CURRICULUM VITAE of **DIMITRIS C. LAGOUDAS**, Ph.D., P.E.

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EDUCATION

Aristotle University of Thessaloniki, Greece
Diploma, 1982, Mechanical Engineering
Lehigh University, USA
Ph.D., 1986, Applied Mathematics
Cornell University, USA, and Max Planck Institute, Germany
Postdoctoral Studies, 1986-88,
Theoretical and Applied Physics/Mechanics

BRIEF BIOGRAPHICAL SUMMARY

D. C. Lagoudas currently is the Associate Vice Chancellor for Engineering Research, Senior Associate Dean for Research, Deputy Director of TEES and the inaugural recipient of the John and Bea Slattery Chair in Aerospace Engineering at Texas A&M University. He serves as the Director for the Texas Institute for Intelligent Materials and Structures (TiiMS). His research involves the design, characterization and modeling of multifunctional material systems at nano, micro and macro levels with averaging micromechanics methods developed to bridge the various length scales and functionalities including mechanical, thermal and electrical properties of nanocomposites. His research team is one of the most recognized internationally in the area of modeling and characterization of shape memory alloys. He has co-authored about 400 scientific publications (more than 160 in archival journals) and with an H-factor of 38. For his scientific work on multifunctional materials, he received two best paper awards from ASME and one from BSME. He is co-author of a monograph on gauge theories of defects, and edited several special issues of journals and proceedings volumes, while a textbook on shape memory alloys co-authored with his graduate students was recently published. During the past two decades he has published extensively on the subject of shape memory alloys with his students, postdoctoral associates and colleagues and several of his journal papers are now considered classic papers in the field. The theoretical models that his research group developed have now been implemented and integrated into finite element analysis software, which have been used by many academic institutions around the world and also by industry and government (Boeing, DoD and NASA). Most recently he has received the 2006 ASME Adaptive Structures and Material Systems Prize in recognition of his contributions to the modeling and characterization of shape memory alloys and their use in aerospace structures. Over the past two decades, his research has been supported by various government agencies including NSF, NASA, ONR, ARO, AFOSR, DARPA, DoE, and the State of Texas. He has collaborated with many industrial partners such as Bell Helicopter - Textron, Lockheed-Martin, Northrop Grumman, Boeing, Schlumberger and Tenaris. He has also worked with National Labs, including DoD, DoE Labs and NASA centers, either directly or through cooperative research and development agreements. He is an Associate Editor for the two primary journals on smart structures and he has helped organize numerous conferences through professional societies such as AIAA, ASME, SPIE and SES, for which he has served in various capacities. He is an alumnus of the prestigious Defense Science Study Group, and he has served on NRC panels. He also served as the co-chair of NASA's Roadmap panel for Nanotechnologies. He was the inaugural recipient of one of the two Ford Motor Company Professorships at Texas A&M University, he is a TEES fellow, a TAMU Faculty Fellow and he is an Associate Fellow of AIAA and a Fellow of ASME, IOP and SES. He served as an Associate Vice President for Research for Texas A&M University from 2001-2004, and as the first chair of the Materials Science and Engineering Program at TAMU. He is the 2011 recipient of the SPIE Smart Structure and Materials Lifetime Achievement Award.

PROFESSIONAL EXPERIENCE

Texas A&M University, College Station, TX 77843-3141
Senior Associate Dean for Research, Associate Vice Chancellor for Engineering Research and Deputy Director of TEES, August 2012
Senior Associate Dean for Research, Associate Vice Chancellor for Engineering Research and Interim Deputy Director of TEES, July 2012 – August 2012
Department Head, June 2009 – June 2012
Interim Department Head, November 2008 – May 2009
University of Illinois Urbana-Champaign
Visiting Professor, Bechman Institute – Fall, 2006
Rice University
Visiting Professor, Fall, 2006
John and Bea Slattery Chair, September 2004 – present
Director, Texas Institute for Intelligent Materials and Structures (TiiMS), September 2002- present
Chair, Materials Science and Engineering, January 2001-August 2003
Associate Vice President for Research, May 2001-May 2004
Ford Professor of Aerospace Engineering, October 1999-August 2004
Director, TEES Center for Mechanics of Composites, September 1998-December 2001
Director, Active Materials and Intelligent Systems Laboratory, September 1997-present
Full Professor of Aerospace Engineering, September 1998 - present
Associate Professor of Aerospace Engineering, July 1992 – August 1998
NASA Langley Research Center, Hampton, VA
NASA Faculty Fellow, June 2004 – August 2004
ENSAM Metz, France
Visiting Professor, December 2000, May 2002
University of Texas at Austin, Austin, Texas
Visiting Scholar, Department of Aerospace and Engineering Mechanics, Fall 1998
University of Metz, Metz, France
Visiting Professor, CNRS Institute for Mechanics of Materials (LPMM), December 2003
Visiting Professor, CNRS Institute for Mechanics of Materials (LPMM), May-June, 1998
Rensselaer Polytechnic Institute, Troy NY 12180
Assistant Professor of Civil Engineering, September 1988 - June 1992
Adjunct Associate Professor of Civil and Environmental Engineering, July 1992-June 1993
Cornell University, Ithaca NY 14853
Postdoctoral Associate, Mathematical Sciences Institute, August 1986 - August 1988
Max-Planck Institute, Stuttgart, West Germany
Visiting Scientist, Max-Planck Institute for Metal Research and the Institute for Theoretical and Applied Physics of the University of Stuttgart, September 1987 - November 1987
Lehigh University, Bethlehem PA 18015
Visiting Instructor, Department of Mechanical Engineering and Mechanics, Summer 1985
Teaching Assistant, Center for the Application of Mathematics, January 1983 - June 1986
Adra Sugar Factory, Damascus, Syria
Assistant Mechanical Engineer, Summer 1981
Langerer & Reich, Stuttgart, West Germany
Workstudent, Summer 1980
Aristotle University of Thessaloniki, Greece
Teaching Assistant in the Chair of Thermodynamics, September 1979 - June 1980
Bor Coer Mines, Bor, Yugoslavia
Assistant Mechanical Engineer, Summer 1979

HONORS AND AWARDS

1. Recipient of the ***Greek National Scholarship Foundation Award*** for outstanding performance in the entrance examinations (1977) and during the academic years 1977-80.

2. ***Graduate School Fellowship***, Lehigh University, academic year 1985-86.
3. ***Engineering Foundation Research Initiation Award***, 1990-91.
4. ***NSF Research Initiation Award***, 1991-93.
5. ***Lilly Teaching Fellowship***, 1991-92.
6. ***Who's Who in America***
7. ***Who's Who in Science and Engineering***
8. ***Adaptive Structures and Material Systems Best Paper Award***, 1995, 2005.
9. ***TEES Research Fellow***, 1995, 1996.
10. ***TEES Senior Research Fellow***, 1997.
11. ***Defense Science Study Group, Institute for Defense Analyses,*** 1998-1999.
12. ***Neely '52 Dow Chemical Faculty Fellow Award,*** 1998.
13. ***Lockheed Excellence in Engineering Teaching Award,*** 1998.
14. ***Ford Professor of Aerospace Engineering, TAMU***, 1999-2004.
15. ***Associate Fellow, American Institute of Aeronautics and Astronautics***, 2000.
16. ***Fellow, American Society of Mechanical Engineers,*** 2000**.**
17. ***Texas A&M University Faculty Fellow,*** 2000-2005**.**
18. ***TEES Charles W. Crawford Service Award,*** 2003.
19. ***NASA Faculty Fellowship****,* NASA Langley, 2004.
20. ***John and Bea Slattery Chair***, 2004.
21. ***Institute of Physics Fellow,*** *2004*
22. ***ASME Adaptive Structures and Material Systems Prize,*** 2006.
23. ***William Sweet Smith Prize, IMechE,*** 2008
24. ***Fellow of Engineering Science,*** *2009*
25. ***Presidential Award of Excellence for Faculty Service to International Students***, 2011
26. ***SPIE Smart Structures and Materials Lifetime Achievement Award,*** *2012*

I. TEACHING

I.1 Courses (Undergraduate (U); Graduate (G))

Lehigh University
Mechanics of Materials (U)

Rensselaer Polytechnic Institute
Mechanics I: Statics & Dynamics (U)
Mechanics II: Continuum Mechanics (U)
Introduction to Engineering Analysis (U)
Mechanics of Solids (G)
Advanced Mechanics of Materials (G)
Damage Mechanics (G)
Inelastic Behavior of Composites (G)
Micromechanics of Composite Materials (G)

Texas A&M University
Elements of Aerospace Structures (U)
Micromechanics (G)
Continuum Mechanics (G)
Conservation Principles and the Structure of Engineering (U)
Conservation Principles for Continuous Media (U)
Continuum Mechanics - Foundation Coalition (U)
Mechanics of Active Materials (G)
Theory of Elasticity (G)
Theory of Plasticity (G)
Multifunctional Materials (G)
Advanced Mechanics of Materials (U)

I.2 Student Thesis Supervision

MASTERS

Graduated

1. Andres C. Gavazzi, "Elastoplastic Behavior of Metal Matrix Composites Based on Averaging Techniques," 12/88-12/89.
2. Jamie Pfaeffle, "Active Flexible Rods with Embedded Shape Memory Alloy Actuators: Theory, Design and Experiments," 9/91-5/93.
3. David A. Miller, "Damage Evolution of a Sic/Ti-15-3 Metal Matrix Composite with Different Heat Treatments," 8/92-5/95.
4. Stephen D. Howard, "The Thermomechanical Constitutive Experimentation of Ni-Ti Shape Memory Alloy Strips and Rods," 8/93-8/95.
5. Muhammad A. Qidwai, "Numerical Evaluation of the Constitutive Response of Shape Memory Alloys," 9/93-12/95.
6. Xinzheng Ma, "Modeling of Surface Oxidation and Oxidation Induced Damage in Metal Matrix Composites," 9/93-12/95.
7. Brett J. deBlonk, "Fabrication and Evaluation of SMA-Silicon Rubber Continuous-Fiber and Particulate Composites," 1/94-8/95.
8. Matthew D. McNeese, "Fabrication of NiTi Shape Memory Alloy From Elemental Powders by Hot Isostatic Pressing," 7/94-12/97.
9. Robertus Triharjanto, "Numerical Simulation of Oxidation and its Effect on the Crack Growth Resistance of Titanium Alloys," 9/95-12/97.
10. Kai Wang, "Viscoelastic Behavior of Composite Laminates Undergoing Curing," 8/96-8/98.
11. Luke Garner, "Modeling of an Active Hydrofoil with SMA Actuators," 9/97-8/99.
12. Juan C. Jimenez-Victory, "Structural Modeling of a Smart Wing," 9/97-12/99.
13. Mayur Govind Kulkarni, "Design of Reconfigurable Airfoils with SMA Actuators," 9/98-5/00.
14. Kristi Shryock, "Integrated Teaching of Mechanics and Materials based on Topical Coverage and the Conservation Framework," 9/98-12/00.
15. Mohammad Ahsan Khan, "Genetic Algorithms Applied to Reconfigurable Airfoils," 1/99-12/00. (Co-chair).
16. Olivier Goddard, "Design of an Active Biomimetic Hydrofoil," 9/99-5/01.
17. John J. Mayes, "Suitability of Shape Memory Alloys for Vibration Isolation with Application to Launch Vehicle Payloads," 9/99-12/01.
18. Justin Strelec, "Design and Implementation of a Shape Memory Alloy Actuated Reconfigurable Wing," 9/00-5/02.
19. Mughees Khan, "Modeling of Shape Memory Alloy (SMA) Spring Elements for Passive Vibration Isolation Using Simplified SMA Model and Preisach Model," 9/99-5/02.
20. Raghavendran Mani, "Active Flow Control using SMA Actuators," 9/99-5/02.
21. Eric Vandygriff, "Fabrication of Porous SMAs," 9/00-5/02.
22. Bryan Nelson, "Experimental Investigation of Thermomechanical Response of SMA under Nonproportional Loading Paths," 9/98-8/02.
23. Jae Sang Lee, "Effective Properties of Electro Magneto Elastic Composites," 8/01-12/03.
24. Luke Penrod, "Vibration Isolation of Space Structures Using Porous SMAs," 9/01-12/03.
25. Rajagopal Seshadri Pachella, "Analysis of oscillating flow cooled SMA actuator," 8/01-8/04.
26. Pravin Peddiraju, "Modeling of Cryogen Leakage through Cryogenic Composite Laminates," 8/01-12/04.
27. Parikshith Kumar, "Characterization of SMA Actuators," 9/01-8/05.
28. Daniel Ayewah, "Characterization of Fracture Toughness of Nanocomposites", 1/05-8/07.
29. Erin Bishop, "Design and Analysis of an SMA Drilling Tool," 9/06-5/08.
30. Ryan Sager, "Characterization of the interfacial and interlaminar properties of carbon nanotubes modified carbon fiber/epoxy composites," 9/06-5/08.
31. Brent Volk, "Thermomechanical Characterization and Modeling of Shape Memory Polymers" 9/07-5/09.
32. Justin Schick, "Transformation Induced Fatigue of Ni-Rich NiTi Shape Memory Alloy Actuators," 1/08 – 12/09.
33. Francis Phillips, "Fabrication and Characterization of Nanowires Exhibiting the Shape Memory Effect," 9/08 - 5/10.
34. Frank Gardea, "Electrical and Thermal Experimental Characterization and Modeling of Carbon Nanotube/Epoxy Composites," 9/09 - 5/11.

35. Chris Calhoun, "Actuation Fatigue of Ni-rich Shape Memory Alloys," 9/09 - 12/2011.
36. Stephen Oehler, "Developing Methods for Designing Shape Memory Alloy Actuated Morphing Aerostructures," May, 2012.

Current
1. Abhay Mohan
2. Antonino Parrinello
3. Austin Cox
4. Stephen Cornell

DOCTORAL

Graduated
1. Chien-Ming Huang, "Finite Element Formulation for Gauge Theory of Brittle Damage with Applications to Fibrous Composites," 9/88-6/93.
2. Ahmed M. Saleh, "Compressive Kinking Failure of Fibrous Composites," 9/89-7/93.
3. Zhonghe Bo, "Constitutive Response of Shape Memory Alloys and Composites," 8/92-8/96.
4. Gongming Xu, "Shape Control of Active Composites," 3/94-12/96.
5. Glenn Viktor Webb, "Adaptive Identification and Compensation for a Class of Hysteresis Operators," 5/95-5/98 (co-chair).
6. Abu Bakar Siddiq Qidwai, "Finite Deformations in Shape Memory Alloys," 1/96-12/99.
7. David Miller, "Fabrication and Mechanical Characterization of Active Composites," 6/96-5/00.
8. P.K. Imbrie, "Oxidation in Metal Matrix Composites," 1/95-8/00.
9. Pavlin B. Entchev, "Micromechanical Modeling of Porous Shape Memory Alloys," 1/96-5/02.
10. Hyoung Yoll Jun, "Compact SMA actuators," 9/00-12/03 (co-chair).
11. Peter Popov, "Constitutive Modelling of Shape Memory Alloys and Upscaling of Deformable Porous Media," 1/00-5/05.
12. Bjoern Kiefer, "Modeling of Magnetic SMAs," 9/02-12/06.
13. Gary Seidel, "Multiscale Modeling in CNT Nanocomposites," 9/02-8/07.
14. Luciano Machado, "Nonlinear Dynamics in SMA Structures," 9/02-12/07.
15. Bong Taek Oh, "Cryogenic Composites," 9/02-5/09.
16. Olivier Walter Bertacchini, "Characterization and modeling of transformation induced fatigue of shape memory alloy actuators," 10/03-12/09.
17. Parikshith Krishna Kumar, "Effect of Inelastic Phenomena on the Actuation Characteristics of High Temperature Shape Memory Alloys," 9/05-12/09.
18. Piyush Thakre, "Processing and characterization of carbon nanotubes reinforced epoxy resin based multi-scale multi-functional composites," 1/04-12/09.
19. Amnaya Awasthi, "Modeling of Carbon Nanotubes," 1/04-12/09.
20. Darren Hartl, "Modeling of Shape Memory Alloys Considering Rate-Independent and Rate-Dependent Irrecoverable Strains," 8/04-12/09.

Current
21. Krishnendu Haldar, "Modeling of Field Induced Phase Transformation in Magnetic SMAs", 8/06 -
22. Brent Volk, "Modeling of Shape Memory Polymers,'"5/09 –
23. Brian Lester, "Modeling of a Ceramic-SMA Composite," (expected 5/2015).
24. Majid Tabesh, "Modeling of thermomechanical coupling in Shape Memory Alloys," 8/14 (expected)
25. Frank Gardea, "Characterization and modeling of aligned nanoparticle multifunctional composites," 5/2015 (expected).
26. Babatunde Agboola, "Transformation Fatigue of SMAs," 1/2012 - .

POSTDOCTORAL
1. James G. Boyd, "Thermodynamic Formulation of the Constitutive Response of Shape Memory Alloys," 8/92-6/94.
2. Abhijit Bhattacharyya, "Fast Thermoelectric Cooling of SMA," 3/94-12/96.
3. Zhonghai Ding, "Heat and Mass Diffusion Problems with Moving Boundaries," 6/94-8/95.
4. Shouze Xu, "Numerical Solutions for Oxidation Fronts in Metal Matrix Composites," 9/94-8/96.

5. Declan Hughes, (jointly with Dr. Junkins) "Design of Mechanical and Control Experiments in Active Materials and Smart Structures," 1/96-12/96.
6. Zhonghe Bo, "Thermomechanical Modelling of the Cyclic Response of SMA's," 9/96-8/98.
7. Alexander Bekker "Applications of SMA Actuators in Uninhabited Air Vehicles," 10/97-5/99.
8. Margarita Evard, "Influence of Plastic Strain on Shape Memory Effect," 1/98-5/98.
9. Carlos Yapura, Foundation Coalition, 7/98-12/98.
10. Glenn Viktor Webb, (jointly with Dr. Rediniotis) "Adaptive Control of Smart Structures," 4/98-8/99.
11. Li-Jian Rong, "Fatigue of SMA Actuators," 1/99-8/99.
12. Kayleen Helms, "Coordination of Efforts in Materials Research and Materials Collaborative," 9/01-7/02.
13. Michael Newman, "Numerical Modeling of Impact Loading of SMAs," 9/01-9/03.
14. Pavlin Entchev, "Porous SMAs and Magnetic SMAs," 5/02-11/03.
15. Yordanos Bisrat, "Fabrication, Characterization and Manipulation of Nanowires," 5/04-5/07.
16. Peter Popov, "Homogenization Methods for Material Systems with Microstructure," 9/05-8/07.
17. Gary Seidel, "Micromechanics of Nanocomposites," 9/07-8/08.
18. Hongxing Zheng, "Nanomanufacturing and characterization of SMA nanowires," 7/08-9/09.
19. George Chatzigeorgiou, "Non-homogeneous thermoviscoplastic materials: Material instabilities and homogenization," 6/8 – 6/10.
20. Yves Chemisky, "Modeling of SMA's and HTSMA's, study of heterogeneities in SMA Materials," 9/09 – 8/11.
21. Kaushik Das, "Analysis of a Photonic Band Gap Film for Thermal Radiation Barrier Coatings", 9/09 – present.
22. Parikshith Kumar, "Characterization of HTSMAs", 1/10-1/12.
23. Theocharis Baxevanis, "Fracture Mechanics of SMAs", 8-10 – present.

Student Fellowships

1. Gary Seidel, Sandia, 9/03-12/06
2. Luciano Machado, Brazil, 9/02-12/06
3. Darren Hartl, Department of Defense, 8/04-8/07
4. Darren Hartl, NDSEG, 9/07-8/09
5. Brent Volk, NDSEG, 8/2010 – 8/2012
6. Francis Phillips, NSF-IGERT, 9/08-7/10
7. Frank Gardea, NSF-IGERT, 9/11-8/12
8. Brian Lester, NSF-IGERT, 9/11-8/12
9. Brian Lester, Sandia National Laboratories/Texas A&M University Excellence in Engineering Fellows Program, 9/12 -

Visiting Professors

1. Andrzej Safjan, "Mechanics of Nanotubes," 9/01-5/05
2. Chuen-Guang Chao, "Fabrication of Nanowires," 8/03-7/04
3. Yi-Chao Chen, "Shape Memory Polymers," 1/06-6/06
4. Marcelo A. Savi, "Shape Memory Alloy – Modeling, Simulations and Experiments", 12/06 – 2/07
5. Yehia Bahei-El-Din, "Multifunctional Materials Modeling," 7/1-3/2008
6. Tarak Ben Zineb, "Shape Memory Alloy Modeling," 7/6-9/2008
7. Marcelo A. Savi, "Nonlinear Dynamics of Shape Memory Alloy Systems," 1/4 – 2/10/2009
8. Lahcen Azrar, "Micromechanics of Active Materials and Smart Structures," 1/14-24/2009
9. Etienne Patoor, "SMA and SMA composites", 1/10-8/10

Visiting Scholars

1. Dong Fang, "Alumina and titania nanotubes fabrication and application as templates," 9/09 – 8/10.
2. Bingfei Liu, "Gradient effects in SMAs ", 9/11 – 8/12.

II. RESEARCH

II.1 Refereed Journal Publications

1. LAGOUDAS, D.C., 1986 "Boundary Tractions in the Gauge Theory of Dislocations and Disclinations," International Journal of Engineering Science, Vol. 24, pp. 933-937.
2. EDELEN, D.G.B., and LAGOUDAS, D.C., 1986, "Null Lagrangians, Admissible Tractions and Finite Element Methods," International Journal of Solids and Structures, Vol. 22, pp. 659-672.
3. LAGOUDAS, D.C., 1986, "Toward a Self-Consistent Theory of Electromagnetic Boundary Value Problems," International Journal of Engineering Science, Vol. 24, pp. 1629-1636.
4. LAGOUDAS, D.C., 1987, "Plane Harmonic Waves in the Linearized Gauge Theory of Dislocations," International Journal of Engineering Science, Vol. 25, pp. 1323-1335.
5. EDELEN, D.G.B., and LAGOUDAS, D.C., 1988, "Dispersion Relations for the Linearized Field Equations of Dislocation Dynamics," International Journal of Engineering Science, Vol. 26, pp. 837-846.
6. LAGOUDAS, D.C., 1989, "Gauge Theory of Defects in Media with Microstructure," International Journal of Engineering Science, Vol. 27, pp. 237-249.
7. LAGOUDAS, D.C., and EDELEN, D.G.B., 1989, "Material and Spatial Gauge Theories of Solids - I: Gauge Constructs, Geometry and Kinematics," International Journal of Engineering Science, Vol. 27, pp. 411-431.
8. LAGOUDAS, D.C., 1989, "On Equivalence Between the Classical Theory of Dislocations and the Gauge Theory of Defects," Letters in Applied and Engineering Sciences, Vol. 27, pp. 737-738.
9. LAGOUDAS, D.C., HUI, C.-Y., and PHOENIX, S.L., 1989, "Time Evolution of Overstress Profiles Near Broken Fibers in a Composite with Viscoelastic Matrix," International Journal of Solids and Structures, Vol. 25, pp. 45-66.
10. HUI, C.-Y., and LAGOUDAS, D.C., 1990, "Stress Fields of Interface Dislocations," Journal of Applied Mechanics, Vol. 57, pp. 247-248.
11. GAVAZZI, A.C., and LAGOUDAS, D.C., 1990, "On the Numerical Evaluation of Eshelby's Tensor and its Application to Elastoplastic Fibrous Composites," Computational Mechanics, Vol. 7, pp. 13-19.
12. AKSEL, B., LAGOUDAS, D.C., and HUI, C.-Y., 1991, "Effects of a Frictional Interface on the Load Diffusion from a Broken Filament Embedded in an Elastic Medium," International Journal of Solids and Structures, Vol. 27, pp. 33-847.
13. WANG, Y.C, HUI, C.-Y., LAGOUDAS, D.C., and PAPADOPOULOS, J., 1991, "Small-Scale Crack Blunting at a Bimaterial Interface with Coulomb Friction," International Journal of Fracture, Vol. 52, pp. 293-306.
14. LAGOUDAS, D.C., GAVAZZI, A.C., and NIGAM, H., 1991, "Elastoplastic Behavior of Metal Matrix Composites Based on Incremental Plasticity and the Mori-Tanaka Averaging Scheme," Computational Mechanics, Vol. 8, pp. 193-204.
15. LAGOUDAS, D.C., TADJBAKHSH, I., and FARES, N., 1991, "A New Approach to Microbuckling of Fibrous Composites," Journal of Applied Mechanics, Vol. 58, pp. 473-479.
16. LAGOUDAS, D.C., 1991, "A Gauge Theory of Damage," International Journal of Engineering Science, Vol. 29, pp. 597-606.
17. AHMAD, H., and LAGOUDAS, D.C., 1991, "Effective Elastic Properties of Fiber-Reinforced Concrete with Random Fibers," Journal of Engineering Mechanics, Vol. 117, pp. 2931-2938.
18. KRÖNER, E., and LAGOUDAS, D.C., 1992, "Gauge Theory with Disclinations," International Journal of Engineering Science, Vol. 30, pp. 47-53.
19. LAGOUDAS, D.C., and TADJBAKHSH, J.G., 1992, "Active Flexible Rods with Embedded SMA Fibers," Smart Materials and Structures, Vol. 1, pp. 162-167.
20. LAGOUDAS, D.C., and SALEH, A.M., 1993, "Compressive Failure due to Kinking of Fibrous Composites," Journal of Composite Materials, Vol. 27, pp. 83-106.
21. LAGOUDAS, D.C., and SALEH, A.M., 1993, "Geometry and Loading Effects on the Compressive Strength of Fibrous Composites," Journal of Reinforced Plastics and Composites, Vol.12, pp. 1016-1023.
22. LAGOUDAS, D.C., and TADJBAKHSH, I.G., 1993, "Deformations of Active Flexible Rods with Embedded Line Actuators," Journal of Smart Materials and Structures, Vol. 2, pp. 71-81.
23. TADJBAKHSH, I.G., and LAGOUDAS, D.C., 1994, "Variational Theory of Motion of Curved, Twisted and Extensible Elastic Rods, International Journal of Engineering Science, Vol. 32, pp. 569-577.
24. BOYD, J.G., and LAGOUDAS, D.C., 1994, "Thermomechanical Response of Shape Memory Composites," Journal of Intelligent Material Systems and Structures, Vol. 5, pp. 333-345.
25. LAGOUDAS, D.C., BOYD, J.G., and BO, Z., 1994, "Micromechanics of Active Composites with SMA Fibers," ASME Journal of Engineering Mechanics and Technology, Vol. 116, pp. 337-347.
26. JEONG, G.S., ALLEN, D.H., and LAGOUDAS, D.C., 1994, "Residual Stress Evolution due to Cool-Down in Viscoplastic Metal Matrix Composites," International Journal of Solids and Structures, Vol. 31, pp. 2653-2677.

27. LAGOUDAS, D.C., and BO, Z., 1994, "The Cylindrical Bending of Composite Plates with Piezoelectric and SMA Layers," Journal of Smart Materials and Structures, Vol. 3, pp. 309-317.
28. LAGOUDAS, D.C., and HUANG, C.-M., 1994, "Finite Element Implementation of the Gauge Theory of Damage," International Journal of Engineering Science, Vol. 32, pp. 1877-1888.
29. DVORAK, G.J., LAGOUDAS, D.C., and HUANG, C.-M., 1994, "Fatigue Damage and Shakedown in Metal Matrix Composite Laminates," Mechanics of Composite Materials and Structures, Vol. 1, pp. 171-202.
30. LAGOUDAS, D.C., and DING, Z., 1995, "Modeling of Thermoelectric Heat Transfer in Shape Memory Alloy Actuators: Transient and Multiple Cycle Solutions," International Journal of Engineering Science, Vol. 33, pp. 2345-2364.
31. LAGOUDAS, D.C., MA, X., MILLER, D.A., and ALLEN, D.H., 1995, "Modeling of Oxidation in Metal Matrix Composites," International Journal of Engineering Science, Vol. 33, pp. 2327-2343.
32. BHATTACHARYYA, A., LAGOUDAS, D.C., WANG, Y.C., and KINRA, V.K., 1995, "On the Role of Thermoelectric Heat Transfer in the Design of SMA Actuators: Theoretical Modeling and Experiment," Journal of Smart Materials and Structures, Vol. 4, pp. 252-263.
33. BOYD, J.G., and LAGOUDAS, D.C., 1996, "A Thermodynamical Constitutive Model for Shape Memory Materials. Part I. The Monolithic Shape Memory Alloy," International Journal of Plasticity, Vol. 12, pp. 805-842.
34. BOYD, J.G., and LAGOUDAS, D.C., 1996, "A Thermodynamical Constitutive Model for Shape Memory Materials. Part II. The SMA Composite Material," International Journal of Plasticity, Vol. 12, pp. 843-873.
35. LAGOUDAS, D.C., BO, Z., and QIDWAI, M.A., 1996, "A Unified Thermodynamic Constitutive Model for SMA and Finite Element Analysis of Active Metal Matrix Composites," Mechanics of Composite Materials and Structures, Vol. 4, pp. 153-179.
36. ENTCHEV, P.B., ILIEV, O.P., and LAGOUDAS, D.C., 1996, "Numerical Simulation of a 2-D Oxide Layer Growth in an Anisotropic Medium," Journal of Mechanical Behavior, Vol. 17, pp. 67-84.
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213. HALDAR, K. and LAGOUDAS, D.C., "Model Predictions of Strain and Magnetization under Magneto-Thermo-Mechanical Loading Paths in MSMAs," SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 7-9, 2011.
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217. KUMAR, P.K., CAER, C., PATOOR, E. and LAGOUDAS, D.C., "Influence of Stress and Temperature of the Retained Martensite Accumulation," SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 7-9, 2011.
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219. CALHOUN, C. and LAGOUDAS, D.C., "Microstructural effects on actuation fatigue of Ni-rich Shape Memory Alloys", 52nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials, April 4-7, 2011, Denver, Colorado.
220. CHARALAMBAKIS, N., CHATZIGEORGIOU, G., EFENDIEV, Y. and LAGOUDAS, D.C., "Effective behavior of composite structures made of thermoelastic constituents with cylindrical periodicity," ICM11, June 5-9, 2011, Como, Italy.
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225. Oehler, S., Hartl, D.J., Turner, T. and Lagoudas, D.C., "Modeling Fluid Structure Interaction with Shape Memory Alloy Actuated Morphing Aerostructures," In Proceedings of SPIE Smart Structures and Materials/NDE Conference, San Diego, March 2012, pp. 1–11.
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II.4 Funded Research Projects

II.4.1 Principal Investigator / Co-PI for Research Projects

1. Engineering Foundation, "Compression Strength of Composite Laminates," Air Force Engineering Foundation Grant RI-B-90-7, $20,000, 09/1/90-08/31/91.
2. National Science Foundation, "Damage Evolution Based on Distributed and localized Changes of Microstructure," NSF Research Initiation Award Grant No. MSS-9109184, $67,050, 07/01/91-06/30/93.
3. Army - Watervliet Arsenal, "Micromechanics of Composite Materials Using Averaging Techniques," $13,495, 07/31/91-06/30/92.
4. Center for Innovation in Undergraduate Education, "Further Development of 20.1100 Intro to Engineering Analysis, A Course in the Engineering Pilot Program," $9,900, 07/01/91 - 06/30/92 (J.B. Brunski, D.C. Lagoudas, co-PIs).
5. Lilly Endowment, Inc., "Development of Undergraduate Civil Engineering Course - Applied Solid Mechanics," $6,500, 07/01/91 - 06/30/92 (D.C. Lagoudas, A.W.M. Elgamal, co-PIs).
6. Defense Advanced Research Project Agency - University Research Initiative Program, "Mechanism - Based Design of Composite Structures," $5,223,999, D.C. Lagoudas, 10% proposed participation, (G.J. Dvorak, M.S. Shephard, J. Fish, D.J. Duquette, W. Hillig, J.B. Hudson, N.S. Stoloff, S.S. Sternstein, J.E. Flaherty, co-PIs), 01/01/92-12/31/96.
7. National Science Foundation, "Undergraduate Course Development in Engineering: Mechanics and Linear Algebra," $280,697, D.C. Lagoudas, 50% proposed participation, (J.B. Brunski, co-PI), 05/01/92 - 04/30/96.
8. National Science Foundation, "Computing Across the Basic Sciences," $615,897, D.C. Lagoudas, 14% proposed participation, (J.M. Wilson, H. McLaughlin, M. Levy, M. Skolnick, C. Bean, C. Breneman, co-PIs), 05/01/92 - 04/30/95.
9. Army Research Office - University Research Initiative Program, "Interdisciplinary Basic Research in Smart Materials and Structures," $2,299,975, D.C. Lagoudas, 20% participation, (I.G. Tadjbakhsh, A.J. Kurdila, H.F. Tiersten, K.C. Craig, J.T. Wen, co-PIs), 7/1/92 - 12/31/97.
10. Army Research Office, AASERT Grant on "Constitutive Modeling of Shape Memory Alloys (SMA) for Structural Applications," $102,000, D.C. Lagoudas, 100% participation, 09/01/93-12/31/96.
11. Office of Naval Research, "Design of High Frequency SMA Actuators," $200,000, D.C. Lagoudas, 50% participation, (V.K. Kinra, co-PI), 11/01/93-10/31/96.
12. Air Force Office of Scientific Research, "Micromechanism Based Modeling of Metal Matrix Composites Subjected to Thermal Transients," $265,519, D.C. Lagoudas, 50% participation, (D.H. Allen, co-PI), 06/01/94-09/30/97.
13. Bell Helicopter Textron Inc., "Loss Tangent Stabilization of SMA-Elastomeric Composite Dampers," $22,227, D.C. Lagoudas, 100% participation, 01/01/95-1/31/96.
14. Bell Helicopter Textron Inc., "Development of Viscoelastic Constitutive Model for IM7/8552 Composite," $88,381, D.C. Lagoudas, 50% participation, (D.H. Allen, J.D. Whitcomb, co-PIs) 6/8/96-7/31/97.
15. Air Force Office of Scientific Research, AASERT Grant on "Micromechanism Based Modeling of Metal Matrix Composites," $187,555, D.C. Lagoudas, 50% participation, (D.H. Allen, co-PI), 6/1/97-5/31/00).
16. Army Research Office (European Branch), "Simulation of Dislocation and Transformation Plasticity in Shape Memory Alloys," $28,950, D.C. Lagoudas 50% participation (A. Volkov, co-PI from Russia), 7/1/97-6/30-98.
17. Office of Naval Research, "Design and Implementation of a Smart Flap Assisted Control Surface (SFACS)," $45,357, D.C. Lagoudas, 50% participation (O. Rediniotis, co-PI), 7/1/97-6/30/98.
18. National Science Foundation – Foundation Coalition, "Restructuring of the Sophomore Engineering Curriculum," Co-coordinator of sophomore year activities with annual budget of ~$100,000, (6/95-8/98); Management team, 9/98-6/99; Interim Campus PI, 1/99-6/99.
19. Office of Naval Research, "Nonlinear Active Control of External Fluid Flows," $527,463, D.C. Lagoudas, 50% participation (O. Rediniotis, co-PI), 7/1/97-6/30/00.
20. Air Force Office of Scientific Research, "Thermomechanical Modeling and Experimentation for SMA Actuators Under Cyclic Loading," $277,669, D.C. Lagoudas 100% participation, 9/1/97-8/31/00.

21. Office of Naval Research – STTR Program, Phase II, "Application of Active Materials and Neural Networks to Aquatic Biomimetics," $477,910 for two years with an option of $99,332 for a third year, Aeroprobe Corporation is the PI; budget for TAMU is $238,757 for the first two years, D.C. Lagoudas, 50% participation (O. Rediniotis, co-PI from TAMU), 10/1/97-6/30/00.
22. Bell Helicopter Textron, "Modeling of Stresses and Deformation Patterns in Thick Composite Laminates," $66,110, D.C. Lagoudas, 50% participation (J. Whitcomb, co-PI), 8/1/97-12/31/98; $60,000, 1/1/99-3/31/00.
23. Texas Higher Education Coordinating Board-Advanced Technology Program, "Development of Enabling Technologies for Reconfigurable Uninhabited Air Vehicles," $180,500, D.C. Lagoudas, 50% participation (O.K. Rediniotis, Co-PI), 1/1/98 – 6/30/00.
24. Air Force Office of Scientific Research, "Active Materials Characterization Laboratory," $201,327 (plus $65,948 matching), D.C. Lagoudas, 5/1/99-4/30/00.
25. Office of Naval Research, "Dynamic Behavior and Shock Absorption Properties of Porous Shape Memory Alloys," $250,000, D.C. Lagoudas (Y.-C. Chen and Ravi-Chandar, co-PIs, U of Houston, subrecipient), 9/30/99-9/30/00.
26. Texas Higher Education Coordinating Board -Technology Development and Transfer Program, "Smart Structures Technologies in Industrial Environments," $175,000 (plus $225,000 matching), D.C. Lagoudas, 50% participation (O.K. Rediniotis, Co-Pi), 1/1/00-8/31/02.
27. Air Force Office of Scientific Research, "Workshop on Research and Applications of Active Materials and Smart Structures," D.C. Lagoudas, $26,000, 11/01/1999-10/31/2000.
28. National Center for Advanced Manufacturing, Louisiana Partnership, NASA, "Characterization of Electron Beam Curing of Composites," H.-J. Sue, R.J. Morgan, T. S. Creasy, D.C. Lagoudas, J.D. Whitcomb, $250,000, 06/01/2001-05/31/2002.
29. National Center for Advanced Manufacturing, Louisiana Partnership, NASA, "Prediction of Microcracking Induced Permeability of Cryogenic Composite Tanks," H.-J. Sue, R.J. Morgan, D.C. Lagoudas, J.D. Whitcomb, $250,000, 6/01/01-5/31/02.
30. Air Force Research Laboratory, Syndetix, Inc., "Feasibility of Pseudoelastic Nitinol as Nonlinear Isolator," D.C. Lagoudas, $51,400, 04/24/00-04/23/02.
31. Air Force Office of Scientific Research, "Fatigue Life and Dynamic Response of SMA Actuators," D.C. Lagoudas, $200,458, 2/15/01 – 12/31/04.
32. NASA Langley Research Center, "Active Skin for Turbulent Drag Reduction," O.K. Rediniotis and D.C. Lagoudas, $65,000, 11/01/00 – 10/31/03.
33. National Science Foundation, "Microscale Processing of Multifunctional Materials," J.G. Boyd and D.C. Lagoudas, $83,883, 05/15/2001 - 04/30/2003.
34. National Science Foundation, "Development of an Integrated Multidisciplinary Curriculum for Intelligent Systems," D.C. Lagoudas, J. Froyd, O. Rediniotis, J. Valasek, J. D. Whitcomb, T. Strganac, R. Caso, $ 573,388 (plus two REU supplements), 02/01/01-2/28/06.
35. National Center for Advanced Manufacturing, Louisiana Partnership, NASA, "Prediction of Microcracking Induced Permeability of Cryogenic Composite Tanks," J.D. Whitcomb, D.C. Lagoudas and V.K. Kinra, $335,000, 06/01/02-03/18/05.
36. Boeing, "Thermomechanical Characterization of Large Force-Displacement Shape Memory Alloy (SMA) Actuators," D.C. Lagoudas, $115,000, 10/1/01-12/31/03.
37. Army Research Office-DARPA, "Highly Compact Shape Memory Alloy Actuators," D.C. Lagoudas and O.K. Rediniotis, $200,000, 10/1/01-9/30/03.
38. Texas Higher Education Coordinating Board-Advanced Research Projects, "Magnetic Shape Memory Alloy Actuators," D.C. Lagoudas and J.C. Slattery, $145,000, 1/1/02-08/31/04.
39. Army Research Office, "Magnetic Shape Memory Alloys with High Actuation Forces," I. Karaman and D.C. Lagoudas, $360,237, 07/1/02-06/30/05.
40. Army Research Office-DURIP, "Magnetic Thermo Mechanical (MTM) Testing System for Characterization of Magnetic Shape Memory Materials," I. Karaman and D.C. Lagoudas, $155,000, 7/1/02-12/31/04.
41. National Science Foundation, "US-Germany Research Collaboration: Bridging Length Scales in Deforming Single and Textured Polycrystals of Structural Magnetic Shape Memory Alloys," I. Karaman and D. C. Lagoudas, $300,000 (US part), 07/01/03-1/31/07.
42. NASA-University Research and Engineering Institute, "Institute for Intelligent Bio-Nano Materials and Structures for Aerospace Vehicles," D.C. Lagoudas, Project Director; R. Smalley, J. Junkins, D. Zimmerman, J. Tour, E. Barrera, S. Lin, D. Davis, …, (total of 30 co-PIs) $15,000,000 from NASA plus matching, 8/1/02-8/31/07.

43. U.S. Department of Education, "GAAN: Interdisciplinary Fellowships for nanotechnology, Materials and Sensors, K, Butler-Purry, J. Giardino, O. Ochoa, M. Bryant, V. Tchakerian, C. Gutierrez, J. Holste, D. Lagoudas, $1,983,360, 08/15/2003 – 08/14/2007.
44. U.S. Civilian Research & Development Foundation (CRDF), "Iron and Cobalt Base Structural Magnetic Shape Memory Alloy Single and Textured Polycrystals with High Actuation Force," $14,000 (US part), 9/1/03-8/31/05.
45. Sandia National Laboratories, "Analytical Micromechanical Modeling," $95,258.00, 01/01/04-9/30/05.
46. Schlumberger, "High Temperature SMA's for Oil Exploration Applications," $115,415.00, 04/01/04-8/31/05.
47. NSF IMR, "Acquisition of a State-of-the-Art X-Ray Diffraction System for Magneto-Thermo-Mechanical Materials Characterization Research and Education," I. Karaman, D. Lagoudas, J. Ross, K. Hartwig and P. McIntyre, $252,000, 08/01/04-01/31/07.
48. NSF MRI, "Acquisition of a Combined Raman and Infrared Microscope with Nano-scale Spatial Resolution," A. Holzenburg, D. Lagoudas and G. Cote, $361,549, 08/15/04-07/31/07.
49. NSF-REU Site, "Nanotechnology and Materials Systems," D. Lagoudas, D. Davis, J. Boyd, A. Holzenburg, R. Morgan, Z. Ounaies, O. Rediniotis, W. Teizer, J. Valasek, J. Whitcomb, M. Hall, $250,000, 3/1/2005-2/28/2008.
50. AFRL - Clarkson Aerospace, "Materials and Manufacturing Research," D. Davis, D. Lagoudas, J. Whitcomb, D. Ford, H.-J. Sue, $490,000, 7/1/2005-9/30/2006.
51. DOD-Defense Advanced Research Projects Agency, "Reversible Control of Anisotropic Electrical Conductivity Using Colloidol Microfluidic Networks, A. Beskok, M. Belvin, D. Lagoudas, Z. Ounaies, $100,000, 2/1/2006 – 1/31/2007.
52. U.S. Civilian Research & Development Foundation (CRDF), "New Ferromagnetic Shape Memory Alloys with High Actuation Force for Sensing and Power Generation," Lagoudas, D. and Karaman, I., $65,500 ($13,100 US Portion), 2/1/2006 – 1/31/2008.
53. NSF-IGERT, "New Mathematical Tools for Next Generation Materials," J. Ross, Ford, D., Guermon, J.-L., Lagoudas, D., Walton, J., $461,887, 6/1/2006 – 5/31/2009.
54. Schlumberger, "Characterization of High Temperature Shape Memory Alloys (HTSMAs) for Oil Exploration Applications, Lagoudas, D. and Lagoudas, M., $183,907, 9/1/2006 – 12/31/2008.
55. Army Research Office, "Magnetic Field-Induced Phase Transformation in Magnetic Shape Memory Alloys with High Actuation Stress and Work Output," Karaman, I and Lagoudas, D., $ 368,047.00, 9/1/2006 – 8/31/2009.
56. Toyon Research Corporation, "Microfluidic Systems for Reconfigurable RF Surfaces and Systems," Beskok, A., Lagoudas, D., Bevan, M. and Ounaies, Z., $200,000, 10/1/06 – 6/30/07.
57. National Science Foundation, "Thermo-Mechanically Enhanced Interfaces with Multifunctional Nanoparticles," Lagoudas, D., $312,012, 9/1/06 – 8/31/09.
58. Clarkson Aerospace, Inc., "Materials and Manufacturing Research, Davis, D., Lagoudas, D., Whitcomb, J. and Su, H., $649,929.21, 9/8/06 – 8/31/08.
59. NASA Glenn Research Center, "Thermomechanical Processing and Modelling of High Temperature SMAs for Multifunctional Engine Components – NRA/"Research Opportunities in Aeronautics – 2006," Karaman, I. and Lagoudas, D., $580,765, 12/1/06 – 11/30/09.
60. NASA Shared Services Center, "Multi-Scale Modeling and Characterization of Carbon Nanotube Reinforced Multi-Functional Composites as New Lightweight, Durable Materials for Improved Subsonic, Fixed-Wing Vehicle Performance," Lagoudas, D., (Sub recipients: NIA and Nanoridge), $562,403, 1/22/07 – 1/21/10.
61. US Air Force Office of Scientific Research, "Shape Memory Alloy for Vibration Isolation and Damping of Large-Scale Space Structures," PI: Lagoudas, D., Co-PI, Kalmar-Nagy, T., Lagoudas, M., $158,320, 4/1/07 – 11/30/09.
62. Boeing Aerospace & Electronics, "A Comprehensive Analysis of the Thermomechanical Fatigue Behavior for 60-NiTi Shape Memory Alloy," PI: Lagoudas, $59,858, 3/30/07 – 11/30/07.
63. NSF-NIRT: Hierarchical Manufacturing and Modeling for Phase Transforming Active Nanostructures, PIs: Lagoudas, D., Karaman, I., Zhang, X., Kameoka, J, (Subrecipient: Ken Gall at Georgia Tech), $1,000,000, 7/1/07 – 6/30/11.
64. NSF-I/UCRC: Establishment of a Site on SMA-Research Technologies (SMA-RT) as part of OSU-SVC," PIs: Lagoudas, D., Karaman, I., and Boyd, J., $250,000, 7/1/08-6/30/13.
65. US Air Force Office of Scientific Research, "Electromagnetically Tunable Fluids," PI: Lagoudas, D., Co-PI: Ounaies, Z., and Huff, G., $100,000, 7/1/08-11/30/09.

66. Clarkson Aerospace, Inc., "Materials and Manufacturing Research," PI: Davis, D., Co-PI: Lagoudas, D., Whitcomb, J. and Sue, H.-J., $285,000, 9/29/08-9/28/09.
67. NSF-IIMEC: "International Institute for Multifunctional Materials for Energy Conversion (IIMEC)," Co-PIs: Lagoudas, Cagin, T., Ounaies, Z., Karaman, I., Davis, D., Almes, G., Griffin, R., Pradeep Sharma at University of Houston, Mostafa El-Sayed at Georgia Tech, Ken Gall at Georgia Tech and Medshape Solutions, Inc., $4,030,000, 9/1/09 – 8/31/14.
68. Boeing Company, "Modeling of SMA Actuated Trailing Edge Devices," PI: Lagoudas, $134,721, 10/1/09 – 9/30/2010.
69. Clarkson Aerospace, Inc., "Materials and Manufacturing Research," PI: Lagoudas, $200,000, 10/13/09 – 12/31/10.
70. US Air Force Office of Scientific Research, "Synthesis, Characterization and Modeling of Functionally Graded Multifunctional Hybrid Composites for Extreme Environments (MURI)," PI: Lagoudas, Co-PIs: Ochoa, O., Karaman, I., Whitcomb, J., Cizmas, P., Ounaies, Z., Radovic, M., Reddy, J.N., Gao, I., Dan Inman at Virginia Tech Mechanical Engineering, Khalid Lafdi at University of Dayton Mechanical Engineering & Aerospace, Scott White at University of Illinois Aerospace Engineering, Philie Geubelle at University of Illinois at Urbana-Champaign Aerospace, Nakhiah Goulbourne at Virginia Polytechnic Institute and State University Mechanical, Gary Seidel at Virginia Polytechnic Institute and State University Aerospace and Ocean, $4,061,317, 8/1/09 – 9/14/14.
71. Boeing Company, "Analysis of Shape Memory Alloy (SMA) Test Data and Characterization of SMA Test Specimens," PI: Lagoudas, $35,000, 3/11/10 – 6/30/2010.
72. Boeing Company, "Large Tube and High Torque Test Bed (HTTB) Modeling Using ABAQUS and UMATs," PI: Lagoudas, $38,650, 3/26/10 – 9/30/10.
73. NSF, "U.S. – Turkey Workshop on Shape Memory Alloys: Current Challenges and Future Prospect," June 2010, at Koc University, Istanbul, Turkey, PI: Lagoudas and Karaman, $35,000, 6/1/10 – 5/31/11.
74. NSF, "REU Site: Multifunctional Materials Systems," PI: Lagoudas, Co-PI's: Sue, H.-J., Cagin, T., Ounaies, Z., Grunlan, J.C., and Whitcomb, J.D., $345,000, 5/15/10 – 4/30/13.
75. Lynntech, Inc., "High Energy Density Capacitors for Pulsed Power Systems," PI: Lagoudas, $15,000, 6/19/10 – 3/18/11.
76. Schlumberger, Inc., "Characterization of Shape Memory Alloy Actuator for Oil Industry Applications," PI: Lagoudas, $15,000, 8/1/10 – 10/31/10.
77. Tenaris, "Shape Memory Alloy Pipe Couplers," PI: Lagoudas, Co-PI's: Boyd, J.G. and Karaman, I., $130,000, 9/1/10 – 8/31/12.
78. US Air Force Office of Scientific Research, "(DURIP 10) Acquisition of Mechanically Assisted Spark Plasma Sintering System for Advanced Research and Education on Functionally Graded Hybrid Materials," PI: Lagoudas, Co-PI's: Radovic, M. and Karaman, I., $450,000, 9/1/10 – 9/14/11.
79. Clarkson Aerospace, Inc., "Minority Leaders: Sensors Technical Thrust – Task Order 0017 Materials and Manufacturing Exploration in Support of Air Force Systems and Applications," PI: Lagoudas, Co-PI': Whitcomb, J.D., Sue, H.J. and Cagin, T., $150,180, 10/1/10 – 1/31/12.
80. Boeing Company, "Texas A&M University eMAR Active Spar FEA Analysis," PI: Lagoudas, $19,477, 10/1/10 – 12/31/10.
81. Boeing Company, "Improved SMA Actuators," PI: Lagoudas, $70,500, 2/7/11 – 10/30/11.
82. Boeing Company, "Conformal Moldline Link (CML) Modeling Using ABAQUS," PI: Lagoudas, $95,655, 3/15/11 – 12/31/11.
83. Boeing Company, "Active Spar Finite Element Analysis Suport," PI: Lagoudas, $46,500, 5/1/11 – 10/16/11.
84. Sandia National Laboratories, "Educational Institution Contract with Texas A&M University," PI: Lagoudas, $25,000, 9/2/11 – 8/31/12.
85. Northrop Grumman, "Unmanned Air System Departure Resistance Using nonlinear Two-time Scale Tracking Control," Co-PI: Lagoudas, $14,564, 12/13/11 – 1/31/12.
86. Boeing Company, "Conformal Moldline Link (CML) Modelig Using ABAQUS (Follow-On),", Co-PI: Lagoudas, $51,693, 2/15/12 – 8/14/12.
87. Boeing Company, "Improved SMA Actuators," Co-PI: Lagoudas, $29,404, 2/15/12 – 6/15/12.
88. Weber Aircraft LLC, "Implementation of SMAs into Aircraft Seating _ Phase 1: Headrest," Co-PI: Lagoudas, $27,047, 5/1/12 – 6/30/12.
89. NSF, FFATA: REU: AERO-U: Aerospace Engineering Research Opportunities for Undergraduates," PI: Lagoudas, $383,116, 6/1/12 – 5/31/15.

90. US Air Force Office of Scientific Research, FFATA: Nano-Precipitation hardened high Temperature Shape Memory Alloys with Dimensional and Thermal Stability," Co-PI: Lagoudas, $57,225, 5/1/12 – 4/30/15.
91. Boeing Company, "Shape Memory Alloy Fatigue," PI: Lagoudas, $50,000, 6/22/12 – 12/14/12.
92. NSF, "EFRI-OSISSEI: Synthesizing Complex Structures from Programmable Self-Folding Active Materials, Co-PI: Lagoudas, $1,998,423, 8/1/12 – 7/31/16.

II.5 New design methods, techniques or concepts developed

1. "Design of High Frequency SMA Actuators," Disclosure of Invention (1993).
2. "Loss Tangent Stabilization of SMA-Elastomeric Composite Dampers," Report submitted to Bell Helicopter (1995).
3. "Linear Solar Actuator," Disclosure of Invention (1997).
4. "Manufacturing of Porous NiTi via Isostatic Press," Disclosure of Invention (2000).
5. "SMA UMAT," Software License (2003).
6. "Passive Vibration Isolation Devices with SMAs," Disclosure of Invention (2003).
7. "Processing Method for Layered Nanocomposites," Disclosure of Invention (To be filed – 2009).

III. SERVICE

III.1 Professional Service

III.1.1 Membership in Professional Societies

American Academy of Mechanics (AAM) (1988)
American Institute of Aeronautics and Astronautics, Senior Member (AIAA) (1992)
American Society for Composites (ASC) (1991)
American Society for Engineering Education (ASEE) (1993)
American Society of Civil Engineers (ASCE) (1988)
American Society of Mechanical Engineers (ASME) (1987)
International Society for the Interaction of Mechanics and Mathematics (ISIMM) (1987)
Materials Research Society (MRS) (1989)
Society of Engineering Science (SES) (1986)
SPIE — The International Society for Optical Engineers (1993)
Texas Board of Professional Engineers (1999)

III.1.2 Professional Offices

Member of ASME Applied Mechanics Division, Committee on Composite Materials
Vice-Chair of ASME Applied Mechanics Division, Elasticity Committee, 1993-1997, Member; 1998-present,
Chair, ASME Applied Mechanics Division Elasticity Committee, 2000-2003
Member of ASME Joint Applied Mechanics and Materials Divisions, Committee on Constitutive Equations, 1990-present
Member of ASME Materials Division, Composite Materials Committee, 1992-present
Member of Aerospace Division ASME/AIAA/SPIE, Adaptive Structures and Material Systems Committee
Member, ASME Applied Mechanics Division, Mechanics Education Technical Committee
Member, ASME Applied Mechanics, Microelectromechanical Systems (MEMS) Subcommittee
Member of SPIE International Working Group on Smart Structures and Materials
Member of the SES Board of Directors
Treasurer, Society of Engineering Science, 1997-2004
Conference Co-Chair, SPIE Conference on Mathematics and Control of Smart Structures, 1999
Member, Smart Structures and Materials Executive Committee, 2001-

III.1.3 Associate Editorships

Associate Editor, *Journal of Intelligent Material Systems and Structures*, 1997-
Associate Editor, *Journal of Smart Materials and Structures*, 1997-

III.2 Conferences / Symposia / Workshops

III.2.1 Conference Organizer

Society of Engineering Science 31st Annual Technical Meeting, (91 technical sessions, 450 papers), College Station

TX, October 10-12, 1994, (D.H. Allen, D.C. Lagoudas, co-organizers).
Conference on "Smart Materials and Structures: Mathematics and Control in Smart Structures," 1999 SPIE Meeting, Newport Beach, CA (co-Chair).
Conference on "Smart Materials and Structures: Active Materials and Mechanics," 2000 SPIE Meeting, Newport Beach, CA (co-Chair).
Aero-SMART 2000 Workshop, sponsored by Air Force Office of Scientific Research, College Station, TX, September 20-21, 2000.
American Society of Composites Meeting, September 24-27, 2000 (Co-Organizer).
Conference on "Smart Structures and Materials, 2001 SPIE Meeting, Newport Beach, CA (Co-Chair)
Conference on "Active Materials: Behavior and Mechanics", 2002 SPIE Conference, San Diego, CA, (Co-Chair)
Conference on "Active Materials: Mechanics and Behavior", 2003 SPIE Conference, San Diego, CA (Chair)
Conference on "Active Materials: Mechanics and Behavior", 2004 SPIE Conference, San Diego, CA (Chair)
Society of Engineering Science, College Station, TX, October 21-24, 2007 (D.C. Lagoudas, J. Humphry, (co-organizers).

III.2.2 Symposium Organizer

Workshop on "Gauge Theories of Continua," Mathematical Sciences Institute, Cornell University, Ithaca NY, June 5-8, 1988 (D.G.B. Edelen, co-organizer).
Symposium on "Microcracking Induced Damage in Composites," (six sessions), Winter Annual Meeting of ASME, Dallas TX, November 25-30, 1990 (G.J. Dvorak, co-organizer).
Symposium on "Damage in Composites," (one session), Society of Engineering Science 28th Annual Technical Meeting, Gainesville FL, November 6-8, 1991, (G.J. Dvorak, co-organizer).
Symposium on "Computational Methods in Composites," (six sessions), Summer Annual Applied Mechanics Conference of ASME, Scottsdale AZ, April 28-May 1, 1992, (G.J. Dvorak, M.S. Shephard, and J. Fish, co-organizers).
Symposium on "Issues in Control of Smart Structures," (one session) Society of Engineering Science 29th Annual Technical Meeting, La Jolla CA, September 14-16, 1992, (I.G. Tadjbakhsh, co-organizer).
Symposium on "Damage Mechanics in Composites," (six sessions), Winter Annual Meeting of ASME, Anaheim CA, November 8-13, 1992, (D.H. Allen, co-organizer).
Symposium on "Inelastic Micromechanics in SiC/Ti Composites," (two sessions), First SES-ASME-ASCE Joint Meeting, University of Virginia, Charlottesville VA, June 6-9, 1993, (D.H. Allen, co-organizer).
Symposium on "Compressive Failure and Localization Phenomena in Fibrous Composites," (five sessions), Winter Annual Meeting of ASME, New Orleans LA, November 28 - December 3, 1993.
Symposium on "Active Materials and Smart Structures," (four sessions), Society of Engineering Science 31st Annual Technical Meeting, College Station, TX, October 10-12, 1994 (co-organizer, G.L. Anderson).
Symposium on "Continua with Defects," Society of Engineering Science 31st Annual Technical Meeting, College Station, TX, October 10-12, 1994.
Symposium on "Shape-Memory Alloys," 1995 SPIE North American Conference on Smart Structures and Materials, February 26 – March 3, 1995.
Workshop on "New Physical and Mathematical Principles in Computer Aided Design of Shape Memory Materials. Materials Properties and Applications," St. Petersburg, Russia, November 13-17, 1995.
SPIE 1996 Symposium on Smart Materials Technologies, San Diego, CA, February 26-29, 1996.
SPIE 1996 Symposium on Mathematics and Control in Smart Structures, San Diego, CA, February 26-29, 1996.
SPIE 1997 Symposium on Smart Structures and Materials, "Shape Memory Alloys II," Mathematics and Control of Smart Structures, San Diego, CA, March 2-6, 1997.
SPIE 1997 Symposium on Smart Structures and Materials, "Shape Memory Alloys III," Mathematics and Control of Smart Structures, San Diego, CA, March 2-6, 1997.
Second SIAM Conference on Mathematical Aspects of Materials Science, "Modeling and Control Issues on Hysteretic Active Materials," Philadelphia, PA, May 12-14, 1997 (co-organizer, A. Kurdila).
Symposium on "Active Materials and Composites," ASME/ASCE/SES Joint Meeting, Northwestern University, Evanston, Illinois, June 29-July 2, 1997(co-organizer, N. Sottos).
Workshop entitled, "Foundation Coalition at Texas A&M University," Texas A&M University, College Station, TX, August 14-15, 1997.
Symposium on "Mechanics in a Restructured Engineering Curriculum I," 1997 ASME IMECE Meeting, Dallas, TX, November 16-21, 1997.

Symposium on "Phase Transformations in Active Materials," Society of Engineering Science 35th Annual Technical Meeting, Pullman, Washington, September 27-30, 1998 (co-organizer, A. Bhattacharyya).
Symposium on "Mechanics in a Restructured Engineering Curriculum," sponsored by Mechanics Education Committee of ASME, Applied Mechanics Division, November 1998, Anaheim, CA.
Symposium on "Phase Transformations and Active Composites," sponsored by the AMD-MD Joint Committee on Constitutive Equations of the Applied Mechanics Division, November 1998, Anaheim, CA.
Symposium on "Phase Transformations and Shape Memory Alloys," 1999 SES Meeting, Austin, TX.
Kröner Memorial Symposium, Society of Engineering Science Meeting 2000, Myrtle Beach, South Carolina, October 23-27, 2000.
Symposium on "Constitutive Modeling of Shape Memory Alloys, 14th US National Congress of Theoretical and Applied Mechanics, VPI, June 23-28, 2002, Blacksburg, VA (co-organizer, V. Levitas).
Symposium on "Mechanics and Physics of Solid-Solid Phase Transformations," 39th Conference of the Society of Engineering Science, October 13-16, 2002, University Park, PA.
Special Symposium in Honor of 2003 SES Eringen medalist, Professor Gerard Maugin, Society of Engineering Science Meeting, Oct. 12-15, 2003, Ann Arbor, MI (co-organizer, P. Steinmann).
Symposium on Constitutive relations of advanced materials," sponsored by the Elasticity Technical Committee of ASME, Applied Mechanics Division, November 2003, Washington, DC (co-organizers, Jackie Li and L. Catherine Brinson).
Symposium on Shape Memory Alloys – Mechanisms, Multifunctionalities, and Applications, SES, October 2007, College Station, TX, (co-organizers, Yongmei Jin and Ibrahim Karaman).
Symposium on Shape Memory Alloys – Mechanisms, Multifunctionalities, and Applications, SES, October 2008, Urbana, IL (co-organizers, Ibrahim Karaman and Huseyin Sehitoglu).

III.2.3 Conference Organizing Committee

American Society for Composites Sixth Technical Conference on Composite Materials, Albany NY, October 7-9, 1991.
Society of Engineering Science 28th Annual Technical Meeting, Gainesville FL, November 6-8, 1991.
Third U.S. National Congress on Computational Mechanics, Dallas, Texas, June 12-14, 1995.
SPIE 1995 North American Conference on Smart Structures and Materials, San Diego CA, 26 February - 3 March 1995.
Society of Engineering Science 33rd Annual Technical Meeting, Tempe, Arizona, October 20-23, 1996.
SPIE 1996 North American Conference on Mathematics and Control in Smart Structures, San Diego, CA, February 26-29, 1996.
SPIE 1997 North American Conference on Smart Materials Technologies, San Diego, CA, February 26-29, 1999.
SPIE 1998 North American Conference on Smart Materials Technologies, San Diego, CA, March 1-5, 1999.
SPIE 1998 North American Conference on Smart Structures and Integrated Systems, San Diego, CA, March 1-5, 1999.
SPIE 1999 North American Conference on Mathematics and Control, Newport Beach, CA, March 1-5, 1999.
SPIE 2000 Smart Materials and Structures Symposium, Conference on Active Materials: Behavior and Mechanics, Newport Beach, CA, March 5-9, 2000 (co-chair).
SPIE 2001 Smart Structures and Materials Symposium, Conference on Active Materials: Behavior and Mechanics, San Diego, CA, March 5-8, 2001 (co-chair).
Education Committee of ASME, Applied Mechanics Division, November 2002, New Orleans, LA.
Elasticity Technical Committee of ASME, Applied Mechanics Division, November 2002, New Orleans, LA.
SPIE 2002, Smart Structures and Materials Symposium, Conference on Active Materials: Behavior and Mechanics, San Diego, CA, March 2-6, 2002, San Diego, CA (co-chair).
SPIE 2003, Smart Structures and Materials Symposium, Conference on Active Materials: Behavior and Mechanics, San Diego, CA, March 2003, San Diego, CA (chair).
SPIE 2004, Active Materials: Behavior and Mechanics Symposium, Conference on Smart Structures and Materials, March 14-18, 2004, San Diego, CA.
Society of Engineering Science 41st Annual Technical Meeting, October 21-24, 2007, College Station, TX.
ASME, Smart Materials, Adaptive Structures and Intelligent Systems, October 28-30, 2008, Elliott City, MD
Joint ASCE-ASME-SES, Shape memory Alloys, June24-27, 2009, Blacksburg, VA.
IAMCS 2009-2010, Multifunctional materials with the emphasis on coupled field equation models and functionally graded materials, October 2-4, 2009.
SMA Workshop, Istanbul, Turkey, June 20-24, 2010.

iimec2011, Second Annual Meeting of the International Institute for Multifunctional Materials for Energy Conversion, February 20-21, 2011, Texas A&M Qatar.
ICAST, 22nd International Conference on Adaptive Structures Technologies, Corfu, Greece, October 10-12, 2011.
iimec2012, Third Annual Meeting of the International Institute for Multifunctional Materials for Energy Conversion, January 18-19, 2012, College Station, TX.

III.2.4 Session Chair

Winter Annual Meeting of ASME, Dallas TX, November 25-30, 1990, Applied Mechanics Session AM-8A.
American Society for Composites Sixth Technical Conference on Composite Materials, Albany NY, October 7-9, 1991, Micromechanics II session.
Society of Engineering Science 28th Annual Technical Meeting, Gainesville FL, November 6-8, 1991, Composites V session.
Winter Annual Meeting of ASME, Atlanta GA, December 1-6, 1991, Materials Division Sessions MAT-5B and MAT-6B.
Summer Annual Applied Mechanics Conference of ASME, Scottsdale AZ, April 28-May 1, 1992.
Society of Engineering Science 29th Annual Technical Meeting, La Jolla CA, September 14-16, 1992.
Winter Annual Meeting of ASME, Anaheim CA, November 8-13, 1992.
First SES-ASME-ASCE Joint Meeting, University of Virginia, Charlottesville VA, June 6-9, 1993.
Winter Annual Meeting of ASME, New Orleans LA, November 28 - December 3, 1993, Applied Mechanics Division Session AM9B.
SPIE Symposium on Smart Structures and Materials, "Shape Memory Alloys and Composites," Orlando, Florida, February 13-18, 1994.
SPIE Symposium on Smart Materials, "Shape-Memory Alloys," San Diego, CA, February 26 – March 3, 1995.
Third U.S. National Congress on Computational Mechanics, "Active Materials and Smart Structures," Dallas, Texas, June 12-14, 1995.
ASME Joint Applied Mechanics and Materials Conference, "Micromechanics and Constitutive Modeling of Composite Materials, Los Angeles, CA, June 28-30, 1995.
SES 32nd Annual Technical Meeting, "Smart Materials and Structures," New Orleans, LA, October 29-November 2, 1995.
International Symposium at the Mechanical Engineering Congress and Exposition, "New Characterization Techniques," 1995 ASME Winter Annual Meeting, San Francisco, CA, November 12-17, 1995.
SPIE 1996 Symposium on Smart Structures and Materials, "Multifunctional Materials and Composites," Smart Structures and Materials, San Diego, CA, February 26-29, 1996.
SPIE 1996 Symposium on Smart Structures and Materials, "Shape Memory Alloys III," San Diego, CA, February 26-29, 1996.
Society of Engineering Science 33rd Annual Technical Meeting, "Smart Structures and Materials," Tempe, Arizona, October 20-23, 1996.
SPIE 1997 Symposium on Smart Structures and Materials, "Shape Memory Alloys II," Mathematics and Control of Smart Structures, San Diego, CA, March 2-6, 1997.
SPIE 1997 Symposium on Smart Structures and Materials, "Shape Memory Alloys III," Mathematics and Control of Smart Structures, San Diego, CA, March 2-6, 1997.
McNU '97 Joint ASME, ASCE, SES Summer Meeting, "Active Materials and Composites, Session I," Evanston, IL, June 29 - July 2, 1997.
McNU '97 Joint ASME, ASCE, SES Summer Meeting, "Active Materials and Composites, Session II," Evanston, IL, June 29 – July 2, 1997.
IMECE 1997, "Mechanics in a Restructured Engineering Curriculum I," Dallas, TX, November 16-21, 1997.
IMECE 1997, "Ferroelectric Material Behavior," Dallas, TX, November 16-21, 1997.
IMECE 1997, "Functionally Graded and Shape Memory Materials III," Dallas, TX, November 16-21, 1997.
IMECE 1997, "Active Composites Systems," Dallas, TX, November 16-21, 1997.
SPIE 1998 Symposium on Smart Structures and Materials, "Shape Memory Alloys," San Diego, CA, March 1-5, 1998.
IMECE 1998, "Mechanics in a Restructured Engineering Curriculum II," Anaheim, CA, November 15-20, 1998.
IMECE 1998, "Phase Transformations and Active Composites," Anaheim, CA, November 15-20, 1998.
SPIE 1999 Symposium on Smart Structures and Materials, "Shape Memory Alloys I," Newport Beach, CA, March 1-5, 1999.
SPIE 1999 Symposium on Smart Structures and Materials, "Shape Memory Alloys II," Newport Beach, CA, March 1-

5, 1999.
SES 1999, "Symposium on Phase Transformations and Active Materials," Austin, TX, October 25-27, 1999.
IMECE 1999, "Impact of Technology in Mechanics Education II: Technology Based Delivery of Mechanics Education," Nashville, TN, November 14-19, 1999.
IMECE 1999, Symposium on "Multifunctional Materials and Structures: Vibration Response," Nashville, TN, November 14-19, 1999.
IMECE 1999, Symposium on "Smart Material Sensors/MEMS," Nashville, TN, November 14-19, 1999.
SPIE 2000, Symposium on "Shape Memory Alloys I," Newport Beach, CA, March 5-9, 2000.
SPIE 2000, Symposium on "Shape Memory Alloys II," Newport Beach, CA, March 5-9, 2000.
SPIE 2001, Symposium on "Smart Structures and Materials," Newport Beach, CA, March 4-8, 2001
ASME 2001, Symposium on "Materials and Structures," New York, NY, November 11-16, 2001.
SPIE 2002, Symposium on "Characterization and Modeling of Ferroelectrics," San Diego, CA, March 18-21, 2002.
SPIE 2002, Symposium on "Shape Memory Alloys," San Diego, CA, March 18-21, 2002.
SPIE 2002, Symposium on "SMA," San Diego, CA, March 18-21, 2002.
SPIE 2002, Symposium on "Coupled Construction Behavior," San Diego, CA, March 18-21, 2002.
USNCTAM14 2002, Symposium on "Constitutive Modeling of Shape Memory Alloys I, II, and III," Blacksburg, VA, June 23-28, 2002.
SES 2002, Symposium on "Mechanics and Physics of Solid-Solid Phase Transformations," 39th Conference of the Society of Engineering Science, October 13-16, 2002, University Park, PA.
ASME International Mechanical Engineering Congress and Exposition, "Adaptive Structure & Material Systems Symposium: Shape Memory Alloys," New Orleans, LA, November 17-22, 2002.
ASME International Mechanical Engineering Congress and Exposition, "Combines Research and Curriculum Development in Mechanics of Materials and Intelligent Systems," New Orleans, LA, November 17-22, 2002.
SES 2003, Maugin Symposium, Ann Arbor, MI, October 12-15, 2003.
ASME IMECE, "Active Materials," Washington, DC, Nov. 15-21, 2003.
SPIE 2010, Symposium on "Shape Memory Materials II: Shape Memory Alloys," San Diego, CA, March 7-11, 2010.
AIAA/ASME/ASCS/AHA/ASC Conference, Orlando, FL, April 12-15, 2010.
Composites & Infrastructure Workshop, Varese, Italy, May 29 – June 1, 2010.
SMASIS 2010 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Philadelphia, PA., September 28 – October 1, 2010.
TMS Minerals, Metals and Materials Society 2011, San Diego, CA, February 28-3, 2011.
SMASIS 2011 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Scottsdale, AZ, September 1-21, 2011.
SPIE 2012, Symposium on "Shape Structures and Materials + Nondestructive Evaluation and Health," San Diego, CA, March 12-15, 2012.

III.3 University Service

Faculty Senate Member 1993-1996
Faculty Senate Research Committee, International Programs Committee
TEES Advisory Council 1994-95
Departmental Library Representative 1992-1997
Departmental Laboratory Facilities Committee, 1995-present
Departmental Graduate Committee, 1996-1999
Departmental Graduate Committee, Chair 1997-1999
Departmental Faculty Teaching Reward Committee, 1999-2002
Departmental Tenure and Promotion Committee, 1999-present
Departmental Faculty Search Committee, 2000-present
Chair, Departmental Awards Committee, 2001-present
College of Engineering Awards Committee, 2001-2002
Associate Vice President for Research (AVPR), 2001-2004
AVPR Internal Selection Committee, Office of Proposal Development, 2001-2004
Chair, Materials Science and Engineering, 2001- 2003
Executive Committee, Materials Science and Engineering, 2001-present
Mechanical Engineering Department Head Search Committee, 2002-2004

Departmental Space Committee, 2003-present
Department Head Executive Committee, 2003-2008
Chair, Materials and Structures Faculty Search Committee, 2003-present
Chair, Departmental Tenure and Promotion Committee, 2007-2008
College of Engineering Endowed Chair Council, 2007
Council of Principal Investigators Executive Committee, 2008-present
College of Engineering Tenure and Promotion Committee, 2008-present
Chair, Computer Science and Engineering Department Head Search Committee, 2009-2010
Chair, Mechanical Engineering Department Head Search Committee, 2011-2012
Chair, College of Engineering Strategic Plan Research Subcommittee, 2012-

IV. PROFESSIONAL OUTREACH

IV.1 Seminars / Presentations

IV.1.1 Invited Seminars

1. "Gauge Theories of Defects," Department of Theoretical and Applied Mechanics, Cornell University," Ithaca NY, November 1986.
2. "A Gauge Theory of Defects in Deformable Bodies, Applied Mechanics," Applied Mechanics Division, California Institute of Technology, Pasadena CA, December 1986.
3. "Constitutive Models for Crazes and their Effects in a Unidirectional Fiber-Reinforced Composite," Aerospace and Applied Mechanics Department, University of Minnesota, Minneapolis MI, March 1988.
4. "Viscoelastic Shear-Lag Modeling of Fibrous Composites," Department of Civil Engineering, Rensselaer Polytechnic Institute, Troy NY, April 1988.
5. "Micromechanics of Failure Processes in Continuous Filament Composites," Center for Composite Materials and Structures, Rensselaer Polytechnic Institute, Troy NY, September 1988.
6. "Gauge Theory of Defects," Mechanics Branch, Naval Research Laboratory, Washington DC, May 26, 1989.
7. "Viscoelastic Shear-Lag Modeling of Fibrous Composites," Lord Corporation, Erie PA, April 24, 1989.
8. "The Gauge Theory of Damage Applied to Fibrous Composites," Mechanics Branch, Naval Research Laboratory, Washington DC, July 19, 1990.
9. "Some Basic Solutions in the Gauge Theory of Damage," Department of Mechanical Engineering, Lehigh University, Bethlehem PA, December 7, 1990.
10. "A New Aroach to Microbuckling of Fibrous Composites," Mechanics and Materials Seminar, Texas A&M University, College Station TX, January 31, 1991.
11. "A New Aroach to Microbuckling of Fibrous Composites," Department of Aerospace Engineering and Engineering Mechanics, University of Texas, Austin TX, February 1, 1991.
12. "Compressive Failure of Fibrous Composites," Department of Mechanical Engineering, University of Rhode Island, Kingston RI, November 19, 1991.
13. "Active Materials and Composites," Department of Civil Engineering, University of Thrace, Greece, December 15, 1992.
14. "Large Deformations of Active Flexible Rods," Department of Engineering Mechanics, University of Thessaloniki, Greece, December 16, 1992.
15. "Deformations of Active Flexible Rods with Embedded Line Actuators," Department of Mechanical Engineering, University of Maryland at College Park, College Park MD, February 10, 1993.
16. "Active Flexible Composite Rods with Embedded Shape Memory Alloy Fibers," Department of Mechanical Engineering and Applied Mechanics, University of Pennsylvania, Philadelphia PA, February 11, 1993.
17. "Deformations of Active Flexible Rods with Embedded Line Actuators," Vehicle Structures Directorate, NASA Langley Research Center, Hampton VA, February 12, 1993.
18. "Micromechanics of Active Composites," Department of Mechanical Engineering, University of Houston, Houston TX, October 21, 1993.
19. "Thermodynamically Based Constitutive Modeling of Shape Memory Alloys and Composites," Mechanics and Materials Seminar, Texas A&M University, College Station TX, Spring 1994.
20. "Micromechanics Modeling and Shape Control of Active Composites with SMA Fibers," Vehicle structures Directorate, NASA Langley Research Center, Hampton VA, June 9, 1994.

21. "Micromechanics Modeling and Shape Control of Active Composites with SMA Fibers," Mechanics Branch, Naval Research Laboratory, Washington DC, June 10, 1994.
22. "Oxidation and Damage in Metal Matrix Composites," Mechanics and Materials Seminar, Texas A&M University, College Station TX, February 14, 1995.
23. "Overview of Active Materials and Smart Structures Research at Texas A&M," ARL VSD, NASA Langley, April 28, 1995.
24. "Shape Control of Flexible Structures with SMA Actuators," McDonnell Douglas Helicopter Company, Mesa AZ, July 19, 1995.
25. "Modeling of Active Composites," Bell Helicopter Textron, Ft. Worth TX, February 13, 1996.
26. "Micromechanics Based Modeling of Hysteresis in Shape Memory Alloys," Universite Pierre et Marie Curie, France, March 18, 1997.
27. "Micromechanics Based Modeling of Hysteresis and its evolution under Cyclic Loading in Shape Memory Alloys," Universite de Metz, France, March 19, 1997.
28. "Modeling of Cycling Thermomechanical Response of SMA's," The Department of Mathematical Sciences, The University of Nevada, Las Vegas NV, April 3, 1997.
29. "Thermodynamic Modeling of Shape Memory Alloys with Applications to Smart Structures," University of Alberta, Alberta, Canada, November 3, 1997.
30. "Thermodynamic Modeling of Shape Memory Alloys with Applications to Smart Structures, Dept. of Mathematics, Texas A&M University, April 15, 1998.
31. "Modeling of SMAs and their Applications in Smart Structures," University of Hannover, Germany, May 22, 1998.
32. "Thermomechanical Constitutive Modeling of Shape Memory Alloys," University of Texas at Austin, September 10, 1998.
33. "Use of Noether's Theorems in Continuous Media with Defects," University of Texas at Austin, Austin, Texas, November 3, 1998.
34. "Use of Noether's Theorems in Continuous Media with Defects," Dept. of Mathematics, Texas A&M University, February 15, 1999.
35. "Thermomechanical Modeling and Experiments of Shape Memory Alloy Actuators," University of California at Los Angeles, May 10, 1999.
36. "Thermomechanical Properties of Materials with Shape Memory," Polytechnic University of Athens, Greece, October 7, 1999.
37. "Thermomechanical Properties of Materials with Shape Memory," University of Thessaloniki, Greece, October 12, 1999.
38. "Thermomechanical Modeling of Shape Memory Alloy Actuators," University of Illinois at Urbana Champaign, October 18, 1999.
39. "Modeling and Characterization of SMAs and their Applications," Laboratoire de Physique et de Mécanique des Matériaux, University of Metz, France, October 4, 2000.
40. "Modeling and Characterization of SMAs and their Applications," University of Leoben, Leoben, Austria, October 6, 2000.
41. "Porous Shape Memory Alloys and Their Use in Biomedical Applications," Dept. of Biomedical Engineering, Texas A&M University, October 17, 2000.
42. "Micromechanics of Porous Shape Memory Alloys," Department of Computational and Applied Mathematics, Rice University, October 8, 2001.
43. "Micromechanics of porous shape memory alloys" (Keynote Lecture), NATO Advanced Research Workshop, École Nationale Supérieure des Arts et Metiers (ENSAM), Metz, France, April 23-26, 2002.
44. "Micromechanics of Porous Shape Memory Alloys," Department of Mechanical Engineering, University of Houston, Nov. 7, 2002.
45. "Modeling of SMA Actuators in Smart Structures," COBEM2003, Sao Paulo, Brazil, Nov. 10-12, 2003.
46. "Mechanics of Multifunctional Materials," University of Metz, École Nationale Supérieure des Arts et Metiers (ENSAM), Metz, France, Dec. 12, 2003.
47. "Multiscale Modeling of Multifunctional Materials and Composites," University of Kaiserslautern, Kaiserslautern, Germany, Dec. 16, 2003.
48. "Multiscale Modeling of Multifunctional Materials and Composites," Ruhr-Universitat Bochum, Bochum, Germany, Dec. 17, 2003.
49. "Texas Institute for Bio-Nano Materials and Structures for Aerospace Vehicles (TiiMS), NASA Transformational Space Concepts and Technologies Workshop, Houston, TX, March, 1-3, 2004.

50. "Effective Mechanical Properties of Carbon Nanotube Composites," D.C. Lagoudas, NASA LaRC, June 29, 2004.
51. "Thermomechanical Modeling of Shape Memory Alloys"," D.C. Lagoudas, National Institute of Aerospace (NIA), July 7, 2004.
52. "Mechanics of Multifunctional Materials and Composites," D.C. Lagoudas, The Academy of Medicine, Engineering and Science of Texas Conference, Las Colinas, TX, Jan. 6-7, 2005.
53. "Modeling of Multifunctional Materials with Shape Memory," (Keynote) D.C. Lagoudas, International Conference on Computational & Experimental Engineering and Sciences (ICCES) Chennai, India, Dec. 1-6, 2005.
54. "Characterization and Modeling of Shape Memory Alloys (SMAs) and Magnetic SMAs," Georgia Tech University, October 5, 2006.
55. "Modeling of Magnetic Shape Memory Alloys," Wisconsin Engineering Physics Colloquium, University of Wisconsin, Madison, WI, March 13, 2007.
56. "Effective Mechanical, Thermal and Electrical Properties of Multifunctional Carbon Nanotube Composites," NRL, Washington, DC, July 18, 2007.
57. "Recent Advances in the Modeling and Characterization of Shape Memory Alloys (SMAs) and Magnetic SMAs," NRL, Washington, DC, July 18, 2007.
58. "Nanomaterials for Aerospace Applications," NAC Colloquium, College Station, TX, September 17, 2007.
59. "Modeling of Magnetic Shape Memory Alloys," Non Linear Phenomena in Engineering, COBEM 2007, Brasilia, Brazil, Nov. 5-9, 2007.
60. "Recent Advances in the Modeling and Characterization of Shape Memory Alloys (SMAs) and Magnetic SMAs," keynote presentation at International Conferences on Multi-functional Materials and Structures, Hong Kong, China, July 28-31, 2008.
61. "Constitutive Modeling and Characterization of High Temperature Shape Memory Alloys," Plasticity 09, St. Thomas, Virgin Islands, Jan. 3-6, 2009.
62. "Modeling of Nonlinear Magnetomechanical Coupling in Magnetic Shape Memory Alloys," University of Houston, Houston, TX, January 29, 2009.
63. "Synthesis, Characterization and Prognostic Modeling of Functionally Graded Hybrid Composites for Extreme Environments," *MEEN 681 Graduate Seminar*, Texas A&M University, College Station, TX, invited by Dr. Ozden Ochoa, September 8, 2010.
64. "Modeling of Magnetic Shape Memory Alloys," *IAMCS Community Coffee and Talk*, Texas A&M University, College Station, TX, January 20, 2011.
65. **"**Recent Advances in the Modeling, Analysis and Characterization of SMA-Based Structures," Department of Mechanical Engineering, Rice University, Houston, TX, February 16, 2011.
66. "Recent Advances in the Modeling, Analysis, and Characterization of SMA-Based Aerospace Structures," School of Aeronautics and Astronautics, Purdue University, West Lafayette, IN., April 14, 2011.
67. "Recent Advances in the Modeling, Analysis, and Characterization of SMA-Based Aerospace Structures," University of North Texas, Denton, TX, April 26, 2011.
68. "Recent Advances in the Modeling, Analysis, and Characterization of SMA-Based Aerospace Structures," John Hopkins University, Baltimore, MD, May 12, 2011.
69. "Recent Advances in the Modeling, Analysis, and Characterization of SMA-Based Aerospace Structures," University of Illinois Urbana-Champagne, May 20, 2011.
70. "Recent Advances in the Modeling, Analysis, and Characterization of Shape Memory Alloy and Multifunctional Composites, University of Texas, Austin, TX, October 20, 2011.
71. "Recent Advances in the Modeling, Analysis, and Characterization of Shape Memory Alloy and Multifunctional Composites," University of Texas at Arlington, Arlington, TX, February 24, 2012.
72. "Advanced Multi-physical Analysis and Optimization of SMA-Based Morphing Structures," University of Washington, Seattle, WA, April 19, 2012.

IV.1.2 Presentations at Professional Meetings

1. "Observables and Interactions in Dislocated Elastoelectromagnetic Materials," 23rd Annual Meeting of the Society of Engineering Science, Buffalo NY, August 1986.
2. "The Shear-Lag Model for a Unidirectional Composite with Viscoelastic Matrix," Fifth Army Conference on Applied Mathematics and Computing, Westpoint, NY, June 1987.
3. "Plane Harmonic Waves in the Linearized Gauge Theory of Dislocations," Mathematical Sciences Institute Workshop on Gauge Theories of Continua, Cornell University, Ithaca NY, June 1988.

4. "Fatigue Damage Optimization in Fibrous Metal Matrix Composites," URI Annual Meeting, Santa Barbara CA, January 4-11, 1989, (Poster Presentation).
5. "Damage of Fibrous Metal Matrix Composites Under Cyclic Loading," 3rd ASCE-ASME Mechanics Conference, San Diego CA, July 9-12, 1989.
6. "Effects of a Frictional Interface on the Load Diffusion from a Broken Filament in a Fibrous Composite," Materials Research Society Fall Annual Meeting, Boston MA, November 27-29, 1989.
7. "Incremental Elastoplastic Behavior of Metal Matrix Composites Based on Averaging Schemes," IUTAM Symposium on Inelastic Behavior of Composite Materials, Troy NY, May 29 - June 1, 1990.
8. "Compressive Strength of Fibrous Composites," FMC Corporation's site visit at RPI, June 13, 1990.
9. "A Gauge Theory of Damage for Heterogeneous Media," International Conference on Mechanics, Physics and Structure of Materials, Thessaloniki, Greece, August 19-24, 1990.
10. "A Gauge Theory of Brittle Damage," Winter Annual Meeting of ASME, Symposium on Microcracking Induced Damage in Composites, Dallas TX, November 25-30, 1990.
11. "Comparison Between Compressive Strength Due to Microbuckling and Kinking in Fibrous Composites, Eighth International Conference on Composite Materials (ICCM/8), Honolulu HI, July 15-19, 1991.
12. "Geometry and Loading Effects on the Compressive Strength of Fibrous Composites," American Society for Composites Sixth Technical Conference on Composite Materials, Albany NY, October 7-9, 1991.
13. "Damage Accumulation and Evolution with Internal State Variables Based on the Gauge Theory," Society of Engineering Science 28th Annual Technical Meeting, Gainesville FL, November 6-8, 1991.
14. "Fatigue Damage in Metal Matrix Composites," Society of Engineering Science 28th Annual Technical Meeting, Gainesville FL, November 6-8, 1991.
15. "Modeling of Compressive Failure Due to Kinking in Cross-Ply Laminates under Cylindrical Bending," ASME Winter Annual Meeting, Atlanta GA, December 1-6, 1991.
16. "Finite Element Formulation of the Gauge Theory of Damage," ASME Applied Mechanics, Materials and Aerospace Summer Meeting, Scottsdale AZ, April 28-May 1, 1992.
17. "Active Flexible Rods with Embedded SMA Fibers," ONR Workshop on Adaptive Structures with Active Materials, Vienna VA, May 18-19, 1992.
18. "Damage Evolution in the Gauge Theory with Applications to Fibrous Composites," ASME Winter Annual Meeting, Anaheim CA, November 8-13, 1992.
19. "On the Geometry and Kinematics of the Gauge Theory of Damage," ASME Winter Annual Meeting, Anaheim CA, November 8-13, 1992.
20. "Smart Materials and Composites," Symposium on New Directions in Mechanics and Materials, Thessaloniki, Greece, December 17-19, 1992.
21. "Design of Flexible Rods with Embedded SMA Actuators," North American Conference on Smart Structures and Materials, Albuquerque NM, January 31-February 4, 1993.
22. "Experimental Study of Damage Evolution in SiC/Ti Laminates under Thermomechanical Loading," First SES-ASME-ASCE Joint Meeting, University of Virginia, Charlottesville VA, June 6-9, 1993.
23. "Deformations of Active Flexible Rods with Embedded Line Actuators, "First SES-ASME-ASCE Joint Meeting, University of Virginia, Charlottesville VA, June 6-9, 1993.
24. "Stress Induced Phase Transformations in Piezoelectric Laminates with SMA Layers," First SES-ASME-ASCE Joint Meeting, University of Virginia, Charlottesville VA, June 6-9, 1993.
25. "A Thermodynamically Based Constitutive Model for the SME due to Transformation and Reorientation," Fourth International Symposium on Plasticity and its Current Applications, Baltimore MD, July 19-23, 1993.
26. "Active Flexible Thick Cylinders with Embedded Shape Memory Alloy Actuators," First Workshop on Smart Structures, University of Texas at Arlington, September 22-24, 1993.
27. "Stress Induced Phase Transformations in Piezoelectric Laminates with Shape Memory Alloy Layers," First Workshop on Smart Structures, University of Texas at Arlington, September 22-24, 1993.
28. "Design of High Frequency Actuators," ONR Workshop on Adaptive Quiet Structures with Active Materials," U.S. Naval Academy, Annapolis MD, October 4-5, 1993.
29. "Thermomechanical Constitutive Modeling of Shape Memory Alloys and Composites," Annual Review, ARO Executive Advisory Board, Rensselaer Polytechnic Institute, Troy NY, October 7, 1993.
30. "Compressive Failure Due to Kink Propagation in Fibrous Composites," Symposium on Compressive Failure and Localization Phenomena in Fibrous Composites, ASME-Winter Annual Meeting, New Orleans LA, November 28-December 3, 1993.
31. "Micromechanics of Active Composites," Symposium on Micromechanics of Composites, ASME-Winter Annual Meeting, New Orleans LA, November 28-December 3, 1993.

32. "Micromechanics of Active Composites with SMA Fibers," 1st Department of the Army Advanced Composites Conference 1994, Corpus Christi TX, February 7-10, 1994.
33. "A Thermodynamical Model for Martensitic Transformation and Reorientation in Shape Memory Alloys," Smart Structures and Materials 1994: Smart Materials, SPIE 1994 North American Conference on Smart Structures, Orlando FL, February 13-18, 1994.
34. "Deformations and Thermal Response of Active Flexible Rods with Embedded SMA Actuators," Smart Structures and Materials 1994: Smart Structures and Intelligent Systems, SPIE 1994 North American Conference on Smart Structures, Orlando FL, February 13-18, 1994.
35. "Microthermodynamics Analysis of the Shape Memory Effect in Composite Materials," Second International Conference on Intelligent Materials, Williamsburg VA, June 5-8, 1994.
36. "Micromechanics of Active Metal Matrix Composites with Shape Memory Alloy Fibers," Symposium on Inelasticity and Micromechanics of Metal Matrix Composites, 12th U.S. National Congress of Applied Mechanics, Seattle WA, June 26-July 1, 1994.
37. "Micromechanics of Shape Memory Composites and Active Flexible Structures," Annual Review, ARO Executive Advisory Board, Rensselaer Polytechnic Institute, Troy NY, September 9, 1994.
38. "Micromechanics of Active SMA Composites," 31st Annual Technical Meeting of the Society of Engineering Science, College Station TX, October 10-12, 1994.
39. "Transport Phenomena in Oxidation of Metal Matrix Composites," 31st Annual Technical Meeting of the Society of Engineering Science, College Station TX, October 10-12, 1994.
40. "Thermodynamically Based Thermomechanical Response of Shape Memory Composites," 31st Annual Technical Meeting of the Society of Engineering Science, College Station TX, October 10-12, 1994.
41. "Fatigue Damage and Shakedown in Metal Matrix Composite Laminates," 31st Annual Technical Meeting of the Society of Engineering Science, College Station TX, October 10-12, 1994.
42. "Thermoelectric Cooling of Shape Memory Alloy Actuators," ONR Workshop on Adaptive Quiet Structures with Active Materials, University of Maryland, College Park, MD, October 19, 1994.
43. "Modeling of Oxidation Induced Damage in Metal Matrix Composites Under Thermomechanical Loading," ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994.
44. "Initiation of Micro-Buckling in Fibrous Composites under Uniaxial Compression," ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994.
45. "Two-Way Shape Memory Effect in SMA Composites," ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994.
46. "Non-Proportional Loading of Periodic Active Structural Composites with SMA Fibers," ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994.
47. "Oxidation and Damage in Titanium Alloy Metal Matrix Composites," Sixth Annual Texas Fracture Discussion Group, Arlington, TX, February 9-10, 1995.
48. "Thermomechanical Constitutive Modeling of Two-Way SMA," SPIE Smart Structures and Materials Conference, San Diego, CA, February 26 – March 3, 1995.
49. "High Frequency SMA Actuators with Thermoelectric Cooling. Part I: Theory, Part II: Experiment," A. Bhattacharyya," SPIE Smart Structures and Materials Conference, San Diego, CA, February 26 – March 3, 1995.
50. "Shape Control and Visualization Techniques of Active Flexible Rods," SPIE Smart Structures and Materials Conference, San Diego, CA, February 26 – March 3, 1995.
51. "A Unified Thermodynamic Constitutive Model for Two Way Shape Memory Alloys and Its Implementation in Finite Element Analysis," Third U.S. National Congress on Computational Mechanics, Dallas, TX, June 12-June 14, 1995.
52. "FEM Analysis of the Thermomechanical Response of a Composite Beam with Embedded Shape Memory Alloy Fibers, Third U.S. National Congress on Computational Mechanics, Dallas, TX, June 12 – June 14, 1995.
53. "Identification of Hysteresis from the Dynamic Response of SMA Embedded Rods," Third U.S. National Congress on Computational Mechanics, Dallas, TX June 12 – June 14, 1995.
54. "Impact Surface Oxidation on Damage Evolution in Metal Matrix Composites," ASME Joint Applied Mechanics and Materials Conference, Los Angeles, CA, June 28 – June 30, 1995.
55. "Phase Front Patterns in Shape Memory Alloy Strips," ASME Joint Applied Mechanics and Materials Conference, Los Angeles, CA June 28 – June 30, 1995.
56. "Modeling of Cyclic Response of Active Structures with Embedded SMA Actuators," Second Workshop on Smart Structures and Materials, University of Maryland at College Park, College Park, MD, September 5 – September 7, 1995.

57. "Design of High Frequency SMA Actuators," ONR Workshop on Adaptive Quiet Structures with Active Materials, Washington, D.C., September 27 – September 29, 1995.
58. "Modeling of Surface Oxidation in Metal Matrix Composites with Damage," Society of Engineering Science 32nd Annual Technical Meeting, New Orleans, LA, October 29 – November 2, 1995.
59. "A Thermodynamic Constitutive Model for Cyclic Loading of Shape Memory Alloys with Application to Two-Way Training," Society of Engineering Science 32nd Annual Technical Meeting, New Orleans, LA October 29 – November 2, 1995.
60. "A Mean-Field Framework for the Characterization of SMA Polycrystals with Material Uncertainties," 1995 International Mechanical Engineering Congress and Exposition, San Francisco, CA November 12–17, 1995.
61. "Effects of Oxidation and Damage on the Fatigue Life of Metal Matrix Composites, 1995 International Mechanical Engineering Congress and Exposition, San Francisco, CA, November 12–17, 1995.
62. "Analysis of Phase Transformation Fronts in Embedded Shape Memory Alloy Composites," 1996 SPIE Symposium on Smart Materials and Structures, San Diego, CA February 26-29, 1996.
63. "Thermomechanical Constitutive Models for SMA Actuators," 1996 SPIE Symposium on Smart Materials and Structures, San Diego, CA February 26-29, 1996.
64. "The Implementation of a Sophomore Engineering Integrated Curriculum," 1996 Annual Meeting of the Gulf Southwest Section of ASEE, San Antonio, TX, March 27-29, 1996.
65. "Phase Transformation Localization in SMA Wires," 1996 ASME Mechanics and Materials Conference, Johns Hopkins University, Baltimore, MD, June 12-14, 1996.
66. "Modeling of the Thermomechanical Response of Active Composite Laminates with SMA Layers," 2nd National Congress on Computational Mechanics NCCM '96, Chania, Crete, Greece, June 26-28, 1996.
67. "Matching the Inner and Outer Solutions in the Continuum Theory of Dislocations," Society of Engineering Science 33rd Annual Technical Meeting, Tempe, AZ, October 20-23, 1996.
68. "Damage Evolution in Oxidized Metal Matrix Composite Laminates Under Axial and Transverse Unidirectional Tension," Society of Engineering Science 33rd Annual Technical Meeting, Tempe, AZ, October 20-23, 1996.
69. "Modeling and Identification of a Flexible Beam Actuated by Shape Memory Alloy Wires," Society of Engineering Science 33rd Annual Technical Meeting, Tempe, AZ, October 20-23, 1996.
70. "Cyclic Loading of Shape Memory Alloys," Society of Engineering Science 3rd Annual Technical Meeting, Tempe, AZ, October 20-23, 1996.
71. "Damage Development in Titanium Metal Matrix Composites in Oxidizing Environment,"1996 International Mechanical Engineering Congress and Exposition, Atlanta, GA, November 17-22, 1996.
72. "Surface Damage Modeling of Oxidized Metal Matrix Composite Laminates under Uniaxial Tension," 1996 International Mechanical Engineering Congress and Exposition, Atlanta, GA, November 17-22, 1996.
73. "Modeling of Cyclic Response of Polycrystalline Shape Memory Alloy," IUTAM Symposium on Transformation Problems in Composite and Active Materials, Cairo, Egypt, March 9-12, 1997.
74. "On the Correspondence Between Micromechanical Models for Shape Memory Alloys and the Preisach Model for Hysteresis," Second SIAM Conference on Mathematical Aspects of Materials Science, Philadelphia, PA, May 12-14, 1997.
75. "Thermoelectric Heat Transfer in Shape Memory Alloy Actuators," Second SIAM Conference on Mathematical Aspects of Materials Science, Philadelphia, PA, May 12-14, 1997.
76. "Thermodynamic Modeling of Phase Transformations in Shape Memory Alloys," American Association for the Advancement of Science Seventy Third Annual Meeting, College Station, TX, May 18-22, 1997.
77. "Modeling and Experiments on Cycling Response of SMA," McNU '97 Joint Meeting of the ASME, ASCE and SES, Northwestern University, Evanston, IL, June 29 – July 2, 1997.
78. "The Influence of Oxidation on Fatigue Crack Growth Behavior in Ti 15-3 Metal Matrix Composites," McNU '97 Joint Meeting of the ASME, ASCE and SES, Northwestern University, Evanston, IL, June 29 – July 2, 1997.
79. "The Effective Elastic Moduli of Composites Reinforced with Aligned Clustered Fibers," McNU '97 Joint Meeting of the ASME, ASCE, and SES, Northwestern University, Evanston, IL, June 29 – July 2, 1997.
80. "Micro-Mechanically Derived Preisach Operators for Hysteresis Response of SMA Actuators," Third ARO Workshop on Smart Structures, VPI, Blacksburg, VA, August 27-29, 1997.
81. "Nonlinear Active Control of External Fluid Flows," ONR Workshop on Basic Research on Intelligent Autonomous Air Vehicles, Stanford University, Palo Alto, CA, September 23-24, 1997.
82. "Thermomechanical Modeling of Cyclic Response of Shape Memory Alloys with Minor Hysteresis Loops," International Seminar entitled Actual Problems of Strength, St. Petersburg State University, St. Petersburg, Russia, October 12-22, 1997.

83. "Thermomechanical Coupling in SMA Actuators," 1997 ASME IMECE Meeting, Wyndham Anatole, Dallas, TX, November 17-21, 1997.
84. "Thermomechanical Modeling of Shape Memory Alloys Undergoing Cycling," 1997 ASME IMECE Meeting, Wyndham Anatole, Dallas, TX, November 17-21, 1997.
85. "Teaching Mechanics in a Restructured Sophomore Year Core Engineering Curriculum Using Conservation Principles," 1997 ASME IMECE Meeting, Wyndham Anatole, Dallas, TX, November 17-21, 1997.
86. "Modeling of Minor Hysteresis Loops in SMA Actuators," SPIE's 5th Annual International Symposium on Smart Structures and Materials, Catamaran Resort Hotel, San Diego, CA, March 1-5, 1998.
87. "FEM Implementation of a Thermomechanically Coupled Finite Deformation SMA Constitutive Model," SPIE's 5th Annual International Symposium on Smart Structures and Materials, Catamaran Resort Hotel, San Diego, CA, March 1-5, 1998.
88. "Hysteresis Modeling of SMA Actuators for Control Applications," SPIE's 5th Annual International Symposium on Smart Structures and Materials, San Diego, CA, March 1-5, 1998.
89. "Numerical Implementation of a Thermomechanical Constitutive Model for Shape Memory Alloys using Return Maing Algorithms," NATO Advanced Workshop on Shape Memory Alloys: Bridging the Scales from Micromechanics to Structural Applications - University of Metz, Metz, France, May 14, 1998.
90. "Modeling and Experiments of the Hysteretic Response of an Active Hydrofoil Actuated by SMA Line Actuators," SMART-98, Pultusk, Poland, June 16-19, 1998.
91. "Constitutive Relations for Shape Memory Alloys," 3rd National Congress on Computational Mechanics, Volos, Greece, June 24-26, 1998.
92. "Thermomechanical Modeling and Experimentation for SMA Actuators Under Cyclic Loading," AFOSR Mechanics of Composite Materials Program Review, Dayton, OH, October 14-16, 1998.
93. "Technology Enabled Continuum Mechanics in a Restructured Engineering Undergraduate Curriculum," IMECE 98, Symposium on "Mechanics in a Restructured Engineering Curriculum," Anaheim, CA, November 1998.
94. "Actuation Control of SMA Actuators in Dynamic Environments," IMECE 1998, Symposium on "Adaptive Structures and Material Systems," Anaheim, CA, November 1998.
95. "Enhancing Understanding Mechanics Through Study of Numerical Simulations," IMECE 1998, Symposium on Mechanics in a Restructured Engineering Curriculum, Anaheim, CA, November 1998.
96. "Use of SMA Actuators in Active Hydrofoils," IMECE 1998, Symposium on Innovations in Industrial Actuator Design II, Anaheim, CA, November 1998.
97. "A Dynamic Analysis of Impact Induced Phase Transformations in Shape-Memory Alloys," IMECE 1998, Symposium on Phase Transformations and Active Composites, Anaheim, CA, November 1998.
98. "Shape Memory Effect in Cylindrical and Flat SMA Actuators Undergoing Cyclic Thermomechanical Loading, IMECE 1998, Symposium on Phase Transformations and Active Composites, Anaheim, CA, November 1998.
99. "Numerical Implementation of a Thermomechanical Constitutive Model for SMAs Under Cyclic Loading," Plasticity '99, Cancun, Mexico, January 5-13, 1999.
100. "Environmental Effects on Titanium Alloys and Composites," Plasticity '99, Cancun, Mexico, January 5-13, 1999.
101. "Influence of Plastic Strain on the Shape Memory Effect of NiTi Wires," Plasticity '99, Cancun, Mexico, January 5-13, 1999.
102. "Control of SMA Actuators in Dynamic Environments," 1999 SPIE Conference, Newport Beach, CA, March 1-5, 1999.
103. "Experiments of Thermomechanical Fatigue of SMAs," 1999 SPIE Conference, Newport Beach, CA, March 1-5, 1999.
104. "Development of a Spined Underwater Biomimetic Vehicle with SMA Actuators," 1999 SPIE Conference, Newport Beach, CA, March 1-5, 1999.
105. "Aquatic Biomimetics," DARPA Workshop on Biologically Inspired Aroaches for Micro Air Vehicles, April 21-22, 1999.
106. "Thermomechanical Modeling and Experimentation for SMA Actuators Under Cyclic Loading," AFOSR Mechanics and Materials Program Review, Dayton, OH, September 29- October 1, 1999.
107. "Modeling and Applications of Shape Memory Alloys in Bioengineering and Biomedical Technology," 4th International Workshop on Mathematical Methods, Perdika, Greece, October 8-10, 1999.
108. "Smart Materials," NSF sponsored Conference on Nonlinear Distributed Parameter Systems, Texas A&M University, October 23, 1999.

109. "Dynamic Behavior of Shape Memory Alloys under Impact Loading," 1999 SES Meeting, Austin, TX, October 25-27, 1999.
110. "In-situ Displacement Measurements and Numerical Predictions of Embedded SMA Actuators," 1999 SES Meeting, Austin, TX, October 25-27, 1999.
111. "Thermomechanical Modeling of Multidimensional Transformation Surfaces of Shape Memory Alloys, 1999 SES Meeting, Austin, TX, October 25-27, 1999.
112. "A New Aroach for Modeling Oxidation of Titanium," 1999 SES Meeting, Austin, TX, October 25-27, 1999.
113. Thermomechanical Fatigue and Modeling of SMA Actuators," 1999 SES Meeting, Austin, TX, October 25-27, 1999.
114. "On Oxidation of Various I-D and 2-D Titanium Geometries, 1999 SES Meeting, Austin, TX, October 25-27, 1999.
115. "Thermomechanical Fatigue of SMA Actuators," 1999 ASME IMECE, Nashville, TN, November 14-19, 1999.
116. "Constitutive Modeling of 3-D Stress Induced Phase Transformations in Polycrystalline NiTi SMA," 1999 ASME IMECE, Nashville, TN, November 14-19, 1999.
117. "Actuation Control of High Frequency SMA Actuators," 1999 ASME IMECE, Nashville, TN, November 14-19, 1999.
118. "Development of a Shape Memory Alloy Biomimetic Vehicle," Exoskeletons for Human Performance Augmentation Workshop sponsored by DARPA, March 1-3, 2000.
119. "Design Optimization Methods for SMA-Actuated Reconfigurable Airfoils," 2000 SPIE Meeting, Newport Beach, CA, March 5-9, 2000.
120. "Thermomechanical Fatigue of SMA Actuators," 2000 SPIE Meeting, Newport Beach, CA, March 5-9, 2000.
121. "Dynamic Behavior and Shock Absorption Properties of Porous Shape Memory Alloys," 2000 SPIE Meeting, Newport Beach, CA, March 5-9, 2000.
122. "Fabrication, Modeling and Characterization of Porous Shape Memory Alloys," SPIE Smart Structures and Materials 2001, Newport Beach, USA, March 5-8, 2001.
123. "Simplified Shape Memory Alloy (SMA) Material Model for Vibration Isolation," SPIE Smart Structures and Materials 2001, Newport Beach, USA, March 5-8, 2001.
124. "Micromechanical Modeling of the Behavior of Porous Shape Memory Alloys," 6th National Congress of Mechanics, Hellenic Society of Theoretical and Applied Mechanics, Thessaloniki, Greece, July 19-21, 2001.
125. "An Experimental Investigation of Shape Memory Alloy Springs for Passive Vibration Isolation," AIAA Space 2001 Conference, Albuquerque, NM, August 28-20, 2001.
126. "Fabrication and Modeling of Porous Shape Memory Alloys," ASC 16th Annual Technical Conference, Sept. 2001.
127. "Microscale Processing of Multi-Functional Materials," ASC 16th Annual Technical Conference, Sept. 2001.
128. "Modelling of Shape Memory Alloy Springs for Passive Vibration Isolation," International Mechanical Engineering Congress and Exposition, New York, NY, November 11-16, 2001.
129. "Active Skin for Turbulent Drag Reduction," 9th Annual International Symposium on Smart Structures and Materials, SPIE, San Diego, CA, March 18-21, 2002.
130. "Fuel-Powered Compact SMA Actuator," 9th Annual International Symposium on Smart Structures and Materials, SPIE, San Diego, CA, March 18-21, 2002.
131. "Fabrication and Testing of a Shape Memory Alloy Actuated Reconfigurable Wing," 9th Annual International Symposium on Smart Structures and Materials, SPIE, San Diego, CA, March 18-21, 2002.
132. "The Effect of Transformation Induced Plasticity on the Mechanical of Porous SMAs," 9th Annual International Symposium on Smart Structures and Materials, SPIE, San Diego, CA, March 18-21, 2002.
133. "Modeling of Shape Memory Alloy pseudoelastic spring elements using Preisach model for passive vibration isolation," 9th Annual International Symposium on Smart Structures and Materials, SPIE, San Diego, CA, March 18-21, 2002.
134. "Micromechanics of porous shape memory alloys," NATO Advanced Research Workshop, École Nationale Supérieure des Arts et Metiers (ENSAM), Metz, France, April 23-26, 2002.
135. "Dynamic Loading of Polycrystalline Shape Memory Alloy Rods," 14th U.S. National Congress on Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.
136. "Porous NiTi Fabricated using Powder Metallurgy Techniques: Characterization and Modeling," 14th U.S. National Congress on Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.
137. "Effect of Transformation-Induced Plastic Strains on the Mechanical Behavior of Porous NiTi SMA," 14th U.S. National Congress on Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.
138. "Parametric Study and Experimental Correlation of an SMA Based Damping and Passive Vibration Isolation

Device," D.C. Lagoudas, ASME International Mechanical Engineering Congress and Exposition, November 17-22, 2002.

139. "The Implementation of an Undergraduate Curriculum with Focus on Intelligent Systems," D.C. Lagoudas, O.K. Rediniotis, J.D. Whitcomb, J.L. Valasek, T. W. Stragnac, ASME International Mechanical Engineering Congress and Exposition, November 17-22, 2002.
140. "Transformation-Induced Plasticity in SMAs During Cyclic Loading and its Effect on the Behavior of Porous SMAs," D.C. Lagoudas, ASME International Mechanical Engineering Congress and Exposition, November 17-22, 2002.
141. "Characterization of Damage in Laminated Composites for Cryogenic Applications," V.K. Kinra, D.C. Lagoudas, J. D. Whitcomb, ASME International Mechanical Engineering Congress and Exposition, November 17-22, 2002.
142. "Design of a compact thermoelectric SMA actuator: preliminary prototype design and testing," D. C. Lagoudas, M. M. Khan, O. K. Rediniotis, SPIE Conference, San Diego, CA, March 2-6, 2003.
143. "Arrays of micro-electrodes and electromagnets for processing of electro-magneto-elastic multifunctional composite materials," J. Boyd, D. C. Lagoudas, C. Seo, SPIE Conference, San Diego, CA, March 2-6, 2003.
144. "Forced convection cooled compact SMA actuator," D. C. Lagoudas, S. Girimaji, R. Pachalla, SPIE Conference, San Diego, CA, March 2-6, 2003.
145. "MEMS based active skin for turbulent drag reduction, R. Mani, D. C. Lagoudas, O. Rediniotis, M. M. Khan, SPIE Conference, San Diego, CA, March 2-6, 2003.
146. "Three-phase electro-magneto-elastic multifunctional composite materials," J. Boyd, J. Lee, D. C. Lagoudas, C. Seo, SPIE Conference, San Diego, CA, March 2-6, 2003.
147. "Transformation fatigue life characterization of shape memory alloy actuators," O. Bertachhini, D. C. Lagoudas, E. Patoor, SPIE Conference, San Diego, CA, March 2-6, 2003.
148. "Numerical studies of wave propagation in polycrystalline shape memory alloy rods," D. C. Lagoudas, P. Popov, SPIE Conference, San Diego, CA, March 2-6, 2003.
149. "Phenomenological Modeling of Magnetic Shape Memory Alloys," P. Entchev, D. Lagoudas, B. Kiefer, ASME Summer Meetings, Scottsdale, AZ, June 17-20, 2003.
150. "Raman Spectroscopy aroach to mechanics of single wall carbon nanotubes composites," V. Hadjiev, D. Lagoudas, D. Davis, G. Seidel, ASME Summer Meetings, Scottsdale, AZ, June 17-20, 2003.
151. "Constitutive Modeling and Numerical Implementation of SMAs undergoing Cyclic Loading," D. C. Lagoudas, Entchev, P. B., Kumar, P. International Conference on Computation and Experimental Engineering and Sciences, July 25-29, 2003, Corfu, Greece.
152. "An Extension of Continuum Mechanics to Carbon Nanotubes," Oh, E. –S., Lagoudas, D. C., Slattery, J. C. International Conference on Computation and Experimental Engineering and Sciences, July 25-29, 2003, Corfu, Greece.
153. "Texas Institute for Bio-Nano Materials and Structures for Aerospace Vehicles (TiiMS), Lagoudas, D. C., Junkins, J. L., and Davis, D. C. International Conference on Computation and Experimental Engineering and Sciences, July 25-29, 2003, Corfu, Greece.
154. "A Micromechanical Study on the Clustering Effect of Carbon Nanotube Reinforced Composites," ASME Winter Conference, Washington, D.C., Nov. 16-22, 2003.
155. 155. "Characterization of Effective Permeability of Cryogenic Composite Laminates," ASME Winter Conference, Washington, D.C., Nov. 16-22, 2003.
156. 156. "A Phenomenological Model for Magnetic Shape Memory Alloys with Hysteresis Effects," ASME Winter Conference, Washington, D.C., Nov. 16-22, 2003.
157. "Thermomechanical Characterization of Large Diameter SMA Actuators under Cyclic Loading," ASME Winter Conference, Washington, D.C., Nov. 16-22, 2003.
158. "Development of a Fuel Powered SMA actuator and a Thermoelectric SMA actuator system," ASME Winter Conference, Washington, D.C., Nov. 16-22, 2003.
159. "Phenomenological modeling and experimental characterization of ferromagnetic shape memory alloys," SPIE Conference, San Diego, CA, March 15-18, 2004.
160. "Effective Elastic Properties of Carbon Nanotubes and Carbon Nanotube Reinforced Composites," AIAA SDM Conference, Palm Springs, CA, April 19-22, 2004.
161. "Numerical Modeling of Cryogen Leakage through Composite Laminates," AIAA SDM Conference, Palm Springs, CA, April 19-22, 2004.
162. "Micromechanics of load transfer in carbon nanotube composites," Torquata Symposia, SES Conference, Lincoln, NE, Oct. 10-12, 2004.

163. "Investigation of the Influence of the Magnetic Microstructure on the Martensitic Variant Reorientation Process in Magnetic Shape Memory Alloys," SES Conference, Lincoln, NE, Oct. 10-12, 2004.
164. "Constitutive Modelling of Shape Memory Alloys and Effective Properties of Fluid Saturated Porous Shape Memory Alloys, Rajagopal Symposia, SES Conference, Lincoln, NE, Oct. 10-12, 2004.
165. "Dynamical Response of SMA Actuators," ASME Conference, Anaheim, CA, Nov. 15-19, 2004.
166. "Constitutive modeling of the ferromagnetic shape memory effect under special consideration of the evolution of magnetic domains," ASME Conference, Anaheim, CA, Nov. 15-19, 2004.
167. "Thermomechanical Constitutive Modeling of Shape Memory Alloys," MRS Conference, Boston, MA, Nov. 29-Dec.3, 2004.
168. "A three-phase model of shape-memory alloys undergoing complex thermomechanical loading paths," Keynote Speaker, SPIE Conference, San Diego, CA, March 6-10, 2005.
169. "Experimental Investigation and Constitutive Modeling of the Magnetic Shape Memory Effect Caused by Martensitic Variant Rearrangement," Invited Speaker, MRS Spring Meeting, San Francisco, CA, March 28-April 1, 2005.
170. "Thermomechanical Transformation Induced Fatigue of SMAs," Bertacchini, O. W., Lagoudas, D. C., and Patoor, E., Proceedings of McMat2005-496, Mechanics and Materials Conference, Baton Rouge, LA, June 1-3, 2005.
171. "Magneto-Mechanical Coupling in Boundary Value Problems Involving Magnetic Shape Memory Constitutive Behavior," Kiefer, B. and Lagoudas, D.C., ASME-Shape Memory Materials II, Orlando, FL, November 5-11, 2005.
172. "Thermomechanical Characterization of High Temperature SMA Actuators," SPIE Smart Structures and Materials"/NDE Conference, San Diego, March 2006.
173. "Modeling of the Hysteretic Strain and Magnetization Response in MSMA," Kiefer, B. and Lagoudas, D.C., AIAA-SDM, Newport, RI, May 1-4, 2006.
174. "Nanoindentation of CNT Reinforced Epoxy Nanocomposites," Lagoudas, D.C., Thakre, P.R., and Benzerga, A.A., AIAA-SDM, Newport, RI, May 1-4, 2006.
175. "Modeling of Interface Behavior in Carbon Nanotube Composites," Awasthi, A.P., Lagoudas, D.C., and Hammerand, D.C., AIAA-SDM, Newport, RI, May 1-4, 2006.
176. "Surface Crack Development in Transformation Induced Fatigue of SMA Actuators," Lagoudas, D.C., Bertacchini, O.W., and Patoor, E., ECF16, Alexandroupolis, Greece, July 3-7, 2006.
177. "Nanoindentation of CNT Reinforced Epoxy Nanocomposites," ECF16, Alexandroupolis, Greece, July 3-7, 2006.
178. "Constitutive Modeling of Shape Memory Alloys and Magnetic SMAs," Lagoudas, D.C., Popov, P., Kiefer, B., SES Conf., University Park, PA, Aug. 13-16, 2006.
179. "Accurate Interpretation of Magnetic Shape Memory Alloy Experiments Utilizing Coupled Magnetostatic Analysis," Kiefer, B., Broederdorf, A., Lagoudas, D.C., ASME-IMECE, Chicago, IL, Nov. 5-10, 2006.
180. "Micromechanical Characterization and Analysis of the Thermoelastic Behavior of Carbon Nanotube Composites," Lagoudas D., Seidel, G., Thakre, P., ASME-IMECE, Chicago, IL, Nov. 5-10, 2006.
181. "Thermomechanical Characterization of TiPdNi High Temperature SMAs", Kumar, P.K. and Lagoudas, D.C., SPIE 2007, San Diego, CA, March 18-22, 2007.
182. "Nonlinear Dynamics and Chaos of a SMA Passive Vibration Isolation and Damping Device", Machado, L.G. and Lagoudas, D.C., SPIE 2007, San Diego, CA, March 18-22, 2007.
183. "Characterization and 3-D Modeling of Ni60Ti SMA for Actuation of a Variable Geometry Jet Engine Chevron", Hartl, D. and Lagoudas, D.C., SPIE 2007, San Diego, CA, March 18-22, 2007.
184. "Fatigue Life Characterization and Modeling of SMA Actuators", Bertacchini, O., Lagoudas, D.C., and Patoor, E., SPIE 2007, San Diego, CA, March 18-22, 2007.
185. "Modeling of Magnetic Shape Memory Alloys", Lagoudas, D.C. and Kiefer, B., SPIE 2007, San Diego, CA, March 18-22, 2007.
186. "Micromechanics Aspects of Multi-scale Modeling of Multi-functional Nanocomposites", Seidel, G.D. and Lagoudas, D.C., AIAA-SDM, Honolulu, HI, April 23-26, 2007.
187. "Numerical-Experimental Investigation of the Dynamics of a Shape Memory Alloy Passive Vibration Isolation and Damping Device", Machado, L.G. and Lagoudas, D.C., AIAA-SDM, Honolulu, HI, April 23-26, 2007.
188. "Micromechanics Aspects of Multi-scale Modeling of Multi-functional Nanocomposites", Seidel, G.D. and Lagoudas, D.C., AIAA-SDM, Honolulu, HI, April 23-26, 2007.

189. "Characterization of the nonlinear rate dependent response of shape memory polymers," Volk, B., Lagoudas, D.C., Chen, Y.-c., and Whitley, K.S., Comp-07 (International Symposium on Advanced Composite Technology), Corfu, Greece, May 16-18, 2007.
190. "Constitutive Modeling of Magnetic Shape Memory Alloys with Magneto-Mechanical Coupling," Lagoudas, D., Kiefer, B. and Broederdorf, A., Comp-07 (International Symposium on Advanced Composite Technology), Corfu, Greece, May 16-18, 2007.
191. "Transformation Behavior in TiPdNi High Temperature Shape Memory Alloys", Kumar, P.K. and Lagoudas, D.C., McMat 2007 (ASME Applied Mechanics and Materials Conference), Austin, TX, June 3-7, 2007.
192. "Micromechanical Analysis of Interphase Effects on Multi-functional Nature of Carbon Nanotube Composites", Seidel, D.C. and Lagoudas, D.C., McMat 2007 (ASME Applied Mechanics and Materials Conference), Austin, TX, June 3-7, 2007.
193. "Characterization and Modeling of Nonlinear Rate Dependent Response of Shape Memory Polymers", Volk, B. and Lagoudas, D.C., McMat 2007 (ASME Applied Mechanics and Materials Conference), Austin, TX, June 3-7, 2007.
194. "FEA Modeling of Active Chevrons as Actuated by Ni60Ti40 SMA Beams", Hartl, D., Lagoudas, D.C., Calkins, F., Mabe, J., McMat 2007 (ASME Applied Mechanics and Materials Conference), Austin, TX, June 3-7, 2007.
195. "Strength and Fatigue of a Nanocomposite Laminate," Kelkar, A., Lagoudas, D., Barrera, E., Bolick, R., Klein, P., Ayeway, D., Rojas, G., Green, J., Wilkerson, J., McMAT (ASME Applied Mechanics and Materials Conference), Austin, TX, June 3-7, 2007.
196. "Interlaminar Shear Toughness of a Nanocomposite," Lagoudas, D., Barrera, E.V., Sayer, B., Ayewah, D., and Rojas, G., 16th International Conference on Composite Materials (ICCM), Kyoto, Japan, July 7-13, 2007.
197. "Micromechanics Modeling of Electrical and Thermal Conductivities of Carbon Nanotube-Epoxy Composites," Seidel, G. and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
198. "Raman Imaging of Dispersion in Nanocomposites Containing Carbon Nanotubes," Hadjiev, V., Davis, D., and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
199. "Micromechanics Modeling of Electrical and Thermal Conductivities of Carbon Nanotube-Epoxy Composites," Seidel, G. and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
200. "Fatigue Life Characterization and Modeling of SMA Actuators in a Corrosive Environment," Bertacchini, O., Lagoudas, D.C., and Patoor, E., SES Conference, College Station, TX, Oct. 21-24, 2007.
201. "Fatigue Testing of the Shape Memory Alloy Ni60Ti40," Schick, J., Bertacchini, O, Lagoudas, D.C., Calkins, T.F., and Mabe, J., SES Conference, College Station, TX, Oct. 21-24, 2007.
202. "Fatigue Life Characterization of Functionalized Carbon Nanotube Reinforced Woven Carbon Fiber Composites," Wilkerson, J., Davis, D.C., and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
203. "Estimation of Lyapunov Exponents for Chaotic Hysteretic Systems," Machado, L., Lagoudas, D.C., and Savi, M.A., SES Conference, College Station, TX, Oct. 21-24, 2007.
204. "Dynamic Response of Hysteretic Shape Memory Alloy Oscillators," Kalmar-Nagy, T., Shekhawat, A., and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
205. "Micromechanics Modeling of Thermal Conductivities of Carbon Nanotube-Epoxy Nanocomposites: Influence of Thermal Resistance and Functionalization," Seidel, G. and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
206. "Modeling of Interface Behavior of Carbon Nanotube Composites," Awasthi, A., Lagoudas, D.C., and Hammerand, D., SES Conference, College Station, TX, Oct. 21-24, 2007.
207. "Experimental Investigation and Modeling of Plastic Deformation in Shape Memory Alloys," Hartl, D. and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
208. "A Viscoelastic Constitutive Model for Shape Memory Polymers," Chen, Y.-c., Lagoudas, D.C., and Whitley, K., SES Conference, College Station, TX, Oct. 21-24, 2007.
209. "Effect of Heat Treatment on the Transformation Behavior of High Temperature Shape Memory Alloys," Kumar, P., Lagoudas, D.C., and Phillips, F., SES Conference, College Station, TX, Oct. 21-24, 2007.
210. "Experimentally Validated Numerical Analysis of Aerostructures Incorporating Shape Memory Alloys," Hartl, D., Lagoudas, D.C., Mooney, J., Calkins, T.F., and Mabe, J., SES Conference, College Station, TX, Oct. 21-24, 2007.
211. "Influence of Carbon Nanotubes on Interlaminar Fracture of Carbon-Fabric/Epoxy Composites," Thakre, P. and Lagoudas, D.C., SES Conference, College Station, TX, Oct. 21-24, 2007.
212. "Effect of carbon nanotubes on the interfacial shear strength of T650/35 carbon fiber in an epoxy matrix using the single fiber fragmentation test, Sager, R.J., Zhang, Q., Klein, P. Liu, J., Dai, L., Lagoudas, D.C, and Baur, J., SAMPE 2007 (Society for the Advancement of Material and Process Engineering), Cincinnati, OH, Oct. 29-Nov. 1, 2007.

213. "Modeling of Magnetic Shape Memory Alloys," Lagoudas, D.C., and Kiefer, B.J., COBEM 2007, Brasilia, Brazil, Nov. 5-9, 2007.
214. "Electrical and Thermal Conductivities of Carbon Nanotube-Epoxy Composites: Modeling and Characterization," Seidel, G.D., Bisrat, Y., and Lagoudas, D.C., ASME 2007, Seattle, WA, Nov. 11-15, 2007.
215. "Characterization of Thermo-Electric Interface Material with Carbon Nanotubes", Thakre P.R., Lagoudas D.C., Bisrat Y.B.: Fall Meeting of Materials Research Society (MRS), 2007, November 26-30, Boston, MA.
216. "Characterization of Ni-rich Ti50Pd25Ni25 High Temperature Shape Memory Alloy, SPIE Smart Structures and Materials/NDE Conference, San Diego, March 2008.
217. "Thermomechanical Characterization of the Nonlinear, Rate-Dependent Response of Shape Memory Polymers," Volk, B., Lagoudas D., Chen, Y., and Whitley, K., SPIE Smart Structures/NDE Conference, San Diego, CA, March 12, 2008.
218. "Transformation Behavior and Actuation Characteristics of a Ti50Pd40Ni10 High Temperature Shape Memory Alloy, International Conference on Martensitic Transformations," Santa Fe, June 2008.
219. "Transformation induced cyclic behavior and fatigue properties of Ni-rich NiTi SMA actuators", Bertacchini, O. W., Lagoudas, D. C., Calkins, F. T., Mabe, J. H., Proceedings of the ICOMAT '08, Santa Fe, New Mexico, July 2008.
220. "Transformation Induced Cyclic Behavior and Fatigue Life of Nickel-Rich NiTi SMA Actuators," Bertacchini, O. W., Schick, J. R., and Lagoudas, D. C., SES Conference, Urbana-Champaign, IL, October 2008.
221. "Actuation and Transformation Characteristics of Pd-based High Temperature Shape Memory Alloys, 45th Annual Technical Meeting Society of Engineering Science, University of Illinois Urbana Champaign, October 2008.
222. "Effects of Severe Plastic Deformation and Quaternary Additions on the Dimensional Stability of NiTiPd High Shape Memory Alloys," 45th Annual Technical Meeting Society of Engineering Science, University of Illinois Urbana Champaign, October 2008.
223. "Plasticity in TiPdNi High Temperature Shape Memory Alloys," 45th Annual Technical Meeting Society of Engineering Science, University of Illinois Urbana Champaign, October 2008.
224. "Thermomechanical Characterization and Modeling of Shape Memory Polymers," Volk, B., Lagoudas D. and Chen, Y., International Conference on Adaptive Structures and Technologies, Ascona, Switzerland, October 8, 2008.
225. "Mechanical, Electrical and Thermal Characterization of Single Wall Carbon Nanotubes Modified Unidirectional Carbon-Fiber/Epoxy Matrix Composites", Thakre P.R., Zhu J., Lagoudas D.C., Riddick J.C., Gates T.S.: Multiscale modeling and characterization of nano-structured polymer composites session, 45th Annual Technical Meeting of Society of Engineering Sciences (SES) 2008, October 12-15, UIUC, Urbana-Champaign, IL.
226. "Processing and Characterization of Toughened Epoxy Nanocomposites with Functionalized Single Walled Carbon Nanotubes", Zhu J., Thakre P.R., Lagoudas D.C., Riddick J.C., Gates T.S.: Multiscale modeling and characterization of nano-structured polymer composites session, 45th Annual Technical Meeting of Society of Engineering Sciences (SES) 2008, October 12-15, UIUC, Urbana-Champaign, IL.
227. "Micromechanics Modeling of the Elastic and Thermal Properties of Carbon Nanotube-Epoxy Nanocomposites and Unidirectional Hybrid Laminates", Seidel G.D., Lagoudas D.C. , Frankland S.J.V., Clancy T.C., Riddick J.C., Thakre P.R., and Zhu J.: Multiscale Modeling and Characterization of Nano-structured Polymer Composites Session of the 45th Technical Meeting of the Society of Engineering Science, Urbana-Champaign, Illinois, 12-15 October, 2008.
228. "Electrical Conductivity of SW- and XD-CNTS Reinforced Epoxy Matrix Nanocomposites," Lagoudas, D.C., Thakre, P. and Bisrat, Y., ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Elliott City, MD, October 28-30, 2008
229. "Thermomechanical Characterization and Model Calibration of the Large Deformation Response of Shape Memory Polymers," Volk, B., Lagoudas D. and Chen, Y. ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Elliott City, MD, October 28-30, 2008
230. "Thermomechanical Characterization and Model Calibration of the Large Deformation Response of Shape Memory Polymers," Volk, B., Lagoudas D. and Chen, Y. University of Oregon Material Science Institute Retreat, Gleneden Beach, OR, December 17, 2008
231. "B-Staged Interleaf-Toughened Epoxy/SWCNT Nanocomposites for VARTM Applications," Warren, G., Sun, L., Moghbelli, E., White, K., Davis D., Lagoudas, D., and Sue, H.-J., SAMPE 2009 (Society for the Advancement of Material and Process Engineering), 2009.

232. "Inelastic Phenomena in TiPdNi High Temperature Shape Memory Alloys," SPIE Smart Structures and Materials/NDE Conference, San Diego, March 2009.
233. "Parametric study and characterization of the isobaric transformation fatigue of Nickel rich NiTi SMA actuators," Bertacchini, O. W., Schick, J. R. and Lagoudas, D. C., San Diego, CA, March 2009.
234. "Effect of Irrecoverable Strains on the Martensitic Transformation of TiPdNi High Temperature Shape Memory Alloy," ASCE/ASME/SES Conference on Mechanics and Materials, Virginia Polytechnic Institute and State University, June 2009.
235. "SMA Actuators: Failure Mechanisms and Investigations of the Interactions between Precipitates and Nickel-Rich NiTi Matrix," Bertacchini, O. W., Schick, J. R., Zheng, H. and Lagoudas, D. C., Blacksburg, VA, June 2009.
236. "Influence of Carbon Nanotubes on Interlaminar Fracture of Carbon Fabric/ Epoxy Composite", Thakre P.R., Lagoudas D.C.: The 2009 Joint ASCE/ASME/SES Conference on Mechanics and Materials, Blacksburg, VA, June 24-27, 2009.
237. "Effect of Single Wall Carbon Nanotubes on Mechanical and Electrical Properties of Unidirectional Carbon-Fiber/Epoxy Matrix Composites", Thakre P.R., Lagoudas D.C.: The 2009 Joint ASCE/ASME/SES Conference on Mechanics and Materials, Blacksburg, VA, June 24-27, 2009.
238. "Modeling of Magnetic Field-Induced Phase Transformations in NiMnCoIn Magnetic Shape Memory Alloys", Haldar, K., Lagoudas, D.C., Basaran, B., Karaman, I.: The 2009 Joint ASCE/ASME/SES Conference on Mechanics and Materials, Blacksburg, VA, June 24-27, 2009.
239. "Electrical and Thermo-mechanical Characterization of Carbon Nanotube Reinforced Toughened Epoxy Nanocomposites", Lagoudas D.C., Thakre P.R., Zhu J., Klein P.: The 2009 Joint ASCE/ASME/SES Conference on Mechanics and Materials, Blacksburg, VA, June 24-27, 2009.
240. "Constitutive Modeling of Phase Transformation and Plastic Yield in SMAs: Application to the S3T-RoundRobin," Hartl, D.J., Oehler, S. and Lagoudas, D.C., The 8th European Symposium on Martensitic Transformations (ESOMAT) 2009 Conference, Prague, Czech Republic, September 2009, pp. 1-7.
241. "Interaction of Creep with the Martensitic Transformation in TiPdNi High Temperature Shape Memory Alloys," Lagoudas, D. C. and Kumar, P.K., The 8th European Symposium on Martensitic Transformations (ESOMAT), Prague Czech Republic, September 7 – 11, 2009.
242. "Multifunctional Multi-scale Carbon-Fiber/Epoxy Matrix Composites Reinforced with Carbon Nanotubes", Thakre P.R., Lagoudas D.C.: The ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Oxnard, CA, September 21-23, SMASIS 2009.
243. "Interaction of creep with the martensitic transformation in TiPdNi High Temperature Shape Memory Alloys," The 8th European Symposium on Martensitic Transformations, Prague, September 2009.
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246. "Morphing Applications and Technology Needs, Materials and Sensing for Morphing," NIA-Airbus Workshop on 'Smart Intelligent Airframes,' University of Maryland, January 20-21, 2010.
247. "Finite Deformation Modeling of Shape Memory Polymers," Volk, B., Lagoudas, D.C., Maitland, D.J., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.
248. "Constitutive Modeling of Magneto-Mechanical Coupling Response of Magnetic Field-Induced Phase Transformations in NiMnCoIn Magnetic Shape Memory Alloys," Lagoudas, D.C., Haldar, K., Basaran, B., Karaman, I., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.
249. "3-D finite element analysis of indentation recovery due to the shape memory effect," Nolan, J., Hartl, D.J., Lagoudas, D.C., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.
250. "Modeling and experimental study of simultaneous creep, plasticity and transformation of high temperature shape memory alloys during cyclic actuation," Desai, U., Monroe, J., Kumar, P.K., Chatzigeorgiou, G., Karaman, I., Lagoudas, D.C., Noebe, R.D., Bigelow, G.S., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.
251. "Stability of the magnetomechanical problem in magnetic shape memory alloys," Chatzigeorgiou, G., Haldar, K., Lagoudas, D.C., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.
252. "Finite Deformation Modeling of Shape Memory Polymers," Volk, B.L., Lagoudas, D.C., and Maitland, D.J., SPIE Smart Structures and Materials/NDE Conference, San Diego, March 7-11, 2010.

253. "Experimental and Modeling study of Simultaneous Creep, Plasticity and Transformation of High Temperature Shape Memory Alloys during Cyclic Actuation," Desai, U., Kumar, P., Chatzigeorgiou, G., Karaman, I., Lagoudas, D.C., Noebe, R., AIAA/ASME/ASCS/AHA/ASC Conference, Orlando, FL, April 12-15, 2010.
254. "Synthesis and Characterization of Multifunctional Nanocomposites of Toughened Expoxy Reinforced with Carbon Nanotures," Lagoudas, D.C., Thakre, P., Klein, P., AIAA/ASME/ASCS/AHA/ASC Conference, Orlando, FL, April 12-15, 2010.
255. "Implementation of a 3D constitutive law for HTSMAS, considering cycling effects," Chemisky, Y., Chatzigeorgiou, G., Hartl, D.J. and Lagoudas, D.C., ECCM 2010, IV European Conference on Computational mechanics, Palais des Congres, Paris, France, May 16-21, 2010.
256. "Processing and Characterization of Carbon Nanotubes Reinforced Epoxy Resin Based Multi-Scale Multi-Functional Composites," Thakre, P. and Lagoudas, D.C., Composites & Infrastructure Workshop, Varese, Italy, May 29 – June 1, 2010.
257. "Modeling and Characterization of High Temperature Shape Memory Alloys," SMA 2010 Workshop, Istanbul, Turkey, June 20-24, 2010.
258. K. Das, J. Whitcomb, and D. Lagoudas, " Electromagnetic radiation through a TiO2 nanotube membrane used as a thermal barrier coating" Proceedings of USNCTAM2010, 16th US National Congress of Theoretical and Applied Mechanics, June 27 - July 2, 2010, State College, Pennsylvania.
259. "MURI – Hybrid Materials for Extreme Environments," Multi-Scale Structural Mechanics Annual Program Review, Destin, FL., August 17-19, 2010.
260. "Modeling of Effective Behavior of GCMeC," Lagoudas, D.C., Lester, B. and Chemisky, Y., 1st Annual MURI Review, Dayton, OH, September 23-24, 2010.
261. "Synthesis, Characterization and Prognostic Modeling of Functionally Graded Hybrid Composites for Extreme Environments, Lagoudas, D.C., 1st Annual MURI Review, Dayton, OH, September 23-24, 2010.
262. "Modeling of Cyclic Response of High Temperature Shape Memory Alloys Undergoing Viscoplastic Mechanisms," Lagoudas, D.C., Chatzigeorgiou, G. and Chemisky, Y., SMASIS, Philadelphia, PA., September 29-October 1, 2010.
263. "Modeling of precipitation effects on the thermomechanical behavior of NiTi SMA," Chemisky, Y., Piotrowski, B., Ben-Zineb, T., Lagoudas, D.C. and Patoor, E., SMASIS, Philadelphia, PA, September 29-October 1, 2010.
264. "Characterizing and Modeling the Free Recovery and Constrained Recovery Behavior of a Polyurethane Shape Memory Polymer," Volk, B.L., Lagoudas, D.C. and Maitland, D.J., SMASIS, Philadelphia, PA, September 29-October 1, 2010.
265. "Numerical Prediction of Effective Transformation Properties of Hybrid SM-Ceramic Composites," Lester, B.T., Chemisky, Y. and Lagoudas, D.C., SMASIS, Philadelphia, PA, September 29-October 1, 2010.
266. "Constitutive Modeling of Magneto-Thermo-Mechanical Response of Field-Induced Phase Transformations in NiMnCoIn Magnetic Shape Memory Alloys," Haldar, K., Lagoudas, D.C., Basaran, B. and Karaman, I., SMASIS, Philadelphia, PA, September 29-October 1, 2010.
267. "International Institute for Multifunctional Materials for Energy Conversion," Lagoudas, D.C., International Materials Institutes (IMI) Directors Meeting, University of California Davis, Davis, CA, October 15, 2010.
268. Shanghai University, Shanghai, China, October 27, 2010.
269. Northwestern Polytechnical University, Xian, China, October 29, 2010.
270. Central South University, Changsha, China, October 31, 2010.
271. "Recent Advances in the Analysis, Design, and Optimization of SMA-Based Aerostructures," Lagoudas, D.C. and Hartl, D.J., Aerospace Engineering Seminar Series, Texas A&M University, College Station, TX, January 27, 2011.
272. "Constrained Displacement Recovery of a Polyurethane Shape Memory Polymer," Volk, B.L., Lagoudas, D.C. and Maitland, D.J., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.
273. "Model Predictions of Strain and Magnetization under Magneto-Thermo-Mechanical Loading Paths in MSMAs," Haldar, K. and Lagoudas, D.C., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.
274. "Analysis and Optimization of Improved Hybrid SMA Flexures for High Rate Actuation," Oehler, S., Hartl, D. and Lagoudas, D.C., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.
275. "Virtual Processing of Hybrid SMA Composites Through Martensitic Transformation," Lester, B.T., Chemisky, Y., Geltmacher, A., Qidwai, S.M. and Lagoudas, D.C., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.

276. "A Combined Phase Transformation-Deformation Mechanism Map for $Ti_{50.5}Pd_{30}Ni_{19.5}$ High Temperature Shape memory Alloy," Kumar, P.K., Karaman, I., Lagoudas, D.C., Noebe, R. and Bigelow, G., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.
277. "Influence of Stress and Temperature of the Retained Martensite Accumulation," Kumar, P.K., Caer, C., Patoor, E. and Lagoudas, D.C., SPIE Smart Structures/Nondestructive Evaluation Conference, San Diego, CA, March 9, 2011.
278. "Shifting to a Student-Focused Introductory Course for Freshman Students," Shryock, K., Lagoudas, D.C. and Parish, J., 2011 ASEE Annual Conference & Exposition, Vancouver, BC, Canada, June 26-29, 2011.
279. "Bringing Smart Materials Applications into a Project-Based First-Year Engineering Course," Shryock, K., Lagoudas, D.C., Richard, J.C., Oehler, S. and Das, K., 2011 ASEE Annual Conference & Exposition, Vancouver, BC, Canada, June 26-29, 2011.
280. "Electromagnetic Radiation Through a Tio2 Nanotube Membrane Used as a Thermal Barrier Coating," Das, K., Whitcomb, J. and Lagoudas, D.C., Proceedings of USNCTAM2010, 16th US National Congress of Theoretical and Applied Mechanics, June 27 - July 2, 2010, State College, PA.
281. "Hybrid SMA Composites for Extreme Environments", Lagoudas, D. C., Lester, B. T., and Chemisky, Y. Micromechanics & Modeling of Multifunctional Materials, July 14-15, 2011, Thessaloniki, Greece.
282. "Finite Element Analysis of Stress Inhomogeneities in MSMA Samples Caused by Magnetic Body Forces and Couples," Haldar, K., Kiefer, B and Lagoudas, D.C., 3rd International Conference on Ferromagnetic Shape Memory Alloys, Dresden, July 18-22, 2011.
283. "Finite Element Modeling of Hybrid SMA Composites", Lester, B. T., Chemisky, Y., Geltmacher, A. B., Qidwai, S. M., Everett, R. K., and Lagoudas, D. C., US National Congress on Computational Mechanics, July 25-28,2011, Minneapolis, MN.
284. "Effect of Ni3Ti Precipitate Orientation on Actuation Fatigue of Ni-Rich NiTi Shape Memory Alloys," Calhoun, C. A., Lagoudas, D.C. and Hartl, D.J., SMASIS, Scottsdale, AZ., September 18-21, 2011.
285. "Design Optimization of an SMA-Actuated Morphing Aerostructure," Oehler, S., Hartl, D.J., Lagoudas, D.C. and Malak, R., SMASIS, Scottsdale, AZ, September 18-21, 2011.
286. "Three-Dimensional Numerical Implementation of a Thermoelastic, Finite Deformation Constitutive Model for Shape Memory Polymers," Volk, B.L., Lagoudas, D.C. and Maitland, D.J., SMASIS, Scottsdale, AZ, September 18-21, 2011.
287. "On the Path-Dependency of the J-Integral in a Pseudoelastic Shape Memory Alloy," Baxevanis, T., Chemisky, Y. and Lagoudas, D.C., SMASIS, Scottsdale, AZ, September 18-21, 2011.
288. "Development of Frameworks for Comparing Shape Memory Alloy Models: Macro-scale Phenomenological Continuum Models," Chemisky, Y., Hartl, D.J., Lagoudas, D.C.,
289. "Virtual Processing of Hybrid Shape Memory Alloy Composites," Lester, B.T., Chemisky, Y., Lagoudas, D.C., Geltmacher, A.B., Everett, R.K. and Qidwai, S.M., SMASIS, Scottsdale, AZ, September 18-21, 2011.
290. "Characterizing and modeling the free recovery and constrained recovery behavior of a polyurethane shape memory polymer," Volk, B.L., Lagoudas, D.C. and Maitland, D.J., SMASIS, Scottsdale, AZ, September 18-21, 2011.
291. "Mechanical Fields near a Static Crack in a Shape Memory Alloy," Baxevanis, T., Lagoudas, D.C. and Chemisky, Y., SMASIS, Scottsdale, AZ, September 18-21, 2011.
292. "Recent Advances in the Modeling, Analysis, and Characterization of SMA-Based Structures," Hartl, D.J. and Lagoudas, D.C., ICAST 2011, 22nd Int. Conference on Adaptive Structures Technologies, keynote address, Corfu, Greece, October 8-12, 2011.
293. "Recent Advances in the Analysis, Design, and Optimization of SMA-Based Aerostructures," Hartl, D.J. and Lagoudas, D.C., COBEM 2011 21st International Congress of Mechanical Engineering, Natal, Brazil, October 24-28, 2011.
294. "Challenges in computational fracture mechanics of Shape Memory Alloys," Baxevanis, T. and Lagoudas, D.C., KAUST, Jeddah, Saudi Arabia, May 5 – 8, 2012.
295. "Mechanical Characterization of Sn and Shape Memory Alloy in Tl Nanowires as Part of an Undergraduate Research Experience," Peraza Hernandez, E.A., Das, K. and Lagoudas, D.C., 119th ASEE Annual Conference and Exposition, San Antonio, TX, June 10-13, 2012.

296. "Integrating Aerospace Research Materials into a Project-Based First-Year Engineering Design Course," Richard, J., Shryock, K. and Lagoudas, D.C., 119th ASEE Annual Conference and Exposition, San Antonio, TX, June 10-13, 2012.

IV.2 Reviews

IV.2.1 Journal Paper Reviews

Acta Materialia
Acta Mechanica
AIAA Journals
Archive of Applied Mechanics
ASCE Journal of Engineering Mechanics
ASME Journal of Applied Mechanics
ASME Journal of Engineering Materials and Technology
Composites Part B
Composites Engineering
Computational Materials Science
Composites Science & Technology
Denistry
European Journal of Mechanics
European Journal of Mechanics – A/Solids
Experimental Mechanics
International Journal of Damage Mechanics
International Journal of Engineering Science
International Journal of Fracture
International Journal of Mechanical Sciences
International Journal of Nonlinear Mechanics
International Journal of Plasticity
International Journal of Solids and Structures
Journal of Composite Materials
Journal of Computer Methods in Applied Mechanics
Journal of Intelligent Material Systems and Structures
Journals of Materials Science
Journal of Mechanical Behavior of Biomedical Materials
Journal of the Mechanics and Physics of Solids
Journal of Nanomaterials
Journal of Smart Structures and Systems
Journal of Vibration and Control
Mathematics and Mechanics of Solids
Mechanics of Materials
Mechanics of Composite Materials and Structures
Metallurgical & Materials Transactions A
Optics Communications
Sensors and Actuators A
Smart Materials and Structures
Structural Engineering & Mechanics

IV.2.2 Book Reviews

1. W. Szczepinski and J. Szlagowski, Plastic Design of Complex Shape Structures, Ellis Horwood, Chichester UK (distributed in USA by Prentice Hall, Englewood Cliffs NJ), 1990, 277 , ISBN 0-13677-113-0, Al. Mech. Rev. Vol. 44, 1991, p. B152.
2. R.M. Bowen, Introduction to Continuum Mechanics for Engineers, Plenum, New York, 1989, 261 , ISBN 0-306-43050-9, Al. Mech. Rev. Vol. 44, 1991, p. B161.
3. M.M. Schwartz, Composite Materials Handbook, 2nd ed., McGraw-Hill, New York, 1992, 750 , ISBN 0-07-055819-1, Al. Mech. Rev. Vol. 45, 1992 p. B121.
4. Z. Xu, Applied Elasticity, Wiley, New York, 1992, 373 , ISBN 0-470-21868-1, Al. Mech. Rev. Vol. 46, 1993, p. B124.
5. R.L. Sierakowski and G.M. Newaz, Damage Tolerance in Advanced Composites, Technomic, Lancaster, PA, 1995, 154 , ISBN 1-56676-261-8.
6. D.A. Hills, P.A. Kelly, D.N. Dai, A.M. Korsunsky, Solution of Crack Problems: The Distributed Dislocation Technique, Kluwer, Netherlands, 1996, 297 , ISBN 0-7923-3848-0.
7. Haddad, Wave Propagation Methods for the Evaluation of Engineering Materials, Cambridge University Press.
8. Jeulin, D., Morphological Models of Random Structures, Cambridge University Press.

IV.2.4 Panel and Program Reviews

1. Workshop on New Ideas for Smart Materials and Structures, Alexandria, VA, January 22, 1999.
2. DARPA Workshop on Biologically Inspired Aroaches for Micro Air Vehicles, April 21-22, 1999.
3. DARPA Technology Interchange Meeting, Hampton, VA, June 17-18, 1999.
4. NSF Materials Engineering IIA Proposal Panel Review, July 16, 1999.
5. DARPA Workshop on Exoskeletons for Human Performance Augmentation (EHPA) Workshop, Herndon, VA, March 1-3, 2000.
6. DARPA Smart Structures Technology Interchange Meeting (With Wright Patterson) AFB Dayton, Ohio October 4th, 2001.
7. AFSOR Contractor's Meeting, Washington, D.C., October 18th-20th, 2001.
8. The National Academies, Review of ONR's Air and Surface Weapons Technology Program, Washington, DC, May 13-16, 2002. The National Academies, Review of NASA's Pioneering Revolutionary Technology Programs, Mountain View, CA, June 10-12, 2002.
9. DARPA Smart Structures/CHAP/SBIR, etc., Program Review, Buffalo, NY, June 17-18, 2002.
10. Wright Patterson Air Force Base, Dayton, OH, June 18-20, 2002.
11. Office of Science Meeting with University Vice President and Provosts, Oak Ridge, TN August 13-14, 2002.
12. Boeing Visit, Seattle, WA, August 15-16, 2002.
13. NASA Langley site visit, Hampton, VA, August 19-20, 2002.
14. AFOSR Contractors Meeting, Arlington, VA, September 25-27, 2002.
15. TiiMS Seminar and Workshop, Houston, TX, October 30, 2002.
16. Lockheed Martin Trip, Fort Worth, TX, January 9, 2003.
17. Committee Report on the 2002 Assessment of the Office of Naval Research's Air and Surface Weapons Technology Program, May 2003.
18. DARPA Nastic Structures Workshop, Arlington, VA, July 1, 2003.
19. THECB Aroval for Materials Science and Engineering, Austin, TX July 17, 2003.
20. TiiMS Annual Review, Hampton News, VA, August 19-21, 2003.
21. AFOSR Contractors Meeting, Santa Fe, NM, September 8-11, 2003.
22. ARO Workshop on Future Directions in Solid Mechanics, Arlington, VA, September 16-17, 2003.
23. National Center for Advance Materials (NCAM) Contractors Meeting, Huntsville AL, October 28-30, 2003.
24. DARPA/CHAP, Program Review, Arlington, VA, November 18, 2003.
25. NSF Departmental-Level Panel A, April 8-9, 2004.
26. TiiMS Annual Review, Houston, TX, July 28-31, 2004.
27. URETI Program Review, College Park, MD, October 13-15, 2004.
28. Co-Chair, NASA-Nano Panel-Nanotechnology Capability Roadmap, Pasadena, CA, December 14-17, 2004.
29. Co-Chair, NASA-Nano Panel-Nanotechnology Capability Roadmap, Pasadena, CA, February 1-2, 2005.
30. TiiMS Midyear Review, Hampton News, VA, February 7-8, 2005.
31. TiiMS Annual Review, College Station, TX, August 2-3, 2005.
32. AFRL/Clarkson Review, Dayton, OH, October 4-6, 2005.

33. URETI NSF Workshop, Arlington, VA, December 14-15, 2005.
34. AFRL Review, College Station, TX, January 18-19, 2006.
35. TiiMS Midyear Review, Hampton, VA, April 25-26, 2006.
36. AFRL Review, Dayton, OH, September 19-21, 2006.
37. AFRL Winter Review, Fort Walton, FL, March 5-8, 2007.
38. Greece Leadership Program, Athens, Thessaloniki, Greece, May 21-31, 2007.
39. AFOSR Contractor's Meeting, Arlington, VA, July 15-17, 2007.
40. NASA LaRC Review, Hampton, VA, July 19-20, 2007.
41. TiiMS Annual Review, College Station, TX, Aug. 6, 2007.
42. NSF/SNL Research Program Grantee Workshop, Albuquerque, NM, Oct. 25-26, 2007.
43. NSF CAREER Panel, Arlington, VA, Oct. 28-29, 2007.
44. AFOSR Workshop, Boston, MA, Nov. 29-30, 2007.
45. NSF CMMI Grantees Conference, Knoxville, TN, Jan. 7-19, 2008.
46. NSF Computational Panel, Arlington, VA, Jan. 28, 2008.
47. NRA Subsonic Fixed Wing Annual Review, Cleveland, OH Oct. 20-21, 2009.
48. Smart Vehicle Center Annual Review, College Station, TX, February 23-23, 2010.
49. AFOSR Structural Mechanics Annual Review, Destin, FL., August 17-18, 2010.
50. NSF Synthesis, Characterization and Prognostic Modeling of Functionally Graded Hybrid Composites for Extreme Environments (MURI) Annual Review, Dayton, OH., September 22-24, 2010.
51. NSF IMI Director's Meeting, Davis, CA., October 15, 2010.
52. Smart Vehicle Center Annual Review, College Station, TX, February 15-16, 2011.
53. NRL Program Review, Washington, D.C., June 20-21, 2011.
54. Smart Vehicle Center Annual Review, Dayton, OH, August 9, 2011.
55. NSF Career Panel Review, Arlington, VA, August 30, 2011.
56. University of Florida Gainesville, Review Panel, December 5, 2011
57. NSF Panel Review, Arlington, VA, February 9, 2012.
58. James Clark School of Engineering External Review, College Park, MD., March 26-30, 2012.

IV.3 Consulting

1. Defense Science Study Group, sponsored by the Institute for Defense Analysis, 1998 – 99
2. Robins, Kaplan, Miller and Ciresi, L.L.P., August 2000 - 07
3. Medtronic AVE – 2001-11
4. Institute of Defense Analysis – DARPA – 2001
5. Dechert, LLP, September 2007-10