

List of Publications by Dr. Ever J. Barbero

January 15, 2019

Books

1. E. J. Barbero. *Introduction to Composite Materials Design—Third ed.*. CRC Press, Boca Raton, FL, 2018. <http://barbero.cadec-online.com/icmd>.
2. E. J. Barbero (editor). *Multifunctional Composites*. CreateSpace, Charleston, NC, 2016. <http://barbero.cadec-online.com/Multifunctional/index.html>.
3. E. J. Barbero. *Workbook for Introduction to Composite Materials Design—Second ed.*. CreateSpace, Charleston, NC, 2015. <http://barbero.cadec-online.com/icmd/workbook/index.html>.
4. E. J. Barbero. *Finite Element Analysis of Composite Materials Using ANSYS*. CRC Press, 2nd edition, 2014. <http://barbero.cadec-online.com/feacm-ansys>.
5. E. J. Barbero. *Finite Element Analysis of Composite Materials Using Abaqus*. CRC Press, Boca Raton, FL, 2013. <http://barbero.cadec-online.com/feacm-abaqus>.
6. E. J. Barbero. *Introduction to Composite Materials Design—Second ed.*. Yes Dee Publishing Pvt. Ltd., Chennai, India, 2011. <http://barbero.cadec-online.com/icmd2ndEd>.
7. E. J. Barbero. *Finite Element Analysis of Composite Materials*. CRC Press, Boca Raton, FL, 2008.
8. E. J. Barbero. *Introduction to Composite Materials Design*. Taylor and Francis, Philadelphia, PA, 1999.
9. E. J. Barbero. *On a generalized laminate theory with application to bending vibration, and delamination buckling in composite laminates*. PhD thesis, Virginia Polytechnic Institute and State University, 1989.

Book Chapters

1. T. I. Muchenik and E. J. Barbero. *Magnetolectric Composites*, in *Multifunctional Composites*, CreateSpace, Charleston, NC, 2016. <http://barbero.cadec-online.com/Multifunctional/index.html>.
2. E. J. Barbero. *Creep and fatigue in polymer matrix composites*, chapter 2: Time-temperature-age superposition principle for predicting long-term response of linear viscoelastic materials, pages 48–69. Woodhead, Cambridge (ISBN978-1-84569-525-5), 2010. [http://barbero.cadec-online.com/papers/2010/Guedes\(Ed\)Ch2.pdf](http://barbero.cadec-online.com/papers/2010/Guedes(Ed)Ch2.pdf).

3. James G Hemrick, Jing Xu, Klaus-Markus Peters, Xingbo Liu, and Ever Barbero. *Wetting and Reaction Characteristics of Al₂O₃/SiC Composite Refractories by Molten Aluminum and Aluminum Alloy*, chapter : ?, pages 347–357. John Wiley & Sons, Inc., 2009.
4. Ford K. J. Barbero, E. J. and J. A. Mayugo. *Self-healing materials*, chapter 9: Modeling Self-healing of Fiber-reinforced Polymer-matrix Composites with Distributed Damage. Wiley-VCH, 2009. [http://barbero.cadec-online.com/papers/2009/Ghosh\(Ed\)Ch9.pdf](http://barbero.cadec-online.com/papers/2009/Ghosh(Ed)Ch9.pdf).
5. X. Martinez, S. Oller, and E. J. Barbero. *ECCOMAS Series Mechanical Response of Composites*, chapter 6: Study of Delamination in Composites by Using the Serial/Parallel Mixing Theory and a Damage Formulation, pages 119–140. Springer, Dordrecht, Netherlands, 2008. <http://www.springer.com/materials/special+types/book/978-1-4020-8583-3>.
6. L. A. Godoy and E. J. Barbero. *Análisis y cálculo de estructuras de materiales compuestos*, chapter : Inestabilidad de compuestos laminados-modelado computacional mediante la teoria general de estabilidad elastica, pages 47–83. CIMNE, Barcelona, Spain, 2002. <http://barbero.cadec-online.com/papers/2001/01GodoyBarberoChapter8.pdf>.
7. L. A. Godoy, L. I. Almanzar, and E. J. Barbero. *Thin-Walled Structures: Research and Development*, chapter : Postbuckling and first ply failure of thin walled frames and columns made of composite materials, pages 297–303. Elsevier, Oxford, UK, 1998. <http://barbero.cadec-online.com/papers/1998/98GodoyAlmanzarBarberoPost-BucklingAndFirst-Ply.pdf>.
8. E. J. Barbero. *Handbook of Composites*, chapter Chapter 46: Construction, pages 982–1003. Thompson Science/Chapman & Hall, 2nd edition, 1998.
9. H. V. S. GangaRao and E. J. Barbero. *Construction, Structural Applications*, volume 6. International Encyclopedia of Composites, 1991.

Patents

1. E. J. Barbero. Modular fiber reinforced polymer composite deck system, 2003. US Patent #6,544,624. <http://barbero.cadec-online.com/papers/2003/03USPatent6,544,624.pdf>.
2. E. J. Barbero. Modular fiber reinforced polymer composite deck system, 2002. US Patent #6,455,131. <http://barbero.cadec-online.com/papers/2002/02USPatent6,455,131.pdf>.

Journal Publications

- [1] G. H. Kaufmann, A. M. Lopergolo, S. R. Idelsohn, and E. J. Barbero. Evaluation of finite-element calculations in a part-circular crack by coherent optics techniques. *Experimental Mechanics*, 27(2):154–157, 1987. <http://barbero.cadec-online.com/papers/1987/87KaufmannLopergoloEvaluationOfFinite-Element.pdf>.
- [2] J.N. Reddy, E.J. Barbero, and J.L. Teply. Plate bending element based on a generalized laminate plate theory. *International Journal for Numerical Methods in Engineering*, 28(10):2275–2292, 1989. <http://barbero.cadec-online.com/papers/1989/89ReddyBarberoAPlateBendingElement.pdf>.

- [3] E. J. Barbero and J. N. Reddy. Nonlinear analysis of composite laminates using a generalized laminated plate theory. *AIAA Journal*, 28(11):1987–1994, 1990. <http://barbero.cadec-online.com/papers/1990/90BarberoReddyNonlinearAnalysis.pdf>.
- [4] E.J. Barbero, G.H. Kaufmann, and S.R. Idelsohn. Fracture analysis of a surface-coated ceramic by speckle photography and finite elements. *Optics and Laser Technology*, 22(1):17–22, 1990. <http://barbero.cadec-online.com/papers/1990/90BarberoKaufmannFractureAnalysis.pdf>.
- [5] E.J. Barbero and J.N. Reddy. Jacobian derivative method for three-dimensional fracture mechanics. *Communications in Applied Numerical Methods*, 6(7):507–518, 1990. <http://barbero.cadec-online.com/papers/1990/90BarberoTheJacobianDerivative.pdf>.
- [6] E.J. Barbero, J.N. Reddy, and Jan Teply. Accurate determination of stresses in thick laminates using a generalized plate theory. *International Journal for Numerical Methods in Engineering*, 29(1):1–14, 1990. <http://barbero.cadec-online.com/papers/1990/90BarberoAnAccurateDetermination.pdf>.
- [7] E.J. Barbero, J.N. Reddy, and J.L. Teply. General two-dimensional theory of laminated cylindrical shells. *AIAA Journal*, 28(3):544–553, 1990. <http://barbero.cadec-online.com/papers/1990/90BarberoReddyGeneralTwo-DimensionalTheory.pdf>.
- [8] E. J. Barbero. Pultruded structural shapes - from the constituents to the structural behavior. *SAMPE Journal*, 27(1):25–30, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoPultrudedStructuralShapes.pdf>.
- [9] E. J. Barbero, S-H Fu, and I. G. Raftoyiannis. Ultimate bending strength of composite beams. *Journal of Materials in Civil Engineering*, 3(4):292–306, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoFuUltimateBendingStrength.pdf>.
- [10] E. J. Barbero and H.V.S. GangaRao. Structural applications of composites in infrastructure part i. *SAMPE Journal*, 27(6):9–16, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoGangaRaoStructuralApplicationsPartI.pdf>.
- [11] E. J. Barbero and Gopala Krishnan. Eulerian finite element formulation of the fluid mechanics in the pultrusion process. *AIAA*, 91-1042-CP:101–107, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoKrishnanEulerianFiniteElement.pdf>.
- [12] E. J. Barbero and J. N. Reddy. Modeling of delamination in composite laminates using a layer-wise plate theory. *International Journal of Solids and Structures*, 3:373–388, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoReddyModelingOfDelamination.pdf>.
- [13] E. J. Barbero and S. S. Sonti. Micromechanical models for pultruded composite beams. *AIAA*, 91-1045-CP:124–129, 1991. <http://barbero.cadec-online.com/papers/1991/91BarberoSontiMicromechanicalModelsForPultruded.pdf>.
- [14] L. A. Godoy, S. R. Idelsohn, and E. J. Barbero. On load interaction in the non linear buckling analysis of cylindrical shells. *Advances in Engineering Software and Workstations*, 13(1):46–50, 1991. <http://barbero.cadec-online.com/papers/1991/91GodoyIdelsohnOnLoadInteraction.pdf>.

- [15] J. L. Teply, E. J. Barbero, and J. N. Reddy. Bending, vibration and stability of arall laminates using a generalized laminate plate theory. *International Journal of Solids and Structures*, 27(5):585–599, 1991. <http://barbero.cadec-online.com/papers/1991/91TeplyBarberoBendingVibrationAndStability.pdf>.
- [16] E. J. Barbero and H.V.S. GangaRao. Structural applications of composites in infrastructure part ii. *SAMPE Journal*, 28(1):9–15, 1992. <http://barbero.cadec-online.com/papers/1992/92BarberoGangaRaoStructuralII.pdf>.
- [17] E. J. Barbero and J. Tomblin. Buckling testing of composite columns. *AIAA Journal*, 30(11):2798–2800, 1992. <http://barbero.cadec-online.com/papers/1992/92BarberoTomblinBucklingTesting.pdf>.
- [18] E.J. Barbero. 3-d finite element for laminated composites with 2-d kinematic constraints. *Computers and Structures*, 45(2):263–271, 1992. <http://barbero.cadec-online.com/papers/1992/92Barbero3-DFiniteElement.pdf>.
- [19] E. J. Barbero and K. W. Kelly. Predicting high temperature ultimate strength of continuous fiber metal matrix composites. *Journal of Composite Materials*, 27(12):1214–1235, 1993. <http://barbero.cadec-online.com/papers/1993/93BarberoKellyPredictingHighTemperatureUltimate.pdf>.
- [20] E. J. Barbero, R. Lopez-Anido, and J. F. Davalos. On the mechanics of thin-walled laminated composite beams. *Journal of Composite Materials*, 27(8):806–829, 1993. <http://barbero.cadec-online.com/papers/1993/93BarberoAnidoOnTheMechanicsOfThin-Walled.pdf>.
- [21] E. J. Barbero and I. G. Raftoyiannis. Euler buckling of pultruded composite columns. *Composite Structures*, 24(2):139–147, 1993. <http://barbero.cadec-online.com/papers/1993/93BarberoRaftoyiannisEulerBuckling.pdf>.
- [22] E. J. Barbero and I. G. Raftoyiannis. Local buckling of frp beams and columns. *Journal of Materials in Civil Engineering*, 5(3):339–355, 1993. <http://barbero.cadec-online.com/papers/1993/93BarberoRaftoyiannisLocalBucklingOfFRP.pdf>.
- [23] E. J. Barbero and J. Tomblin. Euler buckling of thin-walled composite columns. *Thin-Walled Structures*, 17(4):237–258, 1993. <http://barbero.cadec-online.com/papers/1993/93BarberoTomblinEulerBuckling.pdf>.
- [24] C. I. Chen, V. H. Mucino, and E. J. Barbero. Finite element vibration analysis of a helically wound tubular and laminated composite material beam. *Computer & Structures*, 49(3):399–410, 1993. <http://barbero.cadec-online.com/papers/1993/93ChenMucinoFiniteElementVibration.pdf>.
- [25] K. W. Kelly and E. J. Barbero. Effect of fiber damage on the longitudinal creep of a cfmmc. *International Journal of Solids and Structures*, 30(24):3417–3429, 1993. <http://barbero.cadec-online.com/papers/1993/93KellyBarberoEffectOfFiberDamage.pdf>.
- [26] E. J. Barbero, J. Davalos, and U. Munipalle. Bond strength of frp-wood interface. *Journal of Reinforced Plastics and Composites*, 13(9):835–854, 1994. <http://barbero.cadec-online.com/papers/1994/94BarberoDavalosBondStrength.pdf>.

- [27] E. J. Barbero and J. Tomblin. Phenomenological design equation for frp columns with interaction between local and global buckling. *Thin-Walled Structures*, 18(2):117–131, 1994. <http://barbero.cadec-online.com/papers/1994/94BarberoTomblinPhenomenologicalDesignEquation.pdf>.
- [28] E. J. Barbero and R. Zinno. Analysis of laminated composite plates with three-dimensional layer-wise constant shear elements. *International journal for engineering analysis and design*, 1:189–214, 1994. <http://barbero.cadec-online.com/papers/1994/94BarberoZinnoAnalysisOfLaminated.pdf>.
- [29] E.J. Barbero and Ioannis G. Raftoyiannis. Lateral and distortional buckling of pultruded i-beams. *Composite Structures*, 27(3):261–268, 1994. <http://barbero.cadec-online.com/papers/1994/94BarberoRaftoyiannisLateralAndDistortional.pdf>.
- [30] J. F. Davalos, Y. Kim, and E. J. Barbero. Analysis of laminated beams with a layer-wise constant shear theory. *Composite Structures*, 28(3):241–253, 1994. <http://barbero.cadec-online.com/papers/1994/94DavalosKimAnalysisOfLaminatedBeams.pdf>.
- [31] Y. Kim, J. F. Davalos, and E. J. Barbero. Composite beam element with layerwise plane sections. *Journal of Engineering Mechanics*, 120(5):1160–1166, 1994. <http://barbero.cadec-online.com/papers/1994/94KimDavalosCompositeBeamElement.pdf>.
- [32] R. Luciano and E. J. Barbero. Formulas for the stiffness of composites with periodic microstructure. *Int J Solids Struct*, 31(21):2933–2944, 1994. <http://barbero.cadec-online.com/papers/1994/94LucianoBarberoFormulasForTheStiffness.pdf>.
- [33] J. Tomblin and E. J. Barbero. Local buckling experiments on frp columns. *Thin-Walled Structures*, 18(2):97–116, 1994. <http://barbero.cadec-online.com/papers/1994/94TomblinBarberoLocalBucklingExperiments.pdf>.
- [34] R. Zinno and E.J. Barbero. Three-dimensional layer-wise constant shear element for general anisotropic shell-type structures. *International Journal for Numerical Methods in Engineering*, 37(14):2445–2470, 1994. <http://barbero.cadec-online.com/papers/1994/94ZinnoBarberoAThree-DimensionalLayer-Wise.pdf>.
- [35] E.J. Barbero and R. Luciano. Micromechanical formulas for the relaxation tensor of linear viscoelastic composites with transversely isotropic fibers. *International Journal of Solids and Structures*, 32(13):1859–1872, 1995. <http://barbero.cadec-online.com/papers/1995/95BarberoLucianoMicromechanicalFormulas.pdf>.
- [36] E.J. Barbero, R. Luciano, and E. Sacco. Three-dimensional plate and contact/friction elements for laminated composite joints. *Computers and Structures*, 54(4):689–703, 1995. <http://barbero.cadec-online.com/papers/1995/95BarberoLucianoThree-DimensionalPlateAndContact.pdf>.
- [37] E.J. Barbero, I.G. Raftoyiannis, and L.A. Godoy. Finite elements for post-buckling analysis. ii - application to composite plate assemblies. *Computers and Structures*, 56(6):1019–1028, 1995. <http://barbero.cadec-online.com/papers/1995/95BarberoRaftoyiannisFiniteElementsForPost-BucklingII.pdf>.

- [38] J. F. Davalos, Y. Kim, and E. J. Barbero. Layerwise beam element for analysis of frames with laminated sections and flexible joints. *Finite Elements in Analysis and Design*, 19(3):181–194, 1995. <http://barbero.cadec-online.com/papers/1995/95DavalosKimBarberoALayerwiseBeam.pdf>.
- [39] L.A. Godoy, E.J. Barbero, and I. Raftoyiannis. Interactive buckling analysis of fiber-reinforced thin-walled columns. *Journal of Composite Materials*, 29(5):591–613, 1995. <http://barbero.cadec-online.com/papers/1995/95GodoyBarberoInteractiveBucklingAnalysis.pdf>.
- [40] L.A. Godoy, E.J. Barbero, and I.G. Raftoyiannis. Finite elements for post-buckling analysis. i - the w-formulation. *Computers and Structures*, 56(6):1009–1017, 1995. <http://barbero.cadec-online.com/papers/1995/95GodoyBarberoFiniteElementsForPost-BucklingI.pdf>.
- [41] R. Lopez-Anido, J. F. Davalos, and E. J. Barbero. Experimental evaluation of stiffness of laminated composite beam elements under flexure. *Journal of Reinforced Plastics and Composites*, 14(4):349–, 1995. <http://barbero.cadec-online.com/papers/1995/95AnidoDavalosExperimentalEvaluationOfStiffness.pdf>.
- [42] R. Luciano and E. J. Barbero. Analytical expressions for the relaxation moduli of linear viscoelastic composites with periodic microstructure. *ASME J Appl Mech*, 62(3):786–793, 1995. <http://barbero.cadec-online.com/papers/1995/95LucianoBarberoAnalyticalExpressions.pdf>.
- [43] I. Raftoyiannis, L.A. Godoy, and E.J. Barbero. Buckling mode interaction in composite plate assemblies. *Applied Mechanics Reviews*, 48(11/2):52–, 1995. <http://barbero.cadec-online.com/papers/1995/95RaftoyiannisGodoyBarberoBucklingModeInteraction.pdf>.
- [44] S.S. Sonti, E.J. Barbero, and T. Winegardner. Determination of shear properties for rp pultruded composites. *Journal of Reinforced Plastics and Composites*, 14(4):390–, 1995. <http://barbero.cadec-online.com/papers/1995/95SontiBarberoDeterminationOfShearProperties.pdf>.
- [45] R. Zinno and E.J. Barbero. Total lagrangian formulation for laminated composite plates analysed by three-dimensional finite elements with two-dimensional kinematic constraints. *Computers and Structures*, 57(3):455–466, 1995. <http://barbero.cadec-online.com/papers/1995/95ZinnoBarberoTotalLangrangeanFormulation.pdf>.
- [46] E. J. Barbero, L. A. Godoy, and I. G. Raftoyiannis. Finite elements for three-mode interaction in buckling analysis. *International Journal for Numerical Methods in Engineering*, 39(3):469–488, 1996. <http://barbero.cadec-online.com/papers/1996/96BarberoGodoyFiniteElementsForThree-Mode.pdf>.
- [47] E.J. Barbero and J. Tomblin. A damage mechanics model for compression strength of composites. *International Journal of Solids and Structures*, 33(29):4379–93, December 1996. <http://barbero.cadec-online.com/papers/1996/96BarberoTomblinADamageMechanicsModel.pdf>.
- [48] J. F. Davalos, P. Qiao, and E. J. Barbero. Multiobjective material architecture optimization of pultruded frp i-beams. *Composite Structu-*

- res, 35(3):271–281, 1996. <http://barbero.cadec-online.com/papers/1996/96DavalosQiaoMultiobjectiveMaterialArchitecture.pdf>.
- [49] Y. Kim, J. F. Davalos, and E. J. Barbero. Progressive failure analysis of laminated composite beams. *Journal of Composite Materials*, 30(5):536–560, 1996. <http://barbero.cadec-online.com/papers/1996/96KimDavalosBarberoProgressiveFailure.pdf>.
- [50] S.S. Sonti and E.J. Barbero. Material characterization of pultruded laminates and shapes. *Journal of Reinforced Plastics and Composites*, 15(7):701–717, 1996. <http://barbero.cadec-online.com/papers/1996/96SontiBarberoMaterialCharacterizationOfPultruded.pdf>.
- [51] E. J. Barbero and L. A. Godoy. Influence of bending-extension coupling on buckling of composite columns. *Mechanics of Composite Materials and Structures*, 4(3):191–207, 1997. <http://barbero.cadec-online.com/papers/1997/97BarberoGodoyInfluenceOfBending-Extension.pdf>.
- [52] Y. Kim, J. F. Davalos, and E. J. Barbero. Delamination buckling of frp layer in laminated wood beams. *Composite Structures*, 37(3-4):311–320, 1997. <http://barbero.cadec-online.com/papers/1997/97KimDavalosDelaminationBuckling.pdf>.
- [53] J. S. Tomblin and E. J. Barbero. Statistical microbuckling propagation model for compressive strength prediction of fiber-reinforced composites. In *ASTM Special Technical Publication*, volume 1242, pages 151–167, Orlando, FL, USA, 1997. ASTM, Conshohocken, PA, USA. <http://barbero.cadec-online.com/papers/1997/97TomblinBarberoStatisticalMicrobuckling.pdf>.
- [54] J. S. Tomblin, E. J. Barbero, and L. A. Godoy. Imperfection sensitivity of fiber microbuckling in elastic-nonlinear polymer-matrix composites. *International Journal of Solids and Structures*, 34(13):1667–1679, 1997. <http://barbero.cadec-online.com/papers/1997/97TomblinBarberoImperfectionSensitivityOfFiber.pdf>.
- [55] E. J. Barbero. Prediction of compression strength of unidirectional polymer matrix composites. *Journal of Composite Materials*, 32(5):483–502, 1998. <http://barbero.cadec-online.com/papers/1998/98BarberoPredictionOfCompressionStrength.pdf>.
- [56] E.J. Barbero and J. Trovillion. Prediction and measurement of the post-critical behavior of fiber-reinforced composite columns. *Composites Science and Technology*, 58(8):1335–1341, 1998. <http://barbero.cadec-online.com/papers/1998/98BarberoTrovillionPredictionAndMeasurement.pdf>.
- [57] J. Harris and E. J. Barbero. Prediction of creep properties of laminated composites from matrix creep data. *J. Reinforced Plastics and Composites*, 17(4):361–379, 1998. <http://barbero.cadec-online.com/papers/1998/98HarrisBarberoPredictionOfCreep.pdf>.
- [58] J. C. Massa and E. J. Barbero. Strength of materials formulation for thin walled composite beams with torsion. *Journal of Composite Materials*, 32(17):1560–1594, 1998. <http://barbero.cadec-online.com/papers/1998/98MassaBarberoAStrengthOfMaterialsFormulation.pdf>.
- [59] P. Qiao, J. F. Davalos, and E. J. Barbero. Design optimization of fiber reinforced plastic composite shapes. *J. Composite Materials*, 32(2):177–196, 1998. <http://barbero.cadec-online.com/papers/1998/98QiaoDavalosBarberoDesignOptimization.pdf>.

- [60] E. J. Barbero and L. DeVivo. Beam-column design equations for wide-flange pultruded structural shapes. *Journal of Composites for Construction*, 3(4):185–191, 1999. <http://barbero.cadec-online.com/papers/1999/99BarberoDeVivoBeamColumDesignEquations.pdf>.
- [61] E.J. Barbero, S. Makkapati, and J.S. Tomblin. Experimental determination of the compressive strength of pultruded structural shapes. *Composites Science and Technology*, 59(13):2047–2054, 1999. <http://barbero.cadec-online.com/papers/1999/99BarberoMakkapatiExperimentalDetermination.pdf>.
- [62] P. Qiao, J. F. Davalos, E. J. Barbero, and D. Troutman. Step-by-step engineering design equations for frp structural beams. *Modern Plastics*, 1999. <http://barbero.cadec-online.com/papers/1999/99QiaoDavalosEquationsFacilitate.pdf>.
- [63] E. J. Barbero. Compressive strength of composites for aircraft structures. *World Market Series Business Briefing-Global Aerospace Technology, London, UK*, pages 96–100, 2000. <http://barbero.cadec-online.com/papers/2000/00BarberoCompressiveStrengthOfCompositesForAircraftStructures.pdf>.
- [64] E. J. Barbero. Prediction of buckling-mode interaction in composite columns. *Mechanics of Composite Materials and Structures*, 7(3):269–284, 2000. <http://barbero.cadec-online.com/papers/2000/00BarberoPredictionOfBucklingModeInteraction.pdf>.
- [65] E. J. Barbero, E. K. Dede, and S. Jones. Experimental verification of buckling-mode interaction in intermediate-length composite columns. *International Journal of Solids and Structures*, 37(29):3919–3934, 2000. <http://barbero.cadec-online.com/papers/2000/00BarberoDedeExperimentalVerificationOfBucklingModeInteraction.pdf>.
- [66] E. J. Barbero and S. Makkapati. Robust design optimization of composite structures. In *45th International SAMPE Symposium and Exhibition*, volume 45 (II), pages 1341–1352, Long Beach, CA, USA, May 2000. SAMPE, Covina, CA, USA. <http://barbero.cadec-online.com/papers/2000/00BarberoMakkapatiRobustDesignOptimizationDetails.pdf>.
- [67] E. J. Barbero and M. Turk. Experimental investigation of beam-column behavior of pultruded structural shapes. *Journal of Reinforced Plastics and Composites*, 19(3):249–265, 2000. <http://barbero.cadec-online.com/papers/2000/00BarberoTurkExperimentalInvestigation.pdf>.
- [68] E. J. Barbero and E. A. Wen. Compressive strength of production parts without compression testing. *ASTM Special Technical Publication*, (1383):470–483, 2000. <http://barbero.cadec-online.com/papers/2000/00BarberoWenCompressiveStrengthOfProductionPartsWithoutCompression.pdf>.
- [69] P. Qiao, E. J. Barbero, and J. F. Davalos. On the linear viscoelasticity of thin-walled laminated composite beams. *Journal of Composite Materials*, 34(1):39–68, 2000. <http://barbero.cadec-online.com/papers/2000/00QiaoBarberoOnTheLinearViscoelasticity.pdf>.
- [70] E. J. Barbero and L. DeVivo. Constitutive model for elastic damage in fiber-reinforced pmc laminae. *International Journal of Damage Mechanics*, 10(1):73–93, 2001. <http://barbero.cadec-online.com/papers/2001/01BarberoDeVivoAConstitutiveModelForElasticDamage.pdf>.

- [71] E. J. Barbero and P. Lonetti. Damage model for composites defined in terms of available data. *Mechanics of Composite Materials and Structures*, 8(4):299–315, 2001. <http://barbero.cadec-online.com/papers/2001/01BarberoLonettiDamageModelForComposites.pdf>.
- [72] G.F. Abdelal, A. Caceres, and E.J. Barbero. A micro-mechanics damage approach for fatigue of composite materials. *Composite Structures*, 56(4):413 – 422, 2002. [http://barbero.cadec-online.com/papers/2002/10.1016/S0263-8223\(02\)00026-0.pdf](http://barbero.cadec-online.com/papers/2002/10.1016/S0263-8223(02)00026-0.pdf).
- [73] E. J. Barbero and P. Lonetti. An inelastic damage model for fiber reinforced laminates. *Journal of Composite Materials*, 36(8):941–962, 2002. <http://barbero.cadec-online.com/papers/2002/10.1177/0021998302036008549.pdf>.
- [74] E. J. Barbero and E. A. Wen. Autofrettage to offset coefficient of thermal expansion mismatch in metal-lined composite pipes. In *ASTM STP 1436, Composite Materials: Testing and Design*, volume Paper ID 19068, pages A: 193–204, 2002. <http://barbero.cadec-online.com/papers/2002/10.1520/STP1436-EB.pdf>.
- [75] E. Barbero and T. Damiani. Interaction between static fatigue and zero-stress aging in e-glass fiber composites. *Journal of Composites for Construction*, 7(1):3–9, 2003. [http://barbero.cadec-online.com/papers/20003/10.1061/\(ASCE\)1090-0268\(2003\)7%3A1\(3\).pdf](http://barbero.cadec-online.com/papers/20003/10.1061/(ASCE)1090-0268(2003)7%3A1(3).pdf).
- [76] E. J. Barbero and T. M. Damiani. Phenomenological prediction of tensile strength of e-glass composites from available aging and stress corrosion data. *Journal of Reinforced Plastics and Composites*, 22(4):373–394, 2003. <http://barbero.cadec-online.com/papers/2003/10.1177/0731684403022004269.pdf>.
- [77] P. Lonetti, R. Zinno, F. Greco, and E. J. Barbero. Interlaminar damage model for polymer matrix composites. *Journal of Composite Materials*, 37(16):1485–1504, 2003. <http://barbero.cadec-online.com/papers/2004/04LonettiBarberoZinnoGrecoERRATUM.pdf>.
- [78] E. J. Barbero and K. J. Ford. Equivalent time temperature model for physical aging and temperature effects on polymer creep and relaxation. *ASME Journal of Engineering Materials and Technology*, 126(4):413–419, OCT 2004. <http://barbero.cadec-online.com/papers/2004/10.1115/1.1789956.pdf>.
- [79] E. J. Barbero, C. Irwin, X. Liu, V. Sikka, and F. Goodwin. Development of the next generation of bath hardware materials. *Iron and Steel Technology*, 1(10):31–37, 2004. <http://barbero.cadec-online.com/papers/2004/04BarberoIrwinLiuSikkaGoodwinDevelopment.pdf>.
- [80] E. J. Barbero and M. J. Julius. Time-temperature-age viscoelastic behavior of commercial polymer blends and felt filled polymers. *Mechanics of Advanced Materials and Structures*, 11(3):287–300, 2004. <http://barbero.cadec-online.com/papers/2004/04BarberoJuliusTimeTemperatureAge.pdf>.
- [81] Xingbo Liu, B. Kang, W. Carpenter, and E. Barbero. Investigation of the crack growth behavior of inconel 718 by high temperature moir interferometry. *Journal of Materials Science*, 39(6):1967–1973, 2004. <http://barbero.cadec-online.com/papers/2004/10.1023/B%3AJMSC.0000017758.91184.ac.pdf>.
- [82] P. Lonetti, E. J. Barbero, R. Zinno, and F. Greco. Erratum: Interlaminar damage model for polymer matrix composites (journal of composite materials 37: 16 (1485-1504)). *Journal of Composite Materials*, 38(9):799–800, 2004. <http://barbero.cadec-online.com/papers/2004/04LonettiBarberoZinnoGrecoERRATUM.pdf>.

- [83] Zhengdong Long, Xingbo Liu, Wanhong Yang, Keh-Minn Chang, and Ever Barbero. Thermodynamic assessment of liquid composition change during solidification and its effect on freckle formation in superalloys. *Materials Science and Engineering: A*, 386(12):254 – 261, 2004. <http://barbero.cadec-online.com/papers/2004/10.1016/j.msea.2004.07.038.pdf>.
- [84] E. J. Barbero, G. F. Abdelal, and A. Caceres. A micromechanics approach for damage modeling of polymer matrix composites. *Composite Structures*, 67(4):427 – 436, 2005. <http://barbero.cadec-online.com/papers/2005/10.1016/j.compstruct.2004.02.001.pdf>.
- [85] E. J. Barbero, F. Greco, and P. Lonetti. Continuum damage-healing mechanics with application to self-healing composites. *International Journal of Damage Mechanics*, 14(1):51–81, 2005. <http://barbero.cadec-online.com/papers/2005/10.1177/1056789505045928.pdf>.
- [86] E. J. Barbero and S. Rangarajan. Long-term testing of trenchless pipe liners. *Journal of Testing and Evaluation*, 33(6):377–384, 2005. <http://barbero.cadec-online.com/papers/2005/10.1520/JTE11982.pdf>.
- [87] Ever J. Barbero, Thomas M. Damiani, and Jonathan Trovillion. Micromechanics of fabric reinforced composites with periodic microstructure. *International Journal of Solids and Structures*, 42(910):2489 – 2504, 2005. <http://barbero.cadec-online.com/papers/2005/10.1016/j.ijsolstr.2004.09.034.pdf>.
- [88] X. Liu, L. Z. Ma, K-M. Chang, and E. J. Barbero. Fatigue crack propagation of ni-base superalloys. *Acta Metallurgica Sinica (English Letters)*, 18(1):55–64, 2005. <http://barbero.cadec-online.com/papers/2005/05LiuMaChangBarberoFatigueCrackPropagation.pdf>.
- [89] X. Liu, J. Xu, N. Deem, K-M. Chang, E. J. Barbero, W-D. Cao, R. L. Kennedy, and T. Carneiro. Effect of thermal-mechanical treatment on the fatigue crack propagation behavior of newly developed allvac 718plus alloy. In E. A. Loria, editor, *Superalloys 718-625-706 and Derivatives*, 2005. http://www.tms.org/superalloys/10.7449/2001/Superalloys_2001_283_290.pdf.
- [90] Xingbo Liu, Ever Barbero, Jing Xu, Matthew Burris, Keh-Minn Chang, and Vinod Sikka. Liquid metal corrosion of 316l, fe3al, and fe crsi in molten zn-al baths. *Metallurgical and Materials Transactions A*, 36(8):2049–2058, 2005. <http://barbero.cadec-online.com/papers/2005/10.1007/s11661-005-0325-7.pdf>.
- [91] Jing Xu, Xiaogang Li, Xingbo Liu, Nathaniel Deem, Ever Barbero, and Chaofang Dong. X-ray photoelectron spectroscopy study of passive layers formed on pb-sn and pb-sb alloys. *Metallurgical and Materials Transactions A*, 36(8):2175–2190, 2005. <http://barbero.cadec-online.com/papers/2005/10.1007/s11661-005-0337-3.pdf>.
- [92] E. J. Barbero and K. J. Ford. Determination of aging shift factor rates for field-processed polymers. *SAMPE Journal of Advanced Materials*, 38(2):7–13, APR 2006. <http://barbero.cadec-online.com/papers/2006/06BarberoFordDeterminationOfAgingShiftFactor.pdf>.
- [93] E.J. Barbero, P. Lonetti, and K.K. Sikkil. Finite element continuum damage modeling of plain weave reinforced composites. *Composites Part B: Engineering*, 37(23):137 – 147, 2006. <http://barbero.cadec-online.com/papers/2006/10.1016/j.compositesb.2005.06.001.pdf>.

- [94] E.J. Barbero, J. Trovillion, J.A. Mayugo, and K.K. Sikkil. Finite element modeling of plain weave fabrics from photomicrograph measurements. *Composite Structures*, 73(1):41–52, 2006. <http://barbero.cadec-online.com/papers/2006/10.1016/j.compstruct.2005.01.030.pdf>.
- [95] B. S.-J. Kang, Z. Yao, and E. J. Barbero. Post-yielding stress-strain determination using spherical indentation. *Mechanics of Advanced Materials and Structures*, 13(2):129–138, 2006. <http://barbero.cadec-online.com/papers/2006/10.1080/15376490500448607.pdf>.
- [96] Jing Xu, Xingbo Liu, Xiaogang Li, Ever Barbero, and Chaofang Dong. Effect of sn concentration on the corrosion resistance of pb-sn alloys in {H₂SO₄} solution. *Journal of Power Sources*, 155(2):420–427, 2006. <http://barbero.cadec-online.com/papers/2006/10.1016/j.jpowsour.2005.04.026.pdf>.
- [97] E. J. Barbero and Kevin J. Ford. Characterization of self-healing fiber-reinforced polymer-matrix composite with distributed damage. *Journal of Advanced Materials*, 39(4):20–27, 10 2007. <http://barbero.cadec-online.com/papers/2007/07BarberoFordCharacterizationOfSelf-Healing.pdf>.
- [98] Jing Xu, MarkA. Bright, Xingbo Liu, and Ever Barbero. Liquid metal corrosion of 316l stainless steel, 410 stainless steel, and 1015 carbon steel in a molten zinc bath. *Metallurgical and Materials Transactions A*, 38(11):2727–2736, 2007. <http://barbero.cadec-online.com/papers/2007/10.1007/s11661-007-9320-5.pdf>.
- [99] Jing Xu, Xingbo Liu, Ever Barbero, James G Hemrick, and Mark Peters. Wetting and reaction characteristics of al₂o₃/sic composite refractories by molten aluminum and aluminum alloy. *International Journal of Applied Ceramic Technology*, 4(6):514–523, 2007. <http://barbero.cadec-online.com/papers/2007/10.1111/j.1744-7402.2007.02177.x.pdf>.
- [100] E. J. Barbero. Journal paper requirement for phd graduation. *Latin American and Caribbean Journal of Engineering Education*, 2(July):51–53, 2008. <http://barbero.cadec-online.com/papers/2008/08BarberoJournalPaperRequirement.pdf>.
- [101] X. Liu, J. Xu, E. J. Barbero, W-D. Cao, and R. L. Kennedy. Effect of thermal treatment on the fatigue crack propagation behavior of a new ni-base superalloy. *Materials Science and Engineering A*, 474:30–38, 2008. <http://barbero.cadec-online.com/papers/2008/10.1016/j.msea.2007.05.033.pdf>.
- [102] Jing Xu, Xingbo Liu, Mark A. Bright, James G. Hemrick, Vinod Sikka, and Ever Barbero. Reactive wetting of an iron-base superalloy msa2020 and 316l stainless steel by molten zinc-aluminum alloy. *Metallurgical and Materials Transactions A*, 39(6):1382–1391, 2008. <http://barbero.cadec-online.com/papers/2008/10.1007/s11661-008-9501-x.pdf>.
- [103] E. J. Barbero. Prediction of long-term creep of composites from doubly-shifted polymer creep data. *Journal of Composite Materials*, 43(19):2109–2124, 2009. <http://barbero.cadec-online.com/papers/2009/10.1177/0021998308098239.pdf>.
- [104] S. P. C. Marques, E. J. Barbero, and J. S. Rivas Murillo. Analysis of conduction-radiation problem in absorbing and emitting nongrey materials. *I.J. for Numerical Methods in Heat and Fluid Flow*, 19(2):165–181, 2009. <http://barbero.cadec-online.com/papers/2009/09MarquesConductionRadiation.pdf>.

- [105] E. J. Barbero and D. H. Cortes. A mechanistic model for transverse damage initiation, evolution, and stiffness reduction in laminated composites. *Composites Part B*, 41:124–132, 2010. <http://barbero.cadec-online.com/papers/2010/10.1016/j.compositesb.2009.10.001.pdf>.
- [106] D. H. Cortes and E. J. Barbero. Stiffness reduction and fracture evolution of oblique matrix cracks in composite laminates. *Annals of Solid and Structural Mechanics*, 1(1):29–40, 2010. <http://barbero.cadec-online.com/papers/2010/10.1007/s12356-009-0001-5.pdf>.
- [107] J. S. Rivas Murillo, Bachlechner, M., and E. J. Barbero. Structure and mechanical properties of silica aerogels and xerogels modeled by molecular dynamics simulation. *Journal of Non-Crystalline Solids*, 356(25–27):1325–1331, 2010. <http://barbero.cadec-online.com/papers/2010/10.1016/j.jnoncrysol.2010.03.019.pdf>.
- [108] A. Adumitroaie and E. J. Barbero. Beyond plain weave fabrics - I. geometrical model. *Composite Structures*, 93:1424–1432, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.compstruct.2010.11.014.pdf>.
- [109] A. Adumitroaie and E. J. Barbero. Beyond plain weave fabrics - II. mechanical properties, composite structures. *Composite Structures*, 93:1449–1462, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.compstruct.2010.11.016.pdf>.
- [110] E. J. Barbero, G. Sgambitterra, A. Adumitroaie, and X. Martinez. A discrete constitutive model for transverse and shear damage of symmetric laminates with arbitrary stacking sequence. *Composite Structures*, 93:1021–1030, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.compstruct.2010.06.011.pdf>.
- [111] F.A. Campo, Rivas Murillo J.S., and E.J. Barbero. Aggregation model for the gelation of a sol starting from the processing conditions. *J. of Non-Crystalline Solids*, 357:2046–2053, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.jnoncrysol.2011.02.025.pdf>.
- [112] X. Martinez, S. Oller, and E. J. Barbero. Caracterizacion de la delaminacion en materiales compuestos mediante la teoria de mezclas serie/paralelo. *Revista Internacional de Metodos Numericos Para Calculo y Diseo en Ingenieria*, 27(3):189–199, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.rimni.2011.07.001.pdf>.
- [113] G. Sgambitterra, A. Adumitroaie, E.J. Barbero, and A. Tessler. A robust three-node shell element for laminated composites with matrix damage. *Composites Part B*, 42(1):41–50, 2011. <http://barbero.cadec-online.com/papers/2011/10.1016/j.compositesb.2010.09.016.pdf>.
- [114] A. Adumitroaie and E. J. Barbero. Stiffness and strength prediction for plain weave textile reinforced composites. *Mechanics of Advanced Materials and Structures*, 19(1–3):169–183, 2012. <http://barbero.cadec-online.com/papers/2012/10.1080/15376494.2011.572245.pdf>.
- [115] E. J. Barbero and F. Campo. Sol-gel simulation–II: Mechanical response. *J. Non-crystalline Solids*, 358(4):728–734, 2012. <http://barbero.cadec-online.com/papers/2012/10.1016/j.jnoncrysol.2011.12.005.pdf>.

- [116] E. J. Barbero and J. M. Gutierrez. Determination of basis values for small data sets, paper no. 1989. In *SAMPE Technical Conference, Baltimore MD, May 21-24*. SAMPE Digital Library <https://sampe.site-ym.com/>, 2012. <http://barbero.cadec-online.com/papers/2012/conference/1989.pdf>.
- [117] F. Campo and E. J. Barbero. Sol-gel simulation–I: Scattering response. *J. Non-crystalline Solids*, 358(4):721–727, 2012. <http://barbero.cadec-online.com/papers/2012/10.1016/j.jnoncrysol.2011.10.023.pdf>.
- [118] S. Chen, X. Song, X. Chen, Y. Chen, E. J. Barbero, E. L. Thomas, and P. N. Barnes. Effect of precursor calcination temperature on the microstructure and thermoelectric properties of $\text{Ca}_3\text{Co}_4\text{O}_9$ ceramics. *J Sol-Gel Sci. Technol*, 64:627–636, 2012. <http://barbero.cadec-online.com/papers/2012/10.1007/s10971-012-2894-4.pdf>.
- [119] J. M. Gutierrez, E. J. Barbero, D. R. Cairns, V. H. Mucino, and J. A. Mayugo. Dynamic roughness and power dissipation of polymer films actuated with liquid crystal polymer inclusions. *Smart Materials & Structures*, 21:1–11, 2012. <http://barbero.cadec-online.com/papers/2012/10.1088/0964-1726/21/1/015003.pdf>.
- [120] X. Song, Y. Chen, S. Chen, E. J. Barbero, E. L. Thomas, and P. Barnes. Significant enhancement of electrical transport properties of thermoelectric $\text{Ca}_3\text{Co}_4\text{O}_9+\text{d}$ through Yb doping,. *Solid State Comm.*, 152(16):1509–1512, 2012. <http://barbero.cadec-online.com/papers/2012/10.1016/j.ssc.2012.06.014.pdf>.
- [121] E. J. Barbero and F. A. Cosso. Benchmark solution for degradation of elastic properties due to transverse matrix cracking in laminated composites. *Composite Structures*, 98:242–252, 2013. <http://barbero.cadec-online.com/papers/2013/10.1016/j.compstruct.2012.11.009.pdf>.
- [122] E. J. Barbero, F. A. Cosso, and X. Martinez. Identification of fracture toughness for discrete damage mechanics analysis of glass-epoxy laminates. *Applied Composite Materials*, November:1–18, 2013. <http://barbero.cadec-online.com/papers/2013/10.1007/s10443-013-9359-y.pdf>.
- [123] E. J. Barbero, F. A. Cosso, R. Roman, and T. L. Weadon. Determination of material parameters for Abaqus progressive damage analysis of E-Glass Epoxy laminates. *Composites Part B:Engineering*, 46:211–220, 2013. <http://barbero.cadec-online.com/papers/2013/10.1016/j.compositesb.2012.09.069.pdf>.
- [124] E. J. Barbero, E. M. Sosa, X. Martinez, and J. A. Gutierrez. Reliability design methodology for confined high pressure (textile) inflatable structures. *ASCE Engineering Structures*, 51:1–9, 2013. <http://barbero.cadec-online.com/papers/2013/10.1016/j.engstruct.2013.01.011.pdf>.
- [125] E. J. Barbero and F. A. Cosso. Determination of material parameters for discrete damage mechanics analysis of carbon-epoxy laminates. *Composites Part B*, 56:638–646, 2014. <http://barbero.cadec-online.com/papers/2014/10.1016/j.compositesb.2013.08.084.pdf>.
- [126] E.J. Barbero, A. Madeo, G. Zagari, R. Zinno, and G. Zucco. Koiter asymptotic analysis of folded laminated composite plates. *Composites Part B*, 61:267–274, 2014. <http://barbero.cadec-online.com/papers/2014/10.1016/j.compositesb.2014.01.045.pdf>.

- [127] E.J. Barbero, A. Madeo, G. Zagari, R. Zinno, and G. Zucco. A mixed isostatic 24 DOF element for static and buckling analysis of laminated folded plates. *Composite Structures*, 116(1):223–234, 2014. <http://barbero.cadec-online.com/papers/2014/10.1016/j.compstruct.2014.05.003.pdf>.
- [128] M. M. Moure, S. Sanchez-Saez, E. Barbero, and E. J. Barbero. Analysis of damage localization in composite laminates using a discrete damage model. *Composites Part B*, 66:224–232, 2014. <http://barbero.cadec-online.com/papers/2014/10.1016/j.compositesb.2014.05.015.pdf>.
- [129] E M Sosa, E J Barbero, and G J Thompson. Diseño y evaluacion de tapones inflables para contencion de inundaciones en tuneles. *Revista Internacional de Desastres Naturales, Accidentes e Infraestructura Civil (Int. J. Civil Infrastructure, Accidents, and Natural Disasters)*, 14(1-2):39–58, 2014.
- [130] E. M. Sosa, G. Thompson, E. J. Barbero, S. Ghosh, and K. L. Peil. Friction characteristics of confined inflatable structures. *Friction*, 2(4):365–390, 2014. <http://barbero.cadec-online.com/papers/2014/10.1007/s40544-014-0069-8.pdf>.
- [131] E. M. Sosa, G. J. Thompson, and E. J. Barbero. Testing of full-scale inflatable plug for food mitigation in tunnels. *Transportation Research Record*, 2407:59–67, 2014. <http://barbero.cadec-online.com/papers/2014/10.3141/2407-06.pdf>.
- [132] A. Adumitroaie and E. J. Barbero. Intralaminar damage model for laminates subjected to membrane and flexural deformations. *Mechanics of Advanced Materials and Structures*, 22(9):705–716, 2015. <http://barbero.cadec-online.com/papers/2014/10.1080/15376494.2013.796541.pdf>.
- [133] E J Barbero, J Cabrera Barbero, and C Navarro Ugena. Analytical solution for plane stress/strain deformation of laminates with matrix cracks. *Composite Structures*, 132:621–632, 2015. <http://barbero.cadec-online.com/papers/2015/COST-6508.pdf>.
- [134] E. J. Barbero, A. Madeo, G. Zagari, R. Zinno, and G. Zucco. Imperfection sensitivity analysis of laminated folded plates. *Thin-Walled Structures*, 90:128–139, 2015. <http://barbero.cadec-online.com/papers/2015/10.1016/j.tws.2015.01.017.pdf>.
- [135] M.M. Moure, F. Otero, S.K. Garcia-Castillo, S. Sanchez-Saez, E. Barbero, and E.J. Barbero. Damage evolution in open-hole laminated composite plates subjected to in-plane loads. *Composite Structures*, 133:1048–1057, 2015. [http://barbero.cadec-online.com/papers/2015/Moure-CompositeStructures133\(2015\)1048--1057.pdf](http://barbero.cadec-online.com/papers/2015/Moure-CompositeStructures133(2015)1048--1057.pdf).
- [136] T I. Muchenik and E J Barbero. Charge, voltage, and work-conversion formulas for magnetoelectric laminated composites. *Smart Mater. Struct.*, 24(025039), 2015. <http://barbero.cadec-online.com/papers/2015/IOP-507234.pdf>.
- [137] X. Song, D. McIntyre, X. Chen, E.J. Barbero, and Y. Chen. Phase evolution and thermoelectric performance of calcium cobaltite upon high temperature aging. *Ceramics International*, 41(9, Part A):1106911074, 2015.
- [138] A. Adumitroaie, E. J. Barbero, and M. Schagerl. Matrix cracking in non-symmetric laminates under combined membrane and flexural loading. *International Journal of Materials Mechanics and Manufacturing*, 4:223–231, 2016. <http://barbero.cadec-online.com/papers/2016/IJMMM-Audimitroaie-Barbero-Schagerl.pdf>.

- [139] E J Barbero and J Cabrera Barbero. Analytical solution for bending of laminated composites with matrix cracks. *Composite Structures*, 135:140–155, 2016. <http://barbero.cadec-online.com/papers/2016/COST-6866.pdf>.
- [140] N.D. Barulich, L.A. Godoy, and E.J. Barbero. On micro-buckling of unidirectional fiber-reinforced composites by means of computational micromechanics. *Latin American Journal of Solid and Structures (LAJSS)*, 13(16):3085–3106, 2016. <http://www.lajss.org/index.php/LAJSS/article/view/2867>.
- [141] C. Boyle, P. Carvillo, Y. Chen, E.J. Barbero, D. McIntyre, and X. Song. Grain boundary segregation and thermoelectric performance enhancement of bismuth doped calcium cobaltite. *Journal of the European Ceramic Society*, 36(3):601–607, 2016.
- [142] Mohammad Hosseini Ghayour, Hosseini-Toudeshky, H, Jalalvand, Meisam, and Ever J Barbero. Micro/macro approach for prediction of matrix cracking evolution in laminated composites. *Journal of Composite Materials*, 50(19):2647–2659, 2016. <http://barbero.cadec-online.com/papers/2015/HosGha-Jal-Barb-JCM.pdf>.
- [143] M.M. Moure, S.K. Garcia-Castillo, S. Sanchez-Saez, E. Barbero, and E.J. Barbero. Influence of ply cluster thickness and location on matrix cracking evolution in open-hole composite laminates. *Composites Part B: Engineering*, 95:40–47, 2016. <http://barbero.cadec-online.com/papers/2016/MoureCompositesPartB2016.pdf>.
- [144] T I Muchenik and E J Barbero. Prediction of extrinsic charge, voltage, and work-conversion factors for laminated magnetoelectric composites. *Smart Materials and Structures*, 25(1):015006, 2016. <http://barbero.cadec-online.com/papers/2016/IOP-102056.pdf>.
- [145] E. M. Sosa, C-S Wong, E. J. Barbero, and G. Thompson. Finite element simulation of deployment of large-scale confined inflatable structures. *Thin Walled Structures*, 104:152–167, 2016. http://barbero.cadec-online.com/papers/2016/TWS_SIMU_2016_plus_figures.pdf.
- [146] E. J. Barbero. Universal carpet plots for stiffness and strength design. In *CAMX 2017, Orlando, FL, December 11-14*, volume TP17 (0006). SAMPE Digital Library <https://sampe.site-ym.com/>, 2017. <http://barbero.cadec-online.com/papers/2017/TP17-0006-Universal-Carpet-Plots.pdf>.
- [147] E. J Barbero and R. Zinno G. Zucco A. Madeo, G. Zagari. Imperfection sensitivity analysis of composite cylindrical shells using Koiter’s method. *Int. J. Structural Stability and Dynamics*, 18:105–111, 2017. http://barbero.cadec-online.com/papers/2017/Paper_Desicos_BMZZZ_website.pdf.
- [148] E.J. Barbero, A. Madeo, and F. Vetere. Analytic integration of singular kernels for boundary element analysis of plane orthotropic media. *Composites Part B*, 108:393–412, 2017. http://barbero.cadec-online.com/papers/2017/PAPER_BVMZ_REVISION_4_website.pdf.
- [149] E.J. Barbero and M. Shahbazi. Determination of critical energy release rates for discrete damage mechanics analysis in ANSYS. *Theoretical and Applied Fracture Mechanics*, 92:99–112, 2017. http://barbero.cadec-online.com/papers/2017/TAFMEC_2017_149_R1_website.pdf.

- [150] E.J. Barbero and M. Shahbazi. Determination of material properties for ANSYS progressive damage analysis of laminated composites. *Composite Structures*, 176:768–779, 2017. http://barbero.cadec-online.com/papers/2017/AnsysPDABarberoShahbazi_website.pdf.
- [151] E. M. Sosa, G. J. Thompson, and E. J. Barbero. Experimental investigation of initial deployment of (textile) inflatable structures for sealing of rail tunnels. *Tunneling and Underground Space Technology*, 69:37 – 51, 2017. http://barbero.cadec-online.com/papers/2017/WVU_TUST_FINAL-06-09-2017.pdf.
- [152] E. J. Barbero. Universal knockdown factors for strength of carbon/epoxy laminates. In *CAMX 2018, Dallas, TX, October 16–18*, volume TP18 (0324). SAMPE Digital Library <https://sampe.site-ym.com/>, 2018. <http://barbero.cadec-online.com/papers/2018/TP18-0324-V2-universal.pdf>.
- [153] E. J. Barbero and J. Cabrera Barbero. Damage initiation and evolution during monotonic cooling of laminated composites. *Journal of Composite Materials*, 52(30):4151–4170, 2018. http://barbero.cadec-online.com/papers/2018/ppr4ejb_JCM_R2_website.pdf.
- [154] E. J. Barbero and J. Cabrera Barbero. Determination of material properties for progressive damage analysis of carbon/epoxy laminates. *Mechanics of Advanced Materials and Structures*, 02(01):1–10, 2018. http://barbero.cadec-online.com/papers/2018/PDA_MAMS_R0_website.pdf.
- [155] Ever J. Barbero and Antoine Joseph Bedard. Electrical percolation threshold of magnetostriuctive inclusions in a piezoelectric matrix composite as a function of relative particle size. *Computational Particle Mechanics*, pages 1–12, 2018. [http://barbero.cadec-online.com/papers/2018/10.1007s40571-017-0165-4\(JCPM\).pdf](http://barbero.cadec-online.com/papers/2018/10.1007s40571-017-0165-4(JCPM).pdf).
- [156] Antoine Joseph Bedard and Ever J. Barbero. Electrical percolation threshold of magnetostriuctive inclusions in a piezoelectric matrix under simulated sintering conditions. *Computational Particle Mechanics*, 5(2):227–238, 2018. <http://barbero.cadec-online.com/papers/2018/CPM-Sintering-Website.pdf>.
- [157] M.M. Moure, S.K. Garcia-Castillo, S. Sanchez-Saez, E. Barbero, and E.J. Barbero. Matrix cracking evolution in open-hole laminates subjected to thermo-mechanical loads. *Composite Structures*, 183(-):510–520, 2018. <http://barbero.cadec-online.com/papers/2018/COST2018MoureThermomechanicalWebsite.pdf>.
- [158] Mohammad Hossein Ghayour, N. Chitsaz, H. Hosseini-Toudeshky, and Ever J Barbero. Enhanced variational approach for damage analysis of laminated composites. *Mechanics of Advanced Materials and Structures*, 2019.