Tuesday, 18 April 2023—Oral Sessions

Presenting author is indicated in bold.
<table>
<thead>
<tr>
<th>Time</th>
<th>2028C/C</th>
<th>204</th>
<th>208A</th>
<th>208B</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 AM</td>
<td><strong>Invited:</strong> Challenges in Quantifying Small Earthquakes. Herrmann, R. B., Benz, H. M.</td>
<td><strong>Monitoring Climate Change With Seismology (see page 1219)</strong></td>
<td><strong>USGS National Seismic Hazard Models: 2023 and Beyond (see page 1300)</strong></td>
<td><strong>Seismology’s Role in Assessing Volcanic Hazard at Multiple Time Scales (see page 1253)</strong></td>
</tr>
</tbody>
</table>

**Plenary: Volcanism in the Eastern Caribbean: Hazards, Monitoring, Challenges and Lessons Learnt.**

**Lunch Break**

**Plenary: Volcanism in the Eastern Caribbean: Hazards, Monitoring, Challenges and Lessons Learnt.**

**Lunch Break**
<table>
<thead>
<tr>
<th>Time</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:15 pm- 4:30 pm</td>
<td>Poster Break</td>
<td>Poster Break</td>
<td>Poster Break</td>
<td>Poster Break</td>
<td>Poster Break</td>
<td>Poster Break</td>
<td>Poster Break</td>
</tr>
<tr>
<td>Time</td>
<td>2023/C</td>
<td>2024</td>
<td>2025</td>
<td>2028</td>
<td>2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-7 PM</td>
<td>Plenary: The Future of Tsunami Hazards and Readiness Research (Panel Discussion)</td>
<td>Plenary: The Future of Tsunami Hazards and Readiness Research (Panel Discussion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:30 PM</td>
<td>INVITED: Seismicity at the Cose Geothermal Field: Past and Present</td>
<td>STUDENT: How Well Do We Really Know the b-Value?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM</td>
<td>Prediction of Near-Field Time Histories Using Casamica Area (Ischia Volcanic Island) After the 21 August 2017 M4.0 Earthquake</td>
<td>Directional Amplification and Ground Motion Polarization for an Irregular Soft Layer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:30 PM</td>
<td>4:45 pm</td>
<td>4:45 pm</td>
<td>5:30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:15 PM</td>
<td>4:30 pm</td>
<td>5:30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 PM</td>
<td>4:15 pm</td>
<td>5:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:45 PM</td>
<td>4:00 pm</td>
<td>4:50 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:30 PM</td>
<td>3:45 pm</td>
<td>4:45 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:15 PM</td>
<td>3:30 pm</td>
<td>4:30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 PM</td>
<td>3:15 pm</td>
<td>5:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:45 PM</td>
<td>3:00 pm</td>
<td>5:15 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:30 PM</td>
<td>2:45 pm</td>
<td>5:30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:15 PM</td>
<td>2:30 pm</td>
<td>6:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 PM</td>
<td>2:15 pm</td>
<td>6:15 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30 PM</td>
<td>1:45 pm</td>
<td>7:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:15 PM</td>
<td>1:30 pm</td>
<td>7:15 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td>1:15 pm</td>
<td>8:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:45 PM</td>
<td>1:00 pm</td>
<td>8:15 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:30 PM</td>
<td>0:45 pm</td>
<td>9:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:15 PM</td>
<td>0:30 pm</td>
<td>9:15 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:00 PM</td>
<td>0:15 pm</td>
<td>10:00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tuesday, 18 April (continued)
Tuesday, 18 April (continued)

Poster Sessions

The 2020-2023 Southwest Puerto Rico Seismic Sequence: Current State of Knowledge and Implications [Poster] (see page 1103)


2025 Puerto Rico and the U.S. Virgin Islands National Seismic Hazard Model Update [Poster] (see page 1106)


114. Student: Reviewing 4 Decades of the Puerto Rico Seismic Network Catalog: From Catalog Correction and Homogenization to Declustering. Chacon, D. M.


117. Student: V330 Measurements at Puerto Rico Seismic Sites. Toro Acosta, C., Vanacore, E. A.

Advances in Characterizing Seismic Hazard and Forecasting Risk in Hydrocarbon Systems [Poster] (see page 1118)


77. Characteristics of Seismogenic Zones Associated With the m5.2 Range Hill Event Near Midland, Texas. Huang, D., Chen, Y., Breton, C., Dommasse, R., Savvaïdis, A.


Advances in Marine Seismosacoustics [Poster] (see page 1120)


2. Novel Autonomous and Cabled Obs Solutions for Offshore Seismic Research. Lindsay, J. C., Watkiss, N., Rees, W., Wheeling, D.


Advancing Seismic With Global Seismological and Geophysical Networks [Poster] (see page 1129)

49. A Truly Very Broad Band Borehole Seismometer With Flat Response Over 5 Decades of Frequency. Gurral, C. M., Rademacher, H.


Collective Impact in Earthquake Science [Poster] (see page 1133)


86. Student: New Seismic Exposure Model for Guatemala City; A new Seismic Risk Approach. Dávila Míguez, L., Benito Oterino, M., Flores, O., Cabrero, J. M.

80. Social Science and Education Research for ShakeAlert, the Earthquake Early Warning System for the West Coast of the United States. McBride, S. K., Suny, D. F., de Groot, R.


De-risking Deep Geothermal Projects: Geophysical Monitoring and Forecasting Model Advances [Poster] (see page 1150)

72. Student: Applying Waveform Correlation Analysis to Microseismicity at the Forge Sites to Detect and Characterize Fractures. Asirifi, R.


74. Time-Lapse Changes in Velocities at Patua Geothermal Fields Using Seismic Ambient Noise. Qiu, H., Nakata, N., Qin, L.

Earth's Structure From the Crust to the Core [Poster] (see page 1164)


100. Student: Lateral Variations of Crustal Lg-Wave Field Using Seismic Ambient Noise. Liu, J., Zhao, L., Xie, X., Yao, Z.

Earthquake Source Parameters: Theory, Observations and Interpretations [Poster] (see page 1179)

16. Student: A Relative Moment Tensor Inversion Scheme for Local Earthquakes: Application to San Juan Cluster. Drolet, D., Bostock, M. G., Plouffe, A. P.


57. Pysolate: A Python-Based Thresholding Tool to De-Noise or De-Signal Seismic Waveforms Based on the Continuous Wavelet Transform. Aguiar, A. C., Chiang, A., Myers, S. C.

From Sensors and Networks to Site Characterization and Site Response: Coming Full Circle [Poster] (see page 1200)


31. Site Characterizations and Linear Site Responses at a High-rise in an Urban Environment: One Example From the Ground Up. Trabant, C., Berglund, H.


Future Directions in Physics-based Ground-motion Modeling in Preparation for the Fall 2023 Meeting [Poster] (see page 1204)


High-frequency Ground Motion Measurements, Assessments and Predictions [Poster] (see page 1214)


59. Edge Continuous Waveform Buffer Enhanced Station Monitoring Using a Web Interface and Containerized Deployment. Milke, B. E., Guy, M. R.


Emerging Developments in Operational Monitoring Systems and Products [Poster] (see page 1184)


Monitoring Climate Change With Seismology [Poster] (see page 1221)

52. Seismic Eruptions: The Present State of and Future Outlook for Data From the Past [Poster] (see page 1219)


49. Future Outlook for Data From the Past [Poster] (see page 1221)

48. Earthquake Ground Motion Data Collection in Cloud Computing Environments [Poster] (see page 1211)

47. High-quality Seismogram Data Collection: The Present State of and Future Outlook for Data From the Past [Poster] (see page 1219)


44. Site Characterizations and Linear Site Responses at Selected Borehole Strong-Motion Arrays From the United States and Japan. Wang, Z., Carpenter, S.


40. Edge Continuous Waveform Buffer Enhanced Station Monitoring Using a Web Interface and Containerized Deployment. Milke, B. E., Guy, M. R.


31. Site Characterizations and Linear Site Responses at a High-rise in an Urban Environment: One Example From the Ground Up. Trabant, C., Berglund, H.

Seismology for the Energy Transition [Poster] (see page 1252)


70 Seismic Imaging, Full-Waveform Inversion and Inverse-Scattering Wu, R., Zheng, Y.


Seismology’s Role in Assessing Volcanic Hazard at Multiple Time Scales [Poster] (see page 1255)

46 20-Year Seismic Run-Up to the 2015-2016 Eruption of Volcan Momotombo, Nicaragua, and Final Acceleration by Adjacent 2014 m6.1 Tectonic Earthquake McCausland, W., Tenorio, V., Navarro, M., Strach, W., White, R. A.

47 Anomaly Detection and Image Spectrometry in Assessing Multitemporal Activity of the Turrialva Volcano, Costa Rica, and La Palma, Spain Benito Oterino, M., Rejas, J., Benito Oterino, M., Rejas, J., Marchamalo Sacristán, M., Bonatti, J.


50 Repeating Low-Frequency Earthquakes Near Wrazegell Volcano, Alaska Wech, A., Newton, T., Thomas, A. M.

51 The Hawai‘i Magmatic System Resolved by High-Resolution Traveltime Tomography Biondi, E., Zhu, W., Li, J., Ross, Z. E., Zhan, Z.

52: Two Decades of Seismicity at Mount St. Helens Hirao, B. W., Thomas, A. M., Zhang, H., Schmandt, B., Thelen, W. A.

Single-station Passive Exploration Methods: Status and Perspectives [Poster] (see page 1262)

95 Dynamic Characteristics Assessment and 3D Site Effects Analyses of Earth Dams Based on Ambient Noise Measurements Verret, D.

94 High-Resolution Imaging of the Firn Layer in Antarctic Near the West Antarctic Ice Sheet Divide Camp Qin, L., Nakata, N., Zhang, Z., Qiu, H., Karpus, M. S., et al.

93 Seismic Energy Partition Applied to Dispersion Diagrams of Surface Waves Piña-Flores, J., Cárdenas-Soto, M., García-Jerez, A.


91 The Use of the H/V Ratio for Back-Calculation of Normalized shear Modulus G/0 Karray, M., Gul, O., Chiaradonna, A., Sezer, A.

Transforming our Seismological Community through Inclusive Mentorship and Diverse Narratives [Poster] (see page 1283)

87 An Online “Careers Module” to Recruit Undergraduate Students Into the Geoscience Workforce With Universal Design for Learning Approaches Suny, D. E., Houlton, H. R., Smith, J. C.


USGS National Seismic Hazard Models: 2023 and Beyond [Poster] (see page 1303)


121 Hybrid Empirical Ground-Motion Models with Simulation-based Site Amplification Factors for the Island of Hawaii Pezeshk, S., Haji-Soltani, A.

120 Student Ground Motion Model for Small-to-Moderate Potentially Induced Earthquakes using Machine Learning Algorithms Alidadi, N., Pezeshk, S.

123 Updating the Crustal Seismic Sources for the 2023 National Seismic Hazard Model for Alaska Haessler, P. J., Bender, A., Powers, P. M., Koshelev, R., Brothers, D. S.

128 USGS NSHM Hazard Tool Girot, D. L., Powers, P. M.
### Wednesday, 19 April 2023—Oral Sessions

Presenting author is indicated in bold.

<table>
<thead>
<tr>
<th>Time</th>
<th>2023/C</th>
<th>203</th>
<th>204</th>
<th>208A</th>
<th>Time</th>
<th>208B</th>
<th>208C</th>
<th>209C</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:15–10:30 AM</td>
<td>Poster Break</td>
<td></td>
<td></td>
<td></td>
<td>9:15–10:30 AM</td>
<td>Poster Break</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Estimating the Earthquake Multi-Resolution Converted-Wave Seismological Research Letters Imaging the Rivera and...

Wednesday, 19 April (continued)
Wednesday, 19 April (continued)

<table>
<thead>
<tr>
<th>Time</th>
<th>2023/C</th>
<th>2024</th>
<th>2034</th>
<th>204A</th>
<th>Time</th>
<th>2028</th>
<th>2034</th>
<th>204A</th>
<th>2054</th>
<th>2064</th>
<th>2074</th>
<th>2084</th>
<th>2094</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:15 pm–</td>
<td>Poster Break</td>
<td></td>
<td></td>
<td></td>
<td>3:15 pm–</td>
<td>Poster Break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Wednesday, 19 April (continued)

|-------|--------------|----------|-------|-----------------|-----------|--------|-------|-----------
| 5:30 pm | U.S. Geological Survey's ShakeMap Atlas 4.0 and AtlasCat | Influence of Model Perturbation on Regional Ground Motions – a Numerical Experiment | 5:30 pm | Analyzing Behavioral Responses Caught on Video to the Hunga Tonga-Hunga Ha’apai Eruption, Atmospheric Shockwaves, and Tsunami Megabodies | Earthquakes in the Shadows: Why Aftershocks Occur in Surprising Locations. Harbeck, J. E., Harris, R. | 5:30 pm | Analyzing Behavioral Responses Caught on Video to the Hunga Tonga-Hunga Ha’apai Eruption, Atmospheric Shockwaves, and Tsunami Megabodies | Analyzing Behavioral Responses Caught on Video to the Hunga Tonga-Hunga Ha’apai Eruption, Atmospheric Shockwaves, and Tsunami Megabodies |
| 6–7 pm | Joyner Lecture | Joyner Lecture | 6–7 pm | Joyner Reception | Joyner Reception | 6–7 pm | Joyner Reception | Joyner Reception |
| 7–8 pm | Joyner Reception | Joyner Reception | 7–8 pm | Joyner Reception | Joyner Reception | 7–8 pm | Joyner Reception | Joyner Reception |
Above the Seismogenic Zone: Fault Damage and Healing in the Shallow Crust [Poster] (see page 1108)

71. Student: A New 3-D Model of the Newport-Inglewood Fault at La Jolla, California, and Its Implications for Earthquake Rupture Propagation and Hazards. Toghramadjian, N., Shaw, J. H.

70. An Experimental Perspective on the Formation of Pulverized Rocks During Transient Coseismic Dilatancy. Griffiths, A., Smith, Z. D.

72. Combining Dark Fiber and Seismic Interferometry to Measure Physical Properties of Faults in the Imperial Valley. Matzel, E., Templeton, D., Morency, C., Ajo-Franklin, J.


86. Student: The Competitive Effects of On-fault Normal Stress and Off-fault Normal Stress Velocity Change on Seismic Cycles. Zhao, P., Huang, Y.


89. Student: The Palos Verdes Fault Damage Zone From the Seafloor to the Basement: Revealed Using Multi-Resolution Controlled Source Seismic Reflection Datasets. Alongi, T., Brodsky, E. I., Kluemer, J. W., Brothers, D. S.

Detecting, Locating, Characterizing and Monitoring Non-earthquake Seismoacoustic Sources [Poster] (see page 1158)


82. Near-regional to Local Event Location Using Infrasound Arrival Times From Single Sensors. Koch, C., Dannemann, F. K., Berg, E. M.


79. Seismic Records of Human Induced Avalanche Signals at Tao's Ski Valley: Ringler, A., Schlimpert, M., Anthony, R. E.

81. Seismo-acoustic Observations From the 26 September 2022 Nord Stream Events. Heyburn, R., Selby, N. D., Nippert, A., Green, D. N.

81. Understanding the Relationships Between Seismic Properties and Landscape Characteristics From the Exotic Seismic Events Catalog. Collins, E., Allstadt, K.


81. Exploiting Seismic Sources: Advancements in Seismic Source Physics [Poster] (see page 1188)


89. Comparing Near and Far Field DAS Fiber Response for Monitoring Applications. Mancini, A., Young, B. A., Poppeilers, C.

92. Developing a Predictive Capability for P-to-S Discriminants. Alfaro-Diaz, R. A.

92. Discriminating S-Wave Polarization Angles of Explosive and Destructed Explosions With 2D and 3D Simulations. Nelson, P., Crasy, N.


92. Identifying and Characterizing Local Seismicity With a Dynamic Correlation Processor. Pyle, M. L., Aguacir, A. C.


92. Quantifying the Impact of Modeling Uncertainty on the Performance of Waveform Based Bayesian Inference for Seismic Monitoring. Catanach, T. A., Villarreal, R.


Wednesday, 19 April (continued)


84. Transient Explosive Yields of Underground Nuclear Explosions. Delbridge, B. G., Phillips, S., Kintner, J., Carmichael, J. D.

85. Update on an Automated Method to Improve Seismic Array Observations. Rowe, C. A., Stanbury, C. W., Webster, J. D., Gammanos, C. N. L.

The Future of Tsunami Science, Preparedness and Response [Poster] (see page 1206)


4. Tsunami Sources in the Caribbean and Eastern US. Powell Center Working Group on Tsunami Sources.

New Methods and Models for More Informative Earthquake Forecasting [Poster] (see page 1230)


104. Real Time Gutenberg-Richter b-Value Estimation for an Ongoing Secuence: An Application to the 2022 Marche Offshore Earthquake Sequence (MI 5.7 Central Italy). Spassiani, L., Taroni, M., Murr, M., Falcone, G.


New Observations and Modeling of Triggered Seismicity [Poster] (see page 1323)


Opportunities and Challenges for Machine Learning Applications in Seismology [Poster] (see page 1342)


133. Student: A Dataset of Regional Earthquake Waves. Aguilar, A. L., Beoua, G. C.

126. Automatic Seismic Monitoring Using Regional and Local Temporary Networks in Colombia. Castillo, E., Prieto, G. A.

ShakeMap-related Research, Development, Operations, Applications and Uses [Poster] (see page 1259)


64. Re-Computation of the Mw6.4 on January 7, 2020 Shakenam Using Fault Characterization. Huerano, V. A., Rivera, J., Torres, M.


66. The USGS ShakeCast Application: An Update on ShakeMap’s ... (IM). Madan, J., Nith, S., Srivastava, A.

68. Student: Towards a 3D Geotechnical Model of the Greater Bei ... Prediction. Safa, M., Bertrand, E., Brax, M.

69. What Constitutes Knowledge of “Site Response?” the Em ... (ESEE2022).


124. Effective U.S. Event Classification Through Model Ensembling. Linville, L.

130. Employing Machine Learning Pickers for Routine Global Earthquake Monitoring With SeisComP3: What are the Benefits and How Can We Quantify the Uncertainty of Picks? Saul, J., Tilmann, F., Buntebrink, E., Tjoelker, M., Beutel, M.


123. Expanding Wavelet-Transform-Based Neural Network Denoiser Performance Using Utah Regional Data. Quinones, L. A., Tibi, R.


120. Seismicity Behavior Within Rock Valley Illuminated by a Dense Nodal Deployment and Machine-Learning Methods. Penington, C. N., Kong, Q., Walter, W. R.

Site-specific Modeling of Seismic Ground Response: Are We Quantitative Enough to Predict? [Poster] (see page 1265)

46. A Bayesian Kriging Approach for Site Period Mapping of Santiago Basin, Chile. Mitra, D.

54. Student: Classification of Aleatory Variability and Epistemic Uncertainty for Probabilistic Seismic Hazard Analyses. Liao, J. Y., Abrahamson, N. A.


56. Examining Differences in Basin Amplification Between Interface and Intraslab Subduction Sources From the Kanto Region in Japan. Smith, J., Moschetti, M. P., Monaghoni, F., Ito, T., de la Roza, A., Kishida, K.


31. Mapping b-Values Based on Background Seismicity in the Korean Peninsula. Jung, S., Son, M.


32. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.

35. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.


31. Mapping b-Values Based on Background Seismicity in the Korean Peninsula. Jung, S., Son, M.


32. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.

35. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.


31. Mapping b-Values Based on Background Seismicity in the Korean Peninsula. Jung, S., Son, M.


32. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.

35. STUDENT: Structural Setting and Seismogenesis Mechanism of the 16th September 2021 Luzian M6.0 in the Southern Sichuan Basin, China. Zhang, W., He, D.
Thursday, 21 April 2022—Oral Sessions

Presenting author is indicated in bold.

<table>
<thead>
<tr>
<th>Time</th>
<th>202/C</th>
<th>204</th>
<th>208A</th>
<th>208B</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:15–10:00 AM</td>
<td>Poster Break</td>
<td>9:15–10:00 AM</td>
<td>Poster Break</td>
<td></td>
</tr>
</tbody>
</table>
Thursday, 21 April (continued)

--- | --- | --- | --- | --- | --- | --- | ---
10:00 AM | Network Seismology: Recent Developments, Challenges and Lessons Learned (see page 1223) | Understanding and Modeling the Uncertainties in Earthquake Ground Motions (see page 1290) | Opportunities and Challenges in Source Modeling for Seismic Hazard Analysis (see page 1246) | Coseismic Ground Failure: Advances in Modeling, Impacts and Communication (see page 1246) | Active Faults in the Caribbean and Central America (see page 1110) | From Earthquakes to Plate Boundary Insights Into Fault Behavior Spanning Seconds to Millennia (see page 1191) | Crustal Imaging of High Seismic Hazard Regions (see page 1143) | Earthquake Preparation Across Scales: Reconciling Geophysical Observations With Laboratory and Theory (see page 1172)


2:00 pm

**Student: False and Misused Alerts: A Performance Analysis of a Community-Engaged Earthquake Early Warning System**


Introduction and Update on the International SCEC-USGS Community Stress Drop Validation Study.

A Computation of Parametrical and Diastom-Based Transfer Function Estimates of Coesismic Subsidence During the 1700 CE Earthquake Along the Oregon and California Coast.

Aftershock Triggering and Spatial Aftershock Zones in Fluid-Driven Settings.

Davidson, J., Karimi, K.

Late Quaternary Paleoseismological Record of Large Earthquakes in the Lesser Antilles Implications for Arc Segmentation and Long-Term Seismic Cycle of the Magdalena Seibert, C., Neuman, S., Zaliapin, I., Kagan, Y. Y.

2:20 pm

**Poster Break**

2:45 pm

**Student: Spatio-Temporal Dynamics of Earthquake Systems in the Yellowstone Caldera**

Angulo, M. V., Flores, M. A., Sanabria-Gomez, J. D.

2:35 pm

**Poster Break**

3:20 pm

**Earthquake Early Warning Optimization and Efficacy (see page 1166)**

2022

2023

2013

2014

Understanding the Variability in Earthquake Stress Drop Measurements (see page 1297)

Constraining Seismic Hazard in the Cascadia Subduction Zone (see page 1133)

Deciphering Earthquake Clustering for the Better Understanding of Crustal Deformation Mechanisms (see page 1351)

Active Faults in the Caribbean and Central America (see page 1110)

From Earthquakes to Plate Boundary Insights Into Fault Behavior Spanning Seconds to Millennia (see page 1191)

Multi-scale Models for Seismic Hazard Analysis (see page 1222)

Multi-Scale Imaging of the Ridgecrest Area With Full-Wave Inversion of Regional and Dense Seismic Datasets.

Li, G.

3:55 pm

**Numerical Modeling in Seismology: Developments and Applications**

3:00 pm

**Student: Quantifying Space-Time-Magnitude Patterns of Microseismicity in the San Jacinto Fault Zone, Southern California**

DeSalvio, N. D., Stover, T., Johnson, G. W., et al.


Compilation and Assessment of Data Quality for Onshore and Offshore Paleoseismic Proxys of Great Cascadia Megathrust Rupture.


Thursday, 21 April (continued)

<table>
<thead>
<tr>
<th>Time</th>
<th>2022/C</th>
<th>2023/A</th>
<th>2023/B</th>
<th>Time</th>
<th>2024/A</th>
<th>2024/B</th>
<th>2024/C</th>
<th>2024/D</th>
</tr>
</thead>
</table>

Seismological Research Letters
Poster Sessions

Active Faults in the Caribbean and Central America [Poster] (see page 1114)

1. Age Dating and Sedimentology of a Pre-Colombian Tsunami Deposit, Northwest Puerto Rico. Naz, B. M.
2. Student: Imaging of Tectonic Tension Activity Along the NW Caribbean Coast and its Implication with Subduction Processes: A Study Case with Colombia-Venezuela CARMA Seismological Network. Cubillos, S., Prieto, G. A.
6. Toward a Multi-Stakeholder Socio-Seismological Observation Network for Seismic Risk Reduction in Haiti. Calais, E.

Advances in Probabilistic Seismic Hazard Analysis and Applications [Poster] (see page 1125)

11. A Probabilistic Seismic Hazard Model for Greenland. Rong, Y., Klein, E.

Constraining Seismic Hazard in the Cascadia Subduction Zone [Poster] (see page 1136)


Crustal Imaging of High Seismic Hazard Regions [Poster] (see page 1145)

31. Student: Ambient Noise Interferometry to Obtain Images of the Mid- and Lower Crust. Soni, Y., Pulliam, J.
34. Student: Imaging the Oceanic Crust in Remote Areas Using Existing Datasets. Perrin, R., Lauer, R.
36. Preliminary Imaging Results From a Nodal Array to Investigate the Structure of the Southern Cascadia Forearc. Delph, J., Herr, B., Thomas, A. M., Yang, X.

Costesic Ground Failure: Advances in Modeling, Impacts and Communication [Poster] (see page 1140)

38. Student: Receiver Function Imaging of Erebos Volcano via Joint Bayesian Inversion With Spatial Weighting. Reisinger, R., Chaput, J. A., Aster, R. C., Grampenthin, R.
39. Seismic Experiments in the Kumaon Himalaya: Do We Expect a Great Earthquake? Hazzaa, S., Hazrada, D.
40. Student: The Crustal Structure of Southwestern Turkey Using Local Seismic Data. Yalvac, O., Sandvol, E. A.

Deciphering Earthquake Clustering for the Better Understanding of Crustal Deformation Mechanisms [Poster] (see page 1153)

86. Closing the Gap Between Local and Regional Observations of Segmented Ocean Plate Boundaries With a New 25-Year Earthquake Catalog of the European Arctic Seas. Halpaap, F., Ottemoller, L., Chamberlain, C. J., Gibbons, S.
89. Intraplate Omori Decay Parameters and Spatiotemporal Distribution of 145 Recent Central and Eastern North American Sequences. Levandowski, V.
90. Temporal Clustering of Earthquakes in the Canadian Arctic on a Regional Scale. Bent, A. L.

Earthquake Early Warning Optimization and Efficacy [Poster] (see page 1169)

94. Student: Alaska Earthquake Early Warning Scenarios and Warning Time Estimates. Fokuz, A., West, M. E., Gardime, M.
95. Earthquake Early Warning Instrumentation and Efficient Workflows. Pigeon, S., Perlin, M.
97. Student: Receiver Function Imaging of Erebos Volcano via Joint Bayesian Inversion With Spatial Weighting. Reisinger, R., Chaput, J. A., Aster, R. C., Grampenthin, R.
98. Seismic Experiments in the Kumaon Himalaya: Do We Expect a Great Earthquake? Hazzaa, S., Hazrada, D.
99. Student: The Crustal Structure of Southwestern Turkey Using Local Seismic Data. Yalvac, O., Sandvol, E. A.

Seismological Research Letters  •  Volume 94  •  Number 28  •  April 2023

www.srl-online.org  •  www.srl-online.org
and Station Magnitudes in Eastern Canada. Perry, H.,
103 Engagement and Outreach to Ensure the Success of Canada's Earthquake Early Warning System. Bird, A. L., Seyward, H. C. J., Crane, S. J.
93 Srstven: Evaluating the Performance of Long Short-
Term Memory Neural Network in Predicting Peak Ground Acceleration of Earthquakes Using Shaking P-Wave Data. Owusu Duah, J.
92 Expected Contribution Metrics for Earthquake Early Warning Network Technology. Biasi, G., Stabulio, I., Alvarez, M. G.
91 Geocoding Applications for Social Science to Improve Earthquake Early Warning Systems. Sunny, D. P.
87 Srstven: Toward Implementing Earthquake Early Warning in Resource-Limited Regions Comparing Magnitudes Predicted by Traditional Regressions and by Convolutional Neural Networks. Gabriel, C., Carpenter, S., Kalinski, M.
86 Update on the Progress of California Strong Motion Instrumentation Program (CSMIP) Toward Real Time Data Acquisition. Brannum, D., Haddadi, H.

From Earthquakes to Plate Boundaries: Insights Into Fault Behavior Spanning Seconds to Millennia [Poster] (see page 1200)

73. A New Model for the Strike-Slip Response of Entrainched Drainages Derived From an Alluvial Terrace Sequence at the Littlefork Creek Along the Mojave Section of the San Andreas Fault. Moulin, A., Cowell, E., Scharer, K., McPhillips, D., Heinsath, A.
70 Characterizing the Transition From Diffuse to Localized Deformation Using Optical Image Correlation: The 2021 Mw7.4 Maudu, Tibet, Earthquake. Antoine, S. L.
63 Geomorphology May Be a Poor Recorder of Slippage From Paleo Seismic Ruptures. Reitman, M., Klinger, Y., Briggs, R. W., Gold, R.
60 Student: Shallow Creep-Rate Variability Along on Northern California Faults From Aux-2 InSAR Time Series. Lindsay, D., Burgrann, M.
58 Three-Dimensional Visualization and Implications for Reconstruction of the Chalk Hill Paleoseismic Site on the Rodgers Creek Fault Near Windsor, California. Trexler, C., Vorremer, J., Hecker, S., Elliott, A. J., Hammer, M.
57 Ground Truthing Multidimensional Site Response Analyses at Borehole Array Sites [Poster] (see page 1212)
40 Investigating the Influence of Site-Specific Spatial Variability on Ground Motion Intensity Measures via Multidimensional Site Response Analyses at the Treasure Island Downhole Array. Hallal, M. M., Cox, B.

It's All About Relocation, Relocation, Relocation [Poster] (see page 1217)
89. Student: A Comparison of High Precision Relocation Methods Applied to the June 2021 Mount Hood, Oregon Sequence Johnson, B. N., Hartog, R.
91 Minimum 1D P- and S- Velocity Models Derived From Aftershocks of the March 31st, 2020 Stanley, Idaho Earthquake. Bockholt, B.
87 Relocation of Earthquakes in the Southern Korean Peninsula During 2017 and 2020 Using a 3D Velocity Model. Sheen, D., Byun, A.
86 Uncertainty in Source Location Estimates Using a Single Seismic Station. Nolt-Caraway, S. A., Davenport, K.

Network Seismology: Recent Developments, Challenges and Lessons Learned [Poster] (see page 1225)
112 An Updated Catalog of Seismicity for New Mexico. Litherland, M., Record, A.
110 Earthquake Monitoring Capabilities in Ohio: The Evolution of a Modern State Seismic Network in the Midwest USA. Fox, J.
108 Monitoring Volcano Hazards in the Cascades of Washington and Oregon: Recent and Ongoing Network Diversification and Advances. Darold, A. P.
107 Network Analysis of the University of Utah Seismograph Stations Regional Seismic Network. Trow, A. W., VanBoskirk, E. J.
103 Seismic Background Noise of Italian Strong Motion Network Seismology [Poster] (see page 1225)
125 Applying the Transition From Diffuse to Localized Deformation Using Optical Image Correlation: The 2021 Mw7.4 Maudu, Tibet, Earthquake. Antoine, S. L.
123 Srstven: Toward Implementing Earthquake Early Warning in Resource-Limited Regions Comparing Magnitudes Predicted by Traditional Regressions and by Convolutional Neural Networks. Gabriel, C., Carpenter, S., Kalinski, M.
122 Update on the Progress of California Strong Motion Instrumentation Program (CSMIP) Toward Real Time Data Acquisition. Brannum, D., Haddadi, H.

From Earthquakes to Plate Boundaries: Insights Into Fault Behavior Spanning Seconds to Millennia [Poster] (see page 1200)

73. A New Model for the Strike-Slip Response of Entrained Drainages Derived From an Alluvial Terrace Sequence at the Littlefork Creek Along the Mojave Section of the San Andreas Fault. Moulin, A., Cowell, E., Scharer, K., McPhillips, D., Heinsath, A.
70 Characterizing the Transition From Diffuse to Localized Deformation Using Optical Image Correlation: The 2021 Mw7.4 Maudu, Tibet, Earthquake. Antoine, S. L.

55. Interactions Between Megathrust and Adjacent Crustal Faults. **Crempien, J.**, Herrera, M., Álvarez-Vargas, J., Carter-Arriagada, J., Moreno, M.


58. The Rise and Fall of Earthquake-Size Distribution With Depth: Insights From the Calabrian Subduction Zone. **Taroni, M.**, Maesano, F.

### Understanding and Modeling the Uncertainties in Earthquake Ground Motions [Poster] (see page 1291)

41. **STUDENT**: Capturing Epistemic Uncertainty in Site Amplification Models with Different Site Proxies, Including Geomorphological Sediment Thickness. **Loviknes, K.**, Cotton, F., Weatherill, G.


43. Long-Period Strong Ground Motion Prediction for the Mw7.2 Earthquake Set by the Nankou-Sunhe Fault in Beijing. **Chen, X.**


44. Spatial Changes in Earthquake Generated Ground Motion Observations: An Examination of Data From Four Small Aperture Arrays in Southern California. **Vernon, F. L.**, Kilb, D.

46. When the Acquisition Conditions and Processing Procedures of Seismic Data Increase the Ground Motion Model Uncertainties: Example of the Impact of Obspy and of the Sensor Installation Choices. Rischette, P., Hollender, F., **Perron, V.**, Buscetti, M.


