CURRICULUM VITAE

Luc Louis Lavier, Ph.D.

University of Texas at Austin
Institute for Geophysics
Austin, TX 78759

Schools and Degrees

1999	Ph. D. in Earth & Environmental Sciences, Columbia University, Graduate School of Arts and Sciences.
1997	M. Phil. in Earth & Environmental Sciences, Columbia University, Graduate School of Arts and Sciences.
1991	D.E.A Tectonics & Geophysics (M. Sc. equivalent),Université de Montpellier, France.
1990	Maîtrise & License in Theoretical Physics, Université de Besançon, France. Solid State Physics and Non Linear Optics.

Awards

Jackson School of Geosciences, Jackson Research Excellence Fellow Award,
Fall 2007- Summer 2009, University of Texas Institute for Geophysics.

California Institute of Technology, Postdoctoral Fellowship in Tectonics,
Spring 2001- Fall 2002, Division Geological and Planetary Sciences.

GeoForschungsZentrum Potsdam Postdoctoral Fellowship,
Spring 1999 - Spring 2001,GeoForschungsZentrum Potsdam, Germany.

Columbia University Faculty Fellowship,
Fall 1994 - Spring 1999, Columbia University, Dept. of Earth & Environmental Sciences.

Foreign Research Program (Volontaire Service National Scientifique),
Fall 1991 - Spring 1994, French Foreign Ministry.

Research Experience

University of Texas Austin, Jackson School of Geosciences, Institute for Geophysics, Starting August 2003, Associate Research Scientist.

Modeling of the dynamics of plate boundaries and development of new computational methods.

California Institute of Technology, Starting August 02, Assistant Research Scientist.

Development of a 3D dynamic numerical model to study the deformation of a viscous elastic plastic lithosphere. Modeling of the dynamics of plate boundaries. Study of the tectonic evolution of plate boundaries. Use of geodetic and long-term geological data (tectonic evolution, thermal history, PT-t paths) to constrain the models of plate boundary deformation.

California Institute of Technology, Spring 01 - August 02, Post-doct in Tectonics.

Modeling of the dynamics of plate boundaries with emphasis on the parametrization of localizing and delocalizing physical phenomena. Study of the tectonic evolution of the Basin and Range province, the Gulf of California and the McQuarrie Ridge in New Zealand. Development of a 2.5D numerical model to study the deformation of a viscous elastic plastic lithosphere at plate boundaries.

GeoForschungZentrum Potsdam, Spring 99 - Spring 01, Post-doctoral fellow.

Modeling of strain partitioning and faulting in continental rifting, transition from core complex to wide rift and narrow rift. Study and modeling of the tectonic and thermal evolution of the North German Basin. Modeling of strain partitioning at pure strike-slip plate boundaries. Modeling of heat transfer and deformation in the central Andean plateau.

Lamont-Doherty Earth Observatory, Spring 97 - Spring 99, Graduate Research Assistant.

Research advisor: W. R. Buck (Senior research scientist).

Modeling of strain partitioning and faulting during extension. Study of the factors controlling normal fault offset in a brittle layer.

Lamont-Doherty Earth Observatory, Fall 94 - Spring 97, Graduate Research Assistant.

Research advisor: M. S. Steckler (Senior research scientist).

Development of a methodology to study the tectonic, sedimentary and thermal evolution of the West African margin. The study included the development of a rheological model of the continental lithosphere to constrain the isostatic response of the lithosphere to loads; further study of the impact of tectonics and climate change on the morphology of Cenozoic

passive continental margins.

Lamont-Doherty Earth Observatory, Fall 91 - Spring 94**,** Research Assistant.

Research advisor: M. S. Steckler (Senior research scientist).

Study of the thermal evolution of the Angolan margin. Development of a methodology to study relations between tectonic subsidence and thermal state of the lithosphere. The work included participation in the modeling of the hydrocarbon maturation in prospects of the west African margin.

Research Center Elf Exploration Production, Pau, France, Fall 90 - Spring 91,

Undergraduate Research Assistant, employed by Elf Exploration Production. Research advisor: F. Brigaud (Senior research scientist).

Teaching Experience

University of Texas Austin, Jackson School of Geosciences, Institute for Geophysics,

Lecturer Fall 2006: Organization and co-teaching (70%) of Earth Dynamics. The class syllabus included the teaching of the concepts of: (1) stress, strain linked to elastic, viscous, visco-elastic and plastic material constitutive relationships. (2) Plate flexure, heat diffusion and advection, post-glacial rebound, viscous flow in the Earth, Stokes flow, convection. (3) Numerical methods to solve transport and diffusion equations.

Faculty (August 5-12 at Colorado College): A Summer School in Integrated Solid Earth Sciences (ISES) in Rheology of Earth Materials, teaching of Numerical models of deformation: Implications of rheology.

Co-advisor of Lindsay Lowe, Ph. D student (starting Spring 2007).

Advisor of Paresh Patel, Ph. D student (starting Fall 2003).

California Institute of Technology, Advisor of Patricia Persaud, Ph. D student (graduated Fall 2003).

GeoForschungsZentrum Potsdam, Fall 2000,

Advisor of Volker Otto, Ph. D student. Lectures on modeling of lithospheric deformation and the formation shear zones during a short course for the Frei Universität Berlin (in English).

Columbia University, Fall 1997,

Teaching Assistant for Planet Earth (undergraduate class) taught by Professor Roger Anderson. The work consisted in group and individual tutoring during in-class activities (Fundamentals of Earth and Environmental Sciences). Also I prepared and taught several lectures and in-class activities on the topic of oceanic and continental deformation.

Columbia University, Summer 95,

Individual tutoring of a summer intern for a research project: Reconstruction of the tectonic and sedimentary history of the Congo continental margin.

Professional Experience

Research Proposals funded:

Total exploration, France, 2007-2008, principal investigator, The effects of magma transfer and sedimentation on rifting.

National Science Foundation, EAR, Continental Dynamics Program, 2006-2010, co-investigator, Uplift and faulting at the transition from subduction to collision – a field and modeling study of the Calabrian Arc.

National Science Foundation, OCE, ODP Program, 2006-2009, co-investigator, The North West Shelf, Australia: The Next Step in a Global Approach to Understanding the Role of Eustasy in the Generation and Preservation of Stratigraphy.

National Science Foundation, EAR, Tectonics Program, 2005-2007, investigator, Collaborative Research: Constraining Fault Displacement Histories and Lithospheric Dynamics using Geology and Geophysics.

National Science Foundation, EAR, Continental Dynamics Program, 2004-2007, co-investigator, Collaborative Research: Taiwan Integrated Geodynamics Research.

Exxon Mobil Upstream Research Company, 2004-2007, principal investigator, Rheological implications and thermal consequences of extremes extension in the ultra-deepwater continental margins of the south Atlantic basins.

Jackson School of Geosciences, 2005-2006, co-investigator, From Slab to Surface: Imaging Magma Rise and Storage beneath Active Volcanoes.

GXT company, Houston, 2005-2006, co-investigator, Ocean-bottom seismic refraction data offshore Nigeria or Angola.

National Science Foundation, EAR, Geophysics, 2000-2002, co-investigator, Faulting during rifting.

National Science Foundation Workshop convener:

Geodynamic modeling of tectonic processes, June 10-12 2005, Colorado, co-convener.

Temporary Invited professorships:

Invited Professor, University of Lausanne, Switzerland, Department of Petrology, June-July 2007.

Invited Researcher, University Louis Pasteur, Strasbourg, France, Department of Geology, June 2005 and June 2004.

Invited Talks and Lectures:

Solid Earth Geophysics seminar at Princeton University, March 16th 2006.

ISES summer school lecture (August 2006): *Numerical models of deformation: Implications of rheology*.

Earth Science Revolution Workshop Lecture, Dr. Katherine Ellins and Dr. Hilary Olson, November 16th 2006, *How to Break a Continent*.

Fall AGU 2005, San Francisco, T52B-04 INVITED, *A Mechanism for Thinning the Continental Lithosphere at Magma-Poor Margins*. Lavier, L. L. and G., Manatschal.

Department seminar at the University of Arizona, November 10th 2005.

Department seminar at the University of South California, October 7th 2005.

Department seminar at the IPGP Strasbourg, France, June 3rd 2005.

Department seminar at Rice University, April 10th 2005.

National Science Foundation and ODP Workshop Participant:

IODP (International Ocean Drilling Program) workshop, participant, September 15th to 18th 2006, Pontresina, Switzerland, Investigating Continental Break-Up and Sedimentary Basin Formation.

Earthscope GEOTRAVERSE, participant, February 3rd to 5th, 2006, St Louis, MO Conveners: Ben van der Pluijm and Basil Tikoff, Defined GeoEarthScope

Geochronology.

Earthscope GEOTRAVERSE, participant, March 28, 2005, Santa Ana Pueblo, NM Conveners: Ben van der Pluijm and Basil Tikoff, It is an attempt to define a geological oriented approach to Earthscope through the use of transects accross the US continent.

Computational Infrastructure in Geodynamics (CIG), participant, January 16-17 2004, Los Angeles, USA, Defining the structure and the goals of the CIG for the Geodynamics community in the US.

Mid-Atlantic Ridge Workshop (RIDGE 2000), participant, February 29 – March 2 2004, Providence, Rhodes Island, Defining the future focus areas off the mid Atlantic Ridge.

InterMARGINS Workshop (IMEDL 2004), participant, July 11-16 2004, Pontresina, Switzerland, Benchmarking of numerical models for modeling the evolution of continental rifting.

Proposal related Workshops and Other Workshops:

CATSCAN II, Calabria Geodynamics workshop at LDEO, Columbia University, August 26th-31st 2007, Activity Report of the NSF Continental Dynamics funded project CATSCAN II.

TAIGER workshop, Austin, TX, April 3rd-7th 2007, Geodynamics aspects of the NSF funded project TAIGER.

COCA (Climate-Orogenic Coupling in the Andes) workshop, Philadelphia, Geological Society of America annual meeting, October 21st to 23rd, working group for the submitted continental dynamic proposal.

CATSCAN II, Calabria Geodynamics workshop, Cosenza, Italy, September 9th to 14th 2006, Field trip and Geodynamics aspects of the NSF Continental Dynamics funded project CATSCAN II.

TAIGER workshop, Los Angeles, CA, March 28th to April 5th 2006, Geodynamics aspects of the NSF funded project TAIGER.

TAIGER workshop, Taipei October 28th to November 3rd 2005, Continuous development of the NSF funded project TAIGER.

CAT-SCANII workshop, Rome, September 24-27, NSF, EAR Continental Dynamics funded workshop to develop the next phase of the Geodynamics study of Calabria, proposal submitted in November 2005.

Applied Geodynamic Laboratory (AGL) workshop, participant, January 2003, Bureau of Economic Geology (BEG), Jackson School of Geosciences, University of Texas at Austin.

American Geophysical Union, spring meeting, New Orleans 2005:

Convener of session G43B: Regional and Global-scale Plate Kinematics and Dynamics From Geodetic, Geological and Geophysical observation, co-convener: Giovanni Sella, Nothwestern University.

Convener of session T42A: The Ocean-Continent Transition at Rifted Continental Margins: What is it, How is it formed, and How do We Locate it?, co-convener: Ian Norton, Exxon-Mobil.

American Geophysical Union, spring meeting, Boston 1998:

Convener of the session T31: Strain partitioning during continental rifting, co-convener: W.R. Buck.

Reviewer for journals: Geophysical Research Letters, Geology, Terra Nova, Journal of Geophysical Research, Earth and Planetary Science Letters, GSA Bulletin, Tectonics, G-cubed**.**

Doctoral Thesis Defense committee :

Gwenn Péron-Pinvidic, May 4th 2006, Morphotectonique et architecture sédimentaire de la transition ocean-continent de la marge ibérique. Université Louis Pasteur- Strasbourg, France.

Wei Gao, April 12th 2006, Upper mantle structure beneath the Central Rio Grande Rift and beneath Eastern Mexico and their implications, University of Texas at Austin, US.

Professional Affiliations

American Geophysical Union.

European Geophysical Union.

Geological Society of America

Community Service

IODP SSEP meeting in Houston May 2006, Intermittent panel member.

Continental break-up mission (IODP), 2006- , member of the executive writing committee led by John Hopper (TAMU).

Computational Infrastructure in Geodynamics (CIG), 2004- , group leader with Sean Willett for the development of codes for the Geodynamic Modeling of Tectonic deformation.

Representative member of the University of Texas at Austin for the Computational Infrastructure in Geodynamics (CIG, www.geodynamics.org), 2003- , center located at the California Institute of Technology and funded by the National Science Foundation.

Software Development

1997-2007: Active participant in the continuous development of PARAVOZ Software to model the tectonic deformation of the lithosphere in 2D, first developed by Yuri Podlatchikov (ETH, Zurich, Switzerland) and Alexei Poliakov (Center for National Research, Montpellier, France) and based on the FLAC (fast Lagrangian Analysis of Continua) algorithm (Cundal, 1989, University of Minnesota, USA).

2003-2007: Lead co-developer of the software Snac (California Institute of Technology) to model the tectonic deformation of the lithosphere in 3D (www.geoframework.org).

Publications

Papers

O.Muentener and L. L., Lavier, On melt stagnation and mantle exhumation at magma poor margins, in prep, 2007.

Lavier, L., L. and A. Malinverno, Geodynamic modeling of extension in the Tyrrhenian Sea, in prep.

Lavier, L. L. and G. Manatschal, The effect of ductile failure on the style of rifting: A tales of three kinds of rifting, soon to be submitted to Geology 2007.

Van Avendonk, H. J., Lavier, L. L., Shillington, D. J. and G. Manatschal, , Thinning crust of the Eastern Grand Banks, Newfoundland, submitted 2007, Tectonophysics.

Hornbach, M.J., Lavier, L.L., Ruppel, C.D.,, 2007, "Triggering Mechanism and Tsunamogenic Potential of the Cape Fear Slide Complex, U.S. Atlantic Margin," G-cubed, (accepted pending revisions).

Lavier, L. L., and R. Bennett, The tectonics and the strength of the San Andreas fault, G. R. L., to be resubmitted, September 2007.

Choi, E; Lavier, L. L., and M. Gurnis, Thermomechanics of Mid-Ocean Ridge Segmentation, resubmitted to JGR, 2007.

Choi, E., Thoutireddy, P., Lavier, L. L., Quenette, S.; Tan, E.; Gurnis, M., Aivazis, M, Appelbe, B., Coupling models of crustal deformation and mantle convection: An application of GeoFramework, submitted to JGR, 2006.

Steckler, M. S., L. L. Lavier, From Carbonate Ramps to Clastic Progradation: Morphology and Stratigraphy of Continental Margins during Tertiary Global change, to be submitted to Marine Geology, 2007.

Choi, E.; Thoutireddy, P., Lavier, L. L., Quenette, S.; Tan, E.; Gurnis, M., Aivazis, M, Appelbe, B., Coupling models of crustal deformation and mantle convection: An application of GeoFramework, in prep, 2006.

Manatschal G., Muntener, O., L L Lavier, T A Minshull and G Peron-Pinvidic, 2007, Observations from the Alpine Tethys and Iberia Newfoundland margins pertinent to the interpretation of continental breakup, in Imaging Mapping and Modelling Continental Lithosphere Extension and Breakup, Edited by G D Karner, G Manatschal and L M Pinheiro, The Geological Society, GSL Special Publications, 5 July 2007, 488 pages, hardbound, ISBN # 1-86239-228-5.

Lavier, L. L., G. Manatschal, A mechanism to thin the continental lithosphere at magma poor margins , Nature 440, 324-329, 2006.

Buck, W. R., Lavier, L. L. and A. N. B. Poliakov, Modes of Faulting at Mid-Ocean Ridges, Nature, v. 434, p. 719-723, 2005.

Gurnis, M., Lavier, L. L., and C. Hall, Evolving force balance during incipient subduction, Gcubed, published, 2004.

Hall, C. E., M. Gurnis, M. Sdrolias, L. L. Lavier, and R. D. Muller, Catastrophic initiation of subduction following forced convergence at transform boundaries, Earth Planet. Sci. Lett., 212, 15-30, 2003.

Buck, W. R., L. L. Lavier, and A. A. Babeyko, Numerical model of lithospheric extension producing fault-bounded basins and ranges; International Geology Review; vol. 45, no. 8, pp. 712-723, August, 2003.

Lavier, L. L. & Buck, W.R., Half-graben vs. large-offset low-angle normal fault: The importance of keeping cool during normal faulting, JGR, 2002.

A. Yu. Babeyko, S. V. Sobolev, R. B. Trumbull, O.Oncken & L. L. Lavier, Numerical models of crustal scale convection and partial melting beneath the Altiplano-Puna plateau, EPSL, 199, p. 373-388, 2002.

Lavier, L. L., Modellierung der Evolution von Störungssystemen während Rifting-Prozessen, Zweijahrebericht 1998/1999, GeoForschungsZentrum Potsdam, p 296-299, 2001.

W. R. Buck & Lavier, L. L., A Tale of Two Kinds of Normal Fault: The Importance of Strain Weakening in Fault Development, Non-volcanic rifting of continental margins: a comparison of evidence from land and sea, Geological Society Special Publications 187, p. 340-355 2001.

Lavier, L. L., M. S. Steckler & F. Brigaud, Climatic and Tectonic Control on the Cenozoic Evolution of the West African Margin, Marine Geology, v. 178, p. 63-80, 2001.

Lavier, L. L., W. R. Buck & A. B. N. Poliakov, Factors controlling normal fault offset in an ideal brittle layer, v. 105, p 23,431-23,442, 2000.

Lavier, L. L., M.S. Steckler & F. Brigaud, An improved method for reconstruction of the stratigraphy and bathymetry of continental margins: Application to the Cenozoic tectonic and sedimentary history of the Congo margin, v. 84, n. 7, p. 923-939, AAPG, 2000.

Lavier, L. L., W. R. Buck & A. B. N. Poliakov, A self-consistent rolling-hinge model for the evolution of large-offset low-angle normal faults, v. 27, p. 1127-1130, Geology, 1999.

Lavier L. L., Modeling of Lithospheric Deformation: Application to the evolution of rifting and Passive Margins, Ph.D. Thesis, Columbia University, New York, 1999.

W. R. Buck, Lavier, L. L. & A. B. N. Poliakov, How to make a rift wide?, Philosophical transaction of the Royal Society 357, p. 671-690, 1999

Steckler M. S., S. Feinstein, B. P. Khon, L. L. Lavier & M. Eyal, Pattern of mantle thinning from subsidence and heat flow measurements in the Gulf of Suez: Evidence for the rotation of Sinai and along-strike flow from the Red Sea, Tectonics, n. 6, p. 903-920, 1998.

Lavier, L. L. & M. S. Steckler, The Effect of Sedimentary Cover on the Flexural Strength of Continental Lithosphere, Nature, vol. 389, p 476-479, 1997.

Lavier, L. L., M. S. Steckler & F. Brigaud, Thermo-Mechanical Evolution of the Congo-Angolan Margin: Parametrization of Flexural Rigidity of the Continental Margin from Rheologic Models, Internal report, Elf Exploration Production, Pau, France, 1997.

Lavier, L. L., F. Brigaud & M. S. Steckler, Tectonic and Thermal History of the West African Margin in Angola, Internal report, Elf Aquitaine Production, Pau, France, 1993.

Main Abstracts (American Geophysical Union: AGU)

Lavier, L. L., Bennett, R., The Tectonics and the Strength of the San Andreas Fault Fall AGU, San Francisco, 2006.

Patel, P., Lavier, L. L., Grand, S., Speculation on the Initiation of Back-Arc Extension, Fall AGU, San Francisco, 2006.

Van Avendonk, H. J., Lavier, L. L., Shillington, D. J., Seismic structure and geodynamics of the rifted margin of the eastern Grand Banks, Fall AGU, San Francisco, 2006.

Choi, E., Gurnis, M., Lavier, L. L., Factors controlling the variations in the mid-ocean ridge segmentation, Fall AGU, San Francisco, 2006.

Manatschal, G., Lavier, L. L., The Tectonic Evolution of Magma-Poor Rifted Margins, Fall AGU, San Francisco, 2006.

Manatschal, G., Lavier, L. L., Peron-Pinvidic, G., Müntener, O., Crustal Thinning Without Seismic Evidence for Faulting: What Happens in Deep Magma-Poor Margins Prior to Continental Break-up? Fall AGU, San Francisco, 2006.

Lavier, L. L. and G. Manatschal, A Mechanism for Thinning the Continental Lithosphere at Magma-Poor Margins, invited, Abstract, Fall AGU, San Francisco, 2005.

Buck, W. R., Qin, R., Lavier, L. L. and M. D. Behn, Numerical Simulations of Faulting and Magmatism at Ridges Illustrates Conditions for Oceanic Detachment Faults, invited, Abstract, Fall AGU, San Francisco, 2005.

Manatschal, G., Lavier, L. L. and G. Peron-Pinvidic, Mechanisms of Continental Extension at Magma-Poor Rifted Margins: Constraints from the Iberia/Newfoundland and Alpine Tethys Margins, Abstract, Fall AGU, San Francisco, 2005.

Lavier, L. L. and R., Bennett, Constraints on Lithospheric Rheology From Fault Displacement Rate Histories and Numerical Experiments, Abstract, Fall AGU, San Francisco, 2005.

Patel, P. I., Lavier, L. L. and S. Grand, Hydration and Flat-Plate Subduction Stability, Abstract, Fall AGU, San Francisco, 2005.

Lavier, L. L., Manatschal, G., Modeling Polyphase Rifting in Magma Poor Margin, Joint Assembly, New Orleans, 2005.

Lavier, L. L., Bennett, R. A., Anderson, M. L., Matti, J, Powell, R. E., Constraints on Lithospheric Rheology From Fault Displacement Rate Histories and Numerical Experiments,Joint Assembly, New Orleans, 2005.

Bennett, R. A., Lavier, L. L., Anderson, M. L., Matti, J, Powell, R. E., Holocene deceleration of the San Andreas fault zone in San Bernardino and implications for the eastern California shear zone rate debate,Joint Assembly, New Orleans, 2005.

Manatschal, G., Lavier, L. L., Observations From the Alpine Tethys and the Iberia/Newfoundland Margins Pertinent to the Interpretation of Magma-Poor Rifted Margins,Joint Assembly, New Orleans, 2005.

Graindorge, D., Steckler , M. S., Lavier, L.,L., 3D deflection of a lithospheric plate with a variable flexural rigidity and under a variable sedimentary load for 3D backstripping: preliminary tests, Abstract, Fall AGU, San Francisco, 2004.

Patel, P., Lavier, L. L., Grand, S., A Potential Role for Slab/Lithosphere Decoupling and Edge Driven Convection in the Tectonic Evolution of the Western US, Abstract, Fall AGU, San Francisco, 2004.

Choi, E.; Thoutireddy, P., Lavier, L. L., Quenette, S.; Tan, E.; Gurnis, M., Aivazis, M, Appelbe, B., Coupling models of crustal deformation and mantle convection: An application of GeoFramework, Abstract, Fall AGU, San Francisco, 2004.

Van Avendonk, H. J., Lavier, L. L., Nunes, G. T., Holbrook, W. S., Shillington, D. J., Tucholke, B. E., Louden, K. E., Hopper, J. R., Larsen, H. C., Evidence for asymmetric rifting at the Newfoundland margin from SCREECH Transect 2 wide-angle data and numerical modeling, Abstract, Fall AGU, San Francisco, 2003.

Hall, C. E., Gurnis, M., Lavier, L. L., Constructing a dynamically and geologically consistent hypothesis for the initiation of Izu-Bonin-Mariana subduction, Abstract, Fall AGU, San Francisco, 2003.

Lavier, L., L., Manatschal, G., Modeling of the Role of Serpentinization and Magmatism at the Transition From Rifting to Seafloor Spreading, Abstract, Fall AGU, San Francisco, 2003.

McQuarrie, N., Lavier, L. L., Brittle to Viscous Transition, Modeling the Evolution of the Andean Plateau, Abstract, Fall AGU, San Francisco, 2003.

Mann, P., Taylor, F., Lavier, L. L., Van Avendonk, H., Geological Constraints and Numerical Models of Concave-downward Normal Faulting and Metamorphic Core Complex Formation in Eastern Papua New Guinea, Abstract, Fall AGU, San Francisco, 2003.

Tan, E., Choi, E., Thoutireddy, P., Aivazis, M., Lavier, L. L., Quenette, S. , Gurnis, M. , Examples of Linking Codes Within GeoFramework, Abstract, Fall AGU, San Francisco, 2003.

Persaud, P., Lavier, L., Oblique Rifting: The Effect of Driving Mechanism and Obliquity On Strain Partitioning, Abstract, Fall AGU, San Francisco, 2002.

Hall, C. E., Gurnis, M., Lavier, L. L., Initiation of Cenozoic Subduction Zones of the Western Pacific, Abstract, Fall AGU, San Francisco, 2002.

Lavier, L. L., From Core Complex to Wide Rift: Modeling the evolution of the Basin and Range, Abstract, Fall AGU, San Francisco, 2001.

Persaud, P., Lavier, L. L., Stock, J., Steckler, M. S. & A. Martin-Barajas, Oblique rifting and the late transition to seafloor spreading in the northern Gulf of California, Abstract, Fall AGU, San Francisco, 2001.

Gurnis, M., Lavier, L. L. & M. A. House, Towards the dynamics of subduction initiation within an historical context, Abstract, Fall AGU, San Francisco, 2001.

Buck, W. R. & L. L. Lavier, Constraints on brittle lithospheric and viscous asthenospheric properties from models of extensional faulting, Abstract, Fall AGU, San Francisco, 2001.

Lavier, L. L., Williams, C., W. R. Buck & R. McCaffrey, Faulting at strike-slip boundaries: The effect of viscous strengthening/weakening and loading on fault patterns, Abstract Volume, Fall A.G.U, San Francisco, 2000.

Babeyko, A. Y., Sobolev, S. V., Trumbull, R. B., Lavier, L. L. & O. Oncken, Thermomechanical modeling of large-scale melting in the middle crust of the Altiplano-Puna Plateau, Abstract Volume, Fall A.G.U, San Francisco, 2000.

Lavier, L. L., W. R. Buck & A. B. N. Poliakov, Factors controlling normal fault offset in an ideal brittle layer, Abstract Volume, Fall A.G.U, San Francisco, 1999.

Lavier, L. L., W. R. Buck & A. B. N. Poliakov, Models of low-angle normal faulting and ductile shear zone development during continental rifting , Abstract Volume, Spring A.G.U, Boston, 1998.