

John W. Rudnicki

Curriculum Vitae

Date and Place of Birth: August 12, 1951, Huntington, West Virginia

Employment: September, 1981 – present, Northwestern University, Evanston, IL;
August, 1978 – August 1981, University of Illinois at Urbana-Champaign; February,
1977 – July, 1978, California Institute of Technology

Positions: September 1991 – present, Professor of Mechanical Engineering; September 1990 – present, Professor of Theoretical and Applied Mechanics and Civil and Environmental Engineering; September, 1981 – August, 1990, Associate Professor of Theoretical and Applied Mechanics and Civil Engineering; August 1978 – August 1981, Assistant Professor of Theoretical and Applied Mechanics, (University of Illinois at Urbana-Champaign); February 1977 – July 1978, Research Fellow and Instructor in Geophysics (California Institute of Technology)

Education: Brown University, 1969 – 1977; Sc.B. (Engineering Mechanics), June 1973; Sc.M. (Solid Mechanics), June 1974; Ph.D. (Solid Mechanics), January 1977.

Professional Activities:

Societies: American Geophysical Union, 1975; American Association for the Advancement of Science, 1975; American Society of Civil Engineers, 2006; American Society of Mechanical Engineers, 1987; Seismological Society of America, 1978; Sigma Xi, 1975

Editorial: Advisory Board, *Mechanics of Cohesive-Frictional Material and Structures, An International Journal on Experiments, Modeling and Computation*, 1995-(Incorporated into *International Journal for Numerical and Analytical Methods in Geomechanics*, January, 2001); Contributing Editor in Geophysics, *Mechanics*, 1982 – 1989; Associate Editor, *Journal of Geophysical Research*, 1986-1988; Associate Editor, *Journal of Applied Mechanics*, 1988-1994; Guest Editor, *International Journal of Solids and Structures*, Special volume honoring John Dundurs, 1994; Co-editor (with T.-J. Chuang) *Multiscale Fracture and Deformation in Materials and Structures, The James R. Rice 60th Anniversary Volume*, Kluwer Academic Publishers, Dordrecht, The Netherlands, April, 2000.

Committees and Panels: External Advisory Board, Southern California Earthquake Center (SCEC), Member 2005; IUTAM Working Party 8, Geophysical and Environmental Mechanics, Member, 2004-; Poroelasticity Committee, American Society of Civil Engineers, 2003 - ;N. S. F. Review Panel on San Andreas Continental Fault Zone Drilling Project, May 28-29, 1999; U. S. Dept. of Energy, Office of Energy Sciences, Geosciences Council, 1997- present (Chairman 2008 -); NAS/NRC U. S. National Committee on Rock Mechanics, 1995-1999; NAS/NRC Advisory Panel for AFOSR Research Proposals in Mechanics (Vice Chairman), 1996;

ASME/AMD Committee on Geomechanics, 1982 -present (Chairman, 1985-88); U.S. Geological Survey Peer Review Panel for National Earthquake Hazards Reduction Program 1986-1989; N.S.F. Panel for Review of Science and Technology Center Proposals in Earth Sciences, 1988; U.S. National Committee on Rock Mechanics, Subpanel on Awards, 1988-1991; Seismological Society of America, Nominating Committee for Board of Directors, 1990; Department of Energy External Review Panel for J. S. Szymanski Report, "Conceptual Considerations of the Yucca Mountain Groundwater System with Special Emphasis on the Adequacy of this System to Accommodate a High-Level Waste Repository" 1990-91.;

Scientific Committees: 4th Biot Conference on Poromechanics, Columbia University, June 8-10, 2009; GeoProc 2008, 3rd International Conference on Coupled T-H-M-C Processes in Geosystems: Fundamentals, Modeling, Experiments & Applications, June 2-6, Lille, France; 3rd Biot Conference on Poromechanics, June 24 - 27, 2004, Norman, Oklahoma; 2nd Biot Conference on Poromechanics, Aug. 26-28, 2002, Grenoble, France; International Workshop on Bifurcation and Instabilities, June 2-5, 2002, University of Minnesota; Biot Conference on Porous Mechanics, Sept. 14-16, 1998, Louvain-la-Neuve, Belgium; International Committee, Seventh Conference of the International Association for Computer Methods and Advances in Geomechanics, 1991

Awards: Brown Engineering Alumni Medal, June, 2008.; Fellow, American Society of Mechanical Engineers, 2008; Maurice A. Biot Medal 2006 from Engineering Mechanics Division of the American Society of Civil Engineers for "For his fundamental contributions to the mechanics of porous media and its applications to rock mechanics and geophysics." . Southwest Mechanics Lecturer, March, 1996; Award for Outstanding Research in Rock Mechanics (June 1977) from the U.S. National Committee on Rock Mechanics, for the paper "Conditions for the localization of deformation in pressure-sensitive dilatant materials" (with J.R. Rice), *J. Mech. Phys. Solids*, 23, 371-394, 1975.

Short Appointments and selected lectures: Participant, Program on Granular Physics, Kavli Institute for Theoretical Physics, Santa Barbara, Ca April 5 – 15, 2005. Invited participant, Program on Granular and Particle Laden Flows, Isaac Newton Institute for Mathematical Sciences, Cambridge, England, September, 2003; invited lecturer Vening Meinesz Research School of Geodynamics, TU Delft, The Netherlands, February 2003; Lecturer, Deformation in the Earth's Continental Crust: Theory, Experiment and Modeling, Advanced Course, International Centre for Mechanical Sciences, CISM, June 17 - 21, 2002, Udine, Italy; Invited Lecture, Gordon Conference on Rock Deformation, Deformation Mechanism and Mode of Failure Transitions in Rocks, May 19-24, 2002, Il Ciocco, Italy;. Visiting Professor, École Normale Supérieure, Paris, April, 2001; Geophysicist, Office of Earthquake Studies, U. S. Geological Survey, June, 1979;

Consulting: Los Alamos Scientific Laboratory, March 17-18, 1981; Amoco Oil Company, September 25-28, 1983; Sandia National Laboratory, 1982-1992; Science Applications International Corporation, 1990-91; Amoco Netherlands, Sept. - December, 1994; 1996; Snap-On Tools, Kenosha, WI, April, 1996; Advantek International, February, 2002; Exxon-Mobil, 2007.

Courses Taught:

Graduate: Theoretical Geophysics (Caltech), Wave Motion in Continuous Media (Univ. of Illinois), Fracture Mechanics, Theory of Elasticity, Continuum Mechanics, Plasticity, Dynamics of Structures, Mechanics of Earthquakes, Inelastic Behavior of Solids.

Undergraduate: Mechanics of Materials, Mechanics (Statics and Dynamics), Continuum Mechanics, Engineering Analysis - 2, Mechanics of Sports.

June, 2009