6/2/2020

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EDUCATION

1999	Ph.D., Mechanical and Environmental Engineering University of California, Santa Barbara
1997	M.S., Mechanical and Environmental Engineering University of California, Santa Barbara
1994	B.S.E., Mechanical Engineering and Applied Mechanics University of Pennsylvania
1994	B.S., Economics (Finance) University of Pennsylvania, Wharton School of Business

EXPERIENCE

2014-present	Professor, Aerospace Engineering and Engineering Mechanics, The University of Texas at Austin
2008-2014	Associate Professor, Aerospace Engineering and Engineering Mechanics, The University of Texas at Austin
2007-2008	Assistant Professor, Aerospace Engineering and Engineering Mechanics, The University of Texas at Austin
2005-2006	Associate Professor, Mechanical Engineering and Materials Science, Rice University
2000-2005	Assistant Professor, Mechanical Engineering and Materials Science, Rice University

1999-2000	Postdoctoral Fellow, Division of Engineering and Applied Sciences, Harvard University, advisor: Professor John W. Hutchinson
1995-1999	Research Assistant in the Department of Mechanical and Environmental Engineering, University of California, Santa Barbara, advisor: Professor Robert M. McMeeking

HONORS AND AWARDS

2019	Lockheed Martin Excellence in Teaching Award
2018	LUNAR Council Teaching Award
2016-present	M.J. Thompson Regents Professorship in Aerospace Engineering and Engineering Mechanics
2012-2016	Chevron Fellowship in Engineering #1
2014	Elected Fellow of ASME
2013	ICES Moncrief Grand Challenge Award
2008	Thomas J.R. Hughes Young Investigator Award (ASME Applied Mechanics Division)
2005	Materials Research Society Outstanding Paper Award
2003	National Science Foundation Career Award
2003	Office of Naval Research Young Investigator Award
1995,1997-1998	Regents Fellowship, University of California

ACTIVITIES

2019	co-Chair –	IUTAM Symposium on Shape Memory Alloys, Austin, TX, 4/28-2019-5/2/2019
2017-present	Associate Editor – International Journal of Solids and Structures	
2016-present	Associate Editor – Journal of Engineering Mechanics	
2012-present	Regional Editor – International Journal of Fracture	
2005-present	Associate Editor – Journal of the American Ceramic Society	
2011-2018	Member at Large –	United States National Committee on Theoretical and Applied Mechanics
2006-present	Treasurer – American Academy of Mechanics	
2011-2016	Board of Editors – International Journal of Solids and Structures	
2009-2015	Associate Editor – Journal of Applied Mechanics	
2001-2003	Recording Secretary – ASME Applied Mechanics Division	

Member of American Society of Mechanical Engineers
Member of American Academy of Mechanics

Member of the Materials Research Society
Member of the American Ceramic Society
Member of Society of Engineering Science
Member of Tau Beta Pi

JOURNAL PUBLICATIONS

6221 citations, h-index = 37
http://scholar.google.com/citations?user=ercfpvkAAAAJ&hl=en

76. D. Garcia-Gonzalez and C.M. Landis, 2020, "Magneto-diffusion-viscohyperealsticity for magneto-active hydrogels: rate dependences across time scales." *Journal of the Mechanics and Physics of Solids* **139** 103934.

75. Y. Yu, N. Bouklas, C.M. Landis, and R. Huang, 2020. "Poroelastic effects on the time- and rate-dependent fracture of polymer gels." *Journal of Applied Mechanics* **87** 031005.

74. K. Kazinakis, S. Kyriakides, D. Jiang, N.J. Bechle, and C.M. Landis, 2019. "Buckling and collapse of pseudoelastic NiTi tubes under bending." *accepted to the International Journal of Solids and Structures.*

73. Y. Yu, C.M. Landis, and R. Huang, 2020, "Poroelastic effects on steady state crack growth in polymer gels under plane stress." *Mechanics of Materials* **143** 103320.

72. K. Paul, C. Zimmermann, K.K. Mandadapu, T.J.R. Hughes, C.M. Landis, and R.A. Sauer, 2020. "An adaptive space-time phase field formulation for dynamic fracture of brittle shells based on LR NURBS." *Computational Mechanics* **65** 1039-1062.

71. Y.-S. Lo, M.J. Borden, K. Ravi-Chandar, and C.M. Landis, 2019. "A Phase-field Model for Fatigue Crack Growth." *Journal of the Mechanics and Physics of Solids* **132**, 103684.

70. A.Y. Woldman and C.M. Landis, 2019. "Thermo-electro-mechanical Phase-field Modleing of Paraelectric to Ferroelectric Transitions." *International Journal of Solids and Structures* **178-179**, 19-35.

69. C. Zimmermann, D. Toshniwal, C.M. Landis, T.J.R. Hughes, K.K. Mandadapu, and R.A. Sauer, 2019. "An Isogeometric Finite Element Formulation for Phase

Transitions on Deforming Surfaces." *Computer Methods in Applied Mechanics and Engineering* **351** 441-477.

68. Y. Yu, C.M. Landis, and R. Huang, 2018. "Steady-state Crack Growth in Polymer Gels: A Linear Poroelastic Analysis." *Journal of the Mechanics and Physics of Solids* **118** 15-39.

67. Y. Yu, N. Bouklas, C.M. Landis, and R. Huang, 2018. "A Linear Poroelastic Analysis of Time-dependent Crack-tip Fields in Polymer Gels." *Journal of Applied Mechanics* **85** 111011.

66. B.N. Cox and C.M. Landis, 2018. "Solitary Waves in Morphogenesis: Determination Fronts as Strain-Cued Strain Transformations." *Journal of the Mechanics and Physics of Solids* **111** 239-276.

65. D. Jiang, S. Kiriakides, and C.M. Landis, 2017. "Modeling of Propagation of Phase Transformation Fronts in NiTi Under Uniaxial Tension." *Extreme Mechanics Letters* **15** 113-121.

64. Y. Yu, C.M. Landis, and R. Huang, 2017. "Salt-induced Swelling and Volume Phase Transition of Polyelectrolyte Gels." *Journal of Applied Mechanics* **84** 051005.

63. D. Jiang, S. Kyriakides, N.J. Bechle, and C.M. Landis, 2017. "Bending of Psuedoelastic NiTi Tubes." *International Journal of Solids and Structures* **124** 192-214.

62. D. Jiang, S. Kyriakides, C.M. Landis, and K. Kazinakis, 2017. "Modeling of Propagation of Phase Transformation Fronts in NiTi Under Uniaxial tension." *European Journal of Mechanics A/Solids* **64** 131-142.

61. K.H. Pham, K. Ravi-Chandar, and C.M. Landis, 2017. "Experimental Validation of a Phase-field Model for Fracture", *International Journal of Fracture*, **205** 83-101.

60. D. Jiang and C.M. Landis, 2016. "A Constitutive Model for Isothermal Pseudoelasticity Coupled with Plasticity", *Shape Memory and Superelasticity* **2** 360-370.

59. D. Jiang, C.M. Landis, and S. Kyriakides, 2016. "Effects of Tension/Compression

Asymmetry on the Buckling and Recovery of NiTi Tubes Under Axial Compression", *International Journal of Solids and Structures* **100** 41-53.

58. M.J. Borden, T.J.R. Hughes, C.M. Landis, A. Anvari, and I.J. Lee, 2016. "A Phase-field Formulation for Fracture in Ductile Materials: Finite Deformation Balance Law Derivation, Plastic Degradation, and Stress Triaxiality Effects", *Computational Methods in Applied Mechanics and Engineering* **312** 130-166.

57. Z.A. Wilson and C.M. Landis, 2016. "Phase-field Modeling of Hydraulic Fracture", *Journal of the Mechanics and Physics of Solids* **96** 264-290.

56. A.Y. Woldman and C.M. Landis, 2016. "Phase-field Model of the Structure of Ferroelectric to Paraelectric Phase Boundaries in Single Crystal Barium Titanate", *Smart Structures and Materials* **25** 035033.

55. N.J. Bechle, D. Jiang, C.M. Landis, and S. Kyriakides, 2016. "Buckling and Recovery of NiTi Tubes Under Axial Compression", *International Journal of Solids and Structures* **80** 52-63.

54. J. Liu, C.M. Landis, H. Gomez, and T.J.R. Hughes, 2015. "Liquid-Vapor Phase Transition: Thermomechanical Theory, Entropy Stable Numerical Formulation, and Boiling Simulations", *Computer Methods in Applied Mechanics and Engineering* **297** 476-553.

53. N. Bouklas, C.M. Landis, and Rui Huang, 2015. "Effect of Solvent Diffusion on Crack-tip Fields and Driving Force for Fracture of Hydrogels", *Journal of Applied Mechanics* **82** 081007.

52. N. Bouklas, C.M. Landis, and Rui Huang, 2015. "A Nonlinear, Transient Finite Element Method for Coupled Solvent Diffusion and Large Deformation of Hydrogels", *Journal of the Mechanics and Physics of Solids* **79** 21-43.

51. T. Baxevanis, C.M. Landis, and D.C. Lagoudas, 2014. "On the Effect of Latent Heat on the Fracture Toughness of Pseudoelastic Shape Memory Alloys", *Journal of Applied Mechanics* **81** 101006.

50. R. Balakrishna, J.E. Huber, and C.M. Landis, 2014. "Nano-actuator concepts based on ferroelectric switching", *Smart Materials and Structures* **23** 085016.

49. M.J. Borden, T.J.R. Hughes, C.M. Landis, and C.V. Verhoosel, 2014. "A Higher-order Phase-Field Model for Brittle Fracture: Formulation and Analysis within the Isogeometric Analysis Framework", *Computer Methods in Applied Mechanics and Engineering* **273** 100-118.

48. T. Baxevanis, C.M. Landis, and D.C. Lagoudas, 2014. "On the Fracture Toughness of Pseudoelastic Shape Memory Alloys", *Journal of Applied Mechanics* **81** 041005.

47. Z.A. Wilson, M.J. Borden, and C.M. Landis, 2013. "A Phase-field Model for Fracture in Piezoelectric Ceramics", *International Journal of Fracture* **183** 135-153.

46. J. Liu, H. Gomez, J.A. Evans, T.J.R. Hughes and C.M. Landis, 2013. "Functional entropy variables: A new methodology for deriving thermodynamically consistent algorithms for complex fluids, with particular reference to the isothermal Navier-Stokes-Korteweg equations", *Journal of Computational Physics* **248** 47-86.

45. W. Li and C.M. Landis, 2012. Deformation and Instabilities in Dielectric Elastomer Composites", *Smart Materials and Structures* **21** 094006.

44. B. Volker, C.M. Landis and M. Kamlah, 2012. "Multiscale Modeling for Ferroelectric Materials: Identification of the Phase-field Model's Free Energy for PZT from Atomistic Simulations", *Smart Materials and Structures* **21** 035025.

43. M.J. Borden, C.V. Verhoosel, M.A. Scott, T.J.R. Hughes and C.M. Landis, 2012. "A Phase-field Description of Dynamic Brittle Fracture", *Computer Methods in Applied Mechanics and Engineering* **217-220** 77-95.

42. D. Carka, R.M. McMeeking and C.M. Landis, 2012. "A Note on the Path-Dependence of the *J*-Integral Near a Stationary Crack in an Elastic-Plastic Material with Finite Deformation", *Journal of Applied Mechanics* **79** 044502.

41. H. Mei, C.M. Landis, and R. Huang, 2012. "Concomitant Wrinkling and Buckle-Delamination of Elastic Thin Films on Compliant Substrates", *Mechanics of Materials* **43** 627-642.

40. I. Münch, M. Krauß, C.M. Landis and J.E. Huber, 2011. "Domain Engineered Ferroelectric Energy Harvesters on a Substrate", *Journal of Applied Physics* **109** 104106.

39. D. Carka and C.M. Landis, 2011. "The Analysis of Crack Tip Fields in Ferroelastic Materials", *Smart Materials and Structures* **20** 094005.

38. W. Li and C.M. Landis, 2011. "Nucleation and Growth of Domains Near Crack Tips in Single Crystal Ferroelectrics", *Engineering Fracture Mechanics* **78** 1505-1513.

37. D. Carka, M.E. Mear and C.M. Landis, 2011. "The Dirichlet-to-Neumann Map for Two-Dimensional Crack Problems", *Computer Methods in Applied Mechanics and Engineering* **200**, 1263-1271.

36. D. Carka and C.M. Landis, 2011. "On the Path-Dependence of the *J*-Integral in an Elastic-Plastic Material", *Journal of Applied Mechanics* **78**, 011006.

35. N.D. Sharma, C.M. Landis and P. Sharma, 2010. "Piezoelectric Thin-Film Super-Lattices without Using Piezoelectric Materials", *Journal of Applied Physics* **108**, 024304.

34. A. Kontsos and C.M. Landis, 2010. "Phase-field Modeling of Domain Structure Energetics and Evolution in Ferroelectric Thin Films", *Journal of Applied Mechanics* **77**, 041014.

33. A. Kontsos and C.M. Landis, 2009. "Computational Modeling of Domain Wall Interactions with Dislocations in Ferroelectric Crystals", *International Journal of Solids and Structures* **46**, 1491-1498.

32. C.M. Landis, 2008. "A Continuum Thermodynamics Formulation for Micro-magneto-mechanics with Applications to Ferromagnetic Shape Memory Alloys", *Journal of the Mechanics and Physics of Solids* **56**, 3059-3076.

31. W. Li, R.M. McMeeking and C.M. Landis, 2008. "On the Crack Face Boundary Conditions in Electromechanical Fracture and an Experimental Protocol for Determining Energy Release Rates", *European Jouanal of Mechanics A/Solids* **27**, 285-301.

30. R.M. McMeeking, C.M. Landis and S.M.A. Jimenez, 2007. "A Principle of Virtual Work for Combined Electrostatic and Mechanical Loading of Materials", *International Journal of Non-linear Mechanics,* **42**, 831-838.

29. J. Sheng and C.M. Landis, 2007. "Toughening due to Domain Switching in Single Crystal Ferroelastic Materials", *International Journal of Fracture*, **143**, 161-175.

28. Y. Su and C.M. Landis, 2007. "Continuum Thermodynamics of Ferroelectric Domain Evolution: Theory, Finite Element Implementation, and Application to Domain Wall Pinning", *Journal of the Mechanics and Physics of Solids*, **55**, 280-305.

27. J. Wang and C.M. Landis, 2006. "Effects of In-Plane Electric Fields on the Toughening Behavior of Ferroelectric Ceramics", *Journal of Mechanics of Materials and Structures*, **1**, 1075-1095.

26. J. Wang and C.M. Landis, 2006. "Domain Switch Toughening in Polycrystalline Ferroelectrics", *Journal of Materials Research*, **21**, 13-20.

25. T. Pardoen, T. Ferracin, C.M. Landis and F. Delannay, 2005. "Constraint Effects in Adhesive Joint Fracture", *Journal of the Mechanics and Physics of Solids*, **53**, 1951-1983.

24. R.M. McMeeking and C.M. Landis, 2005. "Electrostatic Forces and Stored Energy for Deformable Dielectric Materials", *Journal of Applied Mechanics*, **72**, 581-590.

23. C.M. Landis, 2004. "Energetically Consistent Boundary Conditions for Electromechanical Fracture", *International Journal of Solids and Structures*, **41**, 6291-6315.

22. C.M. Landis, 2004. "Nonlinear Constitutive Modeling of Ferroelectrics", *Current Opinion in Solid State and Materials Science*, **8**, 59-69.

21. J. Wang and C.M. Landis, 2004. "On the Fracture Toughness of Ferroelectric Ceramics with Electric Field Applied Parallel to the Crack Front", *Acta Materialia*, **52**, 3435-3446.

20. C.M. Landis, 2004. "On the Fracture Toughness Anisotropy of Mechanically Poled Ferroelectric Ceramics", *International Journal of Fracture*, **126**, 1-16.

19. C.M. Landis, J. Wang and J. Sheng, 2004. "Micro-electromechanical Determination of the Possible Remanent Strain and Polarization States in Polycrystalline Ferroelectrics and Implications for Phenomenological Constitutive Theories", *Journal of Intelligent Material Systems and Structures*, **15**, 513-525.

18. C.M. Landis, 2004. "In-plane Complex Potentials for a Special Class of Materials with Degenerate Piezoelectric Properties", *International Journal of Solids and Structures*, **41**, 695-715.

17. C.M. Landis, 2003. "On the Fracture Toughness of Ferroelastic Materials", *Journal of the Mechanics and Physics of Solids*, **51**, 1347-1369.

16. C.M. Landis, 2003. "On the Strain Saturation Conditions for Polycrystalline Ferroelastic Materials", *Journal of Applied Mechanics*, **70**, 470-478.

15. T. Ferracin, C.M. Landis, F. Delannay and T. Pardoen, 2003. "On the Determination of the Cohesive Zone Properties of an Adhesive Layer from the Analysis of the Wedge-Peel Test", *International Journal of Solids and Structures*, **40**, 2889-2904.

14. C.M. Landis, 2002. "Fully Coupled, Multi-Axial, Symmetric Constitutive Laws for Polycrystalline Ferroelectric Ceramics", *Journal of the Mechanics and Physics of Solids*, **50**, 127-152.

13. C.M. Landis, 2002. "Uncoupled, Asymptotic Mode III and Mode E Crack Tip Solutions in Non-Linear Ferroelectric Materials", *Engineering Fracture Mechanics*, **69**, 13-23.

12. C.M. Landis, 2002. "A New Finite Element Formulation for Electromechanical Boundary Value Problems", *International Journal for Numerical Methods in Engineering*, **55**, 613-628.

11. T. Dumitrica, C.M. Landis and B.I. Yakobson, 2002. "Curvature-induced Polarization in Carbon Nanoshells", *Chemical Physics Letters*, **360**, 182-188.

10. R.M. McMeeking and C.M. Landis, 2002. "A Phenomenological Multiaxial Constitutive Law for Switching in Polycrystalline Ferroelectric Ceramics", *International Journal of Engineering Science*, **40**, 1553-1577.

9. C.M. Landis and R.M. McMeeking, 2001. "A Self-Consistent Constitutive Model for Switching in Polycrystalline Barium Titanate", *Ferroelectrics*, **255**, 13-34.

8. C.M. Landis, T. Pardoen and J.W. Hutchinson, 2000. "Crack Velocity Dependent Toughness in Rate Dependent Materials", *Mechanics of Materials*, **32**, 663-678.

7. C.M. Landis and R.M. McMeeking, 2000. "A Phenomenological Constitutive Law for Ferroelastic Switching and a Resulting Asymptotic Crack Tip Solution", *Journal of Intelligent Material Systems and Structures*, **10**, 155-163.

6. C.M. Landis, I. J. Beyerlein and R. M. McMeeking, 2000. "Micromechanical Simulation of the Failure of Fiber Reinforced Composites", *Journal of the Mechanics and Physics of Solids,* **48**, 621-648.

5. J. E. Huber, N. A. Fleck, C.M. Landis and R. M. McMeeking, 1999. "A Constitutive Model for Ferroelectric Polycrystals", *Journal of the Mechanics and Physics of Solids*, **47**, 1663-1697.

4. I. J. Beyerlein and C.M. Landis, 1999. "Shear-Lag Model for Failure Simulations of Unidirectional Fiber Composites Including Matrix Stiffness", *Mechanics of Materials*, **31**, 331-350.

3. C.M. Landis and R.M. McMeeking, 1999. "Stress Concentrations in Composites with Interface Sliding, Matrix Stiffness, and Uneven Fiber Spacing Using Shear Lag Theory", *International Journal of Solids and Structures*, **36**, 4333-4361.

2. C.M. Landis, M.A. McGlockton and R.M. McMeeking, 1999. "An Improved Shear Lag Model for Broken Fibers in Composite Materials", *Journal of Composite Materials*, **33**, 667-680.

1. C.M. Landis and R.M. McMeeking, 1999. "A Shear Lag Model for a Broken Fiber Embedded in a Composite with a Ductile Matrix", *Composites Science and Technology*, **59**, 447-457.

BOOK CHAPTERS

3. M.J. Borden, T.J.R. Hughes, C.M. Landis, A. Anvari, and I.J. Lee, 2018. "Phase-field Formulation for Ductile Fracture", in Advances in Computational Plasticity: A Book in Honour of D. Roger J. Owen, edited by Eugenio Oñate, Djordje Peric, Eduardo de Souza Neto, and Michele Chiumenti, Springer, Cham, Switzerland, pp. 45-70.

2. M.R. Begley, J.A. Begley and C.M. Landis, 2012. "Contiuum Mechanics Modeling of Hydrogen Embrittlement", in Gaseous Hydrogen Embrittlement of Materials in Energy Technologies, edited by R.G. Gangloff and B.P. Somerday, Woodhead Publishing, Cambridge UK, Vol. 2, Ch. 10, pp. 286-325.

1. C.M. Landis and J. Sirohi, 2010. "Ferroelectric Materials", in *Encyclopedia of Aerospace Engineering*, edited by Richard Blockley and Wei Shyy, John Wiley & Sons, Ltd., Chichester, UK, pp. 2427-2436.

CONFERENCE PROCEEDINGS

33. T.E. Alotaibi, C.M. Landis, and M.J. AlTammar, 2020. "Phase-Field Modeling of Hydraulic Fracture Propagation in Mechanically Heterogeneous Formations.", SPE International Petroleum Technology Conference, 1/14/2020.

32. M.J. AlTammar, T.E. Alotaibi, M.M. Sharma, and C.M. Landis, 2019. "Laboratory Imaging and Phase Field Modeling of the Interaction of Hydraulic Fractures with Well Cemented Natural Fractures", SPE Kuwait Oil and Gas Show and Conference, Kuwait, 10/13/2019.

31. T. Baxevanis, D. Lahoudas, and C.M. Landis, 2012. "Mode I Steady Crack-Growth in Superelastic Shape Memory Alloys", SMASIS2012-7934, ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Stone Mountain, GA, September 19-21, 2012.

30. M Krauß, I. Münch, C.M. Landis and W. Wagner, 2011. "Phase Field Simulation and Design of a Ferroelectric Nanogenerator", *Proceedings of the SPIE.*

29. W. Li and C.M. Landis, 2010. "Modeling of the Nucleation and Growth of Domain Needles", Proceedings of the ASME 2010 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Philadelphia, PA, September 28-October 1, 2010.

28. C.M. Landis and D. Carka, "On the Path-Dependence of the J-Integral in Elastic-Plastic Materials" U.S. National Congress on Theoretical and Applied Mechanics, ASME, State College, PA, United States, published in proceedings. July 1, 2010.

27. A. Kontsos, W. Li and C.M. Landis, 2009. "Computational Phase-field Modeling of Defect Interactions in Ferroelectrics", *Proceedings of the SPIE*, **7289**, 7289OD.

26. C.M. Landis, 2008. "A continuum thermodynamics formulation of micro-magneto-mechanics with application to ferromagnetic shape memory alloys: Application to domain wall – twin boundary dissociation", *Proceedings of the SPIE*, **6929**, 69291O.

25. W. Li and C.M. Landis, 2008. "Phase-field Modeling of Domain Switching Near Crack Tips in Single Crystal Ferroelectrics", *Proceedings of the SPIE*, **6929,** 69290J.

24. C.M. Landis, 2007. "A Continuum Thermodynamics Formulation of Micro-Magneto-Mechanics with Application to Ferromagnetic Shape Memory Alloys", *Proceedings of the SPIE*, **6526**, 652625-1.

23. C.M. Landis, 2006. "Phase Field Modeling of Ferroelectric Domain Wall Interactions with Charge Defects", *Proceedings of the IMECE2006*, IMECE2006-16184.

22. Y. Su and C.M. Landis, 2006. "A non-equilibrium thermodynamics framework for domain evolution; phase field models and finite element implementation", *Proceedings of the SPIE*, **6170,** 617001-4.

21. C.M. Landis and J. Wang. "Domain Switch Toughening of Polycrystalline Ferroelectrics", *MRS Proceedings*, Spring 2005, San Francisco, CA.

20. C.M. Landis, 2005. "Energetically Consistent Boundary Conditions for Electromechanical Fracture", *Proceedings of the ICF11.*

19. J. Wang and C.M. Landis, 2005. "On the Fracture Toughness of Ferroelectric Ceramics with Electric Field Applied Parallel to the Crack Front", *Proceedings of the ICF11.*

18. Y. Su and C.M. Landis, 2005. "A finite element approach for domain wall dynamics in ferroelectric materials", *Proceedings of the SPIE*, **5761**, 530-541.

17. J. Wang and C.M. Landis, 2005. "Toughening behavior of ferroelectric ceramics under different poling directions", *Proceedings of the SPIE*, **5761**, 305-315.

16. T. Ferracin, C.M. Landis, F. Delannay and T. Pardoen, "Constraint Effects in Steady-State Fracture of Adhesively-Bonded Joints", *ECF15 – 15th European Conference on Fracture*, 11-14 Aug 2004.

15. C.M. Landis, 2004, "Nonlinear Fracture Mechanics for Ferroelastic Materials", *Proceedings of the SPIE*, **5387**, 326-336.

14. T. Ferracin, C.M. Landis, F. Delannay and T. Pardoen, "Modelling Steady State Fracture of Adhesively Bonded Joints with Cohesive Zones", *Proceedings of the 27th Annual Meeting of The Adhesion Society – From Molecules and Mechanics to Optimization and Design of Adhesives Joints* (M.K. Chaudhury ed., The Adhesion Society Inc.) 15-18 Feb 2004, Wilmington, North Carolina, U.S.A., 498-500.

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12. C.M. Landis, J. Wang, J. Sheng, 2003. "Micro-electromechanically Informed Phenomenological Constitutive Laws for Ferroelectrics", *Proceedings of the SPIE*, **5053**, 335-346.

11. T. Ferracin, J.Y. Sener, C.M. Landis, F. Delannay and T. Pardoen, "Predictive Fracture Model for Steady-State Failure of Adhesively-Bonded Joints Using the Plastic Wedge Peel Test", *ECF14, 14th European Conference on Fracture* (Neimitz A., Rokach I.V., Kocanda D., Golos K. eds.) 8-13 Sep 2002, Cracow, Poland, Vol. I, 531-538.

10. C.M. Landis, 2002. "A New Finite Element Formulation for Electromechanics", *Proceedings of the SPIE*, **4699**, 31-39.

9. C.M. Landis, 2001. "Asymptotic Mode III and Mode E Crack Tip Solutions in Ferroelectric Materials", *Proceedings of the ICF10.*

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5. C.M. Landis, 2001. "Symmetric Constitutive Laws for Polycrystalline Ferroelectric Ceramics", *Proceedings of SPIE*, **4333**.

4. C.M. Landis and R. M. McMeeking, 2000. "Modelling of Fracture in Ferroelectric Ceramics", *Proceedings of the SPIE*, **3992**, 176-184.

3. C.M. Landis and R.M. McMeeking, 1999. "A Self-Consistent Model for Switching in Polycrystalline Ferroelectrics: Electrical Polarization Only", *Proceedings of SPIE*, **3667**, 172-180.

2. M. Chang, S. K. Mathis, G. E. Beltz and C.M. Landis, 1999. "Annihilation Radii for Dislocations Intercepting a Free Surface with Application to Heteroepitaxial Thin Film Growth", in III-V and IV-IV Materials and Processing Challenges for Highly Integrated Microelectronics and Optoelectronics (edited by S.A. Ringel, E.A. Fitzgerald, I. Adesida and D.C. Houghton), *Materials Research Society Symposium Proceedings*, **535**, 9-14.

1. G. Deutschmann, C.M. Landis and R. M. McMeeking, 1998. "A Network Model for the Plastic Compaction of Monodispersed Spherical Powder", *Proceedings of the AIChE PTF Topical Conference on Advanced Technologies for Particle Processing*, Miami Beach, Florida, November 15-20.

INVITED PRESENTATIONS

16. C.M. Landis, "Constitutive Modeling of Shape Memory Alloys and Simulation of Structural Response", USNCCM 15, Austin, TX, 7/31/2019.

15. C.M. Landis, "A New Constitutive Modeling Approach for the Pseudoelastic Behavior of Shape Memory Alloys", SMASIS 2018, San Antonio, TX, 9/11/2018.

14. C.M. Landis, "Phase-field Modeling of Fracture", Mechanics in Scientific Discovery", Florence, Italy, 6/14/2017.

13. C.M. Landis, "Phase-Field Modeling of Fracture: Brittle, Ductile, and Fluid Driven", BIRS Workshop 16w5090 Variational Models of Fracture, Banff, Canada, 5/10/2016.

12. C.M. Landis, "Phase-field Modeling of Brittle and Ductile Fracture", A Workshop for High-Fidelity Based Virtual Testing of Composite Materials and Structures, Coral Gables, FL, 4/19/2016.

11. C.M. Landis, "Phase-Field Modeling of Microstructural Evolution, with Applications to Ferroelectrics, FSMAs, and Fracture", Institute for Modeling and Simulation, I^3MS Seminars Summer 2014, RWTH Aachen University, Aachen, Germany, May 5, 2014.

10. C.M. Landis, "On the importance of mechanical constraint on the domain structure evolution in ferroelectric and ferromagnetic materials." ASME 2013 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Snowbird, UT, September 16, 2013.

9. C.M. Landis, "Phase-field Modeling of Defect Interactions in Active Materials", TMS 2009, San Francisco, CA, February 17, 2009.

8. C.M. Landis, "Constitutive and Fracture Modeling of Ferroelectrics", Gordon Research Conference on Solid State Studies in Ceramics, Tilton, NH, July 17, 2005.

7. C.M. Landis, "Electromechanical Behavior of Ferroelectrics", ASM Houston Chapter, Student Chapter Night, Rice University, Houston, TX, April 5, 2005.

6. C.M. Landis, "Domain Switch Toughening in Polycrystalline Ferroelectrics", 2005 Spring Meeting of the MRS, San Francisco, CA, March 29, 2005.

5. C.M. Landis, "Constitutive Modeling of Ferroelectric Ceramics", Office of Naval Research Workshop on Fracture and Fatigue of Piezoelectric Materials, Washington D.C., August 27, 2003.

4. C.M. Landis, "Micro-electromechanics and Phenomenological Constitutive Laws for Ferroelectrics", Gordon Research Conference on Solid State Studies in Ceramics I, New London, NH, August 12, 2003.

3. C.M. Landis, "Modeling of Fracture in Ferroelastic Ceramics", 8^{th} International Symposium on Fracture Mechanics of Ceramics, Houston, TX, February 28, 2003.

2. C.M. Landis, "Plasticity", A two lecture series. Technical University at Hamburg-Harburg, Germany, June 18 & 20, 2002.

1. C.M. Landis, "Phenomenological Constitutive Laws for Ferroelectrics", Departmental Seminar, Technical University at Hamburg-Harburg, Germany, June 19, 2002.

INVITED DEPARTMENTAL SEMINARS

22. C.M. Landis, "Phase-field Modeling of Fracture: Brittle, Ductile, and Fluid Driven", Departmental Seminar, Petroleum and Geosystems Engineering, University of Texas at Austin, October 2, 2017.

21. C.M. Landis, "Modeling the Behavior of Shape Memory Alloy Structures", Departmental Seminar, Duke University, March 28, 2017.

20. C.M. Landis, "Phase-field Modeling of Fracture: Brittle, Ductile, and Fluid Driven and Modeling the Behavior of Shape Memory Alloy Structures", Departmental Seminar, Brown University, November 7, 2016.

19. C.M. Landis, "Phase-Field Modeling of Microstructural Evolution, with Applications to Ferroelectrics, FSMAs, and Fracture", Departmental Seminar, University of California at Santa Barbara, February 24, 2014.

18. C.M. Landis, "Phase-Field Modeling of Microstructural Evolution, with Applications to Ferroelectrics, FSMAs, and Fracture", Departmental Seminar, University of California at Los Angeles, February 21, 2014.

17. C.M. Landis, "Domain Wall – Defect Interactions in Ferroelectrics", Departmental Seminar, University of Nebraska, April 7, 2009.

16. C.M. Landis, "Continuum Modeling of Defect Interactions in Smart Materials", Departmental Seminar, Texas A&M University, June 2, 2008.

15. C.M. Landis, "Modeling of Domain Wall Defect Interactions in Ferroelectric Single Crystals", Departmental Seminar, University of Virginia, February 28, 2008.

14. C.M. Landis, "Meso-scale Modeling of Domain Wall Evolution in Ferroelectrics", Departmental Seminar, University of Florida, September 19, 2006.

13. C.M. Landis, "Meso-scale Modeling of Domain Wall Evolution in Ferroelectrics", Departmental Seminar, University of Texas at Austin, April 6, 2006.

12. C.M. Landis, "Negative Energy Release Rates and other Issues in Modeling Electromechanical Fracture", Departmental Seminar, Harvard University, March 2, 2005.

11. C.M. Landis, "Constitutive Modeling and Fracture Mechanics for Ferroelectrics", Departmental Seminar, Massachusetts Institute of Technology, February 28, 2005.

10. C.M. Landis, "Electromechanical Fracture and Negative Energy Release Rates", Departmental Seminar, University of Houston, September 16, 2004.

9. C.M. Landis, "Non-linear Electromechanics of Ferroelectric Materials", Departmental Seminar, University of Texas at Austin, April 12, 2004.

8. C.M. Landis, "Deformation and Fracture of Ferroelastic Ceramics", Departmental Seminar, University of California, Santa Barbara, CA, October 14, 2002.

7. C.M. Landis, "Micro-electromechanical Constitutive Models for Ferroelectrics", Departmental Seminar, University of Louvain, Belgium, June 12, 2002.

6. C.M. Landis, "Constitutive Laws for Polycrystalline Ferroelectric Ceramics", Departmental Seminar, Rice University, Houston, TX, November 1, 2000.

5. C.M. Landis, "Deformation, Polarization and Fracture of Ferroelectric Ceramics", Departmental Seminar, Rice University, Houston, TX, April 17, 2000.

4. C.M. Landis, "Deformation, Polarization and Fracture of Ferroelectric Ceramics", Departmental Seminar, Notre Dame University, South Bend, IN, April 12, 2000.

3. C.M. Landis, "Deformation, Polarization and Fracture of Ferroelectric Ceramics", Departmental Seminar, Brown University, Providence, RI, March 2000.

2. C.M. Landis, "Deformation, Polarization and Fracture of Ferroelectric Ceramics", Departmental Seminar, Harvard University, Cambridge, MA, February 2000.

1. C.M. Landis, "Shear-lag Modeling of Composite Materials", Departmental Seminar, University of California, Santa Barbara, CA, June 1998.

PRESENTATIONS

110. Y.-S. Lo, C.M. Landis, and M.J. Borden, "Phase-field Modeling of Fatigue Crack Growth", IMECE 2019, Salt Lake City, UT, 11/14/2019.
109. M. Alsawalhi, and C.M. Landis, "Constitutive Modeling of Shape Memory Alloys and Simulation of Structural Response", IMECE 2019, Salt Lake City, UT, 11/14/2019.
108. K. Kazinakis, S. Kyriakides, and C.M. Landis, "Effect of Phase Transformation on the Stability of Pseudoelastic NiTi Tubes Under Bending", IMECE 2019, Salt Lake City, UT, 11/14/2019.

107. S. Mane, C.M. Landis, and M. Rausch, "Modelling Fibrin Networks Using SpatialEuler-Bernoulli IGA Beams", USNCCM 15, Austin, TX, 7/31/2019.

106. T. Alotaibi and C.M. Landis, "Applications of Phase-field Modeling of Hydraulic Fracture", USNCCM 15, Austin, TX, 7/31/2019.

105. Y.S. Lo, C.M. Landis, and M.J. Borden, "Phase-field Modeling of Fatigue Crack Growth", USNCCM 15, Austin, TX, 7/29/2019.

104. C.M. Landis, T.J.R. Hughes, D. Toshniwal, and Y. Lo, "Development of Phase-field Modeling for Fatigue/Stress Corrosion Crack Growth", ONR SBA Annual Review, California, MD, 5/29/2019.

103. C.M. Landis, "A new framework for phenomenological constitutive models for SMAs", 2019 IUTAM Symposium on Phase Transformation in Shape Memory Materials: Modeling and Applications, Austin, TX, 5/2/2019.

102. K. Kazinakis, S. Kyriakides, D. Jiang, N. Bechle, and C.M. Landis, "Effect of Phase Transformation on the Stbility of Pseudoelastic NiTi Tubes Under Bending", 2019 IUTAM Symposium on Phase Transformation in Shape Memory Materials: Modeling and Applications, Austin, TX, 5/1/2019.

101. K. Kazinakis, D. Jiang, N. Bechle, S. Kyriakides, and C.M. Landis, "Buckling and Collapse of Pseudoelastic NiTi Tubes Under Bending", SMASIS 2018, San Antonio, TX, 9/12/2018.

100. C.M. Landis, T.J.R. Hughes, D. Toshniwal, and Y. Lo, "Development of Phase-field Modeling for Fatigue/Stress Corrosion Crack Growth", ONR SBA Annual Review, Denver, CO, 8/22/2018.

99. Y. Yu, C.M. Landis, and R. Huang, "Steady-state Crack Growth in Polymer Gels by Nonlinear Poroelastic Models", 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, IL, 6/7/2018.

98. D. Toshniwal, C.M. Landis, and T.J.R. Hughes, "Phase-field Modeling of Corrosion Induced Crack Growth", 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, IL, 6/7/2018.

97. C.M. Landis, Y. Lo, K. Ravi-Chandar, A. Chichester-Constable, T.J.R. Hughes, and M.J. Borden, "Phase-field Modeling of Fatigure Crack Growth", 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, IL, 6/7/2018.

96. K. Kazinakis, D. Jiang, N. Bechle, S. Kyriakides, and C.M. Landis, "Buckling and Collapse of Pseudoelastic NiTi Tubes Under Bending", 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, IL, 6/8/2018.

95. C.M. Landis, "Phase-field Modeling of Fracture: Brittle, Ductile, Fatigue, and Fluid Driven", USACM Thematic Conference on Nonlocal Methods in Fracture, Austin, TX, 1/15/2018.

94. Y. Yu, C.M. Landis, and R. Huang, "A Numerical Study on Steady-state Crack Growth in Polymer Gels", ASME 2017 IMECE, Tampa, FL, 11/6/2017.

93. T.J.R. Hughes, C.M. Landis, D. Toshniwal, A. Anvari, I. Lee and M.J. Borden, "Phase Field Modeling of Brittle and Ductile Fracture, Corrosion and Fatigue", COMPLAS 2017, Barcelona, Spain, 9/5/2017.

92. C.M. Landis and T.J.R. Hughes, "Development of Phase-Field Modeling for Fatigue/Stress Corrosion Crack Growth and Additive Manufacturing", Annual Review for SBA Metallic Structures and Advanced Concepts, Pax River, MD, 7/27/2017.

91. C. Zimmermann, C.M. Landis, T.J.R. Hughes, and R.A. Sauer, "Isogeometric Finite Element Modeling of Phase-fields on Deforming Surfaces", USACM Conference on Isogeometric Analysis and Meshfree Methods, La Jolla, CA, 10/12/2016.

90. C.M. Landis and Z.A. Wilson, "Phase-field Modeling of Hydraulic Fracture", Society of Engineering Science 53rd Annual Technical Meeting, College Park, MD, 10/4/2016.

89. D. Jiang, C.M. Landis and S. Kyriakides, "Modelling of Axial Buckling and Recovery of Pseudoelastic NiTi Tubes", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 8/23/2016.

88. Y. Yu, C.M. Landis and R. Huang, "Ion-induced Swelling and Volume Phase Transition of Polyelectrolyte Gels", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 8/23/2016.

87. C.M. Landis and Z.A. Wilson, "A Phase-field Model for Fluid Driven Cracks in Porous Media", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 8/22/2016.

86. N Bouklas, C.M. Landis and R. Huang, "Effect of Solvent Diffusion on Fracture of Hydrogels", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 8/22/2016.

85. Alexandra Woldman and Chad M. Landis, "Phase-field Model of the Structure of Ferroelectric-Paraelectric Phase Boundaries in Single Crystal Ferroelectrics", ASME 2015 IMECE, Houston, TX, November 18, 2015.

84. Nikolaos Bouklas, Chad M. Landis, and Rui Hunag, "Transient Fracture Mechanics of Gels", ASME 2015 IMECE, Houston, TX, November 17, 2015.

83. Zachary A. Wilson and Chad M. Landis, "A Phase-field Model for Fluid Driven Cracks in a Porous Medium", ASME 2015 IMECE, Houston, TX, November 17, 2015.

82. Nikolaos Bouklas, Chad M. Landis and Rui Hunag, "Effect of Solvent Diffusion on Crack-tip Fields and Driving Force for Fracture of Hydrogels", SES 52nd Annual Technical Meeting, College Station, TX, October 27, 2015.

81. Theocharis Baxevanis, Sameer Jape, Chad M. Landis, and Dimitris C. Lagoudas, "Thermomechanically-Induced Fracture in Shape Memory Alloys", SES 52nd Annual Technical Meeting, College Station, TX, October 27, 2015.

80. Dongjie Jiang, Nathan Bechle, Chad M. Landis and Stelios Kyriakides, "Reversible Axial Buckling of Psuedoelastic NiTi Shell", SES 52nd Annual Technical Meeting, College Station, TX, October 27, 2015.

79. Zachary A. Wilson and Chad M. Landis, "A Phase-field Model for Fluid Driven Crack Propagation in Poroelastic Solids", SES 52nd Annual Technical Meeting, College Station, TX, October 26, 2015.

78. Ju Liu, Chad M. Landis, Hector Gomez, Thomas J.R. Hughes, "Boiling Flows: Thermomechanical Theory, Entropy-Stable Algorithm, and Simulations", 13th U.S. National Congress on Computational Mechanics, San Diego, CA, July 26-30, 2015.

77. N. Bouklas, C.M. Landis, and R. Huang, "Effect of Solvent Diffusion on Fracture of Polymer Gels," McMat Mechanics and Materials 2015 Conference, Seattle, WA, June 29 - July 1, 2015.

76. Chad M. Landis, "Phase-field Modeling of Microstructural and Defect Evolution within the Numerical Framework of IGA", NAVAIR Structural Mechanics TIM 2015, Falls Church, VA, June 24-26, 2015.

75. Ju Liu, Hector Gomez, Thomas J.R. Hughes, Chad M. Landis, "Boiling Flows: Thermomechanical Theory, Algorithm, and Simulations", VI International Conference on Computational Methods for Coupled Problems in Science and Engineering, COUPLED PROBLEMS, Venice, Italy, May 18-20, 2015.

74. Ju Liu, Thomas J.R. Hughes, Chad M. Landis, Hector Gomez, "Liquid-Vapor Phase Transitions: Thermomechanical Theory, Entropy Variable Formulation, and Boiling Simulations", The 18th International Conference on Finite Elements in Flow Problems (FEF 2015), Taipei, Taiwan, March 16-18, 2015.

73. Z.A. Wilson, M.J. Borden, T.J.R. Hughes, and C.M. Landis, "A Phase-field Model for Hydraulic Fracture," ASME 2014 IMECE, Montreal, Canada, November 19, 2014.

72. C.M. Landis, N. Bouklas, and R. Huang, "A Nonlinear Finite Element Method for Transient Behaviors of Hydrogels", ASME 2014 IMECE, Montreal, Canada, November 18, 2014.

71. Z.A. Wilson, M.J. Borden, T.J.R. Hughes, and C.M. Landis, "Phase-field Modeling of Hydraulic Fracture." 2014 SES Annual Technical Meeting, West Lafayette, IN, October 2, 2014.

70. M.J. Borden, T.J.R. Hughes, and C.M. Landis, "Phase-field Methods for Predicting Fracture in Brittle and Ductile Materials." 2014 SES Annual Technical Meeting, West Lafayette, IN, October 2, 2014.

69. R.M. McMeeking and C.M. Landis, "Fracture and adhesion in an infinite ferroelectric strip subject to electric field and stress." Second Seminar on the The Mechanics of Multifunctional Materials, Physikzentrum of Bad Honnef, Bonn, Germany, May 6, 2014.

68. Ju Liu, Chad M. Landis, Hector Gomez, John A. Evans, and Thomas J.R. Hughes, "Isogeometric Analysis of Liquid-Vapor Phase Transitions: Thermodynamics, Algorithms, and Applications", Isogeometric Analysis 2014: Integrating Design and Analysis (IGA 2014), Austin, TX, January 8-10, 2014.

67. Ju Liu, Hector Gomez, Chad M. Landis, John A. Evans, and Thomas J.R. Hughes, "Thermodynamically Consistent Algorithms for Liquid-Vapour Phase Transitions", SIAM Annual Meeting 2013, San Diego, California, July 9, 2013.

66. C.M. Landis and D. Carka, "Modeling of needle domain patterns in barium titanate single crystals." ASME 2013 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Snowbird, UT, September 2013.

65. Ju Liu, Hector Gomez, Chad M. Landis, John A. Evans, and Thomas J.R. Hughes, "The Navier-Stokes-Korteweg Equations: Thermodynamics, Algorithms, and Applications", 12th US National Congress on Computational Mechanics, Raleigh, North Carolina, U.S.A.

64. Thomas J.R. Hughes, Ju Liu, Hector Gomez, John A. Evans and Chad M. Landis, "Thermodynamically Consistent Modelling and Simulation of Liquid-Vapor Phase Transition", V International Conference on Computational Methods for Coupled Problems in Science and Engineering Coupled Problems 2013, Ibiza, Spain.

63. Ju Liu, Hector Gomez, John A. Evans, Thomas J.R. Hughes, and Chad M. Landis, "An Unconditionally Stable-in-energy, Second-order Accurate-in-time Scheme for the Isothermal Navier-Stokes-Korteweg Equations", Advances in Computational

Mechanics (ACM 2013) A Conference Celebrating the 70th Birthday of Thomas J.R. Hughes, San Diego, CA, U.S.A.

62. Z.A. Wilson and C.M. Landis, "A phase-field approach to modeling crack propagation in piezoelectric ceramics." ASME 2012 IMECE, Housotn, TX, November 2012.

61. D. Carka and C.M. Landis, "Phase-field modeling of equilibrium conditions and evolution of needle domain arrays in ferroelectric single crystals." ASME 2012 IMECE, Housotn, TX, November 2012.

60. T. Baxevanis, D. Lahoudas, and C.M. Landis, 2012. "Mode I Steady Crack-Growth in Superelastic Shape Memory Alloys", SMASIS2012-7934, ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Stone Mountain, GA, September 19-21, 2012.

59. C.M. Landis, M.J. Borden and T.J.R. Hughes, "Phase-field modeling of dynamic crack propagation." Workshop on Design of Ceramic-Fiber Based Composites for Service Above 1400 Centigrade, Boulder, CO, June 2012.

58. C.M. Landis, and W. Li, "Instabilities in dielectric elastomer composites." ASME 2011 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Scottsdale, AZ, September 2011.

57. C.M. Landis, Z.A. Wilson, W. Li, M.J. Borden and T.J.R. Hughes, "Phase-field modeling of crack propagation in piezoelectrics and ferroelectrics." ASME 2011 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Scottsdale, AZ, September 2011.

56. M.J. Borden, T.J.R. Hughes, C.M. Landis, M.A. Scott, C.V. Verhoosel, "Isogeometric analysis of dynamic crack propagation using a phase-field model." 11th US National Congress on Computational Mechanics, Minneapolis, Minnesota, July 2011.

55. M.J. Borden, T.J.R. Hughes, C.M. Landis, M.A. Scott, C.V. Verhoosel, "Isogeometric analysis and phase-field descriptions of crack propagation." Computation Modeling of Fracture and Failure of Materials and Structures, Barcelona, Spain, June 2011.

55. M.J. Borden, T.J.R. Hughes, C.M. Landis, M.A. Scott and C.V. Verhoosel, "Phase-Field Modeling of Fracture", McMat 2011, Chicago, IL. May 31, 2011.

54. M.J. Borden, T.J.R. Hughes, C.M. Landis, M.A. Scott, C.V. Verhoosel, "Isogeometric analysis and phase-field modeling of dynamic linear elastic fracture mechanics." Isogeometric Analysis 2011: Integrating Design and Analysis, Austin, Texas, January 2011.

53. C.M. Landis and W. Li, "Modeling of the Nucleation and Growth of Domain Needles", ASME 2010 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Philadelphia, PA, September 29, 2010.

52. C.M. Landis and D. Carka, "On the Path-Dependence of the *J*-Integral in Elastic-Plastic Materials", U.S. National Congress on Theoretical and Applied Mechanics 2010, State College, PA, July 1, 2010.

51. C.M. Landis and W. Li, "A Finite Deformation Phase-Field Theory of Ferroelectrics", Smart Structures and Materials 2010, San Diego, CA, March 8, 2010.

50. C.M. Landis and A. Kontsos, "The Structure of the Paraelectric-Ferroelectric Phase Boundary Interface", Smart Structures and Materials 2010, San Diego, CA, March 8, 2010.

49. C.M. Landis and A. Kontsos, "Phase-Field Modeling of Domain Structures in Ferroelectric Thin Films", 2009 Joint ASCE-ASME-SES Conference on Mechanics and Materials, Blacksburg, VA, June 25, 2009.

38. C.M. Landis and B. Meason, "A Finite Element Model for Phase Front Evolution in Single Crystal Ferroelectrics", 2008 U.S. Navy Workshop on Acoustic Transduction Materials and Devices, State College, PA, May 13, 2009.

37. C.M. Landis, A, Kontsos, and W. Li, "Computational Phase-Field Modeling of Defect Interactions in Ferroelectrics", Smart Structures and Materials 2009, San Diego, CA, March 9, 2009.

36. C.M. Landis and W. Li, "Phase-field Modeling of Domain Switching near Crack Tips in Single Crystal Ferroelectrics", ASME IMECE 2008, Boston, MA, November 5, 2008.

35. A. Kontsos and C.M. Landis, "Computational Modeling of Domain Wall Interactions with Dislocations in Ferroelectric Crystals", ASME IMECE 2008, Boston, MA, November 5, 2008.

34. C.M Landis, "A Finite Element Model for Phase Front Evolution in Single Crystal Ferroelectrics", 2008 U.S. Navy Workshop on Acoustic Transduction Materials and Devices, State College, PA, May 13, 2008.

33. C.M. Landis, "A continuum thermodynamics formulation of micro-magneto-mechanics with application to ferromagnetic shape memory alloys: Application to domain wall – twin boundary dissociation", Smart Structures and Materials 2008, San Diego, CA, March 13, 2008.

32. C.M. Landis, "Phase-field Modeling of Domain Switching Near Crack Tips in Single Crystal Ferroelectrics", Smart Structures and Materials 2008, San Diego, CA, March 11, 2008.

31. C.M. Landis, "Micro-forces and their Application in Phase Field Modeling of Microstructural Instabilities", ASME IMECE 2007, Seattle, WA, November 15, 2007.

30. C.M. Landis, "A Continuum Thermodynamics Framework for Micro-magneto-mechanics with Applications to FSMAs", SES 2007, College Station, TX, October 23, 2007.

29. C.M. Landis, "Micro-forces and their Application in Phase Field Modeling of Smart Materials", McMAT 2007, Austin, TX, June 5, 2007.

28. C.M. Landis, "A continuum thermodynamics formulation for micro-magneto-mechanics with applications to ferromagnetic shape memory alloys", Smart Structures and Materials 2007, San Diego, CA, March 22, 2007.

27. C.M. Landis, "Modeling of domain wall defect interactions", Smart Structures and Materials 2007, San Diego, CA, March 19, 2007.

26. C.M. Landis, "Phase field modeling of ferroelectric domain wall interactions with charge defects", 2006 ASME IMECE, Chicago, IL, November 9, 2006.

25. C.M. Landis, "A Non-Equilibrium Thermodynamics Framework for Domain Evolution; Phase Field Models and Finite Element Implementation", 15th U.S. National Congress of Theoretical and Applied Mechanics, Boulder, CO, June 29, 2006.

24. C.M Landis, "Mesoscale modeling of domain wall evolution", 2005 U.S. Navy Workshop on Acoustic Transduction Materials and Devices, State College, PA, May 11, 2006.

23. C.M. Landis and Yu Su, "A non-equilibrium thermodynamics framework for domain evolution; phase field models and finite element implementation", Smart Structures and Materials 2006, San Diego, CA, February 27, 2006.

22. C.M Landis and Yu Su, "A Non-Equilibrium Thermodynamics Framework for Domain Evolution; Phase Field Models and Finite Element Implementation", 2005 U.S. Navy Workshop on Acoustic Transduction Materials and Devices, State College, PA, May 12, 2005.

21. M. Motahari, E. Ustundag, R. Rogan and C.M. Landis, "Self-Consistent Modeling of Ferroelectrics", 2005 Spring Meeting of the MRS, San Francisco, CA, March 29, 2005. (presented by M. Motahari)

20. C.M. Landis, "Energetically Consistent Boundary Conditions for Electromechanical Fracture", 11th International Congress on Fracture, Turin, Italy, March 24, 2005.

19. J. Wang and C.M. Landis, "On the Fracture Toughness of Ferroelectric Ceramics with Electric Field Applied Parallel to the Crack Front", 11th International Congress on Fracture, Turin, Italy, March 24, 2005. (presented by C.M. Landis)

18. J. Wang and C.M. Landis, "Toughening Behavior of Ferroelectric Ceramics under Different Poling Conditions", Smart Structures and Materials 2005, San Diego, CA, March 8, 2005. (presented by J. Wang)

17. J. Wang and C.M. Landis, "On the Fracture Toughness of Ferroelectric Ceramics with Electric Field Applied Parallel to the Crack Front", ASME International Mechanical Engineering Congress and Exposition, Anaheim, CA, November 17, 2004.

16. C.M. Landis, "Energetically Consistent Boundary Conditions for Electromechanical Fracture", ASME International Mechanical Engineering Congress and Exposition, Anaheim, CA, November 17, 2004.

15. C.M. Landis, "Nonlinear Fracture Mechanics for Ferroelastic Materials", Smart Structures and Materials 2004, San Diego, CA, March 17, 2004.

14. C.M. Landis, "Modeling the Fracture Toughness Anisotropy in Mechanically Poled Ferroelectrics", 2003 ASME Mechanics and Materials Conference, Scottsdale, AZ, June 18, 2003.

13. C.M. Landis, "Continuum Constitutive Laws for Single Crystal Ferroelectrics", 2003 U.S. Navy Workshop, State College, PA, May 8, 2003.

12. C.M. Landis, J. Wang, J. Sheng, "Micro-electromechanically Informed Phenomenological Constitutive Laws for Ferroelectrics", Smart Structures and Materials 2003, San Diego, CA, March 5, 2003.

11. C.M. Landis, "Micromechanical and Phenomenological Constitutive Laws for Ferroelastic Ceramics", ASME International Mechanical Engineering Congress and Exposition, New Orleans, LA, November 22, 2002.

10. C.M. Landis, "A New Finite Element Formulation for Electromechanics", Smart Structures and Materials 2002, San Diego, CA, March 19, 2002.

9. C.M. Landis, "Asymptotic Mode III and Mode E Crack Tip Solutions in Ferroelectric Materials", Tenth International Congress on Fracture, Honolulu, Hawaii, December 3, 2001.

8. C.M. Landis, "Shear Lag Modelling of Thermal Stresses in Unidirectional Composites", Tenth International Congress on Fracture, Honolulu, Hawaii, December 4, 2001.

7. C.M. Landis, T. Pardoen and J.W. Hutchinson, "Crack Velocity Dependent Toughness in Rate Dependent Materials", Tenth International Congress on Fracture, Honolulu, Hawaii, December 5, 2001.

6. C.M. Landis, "Constitutive Behavior of Ferroelectric Ceramics", ASME Applied Mechanics Division Summer Meeting, San Diego, CA, June 28, 2001.

5. C.M. Landis, "Mechanics of Fracture", Mechanics and Materials Group Workshop, Rice University, Houston, TX, June 6, 2001.

4. C.M. Landis, "Symmetric Constitutive Laws for Polycrystalline Ferroelectric Ceramics", Smart Structures and Materials 2001, Newport Beach, CA, March 7, 2001.

3. C.M. Landis and R. M. McMeeking, "Modelling of Fracture in Ferroelectric Ceramics", Smart Structures and Materials 2000, Newport Beach, CA, March 6, 2000.

2. C.M. Landis, "Shear-lag Modeling of Stress Concentrations and Failure of Unidirectional Fiber Composites", 36th Annual Technical Meeting of SES, Austin, TX, October 26, 1999.

1. C.M. Landis and R.M. McMeeking, "A Self-Consistent Model for Switching in Polycrystalline Ferroelectrics: Electrical Polarization Only", Smart Structures and Materials 1999, Newport Beach, CA, March 3, 1999.

TEACHING EXPERIENCE

Undergraduate level Mechanics of Solids, Spring 2011, 2015, 2016, 2018, Fall 2013

Undergraduate level Advanced Strength of Materials, Fall 2008, 2010, 2016

Graduate level Mechanics of Active Materials, Spring 2008, 2013, 2016, Fall 2018

Undergraduate level Structural Analysis, Fall 2007, Spring 2010, 2012, 2015, 2017, 2019

Undergraduate level Statics, Spring 2007, 2010, Fall 2008, 2009, 2010, 2011, 2014, 2015, 2016, 2017, 2018, 2019, Summer 2010, 2016

Undergraduate level Dynamics, Summer 2019

Undergraduate level Engineering Mechanics (Statics and Dynamics), Fall 2000-2006

Undergraduate level Advanced Mechanics of Materials, Spring 2006

Graduate level Theory of Elasticity, Fall 2001, 2002, 2003, 2005, 2006

Graduate level Theory of Plasticity, Spring 2002, 2004, 2009

Graduate level Theoretical Fracture Mechanics, Spring 2003, 2012

SERVICE

Associate Editor for International Journal of Solids and Structures, International Journal of Fracture, and Journal of Engineering Mechanics

Selected to host the 2022 U.S. National Congress for Theoretical and Applied Mechanics in Austin, TX.

Engineering Mechanics Graduate Advisor, 2010-2016

Session Chair, "Symposium in Honor of Robert M. McMeeking on the Occasion of His 60^{th} Birthday", U.S. National Congress on Theoretical and Applied Mechanics 2010, State College, PA, June 22-July 1, 2010.

Participated in outreach activities (MITE) associated with the Equal Opportunity in Engineering program in the Cockrell School of Engineering at UT Austin, Summer 2008, Summer 2010.

Organizing Committee, McMAT 2007 ASME Applied Mechanics and Materials Conference, June 3-7, 2007 at the University of Texas at Austin.

Topic Chair, "Modeling, Simulation and Characterization of Smart Materials", McMAT 2007, June 3-7, 2007.

Rice University MEMS Departmental Undergraduate Curricular and Advising Committee 2000-2006

Faculty Advisor for Rice Student Section of ASME, 2000-2006

Reviewer on NSF proposal panels – 2002, 2003, 2004, 2006, 2009, 2010, 2014, 2016, 2018

Reviewer of numerous manuscripts in the areas of applied mechanics and materials science, 2005-2007 Outstanding Reviewer Award for *Acta Materialia*

FUNDING

Army Research Office, 2002-2005, Development of a Non-Linear Finite Element Code for the Improvement of Piezoelectric Actuator Design and Reliability, $173,033

National Science Foundation, 2003-2009, CAREER: Non-linear Electromechanics of Ferroelectric Ceramics, $400,000

Office of Naval Research, 2003-2006, Young Investigator Award, Continuum Electromechanics of Ferroelectric Ceramics, $300,000

Army Research Office, 2006-2009, Computational Model for Domain Structure Evolution in Ferroelectrics, $197,526

Office of Naval Research, 2007-2010, Effects of Compositional Gradient and Cooling Rate on Stresses Generated During the Growth of Single Crystal Ferroelectrics, $224,890

Army Research Office, 2007, McMat 2007 ASME Applied Mechanics and Materials Conference, $5,000

National Science Foundation, 2009-2012, Materials World Network: Experimental Observation and Theoretical Modeling of Domain Evolution in Ferroelectrics, $250,000.

Army Research Office, 2010-2013, Phase-field Modeling and Computation of Fracture and Microstructural Evolution, $284,154

National Science Foundation, 2011-2014, Modeling and Simulation of the Giant Electrocaloric Effect, $250,000

National Science Foundation, 2012-2015, Effect of Inhomogeneous Deformation on the Response of Shape Memory Alloy Structures, $389,289

Army Research Office, 2012-2016, An Integrated Experimental and Modeling Study of Ductile Fracture, $569,904

Statoil, 2013-2015, Phase-field Modeling of Hydraulic Fracture, $120,000

Technical Data Analysis Inc., 2015-2018, Phase Field Modeling for Fatigue Analysis Techniques, $97,475

National Science Foundation, 2015-2018, Nonlinear Fracture Mechanics of Hydrogel-Like Soft Materials, $442,000

Army Research Office, 2016-2017, An Integrated Experimental and Modeling Study of Ductile Fracture (extension), $190,018

Office of Naval Research, 2016-2019, Development of Phase-field Modeling for Fatigue/Stress Corrosion Crack Growth and Additive Manufacturing, $537,011

Office of Naval Research, 2016-2017, Initiation and Propagation in Aircraft Structural Components using Phase Field Model Technique – STTR Phase I, $13,998

Office of Naval Research, 2017-2020, Initiation and Propagation in Aircraft Structural Components using Phase Field Model Technique – STTR Phase II, $100,000, Phase II $280,000

National Science Foundation, 2018-2021, Instabilities in Shape Memory Alloys and Structures, $476,657

ADVISEES

Jianxin Wang – PhD, Rice University, 2006
Jianshun Sheng – MS, Rice University, 2003
Brian Meason – MS, UT Austin, 2008
Wenyuan Li – MS, Rice University, 2006, PhD, UT Austin, 2011
Zacharias Petrou – MS, UT Austin, 2013
Dorinamaria Carka – PhD, UT Austin, 2012
Nikolas Bouklas – PhD, UT Austin, 2014
Ye Kuang – MS, UT Austin, 2015
Zachary Wilson – PhD, UT Austin 2016
Ryan Scurlock – MS UT Austin, 2016
Dongjie Jiang – PhD, UT Austin 2017
Alexandra Woldman – PhD, UT Austin 2017

Yalin Yu - PhD, UT Austin 2019
Talal Alotaibi - PhD, UT Austin 2019
Amin Anvari,Yu-sheng Lo, Mohammed Alsawalhi, Hongrui Yu- PhD candidates at UT Austin
Yu Su – Postdoctoral Associate, Rice University, 2004-2006
Antonios Kontsos – Postdoctoral Associate, UT Austin, 2007-2009