

DARRELL W. PEPPER

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Las Vegas, NV 89120

HOME:(702)-896-9046; - 9828 (fax)
UNLV:(702)-895-1056

PERSONAL:

Birthday: 5/14/46
Citizenship: USA

Health: Excellent
Dependents: 1 child

Marital Status: Married
Past Clearance: Q, Secret DOD

EDUCATION:

1973: Univ. of Mo.-Rolla, Rolla, Mo.-Ph.D., Mechanical Engineering
1970: Univ. of Mo.-Rolla, Rolla, Mo.-M.S., Aerospace Engineering
1968: Univ. of Mo.-Rolla, Rolla, Mo.-B.S., Mechanical Engineering

BUSINESS EXPERIENCE:

ACADEMIC:

2/02 - present: **Interim Dean**, College of Engineering, University of Nevada Las Vegas, NV

Dean and principal officer of the College of Engineering; administer academic and research activities of faculty and staff within all departments; raise funds for the college and new Science and Engineering Building (\$75M); hire faculty for various research programs including tenure-track positions within the college; develop new research thrusts and focus areas

6/96 – 2/02: **Professor and Chairman of Mechanical Engineering**, University of Nevada Las Vegas, NV

Coordinate and administer activities of faculty and staff within the department; interact with all undergraduate and graduate students within the department, assist in advising, solicit jobs for graduates and job searches, and seek outside funding for the department; teach undergraduate and graduate courses in theoretical and numerical methods for fluid dynamics; conduct research in computational fluid flow and environmental transport phenomena; advisor to MS and PhD students

1/96 - present: **Director, Nevada Center for Advanced Computational Methods**, University of Nevada Las Vegas, NV

Conduct research on development and application of numerical methods for engineering and scientific problems; coordinate activities of multi-disciplinary team of faculty members from Departments of Computational Science, Mathematics, and Civil and Environmental Engineering; annual funding is approximately \$800K

1998 – 2002: **Director of Engineering, High-Pressure Science and Engineering Center**, University of Nevada Las Vegas, NV

Director of engineering for projects related to stockpile stewardship and high-pressure studies involving materials, hypersonic fluid-structural interactions, and pulse power; the high-pressure center is a multidisciplinary group consisting of engineering and science faculty and students; the center was established in 1998 and funded primarily by DOE; annual budget for the center is approximately \$2.5M

8/92 - 6/96: **Associate Professor of Mechanical Engineering (tenure track)**, University of Nevada Las Vegas, NV

Member of Mechanical Engineering faculty; teach undergraduate and graduate courses in theoretical and numerical methods for fluid dynamics, heat transfer, and environmental engineering; conduct research in compressible/incompressible fluid flow and environmental transport phenomena; advisor to undergraduate, MS, and PhD students

8/93 – 6/96: **Associate Director, CMEST**, University of Nevada Las Vegas, NV

Conduct research in indoor air quality, internal airflows and room ventilation, and HVAC; coordinate activities of CMEST in absence of Director

1/90 - 8/92: **Professor of Mechanical Engineering (non-tenure position)**, California State University - Northridge (CSUN), Northridge, CA

Member of Mechanical Engineering faculty; teach undergraduate and graduate courses in theoretical and numerical methods for fluid dynamics, heat transfer, and numerical methods in engineering; instigated formation of Computational Institute and acquisition of Alliant FX/1 and FX/8 mini-supercomputers, Silicon Graphics workstations, and Intel 32-node parallel computer; taught graduate course in Computational Fluid Dynamics at China Lake Naval Weapons Center; advised 10 MS students

9/88 - 12/89: **Lecturer and Member of Mechanical Engineering Faculty (part-time)**, California State University - Northridge (CSUN), Northridge, CA

Member of Mechanical Engineering staff (part-time); taught undergraduate and graduate courses in theoretical and numerical methods for fluid dynamics and heat transfer

2/83-6/84: **Adjunct Professor**, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA

Supervised thesis work of graduate student at work site; advised graduate student on application of finite element methods for fluid flow and use of laser doppler anemometry

1/76-5/80: **Instructor/Lecturer and Member of Engineering Faculty (part time)**, Engineering

Department, University of South Carolina - Aiken, Aiken, SC

Taught undergraduate engineering courses (evening), counseled students, and developed curriculum courses for all engineering departments

12/73-9/74: **Postdoctoral/Teaching Fellow**, Department of Mechanical and Aerospace Engineering/Graduate Center for Cloud Physics Research, University of Mo. - Rolla, Rolla, Mo.

Conducted research pertaining to turbulent flow, fog formation, atmospheric dispersion, droplet dynamics, and wake flows; taught thermodynamics

INDUSTRY:

12/88-12/95: **Co-founder and Chief Executive Officer**, Advanced Projects Research, Inc., Moorpark, CA

Co-founder and CEO of small research and development company; responsible for development and implementation of computer codes for solving fluid dynamics, heat transfer, propulsion, and environmental problems; developed a set of fast hybrid finite element codes for calculating supersonic and hypersonic flows; prepare proposals and advise management on contracts with commercial clients and governmental agencies; approximately \$1.2 M annual funding

6/87-6/90: **Chief Scientist**, The Marquardt Company, Van Nuys, CA

Member of the Executive Staff and Chief Scientist of the company; directed efforts of various teams of engineers and scientists involved with development and implementation of theoretical and computational techniques, computational fluid dynamics, and structural analyses for company related projects; responsible for acquisition of state-of-the-art scientific computer hardware and software within Marquardt; principal scientist responsible for computational and technical efforts associated with the National Aerospace Plane Program (NASP)

9/84-6/87: **Research Staff Engineer, Computational Sciences**, E. I. DuPont de Nemours, Savannah River Laboratory, Aiken, SC

Chief engineer responsible for development of multidimensional models in fluid dynamics, heat transfer, and species transport; developed 3-D high order numerical methods for turbulent flows, wakes, melts, dispersion, groundwater flows, and convection; developed unique 3-D stereographic algorithms to visualize fluid flow processes for 35mm slides and movies

9/83-9/84: **Coordinator, Long Range Planning**, E. I. DuPont de Nemours, Savannah River Plant (SRP), Aiken, SC

Directed activities of staff to develop long range planning scenarios for plant operations of SRP (annual budget ~ \$1.5 M); implemented and utilized project management concepts and interacted daily with highest-level management

9/81-9/83: **Research Supervisor, Heat Transfer and Hydrodynamics**, E. I. DuPont de Nemours, Savannah River Laboratory (SRL), Aiken, SC

Supervised staff of professional engineers, scientists, and technicians (annual budget ~ \$4,000,000); directed activities in experimental and theoretical fluid dynamics and heat transfer; instigated research programs to improve state-of-the-art modeling for recirculating flows; applied use of laser doppler anemometry to measure flows in annular geometries; developed concept of time-split finite element methodology

9/80-9/81: **Director, Professional and University Relations**, E. I. DuPont de Nemours, Savannah River Laboratory, Aiken, SC

Directed activities of professional recruiting staff (annual budget ~\$500,000); hired professional employees and interacted with major university engineering departments; responsible for intercompany transfers to Savannah River site, hiring experienced personnel, and outplacement cases; obtained a \$110,000 grant from DOE to hire summer faculty and students

9/78-9/80: **Research Supervisor, Atmospheric Sciences**, E. I. DuPont de Nemours, Savannah River Laboratory, Aiken, SC

Supervised staff of professional engineers, scientists, and technicians (annual budget ~ \$3,000,000); directed research programs in environmental modeling, measurement, and emergency response computational methods; developed computer models for atmospheric dispersion, lake, and stream flows; organized and directed model validation workshop involving 9 national laboratories; calculated radioactive dispersion for DOE during Three Mile Island incident

8/74-9/78: **Research Engineer, Environmental Transport**, E. I. DuPont de Nemours, Savannah River Laboratory, Aiken, SC

Staff Engineer responsible for development of multidimensional numerical and analytical models to solve engineering and environmental problems; developed 3-D finite element, pseudospectral, method of moments, and finite difference techniques; conducted experiments with hot-wire and laser anemometry methods

MILITARY:

1968: Commissioned 2nd Lt. US Army (Corp. of Engineers)

1968 – 1973: 1st Lt. (attended graduate school; stationed at Aberdeen Proving Grounds, MD)

1974 – 1976: Captain, US Army Reserves

OTHER EXPERIENCE:

2002 – present: Member of the Board of Mistral, Inc.

2002 – present: Member Civilian Council of Military Engineers
2002 – present: Member Nevada Technology Council
2000 – present: Member (Founding Member) Nevada Aviation and Aerospace Foundation
2000 – 2001: Member, 40th Astronaut Reunion Task Force
1999 - 2001: Member, VentureStar Task Force for State of Nevada
1999 – present: Member (Founding Member) Int. Society Computational Eng. and Sci.
1997 - 2000: Member, DOE Community Advisory Board for Nevada Test Site
1994 - present: ABET Reviewer for Mechanical Engineering
1993 – 1994: Member, ASME Task Force to investigate NASP at the request of US Congress
1990 - 1997: Associate Editor of the AIAA J. Thermophysics and Heat Transfer
1986 - present: Member of the Editorial Board of J. Numerical Heat Transfer
1977-1982: Member of the NRC Assessment Team for Plutonium Fuel Fabrication Facilities
1966-1968: Managing Editor of University of Mo. - Rolla newspaper

PUBLICATIONS:

Over 170 technical papers; five books (published by McGraw-Hill, Taylor & Francis, WIT Press)
- see attached publications list

HONORS AND AWARDS:

2002: American Men and Women of Science, 21st Ed., 2002
1999: Tau Beta Pi Distinguished Researcher
1997- Certificate of Appreciation, Heat Transfer Division, ASME K-20 Committee
1996: Barrick Distinguished Scholar Award (UNLV university award - \$5000)
1996: College of Engineering Distinguished Scholar Award (UNLV COE award - \$1000)
1996: American Western Universities Fellowship (\$8000)
1996: Outstanding Faculty Member, Regents of UCCSN
1995: American Western Universities Fellowship (\$7500)
1994: Certificate of Appreciation, Heat Transfer Division, ASME
1993-present: Who's Who in Engineering
1993: Nominated for Discovery Award for Environmental Software
1986: Special Incentive Award for Outstanding Performance from E. I. DuPont de Nemours
1980-present: Who's Who in the South and Southwest
1979-present: Who's Who in Technology
1975: Outstanding Young Men of America
1969-1973: National Science Foundation Fellowship
1968: First Honors Award
1967: Pi Tau Sigma

ORGANIZATIONS:

Fellow of ASME
Associate Fellow AIAA
Member Sigma Xi

Member ASEE
Member USACM
Member SIAM

Community: Board of Directors - United Way, Aiken County; Community Playhouse

THESIS TITLES:

Ph.D: Numerical Simulation of Heat, Mass, and Momentum Transfer in an Atmospheric Boundary Layer, 1973

MSAE: Turbulence Structure in the Wake of a Sphere, 1970

RESEARCH INTERESTS:

Computational fluid dynamics and numerical heat transfer, hybrid finite element and high order numerical techniques, parallel processing, compressible flow simulation, 3-D atmospheric and environmental modeling, groundwater flow

RESEARCH GRANTS:

2001-2002: \$1,400,000 – various sources include CCHD, DOE, NOAA, DOD, EPSCoR.

2000: \$150,000 – EPA (Vision 2020) for development of a long-term comprehensive plan for remote sensing and display of environmental data for the Las Vegas Valley.

2000: \$64,000 (1 yr) - Clark County Health District – Air Quality Division, to develop an air quality data acquisition and monitoring system.

2000: \$50,320 (6 mo) – State of Nevada – Department of Transportation, to develop web page design with monitoring data display for road weather information system (RWIS) in Northern Nevada.

2000: \$186,849 (3 yrs) – DOE EPSCoR, for development of an electrohydrodynamic model for Z-pinch compression in a plasma using adaptive numerical methods

2000: \$200,000 (2 yrs) - Department of Energy - Nevada Operations Office, Yucca Mountain Repository, for Task #19, Thermal Transport Evaluations Related to Waste Package Design

2000: \$250,000 - Sustainable Energy Resource Alliance (one of three clusters) – DOE EPSCoR

2000: \$83,000 – NASA PreEPSCoR for development of an aerospace engineering program at the University of Nevada Las Vegas

2000: \$28,875 - University and Community College System of Nevada Space Grant Consortium (NASA) - (UNLV engineering portion)

1999: \$60,000 - DOE on modeling groundwater flow and species transport using adaptive finite elements – continued from 1998

1999: \$33,000 – EPA (EMPACT) for development of web-based visualization and computer codes to simulate wind fields and dispersion patterns over the Las Vegas Valley

1999: \$23,000 – Clark County Health District for development of a web-based graphical system for displaying air pollution patterns in Las Vegas

1999: \$49,997 – NOAA CIASTA for development of a 3-D, h-adapting finite element model for simulating wind fields and dispersion over complex terrain typical of the western US

1999: \$121,000 – EPA EPSCoR (co-PI) for simulating groundwater transport and subsurface dispersion of perchlorate in the Las Vegas wash

1999: \$60,000 - DOE on modeling tritium from underground test shots at the Nevada Test Site using adaptive finite element model – continued funding from 1998

1999: \$100,000 – DOE (SBSS) for development of a compressible flow model for light gas guns using adaptive numerical methods – continued funding from 1998

1998: \$100,000 – DOE (SBSS) for development of a compressible flow model for light gas guns using adaptive numerical methods

1998: \$49,993 – NOAA (CIASTA) for development of a 3-D atmospheric model for complex terrain using adaptive finite elements

1998: \$60,000 - DOE on modeling tritium from underground test shots at the Nevada Test Site using adaptive finite element model

1998: \$59,993 - DOE on modeling groundwater flow and species transport using adaptive finite elements

1998: \$10,000 - NSF to hold conference on environmental modeling (plus \$500 from SGI-Cray)

1997: \$10,000 - NSF to hold workshop on High-performance computing for convective heat transfer (plus \$1000 from INEL and \$1000 from SGI-Cray)

1997: \$59,993 - DOE on modeling atmospheric resuspension of particulates using adaptive finite elements

1996: \$10,000 - NSF for travel to International Conference on Computational Heat Transfer in

Cesme, Turkey (member of International Scientific Committee and Organizing Committee)

1996: \$15,000 - Air Resources Laboratory, NOAA, on modeling atmospheric flow using adaptive finite elements

1995: \$67,920 (with L. Gewali) - DOE on adaptive mesh generation for unstructured meshes

1995: \$19,000 - Cray Research, Inc. for modeling three-dimensional atmospheric flow using adapting finite elements

1995: \$150,000 (w/co-PIs) - NASA EPSCoR for modeling and developing pultrusion process

1994: \$49,972 - DOE on modeling atmospheric resuspension of particulates using adaptive finite elements

1994-1995: \$34,385 - Cray Research, Inc. on modeling groundwater flow using 3-D adaptive finite elements

1994: \$3,961 - NSF EPSCoR on modeling environmental transport with boundary elements

1993: \$150,000 - NRC for adapting finite element model for groundwater flow in unsaturated porous media running under WINDOWS

1992: \$50,000 - Savannah River Site on adapting finite element model for groundwater modeling

1992: \$34,385 - Cray Research, Inc. on modeling using 2-D adaptive finite elements

1992: \$49,998 - NRC for adapting finite element model for groundwater flow in unsaturated porous media

1992: \$79,500 - Savannah River Site on 3-D grid generation of K-reactor plenum and reactor vessel

1990: \$8,000 - Orlando Technology for 2-D compressible flow model

1990-1991: \$57,000 - US Army (White Sands) for 3-D dispersion model

1990-1992: \$300,000 - SDIO for 3-D plume signature (with colleague)

1990-1992: \$500,000 - NASA for scramaccelerator (with colleague)

1989-1990: \$50,000 - USAF Space Division for 3-D wind field model

1989-1989: \$50,000 - USAF for ram accelerator (with colleague)

1988-1989: \$50,000 - NASA for ram accelerator (with colleague)

1985: \$16,800 - Rockwell Rocky Flats for particulate modeling

1981: \$1,500 - DOE for 3-D dispersion modeling

1980: \$550,000 - DOE for model development and validation workshop

1980: \$3,000 - Rockwell International for 3-D dispersion modeling

1979: \$510,000 - DOE for 3-D dispersion modeling and validation

1978-1980: \$75,000 - NRC for severe storm effects on nuclear facilities; developed unique 3-D model using subgrid scale numerical method

THESES SUPERVISED:

CSUN:

"Grid Generation Using Boundary Fitted Coordinates," MS Thesis, D. Hollert, Jan. 1991

"Adaptive Quadrilateral Finite-Element Scheme," MS Thesis, K. Burton, May 1991

"Three-Dimensional Laminar Convective Flow over a Heated Block," MS Thesis, M. Mora-Carli, Dec. 1991

"Active Surface Cooling in Supersonic Aerodynamics," MS Thesis, R. Choate, Dec. 1991

"Numerical Modeling of Lubrication in a Complex Slider Bearing," MS Thesis, R. Hecht, Dec. 1991

"Structural Dynamics of Sea Floor Anchors," MS Thesis, L. Hoge, May 1992

UNLV:

"Finite Elements with h-Adaptation for Momentum, Heat, and Mass Transport with Applications to Environmental Flow," Ph.D. Thesis, UNLV, D. Carrington, March 2000

"GWADAPT: An Adaptive Finite Element Algorithm for Groundwater Contaminant Transport Problems," MS Thesis, B. Dunlap, Oct. 1994

"A 3-D h-Adapting Finite Element Method for Species Transport Prediction," MS Thesis, D.

Carrington, Dec. 1995

"A 3-Dimensional Finite Element Method for Groundwater Flow and Contaminant Transport," MS Thesis, H. Sethi, Dec. 1995

"A 3-Dimensional Finite Element Model for Diagnostic Windfield Assessment," MS Thesis, Z. Shi, Nov. 1996

"Thermal Stress Analysis of Thermally Sprayed Coatings on a Spent Nuclear Fuel Waste Package," MS Thesis, M. J. Plinski, Nov. 1997

"A 3-D h-Adapting Finite Element Method for Variably Saturated Flow in Porous Media," MS Thesis, Lan Li, May 1999

"Analysis and Fabrication of a Large Rotating Disk," MS Thesis, T. Mitchell, June 1999

"A JAVA-based Adapting Finite Element Model for Convective Heat Transfer," MS Thesis, T. Wilcox, Sept. 2000

"A JAVA-based Penalty FEM Model for Fluid Flow", MS Thesis, Vedula Gautam, Sept. 2002

in progress:

"A h-Adaptive Finite Element Model for 3-D Compressible Flows," Ph.D. Thesis, T. Debues

"An h-p Atmospheric Model for Wind Field Assessment," Ph.D. Thesis, Xiuling Wang

"A 2-D h-Adapting Finite Element Model for Turbulent Convective Flow," MS Thesis, S. Ciesla

"A Locally Adapting Finite Element Model for Laminar and Turbulent Flow", MS Thesis, Roald Akberov

"A C++, h-adaptive FEM Model for Mesh Generation and Heat Transfer", MS thesis, Penio Penev

COURSES TAUGHT:

Introduction to Computers in Engineering (U)

Thermodynamics (U)

Statics and Dynamics (U)

Introduction to Fluid Mechanics (U)

Heat Transfer (U)

Fluid Dynamics (U and G)

Intermediate Fluid Dynamics (U and G)

Advanced Fluid Dynamics (G)
Theoretical Fluid Dynamics (G)
Aerodynamics (U and G)
Computational Fluid Dynamics (G)
Numerical Methods in Engineering (U and G)
Finite Element Method for Mechanical Engineers (G)
Senior Design (U)

SERVICE:

Reviewer for:

AIAA Journal
AIAA Journal of Thermophysics and Heat Transfer
Journal of Numerical Heat Transfer
Int. Journal of Heat Mass Transfer
ASME Journal of Heat Transfer
ASME Journal of Fluids Engineering
Journal of Fluid Mechanics
Int. Journal of Numerical Methods in Fluids
Journal of Computational Physics
Atmospheric Environment
Journal of Applied Meteorology
Journal of Atmospheric Science
Environmental Modelling and Assessment
Int. Journal of Numerical Methods in Engineering
National Science Foundation Proposals
Center for Indoor Air Research
AIAA/ASME Technical Meetings

National/International Committee Memberships:

ASME Membership Recognition and Honors Committee (8/97-8/00)
ASME K-20 Computational Heat Transfer (**Founder and Chairman** 8/94-8/97)
ASME K-12 Aerospace Heat Transfer (**Chairman** 8/92-8/94)
ASME General Papers (7/90-8/93)
ASME Atmospheric Turbulence and Diffusion (1/88-1/90)
AIAA Thermophysics Technical Committee (6/94-6/97)
NCM Computational Heat Transfer
International Center for Heat Transfer - Scientific Committee

Government:

ASME Task Force on NASP (5-member team chosen at the request of US House of Rep.)

DOE Subcommittee on Fluid, Thermal, and Chemical Engineering
DOE Community Advisory Board for the Nevada Test Site
Session Chairman/Co-chairman at Technical Meetings:

“FEM, BEM, and Meshless Techniques,” 2001 AMS Regional Meeting, Las Vegas
“Benchmark Problem” ICHMT 2nd Int. Symp. Comp. Adv. Heat Transfer, Palm Cove, AU, 2001
“Finite Element, Boundary Element, and Meshless Methods,” 2000 ASME IMECE, Orlando, FL
Betech 99, Conference Co-Director, Las Vegas, NV
Envirosoft 98, Conference Co-Director, Las Vegas, NV
“Natural Convection,” 1997 ICHTM CHT Conference, Cesme, Turkey
“Hypersonic Flow,” 1997 AIAA Aerospace Sciences Meeting, Reno, NV
“Benchmark,” 1996 IMECE ASME, Atlanta, GA
“Fluid-Thermal-Structural Interaction,” 1996 IMECE ASME, Atlanta, GA
“Numerical Heat Transfer,” 1996 AIAA Thermophysics Conference, New Orleans, LA
“Numerical Heat Transfer,” 1996 AIAA Aerospace Sciences Meeting, Reno, NV
“Computational Heat Transfer,” 1995 USACM, Dallas, TX
“Computational Heat Transfer,” 1995 30th AIAA Thermophysics Conference
“Numerical Heat Transfer,” 1993 USACM, Washington, DC
“Numerical Heat Transfer on PCs/Workstations,” 1991 ASME WAM, Atlanta, GA
“Mixed Convection,” 1991 ASME NHTC, Minneapolis, MN
“Forced Convection Heat Transfer,” 1991 JSME/ASME, Reno, NV
“Simulation and Numerical Heat Transfer,” 1990 ASME WAM, Dallas, TX
“Heat Transfer in Space and Astr. Systems,” 1990 ASME THTC, Seattle, WA
“High Energy High Flux Applications,” 1989 ASME WAM, San Francisco, CA
“Heat Transfer in Turbulent Flow,” 1989 ASME NHTC, Philadelphia, PA
“Numerical Heat Transfer with PCs,” 1989 ASME NHTC, Philadelphia, PA
“Supercomputing in Heat Transfer,” 1989 ASME NHTC, Philadelphia, PA
“Heat Transfer in High Speed Flows,” 1988 ASME WAM, Chicago, IL
“3-D Fluid Flow with Heat Transfer,” 1988 ASME WAM, Chicago, IL
“Forced Convection Heat Transfer,” 1988 ASME WAM, Chicago, IL
“Mixed Convection Heat Transfer,” 1988 ASME NHTC, Houston, TX
“Heat Transfer in Turbulent Flows,” 1986 ASME WAM, Anaheim, CA
“Heat Transfer in Recirculating Flows,” 1986 ASME THTC, Boston, MA

University/Department:

Former Chairman, Search Committee (2) for Associate Provost for Research (UNLV)
Former Member, Search Committee (1) for Associate Vice President for Research (UNLV)
Former Member, Honors Peer Review Committee (UNLV)
Former Member, Technology Mission and Goals Writing Group (UNLV)
Former Member, University Fellowships and Grants Committee (UNLV)
Former Member, University Sculpture Committee (UNLV)
Assoc. Director Ventilation and Acoustic Systems Technology Laboratory (UNLV)
Former Chairman, College of Engineering Computing Committee (UNLV)

Member, NASA Space Grant Committee (UNLV)
Former Member, Search Committee for Chaired Professorship in Computer Science (UNLV)
Founder of the Computational Institute (CSUN)
Former Member, Committee for Computing Resources (CSUN)
Former Program Coordinator for Engineering (USC-A)
Former ASME Faculty Advisor for Student ASME Chapter (CSUN)

Invited Lectures:

Zagazig University, Zagazig, Egypt
Air Resources Laboratory, NOAA
Duke University
University of Florida
Ohio State University
University of Minnesota
University of Missouri - Rolla
University of Arizona
University of California - Berkeley
Florida State University - Pensacola
Georgia Institute of Technology
University of Kentucky
University of Tennessee - Knoxville
University of Louisville
Randolph-Macon College
Columbia College
Augusta College
Oxford University, Oxford, England
Clemson University
Wake Forest University
Washington and Lee/Virginia Military Institute
Citadel
Clarkson University
Texas Tech University
North Carolina State University
Memphis State University
University of South Carolina - Columbia
University of South Carolina - Aiken
University of Nevada, Las Vegas
Memphis State University
Rocketdyne
E. I. DuPont de Nemours - Wilmington HQ
McDonnell-Douglas
Westinghouse
Los Alamos National Laboratory

Lawrence Livermore National Laboratory
Pacific Northwest Laboratories
Argonne National Laboratory
Sandia National Laboratory
NOAA Atmospheric Turbulence and Diffusion Laboratory
EG & G - Idaho Falls (2)
Southwest Research Institute
China Lake Naval Weapons Center
Vandenberg Air Force Base
Air Force Space Sciences Division - Los Angeles
Edwards Air Force Base
Marquardt Company
Presentation to the Scientific Advisory Board of the Air Force
Presentation to President Reagan's Science Advisor - Dr. W. Graham
Alliant Computer Corp.
ENSR/ERT
Intel Corp.
Definicon Corp.
NASA - Ames Research Center
Harwell AEC, England (2 times)
Department of Energy HQ - Germantown, Md
many local groups and clubs (local ASME, ANS, AMS, Rotary, Lions, etc.)

Panel Leader/Participant:

Moderator for ASME Satellite Broadcast on radiation modeling – 2, April 29, 1998
Moderator for ASME Satellite Broadcast on numerical modeling – 1, March 26, 1998
"High Performance Computing," 1998 ASME HTC, Albuquerque, NM
"Commercial Software for Computational Heat Transfer," 1994 ASME WAM, Chicago, IL
"Benchmarks for Heat Transfer Modeling," 1991 ASME WAM, Atlanta, GA
"The Role of Computers in Heat Transfer Education," 1990 ASME WAM, Dallas, TX
"Visualization and Supercomputing," 1990 Supercomputing World Conf., San Diego, CA
"Computational Fluid Dynamics and Heat Transfer," 1989 Defense and Computer Graphics Conf., Anaheim, CA
"Interactive Computational-Experimental Methodologies in Thermosciences Research," 1989 ASME WAM, San Francisco, CA
"Future Directions in Heat Transfer Computation," 1989 ASME NHTC, Philadelphia, PA
"3-D Numerical Modeling of Heat Transfer," 1988 ASME WAM, Chicago, IL
"ICEME," 1986 ASME WAM, Anaheim, CA
"Numerical Modeling of Environmental Flows," 1984 ASME WAM, Atlanta, GA
"Computational Emergency Response System," 1980 National Petroleum Refiners Assoc. Conf., Philadelphia, PA

Consultant:

Advanced Projects Research, Inc.
MasPar Computer Corp.
Applied Graphics Systems, Inc.
American Gas Association Laboratories
E. I. DuPont de Nemours
Westinghouse
Alliant Computer Corp.
Orlando Technology
Gas Research Institute
Titan Corp.
Dept. of Energy
Nuclear Regulatory Commission
Marquardt Company
Rockwell International
Rocky Flats National Laboratory
Argonne National Laboratory
Foster Farms

Outside Professional Activities:

Course Co-leader for AIAA Homestudy Course on Introductory Finite Elements (since 1988)
Course Co-leader for AIAA Homestudy Course on Advanced Finite Elements (since 1993)
ASME Short Course Co-Leader - Introduction to the Finite Element Method (since 1991)
ASME Short Course Co-Leader - Advanced Finite Elements (since 1996)