Pedro P Camanho

List of Publications by Year
in descending order

126	13,720	25034	20961
papers	citations	57 h-index	115 g-index

133	133	133	4940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An engineering solution for mesh size effects in the simulation of delamination using cohesive zone models. Engineering Fracture Mechanics, 2007, 74, 1665-1682.	4.3	1,212
2	A damage model for the simulation of delamination in advanced composites under variable-mode loading. Mechanics of Materials, 2006, 38, 1072-1089.	3.2	722
3	A continuum damage model for composite laminates: Part I â€“ Constitutive model. Mechanics of Materials, 2007, 39, 897-908.	3.2	620
4	A continuum damage model for composite laminates: Part II â€“ Computational implementation and validation. Mechanics of Materials, 2007, 39, 909-919.	3.2	484
5	Failure Criteria for FRP Laminates. Journal of Composite Materials, 2005, 39, 323-345.	2.4	396
6	Prediction of size effects in notched laminates using continuum damage mechanics. Composites Science and Technology, 2007, 67, 2715-2727.	7.8	393
7	Accurate simulation of delamination growth under mixed-mode loading using cohesive elements: Definition of interlaminar strengths and elastic stiffness. Composite Structures, 2010, 92, 1857-1864.	5.8	367
8	Prediction of in situ strengths and matrix cracking in composites under transverse tension and in-plane shear. Composites Part A: Applied Science and Manufacturing, 2006, 37, 165-176.	7.6	348
9	Simulation of delamination in composites under high-cycle fatigue. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2270-2282.	7.6	312
10	Low-velocity impact damage on dispersed stacking sequence laminates. Part II: Numerical simulations. Composites Science and Technology, 2009, 69, 937-947.	7.8	287
11	High strain rate characterisation of unidirectional carbon-epoxy IM7-8552 in transverse compression and in-plane shear using digital image correlation. Mechanics of Materials, 2010, 42, 1004-1019.	3.2	279
12	Generation of random distribution of fibres in long-fibre reinforced composites. Composites Science and Technology, 2008, 68, 2092-2102.	7.8	269
13	Simulation of drop-weight impact and compression after impact tests on composite laminates. Composite Structures, 2012, 94, 3364-3378.	5.8	264
14	A design methodology for mechanically fastened joints in laminated composite materials. Composites Science and Technology, 2006, 66, 3004-3020.	7.8	232
15	Micromechanical analysis of polymer composites reinforced by unidirectional fibres: Part I â€“ Constitutive modelling. International Journal of Solids and Structures, 2013, 50, 1897-1905.	2.7	221
16	Micromechanical analysis of polymer composites reinforced by unidirectional fibres: Part II â€“ Micromechanical analyses. International Journal of Solids and Structures, 2013, 50, 1906-1915.	2.7	200
17	A procedure for superposing linear cohesive laws to represent multiple damage mechanisms in the fracture of composites. International Journal of Fracture, 2009, 158, 211-223.	2.2	188
18	Material and structural response of polymer-matrix fibre-reinforced composites. Journal of Composite Materials, 2012, 46, 2313-2341.	2.4	180

#	Article	IF	Citations
19	Variable-stiffness composite panels: Buckling and first-ply failure improvements over straight-fibre laminates. Computers and Structures, 2008, 86, 897-907.	4.4	177
20	Low-velocity impact damage on dispersed stacking sequence laminates. Part I: Experiments. Composites Science and Technology, 2009, 69, 926-936.	7.8	162
21	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
22	Effects of ply clustering in laminated composite plates under low-velocity impact loading. Composites Science and Technology, 2011, 71, 805-817.	7.8	159
23	Finite strain fracture of 2D problems with injected anisotropic softening elements. Theoretical and Applied Fracture Mechanics, 2014, 72, 50-63.	4.7	155
24	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
25	Progressive failure analysis of tow-placed, variable-stiffness composite panels. International Journal of Solids and Structures, 2007, 44, 8493-8516.	2.7	142
26	Three-dimensional failure criteria for fiber-reinforced laminates. Composite Structures, 2013, 95, 63-79.	5.8	141
27	Modeling the inelastic deformation and fracture of polymer composites â€“ Part I: Plasticity model. Mechanics of Materials, 2013, 59, 50-64.	3.2	140
28	Finite element modeling of mode I delamination growth in laminated DCB specimens with R-curve effects. Composites Part B: Engineering, 2013, 45, 897-903.	12.0	133
29	Micro-mechanical analysis of the in situ effect in polymer composite laminates. Composite Structures, 2014, 116, 827-840.	5.8	133
30	Tailoring for strength of composite steered-fibre panels with cutouts. Composites Part A: Applied Science and Manufacturing, 2010, 41, 1760-1767.	7.6	117
31	Analysis of morphing, multi stable structures actuated by piezoelectric patches. Computers and Structures, 2008, 86, 347-356.	4.4	115
32	Hybrid CFRP/titanium bolted joints: Performance assessment and application to a spacecraft payload adaptor. Composites Science and Technology, 2010, 70, 305-317.	7.8	107
33	Size effects on the tensile and compressive failure of notched composite laminates. Composite Structures, 2013, 96, 736-744.	5.8	106
34	A comparison between the Iosipescu and off-axis shear test methods for the characterization of Pinus Pinaster Ait. Composites Part A: Applied Science and Manufacturing, 2004, 35, 827-840.	7.6	105
35	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
36	Three-dimensional invariant-based failure criteria for fibre-reinforced composites. International Journal of Solids and Structures, 2015, 55, 92-107.	2.7	102

#	Article	IF	Citations
37	A Theoretical Model to Study the Influence of Tow-drop Areas on the Stiffness and Strength of Variable-stiffness Laminates. Journal of Composite Materials, 2009, 43, 403-425.	2.4	99
38	Physically-sound simulation of low-velocity impact on fiber reinforced laminates. International Journal of Impact Engineering, 2016, 92, 3-17.	5.0	95
39	A Three-dimensional Damage Model for Transversely Isotropic Composite Laminates. Journal of Composite Materials, 2008, 42, 2717-2745.	2.4	93
40	High strain rate characterisation of unidirectional carbonâ€“epoxy IM7-8552 in longitudinal compression. Composites Part A: Applied Science and Manufacturing, 2011, 42, 462-470.	7.6	88
41	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
42	High-fidelity micro-scale modeling of the thermo-visco-plastic behavior of carbon fiber polymer matrix composites. Composite Structures, 2015, 134, 132-141.	5.8	85
43	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
44	Effective Simulation of Delamination in Aeronautical Structures Using Shells and Cohesive Elements. Journal of Aircraft, 2008, 45, 663-672.	2.4	80
45	Hybrid titaniumâ€“CFRP laminates for high-performance bolted joints. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1826-1837.	7.6	80
46	Initially rigid cohesive laws and fracture based on edge rotations. Computational Mechanics, 2013, 52, 931-947.	4.0	79
47	Notched response of non-crimp fabric thin-ply laminates. Composites Science and Technology, 2013, 79, 97-114.	7.8	78
48	Influence of geometrical parameters on the elastic response of unidirectional composite materials. Composite Structures, 2012, 94, 3223-3231.	5.8	75
49	Numerical simulation of cold working of rivet holes. Finite Elements in Analysis and Design, 2005, 41, 989-1007.	3.2	73
50	Analysis of crack propagation in double cantilever beam tests of multidirectional laminates. Mechanics of Materials, 2003, 35, 641-652.	3.2	72
51	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
52	Synergetic effects of thin plies and aligned carbon nanotube interlaminar reinforcement in composite laminates. Composites Science and Technology, 2018, 166, 160-168.	7.8	64
53	Numerical simulation of the non-linear deformation of 5-harness satin weaves. Computational Materials Science, 2012, 61, 116-126.	3.0	62
54	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

#	Article	IF	Citations
55	Increasing the efficiency of composite single-shear lap joints using bonded inserts. Composites Part B: Engineering, 2005, 36, 372-383.	12.0	60
56	Matrix cracking and delamination in laminated composites. Part I: Ply constitutive law, first ply failure and onset of delamination. Mechanics of Materials, 2011, 43, 169-185.	3.2	60
57	Numerical simulation of the crushing process of composite materials. International Journal of Crashworthiness, 2004, 9, 263-276.	1.9	58
58	Strength prediction of notched thin ply laminates using finite fracture mechanics and the phase field approach. Composites Science and Technology, 2017, 150, 205-216.	7.8	58
59	Effects of interply hybridization on the damage resistance and tolerance of composite laminates. Composite Structures, 2014, 108, 319-331.	5.8	55
60	Modelling of concrete beams reinforced with FRP re-bars. Composite Structures, 2001, 53, 107-116.	5.8	54
61	Analysis of multistable variable stiffness composite plates. Composite Structures, 2013, 98, 34-46.	5.8	53
62	Interlaminar to intralaminar mode I and II crack bifurcation due to aligned carbon nanotube reinforcement of aerospace-grade advanced composites. Composites Science and Technology, 2020, 190, 108014.	7.8	51
63	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
64	A constitutive-based element-by-element crack propagation algorithm with local mesh refinement. Computational Mechanics, 2015, 56, 291-315.	4.0	49
65	Mechanics of hybrid polymer composites: analytical and computational study. Computational Mechanics, 2016, 57, 405-421.	4.0	49
66	Selective ply-level hybridisation for improved notched response of composite laminates. Composite Structures, 2016, 145, 1-14.	5.8	48
67	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
68	Notched response of non-crimp fabric thin-ply laminates: Analysis methods. Composites Science and Technology, 2013, 88, 165-171.	7.8	40
69	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
70	The Latest Trends in Electric Vehicles Batteries. Molecules, 2021, 26, 3188.	3.8	39
71	The effect of through-thickness compressive stress on mode II interlaminar fracture toughness. Composite Structures, 2017, 182, 153-163.	5.8	38
72	Static and fatigue interlaminar shear reinforcement in aligned carbon nanotube-reinforced hierarchical advanced composites. Composites Part A: Applied Science and Manufacturing, 2019, 120, 106-115.	7.6	37

#	Article	IF	Citations
73	High strain rate behaviour of 5-harness-satin weave fabric carbonâ€“epoxy composite under compression and combined compressionâ€“shear loading. International Journal of Solids and Structures, 2015, 54, 172-182.	2.7	36
74	Structural Batteries: A Review. Molecules, 2021, 26, 2203.	3.8	36
75	Large damage capability of non-crimp fabric thin-ply laminates. Composites Part A: Applied Science and Manufacturing, 2014, 63, 110-122.	7.6	35
76	Development of a new nonlinear numerical material model for woven composite materials accounting for permanent deformation and damage. Composite Structures, 2013, 106, 601-614.	5.8	32
77	Matrix cracking and delamination in laminated composites. Part II: Evolution of crack density and delamination. Mechanics of Materials, 2011, 43, 194-211.	3.2	30
78	Experimental characterization and constitutive modeling of the non-linear stressâ€“strain behavior of unidirectional carbonâ€“epoxy under high strain rate loading. Advanced Modeling and Simulation in Engineering Sciences, 2018, 5, .	1.7	30
79	Hygrothermal effects on the translaminar fracture toughness of cross-ply carbon/epoxy laminates: Failure mechanisms. Composites Science and Technology, 2016, 122, 130-139.	7.8	28
80	Simulation of failure in laminated polymer composites: Building-block validation. Composite Structures, 2019, 226, 111168.	5.8	28
81	Effect of tow thickness on the structural response of aerospace-grade spread-tow fabrics. Composite Structures, 2017, 179, 208-223.	5.8	27
82	Modelling mechanical lightning loads in carbon fibre-reinforced polymers. International Journal of Solids and Structures, 2019, 162, 217-243.	2.7	27
83	Effective simulation of the mechanics of longitudinal tensile failure of unidirectional polymer composites. International Journal of Fracture, 2017, 208, 269-285.	2.2	26
84	Analysis of the Effects of Residual Strains and Defects on Skin/Stiffener Debonding Using Decohesion Elements. , 2003, , .		25
85	A methodology for the structural analysis of composite wind turbine blades under geometric and material induced instabilities. Computers and Structures, 2010, 88, 1092-1109.	4.4	25
86	Micro-mechanics based pressure dependent failure model for highly cross-linked epoxy resins. Engineering Fracture Mechanics, 2016, 158, 1-12.	4.3	25
87	Mesoscale modelling of damage in single- and double-shear composite bolted joints. Composite Structures, 2019, 226, 111210.	5.8	25
88	Numerical modeling of nonlinearity, plasticity and damage in CFRP-woven composites for crash simulations. Composite Structures, 2014, 115, 75-88.	5.8	24
89	Prediction of size effects in open-hole laminates using only the Youngâ€™s modulus, the strength, and the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si76.gif" overflow="scroll"><mml:mrow><mml:mi mathvariant="script">R</mml:mi></mml:mrow></mml:math>-curve of the 0Â° ply. Composites Part A: Applied Science and Manufacturing, 2017, 101, 306-317.	7.6	24
90	Experimental and numerical study of fastener pull-through failure in GFRP laminates. Composite Structures, 2011, 94, 239-245.	5.8	23

#	Article	IF	Citations
91	Failure and damage characterization of (Â±30Â°) biaxial braided composites under multiaxial stress states. Composites Part A: Applied Science and Manufacturing, 2016, 90, 748-759.	7.6	23
92	Analyzing the failure and damage of FRP composite laminates under high strain rates considering visco-plasticity. Engineering Failure Analysis, 2019, 101, 257-273.	4.0	22
93	Residual stress field and reduction of stress intensity factors in cold-worked holes. Theoretical and Applied Fracture Mechanics, 2005, 44, 168-177.	4.7	19
94	A dynamic spring element model for the prediction of longitudinal failure of polymer composites. Computational Materials Science, 2019, 160, 42-52.	3.0	19
95	Fibre steering for shear-loaded composite panels with cutouts. Journal of Composite Materials, 2014, 48, 1917-1926.	2.4	17
96	Mesoscale modelling of damage in half-hole pin bearing composite laminate specimens. Composite Structures, 2019, 214, 191-213.	5.8	17
97	New interlaminar features and void distributions in advanced aerospace-grade composites revealed via automated algorithms using micro-computed tomography. Composites Science and Technology, 2020, 193, 108132.	7.8	17
98	In situ synchrotron computed tomography study of nanoscale interlaminar reinforcement and thin-ply effects on damage progression in composite laminates. Composites Part B: Engineering, 2021, 217, 108623.	12.0	17
99	Intralaminar damage in polymer composites in the presence of finite fiber rotation: Part I â€“ Constitutive model. Composite Structures, 2016, 151, 114-126.	5.8	16
100	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
101	An All-Solid-State Coaxial Structural Battery Using Sodium-Based Electrolyte. Molecules, 2021, 26, 5226.	3.8	14
102	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
103	Modelling damage in multidirectional laminates subjected to multi-axial loading: Ply thickness effects and model assessment. Composite Structures, 2021, 266, 113766.	5.8	12
104	An invariant based transversely-isotropic constitutive model for unidirectional fibre reinforced composites considering the matrix viscous effects. Mechanics of Materials, 2019, 138, 103146.	3.2	11
105	Effects of ply thickness and architecture on the strength of composite sub-structures. Composite Structures, 2021, 256, 113061.	5.8	11
106	An efficient design method for multi-material bolted joints used in the railway industry. Composite Structures, 2011, 94, 246-252.	5.8	9
107	Simulation of Low-Velocity Impact Damage on Composite Laminates. , 2009, , .		8
108	Comment to the paper â€˜Analysis of Progressive Matrix Cracking in Composite Laminates II. First Ply Failureâ€™ by George J Dvorak and Norman Laws. Journal of Composite Materials, 2014, 48, 1139-1141.	2.4	8

#	Article	IF	Citations
109	Effects of local stress fields around broken fibres on the longitudinal failure of composite materials. International Journal of Solids and Structures, 2019, 156-157, 294-305.	2.7	8
110	An analytical model to predict stress fields around broken fibres and their effect on the longitudinal failure of hybrid composites. Composite Structures, 2019, 211, 564-576.	5.8	7
111	Intralaminar damage in polymer composites in the presence of finite fiber rotation: Part II â€“ Numerical analysis and validation. Composite Structures, 2016, 151, 127-141.	5.8	6
112	3D-reinforcement techniques for co-bonded CFRP/CFRP and CFRP/metal joints: a brief review. CiÃªncia & Tecnologia Dos Materiais, 2017, 29, e102-e107.	0.5	5
113	Progressive delamination analysis through two-way global-local coupling approach preserving energy dissipation for single-mode and mixed-mode loading. Composite Structures, 2019, 223, 110892.	5.8	5
114	A simplified method for the impact test of beams using a pseudo-dynamic (PSD) process. Mechanics Research Communications, 2006, 33, 190-205.	1.8	4
115	Tailoring for Strength of Steered-Fiber Composite Panels with Cutouts. , 2010, , .		4
116	Damage analysis of out of plane undulated fiber composites. Composite Structures, 2016, 152, 464-476.	5.8	4
117	Finite-strain laminates: Bending-enhanced hexahedron and delamination. Composite Structures, 2016, 139, 277-290.	5.8	4
118	Optimization of the microstructure of unidirectional hybrid composites under uniaxial tensile loads. Composite Structures, 2020, 235, 111795.	5.8	3
119	Low Temperature and Resin Effects on the Mode I Interlaminar Fracture Toughness in Aeronautical Quality Polymer Composites. Proceedings (mdpi), 2018, 2, .	0.2	2
120	Damage Micro-mechanisms in Notched Hierarchical Nanoengineered Thin-ply Composite Laminates Studied by In Situ Synchrotron X-ray Microtomography. , 2019, , .		2
121	Erratum to â€œCompTest 2006 special issueâ€• Composites Part A: Applied Science and Manufacturing, 2007, 38, 2382.	7.6	1
122	An invariant-based elasto-visco-plastic model for unidirectional polymer composites at finite strains. International Journal of Solids and Structures, 2022, 236-237, 111292.	2.7	1
123	In Situ Synchrotron X-ray Microtomography of Progressive Damage in Canted Notched Cross-Ply Composites with Interlaminar Nanoreinforcement. , 2022, , .		1
124	IDMEC â€“ Faculdade de Engenharia da Universidade do Porto. International Journal of Structural Integrity, 2010, 1, 161-172.	3.3	0
125	Preface: special issue of computational mechanics on â€œConnecting Multiscale Mechanics to Complex Material Designâ€• Computational Mechanics, 2016, 57, 355-357.	4.0	0
126	Analysis Models for Polymer Composites Across Different Length Scales. , 2017, , 199-279.		0