

Curriculum Vitae: Anne S. Meltzer

Department of Earth & Environmental Sciences
Lehigh University
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Bethlehem, PA 18015
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EDUCATION:

Ph.D. 1989, Geology and Geophysics, Rice University, Houston, Texas.
Dissertation: Crustal structure and tectonic evolution: Central California
M.S. 1982, Geology, University of North Carolina - Chapel Hill, N.C.
Thesis: Scattering of earthquake waves beneath SCARLET, Southern California
B.S. 1980, Geology, Guilford College, Greensboro, N.C.

PROFESSIONAL EXPERIENCE:

2014 Francis J. Trembley Chair in Earth and Environmental Sciences
2004-2011 Dean, College of Arts and Sciences, Lehigh University, Bethlehem, PA
2002-2004 Chair, Earth & Environmental Sciences, Lehigh University, Bethlehem, PA
2001-pres. Professor, Earth & Environmental Sciences, Lehigh University, Bethlehem, PA
1999-2002 Director LEO (Lehigh Earth Observatory)
1995-2001 Associate Professor, Earth & Environmental Sciences, Lehigh University, Bethlehem, PA
1990-1995 Assistant Professor, Earth & Environmental Sciences, Lehigh University, Bethlehem, PA
1989-1990 Sr. Research Geologist, Exxon Production Research Co., Houston, TX.
1988-1989 Post-Doctoral Research Associate, Rice University, Houston, TX.
1982-1985 Geophysicist, Gulf Research and Development Company, Houston, TX.

FELLOWSHIPS AND AWARDS:

Hillman Award for Excellence in Graduate Advising
AGU Ambassador Award
AGU Fellow
Francis J. Trembley Chair in Earth and Environmental Sciences
Deming Lewis Award: Recognizing faculty who have significantly influenced the educational experience of the 10th year class.
Week's Visiting Professorship in Geology and Geophysics. University of Wisconsin
Lehigh University: Class of '61 Professorship
Rice University: Keck Fellowship, Leroy Caleb Gibbon Award in Geology, Outstanding Student Award - Houston Geologic Society
UNC-CH: Graduate Fellowship, McCarthy Fellowship for summer study in Geophysics
Guilford College: Dana Scholarship, Guilford Honor Society, graduated with High Honors and Departmental Honors

RESEARCH INTERESTS:

Physical properties and seismic response
High-resolution seismic imaging
Tectonic evolution of convergent margin systems
Feedback between tectonics and surficial processes

Earthquake physics and rupture processes
Evolution and deformation of the continents

PROFESSIONAL SOCIETIES:

American Geophysical Union
Geological Society of America
Seismological Society of America

SIGNIFICANT FIELD EXPERIENCE:

1983 Wide-angle sonobuoy profiling offshore Southern CA: experiment design, data acquisition, and analysis.
1984 Wide-angle sonobuoy profiling offshore Central and Northern CA: experiment design, data acquisition, and analysis.
1986 Marine multichannel reflection profiling offshore Central CA: experiment design, data acquisition, and analysis.
1991 Wide-angle field experiment, Savannah River, South Carolina: SGR preparation deployment, and recovery.
1991 Multichannel high-resolution reflection profiling and VSP profiling, Newark Rift Basin.
1992 Multichannel high-resolution refraction and reflection profiling, Pocono Lakes PA.
1993 Multichannel high-resolution refraction and reflection profiling, Puerto Rico.
1993 Wide-angle field experiment, Mendocino Triple Junction, California: IRIS REFTEK preparation deployment, and recovery.
1994 Marine multichannel reflection profiling offshore Northern CA: experiment design, data acquisition, and analysis.
1995 Multichannel high-resolution seismic reflection and ground penetrating radar profiling, Puerto Rico.
1995-6 Nanga Parbat - Pakistan. Deployment of 60 broadband and short period seismic stations to record local and regional earthquakes at the Nanga Parbat massif.
1996-7 GPR Profiling, shallow lake sediments, NE PA.
2002 High Resolution Reflection Profiling, InterAndean Valley Ecuador.
2002 Namche Barwa Tibet Pilot Project.
2003-04 Eastern Syntaxis Seismic Experiment - Deployment of 70 broadband and short period seismic stations to record local, regional, and teleseismic earthquakes in Eastern Tibet.
2004 High-resolution seismic and GPR profiling, InterAndean Valley Ecuador.
2010 IMAD – International Maule Aftershock Deployment.
2011 Mineral VA Earthquake Aftershock Deployment.
2012-2014 Hangay Dome Seismic Experiment - Deployment of 72 broadband seismic stations to record local, regional, and teleseismic earthquakes in Mongolia.
2014-2016 Hovsgol-Gobi Seismic Experiment - Deployment of 45 broadband seismic stations to record local, regional, and teleseismic earthquakes in Mongolia.
2016-2017 Pedernales Earthquake Aftershock Deployment, Ecuador.
2018 Bulnay Fault Zone Array

DATA PRODUCTS

Mendocino Triple Junction Seismic Experiment
Nanga Parbat Seismic Experiment
Eastern Syntaxis Seismic Experiment
IMAD – International Maule Aftershock Dataset

Mineral VA Earthquake Aftershock Dataset

Meltzer, Anne, (2012-2016) Central Mongolia Seismic Experiment Other/Seismic Network
doi:10.7914/SN/XL_2012

Meltzer Anne and Susan Beck (2016), 2016 Pedernales Earthquake Aftershock Deployment
Ecuador Other/Seismic Network, doi:10.7914/SN/8G_2016.

PUBLICATIONS: Articles and Reports, n=56; Abstracts and Conference Proceedings, n=176

Papers in Prep:

Stachnik, Josh, Anne Meltzer, Baasanbat Tsaagan, Ulziibat Munkhuu, Ray Russo, Isostatic support for high topography within a continental interior: Central Mongolia, for Geochemistry, Geophysics, and Geosystems.

Structure of lithospheric and upper mantle discontinuities beneath Central Mongolia from Receiver Functions, Cui, Zhongxiong, Anne Meltzer, Josh Stachnik, Karen Fischer, Ulziibat Munkhuu, Baasanbat Tsagaan, Raymond Russo for Geochemistry, Geophysics, and Geosystems.

Baigalimaa Ganbat, Anne Meltzer, Josh C Stachnik, Ulziibat Munkhuu, Estimation of coda wave attenuation in the Hangay Dome, central Mongolia, for Bulletin of the Seismological Society of America.

Papers in Revision:

Soto-Cordero, Lillian, Anne Meltzer, Mariah Hoskins, Joshua C. Stachnik, Hans Agurto-Detzel, Alexandra Alvarado, Susan Beck, Harley Benz, Philippe Charvis, Yvonne Font, Gavin Hayes, Stephen Hernandez, Sergio Leon-Rios, Colton Lynner, Jean-Mathieu Nocquet, Marc Regnier, Andreas Rietbrock, Frederique Rolandone, Mario Ruiz, Structural Control on Megathrust Rupture and Slip Behavior: Insights from the 2016 M_w 7.8 Pedernales Ecuador Earthquake, for Journal of Geophysical Research.

Lynner, Colton, Clinton Koch, Susan L Beck, Anne Meltzer, Lillian Soto-Cordero, Mariah Hoskins, Joshua C. Stachnik, Mario Ruiz, Alexandra Alvarado, Philippe Charvis, Yvonne Font, Marc Regnier, Hans Agurto-Detzel, Andreas Rietbrock, Upper-plate structure in Ecuador coincident with the Carnegie Ridge and the southern extent of the large megathrust earthquake sequence.

Papers Published in Professional Journals: n=40

Meltzer, Anne, Susan Beck, Mario Ruiz, Mariah Hoskins, Lillian Soto-Cordero, Joshua C. Stachnik, Colton Lynner, Rob Porritt, Daniel Portner, Alexandra Alvarado, Stephen Hernandez, Hugo Yepes, , Philippe Charvis, Yvonne Font, Marc Regnier, Hans Agurto-Detzel, Andreas Rietbrock, Sergio Leon-Rios, E. Diego Mercerat, 2019, The 2016 M_w 7.8 Pedernales Earthquake, Ecuador: RAPID Response Deployment, Seismological Research Letters, doi: 10.1785/0220180364.

Agurto-Detzel, H., Y. Font, P. Charvis, M. Régnier, A. Rietbrock, D. Ambrois, M. Paulatto, A. Alvarado, S. Beck, M.J. Hernandez, S. Hernandez, M. Hoskins, S. León-Ríos, C. Lynner, A. Meltzer, D. Mercerat, F. Michaud, J.M. Nocquet, F. Rolandone, M. Ruiz, L. Soto-Cordero, Ridge Subduction and Afterslip Control Aftershock Distribution of the 2016 M_w 7.8 Ecuador Earthquake, 2019, Earth and Planetary Science Letters 520 (2019) 63–76.
<https://doi.org/10.1016/j.epsl.2019.05.029>.

- Leon-Rios, Sergio, Andreas Rietbrock, Hans Agurto-Detzel, Yevonne. Font, Philippe Charvis, Marc Régnier, Alexandra Alvarado, Susan Beck, [Anne Meltzer](#), Mariah Hoskins, Lillian Soto-Cordero, 2019, 1D-velocity structure and seismotectonics of the Ecuadorian margin inferred from the 2016 Mw7.8 Pedernales aftershock sequence, *Tectonophysics*, 767, 228165, <https://doi.org/10.1016/j.tecto.2019.228165>.
- [Meltzer, Anne](#), Stachnik, Josh, Demberel Sodnomsambuu, Ulziibat Munkhuu, Baasanbat Tsagaan, Mungunsren Dashdondog, and Raymond Russo, The Central Mongolia Seismic Experiment: Multiple Applications of Temporary Broadband Seismic Arrays, *Seismological Research Letters*, 2019, doi: 10.1785/0220180360.
- Kim, Won-Young, Mitchell Gold, Joseph Ramsay, [Anne Meltzer](#), David Wunsch, Stefanie Baxter, Vedran Lekic, Phillip Goodling, Karen Pearson, Lara Wagner, Diana Roman, and Thomas L. Pratt, The Mw 4.2 Delaware Earthquake of 30 November 2017, *Seismological Research Letters* Volume 89, Number 6, doi: 10.1785/0220180124, 2018.
- Soto-Cordero, L., [A. Meltzer](#), J. C. Stachnik, Crustal Structure, Intraplate Seismicity, and Seismic Hazard in the Mid-Atlantic United States, *Seismological Research Letters*, Volume 89, Number 1, doi: 10.1785/0220170084 published online December 2017, print 2018.
- Zeitler, P.K., Koons, P.O., Hallet, B., and [Meltzer, A.S.](#), 2015, Comment on “Tectonic control of Yarlung Tsangpo Gorge revealed by a buried canyon in Southern Tibet.” *Science*, V 349, no. 6250, p 799, doi:10.1126/science.aaa9380.
- Berti, Claudio, Frank Pazzaglia, [Anne Meltzer](#), Richard Harrison, Evidence for persistent cumulative deformation of the Virginia piedmont in the vicinity of the 23 August, 2011 Mineral Earthquake, in *GSA Special Paper 509, The 2011 Mineral, Virginia, Earthquake, and Its Significance for Seismic Hazards in Eastern North America* (edited by J. Wright Horton Jr., Martin C. Chapman, and Russell A. Green), first published online December 2014, doi: 10.1130/2015.2509(21), print 2015.
- Zeitler, Peter, [Anne Meltzer](#), Lucy Brown, William Kidd, Chul Lim, and Eva Enkelmann, Tectonics and topographic evolution of Namche Barwa and the easternmost Lhasa Block, Tibet, *in* Nie, J., Hoke, G.D., and Horton, B., eds., *Towards an improved understanding of uplift mechanisms and the elevation history of the Tibetan Plateau*, *GSA Special Papers*, 507, 23-58, doi: 10.1130/2014.2507(02), 2014, invited.
- Beck, Susan, Andreas Rietbrock, Frederik Tilmann, Sergio Barrientos, [Anne Meltzer](#), Onno Oncken, Klaus Bataille, Steven Roecker, Jean-Pierre Vilotte, and Raymond M. Russo, Advancing Subduction Zone Science After a Big Quake, *Eos, Transactions American Geophysical Union* Volume 95, Issue 23, pages 193–194, doi: 10.1002/2014EO230001, 2014.
- McNamara, D.E., H. M. Benz, R. B. Herrmann, E.A. Bergman, Paul Earle, [A. Meltzer](#), M. Withers, and M. Chapman, The Mw 5.8 Mineral, Virginia earthquake of August 2011 and aftershock sequence: Constraints on earthquake source parameters and fault geometry, *Bull. Seism. Soc. Am.*, first published online Dec 2013, doi:10.1785/0120130058, *BSSA* v104, 40-54, 2014.
- Hayes, Gavin, Eric Bergman, Kendra Johnson, Harley Benz, Lucy Brown, [Anne Meltzer](#), Seismotectonic framework of the February 27, 2010 Mw 8.8 Maule, Chile earthquake sequence, *Geophys. J. Int.*, doi: 10.1093/gji/ggt238, 2013.
- Wolin, Emily, Seth Stein, Frank Pazzaglia, [Anne Meltzer](#), Alan Kafka, 2012, Mineral, Virginia, earthquake illustrates seismicity of a passive-aggressive margin, *Geophysical Research Letters*, 39, L02305, doi:10.1029/2011GL050310, 2012.
- Li, Chang, Robert D. van der Hilst, [Anne S. Meltzer](#), E. Robert Engdahl, 2008, Subduction of

- the Indian lithosphere beneath the Tibetan Plateau and Burma, *Earth and Planetary Science Letters*, 274, 157-168.
- S. Sol, A. Meltzer, R. Bürgmann, R. D. Van der Hilst, R. King, Z. Chen, P. Koons, E. Lev, Y. P. Liu, B., P. K. Zeitler, X. Zhang, J. Zhang, B. Zurek 2007, Geodynamics of the southeastern Tibetan plateau from seismic anisotropy and geodesy, *Geology*, 35, 563-566.
- Meltzer, A.S., 2003. EarthScope: Opportunities and challenges for earth-science research and education, *The Leading Edge*, 22, 268-271.
- Gulick, S. P. S., A. S. Meltzer, S.H. Clarke, 2002. Effect of the northward-migrating Mendocino Triple Junction on the Eel River forearc basin, California: Structural Evolution,, *GSA Bulletin*, 114, 1505-1519.
- Gulick, S. P. S., A. S. Meltzer, S.H. Clarke, 2002. Effect of the northward-migrating Mendocino Triple Junction on the Eel River forearc basin, California: Part 1. Stratigraphic Development, *GSA Bulletin*. 114,178-191.
- Koons, P.O., Chamberlain, C.P., Zeitler, P.K., Craw, D., Meltzer, A.S., Park, S., 2002, Crustal Reworking at Nanga Parbat: Mechanical Links Between River Erosion and Metamorphism, *American Journal of Science*, 302, 749-773.
- Chamberlain, C.P., Koons, P.O., Meltzer, A.S., Park, S.K., Draw, D., Zeitler, P., Poage, M.A., 2002, Overview of hydrothermal activity associated with active orogenesis and metamorphism: Nanga Parbat, Pakistan Himalaya, *American Journal of Science*, 302, 726-748.
- Meltzer, A.S., Sarker, G.L., Seeber, L., Armbruster, B., Beaudoin, B., 2001, Seismic characterization of an Active Metamorphic Massif, Nanga Parbat, Pakistan, Himalaya, *Geology*, 29, 651-654.
- Meltzer, A.S., Christensen, N.I., Long, C., 2001, Crustal Anisotropy: Implications for crustal velocity structure and shear-wave splitting, , *GRL*, 28, 2129-2132.
- Gulick, S. P. S., A. S. Meltzer, T. Henstock, A. Levander, 2001, Internal deformation of the southern Gorda plate: Fragmentation of a weak plate near the Mendocino triple junction, *Geology*, 29, 691-694.
- Zeitler, P. K., P. O. Koons, M. Bishop, C. P. Chamberlain, D. Craw, M. Edwards, S. Hamidullah, M. Q. Jan, M. A. Khan, M. U. K. Khattak, W. Kidd, R. Mackie, A. Meltzer, S. Park, A. Pecher, M. Poage, G. Sarker, D. Schneider, L. Seeber, J. Shroder, 2001, "Crustal Reworking at Nanga Parbat, Pakistan: Evidence for erosional focusing of crustal strain.", *Tectonics*, 20, 712-728.
- Zeitler, P. K., A. S. Meltzer, P. Koons, D. Craw, B. Hallet, C. P. Chamberlain, W. Kidd, S. Park, L. Seeber, M. Bishop, J. Shroder, 2001, Erosion, Himalayan Geodynamics, and the Geology of Metamorphism., *GSA Today*, 11, 4-8.
- Meltzer, Anne Roberta Rudnick , Peter Zeitler, Alan Levander, Gene Humphreys, Karl Karlstrom, Göran Ekström, Rick Carlson, Tim Dixon, Michael Gurnis, Peter Shearer, Rob van der Hilst, 1999, The USArray Initiative, *GSA Today*, 9, 8-10.
- Levander, A., Humphries, E.D., Ekstrom, E., Meltzer, A.S., Shearer, P.M., 1999, Proposed project would give unprecedented look under North America, *EOS*, 80, 245, 250-251.
- Miller, K.C., and A.S. Meltzer, 1999, Structure and Tectonics of the Central Offshore Santa Maria and Santa Lucia Basins, California: Results from the PG&E/EDGE Seismic Reflection Survey, US Geological Survey: Z1-Z12.
- Gulick, P.S., Meltzer, Anne S., Clarke, S.H., 1998, Seismic Structure of the Southern Cascadia Subduction Zone and Accretionary Prism North of the Mendocino Triple Junction, *Journal of Geophysical Research*, 103, 27207-27222.
- Godfrey, N.J., Meltzer, A.S., Klempner, S.L., Trehu, A., Leitner, B., Clarke, S.H., Ondrus, A.,

- 1998, Evolution of the Gorda Escarpment, San Andreas fault and Mendocino triple junction from multichannel seismic data collected across the northern Vizcaino block, offshore northern California, *Journal of Geophysical Research*, 103, 23813-23825.
- Levander, A., Henstock, T., Meltzer, A., Beaudoin, B., Trehu, A., Klemperer, S., Lendl, C., 1998, Fluids in the lower crust following Mendocino triple junction migration: Active basaltic intrusion?, *Geology*, 26, 171-174.
- Godfry, N.J., Beaudoin, B.C., Klemperer, S.L., Levander, A.R., Luetgert, J.H., Meltzer, A.S., Mooney, W.D., Trehu, A.M., 1997, Ophiolitic basement to the Great Valley forearc basin, California, from seismic and gravity data; implications for crustal growth at the North American continental margin, *GSA Bulletin*, 109, 1536-1562.
- Beaudoin, B.C., Godfry, N., Klemperer, S., Lendl, C., Trehu, A., Henstock, T., Levander, A., Holl, J., Meltzer, A., Luetgert, J.H., Mooney, W.D., 1996, The transition from slab to slabless: results from the 1993 Mendocino Triple Junction Seismic Experiment., *Geology*, 24, 195-199.
- Godfry, N., Beaudoin, B., Lendl, C., Meltzer, A., Luetgert, J., 1995, Data Report for the 1993 Mendocino Triple Junction Seismic Experiment, USGS Open-File Rept., 95-275, p.83.
- Henry, S.A., Levander, A.R., and A.S. Meltzer, 1993, Crustal structure of the offshore southern Santa Maria Basin and Transverse Ranges, Southern California, from deep seismic reflection data, *Journal of Geophysical Research*, 98, 8335-8348.
- Meltzer, A.S. and A. R. Levander, 1991, Deep Crustal Reflection Profiling Offshore Southern Central California, *Journal of Geophysical Research*, v. 96, p. 6475-6491.
- McIntosh, K.D., Reed, D.L., Silver, E.A., and Meltzer, A.S., 1991, Deep structure and basin inversion along the central California continental margin from the EDGE seismic profile RU-3, *Journal of Geophysical Research*, v. 96, p. 6492-6491.
- Meltzer, A.S., A.R. Levander and W. D. Mooney, 1987, Upper Crustal Structure, Livermore Valley, California, *Bulletin of the Seismological Society of America*, v. 77, #5, p 1655-1673.
- R.M. Kieckhefer, Russell, B.J., and A.S. Meltzer, 1987, The development of seismic-refraction techniques in the southern California borderland, in: *Marine Geophysics: a Navy Symposium*, Shor, E.N. and Ebrahimi, C.L. (eds.), Marine Physical Laboratory Rept. MPL-U-42/87, p. 43-51.
- Powell, C. A. and A. S. Meltzer, 1984, Scattering of P- waves beneath SCARLET in Southern California, *Geophysical Research Letters*, vol. 11 No. 5, p. 481-484.

Professional Papers/Publications: n=4

- EarthScope Workshop Organizing Committee (Carlson, R., Ellsworth, W., Freymueller, J., Henyey, T., Herring, T., Meltzer, A., Parrish, J., Simons, M., van der Hilst, R., McRaney, J.), EarthScope, Scientific Targets for the World's Largest Observatory Pointed at the Solid Earth, Workshop Report, submitted to NSF EAR Geoscience Division. 56 p. (Meltzer text contributor, report editor along with Rick Carlson).
- The EarthScope Working Group (Henyey, T., Herring, T., Hickman S., Jordan, T., McRaney, J., Meltzer, A., Minster, J., Nielson, D., Rosen, P., Silver, P., Simons, M., Simpson, D., Smith, R., Thatcher, W., Zoback, M.) 2000, EarthScope: A New View into the Earth, the EarthScope Project Plan, 2000, EarthScope Project Plan submitted to NSF EAR Geoscience Division. 36 p. (Meltzer Co-Wrote Project Plan w. EarthScope Working Group Chair, Tom Henyey).
- Romig, P. R., M. Baltuck, D. Butler, S. Danbom, W. Ghiorse, J. Herman, R. Knight, A. Meltzer, J. Mercer, J. Mitchell, F. D. Morgan, G. Olhoeft, K. Pruess, B. Spies, D. Steeples, B. Sternberg, K. Watson. (2000). Seeing into the Earth: Noninvasive Characterization of the Shallow Subsurface for Environmental and Engineering Applications. Washington D.C., National

Research Council: 129.

Meltzer, Anne, Roberta Rudnick, Peter Zeitler, Alan Levander, Gene Humphreys, Karl Karlstrom, Göran Ekström, Rick Carlson, Tim Dixon, Michael Gurnis, Peter Shearer, Rob van der Hilst, 1999, USArray: A synoptic investigation of the structure, dynamics, and evolution of the North American continent, White paper submitted to NSF EAR Geoscience Division. 65 p.

Articles: n=6

Frank Pazzaglia, Anne Meltzer, Claudio Berti, Noel Barstow, Dan McNamara, Alena Leeds, Mark Meremonte, Jim Luetgert, John Hole, Martin Chapman, Larry Brown, Won-Young Kim, Stephen Horton, Bob Herrmann, and Seth Stein, 2012, Mineral, VA Earthquake Demonstrates the Passive Aggressive Margin of Eastern North America, inSights the EarthScope newsletter, spring 2012.

Russo, R. M., Susan L. Beck, Anne S. Meltzer, Steve W. Roecker, Angela M. Reusch, Aaron Velasco, Carl Ebeling, and Paul M. Bremner, 2011, EarthScope Participates in Open Data Seismic Deployment Following 2010 Chile Earthquake, inSights the EarthScope newsletter, winter 2011, p 1-3.

Beck, Susan, Anne Meltzer, Ray Russo, Steve Roecker, Harley Benz, 2011, International Maule Deployment, IRIS Annual Report, 24-25.

Meltzer, A., Beaudoin, B., Zeitler, P., Schoemann, M., Seeber, L., Armbruster, 1997, A., A Short Walk up a Naked Mountain, IRIS Newsletter, Vol. XVI, #1, p.1-5.

Meltzer, A., and Fowler, J., 1997, Use of PASSCAL Instruments and Data Delivery Policy, IRIS Newsletter, Vol. XVI, #2, p.10.

Meltzer, A., Databases in the Field: A Broader Perspective, 1997, IRIS Newsletter, Vol. XVI, #2, p.11-14.

Unpublished Technical Memorandum (Gulf Research and Development Company, Exxon Production Research):n=6

Meltzer, A. S., 1989, Fault Study - Natuna Island Platform, Indonesia.

Fagin, S.W., and A.S. Meltzer, 1989, Structural Analysis of Block IV, Cormorant Field, North Sea.

Meltzer, A.S., R.M. Kieckhefer, and C.P. Yanchak, 1985, Refraction surveys offshore Northern and Central California: data acquisition, analysis, and interpretation.

Russell, B.J., A.S. Meltzer, R.M. Kieckhefer, A.R. Levander, and J.I. Ewing, 1984, Refraction surveys in the Santa Cruz Basin and Patton Ridge: California Borderlands.

Schweller, W.J., Meltzer, A.S., and Collins, B.C., 1984, Seismic stratigraphy of the Santa Cruz Basin, California Borderland.

Russell, B.J., and A.S. Meltzer, 1984, Paleogeographic reconstructions of the California Continental Margin: Part I.

Sanislo, R.B., J.S. Kotcher, and A.S. Meltzer, 1983, Seismic Inversion Interpretation in St. George Basin, Bering Sea.

Abstracts Published and Conference presentations 2018-2011: n=65; 1985-2010: n=111

Welkey, Jessica, Anne Meltzer, Josh C Stachnik, Ulzibat Munkhuu, Baasanbat Tsagaan and Raymond M Russo, Intracontinental Deformation and Crustal Structure: Hangay Dome, Central Mongolia, T31D-0331, 2018 Fall Meeting, AGU, Washington D.C. 10-14 Dec. doi: 10.1002/essoar.10500539.1

- Agurto-Detzel, Hans, Yvonne Font, Philippe Charvis, Alexandra Patricia Alvarado, David Ambrois, Susan L Beck, Mariah Hoskins, Sergio Leon Rios, Colton Lynner, Anne Meltzer, Jean-Mathieu Nocquet, Marc M Regnier, Andreas Rietbrock, Frederique Rolandone, Mario Calixto Ruiz and Lillian Soto-Cordero, Aftershocks of the 2016 Mw 7.8 Ecuador Earthquake Reveal Earthquake Cycle is Controlled by Long-Lived Structures, T52B-04, 2018 Fall Meeting, AGU, Washington D.C. 10-14 Dec.
- Mariah Hoskins, Anne Meltzer, Lillian Soto-Cordero, Josh Stachnik, Susan L Beck, Colton Lynner, Mario Calixto Ruiz, Alexandra Patricia Alvarado, Stephen Hernandez, Philippe Charvis, Yvonne Font, Jean-Mathieu Nocquet, Frederique Rolandone, Marc M Regnier, Hans Agurto-Detzel, Sergio Leon Rios, and Andreas Rietbrock, Variable Slip Modes in Postseismic, Deformation North of the April 16, 2016 Mw 7.8 Pedernales, Ecuador Megathrust Earthquake, T43E-0444 2018 Fall Meeting, AGU, Washington D.C. 10-14 Dec.
- Koch, Clinton D, Colton Lynner, Jonathan R Delph, Susan L Beck, Anne Meltzer, Mariah Hoskins, Lillian Soto-Cordero, Mario Calixto Ruiz, Alexandra Patricia Alvarado, Yvonne Font, Marc M Regnier, Laurence Audin, Philippe Charvis, and Andreas Rietbrock, Crustal Structure of the Ecuadorian Forearc, from the Joint Inversion of Receiver Functions and Ambient Noise Dispersion Data, T43E-0459, 2018 Fall Meeting, AGU, Washington D.C. 10-14 Dec.
- Lynner, Colton, Susan L Beck, Clinton D Koch, Anne Meltzer, Lillian Soto-Cordero, Mario Calixto Ruiz, Alexandra Patricia Alvarado, Philippe Charvis, Yvonne Font, Marc M Regnier, Hans Agurto-Detzel and Andreas Rietbrock, Ambient noise tomography across Ecuador: Upper-plate structure coincident with the Carnegie Ridge and the southernmost extent of megathrust earthquakes, T21F-0278, 2018 Fall Meeting, AGU, Washington D.C. 10-14 Dec.
- Caves Rugenstein, Jeremy K.; Methner, Katharina; Lüdecke, Tina; Mulch, Andreas; Wacker, Ulrike; Fiebig, Jens; Meltzer, Anne; Wegmann, Karl; Bayshashov, Bolat; Page Chamberlain, C., Tracking interactions of the jet-stream and topography: uplift of the Tian Shan and Altai, EGU Geophysical Research Abstracts, Vol. 20, EGU2018-5476, EGU General Assembly 4-13 April, 2018, Vienna, Austria.
- Hoskins M. C., Meltzer A., Soto-Cordero L., Stachnik J. C., Sirait A. M. M., Beck, Lynner C., Ruiz M. C., Alvarado A., Hernandez S., Charvis P., Font Y., Nocquet J. M., Regnier M., Argurto-Detzel H., León-Ríos S., Rietbrock A., Rolandone F., Postseismic Deformation: The Esmeraldas, Ecuador, Seismic Sequence following the 2016 Pedernales Megathrust Earthquake, 2018 SSA Annual Meeting, Miami, Florida, 15-17 May.
- Soto-Cordero L., Meltzer A., Stachnik J. C., Agurto-Detzel H., Alvarado A., Beck S., Benz H. M., Bergman E., Charvis P., Font Y., Hayes G. P., Hernandez S., Hoskins M. C., Lynner C., Nealy J., Regnier M., Rietbrock A., Yeck W. L., Ruiz M., Leon Rios S., The Mw 7.8 2016 Pedernales, Ecuador Earthquake Aftershock Sequence: a Detailed Spatio-Temporal Analysis of the Rupture Processes, Stress Patterns and Slip Behavior, 2018 SSA Annual Meeting, Miami, Florida, 15-17 May.
- Font Y., Agurto-Detzel H., Alvarado A., Regnier M., Rolandone F., Charvis P., Mothes P. A., Nocquet J. M., Jarrin P., Ambrois D., Maron C., Cheze J., Ruiz M. C., Singaicho J. C., De Barros L., Ramos C., Rietbrock A., Deschamps A., Courboulex F., Ponce G., Beck S., Meltzer A., Constraints from 3D Earthquake Location for Aftershocks of the Mw=7.8 2016 Pedernales Earthquake (Ecuador Subduction Zone), 2018 SSA Annual Meeting, Miami, Florida, 15-17 May.
- Leon-Rios S., Rietbrock A., Edwards B., Holt J., Agurto-Detzel H., Charvis P., Font Y., Nocquet J. M., Regnier M., Beck S., Meltzer A., Alvarado A., Cordero-Soto L., Ruiz M., Perrault M., Minimum 1D Velocity Model For The Central Ecuadorian Subduction Zone Inferred From The Aftershock Sequence Of The 2016 Mw 7.8 Pedernales Earthquake, 2018 SSA Annual Meeting, Miami, Florida, 15-17 May.

Lillian Soto-Cordero, Jennifer Leigh Nealy, [Anne Meltzer](#), Hans Agurto-Detzel, Alexandra Patricia Alvarado, Susan L Beck, Harley Benz, Eric A Bergman, Philippe Charvis, Yvonne Font, Gavin P Hayes, Stephen Hernandez, Mariah Hoskins, Sergio Leon Rios, Colton Lynner, Marc M Regnier, Andreas Rietbrock, Josh C Stachnik, William L Yeck, New insights on co- and post-seismic deformation and slip behavior associated with the Mw7.8 2016 Pedernales, Ecuador earthquake and its aftershock sequence, S53C-0715, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Cui, Zhongxiong, [Anne Meltzer](#), Anne, Karen Fischer, Josh Stachnik, Ulziibat Munkhuu, Baasanbat Tsagaan, Ray Russo, Structure of Lithospheric and Upper Mantle Discontinuities beneath Central Mongolia from Receiver Functions, DI23A-0413, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Scott, Adrienne, [Anne Meltzer](#), Josh Stachnik, Ray Russo, Ulziibat Munkhuu, Baasanbat Tsagaan, Crustal Structure of Khövsgöl, Mongolia, T23E-0660, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Woodward, Robert, Andrew Frassetto, [Anne Meltzer](#), An Overview of Seismic Observations Along the Pacific Margin of South America: Opportunities for the SZ4D Initiative, S51G-07, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Colton Lynner, Susan L Beck, Robert Porritt, [Anne Meltzer](#), Alexandra Patricia Alvarado, Ponce Gabriela, Mario Calixto Ruiz, Mariah Hoskins, Josh Stachnik, Andreas Rietbrock, Sergio Leon-Rios, Marc M Regnier, Hans Agurto-Detzel, Yvonne Font, and Philippe Charvis, Ambient noise tomography of Ecuador: Fore- and back-arc velocity structure and radial anisotropy, T32B-05, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Hans Agurto-Detzel, Yvonne Font, Philippe Charvis, David Ambrois, Jerome Cheze, Francoise Courboux, Louis De Barros, Anne Deschamps, Audrey Galve, Maxime Godano, Mireille Laigle, Xavier Martin, Tony Monfret, Davide Oregioni, Fabrice Peix, Marc M Regnier, Ben Yates, Diego Mercerat, Sergio Leon Rios, Andreas Rietbrock, Wilson Acero, Alexandra Patricia Alvarado, Ponce Gabriela, Christophe Maron, Cristina Ramos, Mario Calixto Ruiz, Juan Carlos Singaicho, Freddy Vasconez, Cristian Viracucha, Susan L Beck, Colton Lynner, Mariah Hoskins, [Anne Meltzer](#), Lillian Soto-Cordero, Josh Stachnik, Aftershock Analysis of the 2016 Mw7.8 Pedernales (Ecuador) Earthquake: Seismotectonics, Seismicity Distribution and Relationship with Coseismic Slip Distribution, S53C-0716, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Yvonne Font, Hans Agurto-Detzel, Alexandra Patricia Alvarado, Marc M Regnier, Frederique Rolandone, Philippe Charvis, Patricia A Mothes, Jean Mathieu Nocquet, Paul Jarrin, David Ambrois, Christophe Maron, Anne Deschamps, Jerome Cheze, Fabrice Peix Sr, Mario Calixto Ruiz, Ponce Gabriela, Wilson Acero, Juan Carlos Singaicho, Cristian Viracucha, Freddy Vasconez, Louis De Barros, Diego Mercerat, Francoise Courboux, Audrey Galve, Maxime Godano, Tony Monfret, Cristina Ramos, Xavier Martin, Andreas Rietbrock, Susan L Beck and [Anne Metlzer](#), Aftershock Distribution of the Mw=7.8 April 16, 2016 Pedernales Ecuador Subduction Earthquake: Constraints from 3D Earthquake Locations, S51G-06, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Sergio Leon-Rios, Ana luiza Aguiar, Lidong Bie, Benjamin Edwards, Amaya Josefina Fuenzalida Velasco, James Holt, Thomas Garth, Pablo J González, Andreas Rietbrock, Hans Agurto-Detzel, Philippe Charvis, Yvonne Font, Jean Mathieu Nocquet, Marc M Regnier, Alexandra Renouard, Diego Mercerat, Michel Pernoud, Susan L Beck, [Anne Meltzer](#), Lillian Soto-Cordero, Alexandra Patricia Alvarado, Matthieu Perrault, Mario Calixto Ruiz, and Javier Santo, The 2016 Mw 7.8 Pedernales, Ecuador earthquake: Minimum 1D Velocity Model and Regional Moment Tensors Based on the Aftershock Sequence, S53C-0717, 2017 Fall Meeting, AGU, New Orleans, LA 11-15 Dec.

Scott, Adrienne, [Anne Meltzer](#), Josh Stachnik, Crustal Structure of Khövsgöl, Mongolia, Geological Society of America Abstracts with Programs. Vol. 49, No. 6
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[Anne Meltzer](#), Josh Stachnik, Demberel Sodnomsambuu, Ulziibat Munkhuu, Baasanbat Tsaagan, Raymond Russo, Zhongxiong Cui, High Topography and Deformation in Continental Interiors: Structure and Geodynamics of Central Mongolia, International Conference on Astronomy and Geophysics Mongolia, Ulaanbaatar Mongolia, 20-22 July 2017.

Josh Stachnik, [Anne Meltzer](#), Demberel Sodnomsambuu, Ulziibat Munkhuu, Baasanbat Tsaagan, Raymond Russo, Crust and Upper Mantle Structure of Central Mongolia, International Conference on Astronomy and Geophysics Mongolia, Ulaanbaatar Mongolia, 20-22 July 2017.

Baigalimaa Ganbat, [Anne Meltzer](#), Josh C Stachnik, Ulziibat Munkhuu, Estimation of coda wave attenuation in the Hangay Dome, central Mongolia, International Conference on Astronomy and Geophysics Mongolia, Ulaanbaatar Mongolia, 20-22 July 2017.

[A. Meltzer](#), S. Beck, A. Alvarado, M. Chambers, P. Charvis, Y. Font, S. Hernandez, C. Lynner, M. M. Regnier, A. Rietbrock, M. Ruiz, L. Soto-Cordero, A. Siraït, J. Stachnik, H. Yepes, Subduction Zone Earthquake Rupture and Aftershock Sequences: Insights from the April 2016 Pedernales Earthquake, Ecuador, 2017 SSA Annual Meeting, Denver, Colorado, 18-20 April.

L. Soto-Cordero, [A. Meltzer](#) and J. Stachnik, Effectiveness of subspace detectors to assess the occurrence of repeating earthquakes and to lower the magnitude threshold in the Mid-Atlantic US, 2017 SSA Annual Meeting, Denver, Colorado, 18-20 April.

[Meltzer, Anne](#), Susan L Beck, Mario Ruiz, Stephen Hernandez, Alexandra Alvarado, Marc M Regnier, Andreas Rietbrock, Yvonne Font, Philippe Charvis, Hugo A Yepes, Colton Lynner, Robert W Porritt, Seismicity in the Wake of the April 2016 Pedernales Earthquake, T51E-2986, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Soto-Cordero, Lillian, [Anne Meltzer](#), Stachnik, J.C., Characterization of Intraplate Seismicity in the Mid-Atlantic US, T51G-3010, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Cui, Zhongxiong, [Anne Meltzer](#), Josh Stachnik, Karen Fischer, Ray Russo, Ulziibat Munkhuu, Baasanbat Tsaagan, Structure of the Upper Mantle and Mantle Transition Zone in Central Mongolia, T11B-2625, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Russo, Ray, [Anne Meltzer](#), Josh Stachnik, Ulziibat Munkhuu, Baasanbat Tsaagan, Cui, Zhongxiong Upper Mantle Fabrics of the Mongolian Central Asian Orogenic Belt: Observations and Inferences from Shear Wave Splitting Intensity Measurements, T33B-3028, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Leon, Sergio, Amaya Fuenzalida, Lidong Bie, Thomas Garth, Pablo J Gonzalez, James Holt, Andreas Rietbrock, Benjamin Edwards, Marc M Regnier, Michel Pernoud, Enrique D Mercerat, Matthieu Perrault, Yvonne Font, Alexandra Alvarado, Philippe Charvis, Susan L Beck, [Anne Meltzer](#), The Seismic Sequence of the 2016 Mw 7.8 Pedernales, Ecuador Earthquake. T51E-2987, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Font, Yvonne, Mario Ruiz, Alexandra Alvarado, Diego Mercerat, Susan Beck, Sergio Rios, [Anne Meltzer](#), Philippe Charvis, Marc Regnier, Paul Jarrin, Andreas Rietbrock, Freddy Vasconez, Viviana Dionicio, Marta Lucia Calvache, Juan Singaicho, Andres Pazmino1, Frederique Rolandone, Patricia Mothes, Jean-Mathieu Nocquet, Xavier Martin, Cristian Viracucha, Laurence Audin, Marianne Saillard, Aurore Laurendeau, Matthieu Perrault, Thomas Garth, Michel Pernoud, Juan Barros, Ben Yates, Deny Malengros, Davide Oregioni, Juan Villegas Lanza, David Cisneros, Juan Gomez, Luis Montes Céline Beauval, Etienne Bertrand, Bertrand Delouis, Andres Gorki Ruiz Paspuel, Jeffrey Freymueller, Keith Williams, Peter La Femina, Amaya Fuenzalida, Judith Mariniere, Jerome Cheze, Philippe Gueguen, Christophe Maron, Francois Michaud, Hugo Yepes, Pablo Palacios, Martin Vallee, Anne Deschamps, Gabriela

- Ponce, David Ambrois, Cristina Ramos, Françoise Courboux, International postseismic response after the Mw=7.8 April 16, 2016 Pedernales Earthquake in Ecuador, T51E-2977, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
- Soto-Cordero, Lillian, Anne Meltzer, Stachnik, J.C., Intraplate Seismicity in the Mid-Atlantic US, Paper No. 202-5, 2016 GSA Annual Meeting, Denver, Colorado, USA, 25-28 Sept.
- Meltzer, Anne, Lenny Ancuta, Richard Carlson, Jeremy Caves, C. Page Chamberlain, John Gosse, Bruce Idleman, Dmitri Ionov, Kalin McDannell, Tamra Mendelson, Hari Mix, Ulziibat, Munkhuu, Alex Proussevitch, Ray Russo, Mark Sabaj-Perez, Dork Sahagian, Derek Sjostrom, Stephen Smith, Josh Stachnik, Baasanbat Tsagaan, Karl Wegmann, Matt Winnick, Peter Zeitler, Betwixt and Between: Structure and Evolution of Central Mongolia, T22A-05, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- Meltzer, Anne, Brown, Larry, Song, Xiaodong, The Himalaya-Tibet System: A Natural Laboratory for Continental Collision and Seismogenesis, T11F-01, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec. Invited.
- Cui, Zhongxiong, Anne Meltzer, Josh Stachnik, Characterizing the Lower Crust in Southern Tibet by a New Layer-stripping Method, T21C-2840, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- Soto-Cordero, Lillian, Anne Meltzer, Stachnik, J.C., Characterization of Intraplate Seismicity in the Mid-Atlantic US, T11D-2930, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- Zeitler, Peter, Meltzer, Schmidt, Jennifer, Meltzer, Anne, Lateral Variations in lithospheric and landscape evolution at both ends of the Himalaya-Tibet orogen, T13G-02, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- Soto-Cordero, Lillian, Anne Meltzer, Stachnik, J.C., Crustal Structure of the Mid-Atlantic, Eastern United States, Paper No. 182-2, 2015 GSA Annual Meeting, Baltimore, MD, 1-4 Nov.
- Stachnik, Josh, Anne Meltzer, Stephanie Souza, Baasanbat Tsagaan, Ulziibat Munkhuu, Ray Russo, Lithospheric Structure Beneath the Hangay Dome, Central Mongolia, T21A-4555, 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Cui, Zhongxiong, Anne Meltzer, Josh Stachnik, Characterization of High Velocity Layer in the Lower Crust of Southern Tibet, T21B-4571, 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Soto-Cordero, Lillian, Anne Meltzer, Assessment of the Initial Response from Tsunami Monitoring Services Provided to the Northeastern Caribbean, NH13A-3731, 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Souza, Stephaine, Anne Meltzer, Josh Stachnik, Baasanbat Tsagaan, Ulziibat Munkhuu, Ray Russo, Upper Mantle Structure: Hangay Dome Central Mongolia, Paper No. 122-2, 2014 GSA Annual Meeting, Vancouver, British Columbia (19-22 October 2014).
- Willemann, R. J., Susan Beck, Jay Pulliam, Eric Sandvol, Anne Meltzer, Michael Pasyanos, John Louie, Felix Waldhauser, Ray Russo, Developing Worldwide Capacity for Analysis of Data Supporting Earthquake Hazard Analysis, SRL, 85, 2, 358, 2014.
- Stachnik, Josh, Anne Meltzer, Baasanbat Tsagaan, Ulziibat Munkhuu, Ray Russo, Stephanie Souza, Phil Martin, Crustal and upper mantle structure of the Hangay Dome, central Mongolia, T42B-07, 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- Megan Torpey; Raymond M. Russo; Susan L. Beck; Anne Meltzer; Steven W. Roecker, Seismic Attenuation in the Rupture Zone of the 2010 Maule, Chile, Earthquake: Two Spectral Ratio Methods, S23C-05, Meeting of the Americas, Cancun, Mexico, 14-17 May 2013.
- Steven W. Roecker; Susan L. Beck; Mallory Morell; Kevin M. Ward; George Zandt; Anne Meltzer; Josh C. Stachnik; Raymond M. Russo; Megan Torpey; Harley Benz, Aftershocks and Images of South Central Chile: Results from the Analysis of the IMAD Data Set, S23C-06, Meeting of the

- Americas, Cancun, Mexico, 14-17 May 2013.
- Stachnik, Josh, and Anne Meltzer, Spatial and Temporal Distribution of Aftershock Seismicity using the Complete IMAD Dataset, Maule Earthquake Workshop, Concepción, Chile, March 4-8, 2013.
- Susan Beck, Mallory Morell, Kevin Ward, George Zandt, Steve Roecker, Anne Meltzer, Lucy Brow, Ray Russo, Harley Benz; Imaging the forearc in South Central Chile, Latin American Seismology Symposium in Lima, Peru Sept 23-27, 2012.
- Anne Meltzer; Leonard D. Ancuta; Richard W. Carlson; Jeremy K. Caves; Page Chamberlain; John C. Gosse; Bruce D. Idleman; Dmitri A. Ionov; Kalin T. Mcdannell; Tamra Mendelson; Hari T. Mix; Ulziibat Munkhuu; Alexander A. Proussevitch; Raymond M. Russo; Mark Sabaj-Perez; Dork L. Sahagian; Derek J. Sjostrom; Josh C. Stachnik; Baasanbat Tsagaan; Karl W. Wegmann; Matthew J. Winnick; Peter K. Zeitler, 2012, Intracontinental Deformation and Surface Uplift - Geodynamic Evolution of the Hangay Dome, Mongolia Central Asia, Abstract T12A-05 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Richard W. Carlson, Leonard D. Ancuta, Matthew J. Fouch, Bruce D. Idleman, Dmitri A. Ionov, David E. James, Anne Meltzer, Graham Pearson, Steven B. Shirey, Peter K. Zeitler, 2012, The Role of the Mantle Lithosphere in Continent Stability, Abstract T11D-02 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Peter K. Zeitler, Anne Meltzer, 2012, Signal and Noise in the Evolution of the Continental Lithosphere: Lessons from the Himalayan Syntaxes, Abstract T13I-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Gavin P. Hayes, Eric A. Bergman, Harley Benz, Lucy Brown, Anne Meltzer, 2012, Seismotectonic Framework of the Feb 27, 2010 Mw 8.8 Maule, Chile Earthquake Sequence, Abstract S24A-04 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Frank J. Pazzaglia; Anne Meltzer, Claudio Berti, Josh C. Stachnik, Seth A. Stein, William E. Holt, 2012, Evidence for persistent faulting consistent with the 23 August, 2011 Louisa County, VA earthquake, Abstract S53I-08 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Claudio Berti, Frank Pazzaglia, Anne Meltzer, Richard Harrison, 2012, Geomorphic Evidence for Persistent Faulting Consistent with the 23 August, 2011 Louisa County, VA Earthquake, Paper No. 154-15, presented at 2012 Fall Meeting, GSA, Charlotte, NC, 4-7 Nov., GSA Abst. w/Programs, v44, no7, p382.
- Anne Meltzer, Josh Stachnik, Baasanbatt Tsagann, and Ulziibat Munkhuu, Intracontinental Deformation and Surface Uplift in Mongolia: Research and Open Data Access as Key Components of Seismic Hazard Mitigation, The 9th General Assembly of Asian Seismological Commission 2012, September 17-20, Ulaanbaatar, Mongolia.
- Anne Meltzer, Harley Benz, Lucy Brown, Raymond M. Russo, Susan L. Beck, Steven W. Roecker, 2011, The Mw=8.8 Maule earthquake aftershock sequence, event catalog and locations, Abstract S11A-2193 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Mallory Morell, Susan L. Beck, Steven W. Roecker, Anne Meltzer, Raymond M. Russo, 2011, Receiver Function Migration of Broadband Seismograms recorded by the International Maule Aftershock Deployment (IMAD) in Central Chile, Abstract S11A-2203 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Olga A. Cabello, Anne Meltzer, Eric A. Sandvol, Hugo Yepes, Mario C. Ruiz, Sergio E. Barrientos, Raymond J. Willemann, 2011, Capacity Building for Sustainable Seismological Networks in the Americas: A Pan-American Advanced Studies Institute on New Frontiers in Seismological Research, Abstract PA13B-1755 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

- Seth A. Stein, Frank J. Pazzaglia, Anne Meltzer, Claudio Berti, Emily Wolin, Alan L. Kafka, 2011, Mineral, Virginia earthquake illustrates seismicity of a passive-aggressive margin Abstract S14B-08 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Lucy E. Brown, Anne Meltzer, 2011, Earthquake location, active faulting, and P-wave velocity structure near a massif in the eastern syntaxis of the Tibetan Plateau, Abstract T53C-05 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Anne Meltzer and Peter Zeitler, 2011, Active Tectonics and Geodynamic Implications of the Namche Barwa Knickpoint, SE Tibet, Abstract presented at International Symposium on Deep Earth Exploration – SinoProbe Workshop, Beijing China, 16-18 Nov.
- Anne Meltzer, 2011, EarthScope USArray Science Results: A Mid-Term Report, Abstract presented at International Symposium on Deep Earth Exploration – SinoProbe Workshop, Beijing China, 16-18 Nov.
- Anne Meltzer, 2011, Building Science Capacity: A Key Component of Sustainable Network Operations, Abstract 11-208 presented at SSA meeting, The 2011 Bi-Lateral Workshop under the Sino-US Earthquake Studies Protocol: Great Earthquakes in the 21st Century and Geodynamics, Chengdu, China, 22-25 April.
- Anne Meltzer, 2011, Signal or noise? Significance of variability in the Himalaya-Tibet System, Abstract presented at The 2011 Bi-Lateral Workshop under the Sino-US Earthquake Studies Protocol: Great Earthquakes in the 21st Century and Geodynamics, Chengdu, China, 22-25 April.
- Lucy Brown and Anne Meltzer, 2011 Earthquake location, active faults, and upper crustal structure near Namche Barwa in the eastern syntaxis of the Tibetan Plateau, Abstract presented at The 2011 Bi-Lateral Workshop under the Sino-US Earthquake Studies Protocol: Great Earthquakes in the 21st Century and Geodynamics, Chengdu, China, 22-25 April.
- Anne Meltzer, Sergio Barrientos, Noel Barsto, Olga Cabell, Karen Fischer, Art Lerner-Lam, Andy Nyblade, Eric Sandvol, Niyazi Türkelli, and Ray Willemann, 2001, Geophysical infrastructure, seismological research, and earthquake hazard assessment: Bridging the gap, Geophysical Research Abstracts Vol. 13, EGU General Assembly 2011.

Abstracts Published and Conference presentations 1985-2010: n=111

FILM:

Nanga Parbat, Naked Mountain. Independent documentary film, produced by Earth Images with support from the National Science Foundation, marketed by Bullfrog Films (www.bullfrogfilms.com). Won Certificate of Merit, Chicago International Television Awards. Film reveals the excitement of scientific exploration and discovery associated with basic research. Broadcast in Europe and in the U.S. on numerous PBS stations. Received significant airplay post September 2001, particularly in Europe. This was followed in 2002 with airplay in the U.S.

INVITED LECTURES:

Southern Methodist University, Dallas, TX (2018): Subduction Zone Megathrust Rupture: Insights from the April 2016 Pedernales Earthquake, Ecuador
 University of Florida, Gainesville, FL (2017): Betwixt and Between, High Topography in Continental Interiors: Structure and Evolution of Central Mongolia
 American Geophysical Union San Francisco, CA (2015): The Himalaya-Tibet System: A Natural Laboratory for Continental Collision and Seismogenesis

National Geophysical Networks in Latin America, Santiago, Chile (2015): Sustainable Networks: Challenges and Opportunities

National Geophysical Networks in Latin America, Santiago, Chile (2015): Subduction Zone Observatory: Concept(s) and Opportunities

Universitas Gadjah Mada, Yogyakarta, Indonesia (2015): Subduction Zone Observatory: An international multi-disciplinary observatory along subduction zone plate boundaries

Universitas Gadjah Mada, Yogyakarta, Indonesia (2015): EarthScope USArray

PASSCAL Workshop, San Francisco, CA (2014): Planning and Implementing Portable Broadband Experiments.

IRIS Workshop, Sunriver OR, (2014): Grand Challenges and Scientific Themes

China Earthquake Administration, Beijing China (2013): Intracontinental Deformation and Surface Uplift – Geodynamic Evolution of the Hangay Dome, Mongolia Central Asia

Instituto Geofisico de la Escuela Politecnica Nacional, Quito Ecuador (2013): Temporary Seismic Array and Imaging Lithospheric Structure.

EarthScope National Meeting, Raleigh North Carolina (2013): EarthScope: From a Spark of an Idea to Inception, Lessons Learned from a Successful Community Earth Science Initiative

Institute for Tibetan Plateau Research, Beijing China (2012): Lhasa Block Top to Bottom--Lithospheric Evolution of Asia's Leading Edge

Nanjing University, Nanjing China (2012): Lhasa Block Top to Bottom--Lithospheric Evolution of Asia's Leading Edge

University of North Carolina – Chapel Hill (2012): Signal or noise? Significance of variability in the Himalaya-Tibet system

University of Illinois at Urbana-Champaign (2012): Signal or noise? Significance of variability in the Himalaya-Tibet system

International Symposium on Deep Earth Exploration, Beijing China (2011): Active Tectonics and Geodynamic Implications of the Namche Barwa Knickpoint, SE Tibet

International Symposium on Deep Earth Exploration, Beijing China (2011): EarthScope USArray Science Results: A Mid-Term Report

Seismological Society of America (2011): Building Science Capacity: A Key Component of Sustainable Network Operations

University of Western Ontario (2003): Beyond Isostasy: A tale of Two Indentor Corners

EarthScope Complimentary Geophysics Workshop (2003): USArray Data Products

American Association for the Advancement of Science (2002): The Dynamic Earth: Insights from Multi-Scale Imaging

Penn State (2002): Beyond Isostasy: A tale of Two Indentor Corners

Stonybrook (2001): Seismic characterization of an active metamorphic massif, Nanga Parbat, Pakistan Himalaya.

National Research Council (2001): Review of EarthScope, EarthScope/USArray presentation.

IRIS Annual Workshop (2001): Crustal Anisotropy, Implication for Crustal Structure and Shear-Wave Splitting.

Rochester Polytechnical Institute (2001): Seismic characterization of an active metamorphic massif, Nanga Parbat, Pakistan Himalaya.

University of Wisconsin (2000): Crustal Reworking During Orogeny: An active System Himalayan Perspective

University of Wisconsin (2000): Structural and Stratigraphic Signatures Associated with Triple Junction Migration

Harvard (1999): Crustal Reworking During Orogeny: An active System Himalayan Perspective

Purdue (1999): Crustal Reworking During Orogeny: An active System Himalayan Perspective

GSA Town Meeting (1999): The USArray Initiative.
Princeton (1998): Crustal Reworking During Orogeny: An active System Himalayan Perspective
GSA Penrose Conference (1998): The Transition From Subduction To Transform Regime:
Structural And Stratigraphic Signatures Associated With Triple Junction Migration Offshore
Northern California
IRIS Annual Meeting (1998): Introduction to High-Resolution Imaging Session
IRIS Annual Meeting (1997): The Nanga Parbat Seismic Experiment
Cornell University (1997): The Nanga Parbat Seismic Experiment
University of Delaware (1995)
State University of New York (SUNY) – Binghamton (1994)
Temple University (1993)
University of Pennsylvania (1992)
GSA Penrose Conference (1990): Transpressional structures in the offshore California
transform margin.

**EXTERNAL GRANTS: \$14.9 MILLION TOTAL, \$13.9 MILLION IN RESEARCH, \$1 MILLION IN FACILITIES
AND CURRICULUM DEVELOPMENT**

RESEARCH GRANTS: \$13.9 million total

NSFGEO-NERC: Collaboration: The Role OF Asperities and Slow Slip in Subduction Zone
Rupture and Aftershock Sequences: Insights from the 16 April 2016 Pedernales Ecuador
Earthquake, NSF Geophysics, \$425,991, \$244,491 to Lehigh. Current.
Evolution and Deformation of Continents: Insights from the Mongolian Altai, Lehigh University
Faculty Innovation Grant (FIG), \$30,000. Current.
Seismic Cooperation Program (SCP): Seismic Collaboration and Capacity Building at the Institute
of Astronomy and Geophysics, Mongolia, Lawrence Livermore National Laboratory, \$50,548.
Current.
RAPID: Collaborative: April 16, 2016 Mw 7.8 Pedernales Earthquake, Ecuador: The Role of
Asperities in Rupture Propagation, Aftershock Sequences, and Post Seismic Deformation, NSF
Geophysics, \$87,142.
Collaborative Research: Lhasa Block Top to Bottom--Lithospheric Evolution of Asia's Leading
Edge, NSF Continental Dynamics Program, \$3.0 million project total, \$1.1 million to Lehigh.
Collaborative Research - Intracontinental Deformation and Surface Uplift: Geodynamic
Evolution of the Hangay Dome, Mongolia, Central Asia, NSF Continental Dynamics Program,
\$2.5 million project total, \$1.5 million to Lehigh.
Seismic Cooperation Program (SCP): Seismic Collaboration and Capacity Building at the Institute
of Astronomy and Geophysics, Mongolia, Lawrence Livermore National Laboratory, \$42,721.
Modern Seismological Network: Data Collection, Analysis and Applications in hazard Assessment
- Tajik Training Course – Dushanbe, Lawrence Livermore National Laboratory, \$22,138.
Subduction Zone Observatories Workshop, NSF Joint EAR-OCE, \$135K.
Cities in the Fall Zone: Earthquake Hazard, Vulnerability, and Resiliency in the U.S. Mid-Atlantic
Region, Lehigh University Collaborative Research Opportunity (CORE), \$60,000.
EarthScope RAPID: Geodetic and Seismological Response to the Mineral VA Earthquake, 23
August 2010, NSF EarthScope Program, \$28,330.
Collaborative Research: Analysis of Seismicity Associated with the Mw=8.8 2010 Maule
Earthquake and Implications for Subduction Processes, NSF Geophysics, \$540K total, \$168K

to Lehigh.

Collaborative Research: Mapping Crustal Tectonic Structure Using Seismic Anisotropy, NSF Geophysics Program, \$380,000 total, \$121,130 to Lehigh.

Collaborative Research: Geodynamics of Indentor Corners, NSF EAR, Continental Dynamics, \$2,200,000 total program, \$1,200,000 to Lehigh. \$403,000 additional supplement award. Project total \$2.6 million, \$1.6 million to Lehigh.

Strain Partitioning and Active Faulting During Oblique Convergence, Northern Andes. NSG Geophysics Program, \$38,000.

Collaborative Research: Crustal Reworking During Orogeny: An Active System Himalayan Perspective, NSF Continental Dynamics Program, \$2,100,000 project total, \$1,100,000 for Lehigh.

Collaborative Research: Lithospheric Evolution in Response to Triple Junction Migration: Seismic Images of the Mendocino Triple Junction Region, NSF Continental Dynamics Program, \$1,400,000 total, \$395,000 for Lehigh.

Facility Upgrade: Seismology Laboratory at Lehigh University, NSF Instrumentation and Facilities Program, \$104,950

Characterization of Strike-slip deformation: Northern San Andreas Fault System, AMOCO Production Company, \$19,500

Collaborative Research: Crustal Reworking During Orogeny: An Active System Himalayan Perspective, Nanga Parbat Newton's Apple Television Segment, NSF, EAR Continental Dynamics/Informal Science Education Supplement, \$49,657.

Fault Structure and Earthquake Potential Lajas Valley, SW Puerto Rico, U.S. Geological Survey Earthquake Hazards Reduction Program. \$63,700

Collaborative Research: An integrated Seismic Experiment Across a Continental Rift: The Newark Basin, NSF Continental Dynamics Program. \$83,568

Improvement in Geophysics Curricula: Acquisition of a Multichannel Seismograph, NSF ILLI (Instrumentation and Laboratory Improvement) Program. \$47,648

Establishment of a facility for seismic data analysis, NSF Instrumentation and Facilities Program. \$56,590

Crustal Structure and Rock Properties Offshore Central California from Combined Vertical Incidence and Wide-Angle Seismic Data, Petroleum Research Fund. \$18,000

Pocono Comparative Lake Program - Seed Grant Proposal: Geologic Structure at Lake Lacawac. \$2000

Crustal Structure Beneath Santa Maria Basin and the Central California Transform Margin, NSF, Marine Geology and Geophysics. \$50,054

FACILITIES AND CURRICULUM DEVELOPMENT GRANTS: \$1 million total

Technology Assistance with Implementation and Operation of Transportable Array Element of USArray and Earthscope, The IRIS Consortium (siting of USArray Station in PA, NJ, MD, and DE), \$ 35,900.

Implementing a New Learning Paradigm in Earth and Environmental Sciences at Lehigh University: LEO, The Lehigh Earth Observatory, Keck Foundation (for renovations, facilities, staff positions, undergraduate research funds and stipends), \$ 564,000.

Lehigh Earth Observatory (LEO) Environmental Data Center - Promoting Regional Assessment, Coordination, Planning, and Management of Our Natural Resources, William Penn Foundation (for technical staff position, undergraduate research funds and stipends), \$180,000.

Implementing a New Learning Paradigm in Earth and Environmental Sciences at Lehigh University: LEO, The Lehigh Earth Observatory , Culpeper Foundation (for equipment and

instrumentation, technical staff position, faculty development), \$200,000.
LEO, The Lehigh Earth Observatory: A proposal for Curriculum Development, AT&T Foundation's Industrial Ecology Initiative (for student research funds and stipends), \$25,000.
Establishment of a broadband seismic station A Lehigh Earth Observatory Module in Support of the Integrated Learning Experience Initiative, Lehigh Learning Innovations Committee, \$50,000.

PROFESSIONAL SERVICES AND ACTIVITIES:

Scientific Advisory Board, 8th International Symposium of Andean Geodynamics (2018-2019)
USGS Powell Center Opportunities in Global Earthquake Monitoring Working Group (2018-2019)
SSA Reid Medal Subcommittee (Member 2018- Chair 2019)
IRIS International Development Committee Chair (2017-current).
Convenor SSA Special Session: Earthquake Rapid Response (2017).
GSA Day Medal Committee (2017-current)
Convenor AGU Special Session: Subduction Zone Earthquakes and the Role of Asperities in Rupture Propagation and Aftershock Sequences: Insights from the 16 April 2016 Pedernales, Ecuador Earthquake (2016).
Co-Convenor AGU Special Session: Scientific Advances from Subduction Zone Observatories (2015).
Co-Convenor AGU Town Hall: Exploring a Subduction Zone Observatory (2015).
NSF GeoPRISMS Mid-Life Review Panel Member 2015.
Workshop Convenor: National Geophysical Networks in Latin America: Best Practices, Challenges, and Opportunities for Collaboration, May 24-30 (2015), Santiago, Chile.
IRIS Board of Directors (Chair 2014-2016, member 2013) IRIS is a consortium of over 100 US universities and over 100 US Affiliates, Educational Affiliates, and International Affiliates, dedicated to advancing research and education in seismology to understand our dynamic planet and to benefit society. IRIS programs contribute to new discoveries within the Earth, natural hazard mitigation, national security, environmental monitoring, advances in computation, networking, and communications, and building a scientifically and technologically proficient workforce. With support from the National Science Foundation the IRIS Consortium operates and maintains seismological facilities for the advancement of geoscience and EarthScope. Annual budget ~\$30 million.
NSF Earth Sciences Integrated Earth Systems Panel Member 2014.
Chair, IRIS President Search Committee (2013-2014)
Co-Convenor AGU Special Session: Origin, Evolution, and Impacts of High Topography in Continental Interiors (2013).
Organizing Committee: Workshop on the 2010 Maule Earthquake: Lessons Learned, New Discoveries, Future Advances, March 4-8, 2013, Concepción, Chile
NSF IODP Review Panel (2013): Review Panel for Operations and Management of the Drilling Vessel JOIDES Resolution for the International Ocean Discovery Program (IODP) and Science Support Office for the International Ocean Discovery Program (IODP) Selection Panel
Chair IRIS USArray Advisory Committee (2012-2014) Provide advice to the IRIS Board of Directors and IRIS President on the performance of the USArray component of EarthScope. Monitor the operation and evolution of the USArray facility, and review the contributions of IRIS core programs (DMS, E&O, GSN and PASSCAL) to the successful implementation of USArray and the science goals of EarthScope.

Co-Convenor AGU Special Session: Evolution of the Continental Lithosphere (2012).

Transportable Array Station Selection Working Group (2012): Joint USGS, NSF, NRC Working Group to prioritize selection of USArray Transportable Array (TA) stations to transition to permanent to improve seismic hazards assessment and solid earth research in the Central and Eastern United States (CEUS).

NSF Continental Dynamics Panel Member (2012)

Southern California Earthquake Center (SCEC) Advisory Council (2009-2012) Provide advice to SCEC Director and Board of Directors.

IRIS Committee for International Development Seismology (Chair: 2008-2011, Member 2011-2012) develop partnerships and collaborations that build infrastructure and human capacity in low- and middle-income countries for seismological and related research, education and training, hazard mitigation, and resource exploration.

Co-Convenor AGU Special Session: Lessons Learned from the 2010 Maule Earthquake (2011)

Chair, NSF EarthScope Facility Management Review (2011).

Invited Participant, adhoc NSF Subcommittee on Recompetition Large Facilities (2011).

Co-Organizer: NSF Sponsored Pan-American Advanced Studies Institute on New Frontiers in Seismological Research: Sustainable Networks, Earthquake Source Parameters, and Earth Structure (2011).

Co-organizer: NSF sponsored workshop: Future directions for NSF-sponsored geoscience research in the Himalaya/Tibet (2010).

Chair NSF EarthScope Facilities Review (2007).

Chair, EarthScope Program Committee (2005-2008) – Committee established to foster and facilitate integrated research, education, outreach activities, and broad community engagement in EarthScope. Oversaw transition to current EarthScope Steering Committee structure.

EarthScope Science and Education Committee (2002-2005) - Federal Advisory Committee Appointed by the National Science Foundation to provide oversight and guidance for EarthScope. Includes new research and education program within the Earth Sciences Division of the Geosciences Directorate and the first MREFC facilities in the Earth Sciences, \$200 million in instrumentation and projected growth to \$10 million in research funding.

IRIS Planning Committee (2002-2004) - Provides long range strategic planning for the IRIS Consortium.

Member Margins Steering Committee (2001-2003) - Steering Committee for National Science Foundation Geosciences Directorate, Ocean Sciences Division, Margin Program. Provides guidance to NSF and serves as conduit for community input to the NSF Margins Program.

NSF Continental Dynamic Panel (2002-2007) - Review panel for the National Science Foundation Geosciences Directorate, Earth Science Division, Continental Dynamics Panel

Member Northeast USGS Advanced National Seismic System Implementation Committee (2001-2002).

Chair IRIS Executive Committee, Chair IRIS Board of Directors (1999-2001) – IRIS is a 96 member academic consortium funded by the National Science Foundation to operate and maintain national instrument facilities and data archives to facilitate and support research needs in seismology. Duties as chair include working with the IRIS President, and IRIS Standing Committees on behalf of member institutions to help develop and promote the program, develop budgets, set priorities and policy. Term included developing IRIS 5-year proposal renewal to NSF, \$75 million over 5 years. Term also included development of USArray and EarthScope, the first MREFC (Major Research Equipment and Facilities Construction) project for the Earth Sciences. The MREFC account is a special account at the NSF (appears as a separate line item in the congressional budget) to fund substantial new research facilities (Polar Observatories, Radio Telescopes, etc.). Efforts

culminated in a successful MREFC project funded by congress at \$200 million for facilities and establishment of a new EarthScope Research program at NSF with the Geosciences Directorate.

Coordinator USArray Steering Committee (1999-2002) – work with USArray Steering Committee, broader Earth Science committee, EarthScope Working Group and NSF to help articulate and develop the USArray component of EarthScope. Includes organizing two workshops for community input, writing and production of USArray White Paper for NSF, attending numerous planning meetings.

Member EarthScope Executive Committee (1999-2002) - work with EarthScope Working group and NSF to help develop the EarthScope Initiative. Includes: participating in town meetings, generating editorial comments for publication, development of material for congressional briefings, and numerous meetings with NSF program managers and division directors. This effort culminated in a \$76 million request by NSF EAR to the NSF MRE account this year for phase I facilities (USArray and SAFOD). The request was approved by NSF, the National Science Board, and the OMB and has been included in the Presidents budget request to Congress.

IRIS PASSCAL Standing Committee (member 1993-1999, Chair of Committee 1996-1999) - this committee works with the IRIS PASSCAL program manager to oversee the Programs for Array Studies within IRIS. This includes setting program priorities, helping develop budgets and policy. Significant tasks included helping to write IRIS 2000 proposal to NSF (submitted 1995) successfully securing \$60 million of NSF funding for a five year period. Review and restructuring of PASSCAL Instrument Center.

Member of NSF Instrumentation and Facilities Panel, spring 1999

Reviewer for NSF Ocean Sciences Ocean Bottom Seismometer Instrument Pool: MRI (Major Research Instrumentation) Facility.

National Academy of Sciences - National Research Council Panel Member of SITE Committee (Seeing into the Earth). Charged to evaluate and recommend research directions using geophysical techniques for imaging and characterizing the near surface (upper 100 m) of the earth for engineering and environmental applications. Helped write NRC report, published 2000.

Co-Convener of Eastern Section Meeting of the Seismological Society of America, 1998

Geology Editorial Board (1996-1998)

Co-Convener AGU Special Session, Imaging and wave propagation in the shallow (< 1 km) subsurface, 1995.

Co-Convener AGU Special Session, Mendocino Triple Junction., 1994.

ILIAD Advisory Committee - select themes and invited participants to attend NSF/Air Force Office of Scientific Research sponsored workshop designed to bring together scientists involved in continental dynamics research, helped develop and write science and science implementation plan to complement the NSF Continental Dynamics 2020 Report, and to asses the technical resources and organization required to conduct large-scale seismic investigations of the continental lithosphere.

Served on the National Science Foundation SBIR (Small Business Innovation Research) Panel, September 1991.

Served on the NSF ILI (Instrumentation and Laboratory Improvement) Panel, January 1992.

Numerous papers reviewed for: Journal of Geophysical Research, Geophysical Research Letters, Bulletin of the Geological Society of America, Geology, Geophysics, Bulletin of the Seismological Society of America, Earth and Planetary Science Letters, Geophysical Journal International.

Numerous proposals reviewed for the National Science Foundation:
Earth Sciences Division (5 different programs): Continental Dynamics, Tectonics, Geophysics, Instrumentation and Facilities, International Programs.

Ocean Sciences Division: Marine Geology and Geophysics.
Reviewer for U.S. Geological Survey, NEHRP, Earthquake Hazards Reduction Program, and reviewer for establishing new program guidelines.
Reviewer for Petroleum Research Fund
Abstract(s) Review for Geological Society of America - Geophysics and Tectonophysics Division, 1993 Annual Meeting

RESEARCH SUPERVISED:

Undergraduate Research:

Dave Kinney: Seismic study of the upper crustal structure of Outer Santa Cruz Basin, offshore Central California.
Jon Rohrer: Subsurface structure and stratigraphy of Lake Lacawac, Wayne County, PA.
Joe Knezvic: Geologic structure of Pine Lake New York from shallow seismic profiling.
Lillian Soto: Seismic Refraction Study of the Lajas Valley, Southwestern Puerto Rico
Jason Faberman: Electro-Stratigraphy and regional climate change Lake Lacawac, Wayne County, PA.
Nick Scala: Growth and development of an anticline in the Pt. Arena Basin, Offshore Northern CA.
Stephanie Souza: Teleseismic travel time residuals, Hangay Dom Central Mongolia
Marisa Suarez: Analysis of Mid-Atlantic Seismicity from EarthScope USArray Data
J. Will Ryan: Aftershock sequence analysis along the South Hangay Fault in Mongolia
Juilan Traphagan: Earthquakes and Faulting, Gobi Altai Mongolia
Krittanon Siroattanakul: Fault Slip Behavior, Bulnay Fault Mongolia

Supervised numerous LEO internships (primary supervisor for over 26 students) on various projects ranging from environmental writing, to IT development, to water quality analysis, to seismology and earthquake hazards.

Graduate Research:

Greg Baker: An examination of Triassic Cyclostratigraphy in the Newark Basin from Shallow Seismic Profiles and Geophysical Logs
Tina Dietrich: Characterization of Faults Offshore Southwest Puerto Rico
Amy Ondrus: The San Andreas Fault Zone offshore Northern California
Erika Hammar-Klose: A high-resolution geophysical investigation of the Mount Bethel Fens complex, Mt. Bethel, PA
Tom Dalton (co-advised): Quaternary Sedimentation History from coring and GPR data, Lake Lacawac
Michael Schoemann: Fault Structure and Earthquake Potential Lajas Valley, SW Puerto Rico
Sean Gulick: Seismic Studies of the Cascadia Subduction Zone, Accretionary Prism, and Eel River Basin near the Mendocino Triple Junction
Nick Scala: Fold growth and fault fold interaction along the Northern San Andreas Fault System.
Yen Tang: Holocene Climate Change, Evidence from Sediment Distribution Imaged by GPR Techniques
Vincent Carbone: GPR Studies of Groundwater Contamination
Chris Call: Geophysical Imaging of faulting, InterAndean Valley Ecuador

Amanda Ault: Coupling Between Tectonic and Surface Processes: Case Studies Based on the Eastern Himalayan Syntaxis Tibet
Brian Zurek: The Evolution and Modification of Continental Lithosphere, Dynamics of 'Indentor Corners' and Imaging the Lithosphere across the Eastern Syntaxis of Tibet
Tsering Dhundup: Morpho-Tectonic Analysis of the Tsona-Chusum Rift, Tibet
Lucy Brown: Seismicity and Lithospheric Deformation, Eastern Syntaxis Tibet
Stephanie Souza: Upper Mantle Structure Beneath the Hangay Dome, Contral Mongolia and Implication for High Topography and Magmatism
Adrienne Scott: Illuminating the Crustal Structure of Khovsgol, Mongolia Using Passive Source Seismology
Lillian Soto: in progress Earthquake and Tectonic Processes in the Mid-Atlantic US Passive Margin and the Ecuador Subduction Zone
Zhongxiong Cui: in progress fall 2013 start
Anne Sirait: in progress fall 2016 start
Mariah Hoskins: in progress fall 2016 start
Jessica Welkey: in progress fall 2017 start

Support and Mentoring of Early Career Scientists

Post Doctoral Research:

Stéphane Sol: Eastern Tibet Seismic Experiment
Golam Sarker: Nanga Parbat Seismic Experiment
Bruce Beaudoin: Nanga Parbat Seismic Experiment

Senior Research Scientist:

Josh Stachnik

COLLEGE AND UNIVERSITY SERVICE:

Search Committee for Director and Assistant Vice President Office of Research and Sponsored Projects.
Review Committee for Research Staff Promotion
Co-Chair, Lehigh Middle States Accreditation Compliance Working Group.
Earth and Environmental Sciences Faculty Search – Chair
First Year Students CAS Mentor Advisor
Earth and Environmental Sciences Undergraduate Instruction Committee - Chair
Faculty Committee on Global Affairs, Chair
Physics Department Faculty Search
Internal Advisory Committee – Lehigh NSF ADVANCE
Member Lehigh Invernal Review Committee (IRC) – review application to internal grants program
Chair Search Committee - Dean College of Education
Environmental Building Committee, Chair, guided preparation of Building Plan for new environmental building
EI Director Search Committee
EI Steering Committee
Environmental Initiative Task Force, Chair, guided preparation of 2020 proposal in the area of environment. Coordinated development of cross college multidisciplinary 2020 proposal in the area of the Environment. Coordinated discussions and contributions from 25 member

faculty and staff task force. Produced 2020 proposal integrating education and research. Proposal includes recommendations for organizational and administrative structure, research foci, new degree and certificate programs. Worked on developing budget models with Deans of CAS and RCEAS.

Student Life Policy Review Committee: appointed by the President to prepare report to the Board of Trustees

Academic Standards for Environment and Ecology content and Environmental Education Committee

Research Advisory Group – Faculty Committee providing advice to VP Research Director LEO: Multi-disciplinary experiential learning experiences, included summer internship program. First Director, Established organizational structure, hired and supervised two staff members, worked with development on fund raising (wrote 3 successful Foundation proposals for staff, facilities, and program support), met with Foundation Representatives for initial project review and assessment (pre-funding), site visits (during project), responsible for oversight, implementation, and final reporting on foundation supported projects), ran summer internship program (~20-25 students per year).

University Computer Workstation review and high performance computing

Rhodes Scholar Committee

College of Education – Faculty Search, Technology Based Teacher Education

Prepared white paper on Supporting Cross College Curricular Initiatives with Todd Watkins and John Oaks, (white paper requested by Provost)

College of Arts and Sciences Tenure and Promotion Committee

Ad Hoc Integrated Learning Experiences Steering Committee

Hughes liaison to BASD, Clearview Elementary School

University Graduate Research Committee

Search Committee - Vice Provost for Information Resources

Commission on Diversity, Affirmative Action/Equal Opportunity Subcommittee

Search Committee - Dean College of Engineering and Applied Science

University Faculty Development Committee

WISE (Women In Science and Engineering) Committee

C.H.O.I.C.E.S. participant (program for female middle school students interested in science)

Participant in STAR program (program for high-school students interested in science)

Participant Faculty focus group on academic advising

Participated in University undergraduate recruitment efforts

Review committee for Graduate Fellowships

Nominated by University and attended the American Association of Higher Education: Forum on Exemplary Teaching

AA/EO representative to College Tenure and Promotion Committee

COURSES TAUGHT:

EES 3: Global Environmental Change

EES 21: Introduction to Earth Material & Processes

EES 27: Natural Hazards: Impacts and Consequences

EES 90 : Freshman Seminar: Searching for an Environmental Ethic

EES 90 : Freshman Seminar: Disasters, Natural and Human Induced, Implications and Consequences.

EES 96: Introduction to Environmental Science: Systems and Solutions
EES 201: Seismology: the Earth and the Environment
EES 293: Internships in Earth and Environmental Sciences
EES 301: Introductory Geophysics
EES 303: Active Tectonics
EES 308: Seismic Data Analysis
EES 380: The Practice of Science, Senior Seminar in EES
EES 393: Supervised Research in Earth and Environmental Sciences
EES 398: Earth Science for Educators
EES 407: Seismology
EES 426: Tectonic Processes
EES 493: Advanced Topics in Tectonics
SMC 050, 250: South Mountain College Investigations

BRIEF SYNOPSIS OF ACCOMPLISHMENTS AS DEAN:

Over a seven-year period worked collaboratively with faculty and staff in the college to enhance research and scholarship and to provide exceptional new opportunities for our students. Developed important new programs, strengthened investments in previous successful initiatives, and shored-up support for arts and sciences academic core. Made investments in academic and research infrastructure and support. Academic lead on major new construction project. Hired over fifty exceptional new faculty growing CAS faculty by ten percent. Improved work environment for staff and provided more effective support for faculty and departments. Established college-wide learning outcomes, enhanced graduate programs through assessment and investments in more competitive stipends and summer fellowships, and more fully integrated interdisciplinary programs into the fabric of the college. Established faculty oversight for learning outcomes assessment, international academic programs, and the first-year experience. Developed and implemented new technologies to simplify the administration and management of day-to-day operations. Improved outreach and communication through complete redesign of web presence, and publication of *Acumen* to better communicate the strength and contributions of CAS to Lehigh and the broader community. Increased financial support for CAS activities from generous donors, foundations, and grant agencies.