GSA 2018

EARTHSCOPE-RELATED PRESENTATIONS

Explore the variety of research fueled by EarthScope data

Exhibitor booth #708

SUNDAY, 4 NOVEMBER 2018

POSTERS

09:00 - 17:30 | Poster Hall J-K

Booth #82 29-9: DETECTING HIDDEN FAULTS IN URBAN AREAS: CASE STUDIES AND METHODOLOGIES

HULTZ, Amanda R., Hart Crowser, 3131 Elliot Avenue, Seattle, WA 98121; U.S. Geological Survey, Earthquake Science Center, 345 Middlefield Road, Menlo Park, CA 94025, GEFEKE, Kerri M., University of Illinois-Chicago, 1200 West Harrison Street, Chicago, IL 60607; U.S. Geological Survey, Earthquake Science Center, 345 Middlefield Road, Menlo Park, CA 94025 and BALCH, Elana, Brown University, Providence, RI 02912; U.S. Geological Survey, Earthquake Science Center, 345 Middlefield Road, Menlo Park, CA 94025

Booth #354 47-1: COMPOSITION AND STRENGTH OF ULTRAMAFIC-RICH GOUGE FROM THE BARTLETT SPRINGS FAULT, CALIFORNIA COMPARED TO SAFOD GOUGES: IMPLICATIONS FOR FAULT CREEP

SWIATLOWSKI, Jerlyn L.[1], MOORE, Diane E.[2] and LOCKNER, David A.[2], (1) Department of Earth Science, University of California, Riverside, 900 University Ave, Riverside, CA 92521, (2) U. S. Geological Survey, 345 Middlefield Rd. MS 977, Menlo Park, CA 94025

PRESENTATIONS

Sunday, 16:15 - 16:30 | Location: 235

57-9: IMPROVED PHYSICAL MODEL OF INSTANTANEOUS/INFINITESIMAL STRAIN FOR HANDS-ON LEARNING USING A TRIANGLE OF STRETCHY CLOTH

COLLINS, Ryley M.[1], CRONIN, Vincent S.[1], CRONIN, Cynthia E.[1], PRATT-SITAULA, Beth[2] and OLDS, Shelley E.[2], (1) Geosciences Department, Baylor University, One Bear Place #97354, Waco, TX 76798-7354, (2) Education and Community Engagement, UNAVCO, 6350 Nautilus Drive, Boulder, CO 80301

Exhibitor booth #708

GSA 2018

EARTHSCOPE-RELATED PRESENTATIONS

Explore the variety of research fueled by EarthScope data

MONDAY, 5 NOVEMBER 2018

POSTERS

09:00 - 18:30 | Poster Hall J-K

Booth #326 119-2: MAGNETOTELLURIC ANALYSIS OF THE MIDCONTINENTAL RIFT IN IOWA

DELONG, Ashley, Geography, Geology and Planning, Missouri State University, Springfield, MO 65897 and MICKUS, Kevin L., Dept. of Geography, Geology, and Planning, Missouri State University, Springfield, MO 65897

Booth #327 119-3: INTEGRATED GEOPHYSICAL MODELING PROVIDES INSIGHTS INTO THE THREE-DIMENSIONAL GEOMETRY OF THE MIDCONTINENT RIFT IN WESTERN LAKE SUPERIOR

GRAUCH, V.J.S., U.S. Geological Survey, Box 25046, DFC, MS 964, Denver, CO 80225, STEWART, Esther K., Wisconsin Geological and Natural History Survey, University of Wisconsin–Extension, 3817 Mineral Point Rd, Madison, WI 53705, WOODRUFF, Laurel G., U.S. Geological Survey, 2280 Woodale Drive, St. Paul, MN 55112, ANDERSON, Eric D., US Geological Survey, Denver Federal Center, Bldg. 20, MS 964, Denver, CO 80225 and HELLER, Samuel, U.S. Geological Survey, Box 25046, DFC, MS 939, Denver, CO 80225

PRESENTATIONS

Monday, 14:00 - 14:15 | Location: 242

142-3: CRUSTAL ARCHITECTURE OF THE EASTERN BLUE MOUNTAINS PROVINCE AND SALMON RIVER SUTURE ZONE RESOLVED THROUGH INTEGRATED GEOLOGIC MAPPING, GEOCHRONOLOGY, AND GEOPHYSICAL SURVEYS

NANDI, Sourav Krishna, Department of Geography, Geology and Planning, Missouri State University, 910 S John Q Hammons Pkwy, Springfield, MO 65897, MCKAY, Matthew P., Department of Geosciences, Missouri State University, 901 S National Ave, Springfield, MO 65897 and MICKUS, Kevin L., Dept. of Geography, Geology, and Planning, Missouri State University, Springfield, MO 65897

GSA 2018

EARTHSCOPE-RELATED PRESENTATIONS

Explore the variety of research fueled by EarthScope data

Exhibitor booth #708

TUESDAY, 6 NOVEMBER 2018

PRESENTATIONS

Tuesday, SESSION 08:00 - 12:00 | Location: 238-239
T64. Beyond EarthScope in the Eastern U.S.—What We've Learned and What Needs Doing Next
Seth Stein, G. Randy Keller, Reece P. Elling and Stephen Marshak, Advocates

Tuesday, 08:05 158-1: THE MYSTERIOUS US MIDCONTINENT: A GEOLOGIC HISTORY PRESERVED IN NEGATIVE TOPOGRAPHY (Invited Presentation)
VAN DER PLUIJM, Ben, Earth & Environmental Sciences, University of Michigan, 1100 North University, Ann Arbor, MI 48109-1005 and MARSHAK, Stephen, Dept of Geology, University of Illinois at Urbana-Champaign, Natural History Building, 1301 W. Green St., Urbana, IL 61801

Tuesday, 08:20 158-2: CONTINENTAL COLLISIONS DURING APPALACHIAN OROGENESIS AS REVEALED BY NEW GEOPHYSICAL OBSERVATIONS FROM THE SOUTHEASTERN U.S (Invited Presentation)
HOPPER, Emily[1], MARZEN, Rachel E.[2], FISCHER, Karen M.[3], SHILLINGTON, Donna J.[1] and HAWMAN, Robert B.[4], (1) Lamont-Doherty Earth Observatory of Columbia University, 61 Route 9W, Palisades, NY 10964, (2) Columbia University, New York, NY 10027, (3) Department of Geological Sciences, Brown University, Providence, RI 02912, (4) Department of Geology, University of Georgia, Athens, GA 30602

Tuesday, 08:35 158-3: A MID-CRUSTAL SHEAR ZONE ASSOCIATED WITH RODINIA'S FORMATION: IS IT TOO SOON TO WIPE THE GRENVILLE FRONT LINEAMENT FROM MAPS? (Invited Presentation)
KING, Scott D.[1], LONG, Maureen D.[2], BENOIT, Margaret H.[3] and ARAGON, John C.[2], (1) Department of Geosciences, Virginia Tech, Blacksburg, VA 24060, (2) Department of Geology and Geophysics, Yale University, New Haven, CT 06520, (3) National Science Foundation, EarthScope Program, 2415 Eisenhower Avenue, Alexandria, VA 22314

Tuesday, 08:50 158-4: IMPLICATIONS FOR THE GRENVILLE OROGENY AND ASSEMBLY OF RODINIA FROM GRAVITY ANOMALIES ALONG THE MIDCONTINENT RIFT AND GRENVILLE FRONT IN CANADA

ELLING, Reece P.[1], STEIN, Seth[2], STEIN, Carol A.[3], KELLER, G. Randy[4] and BARKLAGE, Mitchell[2], (1) Department of Earth & Planetary Sciences, Northwestern University, Evanston, IL 60208, (2) Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208, (3) Earth & Environmental Sciences, University of Illinois at Chicago, Chicago, IL 60607, (4) School of Geology and Geophysics, University of Oklahoma, 100 E. Boyd, Norman, OK 73019

Tuesday, 09:05 158-5: HAVE WE SEEN THE LARGEST EARTHQUAKES IN EASTERN NORTH AMERICA?

NEELY, James S.[1], STEIN, Seth[1], MERINO, Miguel[2] and ADAMS, John[3], (1) Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208, (2) Chevron Corporation, 1400 Smith Street, Houston, TX 77002, (3) Geological Survey of Canada, Ottawa, ON K1A 0Y3, Canada

Tuesday, 09:20 158-6: CHARACTERIZATION OF PRE-EXISTING STRUCTURES IN THE BASEMENT OF OKLAHOMA WITH IMPLICATIONS FOR INDUCED SEISMICITY

KOLAWOLE, Folarin[1], JOHNSTON, Candace[1], CHANG, Jefferson C.[2], MARFURT, Kurt J.[1], RECHES, Ze'ev[1] and CARPENTER, Brett M.[1], (1) ConocoPhillips School of Geology and Geophysics, University of Oklahoma, 100 E Boyd St., Rm 710, Norman, OK 73069, (2) Hawaiian Volcano Observatory, United States Geological Survey (USGS), Crater Rim Drive, Hawaii, HI 76718

Tuesday, 09:50 158-7: WHAT IS THE ORIGIN OF THE UPPER MANTLE LOW VELOCITY ZONE BELOW THE MISSISSIPPI EMBAYMENT?

POWELL, Christine, University of Memphis, Center for Earthquake Research and Information, 3890 Central Ave, Memphis, TN 38152 and BIRYOL, Berk C., Department of Geological Sciences, UNC Chapel Hill, Chapel Hill, NC 27599

Tuesday, 10:05 158-8: SURFACE WAVE TOMOGRAPHY FROM AMBIENT NOISE IN CENTRAL U.S. AND ITS IMPLICATIONS FOR ILLINOIS BASIN AND NEW MADRID SEISMIC ZONE

XIAO, Hongyu, Department of Geology, The University of Illinois Urbana–Champaign, 3081 Natural History Bldg., 1301 W. Green St., Urbana, IL 61801, SONG, Xiaodong, Department of Geology, University of Illinois at Urbana-Champaign, Champaign, IL 61820 and MARSHAK, Stephen, Dept. of Geology, University of Illinois, Natural History Building, 1301 W. Green St., Urbana, IL 61801

Tuesday, 10:20 158-9: MULTIDISCIPLINARY APPROACH TO CHARACTERIZE TECTONIC HISTORY OF THE MIDCONTINENT USA CRATONIC PLATFORM: THE OZARK PLATEAU - ILLINOIS BASIN BOUNDARY

DELUCIA, Michael S.[1], MARSHAK, Stephen[2], GUENTHNER, William R.[1], MURPHY, Benjamin S.[3], EGBERT, Gary[4], PAVLIS, Gary[5], GILBERT, Hersh[6], HAMBURGER, Michael W.[7], CHEN, Chen[8], YANG, Xiaotao[9], LARSON, Timothy[10] and RUPP, John A.[11], (1) Department of Geology, University of Illinois at Urbana-Champaign, 3081 Natural History Building, 1301 W. Green St., Urbana, IL 61801, (2) Dept. of Geology, University of Illinois, Natural History Building, 1301 W. Green St., Urbana, IL 61801, (3) College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, 104 CEOAS Administration Building, Corvallis, OR 97331-5503, (4) College of Earth, Oceanic and Atmospheric Sciences, Oregon State University, 104 COAS Admin. Bldg., Corvallis, OR 97331-5503, (5) Earth and Atmospheric Sciences, Indiana University, Bloomington, IN 47405, (6) Dept. of Geoscience, University of Calgary, 2500 University Dr. NW, Calgary, BC T2N 1N4, Canada, (7) Dept. of Geological Sciences, Indiana University, Bloomington, IN 47405, (8) Department of Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN 47907, (9) Department of Geosciences, University of Massachusetts Amherst, 627 N. Pleasant St., Amherst, MA 01003, (10) Illinois State Geological Survey, University of Illinois, Champaign, IL 61820, (11) School of Public and Environmental Affairs, Indiana University, Bloomington, IN 47405

Tuesday, 10:35 158-10: BARSCOPE - EXTENDING EARTHSCOPE BETWEEN THE APPALACHIANS AND THE ROCKIES

BARKLAGE, Mitchell[1], STEIN, Seth[1], STEIN, Carol A.[2], KELLER, G. Randy[3], MARSHAK, Stephen[4], HICKMAN, John B.[5], CARPENTER, N. Seth[5], PERSAUD, Patricia[6], HATCHER Jr., Robert D.[7] and ELLING, Reece P.[8], (1) Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208, (2) Earth & Environmental Sciences, University of Illinois at Chicago, Chicago, IL 60607, (3) School of Geology and Geophysics, University of Oklahoma, 100 E. Boyd, Norman, OK 73019, (4) School of Earth, Society, and Environment, University of Illinois at Urbana-Champaign, Urbana, IL 61801, (5) Kentucky Geological Survey, University of Kentucky, 228 Mining and Mineral Resources Building, Lexington, KY 40506-0107, (6) Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803, (7) Earth and Planetary Sciences, University of Tennessee, Knoxville, TN 37996, (8)Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Rd., Evanston, IL 60208

Tuesday, 10:50 158-11: A SEISMIC EXPERIMENT TO INVESTIGATE MAJOR CRUSTAL-SCALE STRUCTURES IN EASTERN KENTUCKY AND TENNESSEE

CARPENTER, N. Seth[1], HICKMAN, John B.[1], BARKLAGE, Mitchell[2], KELLER, G. Randy[3], WANG, Zhenming[4], STEIN, Seth A.[5] and RAVAT, Dhananjay[6], (1) Kentucky Geological Survey, University of Kentucky, 228 Mining and Mineral Resources Building, Lexington, KY 40506-0107, (2) Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208, (3) School of Geology and Geophysics, University of Oklahoma, 100 E. Boyd, Norman,

OK 73019, (4) Kentucky Geological Survey, University of Kentucky, 228 Mining and Mineral Resources Building, Lexington, KY 40506, (5) Earth & Planetary Sciences, Northwestern University, Evanston, IL 60208, (6) Earth and Environmental Sciences, University of Kentucky, 101 Slone Research Building, Lexington, KY 40506

Tuesday, 11:05 158-12: THE PRECAMBRIAN IN OHIO: REASSESSING EXISTING MODELS AND THE NEED FOR NEW SEISMIC DATA
HULETT, Samuel, Ohio Department of Natural Resources, Division of Geological Survey, 2045 Morse Rd. Bldg. C, Columbus, OH 43229

Tuesday, 08:45 - 09:00 | Location: 140
153-4: ON THE ORIGIN AND EVOLUTION OF INTRAPLATE VOLCANISM: THE CASE FOR YELLOWSTONE (Invited Presentation)
LIU, Lijun, Geology, University of Illinois at Urbana-Champaign, Urbana, IL 61821 and ZHOU, Quan, Geology, University of Illinois at Urbana-Champaign, Champaign, IL 61820

Tuesday, 10:40 - 10:55 | Location: 140
153-9: CRUSTAL STRUCTURE AND SUBSIDENCE MECHANISM OF THE WILLISTON BASIN FROM RECEIVER FUNCTIONS
SONG, Jianguo[1], LIU, Kelly H.[2], GAO, Stephen S.[2], SUN, Muchen[2], YU, Youqiang[2], KONG, Fansheng[2] and MICKUS, Kevin L.[3], (1) Geology and Geophysics Program, Missouri University of Science and Technology, Rolla, MO 65409; School of Geosciences, China University of Petroleum, Qingdao, China, (2) Geology and Geophysics Program, Missouri University of Science and Technology, Rolla, MO 65409, (3) Department of Geography, Geology, and Planning, Missouri State University, 901 S. National Avenue, Springfield, MO 65897

Tuesday, 16:55 - 17:10 | Location: 136-137
207-13: ON THE TECTONIC STABILITY OF THE YUCATAN BLOCK
MONROY-RIOS, Emiliano, Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road Technological Institute, Northwestern University, Evanston, IL 60208 and BEDDOWS, Patricia A., Department of Earth & Planetary Sciences, Northwestern University, Evanston, IL 60208-3130
