

**Jonathan C. Lewis****BACKGROUND****Education**

- 1999-2001 postdoc, Geology, University of California, Davis  
 1998 Ph.D., Geology, University of Connecticut, Storrs  
 1988 M.S., Geology, University of Tennessee, Knoxville  
 1983 B.S., Geology, University of Vermont, Burlington

**Experience**

- 2009-present Associate Professor, Department of Geoscience, Indiana University of Pennsylvania Geoscience, Indiana, Pennsylvania  
 2004-2009 Assistant Professor, Department of Geoscience, Indiana University of Pennsylvania Geoscience, Indiana, Pennsylvania  
 2001-2004 Adjunct Assistant Professor and Senior Postdoctoral Researcher, Department of Geosciences, University of Massachusetts, Amherst  
 1999-2001 National Science Foundation Postdoctoral Fellow and Lecturer, Department of Geology, University of California, Davis  
     taught: *Earth Dynamics: Convergent and Collisional Processes*, Winter 2001  
 1993-1998 Research Assistant and Teaching Assistant, Department of Geology and Geophysics, University of Connecticut  
     taught: *Introductory* and *Structural Geology* Laboratories, 1994  
 1992-1993 Environmental Consultant, Hewlett-Packard Company, Loveland, Colorado  
 1990-1992 Project Geologist, Harding Lawson Associates, Denver, Colorado  
 1987-1990 Hydrogeologist, NUS Corporation, Oak Ridge, Tennessee  
 1985-1986 Teaching Assistant, Department of Geological Sciences, University of Tennessee  
     taught: *Introductory Geology* and *Sedimentology* Laboratories

**TEACHING****Classes**

- GEOS 101 – Dynamic Earth (two sections of 75 students, Spring 2005; two sections of 200 students, Spring 2006, 07; two sections of 130 students, Spring 2008, 09; one section of 150 students Fall 2011, one

- section of 170 students Fall 2012, one section of 185 students Fall 2013)
- GEOS 102 – Dynamic Earth Lab (24 students per section: 3 in Fall 2004; 2 in Fall 2006; 1 in Spring 2007, 2 in Fall 2007, 2 in Fall 2008, 2 in Fall 2009, 1 in Fall 2011)
- GEOS 121 – Physical Geology (one section; Fall 2005)
- GEOS 122 – Physical Geology Laboratory (two sections, Fall 2005)
- GEOS 201 – Foundations of Geology (lecture and lab; Spring 2010, 2011, 2012, 2013, 2014, Fall 2013, 2014; lab Fall 2010, 2011, 2012, Spring & Fall 2015)
- GEOS 202 – Quantitative Methods in the Geosciences (lecture/lab, Fall 2009, 2011)
- GEOS 281 – Understanding Earth through Ocean Cores (Summer 2014 co-taught with S. Hovan)
- GEOS 302 – Structural Geology (lecture and lab; Spring 2010, 2012, 2014, Fall 2015)
- GEOS 303 – Field Geology (lecture and lab; Fall 2009, 2011; Summer 2013)
- GEOS 310 – Environmental Geology (lecture and lab, Spring 2005, 2007, 2009, 2011, 2013, 2015)
- GEOS 325 – Structural Geology (lecture and lab; Fall 2004, 2006, 2008)
- GEOS 326 – Field Geology (lecture and lab; Fall 2005, Fall 2007)
- GEOS 338 – Geology of the American Southwest (Summer field class; 2005)
- GEOS 362 – Plate Tectonics (lecture and lab; Spring 2006, 2008; Fall 2010, 2012)
- GEOS 380 – Research Methods (one section; Fall 2006, 2007, 2008)
- GEOS 405 – Geology of the American Southwest Seminar (Spring 2011)
- GEOS 406 – Geology of the American Southwest Field Workshop (Summer 2011; Summer 2015, co-taught with S. Hovan; 3 weeks)

### **Mentoring**

- Aaron Seidel (McNair Scholar & Senior Research, 2015-present)
- Cate Bressers (Senior Research, 2015-present)
- Shane Simcoviak (Senior Research, 2014-present)
- Katie Snyder (Senior Research, 2014-15)
- Eric Peroli (Senior Research, 2014-15)
- Allison Berry (Senior Research, 2013-present)
- Matthew Magill (Senior Research, 2013-15)
- Charles Cavallotti (Senior Research, 2013-present)
- Thomas Paronish (Senior Research, 2011-14, now M.S. student at WVU)
- Daniel O'Hara (Goldwater Scholar 2013-14; McNair Scholar & Senior Research, 2009-2013, see *Funding and Honors*, now Ph.D. student at U. of Oregon)
- Paul Good (Senior Research, 2010-11)
- Mark Smith (Senior Research, 2010-11)
- Ellen Lamont (Senior Research, 2009-12, now Ph.D. student at Oregon State U.)
- Anthony LeDonne (McNair Scholar & Senior Research, 2010-11)

Surinder Tara (Senior Research, 2009-10)  
 Matthew Harding (Senior Research, 2008-12)  
 Aaron Bowser (Senior Research, 2008-09)  
 Michael Jarvis (Senior Research, 2007-08)  
 Kalin McDannell (McNair Scholar & Senior Research, 2007-08, see *Funding and Honors*)  
 Jeremy McCombie (Senior Research, 2007)  
 Adam Boozer (see *Funding and Honors*)  
 Garrett Schmidt (Senior Research, 2005)

### **Professional Development**

National Science Foundation Building Strong Geoscience Departments Workshop: *Strengthening Your Geoscience Program: A Practical Workshop with Ideas and Examples*, Summer 2009, College of William and Mary, Williamsburg, VA.

National Science Foundation Cutting Edge Workshop: *Early Career Geoscience Faculty Workshop*, Summer 2005, College of William and Mary, Williamsburg, VA.

National Science Foundation Cutting Edge Workshop: *Teaching Structural Geology in the 21<sup>st</sup> Century*, Summer 2004, Smith College, Northampton, MA.

### **SCHOLARLY ACTIVITY**

#### **Funding and Honors**

2015	National Science Foundation Improving Undergraduate STEM Education: Pathways into Geoscience Program (\$182,000): STEM Student Experiences Aboard Ships (STEMSEAS) Project” (role: PI with co-PI S. Cooper; 1-year proof-of-concept award)
2015	Faculty Professional Development Council Annual Grant (\$10,000): “LiDAR-Guided Earthquake Modeling and Fieldwork in Taiwan During Spring 2016 Sabbatical Research (role: PI)
2014	Consortium for Ocean Leadership (\$10,000): “NSF Ocean Leadership School of Rock Scholarships” (role: co-PI with Steven Hovan)
2013	IUP USRC Small Grants Program (\$2,000): “Student-Faculty Field Work in Support of Non-Equilibrium Topography and Crustal-Scale Imbrication in an Arc-Continent Collision, Taiwan” (role: PI, student assistant Allison Berry)
2013	National Science Foundation Tectonics Program (\$5,853): REU Supplement to "Collaborative Research: Non-equilibrium Topography and Crustal-scale Imbrication in an Arc-continent Collision, Taiwan." (role: PI)

- 2013 IUP College of Natural Sciences and Mathematics Outstanding Researcher presented by the IUP Research Institute, April 1, 2013
- 2013 IUP College of Natural Sciences and Mathematics Outstanding Achievement Awards for Service, May 15, 2013
- 2012 National Science Foundation Tectonics Program (\$17,182): "Collaborative Research: Non-equilibrium Topography and Crustal-scale Imbrication in an Arc-continent Collision, Taiwan," (role: PI; collaborators Tim Byrne and Will Ouimet, University of Connecticut)
- 2011 IUP USRC Small Grants Program (\$1,994): "Modeling Incipient Arc-Continent Collision Offshore SE Taiwan" (role: PI, student collaborator Daniel O'Hara)
- 2009 (not funded) National Science Foundation Tectonics Program (\$190,319): "Collaborative Research: RUI: What Drives Forearc Sliver Motion?: Insights from Three Competing Models in Costa Rica" (role: PI; collaborator Jeff Marshall, Cal Poly Pomona)
- 2009 National Science Foundation Tectonics Program (\$4,632): "REU: Collaborative Research: Reactivation of Continental Margin Fracture Zones: Insights From Seismicity, Strain Patterns, and Numerical Modeling of Modern and Ancient Orogens" (role: PI)
- 2008 (not funded) Petroleum Research Fund of the American Chemical Society B-Type Grant Proposal (\$65,000): "Quaternary Pull-Apart Basin Formation In A Humid Tropical Climate: Constraints From An Intra-Arc Depocenter, Central Costa Rica" (role: co-PI with K. Farnsworth, IUP)
- 2008 IUP Research Institute New Investigator Award, April 16, 2008
- 2008 National Science Foundation Tectonics Program (\$31,987): "Collaborative Research: Reactivation of continental margin fracture zones: Insights from seismicity, strain patterns and numerical modeling of modern and ancient orogens" (role: PI; collaborators Jean Crespi and Tim Byrne, University of Connecticut)
- 2007 IUP USRC Small Grants Program (\$1,500): "Mapping and dating stream terraces in the Pejibaye pull-apart basin: Costa Rica" (role: PI, student collaborator Kalin McDannell)
- 2007 (not funded) Petroleum Research Fund of the American Chemical Society B-Type Grant Proposal (\$65,000): "Quaternary Pull-Apart Basin Formation In A Humid Tropical Climate: Constraints From An Intra-Arc Depocenter, Central Costa Rica" (role: PI)
- 2007 National Science Foundation MRI (\$297,684): "Acquisition of Mobile Spatial Data Acquisition and Processing

- Technologies (MSDAPT) to Support Cross-Disciplinary Research and Undergraduate and Graduate Research Training (role: one of 5 co-PIs, lead PI Beverly A. Chiarulli, IUP)
- 2006 IUP USRC Small Grants Program (\$1,500): “Reconnaissance field study of the Tucurrique-Atirro and Kabebeta fault zones, Costa Rica” (role: PI, student collaborator Kalin McDannell)
- 2006 IUP USRC Small Grants Program (\$1,347): “Modeling seismogenic strain at the Costa Rica convergent plate boundary II” (role: PI, student collaborator Adam Boozer)
- 2006 IUP Academic Computing Policy Advisory Committee Technological Exploration and Innovation Fund award (\$1,200): “Acquisition and testing of an Xplore Technologies iX104C2 AllVue Geopad” (role: PI)
- 2005 (not funded) National Science Foundation MRI (\$232,000): “Acquisition of stable isotope analytical equipment at Indiana University of Pennsylvania” (role: one of 3 co-PIs, lead PI Michael A. Poage)
- 2005 IUP USRC Small Grants Program (\$900): “Modeling seismogenic strain at the Costa Rica convergent plate boundary” (role: PI, student collaborator Adam Boozer)
- 2004 (not funded) U. S. Naval Air Warfare Center, Department of Defense (\$144,500): “Kinematic and Dynamic Studies of the Coso Geothermal and Surrounding Areas - II” (role: PI)
- 2003 (not funded) National Science Foundation Tectonics Program (\$182,000): “The Relation Between Active Non-recoverable Strain and Topographic Relief on the Brittle-viscous Transition: Coso Range, California” (role: PI)
- 2001-2002 U. S. Naval Air Warfare Center, Department of Defense (N68936-01-C-0094, \$116,000): “Kinematic and Dynamic Studies of the Coso Geothermal and Surrounding Areas” (role: PI)
- 1999-2001 National Science Foundation Earth Sciences Postdoctoral Fellowship (#9901491, \$72,000): “Kinematic Inversion of Focal Mechanism Solutions at Active Subduction Zones” (role: PI)
- 1998 Best Student Paper, Tectonophysics Section of the American Geophysical Union, 1998 Western Pacific Geophysics Meeting
- 1993-1995, 1997 Predoctoral Fellowship, University of Connecticut
- 1994 Research Grant, Geological Society of America, Structure and Tectonics Division

- 1994 Grant-in-Aid of Research, Sigma Xi  
 1984 Research Grant, Carlos C. Campbell Memorial Research Fund,  
 Great Smoky Mountains Conservation Association

**Publications** (recently graduated undergraduate authors underlined)

2016

Lin, W., T. B. Byrne, M. Kinoshita, L. C. McNeill, C. Chang, **J. C. Lewis**, Y. Yamamoto, D. M. Saffer, J. Casey Moore, H.-Y. Wu, T. Tsuji, Y. Yamada, M. Conin, S. Saito, T. Ito, H. J. Tobin, G. Kimura, K. Kanagawa, J. Ashi, M. B. Underwood, and T. Kanamatsu, (in press), Distribution of stress state in the Nankai subduction zone, southwest Japan and a comparison with Japan Trench: *Tectonophysics*.

2015

**Lewis, J. C.**, D. J. O'Hara, and R.-J. Rau, Seismogenic strain across the transition from fore-arc slivering to collision in southern Taiwan, *Journal of Geophysical Research: Solid Earth*, 120(6), 2015JB011906, doi:10.1002/2015JB011906.

2013

**Lewis, J. C.**, T. B. Byrne and K. Kanagawa, Evidence for mechanical decoupling of the upper plate at the Nankai subduction zone: Constraints from core-scale faults at NantroSEIZE Sites C0001 and C0002, *Geochem. Geophys. Geosyst.*, 14, doi:10.1029/2012GC004406 .

Montero, Walter P., **J. C. Lewis**, J. S. Marshall, S. Kruse and P. Wetmore, Neotectonic faulting and forearc sliver motion along the Atirro-Rio Sucio fault system, Costa Rica, Central America, *Geological Society of America Bulletin*, doi:10.1133-/B30471.1

Mirakian, D. C., J. M. Crespi, T. B. Byrne, C. Huang, W. B. Ouimet and **J. C. Lewis**, Tectonic implications of nonparallel topographic and structural curvature in the higher elevations of an active collision zone, Taiwan, *Lithosphere* v. 5, no. 1, p. 49-66.

2009

Byrne, T. B., W. Lin, A. Tsutsumi, Y. Yamamoto, **J. C. Lewis**, K. Kanagawa, Y. Kitamura, A. Yamaguchi and G. Kimura, Anelastic strain recovery reveals extension across SW Japan subduction zone, *Geophysical Research Letters* v. 36, L23310, doi:10.1029/2009GL040749.

2008

**Lewis, J. C.**, A. C. Boozer, A. Lopez and W. Montero, Collision versus sliver motion at the Middle America subduction zone: constraints from background seismicity in central Costa Rica, *Geochemistry Geophysics Geosystems*, v. 9 (7), Q07S06, doi:10.1029/2007GC001711.

2007

**Lewis, J. C.**, Fine-scale partitioning of contemporary strain in the southern Walker Lane: Implications for accommodating divergent strike-slip motion, *Journal of Structural Geology*, v. 29, p. 1201-1215, doi:10.1016/j.jsg.2007.02.015.

**Lewis, J. C.**, R. J. Twiss, C. J. Pluhar and F. C. Monastero, Multiple constraints on divergent strike-slip deformation along the eastern margin of the Sierran microplate, SE California, in: *Exhumation Associated with Continental Strike-Slip Systems*, eds: Till, A. B., S. M. Roeske, J. C. Sample, and D. A. Foster, *Geological Society of America Special Paper 434*.

2006

Pluhar, C. J., R. S. Coe, **J. C. Lewis**, F. C. Monastero and J. M. G. Glen, Fault block kinematics at a releasing stepover of the Eastern California shear zone: Partitioning of rotation style in and around the Coso geothermal area and nascent metamorphic core complex, *Earth and Planetary Science Letters*, v. 250, p. 134-163, doi:10.1016/j.epsl.2006.07.034.

2003

**Lewis, J. C.** and T. B. Byrne, History of metamorphic fluids along outcrop-scale faults in a Paleogene accretionary prism, SW Japan: Implications for prism-scale hydrology, *Geochemistry Geophysics Geosystems*, v. 4 (9), 9007, doi:10.1029/2002GC000359.

**Lewis, J. C.**, J. R. Unruh and R. J. Twiss, Seismogenic strain and motion of the Oregon coast block, *Geology*, v. 31, p. 183-186.

2002

**Lewis, J. C.**, T. B. Byrne and X. M. Tang, A geologic test of the Kula-Pacific ridge-capture mechanism for the formation of the West Philippine basin, *Geological Society of America Bulletin*, v. 114, p. 656-664.

Unruh, J. R., E. Hauksson, F. C. Monastero, R. J. Twiss and **J. C. Lewis**, Seismotectonics of the Coso Range-Indian Wells Valley region, California: Transensional deformation along the southeastern margin of the Sierra Nevada microplate, in: *Geologic Evolution of the central Mojave Desert and southern Basin and Range*, eds: Glazner, A. F., J. D. Walker and J. M. Bartley, *GSA Memoir 195*, p. 277-294.

2001

**Lewis, J. C.** and T. B. Byrne, Fault kinematics and past plate motions at a convergent plate boundary: Tertiary Shimanto belt, southwest Japan, *Tectonics*, v. 20, p. 548-565.

2000

**Lewis, J. C.**, T. B. Byrne, J. D. Pasteris, D. London and G. B. Morgan, VI, Early Tertiary fluid flow and pressure-temperature conditions of the Shimanto accretionary complex of southwest Japan: Constraints from fluid inclusions, *Journal of Metamorphic Geology*, v. 18, p. 319-333.

1997

**Lewis, J. C.**, T. Byrne and D. J. Prior, Small faults and kink bands in the Nankai accretionary complex: Textural observations from Site 808 of ODP Leg 131, *The Island Arc*, v. 6, p. 183-196.

1996

**Lewis, J. C.** and T. Byrne, Deformation and diagenesis in an ancient mud diapir, southwest Japan, *Geology*, v. 24, p. 303-306.

1991

Woodward, N. B., J. B. Connelly, R. R. Walters and **J. C. Lewis**, Tectonic evolution of the Great Smoky Mountains, in S. A. Kisch (ed.), *Studies of Precambrian and Paleozoic Stratigraphy in the Western Blue Ridge: Carolina Geological Society Field Trip Guidebook*, p. 57-68.

### **Funded Research Expeditions & Sabbaticals**

2016

Spring 2016 Sabbatical focusing on Earthquake Modeling and Fieldwork in Taiwan

2007

Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE) Expedition 315; vessel, *D/V Chikyu*; Chief Scientists, Juichiro Ashi and Siegfried Lallemand; Duration, 16 November – 13 December, 2007; Sites, C0001 and C0002; Role, Structural Geologist.

### **Abstracts and Invited Presentations (*graduate students, IUP undergraduate students*)**

2015

**Lewis, J.**, C. Cavallotti and R.-J. Rau, A role for pre-collision processes in the origin of the aseismic zone of the southern Taiwan Central Range, Abstract T43A-2968 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

**Lewis, J.**, *invited talk*, *The Role of the Upper- and Lower-Plate Architecture in the Taiwan Arc-Continent Collision*, Edinboro University of Pennsylvania, October 18

2014

**Lewis, J.**, Berry, A. R., Cavallotti, C. J., O'Hara, D. and Rau, R., Active Subhorizontal NE-SW Stretching Across the Eastern Margin of the Southern Central Range of Taiwan at ~23.1 N, Abstract T23D-08 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec. (oral presentation)

2013

**Lewis, J. C.**, *invited talk*, *The Role of Upper- and Lower-Plate Architecture in the Taiwan Arc-Continent Collision*, University of Pittsburgh, March 28.

**Lewis, J.**, O'Hara, D. and Rau, R., The Role of Upper Plate Silvering in Burial of the Luzon Forearc in Taiwan, Abstract T13C-2538 presented at the 2013 Fall Meeting, AGU, San Francisco, Calif.

Lamont, Ellen, R-J. Rau, T. B. Byrne, **J. C. Lewis**, J-C. Lee, An Evaluation of Previously Recognized Transfer Fault Zones in Taiwan's Western Foothills Based on Earthquake Distributions and Focal Mechanisms, Abstract T13C-2545 presented at the 2013 Fall Meeting, AGU, San Francisco, Calif.

O'Hara, D., J-C. Lee and J. Lewis, Accommodation by Varying Strain Regimes along the Northern Luzon Arc (Coastal Range, Taiwan)—Insights from Focal Mechanism, Abstract T13C-25389 presented at the 2013 Fall Meeting, AGU, San Francisco, Calif.



2012

**Lewis, J. C., *invited talk***, *Active Deformation in the Taiwan Arc-Continent Collision: The Role of Upper- and Lower-Plate Architecture*, University of Akron, October 18.

2011

**Lewis J. C., D. O'Hara, R-J Rau, T. Byrne**, Upper Plate Control of Crustal Architecture in Southeast Taiwan: Evidence from Strain Inversions of Earthquake Focal Mechanisms, Abstract T52C-04 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

**O'Hara, Daniel, J.C. Lewis, R-J Rau**, Slip partitioning offshore southeast Taiwan and southward propagation of the Longitudinal Valley Fault: Evidence from seismotectonic inversions, Abstract T52C-05 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. (oral presentation)

**Lamont, E. A., J. C. Lewis, T. Byrne, J. Crespi, R-J. Rau**, Transient Upper Crustal Kinematic Compatibility Structure Illuminated By The Chi Chi Earthquake: Results From Strain Inversions In The Luliao Region, Taiwan, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 14-11, Pittsburgh, PA. (oral presentation)

**Smith, M., J. C. Lewis, T. Byrne, D. Mirakian, C. Huang, E. A. Lamont**, Petrographic Characterization Of Deformation Mechanisms And Kinematics In Post-Cleavage Faults Accommodating Differential Uplift Of The Hsuehshan Range, Taiwan, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 66-2, Pittsburgh, PA.

**Ledonne, A. J.** Fracture Orientations And Gamma Counts In Devonian Marcellus Shale Outcrops In The Valley And Ridge Province Adjacent To The Allegheny Front, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 61-12, Pittsburgh, PA.

**Harding, M. R., J. C. Lewis**, Vein Structures And Faults In Core Samples From Nantroseize Expedition 315, Sites C0001 and C0002, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 38-27, Pittsburgh, PA.

**O'Hara, Daniel J., J. C. Lewis, R-J. Rau**, Strain Partitioning Offshore Southeast Taiwan: Evidence From Focal Mechanism Strain Inversions Near The Huatung Ridge, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 22-2, Pittsburgh, PA.

**Mirakian, D., T. Byrne, J. Crespi, C. Huang, J. C. Lewis**, Paleostress Analysis And Active Uplift Patterns Across An Arcuate Mountain Front, Hsuehshan Range, Taiwan, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 1, p. 83., Paper 61-8, Pittsburgh, PA.

2010

**Lamont, E. A., J. Lewis, T. B. Byrne, J. M. Crespi, R. Rau**, Transient Upper Crustal Tear Illuminated by the Chi Chi Earthquake: Results from Strain Inversions in the Luliao Region, Taiwan, Abstract T11B-2074 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

- Lewis, J. C., D. O'Hara, R. Rau D., T. B. Byrne, Strain Partitioning at the Huatung Ridge, Offshore Southeast Taiwan: Evidence from Seismotectonics, Abstract T51A-2000 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.**
- Lewis, J. C., E. Lamont, T. B. Byrne, J. Crespi, R. Rau, Block Rotations In The Luliao Region of Taiwan: Evidence From Post Chi Chi, Upper Crustal Earthquakes, *Eos Trans. AGU*, 91(26), West. Pac. Geophys. Meet. Suppl., Abstract T21B-03.**
- Byrne, T. B., W. Lin, A. Tsutsumi, Y. Yamamoto, J. Lewis, K. Kanagawa, Y. Kitamura, A. Yamaguchi, G. Kimura, Anelastic strain recovery in ocean floor sediments reveals extension across SW Japan subduction zone, *Eos Trans. AGU*, 91(26), West. Pac. Geophys. Meet. Suppl., Abstract T34A-04**
- Mirakian, D., T. Byrne, C. Huang, J. Lewis, E. Lamont, J. Crespi, New Evidence for Transform Fault Reactivation in Active and Ancient Orogenic Belts: Central Taiwan and the Taconic Allochthon, *Eos Trans. AGU*, 91(26), West. Pac. Geophys. Meet. Suppl., Abstract T54A-02.**
- Lamont, E. A., J. C. Lewis, T. Byrne, J. M. Crespi, Ruey-Juin Rau, Spatial And Temporal Analysis Of Non-Recoverable Strain Geometry As Documented By The Inversion Of Earthquake Focal Mechanisms In West-Central Taiwan, Geological Society of America *Abstracts with Programs*, Vol. 42, No. 1, p. 87., Paper 22-26, Baltimore, MD.**

#### 2009

- Lewis, J. C., Crustal extrusion of the hangingwall at the southwestern termination of the Taiwan orogen: Constraints from seismogenic strain inversions, *Eos, Transactions, AGU*, v. 89, no. 53, T53F-01**
- Lewis, J. C., *invited talk*, Initial Glimpses into the Seismogenic Zone: Nankai Trough Japan, Department of Geology, Dickinson College.**

#### 2008

- Lewis, J. C., K. Kanagawa, T. Byrne, V. Famin, J. Behrmann, T. Kanamatsu, J. Pares and the Expedition 314/315/316 Scientists, Subhorizontal Extension of the Upper Plate at NantroSEIZE Sites C0001 and C0002, *Eos, Transactions, AGU*, v. 90, no. 53, T31B-2005.**
- Famin, V., T. Byrne, J. C. Lewis, K. Kanagawa, J. Behrmann, Expedition 314/315/316 Scientists, Deformation-induced dehydration structures in the Nankai accretionary prism, *Eos Transactions. AGU*, v. 89, no. 53, T31B-2010.**
- McDannel, K. T., J. C. Lewis (speaker), and W. Montero, Contemporary shearing on the Tucurrique fault: Evidence for an active pull-apart basin at Pejibaye, Costa Rica, IX Central American Geological Congress, San Jose, Costa Rica, June 2 – 4.**
- Lewis, J. C., *invited talk*, Earthquakes 101: Active and ancient subduction in the circum-Pacific, Department of Geography and Regional Planning, Indiana University of Pennsylvania.**

#### 2006

- Lewis, J. C., *invited talk*, Where Plates Converge: Subduction and Collision in the**

Circum-Pacific, Department of Geology and Geography, University of West Virginia.

#### 2005

**Lewis, J. C.**, *invited talk*, Convergent plate boundaries: Natural laboratories for understanding great earthquakes, Sigma Xi Fall Semester Distinguished Lecture, Indiana University of Pennsylvania.

Kodama, K., T. Koyano, T. Byrne, **J. C. Lewis**, and J. Hibbard, Emplacement of a Layered Mafic Intrusion in the Shimanto Accretionary Complex of Southwest Japan: Evidence From Paleomagnetic and Magnetic Fabric Analysis, *Eos, Transactions, AGU*, v. 86, no. 52, T11B-0374.

#### 2004

**Lewis, J. C.** and V. S. Cronin, The case for teaching earthquake focal mechanism solutions in structural geology, Geological Society of America *Abstracts with Programs*, v. 36, no. 5, p. 348.

**Lewis, J. C.**, *invited talk*, The big picture as seen in small strains at the boundaries of small plates, Department of Geology and Planetary Science, University of Pittsburgh.

**Lewis, J. C.**, *invited talk*, Tectonic bulldozing, past and present: Deformation at two plate boundaries, Geoscience Department, Indiana University of Pennsylvania.

#### 2003

**Lewis, J. C.** and *C. Pluhar*, *invited talk*, What can we Learn From Small Non-Recoverable Strains at Plate Boundaries?, *Eos, Transactions, AGU*, v. 84, no. 46, p. F-1433.

**Lewis, J. C.**, Using seismicity to constrain the geometry of exhumation in a young strike-slip fault zone: Indian Wells Valley to the Coso Range, California, *GSA Abstracts with Programs*, v. 35, no. 6.

**Lewis, J. C.**, *C. Pluhar* and R. J. Twiss, *invited talk*, Neotectonics and active tectonics of Sierran-North American transtension at Wild Horse Mesa, Geothermal Program Office Technical Meeting, Davis, California.

*Pluhar, C. J.*, R. S. Coe, S. Nomade, J. M. G. Glen and **J. C. Lewis**, Kinematics of the Coso Range Block Rotation from Paleomagnetism, XRF Geochemistry and Ar/Ar Geochronology of Pliocene Lavas Geothermal Program Office Technical Meeting, Davis, California.

#### 2002

**Lewis, J. C.**, Partitioning of seismogenic strain in the offshore Costa Rica forearc, *Eos, Transactions, AGU*, v. 83, no. 47, p. F-1289.

**Lewis, J. C.**, Neotectonics and active tectonics of Sierran-North America transtension, Coso Range, California, *GSA Abstracts with Programs*, v. 34, no 6, p. 488.

**Lewis, J. C.**, *invited talk*, Instantaneous vs. geologic records of deformation: opportunities for discovery at the Cascadia and SW Japan plate boundaries, Department of Geological Sciences, Michigan State University, East Lansing.

**Lewis, J. C.**, R. J. Twiss and J. R. Unruh, Partitioning of seismogenic strain over varying spatial scales at the Sierran-North America plate boundary, *GSA Abstracts with Programs*, v. 34, no. 1, p. A-74.

#### 2001

**Lewis, J. C.** and T. B. Byrne, Snapshots from a Tertiary subduction factory: metamorphic fluids from fault zones of the low-grade Shimanto accretionary prism of southwest Japan, *Eos, Transactions, AGU*, v. 82, no. 47, p. F-1274.

**Lewis, J. C.**, J. R. Unruh and R. J. Twiss, *invited talk*, Partitioning of seismogenic strain along the Sierran-North America boundary in the vicinity of the Coso Range, California, Geothermal Program Office Technical Meeting, Lawrence, Kansas.

#### 2000

**Lewis, J. C.**, J. R. Unruh and R. J. Twiss, Seismogenic strain at the Cascadia convergent margin, Washington and Oregon, *Eos, Transactions, AGU*, v. 81, no. 48, p. F-877.

**Lewis, J. C.**, R. J. Twiss and J. R. Unruh, Fine-scale partitioning of microseismogenic strain along the southeastern margin of the Sierran microplate, Indian Wells Valley, California, *GSA Abstracts with Programs*, v. 32, no. 7, p. A-166.

#### 1999

**Lewis, J. C.**, T. Byrne and X. M. Tang, Eocene plate kinematics and geometries in the western Pacific basin: Constraints from the SW Japan Margin, *GSA Abstracts with Programs*, v. 31, no. 6, p. A-74.

#### 1998

**Lewis, J. C.** and T. Byrne, Tertiary plate configuration and kinematics in the west central Pacific basin: Constraints from the rock record, *Eos, Transactions, AGU*, v. 79, no. 24, p. W-110.

#### 1994

**Lewis, J. C.** and T. Byrne, Sandstone block dilation during emplacement of a mud-matrix diapir in an accretionary prism, SW Japan, *EOS*, v. 75, no. 44, p. 587.

#### **Focused Meetings and Workshops (IUP undergraduate students)**

Integrated Ocean Drilling Program New Ventures in Exploring Scientific Targets (INVEST) Workshop, September 23-25, 2009, Bremen, Germany.

NantroSEIZE Stage 1 Post IODP Expedition 314/315/316 Meeting, April 15-18, 2009, Kyoto, Japan.

NSF-MARGINS Workshop *The Next Decade of the Seismogenic Zone Experiment*, September 22-26, 2008, Timberline Lodge, Mt. Hood, Oregon

MARGINS Workshop to Integrate Subduction Factory and Seismogenic Zone Studies in Central America, poster presentation with IUP undergraduate student coauthor A. C. Boozer, and A. Lopez and W. Montero: Footwall-hangingwall plate interaction constrained by background seismicity: central Costa Rica, June 2007, Heredia, Costa Rica

Geological Society of America Penrose Conference, *Lessons in Tectonics, Climate and Eustacy from the Stratigraphic Record in Arc Collision Zones*, poster presentation with IUP undergraduate student coauthor A. C. Boozer: Strain Above Subducting Topography: What Do Earthquakes In Costa Rica Tell Us?, October 2005, Price, Utah.

MARGINS Theoretical and Experimental Institute, *The Seismogenic Zone Revisited*, March 2003, Snowbird, Utah.

JOI/USSSP-sponsored Workshop, *An Investigation of the Middle America Convergent Margin Seismogenic Zone*, November 2002, Menlo Park, California.  
NSF Workshop, *Setting Priorities in Solid Earth Sciences*, October 2002, Denver, Colorado.

NanTroSEIZE Workshop, *Sampling and Instrumenting the Nankai Trough Seismogenic Zone*, July 2002, Boulder, Colorado.

MARGINS Education and Planning Workshop, *Rupturing of the Continental Lithosphere in the Gulf of California/Salton Trough*, October 2000, Puerto Vallarta, Jalisco, Mexico.

MARGINS Theoretical and Experimental Institute, *Rheology and Deformation of the Lithosphere at Continental Margins*, January 2000, Snowbird, Utah.

American Geophysical Union Chapman Conference, *The History and Dynamics of Global Plate Motions*, poster presentation: The relation between plate motions and the rock record: The view from a subduction complex accreted at a coupled plate boundary, June 1997, Marshall, California.

### **Professional Society Membership**

American Geophysical Union

Geological Society of America

Sigma Xi

### **ACADEMIC SERVICE**

#### Geoscience Community Development

National Science Foundation Cutting Edge Workshop: “Early Career Geoscience Workshop,” June 12-16, 2011, College of William and Mary, Williamsburg, VA (role: co-leader)

National Science Foundation Cutting Edge Workshop: “Preparing for an Academic Career in the Geosciences: Workshop for Graduate Students and Post-Doctoral Fellows,” March 13, 2010, in conjunction with NE/SE Section GSA Meeting, Baltimore, MD (role: co-leader)

National Science Foundation Cutting Edge Workshop: “Preparing for an Academic Career in the Geosciences: Workshop for Graduate Students and Post-Doctoral Fellows,” July 16-19, 2009, Las Vegas, NV (role: facilitator)

#### Geoscience Research Community

instructor for the Summer 2013 IODP Expedition 341S School of Rock on the drilling vessel JOIDES Resolution, invited by the Deep Earth Academy operated by Ocean Leadership (Washington, DC)

instructor for the Summer 2012 Curacao-Bermuda transit School of Rock on the drilling vessel JOIDES Resolution, invited by the Deep Earth Academy operated by Ocean Leadership (Washington, DC)

member of the U.S. Science Advisory Committee (USAC) for the Integrated Ocean Drilling Program, IODP (Fall 2009 – Fall 2012)

IUP committee work

member of the University-Wide Promotion Committee (AY 2012-15; 3 year term)  
Sigma Xi, IUP Chapter Secretary & Treasurer (2006-2007), Vice President (2007-08), President (2008-09 & 2011-12)

chair of the IUP College of Natural Sciences and Mathematics Technology Committee (AY 2007-14, member 2005-present)

member of the IUP College of Natural Sciences and Mathematics Medical/Veterinary School Reference Letter Writing Committee (AY2009-10 – present)

member of the IUP Academic Computing Policy Advisory Committee (2005-2007)

member of the IUP Judicial Review Board (2004-present)

member of IUP Safe Zone (2004-present)

member of exploratory committee examining the viability of a Computation Curriculum in the College of Natural Sciences and Mathematics (2004)

substitute member of the College of Natural Science and Mathematics Student Recruitment Committee (2004-present)

Faculty Advisor, IUP Cycling Club (Fall 2011-present)

Faculty Advisor, IUP Rock Climbing Club (Fall 2015-present)

chair of Geoscience Department *Sedimentary Geology* faculty search committee (AY 2014-15)

chair of Geoscience Department *Energy Geology* faculty search committee (AY 2010-11))

co-chair of Geoscience Department *Sedimentary Geology* faculty search committee (AY 2005-06)

Geoscience Department outside speaker co-coordinator (2004-Spring 2014)

Geoscience Department Sigma Gamma Epsilon liaison (2005-present)

Geoscience Department Experiential Education coordinator (2004-2008)

Geoscience Department faculty co-advisor for the student Geoscience Club (AY 2004-14)

manuscript review

2012-present (# of manuscripts)

Geology (1)

Geochemistry, Geophysics, Geosystems (2)

Tectonics (2)

Geophysical Research Letters (4)

Geosphere (1)  
Earth, Planets, Space (2)  
Marine Geophysical Research (1)

2007-2011

Journal of Geophysical Research  
Journal of Structural Geology  
Bulletin of the Seismological Society of America  
Integrated Ocean Drilling Program  
Geological Society of America Books  
The Island Arc

2004-2007

Nature  
Geological Society of America Bulletin  
Journal of Metamorphic Geology  
Tectonophysics  
Gondwana Research

1998-2003

Journal of Geophysical Research  
Geology  
Geological Society of America Bulletin  
Tectonics  
Journal of Structural Geology  
American Geophysical Union, Monograph  
Journal of Metamorphic Geology  
Geological Society of America, Special Paper  
Journal of the Geological Society (London)  
Tectonophysics  
Ocean Drilling Program  
The Island Arc

proposal review

Schmidt Ocean Institute (2014, 2015)  
National Science Foundation, Tectonics Program mail reviewer (2005-present)  
(5 since 2011)  
National Science Foundation, Postdoctoral Fellowship Program (2012)  
Israeli Science Foundation, mail reviewer (2008)  
National Science Foundation, Course, Curriculum, and Laboratory  
Improvement (CCLI) Program Phase I Panel (July 2006)  
Petroleum Research Fund of the American Chemical Society reviewer (2006)