thermomechanical shocking and electrical shocking for aerospace applications. Microsystem Technologies, 2018, 24, 3791-3798.	1.2	51
16	Post-buckling behavior of composite panels in the presence of unstable delaminations. Composite Structures, 2001, 51, 301-309.	3.1	49
17	Multi-layer higher-order finite elements for the analysis of free-edge stresses in composite laminates. International Journal for Numerical Methods in Engineering, 1998, 41, 851-873.	1.5	44
18	Structural Health Monitoring for Future Space Vehicles. Journal of Intelligent Material Systems and Structures, 2006, 17, 577-585.	1.4	42

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19	Investigation of Deformation in Bimorph Piezoelectric Actuator: Analytical, Numerical and Experimental Approach. Integrated Ferroelectrics, 2019, 201, 94-109.	0.3	42
20	Design and performance evaluation of a piezoelectric aeroelastic energy harvester based on the limit cycle oscillation phenomenon. Acta Astronautica, 2019, 157, 233-240.	1.7	42
21	Performance Evaluation of a Piezoelectric Energy Harvester Based on Flag-Flutter. Micromachines, 2020, 11, 933.	1.4	41
22	A general formulation of higher-order theories for the analysis of laminated plates. Composite Structures, 1992, 20, 103-112.	3.1	38
23	Detection of low-velocity impact-induced delaminations in composite laminates using Auto-Regressive models. Composite Structures, 2016, 151, 108-113.	3.1	38
24	Effects of variable resistance on smart structures of cubic reconnaissance satellites in various thermal and frequency shocking conditions. Journal of Mechanical Science and Technology, 2017, 31, 4151-4157.	0.7	36
25	Piezoelectric thermo electromechanical energy harvester for reconnaissance satellite structure. Microsystem Technologies, 2019, 25, 665-672.	1.2	30
26	Selective Laser Melting of a 1U CubeSat structure. Design for Additive Manufacturing and assembly. Acta Astronautica, 2019, 159, 377-384.	1.7	29
27	Sparse sensing detection of impact-induced delaminations in composite laminates. Composite Structures, 2015, 133, 1209-1219.	3.1	28
28	Experimental and Numerical Investigation of PZT Response in Composite Structures with Variable Degradation Levels. Journal of Materials Engineering and Performance, 2019, 28, 3239-3246.	1.2	28
29	Analysis of damage in composite laminates with embedded piezoelectric patches subjected to bending action. Composite Structures, 2018, 202, 935-942.	3.1	27
30	Finite element models for laminated shells with actuation capability. Computers and Structures, 2003, 81, 1059-1069.	2.4	25
31	Genetic Algorithm Optimization for the Active Control of a Beam by Means of PZT Actuators. Journal of Intelligent Material Systems and Structures, 1998, 9, 291-300.	1.4	24
32	Analytical modelling of high-velocity impacts on thin woven fabric composite targets. Composite Structures, 2015, 131, 951-965.	3.1	24
33	Pin-force and Euler-Bernoulli models for analysis of intelligent structures. AIAA Journal, 1995, 33, 1746-1749.	1.5	23
34	Characterization and Implementation of a Piezoelectric Energy Harvester Configuration: Analytical, Numerical and Experimental Approach. Integrated Ferroelectrics, 2020, 212, 39-60.	0.3	23
35	Vibration control of an active laminated beam. Composite Structures, 1997, 38, 413-420.	3.1	22
36	Static adjustment of beam deflections by means of induced strain actuators. Smart Materials and Structures, 1999, 8, 278-283.	1.8	22

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37	Multi-layer higher-order finite elements for the analysis of free-edge stresses in piezoelectric actuated laminates. Composite Structures, 2004, 63, 263-270.	3.1	21
38	Revisiting the configuration of small satellites structures in the framework of 3D Additive Manufacturing. Acta Astronautica, 2018, 146, 249-258.	1.7	21
39	On delamination buckling of composite laminates under compressive loading. Composite Structures, 1997, 39, 21-30.	3.1	19
40	Use of the wavelet packet transform for pattern recognition in a structural health monitoring application. Journal of Intelligent Material Systems and Structures, 2015, 26, 1513-1529.	1.4	19
41	A class of C0 finite elements for the static and dynamic analysis of laminated plates. Computers and Structures, 1992, 44, 1169-1178.	2.4	17
42	Numerical simulation of the behavior of inflatable structures for space. Acta Astronautica, 2010, 67, 362-368.	1.7	17
43	Modeling and Design of a Piezoelectric Nonlinear Aeroelastic Energy Harvester. Integrated Ferroelectrics, 2020, 211, 132-151.	0.3	17
44	A three-dimensional analysis of edge effects in composite laminates with circular holes. Composite Structures, 1990, 15, 115-136.	3.1	16
45	Multi-layer higher-order finite elements for the analysis of free-edge stresses in piezoelectric actuated laminates. Composite Structures, 2003, 61, 271-278.	3.1	15
46	Earth Orbiting Support Systems for commercial low Earth orbit data relay: Assessing architectures through tradespace exploration. Acta Astronautica, 2015, 111, 48-60.	1.7	15
47	Post-buckling analysis of a delaminated composite plate under compression. Composite Structures, 1997, 40, 231-238.	3.1	14
48	A Model for Preliminary Design Procedures of Satellite Systems. Concurrent Engineering Research and Applications, 2008, 16, 149-159.	2.0	13
49	A nonlinear formulation of piezoelectric plates. Journal of Intelligent Material Systems and Structures, 2012, 23, 1713-1723.	1.4	13
50	Innovative composite material component with embedded self-powered wireless sensor device for structural monitoring. Composite Structures, 2018, 202, 136-141.	3.1	13
51	Multimodal piezoelectric wind energy harvester for aerospace applications. International Journal of Energy Research, 2022, 46, 13698-13710.	2.2	13
52	Exact higher order solutions for a simple adaptive structure. International Journal of Solids and Structures, 1998, 35, 3595-3610.	1.3	12
53	Electromechanical Degradation of Piezoelectric Patches. Advanced Structured Materials, 2018, , 35-44.	0.3	12
54	On the use of a multilayer higher-order theory for the stress analysis around a circular hole of laminates under tension. Composite Structures, 1995, 32, 649-658.	3.1	11

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55	On the use of the Pâ€“TFE method for panel flutter optimization. Computers and Structures, 1999, 70, 109-117.	2.4	11
56	On the Formulation of a Piezoelectric Plate Model. Journal of Intelligent Material Systems and Structures, 2005, 16, 285-290.	1.4	10
57	Dynamic Response of Green Sandwich Structures. Procedia Engineering, 2016, 167, 237-244.	1.2	10
58	Reliability Risk Analysis for the Aeroelastic Piezoelectric Energy Harvesters. Integrated Ferroelectrics, 2020, 212, 156-169.	0.3	10
59	3D Finite Element Analyses of Multilayer Dielectric Elastomer Actuators with Metallic Compliant Electrodes for Space Applications. Journal of Intelligent Material Systems and Structures, 2010, 21, 621-632.	1.4	9
60	Effects of curvature on high-velocity impact resistance of thin woven fabric composite targets. Composite Structures, 2017, 160, 349-365.	3.1	9
61	Numerical Assessment and Parametric Optimization of a Piezoelectric Wind Energy Harvester for IoT-Based Applications. Energies, 2021, 14, 2498.	1.6	9
62	Analysis of a glass-fibre sandwich panel for car body constructions. Composite Structures, 1997, 38, 421-433.	3.1	8
63	Active Microvibration Control of an Optical Payload Installed on the ARTEMIS Spacecraft. Journal of Intelligent Material Systems and Structures, 1998, 9, 740-748.	1.4	8
64	Martian jumping rover equipped with electroactive polymer actuators: A preliminary study. IEEE Transactions on Aerospace and Electronic Systems, 2007, 43, 79-92.	2.6	8
65	Finite element models of piezoelectric actuation for active flow control. Acta Astronautica, 2012, 71, 129-138.	1.7	8
66	A nonlinear piezoelectric shell model: Theoretical and numerical considerations. Journal of Intelligent Material Systems and Structures, 2016, 27, 724-742.	1.4	8
67	Aircraft part substitution via additive manufacturing: design, simulation, fabrication and testing. Rapid Prototyping Journal, 2021, 27, 995-1009.	1.6	8
68	An industry 4.0 approach to large scale production of satellite constellations. The case study of composite sandwich panel manufacturing. Acta Astronautica, 2022, 192, 276-290.	1.7	8
69	The Effects of Delamination on the Fatigue Behavior of Composite Structures. Journal of Composite Materials, 1999, 33, 267-303.	1.2	7
70	Effective Shear Deformable Shell Elements for Adaptive Laminated Structures. Journal of Intelligent Material Systems and Structures, 2001, 12, 415-421.	1.4	7
71	OMA analysis of a launcher under operational conditions with time-varying properties. CEAS Space Journal, 2018, 10, 381-406.	1.1	7
72	A nonlinear formulation of piezoelectric shells with complete electro-mechanical coupling. Meccanica, 2015, 50, 2471-2486.	1.2	6

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73	Digital Design of Medical Replicas via Desktop Systems: Shape Evaluation of Colon Parts. Journal of Healthcare Engineering, 2018, 2018, 1-10.	1.1	6
74	Parameter-transfer finite element method for structural analysis. AIAA Journal, 1993, 31, 923-929.	1.5	5
75	Analytical Prediction of High-Velocity Impact Resistance of Plane and Curved Thin Composite Targets. Aerotecnica Missili & Spazio, 2019, 98, 111-118.	0.5	3
76	There Is a Great Future in Plastics: Personalized Approach to the Management of Hilar Cholangiocarcinoma Using a 3-D-Printed Liver Model. Digestive Diseases and Sciences, 2020, 65, 2210-2215.	1.1	3
77	An evaluation of higher-order effects on the eigenfrequencies of composite structures. Composite Structures, 1999, 47, 821-825.	3.1	2
78	FEM simulation of nonâ€stationary incompressible viscous fluids. Engineering Computations, 2006, 23, 922-932.	0.7	2
79	Wireless Structural Sensing. Advanced Materials Research, 0, 745, 155-165.	0.3	2
80	Experimental Evaluation of Piezoelectric Energy Harvester Based on Flag-Flutter. Lecture Notes in Mechanical Engineering, 2020, , 807-816.	0.3	2
81	Study of the Surface and Dimensional Quality of the AlSi10Mg Thin-Wall Components Manufactured by Selective Laser Melting. Journal of Composites Science, 2021, 5, 126.	1.4	2
82	Finite Element Models for Piezoelectric Continua. , 2002, , 181-205.		2
83	Experimental aeroelastic energy harvesting. , 2022, , 223-246.		2
84	<title>Stress distribution in a simple adaptive structure actuated in bending mode</title>. , 1994, 2361, 71.		1
85	Analysis and Control of Microvibrations on ARTEMIS Satellite. Journal of Intelligent Material Systems and Structures, 1996, 7, 216-226.	1.4	1
86	Post-buckling behaviour of thermoplastic matrix composite laminates subjected to pure shear. Composite Structures, 1999, 46, 381-386.	3.1	1
87	Multi-frequency dynamic absorber for improved spacecraft comfort during the launch phase. CEAS Space Journal, 2012, 3, 77-88.	1.1	1
88	Feasibility Study of a Vega Launched Low Thrust Geostationary Communication Satellite. , 2013, , .		1
89	OMA Study on the Structural Dynamic Properties of a Launcher Vehicle Using Flight Data. , 2017, , .		1
90	A geometrically exact formulation of thin laminated composite shells. Composite Structures, 2017, 180, 542-549.	3.1	1

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91	Piezoelectric material. , 2022, , 3-19.		1
92	Piezoelectric energy harvesters. , 2022, , 61-78.		1
93	Dynamic interaction between piezoelectric bonded actuators and an axial beam. , 1996, , .		0
94	Introduction to September 1997 Special Issue. Journal of Intelligent Material Systems and Structures, 1997, 8, 723-723.	1.4	0
95	The design of space structures in the frame of a concurrent engineering approach. , 2006, , .		0
96	A small spacecraft to probe the interior of the Jovian moon Europa: Europa Tomography Probe (ETP) system design. Acta Astronautica, 2020, 166, 137-146.	1.7	0
97	Energy harvesting. , 2022, , 41-59.		0
98	Vortex-induced vibrations based aeroelastic energy harvesting. , 2022, , 181-199.		0
99	Smart structures. , 2022, , 21-38.		0
100	Fluidâ€“structure interaction: some issues about the aeroelastic problem. , 2022, , 125-142.		0
101	Galloping-based aeroelastic energy harvesting. , 2022, , 201-221.		0
102	Flutter-based aeroelastic energy harvesting. , 2022, , 143-155.		0
103	Limit cycle oscillations. , 2022, , 157-179.		0
104	Modeling and simulation of a piezoelectric energy harvester. , 2022, , 99-121.		0
105	Energy harvesting and circuits. , 2022, , 79-97.		0