Davide Castagnetti

List of Publications by Year
in descending order

62	746	430442 18	610482 24
papers	citations	h-index	g-index

62	62	62	561
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	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
3	Standard finite element techniques for efficient stress analysis of adhesive joints. International Journal of Adhesion and Adhesives, 2009, 29, 125-135.	1.4	39
4	Experimental modal analysis of fractal-inspired multi-frequency structures for piezoelectric energy converters. Smart Materials and Structures, 2012, 21, 094009.	1.8	37
5	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
6	Effect of chlorinated water on the oxidative resistance and the mechanical strength of polyethylene pipes. Polymer Testing, 2011, 30, 277-285.	2.3	30
7	A simply tunable electromagnetic pendulum energy harvester. Meccanica, 2019, 54, 749-760.	1.2	26
8	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
9	Fractal-Inspired Multifrequency Structures for Piezoelectric Harvesting of Ambient Kinetic Energy. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	22
10	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
11	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
12	A piezoelectric based energy harvester with dynamic magnification: modelling, design and experimental assessment. Meccanica, 2018, 53, 2725-2742.	1.2	21
13	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
14	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
15	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
16	Rotating squares auxetic metamaterials with improved strain tolerance. Smart Materials and Structures, 2021, 30, 035015.	1.8	19
17	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
18	A wideband fractal-inspired piezoelectric energy converter: design, simulation and experimental characterization. Smart Materials and Structures, 2013, 22, 094024.	1.8	18

#	Article	IF	Citations
19	A Belleville-spring-based electromagnetic energy harvester. Smart Materials and Structures, 2015, 24, 094009.	1.8	18
20	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
21	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
22	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
23	Negative Poissonâ€™s ratio lattice for designing vertebral biomaterials. Mechanics of Advanced Materials and Structures, 2022, 29, 6626-6633.	1.5	16
24	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
25	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
26	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
27	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
28	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
29	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
30	Concentration of shear stresses in shallow periodic notches. Journal of Strain Analysis for Engineering Design, 2011, 46, 397-404.	1.0	9
31	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
32	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
33	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
34	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
35	Measuring the static shear strength of anaerobic adhesives in finite thickness under high pressure. Journal of Adhesion, 2021, 97, 783-800.	1.8	7
36	Stress concentrations in periodic notches: a critical investigation of Neuber's method. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 364-371.	0.5	6

#	Article	IF	Citations
37	Shape optimization of the fillet under a boltâ€™s head. Journal of Strain Analysis for Engineering Design, 2019, 54, 247-253.	1.0	6
38	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
39	Thermomechanical characterization of metal-polyurethane bonded joints: effect of manufacturing parameters and working temperature. Journal of Adhesion, 2022, 98, 1552-1572.	1.8	5
40	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
41	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
42	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
43	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
44	Efficient Stress Analysis of Adhesively Bonded Joints by Finite Element Techniques. , 2006, , 817.		2
45	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
46	A Piezoelectric Based Energy Harvester With Dynamic Magnification. , 2015, , .		2
47	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
48	Fractal-Inspired Multi-Frequency Structures for Piezoelectric Harvesting of Ambient Kinetic Energy. , 2010, , .		1
49	Experimental Modal Analysis of Fractal-Inspired Multi-Frequency Piezoelectric Energy Converters. , 2011, , .		1
50	A Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter: Design and Experimental Characterization. Advances in Science and Technology, 2012, 83, 69-74.	0.2	1
51	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
52	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
53	Experimental characterization of pull-in parameters for an electrostatically actuated cantilever. Applications in Engineering Science, 2020, 3, 100014.	0.5	1
54	Shear strength characterization of metal-elastomer bonded joints. FME Transactions, 2017, 45, 360-366.	0.7	1

#	Article	IF	Citations
55	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
56	Dynamic modelling of composite acoustic boxes for automotive applications. International Journal of Vehicle Design, 2007, 44, 326.	0.1	0
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	A Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter: Computational and Experimental Characterization. , 2012, , .		0
59	Experimental Comparison Between a Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter and a Traditional Converter. , 2013, , .		0
60	Design and characterization of a fractal-inspired multi-frequency piezoelectric energy converter. Frattura Ed Integrita Strutturale, 2013, 7, 87-93.	0.5	0
61	A Belleville-Spring Based Piezoelectric or Electromagnetic Energy Harvester. , 2014, , .		0
62	Design and Fabrication of a Pillar-Based Piezoelectric Microphone Exploiting 3D-Printing Technology. , 2021, 5, 1-4.		0