AGU 100 ADVANCING EARTH AND SPACE SCIENCE | FALL MEETING Washington, D.C. | 10–14 Dec 2018

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EARTHSCOPE-RELATED PRESENTATIONS

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Wednesday, 12:30 - 13:30
Marriott Marquis - Independence D
TH33D EarthScope and Beyond: Current and Future Facility Support for Geodesy, Seismology, and Geophysics Research and Education in the Geosciences

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MONDAY, 10 DECEMBER 2018

POSTERS

13:40 - 18:00 | Poster Hall A-C

DI13B-0024 Anisotropic Domains Beneath the Northern Appalachians: Implication for Lithospheric Mantle
Yiran Li[1], Vadim L Levin[2], Stephen Elkington[3] and Janine Hlavaty[3], (1) Rutgers University New Brunswick, New Brunswick, NJ, United States, (2) Rutgers University, Department of Earth and Planetary Sciences, Piscataway, NJ, United States, (3) Rutgers University New Brunswick, New Brunswick, United States

DI13B-0028 Shear Wave Anisotropy in the Alaska Subduction Zone: S-wave Splitting Observations from Local Intraslab Earthquakes
Cole Richards[1], Carl Tape[1] and Zachary E. Ross[2], (1) University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States, (2) California Institute of Technology, Pasadena, CA, United States

G13B-0512 Estimating Solid Earth Tidal Constituents from PBO Station Borehole Strainmeters
Jood Al Aswad, Cornell University, Ithaca, NY, United States and **Linda A Hinnov**, George Mason University, Atmospheric, Oceanic, and Earth Sciences, Fairfax, VA, United States

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S13C-0437 Analysis of Very Long-Period Noise at Flexible-Array Stations in the North-American Midcontinent

JaCoya Chantel Thompson, Suzan Van der Lee and Daniel Ethan Horton, Northwestern University, Evanston, IL, United States

S13C-0446 Extracting Multi-Modes of Rayleigh Waves from Ambient Seismic Noise Data in Central-Eastern U.S.

Gaoxiong Wu, University of Science and Technology of China, Hefei, China and Xiaofei Chen, Southern University of Science and Technology, Department of Earth and Space Sciences, Shenzhen, China

S13C-0461 Stormquakes: New Sources Light Up North America

Wenyuan Fan, Woods Hole Oceanographic Institution, Woods Hole, MA, United States, Jeffrey Joseph McGuire, Woods Hole Science Center Woods Hole, MA, United States, Catherine D de Groot-Hedlin, University of California San Diego, La Jolla, CA, United States, Michael A H Hedlin, University of California, La Jolla, CA, United States and Sloan Coats, Woods Hole Oceanographic Institution, Woods Hole, NY, United States

S13D-0482 Assimilating New Types of Data in Inversions for Lithospheric Shear Velocity Structure

Chuanming Liu[1], Michael H Ritzwoller[1], Lili Feng[1] and Weisen Shen[2], (1) University of Colorado Boulder, Department of Physics, Boulder, CO, United States, (2) Stony Brook University, Department of Geosciences, Stony Brook, NY, United States

T13D-0249 Turning Up the Heat: What Biomarker Thermal Maturity Can Tell Us About Earthquakes on the San Andreas Fault

Genevieve L Coffey, Heather M Savage and Pratigya J Polissar, Lamont-Doherty Earth Observatory, Palisades, NY, United States

T13F-0278 Imaging Crustal Structure Beneath the Southeastern United States Using Receiver Functions

Qiuyue Yang, Stephen S Gao, Tuo Wang and Kelly Hong Liu, Missouri University of Science and Technology, Geology and Geophysics Program, Rolla, MO, United States

T13H-0329 Using Cascadia Initiative Data to Investigate Seismicity and Possible Shallow Slow Slip Along the Southernmost Section of the Cascadia Subduction Zone

Travis Alongi[1], Susan Y Schwartz[1], Heather R Shaddox[1], David Small[1], Iris Xia[2], Flora Huang[2] and Kushaan Bahl[2], (1) University of California Santa Cruz, Earth and Planetary Sciences, Santa Cruz, CA, United States, (2) University of California Santa Cruz, COSMOS, Santa Cruz, United States

T13H-0330 Searching for New Types of Slow Slip Events in the Cascadia Subduction Zone

Jeffrey Joseph McGuire[1], John A Collins[2], Earl Davis[3], **Wenyuan Fan**[1], Keir Becker[4] and Martin Heesemann[5], (1) Woods Hole Oceanographic Institution, Woods Hole, MA, United States, (2) WHOI,

Woods Hole, MA, United States, (3) Pacific Geoscience Center, Sidney, BC, Canada, (4) Univ. Miami - RSMAS, Miami, FL, United States, (5) Ocean Networks Canada, Victoria, BC, Canada

T13H-0331 New Estimates of Earthquake Probability during Episodic Tremor and Slip in Cascadia

Nicholas Benz, Purdue University, West Lafayette, IN, United States, Noel M Bartlow, University of California Berkeley, Berkeley, CA, United States and Evelyn A Roeloffs, USGS, Vancouver, WA, United States

T13H-0332 Quality Analysis of High Frequency Air-Gun Shot Seismic Recording in the Juan de Fuca Plate

Sampath Rathnayaka, University of Massachusetts Amherst, Amherst, MA, United States and Haiying Gao, University of Massachusetts Amherst, Department of Geosciences, Amherst, MA, United States

T13H-0334 Imaging the Subducted Gorda Plate: Implications for the Stress State and Brittle-Ductile Transition of the Cascadia Subduction Zone

Hao Guo[1,2], Jeffrey Joseph McGuire[2] and Haijiang Zhang[3], (1) University of Science and Technology of China, Hefei, China, (2) Woods Hole Oceanographic Institution, Woods Hole, MA, United States, (3) University of Science and Technology of China, School of Earth and Space Sciences, Hefei, China

PRESENTATIONS

Monday, 08:00 - 08:15 | Location: Marriott Marquis - Independence D

S11A-01 Frequency Bessel Integration Method (FJ) to extract fundamental and higher order surface wave dispersion from seismic records

Zhengbo Li[1,2] and Xiaofei Chen[2], (1) University of Science and Technology of China, School of Earth and Space Sciences, Hefei, China, (2) Southern University of Science and Technology, Department of Earth and Space Sciences, Shenzhen, China

Monday, 08:13 - 08:16 | Location: Washington Convention Center - eLightning Theater I

U11B-05 Seismic Imaging of the Alaska Subduction Zone: Implications for Slab Geometry and Volcanism

Robert Martin-Short, University of California Berkeley, Berkeley, CA, United States

Monday, 08:31 - 08:34 | Location: Washington Convention Center - eLightning Theater I

U11B-11 Searching for a Seismic Signature in the Landscape of the Western Quebec Seismic Zone, Canada

Alba Mar Rodriguez Padilla, University of California Davis, Davis, CA, United States, John Onwuemeka, McGill University, Montreal, QC, Canada, Samuel G. Roy, University of Maine, Orono, ME, United States, Yajing Liu, McGill University, Earth and Planetary Sciences, Montreal, QC, Canada, Sarah R Hall, College of the Atlantic, Bar Harbor, ME, United States and Rebecca M Harrington, Ruhr-Universitat Bochum, Institute of Geology, Mineralogy and Geophysics, Bochum, Germany

Monday, 08:45 - 09:00 | Location: Marriott Marquis - Archives

DI11A-04 New Constraints on the Crustal Radial Anisotropy in Southwestern Canada from Ambient Noise Tomography

Jingchuan Wang[1], Yu Jeffrey Gu[2] and Yunfeng Chen[2], (1) University of Alberta, Edmonton, AB, Canada, (2) University of Alberta, Physics, Edmonton, AB, Canada

Monday, 09:00 - 09:15 | Location: Marriott Marquis – Archives

DI11A-05 Variations in Mantle Anisotropy from Lithosphere to Asthenosphere beneath the Eastern U.S.

Karen M. Fischer[1], Julia MacDougall[1], Lara S Wagner[2] and Robert B Hawman[3], (1) Brown University, Dept. of Earth, Environmental and Planetary Sciences, Providence, RI, United States, (2) Carnegie Institution for Science, Dept. of Terrestrial Magnetism, Washington, DC, United States, (3) University of Georgia, Athens, GA, United States

Monday, 09:15 - 09:30 | Location: Marriott Marquis - Archives

DI11A-06 Upper Mantle Seismic Anisotropy as a Constraint for Mantle Flow and Continental Dynamics of the North American Plate

Wanying Wang[1], Thorsten W Becker[2], Kelly Hong Liu[3] and Stephen S Gao[3], (1) University of Texas at Austin, Austin, TX, United States, (2) USC, Los Angeles, CA, United States, (3) Missouri University of Science and Technology, Geology and Geophysics Program, Rolla, MO, United States

Monday, 09:30 - 09:45 | Location: Marriott Marquis – Archives

DI11A-07 Velocity and Anisotropy Structure beneath the Reelfoot Rift Region from Rayleigh Wave Phase Velocity Dispersion Curves

Urbi Basu, Center for Earthquake Research and Information, Memphis, TN, United States and Christine Ann Powell, University of Memphis, Memphis, TN, United States

Monday, 11:50 - 12:05 | Location: Washington Convention Center - 150B

A12E-07 Meteorological Observations of the Alaska Transportable Array

Kasey Aderhold[1], Robert W Busby[2], Robert S Woodward[3], Renee Tatusko[4], Carven Allen Scott[5], Peter C Griffith[6], Frank Vernon[7], Jonathan E Tytell[7], John Horel[8], Alexander Jacques[9] and Ms. Heidi Strader[10], (1) Washington, DC, United States, (2) Incorporated Research Institutions for Seismology, Washington, DC, United States, (3) IRIS Consortium, Washington, DC, United States, (4) NOAA, Silver Spring, MD, United States, (5) National Weather Service Alaska Region Headquarters, Environmental Scientific Services Division, Anchorage, AK, United States, (6) NASA/GSFC, Greenbelt, MD, United States, (7) University of California San Diego, La Jolla, CA, United States, (8) University of Utah, Salt Lake City, UT, United States, (9) University of Utah, Department of Atmospheric Sciences, Salt Lake City, UT, United States, (10) Predictive Services Fire Weather Program Manager, Fairbanks, AK, United States

Monday, 17:00 - 17:15 | Location: Marriott Marquis - Independence E

S14B-05 Earthquake Locations in the Adirondack Mountains

Aubreya Nicole Adams[1], Yinuo Jin[2], Monica Dimas[2] and Isabel Dove[2], (1) Colgate University, Department of Geology, Hamilton, NY, United States, (2) Colgate University, Hamilton, United States

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TUESDAY, 11 DECEMBER 2018

POSTERS

08:00 - 12:00 | Poster Hall A-C

G21C-0576 The Network of the Americas (NOTA) GNSS Network - Providing Reliable Data Streams for Early Warning Applications in California Through Robust State-of-Health Monitoring
Doerte Mann[1], Ryan Turner[2], Christian P Walls[3], Shawn Lawrence[2], Kenneth Emil Austin[3], Timothy Dittman[1], Glen S Mattioli[1] and Karl Feaux[3], (1) UNAVCO, Inc. Boulder, Boulder, CO, United States, (2) Unavco Inc., San Clemente, CA, United States, (3) UNAVCO, Inc., Boulder, CO, United States

G21C-0577 Network of The Americas GNSS Operations In Alaska, Challenges and Performance
Kenneth Emil Austin[1], Eleanor S Boyce[2], Karl Feaux[3], Kathleen Marian Hodgkinson[4], David Mencin[1] and Glen S Mattioli[5], (1) UNAVCO, Inc., Boulder, CO, United States, (2) UNAVCO, Inc. Anchorage, Anchorage, AK, United States, (3) UNAVCO, Inc. Boulder, Boulder, CO, United States, (4) UNAVCO, Socorro, NM, United States, (5) Universidad Nacional, Autónoma de México, Departamento de Geomagnetismo y Exploración Geofisica, Mexico, DF, Mexico

S21C-0451 Robust Analysis of Stress Drop Variation along San Andreas Fault at Parkfield Using Multiple Local Networks

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Jiewen Zhang, University of Oklahoma Norman Campus, Norman, OK, United States, **Xiaowei Chen**, WHOI, Woods Hole, MA, United States and Rachel E Abercrombie, Boston University, Boston, MA, United States

13:40 - 18:00 | Poster Hall A-C

DI23B-0034 2-D Inversion of USArray Megnetotelluric Data from Western North America
Mohammad Ahmad Shehata[1,2] and Hideki Mizunaga[1], (1) Kyushu University, Earth Resources Engineering, Fukuoka, Japan, (2) Faculty of Science, Port Said University, Geology, Port Said, Egypt

G23B-0584 Concurrent Postseismic Pore Pressure and Strain Changes Observed in Anza Region, California
Zhou Lu, University of Science and Technology of China, Laboratory of Seismology and Physics of Earth's Interior & School of Earth and Space Sciences, Hefei, China and Lianxing Wen, State University of New York at Stony Brook, Department of Geosciences, Stony Brook, United States; University of Science and Technology of China, Laboratory of Seismology and Physics of Earth's Interior & School of Earth and Space Sciences, Heifei, China

G23B-0600 Slow-Slip Events in Northern California with 8-Month and 6-Year Periods.
Aarti K Dwivedi, Massachusetts Institute of Technology, Cambridge, MA, United States and Thomas Herring, Massachusetts Institute of Technology, Department of Earth, Atmospheric and Planetary Sciences, Cambridge, MA, United States

G23C-0628 Investigating the Effect of Mantle Flow and Viscosity Structure on Surface Velocities in Alaska Using 3-D Geodynamic Models
Joseph Daniel McConeghy, Lucy M Flesch and Julie Elliott, Purdue University, West Lafayette, IN, United States

S23A-0498 Low Seismicity in the Midland Basin and Implications for Induced Earthquakes
Aibing Li[1], Hongli Jing[2] and Hua-Wei Zhou[2], (1) University of Houston, EAS, Houston, TX, United States, (2) University of Houston, Houston, TX, United States

S23A-0502 Developing a Regional 3-D Velocity Model in Southwest Texas for Monitoring Seismicity in the Eagle Ford Shale Play
Dino Huang[1], Alexandros Savvaidis[1], Bissett Young[1] and the TexNet data analyst team, (1) University of Texas at Austin, Bureau of Economic Geology, Austin, TX, United States

PRESENTATIONS

Tuesday, 08:15 - 08:30 | Location: Washington Convention Center - 209A-C

IN21A-02 International Collaboration for Magnetotelluric Data and Model Sharing and Interoperability

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Anna Kelbert, USGS Geological Hazards Science Center, Geomagnetism Program, Golden, CO, United States, Maxim Smirnov, Luleå University of Technology, Luleå Sweden, Oliver Ritter, Helmholtz Centre Potsdam - GFZ, Potsdam, Germany, Jingming Duan, Geoscience Australia, Canberra, Australia, Graham S Heinson, University of Adelaide, Adelaide, SA, Australia and Nigel Rees, Australian National University, National Computational Infrastructure, Canberra, Australia

Tuesday, 10:20 - 10:35 | Location: Marriott Marquis - Archives

DI22A-01 Constraining Small-Scale Mantle Heterogeneities underneath the Pacific Ocean Using USArray Data

Kuangdai Leng, Yale University, Department of Geology and Geophysics, New Haven, United States and Jun Korenaga, Yale University, New Haven, CT, United States

Tuesday, 11:05 - 11:20 | Location: Marriott Marquis - Independence A-C

GP22A-04 Modeling Global Magnetic Fields in the Daily Variation Band for Mantle Induction Studies

Gary D Egbert, Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR, United States, Patrick Alken, University of Colorado Boulder, Boulder, CO, United States, Astrid I Maute, NCAR/HAO, Boulder, CO, United States and Arthur D Richmond, National Center for Atmospheric Research, High Altitude Observatory, Boulder, CO, United States

Tuesday, 11:20 - 11:35 | Location: Marriott Marquis - Liberty I-K

IN22B-05 Community Engagement through Citizen Science Projects for Canadian Cordillera Array and EON-ROSE

Katherine Janet Elizabeth Boggs, Mount Royal University, Calgary, AB, Canada, Kevin O'Connor, Mount Royal University, Education, Calgary, AB, Canada, David W S Eaton, University of Calgary, Geoscience, Calgary, AB, Canada, Hersh J Gilbert, University of Calgary, Department of Geoscience, Calgary, AB, Canada and Josef Zens, Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences, Potsdam, Germany

Tuesday, 16:00 - 16:15 | Location: Marriott Marquis – Archives

DI24A-01 Long-term Subduction Modulates Localized Compositional Stratification near the 660-km Seismic Discontinuity

Kai Deng[1,2] and Teh-Ru Alex Song[1], (1) University College London, Department of Earth Sciences, London, United Kingdom, (2) Chengdu University of Technology, College of Geophysics, Chengdu, China

Tuesday, 17:45 - 18:00 | Location: Marriott Marquis - Liberty N-P

T24C-08 Paul G. Silver: From Mantle Flow to PBO

Sean C Solomon, Lamont-Doherty Earth Observatory, Palisades, NY, United States

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WEDNESDAY, 12 DECEMBER 2018

POSTERS
08:00 - 12:40 | Poster Hall A-C

DI31C-0027 Testing the Hypothesis that Temperature Modulates 410 and 660 Discontinuity Topography Beneath the Eastern United States
Ian S Keifer and Ken George Dueker, University of Wyoming, Laramie, WY, United States

GP31D-0745 Understanding the Yellowstone Volcanic System through Application of Magnetotelluric and Seismic methods
Ninfa L Bennington[1], Adam Schultz[2], Reagan Alexis Cronin[3], Esteban Bowles-martinez[4], Clifford H Thurber[5], Jamie Farrell[6] and Fan-Chi Lin[6], (1) University of Wisconsin Madison, Geoscience, Madison, WI, United States, (2) Oregon State University, College of Earth, Ocean and Atmospheric Sciences, Corvallis, OR, United States, (3) University of Wisconsin, Madison, WI, United States, (4) Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR, United States, (5) University of Wisconsin Madison, Madison, WI, United States, (6) University of Utah, Salt Lake City, UT, United States

S31C Emerging Science from the EarthScope Transportable Array in Alaska and Canada Posters

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(SESSION) Natalia A Ruppert, University of Alaska Fairbanks, Fairbanks, AK, United States, **Richard C Aster**, Colorado State University, Geosciences Department, Fort Collins, CO, United States and **Hersh J Gilbert**, University of Calgary, Department of Geoscience, Calgary, AB, Canada

S31C-0511 Contributions of USArray Stations to Regional Earthquake Monitoring in Alaska
Natalia P Kozyreva[1], Natalia A Ruppert[2] and Michael Edwin West[2], (1) University of Alaska Fairbanks, Fairbanks, AK, United States, (2) Univ. Alaska Fairbanks, Fairbanks, AK, United States

S31C-0512 Detection and Location of Earthquakes in the Canadian Rocky Mountain Trench by Kurtosis and Bayesian Sampling in the Presence of Strong Cultural Noise
Joshua Purba, University of Calgary, Calgary, AB, Canada, Hersh J Gilbert, University of Calgary, Department of Geoscience, Calgary, AB, Canada and Jan Dettmer, University of Victoria, Victoria, BC, Canada

S31C-0513 Identification and Relocation of Earthquakes in the Sparsely Instrumented Mackenzie Mountain Region, Yukon and Northwest Territories, Canada
David Heath, Colorado State University Fort Collins, Fort Collins, CO, United States, Richard C Aster, Colorado State University, Geosciences Department, Fort Collins, CO, United States, Derek Schutt, Colorado State University, Geosciences, Fort Collins, CO, United States, Jeff Freymueller, University of Alaska Fairbanks, Fairbanks, AK, United States and Joel Frank Cubley, Yukon College, Whitehorse, YT, Canada

S31C-0514 P-wave Tomography of the Mackenzie Mountains Region, Yukon and Northwest Territories, Canada
Aditya U Khare, Colorado State University Fort Collins, Fort Collins, CO, United States, Derek Schutt, Colorado State University, Geosciences, Fort Collins, CO, United States, Richard C Aster, Colorado State University, Geosciences Department, Fort Collins, CO, United States, Jeff Freymueller, University of Alaska Fairbanks, Fairbanks, AK, United States and Joel Frank Cubley, Yukon College, Whitehorse, YT, Canada

S31C-0515 A High-Resolution 3D Vs Model of the Alaskan Crust and Uppermost Mantle Revealed by Surface Waves
Lili Feng[1], Weisen Shen[2], Chuanming Liu[1] and Michael H Ritzwoller[1], (1) University of Colorado Boulder, Department of Physics, Boulder, CO, United States, (2) Stony Brook University, Department of Geosciences, Stony Brook, NY, United States

S31C-0516 Measuring Rayleigh Wave Phase Velocity in Alaska from Ambient Seismic Noise
Lauren M Neldner, Rollins College, Department of Physics, Winter Park, FL, United States and Colleen A Dalton, Brown University, Department of Earth, Environmental, and Planetary Sciences, Providence, RI, United States

S31C-0517 Multi-Mode 3D Kirchhoff Migration of Receiver Functions in Southern Alaska using Permanent and Temporary Array Data
Florian Millet, LGLTPE Laboratoire de Geologie de Lyon : Terre, Planetes et Environnement, Villeurbanne Cedex, France, Thomas Bodin, Universite de Lyon, UCBL, ENSL, CNRS, LGL-TPE,

Villeurbanne, France, Stephane Rondenay, University of Bergen, Bergen, Norway and Carl Tape, University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States

S31C-0518 Structure of the Crust and Upper Mantle beneath Alaska Determined from the Joint Inversion of Arrival Times and Waveforms of Regional and Teleseismic Body Waves
Steven W Roecker, Rensselaer Polytechnic Inst, Earth & Environmental Sciences, Troy, NY, United States, Daniel Andrew Frost, University of California Berkeley, Berkeley Seismological Laboratory, Berkeley, CA, United States and Barbara A Romanowicz, Univ. California Berkeley, Berkeley, CA, United States

S31C-0519 The Structure of the Upper Plate Lithosphere and Asthenosphere in Alaska from Inversion of Scattered Body Wave Phases and Rayleigh Wave Phase Velocities
Isabella Gama, Brown University, Providence, RI, United States, Karen M. Fischer, Brown University, Dept. of Earth, Environmental and Planetary Sciences, Providence, RI, United States, Zachary Eilon, University of California Santa Barbara, Earth Science, Santa Barbara, CA, United States, Colleen A Dalton, Brown University, Department of Earth, Environmental, and Planetary Sciences, Providence, RI, United States and Lucy M Flesch, Purdue University, West Lafayette, IN, United States

S31C-0520 Variation in Interplate Coupling Between Downgoing and Overriding Plates: Implications for Great Earthquakes in Areas of Flat Slab Subduction from 3-D Geodynamic Models of Alaska
Angela Olsen, UC Santa Barbara, San Diego, CA, United States and Margarete Ann Jadamec, The State University of New York at Buffalo, Geology, Buffalo, NY, United States

S31C-0521 Surface-Wave Arrival Angles and Wave-Propagation Effects at the USArray Transportable Array
William Frazer[1], Gabi Laske[2] and Adrian K Doran[2], (1) Binghamton University, Binghamton, NY, United States, (2) Scripps Institution of Oceanography, La Jolla, CA, United States

S31C-0522 Observations of Magnetic Sensitivity in EarthScope Transportable Array Broadband Seismometers
Andrew Frassetto[1], Kasey Aderhold[2], Robert W Busby[2] and Robert S Woodward[2], (1) Incorporated Research Institutions for Seismology, Seattle, WA, United States, (2) Incorporated Research Institutions for Seismology, Washington, DC, United States

S31E-0559 Transdimensional Receiver Function Waveform Inversion
Scott Burdick, Wayne State University, Geology Department, Detroit, MI, United States, Makayla Myers, Wayne State University, Geology Department, Detroit, United States and Sarah J Brownlee, Wayne State Univ-Geology, Detroit, MI, United States

T31H-0405 Toward Earthquake System Science: In-Situ Physical State from Geophysical Properties
Anthony R Lowry[1], Ravi V S Kanda[1], Xiaofei Ma[1], Brent Scheppmann[1] and Derek Schutt[2], (1) Utah State University, Geology, Logan, UT, United States, (2) Colorado State University, Geosciences, Fort Collins, CO, United States

13:40 - 18:00 | Poster Hall A-C

IN33D-0880 Hazard Analysis of Geomagnetically Induced Voltages Throughout the US Power Grid
Greg Lucas, USGS Geologic Hazards Science Center, Geomagnetism Program, Golden, CO, United States, Jeffrey J Love, USGS Geomagnetism Program, Denver, CO, United States, Anna Kelbert, USGS Geologic Hazards Science Center, Golden, CO, United States, Paul Bedrosian, USGS, Geology, Geophysics, and Geochemistry Science Center, Denver, CO, United States and Erin Joshua Rigler, USGS, Denver, CO, United States

T33C-0414 Using Common Conversion Point Stacking to Explore Upper Mantle Seismic Discontinuities beneath the Wyoming Craton
Yitan Wang, University of Florida, Ft Walton Beach, FL, United States and Ray Russo, University of Florida, Geological Sciences, Gainesville, FL, United States

T33C-0425 BARscope - Extending EarthScope Between the Appalachians and the Rockies
Seth Stein, Northwestern University, Earth and Planetary Sciences, Evanston, IL, United States, Carol A Stein, Univ. of Illinois at Chicago, Chicago, IL, United States, G. Randy Keller, University of Oklahoma Norman Campus, Norman, OK, United States, Stephen Marshak, University of Illinois, Champaign, IL, United States, John B Hickman Jr, University of Kentucky, Lexington, KY, United States, Mitchell Barklage, Northwestern University, Earth & Planetary Science, Evanston, IL, United States, Patricia Persaud, Louisiana State University, Department of Geology and Geophysics, Baton Rouge, LA, United States, Robert D Hatcher Jr, University of Tennessee, Knoxville, TN, United States and Reece Phillip Elling, Northwestern University, Department of Earth and Planetary Sciences, Evanston, IL, United States

PRESENTATIONS

Wednesday, 08:15 - 08:30 | Location: Marriott Marquis - Marquis 6

V31C-06 The Rupture Process of the 2018 M_w 6.9 Hawai'i Earthquake as Revealed by a Genetic Algorithm-Based Source Imaging Technique
Haiyang Kehoe[1], Eric Kiser[1] and Paul Okubo[2], (1) University of Arizona, Department of Geosciences, Tucson, AZ, United States, (2) Hawaiian Volcano Observatory, U.S. Geological Survey, Hawaii National Park, HI, United States

Wednesday, 10:50 - 11:05 | Location: Marriott Marquis - Capitol/Congress
MR32A-03 Thermal Equations of States and Phase Diagram of High Pressure Phase SiO_2
Ningyu Sun[1], Zhu Mao[2], Weigang Shi[1] and Cijin Zhou[1], (1) University of Science and Technology of China, Hefei, China, (2) University Science & Technology of China, Hefei, Anhui, China

Wednesday, 12:30 - 13:30 | Location: Marriott Marquis - Independence D (Town Hall)

TH33D EarthScope and Beyond: Current and Future Facility Support for Geodesy, Seismology, and Geophysics Research and Education in the Geosciences
Jeffrey Todd Freymueller, Michigan State University, East Lansing, MI, United States, **Bob Detrick**, Incorporated Research Institutions for Seismology, Washington, DC, United States and **M Meghan Miller**, UNAVCO, Boulder, CO, United States

Wednesday, 13:40 - 13:55 | Location: Marriott Marquis - Liberty N-P
T33A-01 Secondary Pyrite Deformation and Calcite Veins in SAFOD Damage Zone; Implications for Aseismic Creep Deformation Mechanism at Depths >3 km
Jafar Hadizadeh, University of Louisville, Louisville, KY, United States and Alan Peter Boyle, University of Liverpool, Liverpool, L69, United Kingdom

Wednesday, 13:40 - 15:40 | Location: Marriott Marquis - Independence D
S33A Emerging Science from the EarthScope Transportable Array in Alaska and Canada I
(SESSION) Natalia A Ruppert, University of Alaska Fairbanks, Fairbanks, AK, United States, **Richard C Aster**, Colorado State University, Geosciences Department, Fort Collins, CO, United States and **Hersh J Gilbert**, University of Calgary, Department of Geoscience, Calgary, AB, Canada

Wednesday, 13:40 - 13:55 | Location: Marriott Marquis - Independence D
S33A-01 The Future of the Alaska Transportable Array
Robert W Busby[1], Kasey Aderhold[1] and Max Enders[2], (1) Incorporated Research Institutions for Seismology, Washington, DC, United States, (2) Incorporated Research Institutions for Seismology, Anchorage, AK, United States

Wednesday, 13:55 - 14:10 | Location: Marriott Marquis - Independence D
S33A-02 Observations of the Prompt Elastogravity Signals Generated by the 2018/01/23 Gulf Of Alaska Earthquake Traveling Across the Alaska Seismic Network
Martin Vallée[1], Kévin Juhel[1], Kasey Aderhold[2], Robert W Busby[2] and Jean-Paul Ampuero[3], (1) Institut de Physique du Globe de Paris, Paris, France, (2) Incorporated Research Institutions for Seismology, Washington, DC, United States, (3) Géoazur - Université Nice Sophia Antipolis, Valbonne, France

Wednesday, 14:10 - 14:25 | Location: Marriott Marquis - Independence D
S33A-03 Remote Monitoring of Explosive Volcanism in Alaska with the EarthScope Transportable Array.
Richard W Sanderson[1], Robin S Matoza[1], David Fee[2], Matthew M Haney[3] and John J Lyons[4], (1) University of California, Santa Barbara, Department of Earth Science, Santa Barbara, CA, United States, (2) University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States, (3) Alaska Volcano Observatory Anchorage, USGS, Anchorage, AK, United States, (4) Alaska Volcano Observatory - USGS, USGS, Anchorage, AK, United States

Wednesday, 14:25 - 14:40 | Location: Marriott Marquis - Independence D
S33A-04 Deep Earth Structure Creates Order-of-Magnitude Variations in Strong Shaking from Intermediate-Depth Earthquakes: the Damaging 2016 Mw 7.1 Iniskin, Alaska Earthquake

Michael Everett Mann, Geoffrey A Abers and Roque Alberto Soto Castaneda, Cornell University, Ithaca, NY, United States

Wednesday, 14:40 - 14:55 | Location: Marriott Marquis – Archives
DI33A-05 Heterogeneity Spectrum of Earth's Upper Mantle Obtained from the Coherence of Teleseismic P Waves: Evidence for Pervasive Chemical and Phase Heterogeneity
Vernon F Cormier, University of Connecticut, Storrs, CT, United States, Yiteng Tian, University of Connecticut, Physics, Storrs, CT, United States and Yingcai Zheng, University of Houston, Earth and Atmospheric Sciences, Houston, TX, United States

Wednesday, 14:40 - 14:55 | Location: Marriott Marquis - Independence D
S33A-05 Joint Bayesian Inversion Across the USArray in Alaska using Surface wave Dispersion, Rayleigh Wave Ellipticity, and Receiver Functions
Elizabeth M Berg[1], Fan-Chi Lin[1], Kevin Michael Ward[2] and Weisen Shen[3], (1) University of Utah, Salt Lake City, UT, United States, (2) South Dakota School of Mines and Technology, Rapid City, SD, United States, (3) Stony Brook University, Department of Geosciences, Stony Brook, NY, United States

Wednesday, 14:40 - 14:55 | Location: Marriott Marquis - Independence E
S33B-05 The Similarity Matrix Profile, an Efficient Method for Detecting Seismic Events in Very Long Time Series
Gareth Funning[1], **Nader Shakibay Senobari**[1], Zachary Zimmerman[2], Yan Zhu[2] and Eamonn Keogh[2], (1) University of California Riverside, Riverside, CA, United States, (2) University of California Riverside, Department of Computer Science and Engineering, Riverside, United States

Wednesday, 14:55 - 15:10 | Location: Marriott Marquis - Independence D
S33A-06 The Cause and Effect of Slab Segmentation in the Aleutian-Alaska Subduction System
Xiaotao Yang and Haiying Gao, University of Massachusetts Amherst, Department of Geosciences, Amherst, MA, United States

Wednesday, 15:10 - 15:25 | Location: Marriott Marquis - Independence D
S33A-07 Upper Mantle Seismic Structure of Alaska from Rayleigh and S-wave Tomography
Chengxin Jiang, University of New Mexico Main Campus, Department of Earth & Planetary Sciences, Albuquerque, NM, United States, Brandon Schmandt, University of New Mexico, Department of Earth & Planetary Sciences, Albuquerque, NM, United States, Kevin Michael Ward, South Dakota School of Mines and Technology, Rapid City, SD, United States, Fan-Chi Lin, University of Utah, Salt Lake City, UT, United States and Lindsay Lowe Worthington, University of New Mexico, Albuquerque, NM, United States

Wednesday, 15:25 - 15:40 | Location: Marriott Marquis - Independence D
S33A-08 Shear Wave Splitting in the Mackenzie Mountains and Northern Cordillera
Derek Schutt[1], Derek Richard Witt[1], Jay Breidt[2], Richard C Aster[3], Jeffrey T Freymueller[4] and Joel Frank Cubley[5], (1) Colorado State University, Geosciences, Fort Collins, CO, United States, (2) Colorado State University, Statistics, Fort Collins, CO, United States, (3) Colorado State University, Geosciences Department, Fort Collins, CO, United States, (4) University of Alaska Fairbanks, Fairbanks, AK, United States, (5) Yukon College, Whitehorse, YT, Canada

Wednesday, 16:40 - 16:50 | Location: Marriott Marquis - Marquis 1-2

PA34A-05 Science Policy Career: A Career Path from Seismologist to U.S. Government International Policy Wonk

Charles H Estabrook, National Science Foundation, Office of International Science and Engineering, Arlington, VA, United States

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THURSDAY, 13 DECEMBER 2018

POSTERS

08:00 - 12:00 | Poster Hall A-C

DI41B-0014 Uppermost Mantle Seismic Structure beneath Central and Eastern United States.
Rayan Yassminh, University of Missouri Columbia, Columbia, MO, United States and Eric A Sandvol, Univ. Missouri Columbia, Columbia, MO, United States

S41E-0592 Effect of Slow Slip on Uplift across the Olympic Peninsula and Implications for the Downdip Extent of Locking on the Cascadia Subduction Zone
Juliette P Saux and John P Loveless, Smith College, Northampton, MA, United States

13:40 - 18:00 | Poster Hall A-C

A43L-3250 Assessing the Atmospheric Fate and Transport of Pesticides Used to Control Mosquito Populations Post-Hurricane Harvey
Sarah Lynn Guberman VerPloeg[1], Benjamin Schulze[2], Sergio Luiz Alvarez[3], James H Flynn III[4], Rebecca J Sheesley[1] and Sascha Usenko[1], (1) Baylor University, Environmental Science, Waco, TX, United States, (2) Rice University, Houston, United States, (3) University of Houston, Houston, TX, United States, (4) University of Houston, Department of Earth and Atmospheric Sciences, Houston, TX, United States

ED43H-1306 Challenges in Making Meaning from Ground Motion Visualizations: The Role of Geoscience Knowledge in Interpreting Dynamic Spatiotemporal Patterns
Mike Brudzinski, Miami University Oxford, Oxford, OH, United States, Allison J. Jaeger, Temple University, Philadelphia, PA, United States and Thomas F. Shipley, Temple University, Psychology, Philadelphia, PA, United States

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IN43D-0923 Quality Control Metrics for Real-Time High-Rate GNSS Data
Stephen T Dittmann[1], Kathleen Marian Hodgkinson[2], David Mencin[2], Charles Sievers[3], Glen S Mattioli[2] and Karl Feaux[2], (1) UNAVCO, Inc. Boulder, Boulder, CO, United States, (2) UNAVCO, Inc., Boulder, CO, United States, (3) UNAVCO, Inc, Boulder, CO, United States

NS43B-0838 Microseismic Remote Sensing of Sea Ice: Exploratory Study on the Potential Uses of the EarthScope Transportable Array in the Detection of Sea Ice Dynamics
Joshua Eric McCurry[1,2], Kasey Aderhold[3], Sinead Louise Farrell[1,2], Robert W Busby[3] and Robert S Woodward[3], (1) NOAA Laboratory for Satellite Altimetry, NCWCP, College Park, MD, United States, (2) University of Maryland College Park, College Park, MD, United States, (3) Incorporated Research Institutions for Seismology, Washington, DC, United States

S43C-0604 Complex Faulting and Triggered Rupture During the 2018 M_W 7.9 Offshore Kodiak, Alaska Earthquake
Natalia A Ruppert[1], Christopher Rollins[2], Ailin Zhang[3], Lingsen Meng[4], Stephen G Holtkamp[1], Michael Edwin West[5] and Jeffrey T Freymueller[1], (1) University of Alaska Fairbanks, Fairbanks, AK, United States, (2) Caltech, Los Angeles, CA, United States, (3) University of California Los Angeles, Dept. of Earth, Planetary, and Space Sciences, Los Angeles, CA, United States, (4) UCLA, Earth, Planetary and Space Science, Los Angeles, CA, United States, (5) Univ. Alaska Fairbanks, Fairbanks, AK, United States

S43E-0658 Calibration of Borehole GTSM Instruments Using Seismic Array Strain for the ANZA-PBO Network, California
Charles A Langston, Center for Earthquake Research and Information, Memphis, TN, United States

S43E-0669 Alaska TA Sensor Emplacement: Overview and Applications in Collaborating Networks
Max Enders[1], Robert W Busby[2], Jeremy Miner[1], Ryan Bierma[1], Doug Bloomquist[1] and Jason Theis[1], (1) Incorporated Research Institutions for Seismology, Anchorage, AK, United States, (2) Incorporated Research Institutions for Seismology - IRIS, Washington, DC, United States

S43E-0670 A Direct Bury Deployment in Alaska of A New Low Noise Broadband Seismometer
Tim Parker[1], Kyle Smith[2] and Bruce Townsend[1], (1) Nanometrics Inc, Kanata, ON, Canada, (2) University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States

S43E-0674 Quality Control Measures and Analysis of EarthScope's USArray Transportable Array in the Conterminous United States
Danielle F Sumy[1], Andrew Frassetto[1], Kasey Aderhold[2], Gillian Sharer[3], Robert W Busby[2], Robert S Woodward[4], Katrin Hafner[5] and Frank Vernon[6], (1) Incorporated Research Institutions for Seismology, Seattle, WA, United States, (2) Incorporated Research Institutions for Seismology, Washington, DC, United States, (3) IRIS, Data Management Center, Seattle, WA, United States, (4) IRIS Consortium, Washington, DC, United States, (5) IRIS, Longmont, CO, United States, (6) University of California San Diego, La Jolla, CA, United States

S43E-0677 Evolution of the IRIS Portable Facility: New tools for Wavefield Imaging, Rapid Response, and Magnetotellurics
Justin R Sweet, IRIS, Socorro, NM, United States, Kent Randall Anderson, IRIS, Sandia Park, NM, United States, Andrew Frassetto, Incorporated Research Institutions for Seismology, Seattle, WA, United States, Bruce C Beaudoin, IRIS PASSCAL Instrument Center, Socorro, NM, United States, Susan L Bilek, New Mexico Institute of Mining and Technology, Earth and Environmental Science, Socorro, NM, United States and Robert S Woodward, IRIS Consortium, Washington, DC, United States

S43E-0679 Comparison of 4.5-Hz Geophones to Broadband Seismometers from a Real Field Deployment
Tyler W Rasmussen[1], John A Hole[1], A. Christian Stanciu[2], Kathy K Davenport[3] and Ray Russo[4], (1) Virginia Polytechnic Institute and State University, Blacksburg, VA, United States, (2) University of Oregon, Eugene, OR, United States, (3) Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR, United States, (4) University of Florida, Geological Sciences, Gainesville, FL, United States

S43E-0680 Ongoing Modernization of the Global Seismographic Network
J Peter Davis[1], Carl W Ebeling[1] and Katrin Hafner[2], (1) University of California San Diego, La Jolla, CA, United States, (2) IRIS, Longmont, CO, United States

T43F-0466 New Images of Upper Mantle Structure beneath Western Canada from Teleseismic Body-Wave Tomography
Clement Esteve, University of Ottawa, Ottawa, ON, Canada, Andrew J Schaeffer, Geological Survey of Canada - Pacific, Sidney, ON, Canada and Pascal Audet, University of Ottawa, Department of Earth and Environmental Sciences, Ottawa, ON, Canada

T43F-0467 Mapping Multi-Mode Phase Speeds of Surface Waves in North America with Array-Based Dispersion Analysis using USArray
Hitoshi Matsuzawa, Hokkaido University, Sapporo, Japan and Kazunori Yoshizawa, Hokkaido University, Department of Earth & Planetary Sciences, Faculty of Science, Sapporo, Japan

T43F-0472 Imaging Structure beneath East Central United States Using CCP Stacking and Scattering Kernel Analysis of Ps and Sp Receiver Functions
Sizhuang Deng, Rice University, Department of Earth, Environmental and Planetary Sciences, Houston, TX, United States, Alan Levander, Rice University, Earth, Environmental, and Planetary Sciences, Houston, TX, United States and Steven Hansen, Macquarie University, Department of Earth and Planetary Sciences, Sydney, Australia

T43F-0473 The Northern Gulf Anomaly: Characterizing Asthenospheric Upwelling at a Continental Edge using Seismic Velocity Perturbations
Zoe Krauss, Colorado College, Colorado Springs, CO, United States and William H Menke, Lamont-Doherty Earth Observatory, Palisades, NY, United States

T43F-0474 Toward a Joint Inversion of Rayleigh Wave Phase Velocity, Site Amplification, and Ellipticity Measurements for a 3-D Shear-Velocity Model of the U.S.

Jordyn Cloud and Colleen A Dalton, Brown University, Department of Earth, Environmental, and Planetary Sciences, Providence, RI, United States

T43F-0475 Radially Anisotropic Shear Wave Velocity Structure beneath Eastern North America from Surface Wave Tomography
Zhongmin Tao, University of Houston, Houston, TX, United States and Aibing Li, University of Houston, EAS, Houston, TX, United States

T43F-0476 Improved Tomography of the Columbia River Flood Basalts and Central Idaho Regions Reveals New Geometries for the Fast Anomalies in the Upper Mantle
A. Christian Stanciu, University of Oregon, Eugene, OR, United States, Eugene Humphreys, Univ. Oregon, Eugene, OR, United States and Robert W Clayton, California Institute of Technology, Pasadena, CA, United States

T43G-0506 Towards Earthquake System Science: Constraining Basal Mantle Stress Partitioning Within the Lithosphere and Crust
Ravi V S Kanda, Utah State University, Geology, Logan, UT, United States and Anthony R Lowry, Utah State University, Logan, UT, United States

PRESENTATIONS

Thursday, 10:20 - 10:35 | Location: Marriott Marquis - Liberty L

T42A-01 Mapping Modification of Deep Crustal Structure in the Wyoming Province Using Xenoliths, Crystalline Basement Exposures, and Receiver Functions
Vera Schulte-Pelkum, University of Colorado at Boulder, Cooperative Institute for Research in Environmental Sciences, Boulder, CO, United States, Kevin H Mahan, University of Colorado at Boulder, Geological Sciences, Boulder, CO, United States, Cailey Brown Condit, Massachusetts Institute of Technology, Cambridge, MA, United States, Weisen Shen, Stony Brook University, Department of Geosciences, Stony Brook, NY, United States and Josh Stachnik, Lehigh University, Earth and Environmental Sciences, Bethlehem, PA, United States

Thursday, 11:05 - 11:20 | Location: Washington Convention Center – 206
IN42B-04 A Real-Time GNSS Network of the Americas
Kathleen Marian Hodgkinson, David Mencin, Charles Sievers, Timothy Dittman, Karl Feaux, Kenneth Emil Austin, Christian P Walls and Glen S Mattioli, UNAVCO, Inc., Boulder, CO, United States

Thursday, 11:28 - 11:41 | Location: Marriott Marquis - Independence F-H
S42B-06 The Sorrells Process, Retrieval of Layered Shallow Structure and Comparison to the Vs30 Model
Toshiro Tanimoto, University of California Santa Barbara, Santa Barbara, CA, United States and Jiong Wang, University of California, Santa Barbara, Department of Earth Science, Santa Barbara, CA, United States

Thursday, 11:35 - 11:50 | Location: Marriott Marquis - Liberty L

T42A-06 Comparing and Contrasting the Crustal Imprints of the Snowbird and Great Falls Tectonic Zones

Yu Jeffrey Gu[1], Yunfeng Chen[1], Ramin Dokht[2] and Ruijia Wang[1], (1)University of Alberta, Physics, Edmonton, AB, Canada, (2)Geological Survey of Canada, Sidney, BC, Canada

Thursday, 13:40 - 13:55 | Location: Walter E Washington Convention Center - 156

IN43B-01 The Implications of Magnetic Field Predictability on Geomagnetically Induced Currents in the U.S.

Matthew Grawe, University of Illinois at Urbana Champaign, Department of Electrical and Computer Engineering, Urbana, IL, United States, Jonathan J Makela, University of Illinois, Urbana, IL, United States and Farzad Kamalabadi, University of Illinois, Department of Electrical and Computer Engineering, Urbana, IL, United States

Thursday, 14:13 - 14:21 | Location: Marriott Marquis - Marquis 9-10

NH43A-02 Magnetic-Storm Geoelectric Hazard Maps and the Induction of Voltages on Power-Grids

Jeffrey J Love, USGS Geomagnetism Program, Denver, CO, United States, **Paul Bedrosian**, USGS, Geology, Geophysics, and Geochemistry Science Center, Denver, CO, United States, Greg Lucas, Univ. of Colorado, Boulder, CO, United States, Anna Kelbert, USGS Geologic Hazards Science Center, Golden, CO, United States and Erin Joshua Rigler, USGS, Denver, CO, United States

Thursday, 14:44 - 14:58 | Location: Washington Convention Center - 202A

U43A-05 The Role of IRIS in Collaborative Research in the Geosciences

Robert S Detrick[1], Timothy Keith Ahern[1], John S Taber[2] and Robert S Woodward[2], (1) Incorporated Research Institutions for Seismology, Seattle, WA, United States, (2) Incorporated Research Institutions for Seismology, Washington, DC, United States

Thursday, 14:55 - 15:10 | Location: Washington Convention Center - 156

IN43B-06 3-D Storm Time Ground Geoelectric Field Modeling for the Northeastern United States

Elena Ivannikova[1], **Mikhail Kruglyakov**[1,2], Alexey V Kuvshinov[1], Lutz Rastaetter[3], Antti A Pulkkinen[3], Chigomezyo Ngwira[3,4] and Benjamin S Murphy[5], (1) ETH Zurich, Institute of Geophysics, Zurich, Switzerland, (2) GEMRC IPE RAS, Moscow, Russia, (3) NASA Goddard Space Flight Center, Greenbelt, MD, United States, (4) Catholic University of America, Washington, DC, United States, (5) Oregon State University, Corvallis, OR, United States

Thursday, 17:15 - 17:30 | Location: Marriott Marquis - Marquis 12-13

NS44A-06 Volcanic Explosion Backazimuth from Near-Surface Seismo-Acoustic Coupling Minimization

Matthew M Haney[1], Kathleen F McKee[2], David Fee[3], Robin S Matoza[4] and John J Lyons[1], (1) Alaska Volcano Observatory Anchorage, USGS, Anchorage, AK, United States, (2) Carnegie Institution for Science, Department of Terrestrial Magnetism, Washington, DC, United States, (3) University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States, (4) University of California Santa Barbara, Department of Earth Science and Earth Research Institute, Santa Barbara, CA, United States

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FRIDAY, 14 DECEMBER 2018

POSTERS

08:00 - 12:00 | Poster Hall A-C

DI51B-0018 Hunting for Anisotropic Layering within Cratonic Lithosphere Using Multi-Frequency Harmonic-Order Stacks of Receiver Functions
James Eric Pippin, Incorporated Research Institutions for Seismology, Seattle, WA, United States; Pennsylvania State University, State College, PA, United States and Tolulope M Olugboji, University of Rochester, Earth and Environmental Sciences, Rochester, NY, United States

DI51B-0024 Characterizing Lithospheric Structure Beneath Connecticut Using Sp Receiver Functions
Gillian Goldhagen, University of California Riverside, Riverside, CA, United States, Heather A Ford, University of California Riverside, Department of Earth Sciences, Riverside, CA, United States and Maureen D Long, Yale University, New Haven, CT, United States

DI51B-0025 Spurious Low Velocity Zones in Joint Inversion of Surface Waves and Receiver Functions
Chao Gao, University of Maryland College Park, Dept. of Geology, College Park, MD, United States, Erin Cunningham, University of Maryland College Park, College Park, MD, United States and Vedran Lekic, University of Maryland, Department of Geology, College Park, MD, United States

ED51C-0680 Earthquake Detective: Engaging Citizens in the Detection of Dynamically Triggered Seismic Events
Vivian Tang[1], Boris Roesler[2], Jordan Nelson[3], JaCoya Chantel Thompson[2], Alice Lucas[4], **Suzan van der Lee**[2], Kevin Chao[5], Zhigang Peng[6], Michelle Paulsen[3] and Laura Trouille[7], (1) Northwestern University, Department of Earth and Planetary Sciences, Evanston, IL, United States, (2) Northwestern University, Evanston, IL, United States, (3) Northwestern University, Evanston, United States, (4) Northwestern University, EECS, Evanston, United States, (5) Northwestern University, Northwestern

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Institute on Complex Systems, Evanston, IL, United States, (6) Georgia Tech, Atlanta, GA, United States, (7) Adler Planetarium, Chicago, IL, United States

G51C-0489 Three Dimensional Aseismic Creep Deformation from Differencing of Structure from Motion and LiDAR High Resolution Topography on the San Andreas Fault, California
Michael P Bunds[1], Chelsea Scott[2], Nathan A Toke[3], Ramon Arrowsmith[4], Jeremy Saldivar[5], Logan Woolstenhulme[5], Joseph Phillips[5], Susanne U Janecke[6] and James P Evans[7], (1) Utah Valley University, Department of Earth Science, Orem, UT, United States, (2) Arizona State University, Tempe, AZ, United States, (3) Utah Valley University, Orem, UT, United States, (4) Arizona State Univ, Tempe, AZ, United States, (5) Utah Valley University, Department of Earth Science, Orem, United States, (6) Utah State Univ, Logan, UT, United States, (7) Utah State University, Logan, UT, United States

T51H-0272 Improved Rayleigh Wave Group Velocity Estimates across the Southeastern United States via Double Beamforming
Debajeet Barman[1], Jay Pulliam[1] and Diego Quiros[2], (1) Baylor University, Waco, TX, United States, (2) Cornell University, Ithaca, NY, United States

T51J-0320 Optical Fiber Strainmeters and the Potential for the Detection of Slow Slip Events
William Hatfield[1], Frank K Wyatt[1] and Mark A Zumberge[2], (1) University of California San Diego, La Jolla, CA, United States, (2) Univ. California San Diego, La Jolla, CA, United States

13:40 - 18:00 | Poster Hall A-C

DI53A-0055 Seismological and Spatial Characteristics of a Core-Rigidity Zone beneath Mexico Constrained with ScP Waveform Modeling
John Jeremy Jasbinsek, California Polytechnic State University San Luis Obispo, San Luis Obispo, CA, United States and **Sophia Ford**, California Polytechnic State University San Luis Obispo, Physics, San Luis Obispo, CA, United States

S53C-0428 Mapping Anelastic Structures in the Upper Mantle - Applications to the Hotspot Tracks beneath the Western United States
Nian Wang, Yang Shen and Xueyang Bao, University of Rhode Island, Graduate School of Oceanography, Narragansett, RI, United States

S53E-0455 High Frequency Seismic Noise Models of the Conterminous United States
Aaron N Ferris, Weston Geophysical Corp, Lexington, MA, United States and Seung-Hoon Yoo, Weston Geophysical Corp., Lexington, MA, United States

G23C-0628 Investigating the Effect of Mantle Flow and Viscosity Structure on Surface Velocities in Alaska Using 3-D Geodynamic Models
Joseph Daniel McConeghy, Lucy M Flesch and Julie Elliott, Purdue University, West Lafayette, IN, United States

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S23A-0498 Low Seismicity in the Midland Basin and Implications for Induced Earthquakes
Aibing Li[1], Hongli Jing[2] and Hua-Wei Zhou[2], (1) University of Houston, EAS, Houston, TX, United States, (2) University of Houston, Houston, TX, United States

S23A-0502 Developing a Regional 3-D Velocity Model in Southwest Texas for Monitoring Seismicity in the Eagle Ford Shale Play
Dino Huang[1], Alexandros Savvaidis[1], Bissett Young[1] and the TexNet data analyst team, (1) University of Texas at Austin, Bureau of Economic Geology, Austin, TX, United States

PRESENTATIONS

Friday, 08:15 - 08:30 | Location: Marriott Marquis - Independence A-C

G51A-02 Impact of IGS Product Improvements on Regional Plate Boundary Observatory Processing.
Thomas Herring, Massachusetts Institute of Technology, Department of Earth, Atmospheric and Planetary Sciences, Cambridge, MA, United States

Friday, 10:20 - 10:35 | Location: Marriott Marquis - Independence F-H
S52A-01 3-D Crustal Structure of Southern California Revealed from Joint Inversion of Full-Wave Seismic and Gravity Data
Lianghui Guo[1], Xueyang Bao[2] and Yang Shen[2], (1)China University of Geosciences (Beijing), School of Geophysics and Information Technology, Beijing, China, (2)University of Rhode Island, Graduate School of Oceanography, Narragansett, RI, United States

Friday, 10:20 - 10:35 | Location: Marriott Marquis - Liberty L
S52A-01 3-D Crustal Structure of Southern California Revealed from Joint Inversion of Full-Wave Seismic and Gravity Data
Eva Marie Golos[1]**,** Hongjian Fang[1], Alistair Boyce[2], Anna E Foster[3], Fiona Ann Darbyshire[4] and Robert D van der Hilst[1], (1)Massachusetts Institute of Technology, Cambridge, MA, United States, (2)Imperial College London, London, SW7, United Kingdom, (3)Columbia University in the City of New York, New York, NY, United States, (4)University of Quebec at Montreal UQAM, Centre de recherche GEOTOP, Montreal, QC, Canada

Friday, 10:35 - 10:50 | Location: Marriott Marquis - Liberty L
T52D-02 Imaging the Farallon Slab and other Upper-Mantle Structure under USArray using Long-period Reflection Seismology
Peter M Shearer, University of California San Diego, Scripps Institution of Oceanography, La Jolla, CA, United States and Janine S Buehler, Swiss National Science Foundation, Berne, Switzerland

Friday, 10:50 - 11:05 | Location: Marriott Marquis - Liberty L

T52D-03 A Thin Lithosphere and Steep Lithosphere-Asthenosphere Boundary beneath the Central Appalachian Mountains: Constraints on Seismic Attention using MAGIC Array Data

Joseph S Byrnes, University of Minnesota Twin Cities, Earth Sciences, Minneapolis, MN, United States, Maximiliano Bezada, University of Minnesota, Earth Science, Minneapolis, MN, United States, Maureen D Long, Yale University, New Haven, CT, United States and Margaret H Benoit, National Science Foundation, Arlington, VA, United States

Friday, 11:05 - 11:20 | Location: Marriott Marquis - Liberty L

T52D-04 From the Archean Craton to the Mesozoic Cordilleran Orogen: New Crustal Seismic Constraints of the Western Canada Sedimentary Basin from Ambient Noise Tomography

Yunfeng Chen and **Yu Jeffrey Gu,** University of Alberta, Physics, Edmonton, AB, Canada

Friday, 11:05 - 11:20 | Location: Marriott Marquis - Independence F-H

S52A-04 Mapping Mantle Flows Underneath The North American and Caribbean Plates

Hejun Zhu, The University of Texas at Dallas, Department of Geosciences, Richardson, TX, United States

Friday, 11:20 - 11:35 | Location: Marriott Marquis - Liberty L

T52D-05 Transition Zone Structure Beneath the Eastern US

Shangxin Liu[1], John C. Aragon[2], Maggie Benoit[3], Maureen D Long[2] and Scott D King[1], (1)Virginia Polytechnic Institute and State University, Blacksburg, VA, United States, (2)Yale University, New Haven, CT, United States, (3)National Science Foundation, Arlington, VA, United States

Friday, 11:35 - 11:50 | Location: Marriott Marquis - Liberty L

T52D-06 Lithospheric Layering in the North American Craton from Anisotropic Full Waveform Inversion

Barbara A Romanowicz, University of California Berkeley, Department of Earth and Planetary Science, Berkeley, CA, United States; College de France, Paris, France, Haydar Karaoglu, Utrecht University, Utrecht, Netherlands, Satish Maurya, University of California Berkeley, Berkeley, CA, United States, Corinna Roy, University of Leeds, School of Earth and Environment, Leeds, United Kingdom, Clouzet Pierre, Universite Pierre et Marie Curie, Paris Cedex 05, France and Thomas Bodin, LGLTPE, Univ. Lyon 1, ENS Lyon and CNRS, Lyon, France

Friday, 11:50 - 12:05 | Location: Marriott Marquis - Liberty L

T52D-07 Mapping the Thickness of Thermal Lithosphere Across the Continental US

Ryan C Porter, Northern Arizona University, Flagstaff, AZ, United States and Suzan van der Lee, Northwestern Univ, Evanston, IL, United States

Friday, 12:05 - 12:20 | Location: Marriott Marquis - Liberty L

T52D-08 Heat Flow Data and Seismic Imaging Reveal Both Transient and Steady-State Thermo-Mechanical Processes at Work Beneath Southern California

Wayne R Thatcher, USGS Western Regional Offices Menlo Park, Menlo Park, CA, United States and David S Chapman, University of Utah, Salt Lake City, UT, United States

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Friday, 13:40 - 13:55 | Location: Marriott Marquis - Liberty L

T53B-01 Mantle Structure and Dynamics under the Continuous United States Inferred from Tomographic Imaging of Radially Anisotropic Shear Velocity

Robert W Porritt, University of Texas at Austin, Institute for Geophysics, Austin, TX, United States, Thorsten W Becker, USC, Los Angeles, CA, United States, Lapo Boschi, Institute of Geophysics, Zurich, Switzerland and Ludwig Auer, ETH Zurich, Zurich, Switzerland

Friday, 13:55 - 14:10 | Location: Marriott Marquis - Liberty L

T53B-02 Resolving Thick Thermal Lithosphere beneath the Southeastern United States: The Importance of Anelasticity in Synthesizing Seemingly Contradictory MT and Seismic Results

Benjamin S Murphy, Oregon State University, Corvallis, OR, United States and Gary D Egbert, Oregon State Univ, Corvallis, OR, United States

Friday, 14:10 - 14:25 | Location: Marriott Marquis - Independence E

S53B-03 Amplification of Seismic Waves in Nenana Basin, Central Alaska

Kyle Smith and Carl Tape, University of Alaska Fairbanks, Geophysical Institute, Fairbanks, AK, United States

Friday, 15:25 - 15:40 | Location: Marriott Marquis - Independence A-C

G53B-08 The Ups and Downs of California's Central Valley from GPS-enhanced InSAR

Wesley Neely, Adrian A Borsa and Francesca Silverii, Scripps Institution of Oceanography, La Jolla, CA, United States