Davide Castagnetti

List of Publications by Year
in descending order

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62 papers	746 citations	430754 18 h-index	610775 24 g-index
62 all docs	62 docs citations	62 times ranked	561 citing authors

#	Article	IF	Citations
1	Thermomechanical characterization of metal-polyurethane bonded joints: effect of manufacturing parameters and working temperature. Journal of Adhesion, 2022, 98, 1552-1572.	1.8	5
2	Negative Poissonâ€™s ratio lattice for designing vertebral biomaterials. Mechanics of Advanced Materials and Structures, 2022, 29, 6626-6633.	1.5	16
3	Rapid evaluation of notch stress intensity factors using the peak stress method with 3D tetrahedral finite element models: Comparison of commercial codes. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 1005-1034.	1.7	16
4	Predicting the Macroscopic Shear Strength of Tightened-Bonded Joints from the Intrinsic High-Pressure Properties of Anaerobic Adhesives. Metals, 2022, 12, 1141.	1.0	1
5	Measuring the static shear strength of anaerobic adhesives in finite thickness under high pressure. Journal of Adhesion, 2021, 97, 783-800.	1.8	7
6	Rotating squares auxetic metamaterials with improved strain tolerance. Smart Materials and Structures, 2021, 30, 035015.	1.8	19
7	Design and Fabrication of a Pillar-Based Piezoelectric Microphone Exploiting 3D-Printing Technology. , 2021, 5, 1-4.		0
8	Wideband fractal-inspired piezoelectric energy harvesters. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 2614-2626.	0.7	4
9	A comparison between rotating squares and anti-tetrachiral systems: Influence of ligaments on the multi-axial mechanical response. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 7759-7773.	1.1	13
10	Experimental characterization of pull-in parameters for an electrostatically actuated cantilever. Applications in Engineering Science, 2020, 3, 100014.	0.5	1
11	Experimental and numerical analysis of a liquid aluminium injector for an Al-H2O based hydrogen production system. International Journal of Thermofluids, 2020, 7-8, 100018.	4.0	8
12	Shape optimization of the fillet under a boltâ€™s head. Journal of Strain Analysis for Engineering Design, 2019, 54, 247-253.	1.0	6
13	A simply tunable electromagnetic pendulum energy harvester. Meccanica, 2019, 54, 749-760.	1.2	26
14	A design oriented multiaxial stress-based criterion for the strength assessment of adhesive layers. Composites Part B: Engineering, 2019, 157, 66-75.	5.9	11
15	Smart materials: Properties, design and mechatronic applications. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2019, 233, 734-762.	0.7	32
16	Development of a driveshaft torque transducer for low-cost structural health monitoring of off-highway vehicles. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2019, 233, 714-720.	0.7	3
17	Experimental validation of a simple shear strength model for hybrid friction-bonded interfaces. International Journal of Adhesion and Adhesives, 2018, 83, 130-136.	1.4	8
18	Rapid evaluation of notch stress intensity factors using the peak stress method: Comparison of commercial finite element codes for a range of mesh patterns. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 1044-1063.	1.7	41

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19	A piezoelectric based energy harvester with dynamic magnification: modelling, design and experimental assessment. Meccanica, 2018, 53, 2725-2742.	1.2	21
20	Development and Validation of a Numerical Model for the Optimization of a Brace for Lower Limb. Advanced Structured Materials, 2017, , 157-169.	0.3	1
21	Design and experimental assessment of an electromagnetic energy harvester based on slotted disc springs. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2017, 231, 89-99.	0.7	5
22	Shear strength characterization of metal-elastomer bonded joints. FME Transactions, 2017, 45, 360-366.	0.7	1
23	Experimental Investigation and Model Validation of the Shear Strength of Hybrid Interfaces up to Complete Failure. Journal of Adhesion, 2016, 92, 679-697.	1.8	9
24	Closed-form modal analysis of flexural beam resonators ballasted by a rigid mass. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2016, 230, 717-734.	0.7	1
25	The use of the theory of critical distance and the stress-gradient approach in the fatigue life estimation of notched components. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2016, 230, 735-747.	0.7	2
26	A Piezoelectric Based Energy Harvester With Dynamic Magnification. , 2015, , .		2
27	Comparison Between a Wideband Fractal-Inspired and a Traditional Multicantilever Piezoelectric Energy Converter. Journal of Vibration and Acoustics, Transactions of the ASME, 2015, 137, .	1.0	17
28	A novel ball joint wear sensor for low-cost structural health monitoring of off-highway vehicles. Mechanics and Industry, 2015, 16, 507.	0.5	4
29	A Belleville-spring-based electromagnetic energy harvester. Smart Materials and Structures, 2015, 24, 094009.	1.8	18
30	A Belleville-Spring Based Piezoelectric or Electromagnetic Energy Harvester. , 2014, , .		0
31	Adhesively-bonded friction interfaces: Macroscopic shear strength prediction by microscale finite element simulations. International Journal of Adhesion and Adhesives, 2014, 53, 57-64.	1.4	12
32	A wideband fractal-inspired piezoelectric energy converter: design, simulation and experimental characterization. Smart Materials and Structures, 2013, 22, 094024.	1.8	18
33	Experimental Comparison Between a Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter and a Traditional Converter. , 2013, , .		0
34	Design and characterization of a fractal-inspired multi-frequency piezoelectric energy converter. Frattura Ed Integrita Strutturale, 2013, 7, 87-93.	0.5	0
35	Stress concentrations in periodic notches: a critical investigation of Neuber's method. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 364-371.	0.5	6
36	Experimental Assessment of a Micro-Mechanical Model for the Static Strength of Hybrid Friction-Bonded Interfaces. Journal of Adhesion, 2013, 89, 642-659.	1.8	20

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37	Mixed-Mode Strength of Thin Adhesive Films: Experimental Characterization Through a Tubular Specimen with Reduced Edge Effect. Journal of Adhesion, 2013, 89, 660-675.	1.8	21
38	Concentration of torsional shear stresses in axisymmetric bars with deep periodic grooves. Journal of Strain Analysis for Engineering Design, 2012, 47, 66-72.	1.0	4
39	Experimental Tests on Tubular Bonded Butt Specimens: Effect of Relief Grooves on Tensile Strength of the Adhesive. Journal of Adhesion, 2012, 88, 499-512.	1.8	21
40	A Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter: Design and Experimental Characterization. Advances in Science and Technology, 2012, 83, 69-74.	0.2	1
41	Experimental modal analysis of fractal-inspired multi-frequency structures for piezoelectric energy converters. Smart Materials and Structures, 2012, 21, 094009.	1.8	37
42	Predicting the macroscopic shear strength of adhesively-bonded friction interfaces by microscale finite element simulations. Computational Materials Science, 2012, 64, 146-150.	1.4	13
43	A Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter: Computational and Experimental Characterization. , 2012, , .		0
44	Assessment of the Cohesive Contact method for the analysis of thin-walled bonded structures. International Journal of Adhesion and Adhesives, 2012, 37, 112-120.	1.4	7
45	Effect of Bondline Thickness on the Static Strength of Structural Adhesives Under Nearly-Homogeneous Shear Stresses. Journal of Adhesion, 2011, 87, 780-803.	1.8	54
46	Experimental Modal Analysis of Fractal-Inspired Multi-Frequency Piezoelectric Energy Converters. , 2011, , .		1
47	Failure analysis of complex bonded structures: Experimental tests and efficient finite element modelling by tied mesh method. International Journal of Adhesion and Adhesives, 2011, 31, 338-346.	1.4	17
48	Fatigue life prediction of notched components: a comparison between the theory of critical distance and the classical stress-gradient approach. Procedia Engineering, 2011, 10, 2755-2767.	1.2	20
49	Effect of chlorinated water on the oxidative resistance and the mechanical strength of polyethylene pipes. Polymer Testing, 2011, 30, 277-285.	2.3	30
50	Concentration of shear stresses in shallow periodic notches. Journal of Strain Analysis for Engineering Design, 2011, 46, 397-404.	1.0	9
51	Fractal-Inspired Multifrequency Structures for Piezoelectric Harvesting of Ambient Kinetic Energy. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	22
52	Fractal-Inspired Multi-Frequency Structures for Piezoelectric Harvesting of Ambient Kinetic Energy. , 2010, , .		1
53	Failure analysis of bonded T-peel joints: Efficient modelling by standard finite elements with experimental validation. International Journal of Adhesion and Adhesives, 2010, 30, 306-312.	1.4	25
54	Robust Shape Optimization of Tubular Butt Joints for Characterizing Thin Adhesive Layers under Uniform Normal and Shear Stresses. Journal of Adhesion Science and Technology, 2010, 24, 1959-1976.	1.4	18

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55	Concentration of Normal Stresses in Flat Plates and round Bars with Periodic Notches. Journal of Strain Analysis for Engineering Design, 2010, 45, 495-503.	1.0	12
56	Efficient Post-elastic Analysis of Bonded Joints by Standard Finite Element Techniques. Journal of Adhesion Science and Technology, 2009, 23, 1459-1476.	1.4	16
57	Modellazione efficiente agli elementi finiti per lâ€™analisi a collasso di strutture incollate complesse. Frattura Ed Integrita Strutturale, 2009, 3, 55-63.	0.5	0
58	Standard finite element techniques for efficient stress analysis of adhesive joints. International Journal of Adhesion and Adhesives, 2009, 29, 125-135.	1.4	39
59	Elastostatic contact model of rubber-coated truck wheels loaded to the ground. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2008, 222, 245-257.	0.7	2
60	Dynamic modelling of composite acoustic boxes for automotive applications. International Journal of Vehicle Design, 2007, 44, 326.	0.1	0
61	Efficient Stress Analysis of Adhesively Bonded Joints by Finite Element Techniques. , 2006, , 817.		2
62	Optimal aspect ratio of interference fits for maximum load transfer capacity. Journal of Strain Analysis for Engineering Design, 2005, 40, 177-184.	1.0	20