

**Dr. Laura F. Serpa**  
The University of Texas at El Paso  
Geological Sciences  
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Email: lferpa@utep.edu

## **Education**

Ph D, Cornell University, 1986.

MS, University of Utah, 1980.  
Major: Geophysics

BS, University of Utah, 1977.  
Major: Geophysics

## **Professional Positions**

### **Academic - Post-Secondary**

Director, Center for Mathematics Science and Technology Education and Research (CenMaSTER) at The University of Texas at El Paso. (2008 - Present).

Director, Master of Arts in Teaching Science (MATS) program at UTEP. (2008 - Present).

## **Professional Memberships**

American Educational Research Association.

American Geological Institute.

American Geophysical Union.

Geological Society of America.

National Assoc. of Geoscience Teachers.

National Council of Teachers of Mathematics.

National Science Teachers of America.

Seismological Society of America.

## **Development Activities Attended**

Workshop, "Active Lectures in Classrooms of all sizes," Geological Society of America, Charlotte, NC.

Workshop, "Assessing Higher Order Thinking in your Students," Geological Society of America, Charlotte, NC.

Workshop, "A Workshop for Women Faculty in STEM at Hispanic-serving Institutions," Quality Education for Minorities (QEM) Network, Las Vegas, NV. (July 29, 2010 - July 31, 2010).

## Awards and Honors

Citationist for the GSA Diversity award to Dr. Louis Fernandez, GSA national meeting. (2009).

Citationist for the Bromery Award to Dr. Lisa White,, GSA national meeting. (2008).

## TEACHING

### Teaching Experience

#### The University of Texas at El Paso

CPS 5396, Graduate Interdisciplinary Res, 1 course.  
ESCI 4166, Directed Study, Env. Sci., 1 course.  
ESCI 5101, Graduate Seminar, 1 course.  
GEOL 1103, Lab for GEOL 1313 (C), 48 courses.  
GEOL 1104, Lab for GEOL 1314 (C), 5 courses.  
GEOL 1212, Principles of Earth Science, 1 course.  
GEOL 1313, Intro to Physical Geology (C), 11 courses.  
GEOL 1314, Intro to Historical Geol (C), 2 courses.  
GEOL 4166, Directed Study, Geology, 11 courses.  
GEOL 4266, Directed Study, Geology, 1 course.  
GEOL 4315, Topics in Geological Sciences, 1 course.  
GEOL 4366, Directed Study, Geology, 8 courses.  
GEOL 4389, Research in Geological Science, 6 courses.  
GEOL 4399, Senior's Thesis, 5 courses.  
GEOL 5162, Directed Study in Geology, 14 courses.  
GEOL 5262, Directed Study in Geology, 9 courses.  
GEOL 5289, Graduate Research in Geol Sci, 23 courses.  
GEOL 5304, Earth Structure, 2 courses.  
GEOL 5315, Selected Topics-Geological Sci, 8 courses.  
GEOL 5344, Advanced Petrology, 1 course.  
GEOL 5362, Directed Study in Geology, 13 courses.  
GEOL 5389, Graduate Research in Geol Sci, 28 courses.  
GEOL 5398, Thesis, 23 courses.  
GEOL 5399, Thesis, 22 courses.  
GEOL 5401, Fundamentals of Earth Science, 8 courses.  
GEOL 5402, Fundmntls/Fld Meth in Earth Sci, 1 course.  
GEOL 6105, Directed Study in Geology, 1 course.  
GEOL 6296, Doctoral Research in Geol Sci, 23 courses.  
GEOL 6305, Directed Study in Geology, 3 courses.  
GEOL 6315, Adv Topics in Geological Scien, 11 courses.  
GEOL 6320, Dissertation, 23 courses.  
GEOL 6321, Dissertation, 21 courses.  
GEOL 6396, Doctoral Research in Geol Sci, 26 courses.  
GEOP 4167, Directed Study, Geophysics, 2 courses.  
GEOP 4267, Directed Study, Geophysics, 3 courses.  
GEOP 4332, Explor Geophysics-Seismic Meth, 9 courses.  
GEOP 4334, Explo Geophys Non-Seismic Meth, 9 courses.  
GEOP 4367, Directed Study, Geophysics, 16 courses.  
GEOP 5163, Directed Study in Geophysics, 4 courses.  
GEOP 5263, Directed Study in Geophysics, 2 courses.  
GEOP 5356, Topics in Geophysics, 11 courses.  
GEOP 5363, Directed Study in Geophysics, 12 courses.  
GEOP 6310, Directed Study in Geophysics, 8 courses.  
PHYS 5350, Wave Phenomena and Optics, 1 course.

PHYS 5398, Thesis, 1 course.  
PHYS 5399, Thesis, 2 courses.  
RSRC 4033, Undergraduate Research, 1 course.  
UNIV 1301, Seminar/Critical Inquiry (C), 2 courses.

### **Non-Credit Instruction**

Professional Development, Texas Higher Education Coordinating Board, 20 participants. (July 2013 - February 2014).

Professional Development, Texas Higher Education Coordinating Board, 22 participants. (August 2012 - February 2013).

Continuing Education, Texas Higher Education Coordinating Board, 25 participants. (August 2010 - August 2012).

Continuing Education, Texas Higher Education Coordinating Board, 20 participants. (June 2009 - June 2011).

Learning Academy, Texas Higher Education Coordinating Board, 45 participants. (August 2008 - August 2010).

Continuing Education, Texas Higher Education Coordinating Board, 20 participants. (July 2008 - June 2009).

### **Directed Student Learning**

Directed Individual/Independent Study, "GPR study of the Mescalero Apache Reservation."  
Advised: Ashley Nauer

Dissertation Committee Member.  
Advised: Cheryl Sephus

Dissertation Committee Member.  
Advised: Nisa Rhodes

Dissertation Committee Member.  
Advised: Valerie Finlayson

Master's Thesis Committee Chair.  
Advised: Brian Eslick

Master's Thesis Committee Chair, "Scalar Polarization Operator in a Superfluid Medium."  
Advised: Sajib Barman

Master's Thesis Committee Member.  
Advised: Mark Bartholomey

Dissertation Committee Chair. (August 2012 - Present).  
Advised: Afshin Gholamy

Dissertation Committee Chair. (August 2011 - Present).  
Advised: Yousf Abushalah

Dissertation Committee Chair. (August 2010 - August 2014).  
Advised: Sunay Pasole

Dissertation Committee Chair. (January 2012 - December 2013).  
Advised: Alay Gegregiorgis

"Geothermal Study of Shoshone and Tecopa Hot Springs." (August 2011 - December 20, 2013).  
Advised: Felix Ziwu

Master's Thesis Committee Chair. (September 2013).  
Advised: Adrian Gutierrez, Felix DZwie

Dissertation Committee Member. (May 2013).  
Advised: Rolando Cardenas

Dissertation Committee Member. (May 2013).  
Advised: Sarah Cervera

Dissertation Committee Member. (December 2012).  
Advised: Niti Mankemthong

Master's Thesis Committee Member. (December 2012).  
Advised: Ibrahim Cerda

Master's Thesis Committee Member. (December 2012).  
Advised: Oscar Esparza

Master's Thesis Committee Member. (December 2012).  
Advised: Shane Carley

Master's Thesis Committee Chair. (September 2011 - December 2012).  
Advised: Sarah Leedberg

Dissertation Committee Chair. (August 2012).  
Advised: Cecilia Del Pardo

Master's Thesis Committee Member. (August 2012).  
Advised: Rebecca Davis

Master's Thesis Committee Member. (May 2012).  
Advised: Pavel Bezdek

Dissertation Committee Chair. (August 2009 - December 2011).  
Advised: Antony Wamalwa

Master's Thesis Committee Chair. (May 2008).  
Advised: Antony Wamalwa

Dissertation Committee Chair. (2007).  
Advised: Musa Hussain

Master's Thesis Committee Chair. (May 2007).  
Advised: Enrique Casana

## **RESEARCH**

## Published Intellectual Contributions

### Refereed Journal Articles

- Wamalwa, A. M., Mickus, K. L., Serpa, L. F. Geophysical Characterization of the Menengai Volcano, Central Kenya Rift from the analysis of magnetotelluric and gravity data. *Geophysics*, 78(4), 1-13.
- Wamalwa, A. M., Serpa, L. F., Doser, D. I. Investigations of ground water flow associated with the Saratoga warm springs and the Tecopa Hot Springs near Death Valley, California, using magnetic and conductivity methods. *Tectonophysics*, *online*.  
[www.sciencedirect.com/science/article/B6V72-51P9YB2-1/2/6d105828b3747123d7504211ba53b12](http://www.sciencedirect.com/science/article/B6V72-51P9YB2-1/2/6d105828b3747123d7504211ba53b12)
- Pavlis, T. L., Rutkofske, J., Guerrero, F., Serpa, L. F. (2014). Structural overprinting of Mesozoic thrust systems in eastern California and its importance to reconstruction of Neogene extension in the southern Basin and Range. *Geosphere*, 10(4), 1-25. [www.geosociety.org](http://www.geosociety.org)
- Pavlis, T. L., Guerrero, F., Rutkofske, J., Serpa, L. F. Structural overprinting of Mesozoic thrust systems in eastern California and its importance to reconstruction of Neogene extension in the southern Basin and Range. *To appear in Geosphere*, 10.
- Florescu, I., Sengupta, I., Mariani, M. C., Beccar-Varela, M. P., Bezdek, P., Serpa, L. F. (2013). Levy models and scale invariance properties applied to Geophysics. *Physica A*, 392(2013), 824-839.
- Hussein, M. J., Mickus, K., Serpa, L. F. (2013). Curie Depth Point Estimates from Aeromagnetic Data from Death Valley and Surrounding Regions, California. *Pure and Applied Geophysics*.  
<http://www.springerlink.com/content/np51w03714021298/>
- Wamalwa, A. M., Serpa, L. F. The Investigation of the Geothermal Potential at the Silali Volcao, Northern Kenya Rift, Using Electromagnetic Data. *To appear in Geothermics*.
- Wamalwa, A., Mickus, K. L., Serpa, L. F., Doser, D. I. (2013). A joint geophysical analysis of the Coso Geothermal Field, south-eastern California. *Physics of the Earth and Planetary Interiors*, 214, 25-34. [www.elsevier.com/locate/pepi](http://www.elsevier.com/locate/pepi)
- Wamalwa, A., Mickus, K. L., Serpa, L. F., Doser, D. I. (2013). A joint geophysical analysis of the Coso Geothermal Field, south-eastern California. *Physics of the Earth and Planetary Interiors*, 214, 25-34. [www.elsevier.com/locate/pepi](http://www.elsevier.com/locate/pepi)
- Wamalwa, A., Mickus, K. L., Serpa, L. F., Doser, D. I. (2013). A joint geophysical analysis of the Coso Geothermal Field, south-eastern California. *Physics of the Earth and Planetary Interiors*, 214, 25-34.
- Wamalwa, A. M., Serpa, L. F., Doser, D. I. (2012). Investigations of ground water flow associated with the Saratoga warm springs and the Tecopa Hot Springs near Death Valley, California, using magnetic and conductivity methods. *Tectonophysics*, 502(3-4), 267-275.  
[www.sciencedirect.com/science/article/B6V72-51P9YB2-1/2/6d105828b3747123d7504211ba53b12](http://www.sciencedirect.com/science/article/B6V72-51P9YB2-1/2/6d105828b3747123d7504211ba53b12)
- Florescu, I., SenGupta, I., Beccar Varela, M. P., Bezdek, P., Mariani, M. C., Serpa, L. F. Lévy models and scale invariance properties applied to Geophysics. *To appear in Physica A*.  
[www.sciencedirect.com/science/article/pii/S0378437112009727?v=s5](http://www.sciencedirect.com/science/article/pii/S0378437112009727?v=s5)

- Del Pardo, C., Kreemer, C., Blewitt, G., Hammond, W. C., Konter, B. R., Serpa, L. F. (2012). Interseismic deformation and geologic evolution of the Death Valley Fault Zone. *JGR, Solid Earth*, 117.
- Hussein, M. J., Serpa, L. F., Doser, D. I., Velasco, A. A. (2012). The role of fluids in promoting seismic activity in active spreading centers of Salton Trough, California, USA. *International Journal of Geosciences*, 3(2), 303-313. www.scirp.org
- Hussein, M. J., Serpa, L. F., Doser, D. I., Velasco, A. A. (2012). The role of fluids in promoting seismic activity in active spreading centers of Salton Trough, California, USA. *International Journal of Geosciences*, 3(2), 303-313. www.scirp.org
- Wamalwa, A., Serpa, L. F., Doser, D. I. (2012). Investigations of ground water flow associated with the Saratoga Warm Springs and the Tecopa Hot Springs near Death Valley, California, using magnetic and conductivity methods. *Tectonophysics*, 502, 267-275.
- Hussein, M. J., Velasco, A. A., Serpa, L. F. (2011). Crustal Structure of the Salton Trough: Integration of Receiver Functions, Gravity and Magnetic data. *International Journal of Geosciences*, 2, 502-512.
- Hussein, M. J., Velasco, A. A., Serpa, L. F. (2011). Crustal Structure of the Salton Trough: Integration of Receiver Functions, Gravity and Magnetic data. *International Journal of Geosciences*, 2, 502-512.
- Florescu, I., Mariani, M. C., Bezdek, P., Serpa, L. F. Ising type models applied to Geophysics and high frequency market data. *To appear in Physica A.*
- Florescu, I., Mariani, M. C., Bezdek, P., Serpa, L. F. (2011). Ising type models applied to Geophysics and high frequency market data. *Physica A.*, 390(23), 4396-4402.
- Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. (2011). Role of sedimentation in continental rifting comparing two narrow rift valleys: the Salton Trough and Death-Valley California. *Natural Science*, 3(11), 927-935.
- Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. (2011). Imaging the deep structure of the central Death Valley Basin using receiver function, gravity, and magnetic data. *International Journal of Geosciences*, 2, 676-688.
- Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. (2011). Imaging the deep structure of the central Death Valley Basin using receiver function, gravity, and magnetic data. *International Journal of Geosciences*, 2, 676-688.
- Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. (2011). Role of sedimentation in continental rifting comparing two narrow rift valleys: the Salton Trough and Death Valley, California. *Natural Science*, 3(11), 927-935.
- Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. (2011). Imaging the deep structure of the central Death Valley Basin using receiver function, gravity, and magnetic data. *Internat. J. Geosciences*, 2(4), 676-688.
- Wamalwa, A., Serpa, L. F., Doser, D. I. (2011). Investigations of ground water flow associated with the Saratoga Warm Springs and the Tecopa Hot Springs near Death Valley, California, using magnetic and conductivity methods. *Tectonophysics*, 502, 267-275.

- Wamalwa, A., Serpa, L. F., Doser, D. I. Investigations of ground water flow associated with the Saratoga Warm Springs and the Tecopa Hot Springs near Death Valley, California, using magnetic and conductivity methods. *To appear in Tectonophysics.*
- Hussein, M. A., Velasco, A. A., Serpa, L. F., Doser, D. I. (2010). Integration of receiver function, gravity and magnetic data to model the crustal structure of Death Valley, California. *To appear in Geophys. Res..*
- Hussein, M. A., Velasco, A. A., Serpa, L. F., Doser, D. I. (2010). Integration of receiver function, gravity and magnetic data to model the crustal structure of Death Valley, California. *To appear in Geophys. Res..*
- Hussein, M. A., Velasco, A. A., Serpa, L. F., Doser, D. I. (2010). Integration of receiver function, gravity and magnetic data to model the crustal structure of Death Valley, California. *To appear in Geophys. Res..*
- Hussein, M., Velasco, A. A., Doser, D. I., Serpa, L. F. (2009). Integration of Receiver Function, Gravity and Magnetic Data to Model the Crustal Structure of Death Valley, California,. *Journal of Geophysical Res.*
- Serpa, L. F., White, L., Pavlis, T. L. (2007). Recruiting and Graduating Minority Geoscientists. *J. of Geoscience Education*, 55(6), 560-566.
- Standridge, D., Bishop, C., Serpa, L. F. (2005). A high-resolution seismic survey to image the top of salt at Avery Island, Louisiana. *Geophysics..*
- Golding-Luckow, H., Pavlis, T. L., Guest, B., Wagner, D., Snee, L., Hensley, T., Korjenkov, A., Serpa, L. F. (2005). Late Cenozoic Sedimentation and Volcanism during transtensional deformation in Wingate Wash and the Owlshead Mountains, Death Valley. *Earth Science Reviews*, 73.
- Bruhn, R. L., Pavlis, T. L., Plafker, G., Serpa, L. F. (2004). Deformation during Terrane Accretion in the Saint Elias Orogen, Alaska. *Geological Society of America Bulletin*, 116, 771-787.
- Pavlis, T. L., Picornell, C., Bruhn, R. L., Plafker, G., Serpa, L. F. (2004). Tectonic processes during oblique-collision: Insights from the St. Elias Orogen, northern North American Cordillera, Tectonics, TC. *To appear in Tectonics,,* 23, 1-14.
- Sheaf, M., Pavlis, T., Serpa, L. F. (2003). Exhumation rates in the St. Elias Mountains, Alaska. *Tectonophysics*, 367, 1-11.
- Pavlis, T. L., Golding, H., Serpa, L. F. (2003). Tectonic Response of the Owlshead Mountains, Garlock Fault and southern Death Valley fault zone to rotation of the NE Mojave Block, *Geology*,. 31, 553-556.

### **Conference Proceedings**

- Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F. (2012). In J. Vearncombe (Ed.), (vol. Bulletin 56, pp. 141-143). Australian Institute of Geoscientists. //aig.org.au/
- Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F. (2012). In J. Vearncombe (Ed.), (vol. Bulletin 56, pp. 141-143). Australian Institute of Geoscientists. //aig.org.au/
- Serpa, L. F., Kosheleva, O. M., Suskavcevic, M. (2011).. National Association for Research in Science Teaching.

Kosheleva, O. M., Serpa, L. F. (2011). (pp. 1794-1795). PME-NA.

Kosheleva, O. M., Serpa, L. F. (2011). (pp. 1794-1795). PME-NA.

Serpa, L. F., Kosheleva, O. M., Suskavcevic, M.. Reston, VA: National Association for Research in Science Teaching.

Del Pardo, C., Pavlis, T. L., Serpa, L. F. (2009).. NSBP/NSHP 2009 Joint Annual Conference.

### Journal Articles

Pavlis, T. L., Rutkofske, J., Guerrero, F., Serpa, L. F. Structural overprinting of Mesozoic thrust systems in eastern California and its importance to reconstruction of Neogene extension in the southern Basin and Range. *Geosphere*.

Wamalwa, A. M., Serpa, L. F. Geophysical Characterization of the Menengai Volcano, Central Kenya Rift from the Analysis of Magnetotelluric and Gravity Data. *To appear in JGR, Solid Earth*.

Wamalwa, A. M., Mickus, K. L., Serpa, L. F., Doser, D. I. Joint Geophysical analysis of the Coso Geothermal Field, south-eastern California. *To appear in Physics of the Earth and Planetary Interiors*.

Pavlis, T. L., Langford, R., Hurtado, J., Serpa, L. F. Computer based data acquisition and visualization systems in field geology: Results from 12 years of experimentation and future potential.. *To appear in GeoSphere*.

### Other

Serpa, L. F., Langford, R. P., Pavlis, T. L.. Boulder, CO: Geological Society of America.

Serpa, L. F., Langford, R. P., Pavlis, T. L.. Boulder, CO: Geological Society of America.

Doser, D. I., Serpa, L. F. (6th ed., vol. 44). GSA Abstracts with Programs.  
[gsa.confex.com/gsa/2012RM/finalprogram/](http://gsa.confex.com/gsa/2012RM/finalprogram/)

Ellins, K. K., Serpa, L. F., Riggs, E. M., Pennington, D. D., Fox, S. P., Larsen, K., Mosher, S., Miller, K. C. (7th ed., vol. 45). Boulder, CA: GSA Abstracts with Programs.

Palsole, S. V., Serpa, L. F. (7th ed., vol. 45). Boulder, CO: GSA Abstracts with Programs.

Guest, B., Golding-Luckow, H., Wagner, D., Pavlis, T. L., Serpa, L. F. (2012).. Boulder, Colorado: Geological Society of America Map and Chart Series.

Guest, B., Golding-Luckow, H., Wagner, D., Pavlis, T. L., Serpa, L. F. (2012). (pp. 3 oversize plates and GIS files). Boulder, Colorado: Geological Society of America Map and Chart Series.  
<http://www.geosociety.org/maps/2012-DMCH011/>

Guest, B., Golding-Luckow, H., Wagner, D., Pavlis, T. L., Serpa, L. F. (2012). (pp. 3 oversize plates and GIS files). Boulder, Colorado: Geological Society of America Map and Chart Series.  
<http://www.geosociety.org/maps/2012-DMCH011/>

Maygarden, D., White, L., Ridgeway, K., Bailey, E. B., Serpa, L. F. (2012). (7th ed., vol. 44). GSA Abstracts with Programs. [gsa.confex.com/gsa/2012AM/finalprogram/](http://gsa.confex.com/gsa/2012AM/finalprogram/)



- Serpa, L. F. (2012). (7th ed., vol. 44). Boulder, CO: Geological Society of America. [gsa.confex.com/gsa/2012AM/finalprogram/](http://gsa.confex.com/gsa/2012AM/finalprogram/)
- Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F. (2012). In J. Vearncombe (Ed.), (vol. Bulletin 56, pp. 141-143). Australian Institute of Geoscientists. [//aig.org.au/](http://aig.org.au/)
- Wamalwa, A. M., Mickus, K., Serpa, L. F., Doser, D. I. (2012). (3rd ed., vol. 44). Boulder, CO: GSA Abstracts with Programs.
- Hussein, M. J., Mickus, K., Serpa, L. F. (2012). (3rd ed., vol. 44). Boulder, CO: GSA Abstracts with Programs.
- Hussein, M. A., Velasco, A. A., Serpa, L. F. (2011).. International Journal of Geosciences.
- Hussein, M. J., Velasco, A. A., Serpa, L. F. (2010).. Eos Trans. AGU, Fall Meet. Suppl.
- Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F. (2010).. Boulder, Colorado: Geological Society of America. [gsa.confex.com/gsa/2010AM/finalprogram/abstract\\_178273.htm](http://gsa.confex.com/gsa/2010AM/finalprogram/abstract_178273.htm)
- Hussein, M. J., Velasco, A. A., Serpa, L. F. (2010).. Eos Trans. AGU, Fall Meet. Suppl.
- Hussein, M. J., Velasco, A. A., Serpa, L. F. (2010).. Eos Trans. AGU, Fall Meet. Suppl.
- Serpa, L. F., Langford, R. P., Pavlis, T. L. (2010).. Boulder, CO: Geological Society of America.
- Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F. (2010).. Boulder, Colorado: Geological Society of America. [gsa.confex.com/gsa/2010AM/finalprogram/abstract\\_178273.htm](http://gsa.confex.com/gsa/2010AM/finalprogram/abstract_178273.htm)
- Navarro, H., Pena, C., Serpa, L. F. (2009).. Abstract, Geol. Soc. of Am,
- Suskavcevic, M., Kosheleva, O. M., Giza, B. H., Serpa, L. F. (2009).. Abstracts of the 2009 Winter Meeting of the American Association of Physics Teachers AAPT.
- Suskavcevic, M., Kosheleva, O. M., Giza, B. H., Serpa, L. F. (2009).. Abstracts of the 2009 Winter Meeting of the American Association of Physics Teachers AAPT.
- Hussein, M. A., Velasco, A. A., Serpa, L. F., Doser, D. I. (2009). (vol. 90(52)). Eos Trans. AGU, Fall Meet. Suppl.
- Hussein, M. A., Velasco, A. A., Serpa, L. F., Doser, D. I. (2009). (vol. 90(52)). Eos Trans. AGU, Fall Meet. Suppl.
- Kosheleva, O. M., Serpa, L. F. (2009).. Seattle, WA: National Network for Education Renewal. [www.nnerpartnerships.org/](http://www.nnerpartnerships.org/)
- Wamalwa, A. M., Doser, D., Serpa, L. F. (2009).. NSBP/NSHP 2009 Joint Annual Conference.
- Eslick, B. L., Serpa, L. F. (2009).. Abstract presented at AGU Annual meeting,
- Pavlis, T. L., Serpa, L. F. (2006).. AGU meeting.
- Klein, M., Poche, S. T., Edrison, C., Oalman, J., Ybarzabel, B., Serpa, L. F. (2005). (4th ed., vol. 37, pp. 48). Geological Society of America Abstracts with Programs, n. 4, p.
- Totten, I., Hall, F., Morse, M., Lorenz, E., Jones, C., Jones, R., DeLeon, S., Meyers, S., Serpa, L. F. (2005). (vol. 37, pp. 3-6). Geological Society of America Abstracts with Programs, n. 3, p.

Serpa, L. F. (2005). (4th ed., vol. 37, pp. 81). Geological Society of America Abstracts with Programs, no. 4, p.

Poche, S. T., Edrinon, C., Oalman, J., Klein, M., Ybatzabel, B., Serpa, L. F. (2005). (4th ed., vol. 37, pp. 48). Geological Society of America Abstracts with Programs, n. 4, p.

Pavlis, T., Serpa, L. F. (2004).. ,Geological Society of America Abstracts w/Programs, 36, Invited Talk, p.

Pavlis, T., Serpa, L. F. (2003). (6th ed., vol. 35, pp. 155, 23). Geological Society of America Abstracts w/ Programs, 35, no. 6, 155,

Pavlis, T., Hall, F., Serpa, L. F. (2003).. Eos, Trans. AGU, Invited abstract, F411.

### **Invited Presentations**

Pavlis, T. L., Hurtado, J. M., Langford, R. P., Serpa, L. F., Structural Geology and Resources 2012, "Field Geology in the 21st Century: Not what you learned in school," Australian Institute of Geoscientists, Kalgoorlie, Western Australia. (September 26, 2012).

Wamalwa, A. M. (Presenter & Author), Serpa, L. F. (Author Only), Mickus, K. L. (Co-Chair), Geological Society of America Annual Meeting, "Geophysical Characterization of the Menengai Volcano, Central Kenya Rift from Inversion of Magnetotelluric and Gravity Data," GSA, Minneapolis, Minn. (October 2011).

Serpa, L. F., Langford, R. P., Pavlis, T. L., Geological Society of America South-Central Section, "Creating Geoscience Opportunities for High School Students in El Paso," Geological Society of America, New Orleans, LA. (March 29, 2011).

Pavlis, T. L. (Presenter & Author), Hurtado, J. M., Langford, R. P., Serpa, L. F., Geological Society of America Annual Meeting, "Electronic field geology past, present, and future." (October 2010).

Pavlis, T. L. (Presenter & Author), Hurtado, J. M., Langford, R. P., Serpa, L. F., Geological Society of America Annual Meeting, "Electronic field geology past, present, and future." (October 2010).

### **Contributed Presentations**

Wamalwa, A. M. (Presenter & Author), Serpa, L. F. (Author Only), American Geophysical Union Fall Meeting, "Joint geophysical characterization of geothermal system in Menengai using Magnetotelluric and gravity," AGU, San Francisco.

Wamalwa, A. M. (Presenter & Author), Serpa, L. F. (Author Only), Mickus, K. L. (Author Only), Geological Society of America-Annual Meeting, "Geophysical Characterization of the Menengai Volcano, Central Kenya Rift from the Analysis of Magnetotelluric and Gravity data," Geological Society of America, Minneapolis, MI.

Ziwu, F. (Presenter & Author), Serpa, L. F. (Author Only), Doser, D. I. (Author Only), Hagedorn, E. A. (Author Only), American Geophysical Union Fall Meeting, "Geophysical investigation of hot springs within the vicinity of Shoshone, California," San Francisco, CA. (December 17, 2014).

- Doser, D. I., Villalobos, J., Serpa, L. F., Manduca, C., McConnell, D., Egger, A., Rocky Mtn. Section, Geol. Soc. Amer., "Testing InTeGrate curriculum at undergraduate institutions in the El Paso region," Albuquerque, NM. (May 10, 2012).
- Wamalwa, A. M., Mickus, K., Serpa, L. F., Doser, D. I., Cordillern Section, Geol. Soc. Amer., "Analysis of gravity and magnetotelluric data from the Coso geothermal field, southeast California," Queretaro, Mexico. (March 2012).
- Hagedorn, E. A., Serpa, L. F., Kosheleva, O. M., Wagler, A. E., Wagler, R. R., Association for Science Teacher Education 2012 International Conference, "Robert Noyce Scholarships for Teaching Miners: A Continuous Support Model," Clearwater Beach, FL. (January 4, 2012).
- Serpa, L. F., Kosheleva, O. M., Suskavcevic, M., NARST Annual International Conference, "Analog Modeling of Earth Processes: A Case Study in Multidisciplinary, Guided Inquiry Science and Mathematics Education," National Association for Research in Science Teaching, Orlando, Florida. (April 5, 2011).
- Serpa, L. F., Lim, K. H., Esposito, E. D., Math, Science, and Technology Teacher Preparation Academies: Leaders Collaboration Conference and Technical Workshop, "Connecting Math and Science," Texas Higher Education Coordinating Board, Arlington, Texas. (March 21, 2011).
- Bezdek, P., Mariani, M. C., Serpa, L. F., 8th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences, "Ising-Type Models Applied to Geophysics," UTEP. (2010).
- Serpa, L. F., Langford, R. P., Pavlis, T. L., Geological Society of America Annual meeting, "Challenges and Strategies for Increasing the Number of Hispanic Students in the Geoscience Program at the University of Texas at El Paso," Geological Society of America, Denver, CO. (November 1, 2010).
- Kosheleva, O. M., Serpa, L. F., NNER, "Engaging the Wider Community in STEM education in a Bilingual Border Setting," NNER, Normal, IL. (October 2010).
- Del Pardo, C. (Presenter & Author), Hooks, B. (Author Only), Konter, B. R. (Author Only), Pavlis, T. L. (Author Only), Serpa, L. F. (Author Only), 2010 Southern California Earthquake Center Annual Meeting, "Three-dimensional thermo-mechanical modeling of the Death Valley Fault Zone," Southern California Earthquake Center, Palm Springs, CA. (September 12, 2010).
- Del Pardo, C. (Presenter & Author), Hooks, B. (Author Only), Konter, B. R. (Author Only), Pavlis, T. L. (Author Only), Serpa, L. F. (Author Only), 2010 Southern California Earthquake Center Annual Meeting, "Three-dimensional thermo-mechanical modeling of the Death Valley Fault Zone," Southern California Earthquake Center, Palm Springs, CA. (September 12, 2010).
- Barud-Zubillaga, A. (Presenter & Author), Hurtado, J. M. (Author Only), Walton, J. (Author Only), Doser, D. I. (Author Only), Serpa, L. F. (Author Only), UCOWR/NIWR Conference, "Potential flood risk increase in a US-Mexico border sub-basin due to development," Seattle, WA. (July 2010).
- Barud-Zubillaga, A. (Presenter & Author), Hurtado, J. M. (Author Only), Walton, J. (Author Only), Doser, D. I. (Author Only), Serpa, L. F. (Author Only), UCOWR/NIWR Conference, "Potential flood risk increase in a US-Mexico border sub-basin due to development," Seattle, WA. (July 2010).
- Hussein, M. J. (Presenter & Author), Velasco, A. A. (Author Only), Doser, D. I. (Author Only), Serpa, L. F. (Author Only), 2009 Fall Meeting, "Crustal structure of Salton Trough: Integration

of receiver functions, gravity and magnetic data,," American Geophysical Union, San Francisco, CA. (December 2009).

Hussein, M. J. (Presenter & Author), Velasco, A. A. (Author Only), Doser, D. I. (Author Only), Serpa, L. F. (Author Only), 2009 Fall Meeting, "Crustal structure of Salton Trough: Integration of receiver functions, gravity and magnetic data,," American Geophysical Union, San Francisco, CA. (December 2009).

Eslick, B. E. (Presenter & Author), Serpa, L. F. (Author Only), Doser, D. I. (Author Only), 2009 Fall Meeting, "Three dimensional geometry of the southern Death Valley fault zone: A constraint on structural style within southern Death Valley," American Geophysical Union, San Francisco, CA. (December 2009).

Eslick, B. E. (Presenter & Author), Serpa, L. F. (Author Only), Doser, D. I. (Author Only), 2009 Fall Meeting, "Three dimensional geometry of the southern Death Valley fault zone: A constraint on structural style within southern Death Valley," American Geophysical Union, San Francisco, CA. (December 2009).

## **Contracts, Grants and Sponsored Research**

### **Educational**

Serpa, L. F., Freudenthal, E. A., Gates, A. C., "Computing as a Cornerstone of STEM Education," Sponsored by Other, Foundation.

Incera, V. (Co-Principal), Mariani, M. C. (Principal), Serpa, L. F. (Co-Principal), "INTEGRATING MATH AND SCIENCE IN THE FIRST YEARS' CURRICULUM: AN INNOVATIVE INTERDISCIPLINARY APPROACH TO RECRUITMENT AND RETENTION IN THE STEM DISCIPL (PENDING)," Sponsored by NSF, Federal.

Serpa, L. F. (Principal), Goodell, P. C. (Co-Principal), Hurtado, J. M. (Co-Principal), Lougheed, V. L. (Co-Principal), Velasco, A. A. (Co-Principal), "Using 21st Century Media to Teach Earth Science to 21st Century Students," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Serpa, L. F. (Co-Principal), "InTeGrate: Interdisciplinary Teaching of Geoscience for a Sustainable Future," Sponsored by NSF, Federal. (January 1, 2012 - December 31, 2017).

Hagedorn, E. A. (Principal), Wagler, A. E. (Co-Principal), Wagler, R. R. (Co-Principal), Serpa, L. F. (Co-Principal), Kosheleva, O. M. (Co-Principal), "Robert Noyce Scholarships for Teaching Miners," Sponsored by NSF, Federal, \$1,181,576.00. (September 1, 2010 - August 31, 2015).

### **Equipment**

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Serpa, L. F., Jin, L., "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Serpa, L. F., Jin, L., "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Jin, L. (Co-Principal), Dosier, D. I. (Principal), Serpa, L. F. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal. (January 1, 2011 - Present).

## **Grant**

Velasco, A. A. (Co-Principal), Serpa, L. F. (Principal), Hussein, M., "Collaborative Research: Hot Spring Sources in the Tecopa Basin, California," Sponsored by NSF.

Velasco, A. A. (Co-Principal), Serpa, L. F. (Principal), Hussein, M., "Collaborative Research: Hot Spring Sources in the Tecopa Basin, California," Sponsored by NSF.

Incera, V. (Co-Principal), Mariani, M. C. (Principal), Serpa, L. F. (Co-Principal), "INTEGRATING MATH AND SCIENCE IN THE FIRST YEARS' CURRICULUM: AN INNOVATIVE INTERDISCIPLINARY APPROACH TO RECRUITMENT AND RETENTION IN THE STEM DISCIPL (PENDING)," Sponsored by NSF, Federal.

Incera, V. (Co-Principal), Mariani, M. C. (Principal), Serpa, L. F. (Co-Principal), "INTEGRATING MATH AND SCIENCE IN THE FIRST YEARS' CURRICULUM: AN INNOVATIVE INTERDISCIPLINARY APPROACH TO RECRUITMENT AND RETENTION IN THE STEM DISCIPL (PENDING)," Sponsored by NSF, Federal.

Giza, B. H. (Principal), Serpa, L. F. (Co-Principal), Medina-Jerez, W. J. (Co-Principal), Velasco, A. A. (Co-Principal), Jarvis, R. S. (Co-Principal), "Leadership in Geoscience Education," Sponsored by NSF.

Giza, B. H. (Principal), Serpa, L. F. (Co-Principal), Medina-Jerez, W. J. (Co-Principal), Velasco, A. A. (Co-Principal), Jarvis, R. S. (Co-Principal), "Leadership in Geoscience Education," Sponsored by NSF.

Moya, J. A. (Principal), Gonzalez, V. (Co-Principal), Rosiles, J. G. (Co-Principal), Serpa, L. F. (Co-Principal), "Look-ahead Educational Approach Partnered with Seniors (LEAPS)," Sponsored by Other, Foundation.

Moya, J. A. (Principal), Gonzalez, V. (Co-Principal), Rosiles, J. G. (Co-Principal), Serpa, L. F. (Co-Principal), "Look-ahead Educational Approach Partnered with Seniors (LEAPS)," Sponsored by Other, Foundation.

Velasco, A. A. (Co-Principal), Serpa, L. F. (Principal), Hussein, M. (Co-Principal), "The Role Of Fluids In The Evolution Of The Death Valley Region," Sponsored by NSF.

Velasco, A. A. (Co-Principal), Serpa, L. F. (Principal), Hussein, M. (Co-Principal), "The Role Of Fluids In The Evolution Of The Death Valley Region," Sponsored by NSF.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Velasco, A. A. (Co-Principal), Serpa, L. F. (Co-Principal), Konter, B. R. (Co-Principal), Langford, R. P. (Co-Principal), "Upgrade of the Field Geophysics Laboratory (FGL) at the University of Texas at El Paso," Sponsored by NSF, Federal.

Serpa, L. F. (Principal), Goodell, P. C. (Co-Principal), Hurtado, J. M. (Co-Principal), Lougheed, V. L. (Co-Principal), Velasco, A. A. (Co-Principal), "Using 21st Century Media to Teach Earth Science to 21st Century Students," Sponsored by NSF, Federal.

Serpa, L. F. (Principal), Goodell, P. C. (Co-Principal), Hurtado, J. M. (Co-Principal), Lougheed, V. L. (Co-Principal), Velasco, A. A. (Co-Principal), "Using 21st Century Media to Teach Earth Science to 21st Century Students," Sponsored by NSF, Federal.

Serpa, L. F. (Principal), Goodell, P. C. (Co-Principal), Hurtado, J. M. (Co-Principal), Lougheed, V. L. (Co-Principal), Velasco, A. A. (Co-Principal), "Using 21st Century Media to Teach Earth Science to 21st Century Students," Sponsored by NSF, Federal.

Giza, B. H., Jarvis, R. S., Medina-Jerez, W. J., Velasco, A. A., Serpa, L. F., "UTEP Project GeoSciLead," Sponsored by NSF, Federal.

Doser, D. I. (Principal), Serpa, L. F. (Co-Principal), "InTeGrate: Interdisciplinary Teaching of Geoscience for a Sustainable Future," Sponsored by NSF, Federal, \$201,467.00. (January 1, 2012 - December 31, 2017).

Hsu, P.-L. (Principal), Serpa, L. F. (Co-Principal), Sarkodie-Gyan, T. (Co-Principal), Pennington, D. D. (Co-Principal), "Bridging Schools and Universities: Transforming Students' Partnerships with Scientists through Cogenerative Dialogues." (September 1, 2012 - August 31, 2015).

Hagedorn, E. A. (Principal), Wagler, A. E. (Co-Principal), Wagler, R. R. (Co-Principal), Serpa, L. F. (Co-Principal), Kosheleva, O. M. (Co-Principal), "Robert Noyce Scholarships for Teaching Miners," Sponsored by NSF, Federal, \$1,181,576.00. (September 1, 2010 - August 31, 2015).

Serpa, L. F., Velasco, A. A., "Collaborative Research: The role of fluids in the evolution of the Death Valley region, Ca," Sponsored by NSF, Federal. (August 1, 2012 - July 31, 2015).

Serpa, L. F. (Principal), Pennington, D. D. (Co-Principal), "Collaborative Research: Diversity and Innovation for Geosciences in Texas (DIG TEXAS) – An Alliance for Earth Science Literacy," Sponsored by NSF, \$111,462.00. (July 1, 2012 - June 30, 2015).

Serpa, L. F. (Principal), Langford, R. P. (Co-Principal), Pavlis, T. L. (Co-Principal), "METALS: Minority Education through Traveling and Learning in the Sciences," Federal. (January 2010 - December 2014).

Serpa, L. F. (Co-Principal), Langford, R. P. (Co-Principal), Pavlis, T. L. (Co-Principal), "METALS: Minority Education through Traveling and Learning in the Sciences," Federal. (January 2010 - December 2014).

- Pavlis, T. L. (Principal), Serpa, L. F. (Co-Principal), "3D visualization and advanced mapping techniques for metamorphic terranes using airborne LiDAR," Sponsored by NSF, Federal. (August 1, 2011 - July 31, 2014).
- Serpa, L. F., Kosheleva, O. M., "Integrating Math and Earth Science," Sponsored by THECB, State, \$210,639.00. (March 2012 - June 2014).
- Serpa, L. F. (Principal), Lim, K. H. (Co-Principal), Hagedorn, E. A. (Supporting), Kosheleva, O. M. (Supporting), "SABE MAS renewal: Supporting a Better Education in Science and Mathematics," Sponsored by Other, State, \$400,000.00. (August 2010 - August 2013).
- Serpa, L. F. (Principal), Lim, K. H. (Co-Principal), Hagedorn, E. A. (Supporting), Kosheleva, O. M. (Supporting), "MSTTPA: SABEMAS Learning Academy Renewal," Sponsored by Other, State, \$400,000.00. (August 2010 - August 2012).
- Serpa, L. F. (Co-Principal), Kosheleva, O. M. (Co-Principal), "Connecting Mathematics and Science across Grade Levels," State, \$272,000.00. (July 21, 2009 - June 20, 2012).
- Serpa, L. F. (Principal), Kosheleva, O. M. (Co-Principal), "Connecting Mathematics and Science across Grade Levels," Sponsored by THECB-ATP, State, \$272,000.00. (June 1, 2009 - May 30, 2012).
- Lougheed, V. L. (Principal), Wagler, A. E. (Co-Principal), Wagler, R. R. (Co-Principal), Hagedorn, E. A. (Co-Principal), Serpa, L. F. (Co-Principal), "Enhancing global change education through the development of novel technologies and teaching capacities," Federal. (2010).
- Lougheed, V. L. (Principal), Wagler, A. E. (Co-Principal), Wagler, R. R. (Co-Principal), Hagedorn, E. A. (Co-Principal), Serpa, L. F. (Co-Principal), "Enhancing global change education through the development of novel technologies and teaching capacities," Federal. (2010).
- Serpa, L. F. (Principal), Kosheleva, O. M. (Co-Principal), Hagedorn, E. A. (Supporting), Lim, K. H. (Supporting), Lesser, L. M. (Supporting), Eastman, M. P. (Supporting), "SABE MAS: Supporting a Better Education in Science and Mathematics," State, \$700,000.00. (August 2008 - August 2010).
- Lesser, L. M. (Supporting), Serpa, L. F. (Principal), "SABEMAS: Supporting A Better Education in Math And Science," State. (2008 - August 2010).
- Serpa, L. F. (Principal), Langford, R. P. (Co-Principal), Pavlis, T. L. (Supporting), "Building a new minority geoscience awareness program in an area impacted by the relocation of residents after hurricane Katrina," Federal, \$149,080.00. (September 5, 2007 - February 4, 2010).

#### **Other**

- Giza, B. H., Jarvis, R. S., Medina-Jerez, W. J., Velasco, A. A., Serpa, L. F., "UTEP Project GeoSciLead," Sponsored by NSF, Federal.

#### **Research**

- Pavlis, T. L. (Principal), Serpa, L. F. (Co-Principal), "3D visualization and advanced mapping techniques for metamorphic terranes using airborne LiDAR," Sponsored by NSF, Federal. (August 1, 2011 - July 31, 2014).
- Serpa, L. F. (Principal), Langford, R. P. (Co-Principal), Pavlis, T. L. (Supporting), "Building a new minority geoscience awareness program in an area impacted by the relocation of residents after hurricane Katrina," Federal, \$149,080.00. (September 5, 2007 - February 4, 2010).

## Sponsored Research

Giza, B. H. (Principal), Serpa, L. F. (Co-Principal), Medina-Jerez, W. J. (Co-Principal), Velasco, A. A. (Co-Principal), Jarvis, R. S. (Co-Principal), "Leadership in Geoscience Education," Sponsored by NSF.

## Intellectual Contributions in Submission

### Refereed Journal Articles

Hussein, M. J., Serpa, L. F., Doser, D. I., Velasco, A. A. The role of fluids in promoting seismic activity in active spreading centers of Salton Trough, California, USA. *International Journal of Geosciences*. [www.scrip.org](http://www.scrip.org)

Hussein, M. J., Serpa, L. F., Velasco, A. A., Doser, D. I. Variation in rifting driving force from comparing two narrow rift valleys, the Salton Trough and Death Valley-California. *Natural Science Journal*.

Hussein, M. J., Serpa, L. F., Doser, D. I., Velasco, A. A. The role of fluids in promoting seismic activity in active spreading centers of Salton Trough, California, USA. *Geosphere*. [geosphere.com](http://geosphere.com)

Hussein, M., Serpa, L. F., Doser, D. I., Velasco, A. A. Crustal structure of Death Valley, California, from analysis of receiver function, gravity and magnetic data. *International Journal of Geosciences*.

Wamalwa, A. M., Serpa, L. F. Resistivity Investigation of the Geothermal Potential of the Silali Volcano, Northern Kenya Rift, Using Electromagnetic Data. *Geosphere*.

Hussein, M., Velasco, A. A., Serpa, L. F., Doser, D. I. Crustal structure of Death Valley, California, from analysis of receiver function, gravity and magnetic data. *Journal of Geophysical Research*.

### Conference Proceedings

Suskavcevic, M., Serpa, L. F., Kosheleva, O. M.. Reston, Virginia: National Association for Research in Science Teaching. [www.narst.org](http://www.narst.org)

### Journal Articles

Del Pardo, C., Kreemer, C., Blewitt, G., Hammond, W., Konter, B. R., Serpa, L. F. Interseismic deformation and geologic evolution of the Death Valley Fault Zone. *Journal of Geophysical Research - Solid Earth*.

Wamalwa, A. M., Serpa, L. F., Doser, D. I. Investigations of ground water flow associated with the Saratoga Warm Springs and the Tecopa Hot Springs near Death Valley, California, using Magnetic and Conductivity Methods. *Tectonophysics*. [ees.elsevier.com/tecto/](http://ees.elsevier.com/tecto/)

Del Pardo, C., Smith-Konter, B., Serpa, L. F. Interseismic Deformation of the Death Valley Fault Zone. *Southern California Earthquake Center*.

### Other

Serpa, L. F., Langford, R. P., Pavlis, T. L.. Boulder, CO: Geological Society of America.



Hussein, M. J., Mickus, K., Serpa, L. F.. Geological Society of America, Cordilleran Section.

## **Research in Progress**

"changing attitudes about teaching math and science" (On-Going)

We are working to develop material that encourages PK-12 teachers to integrate math and science in the classroom

"changing the way we teach science" (On-Going)

This project involves developing online material to supplement or replace face to face teaching of basic earth science and evaluating the quality of learning that takes place with the revised class compared to more traditional teaching methods.

"Geothermal exploration" (On-Going)

I am involved in a number of projects related to geophysical exploration for geothermal resources.

## **SERVICE**

### **Department Service**

Committee Member, Departmental Review Committee. (August 2010 - Present).

Committee Member, Graduate Committee. (August 2009 - Present).

Committee Member, Graduate Committee. (August 2008 - Present).

Committee Member, Geophysics Committee. (August 2007 - Present).

Committee Chair, Graduate Committee. (August 2009 - August 2010).

### **College Service**

Committee Member, graduate committee.

Committee Member, Pavel Bezdek MS committee in Math. (December 5, 2011 - May 2012).

Committee Member, Science education. (August 2007 - August 2009).

### **University Service**

Committee Member, Graduate committee.

Faculty Mentor, NSF Graduate Fellowship advising. (November 2012 - December 2012).

### **Public Service**

Board Member, Shoshone Education and Research Center, Shoshone, CA. (1999 - December 2014).

Guest Speaker, Burgess High School Career Day, El Paso, Texas. (May 18, 2010).

### **Consulting**

For Profit Organization, Pearson Publishing. (July 2013 - February 2014).

## **Awards and Honors**

### **Service, Professional**

Nominated for Councilor, Geological Society of America. (November 2010).