

Marco Gigliotti

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

1,385
citations

331670

21
h-index

361022

35
g-index

70
all docs

70
docs citations

70
times ranked

918
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms generating residual stresses and distortion during manufacture of polymer matrix composite structures. Composites Part A: Applied Science and Manufacturing, 2006, 37, 522-529.	7.6	260
2	Development of curvature during the cure of AS4/8552 [0/90] unsymmetric composite plates. Composites Science and Technology, 2003, 63, 187-197.	7.8	102
3	Loss of bifurcation and multiple shapes of thin [0/90] unsymmetric composite plates subject to thermal stress. Composites Science and Technology, 2004, 64, 109-128.	7.8	98
4	Experimental characterization of thermo-oxidation-induced shrinkage and damage in polymer matrix composites. Composites Part A: Applied Science and Manufacturing, 2012, 43, 577-586.	7.6	48
5	Experimental study to assess the effect of carbon nanotube addition on the through-thickness electrical conductivity of CFRP laminates for aircraft applications. Composites Part B: Engineering, 2015, 76, 31-37.	12.0	47
6	Local shrinkage and stress induced by thermo-oxidation in composite materials at high temperatures. Journal of the Mechanics and Physics of Solids, 2011, 59, 696-712.	4.8	43
7	Effect of thermo-oxidation on the failure properties of an epoxy resin. Polymer Testing, 2016, 52, 209-217.	4.8	42
8	Transient and cyclical hygrothermoelastic stress in laminated composite plates: Modelling and experimental assessment. Mechanics of Materials, 2007, 39, 729-745.	3.2	41
9	X-ray micro-computed-tomography characterization of cracks induced by thermal cycling in non-crimp 3D orthogonal woven composite materials with porosity. Composites Part A: Applied Science and Manufacturing, 2018, 112, 100-110.	7.6	39
10	Thermo-oxidation behaviour of composite materials at high temperatures: A review of research activities carried out within the COMEDI program. Polymer Degradation and Stability, 2010, 95, 965-974.	5.8	37
11	The effect of thermo-oxidation on matrix cracking of cross-ply [0/90]S composite laminates. Composites Part A: Applied Science and Manufacturing, 2013, 44, 114-121.	7.6	33
12	The effect of thermo-oxidation on the mechanical behaviour of polymer epoxy materials. Polymer Testing, 2013, 32, 1020-1028.	4.8	31
13	Effect of Thermo-oxidation on the local mechanical behaviour of epoxy polymer materials for high temperature applications. Mechanics of Materials, 2016, 101, 118-135.	3.2	31
14	On the maximum curvatures of 0/90 plates under thermal stress. Composite Structures, 2005, 68, 177-184.	5.8	28
15	Assessment of approximate models to evaluate transient and cyclical hygrothermoelastic stress in composite plates. International Journal of Solids and Structures, 2007, 44, 733-759.	2.7	28
16	Predicting loss of bifurcation behaviour of 0/90 unsymmetric composite plates subjected to environmental loads. Composite Structures, 2012, 94, 2793-2808.	5.8	28
17	Evidence of thermo-oxidation phenomena occurring during hygrothermal aging of thermosetting resins for RTM composite applications. Composites Part A: Applied Science and Manufacturing, 2014, 66, 175-182.	7.6	26
18	Assessment of thermo-oxidative induced chemical strain by inverse analysis of shrinkage profiles in unidirectional composites. Composite Structures, 2016, 157, 320-336.	5.8	26

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19	Electro-mechanical fatigue of CFRP laminates for aircraft applications. <i>Composite Structures</i> , 2015, 127, 436-449.	5.8	25
20	Chemo-mechanics couplings in polymer matrix materials exposed to thermo-oxidative environments. <i>Comptes Rendus - Mecanique</i> , 2010, 338, 164-175.	2.1	24
21	Thermo-oxidative induced shrinkage in Organic Matrix Composites for High Temperature Applications: Effect of fibre arrangement and oxygen pressure. <i>Composite Structures</i> , 2016, 146, 176-186.	5.8	21
22	Assessment of chemo-mechanical couplings in polymer matrix materials exposed to thermo-oxidative environments at high temperatures and under tensile loadings. <i>Mechanics of Materials</i> , 2011, 43, 431-443.	3.2	20
23	The effect of a thermo-oxidative environment on the behaviour of multistable [0/90] unsymmetric composite plates. <i>Composite Structures</i> , 2013, 106, 863-872.	5.8	19
24	A coupled experimental/numerical approach for the modelling of the local mechanical behaviour of epoxy polymer materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 67, 129-151.	4.8	17
25	Analysis of moisture diffusion induced stress in carbon/epoxy 3D textile composite materials with voids by $\hat{\mu}$ -CT based Finite Element Models. <i>Composite Structures</i> , 2019, 212, 561-570.	5.8	17
26	Computed-tomography based modeling and simulation of moisture diffusion and induced swelling in textile composite materials. <i>International Journal of Solids and Structures</i> , 2018, 154, 88-96.	2.7	16
27	A Novel Numerical Delamination Growth Initiation Approach for the Preliminary Design of Damage Tolerant Composite Structures. <i>Journal of Composite Materials</i> , 2007, 41, 1939-1960.	2.4	14
28	A novel methodology for the rapid identification of the water diffusion coefficients of composite materials. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 68, 212-218.	7.6	13
29	Thermo-oxidation behaviour of organic matrix composite materials at high temperatures. <i>Advances in Aircraft and Spacecraft Science</i> , 2016, 3, 171-195.	0.5	13
30	Internal Stresses in Composite Laminates Due to Cyclical Hygrothermal Loading. <i>AIAA Journal</i> , 2004, 42, 2600-2605.	2.6	11
31	Identification of the orthotropic diffusion properties of RTM textile composites for aircraft applications. <i>Composite Structures</i> , 2016, 137, 33-43.	5.8	11
32	High temperature fatigue of carbon/polyimide 8-harness satin woven composites. Part I: Digital Image Correlation and Micro-Computed Tomography damage characterization. <i>Composite Structures</i> , 2020, 244, 112255.	5.8	11
33	Thermostructural Design of a Flying Winglet Experimental Structure for the EXPERT Re-entry Test. <i>Journal of Heat Transfer</i> , 2009, 131, .	2.1	10
34	Modeling the pressure dependent solubility in a thermoset resin for simulating pressure accelerated thermo-oxidation tests. <i>Mechanics of Materials</i> , 2015, 84, 44-54.	3.2	10
35	Decoupling of water and oxygen diffusion phenomena in order to prove the occurrence of thermo-oxidation during hygrothermal aging of thermosetting resins for RTM composite applications. <i>Journal of Materials Science</i> , 2018, 53, 11855-11872.	3.7	10
36	A novel protocol for rapid identification of anisotropic diffusion properties of polymer matrix composite materials with complex texture. <i>Composite Structures</i> , 2018, 201, 1088-1096.	5.8	10

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37	Characterization and modelling of the PEKK thermomechanical and creep behavior above the glass transition temperature. <i>Mechanics of Materials</i> , 2022, 166, 104189.	3.2	10
38	Weight optimisation of damage resistant composite panels with a posteriori cost evaluation. <i>Composite Structures</i> , 2009, 88, 312-322.	5.8	9
39	The deformed shape of isotropic and orthotropic plates subjected to bending moments distributed along the edges. <i>Meccanica</i> , 2014, 49, 1367-1384.	2.0	8
40	Effect of carbon nanotubes on the thermoelectric properties of CFRP laminate for aircraft applications. <i>Journal of Reinforced Plastics and Composites</i> , 2015, 34, 173-184.	3.1	8
41	In-situ multi-axial testing of three-dimensional (3D) woven organic matrix composites for aeroengine applications. <i>Composite Structures</i> , 2021, 273, 114259.	5.8	7
42	Modelling and Experimental Characterisation of Hygrothermoelastic Stress in Polymer Matrix Composites. <i>Macromolecular Symposia</i> , 2007, 247, 199-210.	0.7	6
43	The employment of 0/90 unsymmetric samples for the characterisation of the thermo-oxidation behaviour of composite materials at high temperatures. <i>Composite Structures</i> , 2011, 93, 2109-2119.	5.8	6
44	Image-based modeling of moisture-induced swelling and stress in 2D textile composite materials using a global-local approach. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018, 232, 1505-1519.	2.1	6
45	Damage characterization during high temperature fatigue of off-axis woven organic matrix composites for aircraft applications. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 406, 012055.	0.6	6
46	The effect of the environment on high temperature fatigue of cross-ply C/epoxy laminated composites. <i>Composite Structures</i> , 2018, 202, 924-934.	5.8	6
47	Cyclic indentation of polymers: Instantaneous elastic modulus from reloading, energy analysis, and cyclic creep. <i>Journal of Materials Research</i> , 2019, 34, 3688-3698.	2.6	6
48	Coupling between thermal ageing/degradation and creep behavior of PEKK and C/PEKK composites above the glass transition temperature. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 153, 106717.	7.6	6
49	Residual thermal strains and stresses in organic matrix composite materials. <i>Journal of Thermal Stresses</i> , 2016, 39, 667-703.	2.0	5
50	In-situ characterization of the local mechanical behaviour of polymer matrix in 3D carbon fiber composites by cyclic indentation test. <i>Composite Structures</i> , 2020, 244, 112268.	5.8	5
51	High temperature fatigue of carbon/polyimide 8-harness satin woven composites. Part II: Environmental effects. <i>Composite Structures</i> , 2020, 244, 112251.	5.8	5
52	A variable kinematic one-dimensional model for the hygro-mechanical analysis of composite materials. <i>Composite Structures</i> , 2020, 242, 112089.	5.8	5
53	Development of experimental and modelling tools for the characterisation of the thermo-electro-mechanical behaviour of composite materials for aircraft applications. <i>Mecanique Et Industries</i> , 2011, 12, 87-101.	0.2	4
54	On cyclical hygrothermal fields in laminated plates. <i>Journal of Composite Materials</i> , 2013, 47, 231-242.	2.4	3

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55	Numerical method to assess the stress state and gradients induced by thermo-oxidation in adhesively bonded joints for aircraft engine applications. <i>International Journal of Adhesion and Adhesives</i> , 2022, 113, 103063.	2.9	3
56	Maximum curvatures of 0/90 plates under thermal stress: Modelling and experimental validation. <i>Composites Science and Technology</i> , 2009, 69, 93-96.	7.8	2
57	X-ray $\hat{1}/4$ CT based assessment of thermal cycling induced cracks in non-crimp 3D orthogonal woven composite materials with porosity. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 406, 012008.	0.6	2
58	Transition Saddle-Cylinder Shape of Thin Unsymmetric [0/90] Square Plates under Hygrothermal Loads: Fringe Projection Method and Variational Approach. <i>Applied Mechanics and Materials</i> , 2006, 3-4, 217-222.	0.2	1
59	Multi-instrument multi-scale experimental damage mechanics for fibre reinforced composites. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 406, 012057.	0.6	1
60	Identification of moisture affected mechanical properties of polymer matrix materials by the employment of samples with moisture gradients. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 1994-2012.	2.6	1
61	Identification of Diffusion Properties of Polymer-Matrix Composite Materials with Complex Texture. <i>Journal of Optimization Theory and Applications</i> , 2020, 184, 188-209.	1.5	1
62	Gradients of cyclic indentation mechanical properties in PR520 epoxy and its 3D carbon fiber composite induced by aging at 150 \hat{A} °C. <i>Polymer Degradation and Stability</i> , 2021, 193, 109720.	5.8	1
63	Experimental characterization of thermo-oxidation induced shrinkage and damage onset in polymer matrix composites at high temperature. <i>EPJ Web of Conferences</i> , 2010, 6, 20004.	0.3	0
64	Some Examples of "Multi-Physical" Fatigue of Organic Matrix Composites for Aircraft Applications. <i>Applied Mechanics and Materials</i> , 2016, 828, 79-96.	0.2	0
65	Hygrothermoelastic Stress in Organic Matrix Composite Materials. , 2018, , 1-13.		0
66	Thermodynamics of Irreversible Processes with Internal Variables: A Tool for Modeling Aging and Degradation Phenomena in Composite Materials for Aircraft Applications. <i>Aerotecnica Missili & Spazio</i> , 2019, 98, 31-44.	0.9	0
67	Fatigue multi-physique de matÃ©riaux composites Ã matrice organique stratifiÃ©s croisÃ©s [0/90] pour applications aÃ©ronautiques. <i>Materiaux Et Techniques</i> , 2016, 104, 406.	0.9	0
68	Hygrothermoelastic Stress in Organic Matrix Composite Materials. , 2020, , 1248-1261.		0