# 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 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 |
| 2 | In Situ Synchrotron X-ray Microtomography of Progressive Damage in Canted Notched Cross-Ply Composites with Interlaminar Nanoreinforcement. , 2022, , . | | 1 |
| 3 | Effects of ply thickness and architecture on the strength of composite sub-structures. Composite Structures, 2021, 256, 113061. | 5.8 | 11 |
| 4 | Structural Batteries: A Review. Molecules, 2021, 26, 2203. | 3.8 | 36 |
| 5 | The Latest Trends in Electric Vehicles Batteries. Molecules, 2021, 26, 3188. | 3.8 | 39 |
| 6 | Modelling damage in multidirectional laminates subjected to multi-axial loading: Ply thickness effects and model assessment. Composite Structures, 2021, 266, 113766. | 5.8 | 12 |
| 7 | 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 |
| 8 | An All-Solid-State Coaxial Structural Battery Using Sodium-Based Electrolyte. Molecules, 2021, 26, 5226. | 3.8 | 14 |
| 9 | Optimization of the microstructure of unidirectional hybrid composites under uniaxial tensile loads. Composite Structures, 2020, 235, 111795. | 5.8 | 3 |
| 10 | 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 |
| 11 | 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 |
| 12 | Mesoscale modelling of damage in single- and double-shear composite bolted joints. Composite Structures, 2019, 226, 111210. | 5.8 | 25 |
| 13 | 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 |
| 14 | Mesoscale modelling of damage in half-hole pin bearing composite laminate specimens. Composite Structures, 2019, 214, 191-213. | 5.8 | 17 |
| 15 | Simulation of failure in laminated polymer composites: Building-block validation. Composite Structures, 2019, 226, 111168. | 5.8 | 28 |
| 16 | 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 |
| 17 | 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 |
| 18 | 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 |

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| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | A dynamic spring element model for the prediction of longitudinal failure of polymer composites. Computational Materials Science, 2019, 160, 42-52. | 3.0 | 19 |
| 23 | Damage Micro-mechanisms in Notched Hierarchical Nanoengineered Thin-ply Composite Laminates Studied by In Situ Synchrotron X-ray Microtomography. , 2019, , . | | 2 |
| 24 | Modelling mechanical lightning loads in carbon fibre-reinforced polymers. International Journal of Solids and Structures, 2019, 162, 217-243. | 2.7 | 27 |
| 25 | 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 |
| 26 | 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 |
| 27 | 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 |
| 28 | Low Temperature and Resin Effects on the Mode I Interlaminar Fracture Toughness in Aeronautical Quality Polymer Composites. Proceedings (mdpi), 2018, 2, . | 0.2 | 2 |
| 29 | Analysis Models for Polymer Composites Across Different Length Scales. , 2017, , 199-279. | | 0 |
| 30 | 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 |
| 31 | The effect of through-thickness compressive stress on mode II interlaminar fracture toughness. Composite Structures, 2017, 182, 153-163. | 5.8 | 38 |
| 32 | 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 |
| 33 | 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 |
| 34 | Effective simulation of the mechanics of longitudinal tensile failure of unidirectional polymer composites. International Journal of Fracture, 2017, 208, 269-285. | 2.2 | 26 |
| 35 | Effect of tow thickness on the structural response of aerospace-grade spread-tow fabrics. Composite Structures, 2017, 179, 208-223. | 5.8 | 27 |
| 36 | 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 |

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| 37 | Micro-mechanics based pressure dependent failure model for highly cross-linked epoxy resins. Engineering Fracture Mechanics, 2016, 158, 1-12. | 4.3 | 25 |
| 38 | 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 |
| 39 | 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 |
| 40 | Damage analysis of out of plane undulated fiber composites. Composite Structures, 2016, 152, 464-476. | 5.8 | 4 |
| 41 | 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 |
| 42 | Mechanics of hybrid polymer composites: analytical and computational study. Computational Mechanics, 2016, 57, 405-421. | 4.0 | 49 |
| 43 | Preface: special issue of computational mechanics on â€œConnecting Multiscale Mechanics to Complex Material Designâ€. Computational Mechanics, 2016, 57, 355-357. | 4.0 | 0 |
| 44 | 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 |
| 45 | Selective ply-level hybridisation for improved notched response of composite laminates. Composite Structures, 2016, 145, 1-14. | 5.8 | 48 |
| 46 | 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 |
| 47 | Finite-strain laminates: Bending-enhanced hexahedron and delamination. Composite Structures, 2016, 139, 277-290. | 5.8 | 4 |
| 48 | Physically-sound simulation of low-velocity impact on fiber reinforced laminates. International Journal of Impact Engineering, 2016, 92, 3-17. | 5.0 | 95 |
| 49 | A constitutive-based element-by-element crack propagation algorithm with local mesh refinement. Computational Mechanics, 2015, 56, 291-315. | 4.0 | 49 |
| 50 | 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 |
| 51 | 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 |
| 52 | Three-dimensional invariant-based failure criteria for fibre-reinforced composites. International Journal of Solids and Structures, 2015, 55, 92-107. | 2.7 | 102 |
| 53 | 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 |
| 54 | 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 |

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| 55 | Numerical modeling of nonlinearity, plasticity and damage in CFRP-woven composites for crash simulations. Composite Structures, 2014, 115, 75-88. | 5.8 | 24 |
| 56 | Effects of interply hybridization on the damage resistance and tolerance of composite laminates. Composite Structures, 2014, 108, 319-331. | 5.8 | 55 |
| 57 | Micro-mechanical analysis of the in situ effect in polymer composite laminates. Composite Structures, 2014, 116, 827-840. | 5.8 | 133 |
| 58 | Fibre steering for shear-loaded composite panels with cutouts. Journal of Composite Materials, 2014, 48, 1917-1926. | 2.4 | 17 |
| 59 | Finite strain fracture of 2D problems with injected anisotropic softening elements. Theoretical and Applied Fracture Mechanics, 2014, 72, 50-63. | 4.7 | 155 |
| 60 | 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 |
| 61 | Large damage capability of non-crimp fabric thin-ply laminates. Composites Part A: Applied Science and Manufacturing, 2014, 63, 110-122. | 7.6 | 35 |
| 62 | 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 |
| 63 | 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 |
| 64 | Initially rigid cohesive laws and fracture based on edge rotations. Computational Mechanics, 2013, 52, 931-947. | 4.0 | 79 |
| 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 | 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 |
| 68 | Notched response of non-crimp fabric thin-ply laminates: Analysis methods. Composites Science and Technology, 2013, 88, 165-171. | 7.8 | 40 |
| 69 | 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 |
| 70 | 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 |
| 71 | Modeling the inelastic deformation and fracture of polymer composites â€“ Part I: Plasticity model. Mechanics of Materials, 2013, 59, 50-64. | 3.2 | 140 |
| 72 | Analysis of multistable variable stiffness composite plates. Composite Structures, 2013, 98, 34-46. | 5.8 | 53 |

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| 73 | 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 |
| 74 | Three-dimensional failure criteria for fiber-reinforced laminates. Composite Structures, 2013, 95, 63-79. | 5.8 | 141 |
| 75 | Size effects on the tensile and compressive failure of notched composite laminates. Composite Structures, 2013, 96, 736-744. | 5.8 | 106 |
| 76 | Material and structural response of polymer-matrix fibre-reinforced composites. Journal of Composite Materials, 2012, 46, 2313-2341. | 2.4 | 180 |
| 77 | Numerical simulation of the non-linear deformation of 5-harness satin weaves. Computational Materials Science, 2012, 61, 116-126. | 3.0 | 62 |
| 78 | 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 |
| 79 | Influence of geometrical parameters on the elastic response of unidirectional composite materials. Composite Structures, 2012, 94, 3223-3231. | 5.8 | 75 |
| 80 | Simulation of drop-weight impact and compression after impact tests on composite laminates. Composite Structures, 2012, 94, 3364-3378. | 5.8 | 264 |
| 81 | 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 |
| 82 | An efficient design method for multi-material bolted joints used in the railway industry. Composite Structures, 2011, 94, 246-252. | 5.8 | 9 |
| 83 | Experimental and numerical study of fastener pull-through failure in GFRP laminates. Composite Structures, 2011, 94, 239-245. | 5.8 | 23 |
| 84 | 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 |
| 85 | Effects of ply clustering in laminated composite plates under low-velocity impact loading. Composites Science and Technology, 2011, 71, 805-817. | 7.8 | 159 |
| 86 | 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 |
| 87 | 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 |
| 88 | IDMEC â€“ Faculdade de Engenharia da Universidade do Porto. International Journal of Structural Integrity, 2010, 1, 161-172. | 3.3 | 0 |
| 89 | 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 |
| 90 | 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 |

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|---|---|---|---|
| 91 | 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 |
| 92 | 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 |
| 93 | Tailoring for strength of composite steered-fibre panels with cutouts. Composites Part A: Applied Science and Manufacturing, 2010, 41, 1760-1767. | 7.6 | 117 |
| 94 | 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 |
| 95 | Tailoring for Strength of Steered-Fiber Composite Panels with Cutouts. , 2010, , . | | 4 |
| 96 | 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 |
| 97 | Low-velocity impact damage on dispersed stacking sequence laminates. Part I: Experiments. Composites Science and Technology, 2009, 69, 926-936. | 7.8 | 162 |
| 98 | Low-velocity impact damage on dispersed stacking sequence laminates. Part II: Numerical simulations. Composites Science and Technology, 2009, 69, 937-947. | 7.8 | 287 |
| 99 | 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 |
| 100 | Hybrid titaniumâ€“CFRP laminates for high-performance bolted joints. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1826-1837. | 7.6 | 80 |
| 101 | Simulation of Low-Velocity Impact Damage on Composite Laminates. , 2009, , . | | 8 |
| 102 | Generation of random distribution of fibres in long-fibre reinforced composites. Composites Science and Technology, 2008, 68, 2092-2102. | 7.8 | 269 |
| 103 | Analysis of morphing, multi stable structures actuated by piezoelectric patches. Computers and Structures, 2008, 86, 347-356. | 4.4 | 115 |
| 104 | Variable-stiffness composite panels: Buckling and first-ply failure improvements over straight-fibre laminates. Computers and Structures, 2008, 86, 897-907. | 4.4 | 177 |
| 105 | Effective Simulation of Delamination in Aeronautical Structures Using Shells and Cohesive Elements. Journal of Aircraft, 2008, 45, 663-672. | 2.4 | 80 |
| 106 | A Three-dimensional Damage Model for Transversely Isotropic Composite Laminates. Journal of Composite Materials, 2008, 42, 2717-2745. | 2.4 | 93 |
| 107 | Simulation of delamination in composites under high-cycle fatigue. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2270-2282. | 7.6 | 312 |
| 108 | Erratum to â€œCompTest 2006 special issueâ€• Composites Part A: Applied Science and Manufacturing, 2007, 38, 2382. | 7.6 | 1 |

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| 109 | Prediction of size effects in notched laminates using continuum damage mechanics. Composites Science and Technology, 2007, 67, 2715-2727. | 7.8 | 393 |
| 110 | Progressive failure analysis of tow-placed, variable-stiffness composite panels. International Journal of Solids and Structures, 2007, 44, 8493-8516. | 2.7 | 142 |
| 111 | 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 |
| 112 | A continuum damage model for composite laminates: Part II â€“ Computational implementation and validation. Mechanics of Materials, 2007, 39, 909-919. | 3.2 | 484 |
| 113 | A continuum damage model for composite laminates: Part I â€“ Constitutive model. Mechanics of Materials, 2007, 39, 897-908. | 3.2 | 620 |
| 114 | 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 |
| 115 | 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 |
| 116 | A design methodology for mechanically fastened joints in laminated composite materials. Composites Science and Technology, 2006, 66, 3004-3020. | 7.8 | 232 |
| 117 | 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 |
| 118 | Numerical simulation of cold working of rivet holes. Finite Elements in Analysis and Design, 2005, 41, 989-1007. | 3.2 | 73 |
| 119 | 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 |
| 120 | Increasing the efficiency of composite single-shear lap joints using bonded inserts. Composites Part B: Engineering, 2005, 36, 372-383. | 12.0 | 60 |
| 121 | Failure Criteria for FRP Laminates. Journal of Composite Materials, 2005, 39, 323-345. | 2.4 | 396 |
| 122 | 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 |
| 123 | Numerical simulation of the crushing process of composite materials. International Journal of Crashworthiness, 2004, 9, 263-276. | 1.9 | 58 |
| 124 | Analysis of crack propagation in double cantilever beam tests of multidirectional laminates. Mechanics of Materials, 2003, 35, 641-652. | 3.2 | 72 |
| 125 | Analysis of the Effects of Residual Strains and Defects on Skin/Stiffener Debonding Using Decohesion Elements. , 2003, , . | | 25 |
| 126 | Modelling of concrete beams reinforced with FRP re-bars. Composite Structures, 2001, 53, 107-116. | 5.8 | 54 |