

SHELLEY KENNER

Curriculum Vita

Department of Geological Sciences
University of Kentucky
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EDUCATION

Stanford University, Stanford, California

Ph.D., Geophysics w/ Ph.D. Minor in Mechanical Engineering, September 2000
M.S., Geophysics, Stanford University, September 1998

Case Western Reserve University, Cleveland, Ohio (CWRU)

M.S., Mechanical Engineering, (4.00/4.00), August 1994
B.S., *Summa Cum Laude*, Mechanical Engineering, May 1993

RESEARCH INTERESTS

- Large scale, long-term evolution of plate boundary regions
- Time dependent deformation during earthquake cycles
- Stress and strain interactions between faults in complex, multiple fault systems
- Mechanisms of intraplate earthquake generation
- Mechanisms of postseismic and interseismic stress concentration along active faults
- The application of solid mechanics and finite element modeling techniques to crustal deformation studies

RESEARCH EXPERIENCE

- 2000-Present *Assistant Professor, Department of Geological Sciences, University of Kentucky (leave of absence 2000-2001)*
- Sources and mechanics of stress accumulation along faults in different tectonic environments
 - Factors controlling deformation rates and seismicity within zones of relative weakness located within different tectonic regimes
 - Time dependent post-rifting deformation in Iceland
- 2000-2001 *Postdoctoral Scholar, Seismological Laboratory, California Institute of Technology*
Supervisor: Mark Simons
- Optimization of inversions for viscosity using synthetic geodetic data of different temporal and spatial scales
 - Analytical models of temporal clustering of large earthquake along single fault segments due to postseismic relaxation processes
- 1994-2000 *Doctoral Studies, Department of Geophysics, Stanford University*
Primary Advisor: Paul Segall, Crustal Deformation and Fault Mechanics Group
Dissertation Title: Time Dependent Viscoelastic Deformation During the Earthquake Cycle
- Finite element modeling of the mechanics of stress transfer in northern California
 - Analysis and modeling of viscoelastic postseismic processes and subsequent deformation along strike-slip faults as a function of the structure of the lower crust
 - Re-evaluation of post-1906 triangulation data in Northern California, combination with modern geodetic data
 - Analysis and modeling of postseismic deformation following the 1906 San Francisco earthquake
 - Possible models of intraplate earthquakes
- 1993-94 *Master's Studies, Department of Mechanical & Aerospace Engineering, CWRU*
Thesis Title: A Numerical Solution of a Viscous Model For Zones of Continental Collision
- Viscous finite difference modeling of continental collision zones with specific application to the Indian-Eurasian collisional zone
- 1991-93 *Summer Research Intern, General Motors Tech Center, Sheet Metal Forming Dept., Warren MI*
- Experimental determination of friction coefficients during stretch and draw forming of steel and aluminum
 - Finite element modeling of springback in formed sheet metal parts

- Finite element modeling of die deformation and fatigue during forming operations

TEACHING EXPERIENCE

Department of Geological Sciences, University of Kentucky (Professor)

- GLY 110, Endangered Planet: Introduction to Environmental Geology (3 credit hours): Fall 2002
- GLY 311, Analytical Methods in the Geosciences (1 credit hours): Spring 2003
- GLY 150, Earthquakes and Volcanoes (3 credit hours): Spring 2003, Spring 2005
- GLY 560, Geophysical Field Methods (4 credit hours): Spring 2003 (team taught with Dr. E. Woolery)
- GLY 625, Special Topics in Geophysics: Behavior of Earth Materials (3 credit hours): Spring 2002, Fall 2003
- ME 780, Special Topics in Mechanical Engineering (Independent Study): Fall 2003 (supervised 1 student)
- Attended: Teaching Enhancement Seminar Series, Quick Starter Program for New Faculty at the UK, sponsored by the Teaching and Learning Center, University of Kentucky, Fall 2001

Seismological Laboratory, California Institute of Technology (Post-Doctoral Scholar)

- Short Course for M. Simons Research Group: Time Dependent Postseismic Processes: Building Intuition (1.5 hours), May 2001
- Short Course for M. Simons Research Group: Generating Finite Element Models with the ABAQUS Finite Element Program (3 hours), January 2001

Department of Geophysics, Stanford University (Teaching Assistant)

- GP 288, Crustal Deformation (3 credit hours): Winter 1998
- GP 4, Natural Hazards and Man (3 credit hours): Fall 1997

Educational Support Services, CWRU (Individual Tutor)

- Tutoring in Dynamics, Fluid Mechanics, Strength of Materials, Mechanics - Statics, Kinematics, Fortran, and Numerical Methods, 1991-1994

ADVISING EXPERIENCE

Primary Advising

Doctoral Dissertations

- None

Master's Theses

- Abhishek Joshi (co-adviser with Dr. K. Rouch), Department of Mechanical Engineering, University of Kentucky, January 2003 – April 2005 (degree received Spring 2005)
- Lokranjith Ravi (co-adviser with Dr. K. Rouch), Department of Mechanical Engineering University of Kentucky, January 2003 – January 2005 (degree received Spring 2005)
- Tanmay Singhal (co-adviser with Dr. J. Leifer), Department of Mechanical Engineering University of Kentucky, February 2004 - present

Undergraduate

- Freshman/Sophomore Advisor, Undergraduate Advising Center, Stanford University, 1998-2000

Other

- None

Thesis Committees

Doctoral Dissertations

- None

Master's Theses

- Abhishek Joshi, Department of Mechanical Engineering, University of Kentucky, January 2003 - April, 2005
- Lokranjith Ravi, Department of Mechanical Engineering University of Kentucky, January 2003 - January 2005
- Ravi Kanda, Department of Geological Sciences, University of Kentucky, Fall 2001 – Spring 2003
- Jeffery Crevier, Department of Geological Sciences, University of Kentucky, Spring 2002

PUBLICATIONS, ABSTRACTS, AND PRESENTATIONS

Publications

- Kenner, S.J., and M. Simons, Postseismic Reloading: Postseismic Reloading: A Source for Temporal Clustering of Large Earthquakes Along Individual Fault Segments, in press (expected January 2005), *Geophysical Journal International*, November 2004.
- Kenner, S.J., Lower Crustal Controls of Postseismic Reloading Rates in the San Francisco Bay Area Following the 1906 San Francisco Earthquake, *Geophysical Research Letters*, v. 31, L01606, doi:10.1029/2003GL018903, January 2004. The article was selected by the editors to be highlighted in EOS, a weekly publication for members of the American Geophysical Union. The article was also selected to provide the cover art for the volume in which it appeared.
- Kenner, S.J., and P. Segall, Lower Crustal Structure in Northern California: Implications From Strain Rate Variations Following the 1906 San Francisco Earthquake, *Journal of Geophysical Research*, v. 108, 2011, doi: 10.1029/2001JB000189, January 2003.
- Kenner, S.J., and P. Segall, A Mechanical Model for Intraplate Earthquakes: Application to the New Madrid Seismic Zone, *Science*, v. 289, p. 2329-2332, September 2000.
- Atkinson *et al.*, Reassessing the New Madrid Seismic Zone, *Eos*, v. 31, pp. 397, 402-03, August 2000.
- Kenner, S.J., *Mechanical Modeling of Time Dependent Deformation in the Lower Crust and its Effect on Earthquake Recurrence*, Ph.D. Dissertation, Stanford University, July 2000.
- Kenner, S.J., and P. Segall, Postseismic Deformation Following the 1906 San Francisco Earthquake, *Journal of Geophysical Research*, v. 105, p. 13,195-13,209, June 2000.
- Kenner, S.J., and P. Segall, Time Dependence of the Stress Shadowing Effect and Its Relation to the Structure of the Lower Crust, *Geology*, v. 27, p. 119-122, February 1999.
- Cervelli, P., S. J. Kenner, and P. Segall, Correction to 'Dislocations in Inhomogeneous Media Via a Moduli Perturbation Approach: General Formulation and Two-dimensional Solutions by Du, Y., P. Segall, and H. Gao', *Journal of Geophysical Research*, v. 104, p. 23,271-23,277, October 1999.

Workshop and Conference Presentations (presenter underlined)

- Kenner, S.J., and A. Joshi, Use of Geological Data to Investigate the Rheology, Geometry, and Temporal Evolution of Faulting in the New Madrid Seismic Zone, EOS Transactions American Geophysical Union, v. 86, Joint Assembly Supplemental, Abstract # G24A-04, May 2005, INVITED
- Ravi, L.K. and S.J. Kenner, Cycle-Up of Multiple Rifting Event Models: How Long Does it Take to Reach A Steady State Stress?, EOS Transactions American Geophysical Union, v. 84, Fall Meeting Supplemental, Abstract # G21A-0122, December 2004.
- Joshi, A. and S.J. Kenner, Localized Weak Zone and Their Role in Generation of Intraplate Seismicity: Effects of Weak Zone Geometry and Rheology, EOS Transactions American Geophysical Union, v. 84, Fall Meeting Supplemental, Abstract #T11C-1267, December 2004.
- DiCaprio, C.J., M. Simons, S.J. Kenner, and C.A. Williams, Temporal Clustering of Earthquakes due to Stress Transfer in Viscoelastic Layers, EOS Transactions American Geophysical Union, v. 84, Fall Meeting Supplemental, Abstract #G13A-0784, December 2004.
- Joshi, A., and S.J. Kenner, Localized Weak Zones and Their Role in the Generation of Intraplate Seismic Zones: Effects of Weak Zone Geometry and Rheology, EOS Transactions American Geophysical Union, v. 84, Fall Meeting Supplemental, Abstract #S52F-0183, December 2003.
- Kenner, S.J., Effects of Driving Stress and Rheology on the Temporal and Spatial Distribution of Faulting Within Intraplate Seismic Zones, EOS Transactions American Geophysical Union, v. 84, Fall Meeting Supplemental, Abstract #T21B-04, December 2003.

- Kenner, S.J., Understanding the Sources of Stress Which Load Faults in Low Strain-Rate Tectonic Regimes, Indo-US Workshop on Seismicity and Geodynamics, Sponsored by the the Indo-U.S. Forum for Science and Technology, National Geophysical Research Institute, Hyderabad, India, October, 2003.
- Kenner, S.J., APMODEL: A Pre- and Post-Processor for Simple Finite Element Fault Models Using MATLAB, Southern California Earthquake Center Annual Meeting, Oxnard, California, September 2003.
- Hoang, D., T. Becker, S.J. Kenner, and Y. Fialko, Finite Element and Boundary Element Benchmarks for Coseismic and Postseismic Deformation, Southern California Earthquake Center Annual Meeting, Oxnard, California, September 2003.
- Kenner, S.J., and Y. Fialko, Summary of Progress on the Fault Modeling Benchmarks, Workshop on Community Finite Element Models for Fault Systems and Tectonics Studies, Los Alamos National Laboratory, August 2003.
- Kenner, S.J., and M. Simons, Clustering of Major Earthquakes on Individual Faults: Characterization Via A Single Non-Dimensional Parameter, EOS Transactions American Geophysical Union, v. 83, Fall Meeting Supplemental, Abstract #S61E-12, December 2002.
- Kenner, S.J., Why Do We Have Earthquakes in the Central U.S.?, Workshop on the NEHRP Seismic Hazard and Design Maps For the Central U.S., Lexington, Kentucky, November 2002, INVITED.
- Kenner, S.J. and M. Simons, Temporal Clustering of Major Earthquakes on Individual Fault Segments Via Postseismic Reloading: A Possible Explanation For Non-Uniform Repeat Times in Paleoseismic Data, Geological Society of America Annual Meeting, Paper #8-18, October 2002.
- Kenner, S.J., Localized Intraplate Weak Zones: Sources of Stress and the Spatial Distribution of Seismic Slip, Geological Society of America Annual Meeting, Paper #30-3, October 2002, INVITED.
- Kenner, S.J., The ABAQUS Finite Element Code, Southern California Earthquake Center Workshop on Software for Modeling Crustal Deformation, California Institute of Technology, June 2002, INVITED.
- Wang, Z., E.W. Woolery, and S.J. Kenner, Recent Studies on the New Madrid Seismic Zone and Their Implications for Seismic Hazard Assessment, Annual Meeting of the Seismological Society of America, *Seismo. Res. Lett.*, v. 73, p. 245, April 2002.
- Kenner, S.J., Fault Loading and Earthquake Occurrence Within Localized Zones of Relative Weakness, North-Central & Southeastern Section of the Geological Society of America – Joint Annual Meeting, Paper #21-3, Lexington, Kentucky, April 2002, INVITED.
- Kenner, S.J., How Faults are Loaded: The Influence of Tectonic Environment, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 82, p. F942, December 2001, INVITED.
- Kenner, S.J., and M. Simons, Postseismic Reloading: A Mechanism for Temporal Clustering of Major Earthquakes on Individual Faults, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 82, p. F1195, December 2001.
- Simons, M., E-S Choi, and S.J. Kenner (not included on original abstract), Inelastic Behavior of the Lithosphere as Inferred From InSAR Observations, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 82, p. F1224, December 2001, INVITED.
- Kenner, S.J., and P. Segall, Estimating Stress Accumulation Rates Along Major Faults: Inferences From Studies of Postseismic Deformation Following the 1906 San Francisco Earthquake, EarthScope Workshop: Making and Breaking a Continent, Snowbird, Utah, October 2001.
- Kenner, S.J., and P. Segall, Viscoelastic Deformation and Modeling of Post-1906 Stress Perturbations, Bay Area Stress Shadow Workshop, Working Group on Northern California Earthquake Probabilities, University of California, Berkeley, June 2001, INVITED.
- Kenner, S.J., P. Segall, and M. Simons, The Importance of Tectonically Reasonable Models for Interpreting Geodetic Data, Workshop on the GPS Rate Dilemma: How to Use GPS Information for Seismic Hazard Mapping In the U.S., University of Utah, March 2001, INVITED.

Kenner, S.J., and P. Segall, The Mechanics of Stress Transfer Above Localized Intraplate Lower Crustal Weak Zones, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 81, p. F1175, December 2000.

Kenner, S.J., and P. Segall, A Model for Intraplate Earthquake Generation: Application to the New Madrid Seismic Zone, U.S.A., American Geophysical Union Spring Meeting, EOS Spring Meeting Supplemental, v. 81, p. S310, June 2000, INVITED.

Kenner, S.J., and P. Segall, An Alternative Mechanism for the Generation and Localization of Seismicity in Intraplate Environments, American Geophysical Union Spring Meeting, EOS Spring Meeting Supplemental, v. 81, p. S412, June 2000, INVITED.

Kenner, S.J., and P. Segall, A model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, New Madrid Seismic Source Workshop, Center for Earthquake Research and Information, University of Memphis, January 2000.

Kenner, S.J., and P. Segall, Lower Crustal Structure in Northern California: Implication of Strain-Rate Variations Following the 1906 San Francisco Earthquake, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 80, p. F701, December 1999.

Kenner, S.J., and P. Segall, Time Varying Velocities Following the 1906 San Francisco Earthquake: The Role of Postseismic Relaxation Processes in the Lower Crust, American Geophysical Union Spring Meeting, EOS Spring Meeting Supplemental, v. 80, p. S325-S326, June 1999.

Schmidt, D.A., R. Bürgmann, and S.J. Kenner, Induced Left-Lateral Creep on the Hayward Fault Following the 1906 San Francisco Earthquake, American Geophysical Union Spring Meeting, EOS Spring Meeting Supplemental, v. 80, p. S324, June 1999.

Kenner, S.J., and P. Segall, Re-evaluation of Postseismic Deformation at Point Arena, California Following the 1906 San Francisco Earthquake, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 79, p. F601, December 1998.

Kenner, S.J., and P. Segall, Time Dependent Stress Shadowing after 1906-Type Events on the San Andreas Fault, Southern California Earthquake Center Workshop on Earthquake Stress Triggering, Fault Interaction, and Frictional Failure, June 1998.

Kenner, S.J., and P. Segall, The Time Dependence of the Stress Shadowing Effect, American Geophysical Union Fall Meeting, EOS Fall Meeting Supplemental, v. 78, p. F703, December 1997.

Kenner, S.J., and F.E. McCaughan, A Numerical Solution of a Viscous Model for Continental Collision, NASA Graduate Student Researchers Program, 1994 & 1995 Annual Symposia, May 1994 & May 1995.

Invited Seminars

Kenner, S.J., and M. Simons, Temporal Clustering of Major Earthquakes on Individual Faults: The Role of Postseismic Stress Transfer in Low Strain-Rate Environments, Center for Earthquake Research and Information, University of Memphis, September 2003.

Kenner, S.J., How Faults are Loaded: The Influence of Tectonic Environment, Department of Geological Sciences Seminar, University of Kentucky, September 2002.

Kenner, S.J., and P. Segall, A Mechanism for the Generation and Localization of Seismicity in Intraplate Environments, Department of Geological Sciences Seminar, Virginia Tech, October, 2001.

Kenner, S.J., and P. Segall, Postseismic Processes and Their Effect on Deformation Rates Following the 1906 San Francisco Earthquake, Geophysics Brown Bag Seminar, Seismological Laboratory, California Institute of Technology, May, 2001.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., IGP, Paris, France, April, 2000.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., CNRS: Observatoire Midi-Pyrenees, Toulouse, France, April, 2000.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., Geology and Geophysics Department Seminar, University of California, Berkeley, Seismological Laboratory, April, 2000.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., University of Kentucky, Department of Geological Sciences, March, 2000.

Kenner, S.J., and P. Segall, Time-Dependent Deformation Following the 1906 San Francisco Earthquake: The Role of Postseismic Relaxation Processes in the Lower Crust, University of Kentucky, Department of Geological Sciences, March, 2000.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., Purdue University, Department of Earth and Atmospheric Sciences, February, 2000.

Kenner, S.J., and P. Segall, A Model for the Generation of Intraplate Earthquake Sequences: Application to the New Madrid Seismic Zone, U.S.A., Seismo Lab Seminar, Seismological Laboratory, California Institute of Technology, February, 2000.

HONORS AND AWARDS

2000 Shell Fund Award, School of Earth Sciences, Stanford University
1998-99 Anderson and Green fellowships, Department of Geophysics, Stanford University
1996-97 Blaustein, Green, & Haider fellowships, Department of Geophysics, Stanford University
1995 Shell Fund Award, School of Earth Sciences, Stanford University
1993-96 NASA Graduate Student Researchers Program Fellowship
1993 Robert & Leona Garwin Award for theoretical scientific ability with experimental competence, Department of Mechanical and Aerospace Engineering, CWRU
1993 National Science Foundation Graduate Fellowship (declined)
1991 Tau Beta Pi (Engineering Honors Society)
1989-93 Case Alumni Scholarship, CWRU

EXTRAMURAL FUNDING

2004 Agency: Southern California Earthquake Center
Primary Investigators: S.J. Kenner (University of Kentucky)
Title: Modeling Geometrically Complex, Intersecting Faults Using the Finite Element Method
Duration: February, 2004 to January, 2005
Funding Level: \$20,000

2003 Agency: Southern California Earthquake Center
Primary Investigators: S.J. Kenner (University of Kentucky), Y. Fialko (Scripps Institute of Oceanography)
Title: Collaborative Proposal: Finite Element and Boundary Element Community Fault Models for Southern California, and Benchmarks for Coseismic and Postseismic Deformation
Duration: February, 2003 to January, 2004
Funding Level: \$25,000 (\$12,500 to University of Kentucky)

2002 Agency: National Science Foundation
Primary Investigator: S.J. Kenner (University of Kentucky), M. Simons (California Institute of Technology)
Title: Collaborative Research: Interpreting High Resolution Geodetic Data With Viscoelastic Models
Duration: December, 2002 to November, 2006
Funding Level: \$395,856 (\$194,738 to University of Kentucky)

2002 Agency: United States Geological Survey, National Earthquake Hazards Reduction Program
Primary Investigator: S.J. Kenner (University of Kentucky)
Title: Earthquake Generation Within Localized Intraplate Seismic Zones: Sources of Stress and Geometric Considerations
Duration: January, 2003 to December, 2004
Funding Level: \$100,000

2001 Agency: United States Geological Survey, National Earthquake Hazards Reduction Program
Primary Investigators: S.J. Kenner (University of Kentucky), P. Segall & M.D. Zoback (Stanford University)
Title: Fault Loading Processes in the New Madrid Seismic Zone: A Collaborative Proposal with Stanford University

Duration: January, 2001 to March, 2005
Funding Level: \$120,000 (\$14,415 to University of Kentucky)

PROFESSIONAL AND ACADEMIC SERVICE

- 2003 Chairperson, Benchmark Committee, Working Group on Community Finite Element Models for Fault Systems and Tectonics Studies (working group organized by M. Simons and B. Hager)
- 2002-2005 Working Group on Community Finite Element Models for Fault Systems and Tectonics Studies (working group organized by M. Simons and B. Hager)
- May 2003 Presentation on earthquakes and volcanoes at Herriman Elementary School, four 5th grade class (3.0 hrs), Herriman, Utah
- October 2001 Presentation on earthquakes and volcanoes at Herriman Elementary School, four 5th grade class (2.75 hrs), five 3rd grade classes (2 x 0.75 hrs), Herriman, Utah
- March 2001 Presentation on earthquakes and volcanoes at Herriman Elementary School, one 5th grade class (2.5 hrs), Herriman, Utah

OTHER PROFESSIONAL ACTIVITIES

Manuscript Reviews

- November 2003 Reviewed book proposal: Volcanoes and Earthquakes, by Weaver and Ahren
- August 2003 Reviewed *Earth and Planetary Science Letters* manuscript 0363
- June 2003 Reviewed *Seismological Research Letters* manuscript
- March 2003 Reviewed 3 chapters of draft of Understanding Earthquakes, by Charles Ammon
- November 2002 Reviewed *Geophysical Research Letters* manuscript 202GL016447
- June 2002 Reviewed (+ re-reviewed) *Geophysical Journal International* manuscript GC086
- March 2002 Reviewed (+ re-reviewed) *Geophysical Journal International* manuscript GC029
- October 2001 Reviewed *Journal of Geophysical Research Solid Earth* manuscript 2001JB001051
- July/Aug. 2001 Published book review of Introduction to the Physics of the Earth's Interior (2cnd Ed.), by Jean-Paul Poirier, *Seismological Research Letters*, v. 72, p. 481, 2001.
- March 2001 Internal USGS Review of *Geotimes*, Seismology Year in Review – 2000, by Sue Hough
- January 2001 Reviewed *Seismological Society of America Bulletin* manuscript 2000277
- June 1998 Reviewed *Journal of Geophysical Research Solid Earth* manuscript JB98-0210

Grant Proposal Reviews

- September 2003 Reviewed NSF EarthScope Program proposal

Letters of Recommendation

- January 2003 Graduate School recommendations for Ravi Kanda, Department of Geological Sciences, University of Kentucky (now in Ph.D. program and the California Institute of Technology)
- February 2004 Academic Scholarship (College of Arts and Sciences) recommendations for Steven Reynolds, undergraduate, University of Kentucky

Conference Session Convener

- 2004 *Postseismic Deformation: New Observations, Models, and Syntheses I*
PR: E Calais, Purdue University; R Burgmann, University of California, Berkeley; E Hearn, Department of Earth and Ocean Sciences, University of British Columbia; S Kenner, Department of Geological Sciences, University of Kentucky, American Geophysical Union Fall Meeting, San Francisco, 2004

University Committees

- 2002-03 Personnel and Budget Committee, Department of Geological Sciences, University of Kentucky
- 2001-05 Graduate Studies Committee, Department of Geological Sciences, University of Kentucky
- 2001-03 Undergraduate Studies Committee, Department of Geological Sciences, University of Kentucky (volunteer 2001-02)
- 2001-03 Admissions and Placement Committee, Department of Geological Sciences, University of Kentucky
- 2001-03 Grievance Committee, Department of Geological Sciences, University of Kentucky

OTHER SCHOLARLY WRITING

New Course Proposals

- Analytical Methods in the Geosciences, Spring 2002: Designed to assist undergraduate geology students taking calculus. Under the supervision of the instructor, small groups solve geological problems using calculus concepts that are simultaneously being taught in their calculus class.
- Earthquakes and Volcanoes, Spring 2002: Introductory class for non-majors
- Geophysical Field Methods, Spring 2002

Miscellaneous

- Working Group on Community Finite Element Models for Fault Systems and Tectonics Studies Benchmark Descriptions (with B. Hager), Fall 2003
- Memo on Future Departmental Computer Needs, Fall 2002
- Comments on the USGS National Seismic Hazard Maps 5 yr Plan (w/ Wang, Woolery, Kenner, and Shi), Spring 2002

PROFESSIONAL AFFILIATIONS

American Geophysical Union
American Society of Mechanical Engineers
Seismological Society of America
Geological Society of America
Tau Beta Pi

COLLABORATORS

Roland Bürgmann (Department of Earth and Planetary Science, University of California, Berkeley)
Yuri Fialko (Institute of Geophysics and Planetary Physics, Scripps Institute of Oceanography, University of California, San Diego)
Vineet Gahalaut (National Geophysical Research Institute, Hyderabad, India)
Brad Hager (Department of Earth, Atmospheric, and Planetary Sciences, Massachusetts Institute of Technology)
Mike Kalinski (Department of Civil Engineering, University of Kentucky)
Jack Leifer (Department of Mechanical Engineering, University of Kentucky)
Mark Murray (Department of Earth and Planetary Science, University of California, Berkeley)
Keith Rouch (Department of Mechanical Engineering, University of Kentucky)
Paul Segall (Department of Geophysics, Stanford University)
Baoping Shi (Kentucky Geological Survey)
Mark Simons (Seismological Laboratory, California Institute of Technology)
Zhenming Wang (Kentucky Geological Survey)
Edward W. Woolery (Department of Geological Sciences, University of Kentucky)