

**2017 EarthScope National Meeting  
List of Posters**

*Subduction Zone Structure and Deformation*

Poster Number	Title	Author	Additional Author(s)
001	Rock and age relationships of the Talkeetna forearc subduction complex in the Nelchina area, southern Alaska	John Barefoot	Elisabeth Nadin, Rainer Newberry
002	3D model of the subducting plate interface between Kodiak Island and Shumagin Islands offshore the Alaska Peninsula	Harold Kuehn	Mladen Nedimovicà, Donna Shillington, Anne Blochel, Jiyao Li, Matthias Delescluse, Spahr Webb, Keith Louden
003	Seismic and Infrasonic Observations of Mount Cleveland, Alaska: An Open Vent Volcano in the Central Aleutian Arc	John Lyons	Diana Roman, John Power, Matt Haney
004	Segment boundary and upper plate characteristics for the Kodiak region of the Alaska megathrust	Marlon Ramos	Lee Liberty
005	Aleutian array of arrays (A-cubed) detects continuous tremor and low frequency earthquake activities	Bo Li	Abhijit Ghosh
006	Mantle Structure of the Cascadia Subduction Zone and Juan de Fuca Plate System from Onshore/Offshore Teleseismic P-wave Tomography	Miles Bodmer	Doug Toomey, Emilie Hooft, Brandon Schmandt, Joseph Byrnes, Max Bezada
007	The effects of subduction on the seismic structure of the crust and upper mantle in the Pacific Northwest	Jonathan Delph	Alan Levander, Fenglin Niu
008	Weak Moho extends along the entire Cascadia forearc	Matthew Haney	Victor C. Tsai, Kevin M. Ward
009	Crustal-scale seismic structure from trench to forearc in the Cascadia subduction zone	Sampath Rathnayaka	Haiying Gao
010	GPS Imaging of vertical land motions in the Pacific Northwest	Justine Overacker	William C. Hammond, Meredith L. Kraner, Geoffrey Blewitt
011	Orientations and relative shear-strain response coefficients for PBO Gladwin Tensor Strainmeters from teleseismic Love waves	Evelyn Roeloffs	
012	Origin of Yellowstone Hotspot Track due to Intruding Hot Mantle	Quan Zhou	Lijun Liu
013	Template Matching Analysis of Swarms in Oaxaca, Mexico and Their Relationship to Slow Slip	Shannon Fasola	Mike Brudzinski, Steve Holtkamp, Rob Skoumal, Enrique Cabral-Cano, Alejandra Arciniega-Ceballos
014	High resolution, self-consistent and realistic subduction zone simulations	Xiaolin Mao	Micheal Gurnis, Dave May
015	In the land of HOBITSS where the Slow Slip Events lie	Ryan Yohler	Noel Bartlow, Laura, Wallace, Charles Williams
016	Imaging fluid accumulation and transportation in the Costa Rica subduction zone using elastic full waveform inversion	Liang Han	Adrien F. Arnulf, Nathan L. Bangs
017	Evidence from high frequency seismic waves for the basalt-eclogite transition under Japan	Wenbo Wu	Jessica C. E. Irving
018	Ophiolites: A new window probing deep subduction and recycling	Jingsui Yang	Robinson, T., Delik, Y.

*New EarthScope Results from Alaska*

<u>Poster Number</u>	<u>Title</u>	<u>Author</u>	<u>Additional Author(s)</u>
019	Hydrological Loading Deformation in Southern Alaska Measured by EarthScope's GPS Network	Yuning Fu	Jeff Freymueller
020	Slow Slip and Mixed Seismic/Aseismic Moment Release Episodes on the Alaskan-Aleutian Megathrust	Stephen Holtkamp	
021	Short-term Slow Slip Events at the Southcentral Alaska Subduction Zone	Jessica McGuire	Yuning Fu, Jeff Freymueller
022	Short-term stresses, displacements and gravity change associated with cryospheric fluctuations in tectonically active south-central Alaska.	Jeanne Sauber	Jeffrey Freymueller, James Davis, Natalia Ruppert, Shin-Chan Han, Bryant Loomis, Scott Luthcke
023	Remote explosive volcanic eruption detection, location, and characterization using the EarthScope Transportable Array in Alaska.	Richard Sanderson	Robin Matoza, David Fee, Matt Haney, John Lyons
024	An unscented Kalman filter combining GPS and InSAR for time-dependent modeling of volcanic deformation at Okmok volcano, Alaska	Xueming Xue	Jeff Freymueller
025	EarthScope Transportable Array Posthole Sensor Emplacements in Alaska and Canada	Kasey Aderhold	Robert W. Busby, Andy Frassetto, Max Enders, Jeremy Miner, Ryan M. Bierma, Robert Woodward
026	Full waveform time domain analysis of ionospheric current and magnetotelluric electromagnetic fields in Poker Flat, Alaska	Naoto Imamura	Adam Schultz, Russell Cosgrove
027	Investigating the Effect of Mantle Flow and Viscosity Structure on Surface Velocities in Alaska Using 3-D Geodynamic Models	Joseph McConeghy	Lucy Flesch, Julie Elliott
028	Effects of Flat Slab Subduction on Shear Wave Splitting in Alaska	Amanda McPherson	Douglas Christensen
029	Assessing the role of water in Alaskan flat slab subduction	Sarah Robinson	Ryan Porter, Thomas D. Hoisch
030	Contributions of USArray to Earthquake Monitoring in Alaska	Natalia Ruppert	Michael West
031	Amplification of seismic waves in Nenana basin, central Alaska	Kyle Smith	Carl Tape
032	A seismic noise analysis to assess the influences of structure, site, and installation for the SALMON experiment in the Cook Inlet region, southern Alaska	Carl Tape	Justin Sweet, Kyle Smith, Douglas Christensen, Melissa M. Moore-Driskell
033	An unwanted long-period step-response signal: examples from Alaska earthquakes	Carl Tape	Vipul Silwal, Stephen Holtkamp
034	Lithospheric Structure across the Alaskan Cordillera from Surface Wave Analysis	Kevin Ward	Fan-Chi Lin
035	Shear Wave Splitting Underneath Northwest Canada and Eastern Alaska	Derek Witt	Derek Schutt, Richard Aste, Jeff Freymueller, Joel Cubley
036	A 10-Year Catalog (2007-2016) of Seismic Moment Tensors in Southern Alaska	Joshua Purba	Vipul Silwal, Carl Tape
037	Crustal earthquakes in the Cook Inlet and Susitna regions, southern Alaska	Vipul Silwal	Carl Tape
038	Examination of Network Matched Filtering MAD Thresholding Issues with application to interior Alaska Earthquake Swarms	Nealey Sims	Stephen Holtkamp
039	The Ms 7.3 earthquake of August 27, 1904 in central Alaska	Carl Tape	Anthony Lomax, Vipul Silwal, James D. Agnew, Brian Brettschneider
040	Analysis of regional seismograms and 3D synthetic seismograms for the 2016-01-24 Mw 7.1 Iniskin earthquake in southern Alaska	Carl Tape	

041	Detecting and Characterizing Repeating Event Sequences at Alaskan Volcanoes	Gabrielle Tepp	Matt Haney, Aaron Wech
042	3-D seismic imaging of Makushin Volcano, Alaska	Federica Lanza	Clifford Thurber, Ellen Syracuse, Abijit Ghosh, John Power

*Outside the EarthScope Footprint*

Poster Number	Title	Author	Additional Author(s)
043	Relationships Between Gravity Waves Observed At The Surface And In The Stratosphere Over The Continental United States	Michael Hedlin	Catherine D. de Groot-Hedlin, M. Joan Alexander, Lars Hoffmann, Claudia Stephan
044	Detection of Seismic and Infrasound Fields at the USArray Transportable Array	Catherine de Groot-Hedlin	Michael A.H. Hedlin
045	Constraints on radial and azimuthal anisotropy in the central Pacific upper mantle from the NoMelt OBS array	Joshua Russell	James B. Gaherty, Peiyong (Patty) Lin, Molly Zebker
046	The 2016 Central Italy sequence: comparing InSAR-constrained synthetic seismograms of surface waves with Transportable Array data from Alaska	Nader Shakibay Senobari	Gareth Funning, Ana Ferreira
047	Preliminary results from deep seismic profiling in North Qilian, Hexi Corridor and South Alxa terranes: evidence for the northward growth and uplifting of the Qinghai-Tibet Plateau	Xuanhua Chen	Rui Gao, Xiaosong Xiong, Zhou Qi
048	Measuring ground deformations caused by 2015 Mw7.8 Nepal earthquake using high-rate GPS data	Yong Huang	
049	Large explosive shot gathers along the SinoProbe deep seismic reflection profile and Moho depth beneath IYS and BNS	Zhanwu Lu	Rui Gao, Wenhui Li, Hongqiang Li, Tairan Xu
050	Airborne gravity technique in the application of deep earth exploration	Guoqing Ma	Danian Huang, Lili Li
051	Tectonics studies based on potential field characteristics in Beikang area, South China Sea	Xiaohong Meng	Zhaoxi Chen, Guofeng Liu, Jun Wang
052	Lithospheric Electrical Characteristics of Eastern Jiangnan Orogen, South China	Gengen Qiu	Hui Fang, Qin Zhong
053	Continental lithosphere extending, the preliminary results of broadband array in southeast China	Li Qiusheng	Hongshuang Zhang, Zhuo Ye, Xiaoran Wang, Chen Gong
054	Numerical Simulations in SinoProbe	Yaolin Shi	Huai Zhang, Yuanze Zhou, Huihong Cheng
055	Crustal structure and crust-mantle deformation in NE Tibet and adjacent regions	Xu Wang	Ling Chen, Yifan Gao, Yinshuang Ai
056	A Study on petrophysical features and it's geological significance in west Liaoning, China	Xuechun Xu	Xuchun Xu, Zhaohai Meng, Bo Lin
057	A goal-oriented adaptive finite-element method for 3D MT anisotropic modeling with topography	Changchun Yin	Xiaoyue Cao, Bo Zhang, Xin Huang, Yunhe Liu, Jing Cai
058	Research on key technology of "Crust 1" 10K ultra-deep scientific drilling rig	Ping Yu	Youhong Sun, Yongbai Sha, Qingyan Wang, Ike Gao, Yan Zhao
059	An algorithm for computing synthetic body waves due to underside conversion on an undulating interface and application to the 410 km discontinuity	Han Zhang	Sidao Ni, Risheng Chu, Brandon Schmandt
060	Scientific drilling - to construct the telescopes that inserting to the earth interior	Xiaoxi Zhang	Zhang Hui, Hu Yule
061	Velocity structure of the mantle transition zone beneath the southeastern and western margins of Tibetan Plateau	Yuanze Zhou	Yajian Gao, Guohui Li

## Fault Systems

Poster Number	Title	Author	Additional Author(s)
062	Damage Zone Structure of a Supershear Earthquake: Dense Temporary Array Analysis of Fault Zone Trapped Waves and Ambient Noise	Amir Allam	Carl Tape, Fan-Chi Lin
063	Miocene-Pliocene Strike-slip Basin Development Along the Denali Fault System in the Eastern Alaska Range: Chronostratigraphy and Provenance of the McCallum Formation and Implications for Displacement	Wai Allen	Kenneth Ridgway, Jeffrey Benowitz, Trevor Waldien, Sarah Roeske
064	Proximity of Precambrian basement affects the likelihood of induced seismicity in the Appalachian, Illinois, and Williston Basins	Mike Brudzinski	R.J. Skoumal, B.S. Currie
065	A Neogene shortening budget for the eastern Alaska Range: implications for strain transfer in the lithosphere	Trevor Waldien	Sarah Roeske, Jeff Benowitz
066	Surface wave investigation of crustal seismic anisotropy at the Ruby Mountains Core Complex	Justin Wilgus	Brandon Schmandt
067	Field Study of the Border Ranges Fault System in Southwestern Alaska	Veselina Yakimova	Elisabeth Nadin
068	A geophysical study of the Castle Mountain Fault System and Matanuska-Susitna Valley near Anchorage, Alaska	Felix Ziwu	Shane Shinagel, Diane Doser, Laura Serpa
069	High-resolution spatial variation of stress drops illuminates shallow fault zone behavior in the 2008 Mogul earthquake swarm (Nevada)	Christine Ruhl	Rachel E. Abercrombie, Kenneth D. Smith
070	cGPS and Borehole Strainmeter Measurements of the September 2013 Episodic Tremor and Slip Event	Nicholas Benz	Noel Bartlow, Evelyn Roeloffs
071	Uncertainty in structural boundaries and scale from transdimensional tomography with USArray	Scott Burdick	Vedran Lekic, Tolulope Olugboji
072	Using Receiver Function Analysis to Place Constraints on Depth Dependent Seismic Anisotropy within the Basin and Range Province	Heather Ford	Em Schnorr
073	Tracking the Onset of Induced Seismicity in Northeastern Pennsylvania	Patricia Martone	Alex Nikulin, Jeff Pietras
074	Aseismic slip from characteristically repeating earthquakes in the Mendocino Triple Junction	Kathryn Materna	Taka'aki Taira, Roland Burgmann
075	Joint Inversion of Continuous GPS and InSAR Data to Constrain the Spatiotemporal Evolution of Strain Release from the 2016 Kumamoto Earthquake Sequence: Implications for the Shallow Slip Deficit and the Role of Aseismic Slip	Christopher Milliner	Burgmann, R., Teng, W., Inbal, A., Liang, C., Fielding, E.
076	The power of higher-order cross-correlations (C3) to image the Earth from the crust to the core	Zack Spica	Mathieu Pertou, Gregory Beroza
077	Earthquake Slip Distribution Inversion Using Tsunami Waves, Crustal Deformation Data and Tsunami Deposits with Ensemble Kalman Filter	Hui Tang	
078	Reactivation of Taconic Thrust Faults in the Late Devonian Acadian Orogenic Front	Laura Webb	Keith Klepeis, Jonathan Kim, Patrick Sullivan

*Stable(?) Continental Lithosphere*

Poster Number	Title	Author	Additional Author(s)
079	Identifying Moho depths and velocity anomalies in the uppermost mantle of the Mississippi Embayment from Pn tomography study	Urbi Basu	Christine Powell
080	Characterizing seismic anisotropy in the Chester gneiss dome, Vermont: Moving from red and blue to rock type and mineralogy	Sarah Brownlee	Brittany Watling, Jasneel Mahal
081	Lithospheric discontinuities beneath the US Midcontinent – signatures of Proterozoic terrane accretion and a failed rift	Chen Chen	Hersh Gilbert, Karen M. Fischer, Christopher L. Andronicos, Gary L. Pavlis, Michael W. Hamburger, Stephen Marshak, Timothy Larson, Xiaotao Yang
082	Detailed Study of Seismic Anisotropy In the Upper Mantle of Eastern North America	Xiaoran Chen	Yiran Li, Vadim Levin
083	Long-period Rayleigh wave phase velocity tomography using USArray	Jordyn Cloud	Colleen Dalton
084	Constraining crustal structure using H-k-Vp stacking	Erin Cunningham	Vedran Lekic
085	Bayesian Joint Inversion of Receiver Functions and Surface Wave Velocity across the EarthScope Transportable Array	Chao Gao	Vedran Lekic
086	Crustal Structure of the Carolina Terrane, Eastern USA	Wenbin Guo	Shuai Zhao, Walter Mooney
087	Resolving crustal structure beneath the northern Appalachians using teleseismic receiver function analysis	Cong Li	Haiying Gao, Michael L. Williams, and Vadim Levin
088	Seismic Anisotropy in the Upper Mantle of Eastern North America: Results from Multi-Event Inversion	Yiran Li	Xiaoran Chen, Vadim Levin
089	Preliminary investigation of crustal and transition zone structure in Texas from P to S receiver functions	Robert Porritt	Juan Benavides, Thorsten Becker, Whitney Behr
090	New insights of the Midcontinent Rift from SPREE	Weisen Shen	Douglas Wiens, Ghassan Aleqabi, Michael Wysession, Suzan van-der Lee, Seth Stein, Hao Zhang, Emily Wolin, Trevor Bollmann, Andrew Frederiksen, Fiona Darbyshire
091	3-D shear wave velocity and radial anisotropy models beneath the northwest Gulf Coast of the United States	Yao Yao	Aibing Li
092	Crustal Structure of Rifted Margin of Eastern North American in North Carolina	Shuai Zhao	Shuai Zhao, Wenbin Guo, Walter D. Mooney

*Fluids and Melt in the Crust*

Poster Number	Title	Author	Additional Author(s)
093	Magmatic addition and extension along the Eastern North American Margin (ENAM) from crustal seismic refraction data: Results from the ENAM Community Seismic Experiment	Thomas Luckie	Thomas Luckie, Lindsay Worthington, Maria Beatrice Magnani
094	Shallow velocity structure of the Socorro Magma Body from ambient noise tomography using the large-N Sevilleta array, central Rio Grande Rift, New Mexico	Nishath Ranasinghe	Lindsay Worthington, Brandon Schmandt, Chengxin Jiang, Tori Finlay, Susan Bilek, Rick Aster
095	Processing and synthesis of GPS data and other geodetic observations at the Socorro Magma Body, New Mexico	Mousumi Roy	Nicholas George, Mark Murray

*E&O: What have people done and what are results from EarthScope E&O activities?*

<u>Poster Number</u>	<u>Title</u>	<u>Author</u>	<u>Additional Author(s)</u>
096	Sustaining Science through Landowner Relationships	Beth Bartel	James Downing
097	EarthScope Transportable Array Outreach Activities in Alaska and Western Canada	Lea Gardine	Maite Agopian, Perle M. Dorr, Tammy Bravo, John Taber, Michael E. West, Carl Tape, Robert W. Busby
098	Education and outreach activities and opportunities in the eastern United States tied to EarthScope and related projects	Maureen Long	

*Facilities, Operations & Management*

<u>Poster Number</u>	<u>Title</u>	<u>Author</u>	<u>Additional Author(s)</u>
099	DataBricks: Your own indexed data repository for large, static data collections	Chad Trabant	Tim Ahern, Rick Benson
100	PBO Operations in Alaska and Cascadia, Highlighting Collaboration with our Partners	Ken Austin	Ellie Boyce, James Downing, Karl Feaux, Glen Mattioli, Chad Pyatt, Heidi Willoughby, Adam Woolace
101	Case studies of anomalous time series signals from GPS stations in the EarthScope Plate Boundary Observatory (PBO)	Christine Puskas	David A. Phillips, Charles M. Meertens, Glen Mattioli, Thomas A. Herring, Timothy I. Melbourne, Mark H. Murray, Michael A. Floyd, Walter M. Szeliga, Robert W. King, Chris Walls, Doerte Mann, Adam Woolace, Ken Austin, Ryan Turner, Ellie Boyce
102	Evolution of the California Plate Boundary Observatory GPS-GNSS Network	Christian Walls	Doerte Mann, Ryan Turner, Andre Basset, Shawn Lawrence, Ken Austin, Tim Dittman, Adam Woolace, Summer Miller, Karl Feaux, Glen Mattioli
103	Engineering challenges of operating year-round portable seismic stations at high-latitude	Bruce Beaudoin	Jason Hebert, Paul Carpenter, Dean Childs, Kent Anderson
104	EarthScope Transportable Array: A Remote Observation Platform in Alaska and Canada	Robert Busby	Kasey Aderhold, Max Enders, Jeremy Miner, Ryan M. Bierma, Robert Woodward
105	A wireless seismic system for deep earth detection and its test in Xingcheng of Liaoning province, China	Jun Lin	
106	Using Machine Learning to Build Seismic Event Catalogs	Lisa Linville	Kristine Pankow
107	The EarthScope Magnetotelluric Program: Status, Products, and Science Examples	Adam Schultz	Robert Woodward, Andy Frassetto
108	Flexible Array Deployments During EarthScope	Justin Sweet	Andy Frassetto, Robert Woodward, Kent Anderson, Bruce Beaudoin