Giuseppe Catalanotti

List of Publications by Year
in descending order

78 papers	2,634 citations	201674 27 h-index	197818 49 g-index
80 all docs	80 docs citations	80 times ranked	1348 citing authors

#	Article	IF	Citations
1	On the mechanical properties of melt-blended nylon 6/ethylene-octene copolymer/graphene nanoplatelet nanocomposites. Polymer, 2022, 243, 124619.	3.8	7
2	Towards understanding the hole making performance and chip formation mechanism of thermoplastic carbon fibre/polyetherketoneketone composite. Composites Part B: Engineering, 2022, 234, 109752.	12.0	14
3	Dynamic intralaminar fracture toughness characterisation of unidirectional carbon fibre-reinforced polymer composites using a high-speed servo-hydraulic test set-up. Composite Structures, 2022, 295, 115838.	5.8	4
4	Micromechanical modelling of interlaminar damage propagation and migration. , 2021, , 307-347.		1
5	Modelling the longitudinal failure of fibre-reinforced composites at microscale. , 2021, , 349-378.		2
6	Crack detections in fatigue loaded structures by means of low-cost Thermoelastic Stress Analysis setups. IOP Conference Series: Materials Science and Engineering, 2021, 1038, 012010.	0.6	3
7	Influence of data input in the evaluation of Stress Intensity Factors from Thermoelastic Stress Analysis. IOP Conference Series: Materials Science and Engineering, 2021, 1038, 012023.	0.6	2
8	On the Stress Intensity Factor of cracks emanating from circular and elliptical holes in orthotropic plates. Engineering Fracture Mechanics, 2021, 252, 107805.	4.3	4
9	A methodology to generate design allowables of composite laminates using machine learning. International Journal of Solids and Structures, 2021, 233, 111095.	2.7	37
10	On the importance of nesting considerations for accurate computational damage modelling in 2D woven composite materials. Computational Materials Science, 2020, 172, 109323.	3.0	26
11	Welding of thermoplastics by means of carbon-nanotube web. Composites Communications, 2020, 17, 56-60.	6.3	12
12	Specimen representation on the prediction of artificial test lightning plasma, resulting specimen loading and subsequent composite material damage. Composite Structures, 2020, 231, 111545.	5.8	12
13	Micromechanical modelling of the longitudinal compressive and tensile failure of unidirectional composites: The effect of fibre misalignment introduced via a stochastic process. International Journal of Solids and Structures, 2020, 203, 157-176.	2.7	31
14	Assessing the current modelling approach for predicting the crashworthiness of Formula One composite structures. Composites Part B: Engineering, 2020, 201, 108242.	12.0	27
15	Experimental determination of mode I fracture parameters in orthotropic materials by means of Digital Image Correlation. Theoretical and Applied Fracture Mechanics, 2020, 108, 102663.	4.7	18
16	Quantitative thermoelastic stress analysis by means of low-cost setups. Optics and Lasers in Engineering, 2020, 134, 106158.	3.8	18
17	Computational micromechanics of the effect of fibre misalignment on the longitudinal compression and shear properties of UD fibre-reinforced plastics. Composite Structures, 2020, 248, 112487.	5.8	19
18	A case for Tsaiâ€™s Modulus, an invariant-based approach to stiffness. Composite Structures, 2020, 252, 112683.	5.8	31

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19	High strain rate characterisation of intralaminar fracture toughness of GFRPs for longitudinal tension and compression failure. Composite Structures, 2020, 240, 112068.	5.8	11
20	Compressive intralaminar fracture toughness and residual strength of 2D woven carbon fibre reinforced composites: New developments on using the size effect method. Theoretical and Applied Fracture Mechanics, 2020, 106, 102487.	4.7	18
21	Thin-ply polymer composite materials: A review. Composites Part A: Applied Science and Manufacturing, 2020, 132, 105777.	7.6	68
22	An algorithm for the generation of three-dimensional statistically Representative Volume Elements of unidirectional fibre-reinforced plastics: Focusing on the fibres waviness. Composite Structures, 2019, 227, 111272.	5.8	17
23	Infrared Thermography assisted evaluation of static and fatigue Mode II fracture toughness in FRP composites. Composite Structures, 2019, 226, 111220.	5.8	19
24	Sequential finite element modelling of lightning arc plasma and composite specimen thermal-electric damage. Computers and Structures, 2019, 222, 48-62.	4.4	23
25	A methodology for the rapid characterization of Mode II delamination fatigue threshold in FRP composites. Engineering Fracture Mechanics, 2019, 220, 106629.	4.3	5
26	Coupled Thermal-Mechanical Progressive Damage Model with Strain and Heating Rate Effects for Lightning Strike Damage Assessment. Applied Composite Materials, 2019, 26, 1437-1459.	2.5	21
27	A microscale integrated approach to measure and model fibre misalignment in fibre-reinforced composites. Composites Science and Technology, 2019, 183, 107793.	7.8	26
28	Simulation of failure in laminated polymer composites: Building-block validation. Composite Structures, 2019, 226, 111168.	5.8	28
29	Mode I interlaminar fracture toughness of thin-ply laminates with CNT webs at the crack interface. Composite Structures, 2019, 225, 111178.	5.8	16
30	Mode I intralaminar fracture toughness of 2D woven carbon fibre reinforced composites: A comparison of stable and unstable crack propagation techniques. Engineering Fracture Mechanics, 2019, 214, 427-448.	4.3	22
31	Micromechanical analysis of interlaminar crack propagation between angled plies in mode I tests. Composite Structures, 2019, 220, 827-841.	5.8	18
32	Simulation of the Mechanical Response of Thin-Ply Composites: From Computational Micro-Mechanics to Structural Analysis. Archives of Computational Methods in Engineering, 2019, 26, 1445-1487.	10.2	46
33	Determination of mode I dynamic fracture toughness of IM7-8552 composites by digital image correlation and machine learning. Composite Structures, 2019, 210, 707-714.	5.8	14
34	Prediction of in situ strengths in composites: Some considerations. Composite Structures, 2019, 207, 889-893.	5.8	21
35	A strategy to improve the structural performance of non-crimp fabric thin-ply laminates. Composite Structures, 2018, 188, 438-449.	5.8	28
36	Thermoelastic Stress Analysis of modified Transverse Cut Tensile composite specimens under pure Mode II fatigue delamination. Procedia Structural Integrity, 2018, 8, 474-485.	0.8	1

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37	Intralaminar fracture toughness of UD glass fiber composite under high rate fiber tension and fiber compression loading. EPJ Web of Conferences, 2018, 183, 02018.	0.3	0
38	Determination of the crack resistance curve for intralaminar fiber tensile failure mode in polymer composites under high rate loading. Composite Structures, 2018, 204, 276-287.	5.8	20
39	An Improved Load Introduction Technique for Dynamic Material Characterisation at Intermediate Strain Rate. Proceedings (mdpi), 2018, 2, .	0.2	1
40	An experimental method to determine the intralaminar fracture toughness of high-strength carbon-fibre reinforced composite aerostructures. Aeronautical Journal, 2018, 122, 1352-1370.	1.6	22
41	Enhancing the electrical conductivity of carbon fibre thin-ply laminates with directly grown aligned carbon nanotubes. Composite Structures, 2018, 206, 272-278.	5.8	26
42	Synthesis and testing of a conducting polymeric composite material for lightning strike protection applications. AIP Conference Proceedings, 2017, , .	0.4	8
43	Fracture toughness and crack resistance curves for fiber compressive failure mode in polymer composites under high rate loading. Composite Structures, 2017, 182, 164-175.	5.8	39
44	The effect of through-thickness compressive stress on mode II interlaminar fracture toughness. Composite Structures, 2017, 182, 153-163.	5.8	38
45	The effect of through-thickness compressive stress on mode II interlaminar crack propagation: A computational micromechanics approach. Composite Structures, 2017, 182, 326-334.	5.8	26
46	A consistent anisotropic damage model for laminated fiber-reinforced composites using the 3D-version of the Puck failure criterion. International Journal of Solids and Structures, 2017, 126-127, 37-53.	2.7	70
47	Modeling and synthesis of all-polymeric conducting composite material for aircraft lightning strike protection applications. Materials Today: Proceedings, 2017, 4, 8010-8015.	1.8	4
48	Effect of tow thickness on the structural response of aerospace-grade spread-tow fabrics. Composite Structures, 2017, 179, 208-223.	5.8	27
49	Measuring the intralaminar crack resistance curve of fibre reinforced composites at extreme temperatures. Composites Part A: Applied Science and Manufacturing, 2016, 91, 145-155.	7.6	13
50	Concept of a Conducting Composite Material for Lightning Strike Protection. Advances in Materials Science, 2016, 16, 32-46.	1.0	37
51	On the statistics of transverse permeability of randomly distributed fibers. Composite Structures, 2016, 158, 323-332.	5.8	13
52	The Transverse Crack Tension test revisited: An experimental and numerical study. Composite Structures, 2016, 158, 144-159.	5.8	16
53	Modelling the electro-mechanical properties of PPy/epoxy conductive composites. Computational Materials Science, 2016, 113, 88-97.	3.0	13
54	On the generation of RVE-based models of composites reinforced with long fibres or spherical particles. Composite Structures, 2016, 138, 84-95.	5.8	62

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55	Selective ply-level hybridisation for improved notched response of composite laminates. Composite Structures, 2016, 145, 1-14.	5.8	48
56	Measurement of the mode II intralaminar fracture toughness and R-curve of polymer composites using a modified Iosipescu specimen and the size effect law. Engineering Fracture Mechanics, 2015, 138, 202-214.	4.3	28
57	Micro-mechanical analysis of the effect of ply thickness on the transverse compressive strength of polymer composites. Composites Part A: Applied Science and Manufacturing, 2015, 79, 127-137.	7.6	86
58	Three-dimensional invariant-based failure criteria for transversely isotropic fibre-reinforced composites. , 2015, , 111-150.		9
59	Three-dimensional invariant-based failure criteria for fibre-reinforced composites. International Journal of Solids and Structures, 2015, 55, 92-107.	2.7	102
60	Micro-mechanical analysis of the in situ effect in polymer composite laminates. Composite Structures, 2014, 116, 827-840.	5.8	133
61	Measurement of the compressive crack resistance curve of composites using the size effect law. Composites Part A: Applied Science and Manufacturing, 2014, 56, 300-307.	7.6	62
62	Large damage capability of non-crimp fabric thin-ply laminates. Composites Part A: Applied Science and Manufacturing, 2014, 63, 110-122.	7.6	35
63	Determination of the mode I crack resistance curve of polymer composites using the size-effect law. Engineering Fracture Mechanics, 2014, 118, 49-65.	4.3	81
64	A semi-analytical method to predict net-tension failure of mechanically fastened joints in composite laminates. Composites Science and Technology, 2013, 76, 69-76.	7.8	67
65	Notched response of non-crimp fabric thin-ply laminates. Composites Science and Technology, 2013, 79, 97-114.	7.8	78
66	Modeling the inelastic deformation and fracture of polymer composites â€“ Part II: Smeared crack model. Mechanics of Materials, 2013, 59, 36-49.	3.2	103
67	Notched response of non-crimp fabric thin-ply laminates: Analysis methods. Composites Science and Technology, 2013, 88, 165-171.	7.8	40
68	Three-dimensional failure criteria for fiber-reinforced laminates. Composite Structures, 2013, 95, 63-79.	5.8	141
69	Size effects on the tensile and compressive failure of notched composite laminates. Composite Structures, 2013, 96, 736-744.	5.8	106
70	A finite fracture mechanics model for the prediction of the open-hole strength of composite laminates. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1219-1225.	7.6	161
71	An efficient design method for multi-material bolted joints used in the railway industry. Composite Structures, 2011, 94, 246-252.	5.8	9
72	Experimental and numerical study of fastener pull-through failure in GFRP laminates. Composite Structures, 2011, 94, 239-245.	5.8	23

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73	On the relation between the mode I fracture toughness of a composite laminate and that of a 0Â° ply: Analytical model and experimental validation. Engineering Fracture Mechanics, 2011, 78, 2535-2546.	4.3	50
74	Measurement of resistance curves in the longitudinal failure of composites using digital image correlation. Composites Science and Technology, 2010, 70, 1986-1993.	7.8	152
75	Experimental Tests of Fatigue Induced Delamination in Gfrp and Cfrp Laminates. , 2007, , 117-118.		1
76	A continuum damage model to simulate failure in composite plates under uniaxial compression. EXPRESS Polymer Letters, 2007, 1, 15-23.	2.1	4
77	A Finite Fracture Mechanics Model for the Prediction of the Notched Response and Large Damage Capability of Composite Laminates. Key Engineering Materials, 0, 627, 13-16.	0.4	4
78	Understanding the Impact of Standardized SAE Waveform Parameter Variation on Artificial Lightning Plasma, Specimen Loading, and Composite Material Damage. SAE International Journal of Aerospace, 0, 13, .	4.0	5