

## Laura F. Serpa

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### RESEARCH INTERESTS:

Exploration Geophysics, Diversity, and Science Education

### EDUCATION

Ph.D. (1986) Cornell Univ., Ithaca, N.Y.

M.S. (1980) Geophysics, University of Utah, Salt Lake City, UT.

B.S. (1977) Geophysics, University of Utah. (**Magna Cum Laude**)

### EXPERIENCE

8/06 – present Professor, Dept. of Geological Sciences, Univ. of Texas at El Paso

1/86 – 8/06 **Asst Prof.-Professor**, Dept. of Geology & Geophysics, Univ. of New Orleans.

8/84 - 6/85 **Asst. Professor** (temporary), Dept. of Geology, Kansas University

9/80-8/84 & 6/85 - 1/86 **Research Assistant**, Cornell University

### PROFESSIONAL ACTIVITIES

**Director:** Keck Laboratory for 4-D Visualization at University of New Orleans (1998-2006)

**Director:** Geoscience Minority Program at UNO (1996-2006)

**NSF** OEDG panel 2002, 2004.

**NSF** Graduate Fellowship Award Panel (2002-6)

**NSF** Course, Curriculum, and Laboratory Improvement (August, 1999, 2001, 2004)

**NSF** Tectonics Division Review Panel (1993-1996)

**NSF** Tectonics and Petrology Division Program Oversight committee (1991)

Geological Society of America (GSA) Committee on Short Courses (1993-95)

Texas Higher Education Coordinating Board ARP/ATP review panel (2001)

**Chair** of the 1996 GSA Program Committee

**Chair** of the 1995 GSA Technical Program Committee

**Chair** of the Geophysics Division of the GSA (1991-1992)

**First Vice-Chair** of the Geophysics Division of the GSA (1990-91).

**Second Vice-Chair** of the Geophysics Division of the GSA (1989-90).

**Co-Chair and organizer** of the Symposium on the tectonics, volcanology, and tectonics of Mexico, held at the University of New Orleans, April, 1990.

**Member:** GSA committee on committees 2005-present

Reviewer for the National Science Foundation (NSF), GSA, AGU, American Chemical Society, Union Geofisica de Mexico, Tectonophysics, Geophysical Research Letters, J. of Geoscience Education; PAGEOPH

#### Awards, Honors

Elected a Fellow in the Geological Society of America in 1995.

### OUTREACH ACTIVITIES

**Director of the UNO W.M. Keck Laboratory for 4-Dimensional Visualization (1998-2006)**—This laboratory provides a state-of-the-art facility for students to learn to use the software and hardware typically found in major government laboratories or petroleum companies where they are likely to be employed upon completing their education.

**Director:** Geoscience Minority Program at UNO (1996-2006)—Work with minority recruiting and retention, raise scholarship support, and lead annual field trips for local high school students.

**Offer Geoscience courses for the MA degree in Science Teaching Program at UNO and UTEP**—Provide content courses for in-service middle and high school teachers to prepare for teaching geoscience classes.

**Undergraduate Advisor at UNO (2005-2006)**

### PUBLICATIONS

2006

Serpa, L., and T.L. Pavlis, 2006, Thirty-three years of recruiting and graduating minority students at the University of New Orleans, abstract submitted to Fall, AGU meeting.

Serpa, L., L. White, and T.L. Pavlis, (submitted 2006) Recruiting and Graduating Minority Geoscientists, submitted to the J. of Geoscience Education.

#### 2005

Golding-Luckow, H., Pavlis, T.L., Serpa, L., Guest, B., Wagner, D., Snee, L., Hensley, T., and Korjenkov, A., 2005, Late Cenozoic Sedimentation and Volcanism during transtensional deformation in Wingate Wash and the Owlshhead Mountains, Death Valley, Earth Science Reviews, v. 73,

Klein, M., Poche, S.T., C. Edrington, J. Oalman, B. Ybarzabel, and L. Serpa, 2005, A Magnetic Study of the Salt Spring Hills, Southern Death Valley, Geological Society of America Abstracts with Programs, v. 37, n. 4, p. 48.

Poche, S.T., C. Edrington, J. Oalman, M. Klein, B. Ybarzabel, and L. Serpa, 2005, Magnetic study of the Northeastern Side of the Avawatz Mountains, Southern Death Valley, Geological Society of America Abstracts with Programs, v. 37, n. 4, p. 48.

Serpa, L., 2005, Building a successful minority recruiting and graduating program at the University of New Orleans, Invited Talk, Geological Society of America Abstracts with Programs, v. 37, no. 4, p. 81.

Standridge, Dawn, C. Bishop, and L. Serpa, 2005, A high-resolution seismic survey to image the top of salt at Avery Island, Louisiana, Geophysics.

Totten, I., Hall, F., Serpa, L., Morse, M., Lorenz, E., Jones, C., Jones, R., DeLeon, S., and Meyers, S., 2005, A summer earth science immersion experience for K-12 teachers, Geological Society of America Abstracts with Programs, v. 37, n. 3, p. 6

#### 2004

Bruhn, R.L., Pavlis, T.L., Plafker, G., and Serpa, L., 2004, Deformation during Terrane Accretion in the Saint Elias Orogen, Alaska, Geological Society of America Bulletin, v. 116, 771-787.

Terry L. Pavlis, Carlos Picornell, Laura Serpa, Ronald L. Bruhn, and George Plafker, 2004, Tectonic processes during oblique-collision: Insights from the St. Elias Orogen, northern North American Cordillera, Tectonics, v. 23, TC3001, 1-14.

Serpa, L., and T. Pavlis, 2004, Teaching the Geology of New Orleans after completing an IDIG workshop, Geological Society of America Abstracts w/Programs, 36, Invited Talk, p. 55.

#### 2003

Guest, B. G., Pavlis, T.L., Serpa, L., and Golding, H., 2003, Tectonic Response of the Owlshhead Mountains, Garlock Fault and southern Death Valley fault zone to rotation of the NE Mojave Block, *Geology*, 31, 553-556.

Sheaf, M., Serpa, L., and Pavlis, T., 2003, Exhumation rates in the St. Elias Mountains, Alaska, Tectonophysics, v. 367, pp. 1-11.

Serpa, L., T. Pavlis, and F. Hall, 2003, Recruiting Minority Geoscientists: A 30 year success story, Eos, Trans. AGU, Invited abstract, F411.

Serpa, L., and T. Pavlis, 2003, Lessons Learned from Thirty Years of Promoting Minority Geoscience Education, Geological Society of America Abstracts w/ Programs, 35, no. 6, 155, 2003.

#### **Current Funding:** (to be transferred to UTEP)

Terry L. Pavlis and L. Serpa (plus 12 PI's from 8 institutions), COLLABORATIVE RESEARCH: St. Elias Erosion/Tectonics Project (STEPP), NSF, Continental Dynamics Program, July 1, 2004-June 30, 2009. Amount (to UNO): \$403,058 (total request \$5.4M with UNO as lead institution)

Laura Serpa and Frank R. Hall, Building on our success: A proposal to enhance and improve minority student recruitment and retention in the Geosciences at the University of New Orleans. \$839,529 for 75 months from NSF.