Wednesday, 1 May 2024—Oral Sessions

Presenting author is indicated in bold.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	From Faults to Fjords: Earthquake Evidence in Terrestrial and Subaqueous Environments (see page 1296).	**How Well Can We Predict Broadband Site-Specific Ground Motion and Its Spatial Variability So Far? (see page 1311).**	**Induced Earthquakes: Source Characteristics, Mechanisms, Stress Field Modeling and Hazards (see page 1322).**	**The 2023 USGS National Seismic Hazard Model and Beyond (see page 1194).**
8:00 AM	Effect of Marine Reservoir Variations on the Temporal Correlation of Earthquake Evidence on the Central and Southern Hikurangi Subduction Zone. **Clark, K. J.**, Pizer, C., Howarth, J., Litchfield, N., Howell, A.	STUDENT: Site Response Characteristics from Ambient Noise Data Recorded on Degrading Warm Permafrost in Bethel, Alaska. **Goozen, A.**, Zhao, Y., Dutta, U., Yang, Z.	INVITED: Structural Controls on Induced Earthquake Sequence's Growth and Slip Behavior. **Pennington, C. N.**, Chen, X.	Recommendations on Best Available Science for the United States National Seismic Hazard Model. **Anderson, J. G.**, Atkinson, G. M., Baker, J. W., Campbell, K. W., DeShon, H. R., *et al.*
8:15 AM	INVITED: An 8000-Year Holocene Earthquake Record From the Northern Cascadia Forearc: Evidence for Multiple Sources at Lake Crescent, Washington. **Leithold, E. L.**, Wegmann, K., Colip, G. D.	Improving the Performance of the SSRh Site-Response Assessment Techniques on a Dense Array in the Koutavos Basin (Greece). **Perron, V.**, Rischette, P., Theodoulidis, N., Roumelioti, Z., Hollender, F., *et al.*	Seismic Hazard Analysis for Hydraulic-Fracture Triggered Earthquakes in Oklahoma. **Walter, J.**, Ogwari, P. O., Thiel, A., Woelfel, I., Mace, B., *et al.*	The 2023 U.S. 50-State National Seismic Hazard Model: Overview and Implications. **Petersen, M. D.**, Project Team, N.
8:30 AM	Variations in Mass Transport Deposits That Record Strong Ground Motion Events in Western Prince William Sound, Alaska. **Singleton, D. M.**, Brothers, D. S., Haeussler, P. J., Witter, R. C., Hill, J. C., *et al.*	A Simple Way of Estimating Site Effect With Respect to a Distant Rock-Reference Site: Application of the Standard Spectra Ratio Technique Based on Coda Waves. **Grendas, I.**, Hollender, F., Perron, V., Theodoulidis, N., Buscetti, M., *et al.*	Undocumented Cases of Induced Seismicity in Oklahoma and Texas. **Grigoratos, I.**, Savvaidis, A.	The 2023 Alaska National Seismic Hazard Model. **Powers, P. M.**, Altekruse, J. M., Development Team, N.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Creating Actionable Earthquake Information Products (see page 1251).	**Earth's Structure from the Crust to the Core (see page 1268).**	**Cryptic Faults: Advances in Characterizing Low Strain Rate and Environmentally Obscured Faults (see page 1256).**	**Numerical Modeling in Seismology: Developments and Applications (see page 1370).**	**Learning Across Geological, Geophysical & Model-Derived Observations to Constrain Earthquake Behavior (see page 1332).**
8:00 AM	INVITED: STUDENT: Improving Rapid Earthquake Characterization for Tsunami Early Warning for Aotearoa New Zealand and the Southwest Pacific. **Lacoua, L. Z.**, Fry, B., Gorman, A., Liao, Y. M., Foundotos, L., *et al.*	STUDENT: A High-Resolution Body Wave Tomography Super-Virtual Interferometry of the Rio Grande Rift. **Barman, D.**, Pulliam, J.	INVITED: STUDENT: An Ongoing Search for Active Faults in Major Seismic Zones of Québec, Eastern Canada. **Gourdeau, A.**, Wang, K., Laly, M., Prush, V. B., Rowe, C., *et al.*	STUDENT: Reflection and Transmission of Inhomogeneous Plane Waves in Thermoporoelastic Media with Two-temperature Equations of Heat Conduction. **Hou, W.**, Fu, L., Carcione, J.	Strain Accommodation Along the Northeast Altyn Tagh Fault System and the Potential for a Future Large-Magnitude, Multi-Fault Rupture. **Yang, H.**, Yang, X., Cunningham, D., Huang, X.
8:15 AM	Site-Specific, Extended Shakemaps for Earthquake Engineering Applications. **Thompson, E. M.**, Hearne, M., Worden, C. B., Quitoriano, V., Cunningham, A. E., *et al.*	INVITED: The Poisson's Raio Surrounding the Subduction Megathrust. **Mann, M.**, Abers, G. A., Fulton, P. M.	Timescales of Surface Faulting Preservation in Stable Continental Regions From Landscape Evolution Modeling and the Geomorphic and Historical Record. **Thompson Jobe, J. A.**, Reitman, N.	STUDENT: Dynamic Rupture Simulation of Caldera Collapse Earthquakes: Effects of Wave Radiation, Magma Viscosity, and Evidence of Complex Nucleation at Kīlauea 2018. **Wang, T. A.**, Dunham, E. M., Krenz, L., Abrahams, L. S., Segall, P.	Partitioning of Oblique Convergence During Simultaneous Rupture of a Megathrust and Splay Fault: Observations From the Western Nepal Fault System. **Bemis, S.**, Curtiss, E. R., Murphy, M. A., Taylor, M. H., Styron, R., *et al.*
8:30 AM	INVITED: Geonet's Shaking Layer Tool: Understanding and Incorporating User Needs into Shaking Layers for Aotearoa, New Zealand. **Charlton, D.**, Houltham, J., Horspool, N., Goded, T., Kaiser, A., *et al.*	Improving the Salt Lake Basin Velocity Model Using Multi-Year Nodal Geophone Arrays. **Kim, H.**, Lin, F., Pechmann, J. C., McKean, A. P., Hardwick, C. L., *et al.*	The 2018 Kaktovik, Alaska Earthquakes and Their Context: Insights From Seismotectonics, Insar Geodesy, and Static Stress Changes. **Rollins, C.**, Freymueller, J. T., Xue, X., Holtkamp, S. G., Logan, T. A., *et al.*	What Is the Principal Accuracy Limit of a Seismic Wavefields Simulated by a Finite-Difference Method?. Valovcan, J., **Moczo, P.**, Kristek, J., Kristekova, M., Galis, M.	STUDENT: Architecture of an Active Tsunamigenic Splay Fault: Outcrop to Micro-Scale Structure of the Patton Bay Fault, Montague Island, Alaska. **Fintel, A.**, Tobin, H., Haeussler, P.

Wednesday, 1 May (*continued*)

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	From Faults to Fjords: Earthquake Evidence (continued)	**How Well Can We Predict Broadband Site-Specific Ground (continued)**	**Induced Earthquakes: Source Characteristics, Mechanisms (continued)**	**The 2023 USGS National Seismic Hazard Model and Beyond (continued)**		**Creating Actionable Earthquake (continued)**	**Earth's Structure from the Crust to the Core (continued)**	**Cryptic Faults: (continued)**	**Numerical Modeling in (continued)**	**Learning Across Geological, (continued)**
8:45 AM	STUDENT: Long Lacustrine Sedimentary Records in South-Central Chile Evaluate the Spatiotemporal Variability of Megathrust Earthquakes. **Niederstätter, M.**, Moreno, V., Wils, K., Van Daele, M., Konzett, J., *et al.*	CD-VAE-GMG: Conditional Dynamic Variational Autoencoder for Earthquake Ground Motion Generation. **Ren, P.**, Naiman, I., Lacour, M., Nakata, R., Nakata, N., *et al.*	Regional Moment Tensors for Texas. **Herrmann, R. B.**, Benz, H. M.	Another Look at Time-Dependent Hazard and its Implications to Seismic Design in Southeastern Alaska. **Wong, I.**, Lewandowski, N., Thomas, P.	8:45 AM	Improved Rapid Source and Shaking Characterization Using Large Seismic Array Observations. **Wang, D.**, Chen, W., Wald, D.	Seismic Structure of Northern Alaska From Ambient Noise Adjoint Tomography. **Chow, B.**, Tape, C.	Deciphering Low-Rate Faulting on the Landscape Above the Marsh Creek Anticline in Arctic Alaska. **Bender, A. M.**, Craddock, W., Connors, C. D., Gooley, J., Lease, R. O.	Modeling the Seismic Noise Horizontal-to-Vertical Spectral Ratio in Laterally Irregular Configurations Using the Diffuse Field Assumption. **Sanchez-Sesma, F. J.**, Weaver, R. L., Baena-Rivera, M. E., Pardo-Dañino, J. C., Arciniega-Ceballos, A.	INVITED: Paleoseismic Investigations of Quaternary Active Faults in the Forearc and Backarc of the Central Pacific Northwest, U.S.A. **Streig, A. R.**, Dunning, A., Bennett, S. E., Madin, I., Wells, R. E., *et al.*
9:00 AM	Quantitative Calibration of the Lacustrine Seismograph Using Sedimentary Imprints of Recent Megathrust Earthquakes in South-Central Chile. **Wils, K.**, Montalva, G., Moernaut, J., Van Daele, M., De Batist, M.	Euro-Mediterranean Hard-Rock Reference Ground Motion Model by Git-Based Site Response Deconvolution. Shible, H., **Hollender, F.**, Traversa, P., Baumont, D., Ameri, G., *et al.*	Cross-Examining Methods for Determining Source Mechanisms for Induced Earthquakes in the Permian Basin. **Aziz Zanjani, F.**, Savvaidis, A., Huang, G. D., Domino, J., Chen, Y.	USGS 2025 Puerto Rico and the U.S. Virgin Islands National Seismic Hazard Model Update. **Shumway, A. M.**, Aagaard, B. T., Altekruse, J. M., Briggs, R. W., Field, E. H., *et al.*	9:00 AM	A Growing Catalogue of Short-Period Earthquake Rupture Histories From Multi-Array Back-Projection. Vera Sanhueza, F., **Tilmann, F.**, Saul, J.	Using Local and Regional Travel Time Data From the ISC to Estimate Lithospheric Velocity Structure. **Pasyanos, M. E.**	STUDENT: Utilising UAV Lidar to Investigate Potential Late Quaternary Surface Ruptures Along the San Juan Fault on Vancouver Island, BC. **Salomon, G. W.**, Finley, T., Nissen, E.	The Ongoing Development of Distributional Finite-difference Modeling in Global Seismology. **Lyu, C.**, Masson, Y., Awan, M., Romanowicz, B.	Coseismic Temperature Proxies and their Applications to Understanding Earthquake Rupture and Seismic Hazard. **Coffey, G. L.**, Savage, H. M., Polissar, P. J., Cox, S. E., Hemming, S. R., *et al.*
9:15–10:30 AM			Poster Break		9:15–10:30 AM			Poster Break		
	From Faults to Fjords: Earthquake Evidence in Terrestrial and Subaqueous Environments (see page 1296).	**How Well Can We Predict Broadband Site-Specific Ground Motion and Its Spatial Variability So Far? (see page 1311).**	**Induced Earthquakes: Source Characteristics, Mechanisms, Stress Field Modeling and Hazards (see page 1322).**	**The 2023 USGS National Seismic Hazard Model and Beyond (see page 1194).**		**Creating Actionable Earthquake Information Products (see page 1251).**	**Earth's Structure from the Crust to the Core (see page 1268).**	**Cryptic Faults: Advances in Characterizing Low Strain Rate and Environmentally Obscured Faults (see page 1256).**	**Numerical Modeling in Seismology: Developments and Applications (see page 1370).**	**Learning Across Geological, Geophysical & Model-Derived Observations to Constrain Earthquake Behavior (see page 1332).**
10:30 AM	Seismic Imaging Beneath Iceberg Lake, Alaska: Sediment Characteristics and Fundamental Site Response Parameters Beneath a Drained Lake With an Alaskan-Aleutian Subduction Zone Paleoseismic Record. **Liberty, L. M.**, Haeussler, P. J., Otheim, L. T., Singleton, D. M., Wesson, R. L., *et al.*	Observed Strong Motions and Site Effects During the Jan. 1, 2024 Noto-Hanto Earthquake in Japan and Its Reproduction Based on a Priori Information. **Kawase, H.**, Ito, E., Sun, J.	Spatiotemporal Evolution of Induced Earthquakes in the Southern Delaware Basin, Reeves-Pecos, West Texas. **Aziz Zanjani, A.**, DeShon, H. R., Savvaidis, A.	Next Steps for USGS Earthquake Rupture Forecast Developments. **Field, E. H.**	10:30 AM	Visual Communication of Aftershock Forecasts Driven by User Needs. **Schneider, M.**, Wein, A. M., van der Elst, N., McBride, S. K., Becker, J., *et al.*	Intraplate Volcanism in Northeast China Controlled by the Underlying Heterogeneous Lithospheric Structures. **Chen, Q.**, Fan, X., Ai, Y.	INVITED: Late Pleistocene and Protohistoric Earthquakes on Forelimb Thrusts Within the Seattle Fault Zone: Implications for Independent Hanging Wall Deformation Rates. **Angster, S.**, Sherrod, B. L., Staisch, L., Pearl, J. K., Johns, W.	Numerical Simulation of Strong Ground Motion for the Mw 6.0 Jishishan Earthquake of 18 December 2023 in Gansu Province, China. **Zang, N.**, Zhang, W., Chen, X.	Inter-Seismic Slip in Caldera Collapse Earthquake Cycles. **Crozier, J. A.**, Anderson, K. R., Segall, P.

Wednesday, 1 May (*continued*)

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	From Faults to Fjords: Earthquake Evidence (continued)	**How Well Can We Predict Broadband Site-Specific Ground Motion (continued)**	**Induced Earthquakes: Source Characteristics, Mechanisms, (continued)**	**The 2023 USGS National Seismic Hazard Model and Beyond (continued)**
10:45 AM	The Subaerially Exposed Iceberg Lake Sediments: A ~1000 Yr Long Paleoseismic Record From the Eastern Edge of the Alaska Subduction Zone. **Van Daele, M.**, Vercruysse, P., Witter, R. C., Loso, M., Singleton, D., *et al.*	Exploring the Spatial Correlation of Ground Motions During the 2019 Ridgecrest Earthquake Sequence. **Cochran, E. S.**, Parker, G. A., Minson, S. E., Baltay, A. S.	Seismicity Triggering in the North Delaware Basin, West Texas, USA. **Savvaidis, A.**, Lomax, A., Huang, G., Chen, Y., Alvarez, N., *et al.*	Earthquake Geology Contributions Across the U.S. Geological Survey 2023 50-State National Seismic Hazard Model. **Hatem, A. E.**, Briggs, R., Thompson Jobe, J. A., Gold, R., Collett, C., *et al.*
11:00 AM	The Great Salt Lake as a Recorder of Sublacustrine Surface Rupture and Strong Shaking in the Wasatch Front Region, Utah. **DuRoss, C. B.**, Brothers, D. S., Thompson Jobe, J. A., Briggs, R. W., Singleton, D. M., *et al.*	STUDENT: Use of Weak Motion Data to Constrain Site-Specific Ground Motion Estimates. **Anbazhagan, B.**, Rodriguez-Marek, A., Vantassel, J., Kottke, A.	INVITED: Potential Poroelastic Triggering of the 2020 M 5.0 Mentone Earthquake in the Delaware Basin, Texas, by Shallow Injection Wells. **Lui, S.**, Tan, X.	Continued Work on a Geodetic Strain Rate and Slip Deficit Rate Model for New Zealand. **Rollins, C.**, Wallace, L. M., Johnson, K. M., Maurer, J., Hamling, I., *et al.*
11:15 AM	Sediment Shear Strength Development Within Terminal Basins of the Japan Trench and Lower Slope: Insights Into Seismic Strengthening and Earthquake Paleoseismology From R/V Sonne Expedition SO251 (Eager-Japan) and IODP Expedition 386. **Sawyer, D. E.**, Strasser, M.	Ergodic and Non-Ergodic Ground-Motion Models for Small Magnitude Earthquakes in the San Francisco Region. **Lacour, M.**, Abrahamson, N. A., Nakata, R., Nakata, N., Ren, P.	Using Converted Phases to Investigate Induced Seismicity in the Midland Basin, Texas. **DeShon, H. R.**, Rosenblit, J., Huang, G., Savvaidis, A.	Correlation of Epistemic Uncertainties in Seismic Hazard Models: An NSHM23 Case Study for Western U.S. Faults. **Milner, K. R.**
11:30 AM	STUDENT: Beyond the Waves: Integrating Rock Physical Properties for Deeper Seismic Understanding. **Castillo, R.**, Sawyer, D. E., Srasser, M., Keep, M.	Comparison of the Spatial Correlation of Non-Ergodic Terms in GMMs Utilizing Empirical and Simulation Data From Diverse Regions. **Sung, C.**, Abrahamson, N. A.	STUDENT: Fault Reactivation During Induced Seismicity Sequences in Southern Kansas. **Ries, R.**, Beroza, G., Ellsworth, W.	Enhancing Decision-Making Stability in Model Updates Through Explicit Consideration of Epistemic Uncertainty in Seismic Hazard and Risk Assessments. **Lee, Y.**
11:45 AM–2:00 PM	Lunch Break			

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	Creating Actionable Earthquake (continued)	**Earth's Structure from the Crust to the Core (continued)**	**Cryptic Faults: Advances (continued)**	**Numerical Modeling in Seismology (continued)**	**Learning Across Geological, (continued)**
10:45 AM	Tomorrow's Cities: An Interdisciplinary Decision Support Environment for Risk Sensitive Urban Planning and Design. **Galasso, C.** and the Tomorrow's Cities Programme Working Group	Seismic Evidence for a Melt-Rich Lithosphere-Asthenosphere Boundary Along the Base of Young Slab at Cascadia. **Wang, X.**, Chen, L., Wang, K., Chen, Q., Zhan, Z., *et al.*	Recurrence of Large Upper-Plate Earthquakes in the Salish Lowland, Washington State, USA. **Sherrod, B. L.**, Styron, R.	A Detailed Analysis of Body Waves Simulated in Homogenized Media. **Cupillard, P.**, Mulder, W., Anquez, P., Mazuyer, A., Zakari, M., *et al.*	INVITED: The Influence of Preexisting Geologic Structures on Coseismic Surface Deformation During the 2019 M7.1 Ridgecrest, California, Earthquake. **Nevitt, J. M.**, Brooks, B., Baden, C., Hardebeck, J., Aagaard, B. T., *et al.*
11:00 AM	Exploring the Ethical Tensions and Communication Challenges of Publicly Available Global Aftershock Forecasting From Science Agencies. **McBride, S. K.**, Michael, A. J., Schneider, M., Hardebeck, J., Wein, A. M., *et al.*	STUDENT: Mantle Upwelling, Continental Sutures, and LAB Structure Identified From a Suite of Seismic Data Types in the Eastern United States. **Brunsvik, B. R.**, Eilon, Z., Lynner, C.	Towards Improved Understanding of Regional Tectonics and Faulting at the Mendocino Triple Junction from Geomorphic Investigation. **DeLong, S. B.**, Vermeer, J., Patton, J. R., Sion, B., Hammer, M., *et al.*	Efficient Lossy Compression of Simulated 4d Seismic Wavefields. **Zhang, W.**, Wang, W., Tang, Y., Lei, T.	STUDENT: Bayesian Dynamic Source Inversion of the 2004 Parkfield Earthquake: Insights From Linked 3D Dynamic Rupture and Afterslip Modeling Constrained by Gps and Strong Motions. **Schliwa, N.**, Gabriel, A. A., Premus, J., Gallovič, F.
11:15 AM	STUDENT: Development of Rapid Earthquake Damage Estimation System to Expedite Rescue Efforts in the Post-Disaster Phase. **Patchett, M.**, Hobbs, T. E.	STUDENT: Crustal Structure of Eritrea from Receiver Function Analysis. **Gauntlett, M. Z.**, Stephenson, S. N., Kendall, J., Ogden, C., Hammond, J. O. S., *et al.*	Geophysical Validation of Tidally Calibrated Strains From the Novel Alto Tiberina Near Fault Observatory Strainmeter Array (TABOO-NFO-STAR). **Hanagan, C. E.**, Mandler, E., Bennett, R. A., Chiaraluce, L., Gottlieb, M., *et al.*	STUDENT: Effects of Dip Angle on Rupture Propagation Along Branch Fault Systems. **Marschall, E.**, Douilly, R.	Multi-Cycle Evolution of Seismicity and Fault Zone for a Fault Network. Mia, M., Abdelmeguid, M., **Elbanna, A. E.**
11:30 AM	Improving the Usability of Near-Real-Time Earthquake Information for Equity-Focused Decision-Making Through Earthquake Scenario Exercises. **Macías, M. A.**, Loos, S., Reddy, E., Wald, D. J., Knodel, E. J., *et al.*	Surface-Wave Diffraction Stripes: Measurement, Observables, Explanation, Modeling and Inversion. **Kolínský, P.**, Belinić Topić, T., Vecsey, L., Working Group, t.	The Parguera Fault: Quaternary Reactivation of a Fault in Southwest Puerto Rico. **Thompson Jobe, J. A.**, Briggs, R., Ortega Diaz, V., Hughes, K., López-Venegas, A., *et al.*	Insight From 3D Deterministic Ground Motion Simulations in Central Italy. **Akinci, A.**, Pitarka, A., De Gori, P., Artale Harris, P., Buttinelli, M.	Bayesian Inference of Rheological Parameters From Observations Before and After the Tohoku Earthquake. Marsman, C., Vossepoel, F., D'Acquisto, M., van Dinther, Y., **Govers, R.**
11:45 AM–2:00 PM	Lunch Break				

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	From Faults to Fjords: Earthquake Evidence in Terrestrial and Subaqueous Environments (see page 1296).	**How Well Can We Predict Broadband Site-Specific Ground Motion and Its Spatial Variability So Far? (see page 1311).**	**Induced Earthquakes: Source Characteristics, Mechanisms, Stress Field Modeling and Hazards (see page 1322).**	**The 2023 USGS National Seismic Hazard Model and Beyond (see page 1194).**			**Network Seismology: Recent Developments, Challenges and Lessons Learned (see page 1353).**	**Earth's Structure from the Crust to the Core (see page 1268).**	**Towards Advancing Earthquake Forecasting and Nowcasting: Recent Progress Using AI-Enhanced Methods (see page 1444).**	**Numerical Modeling in Seismology: Developments and Applications (see page 1370).**	**Learning Across Geological, Geophysical & Model-Derived Observations to Constrain Earthquake Behavior (see page 1332).**
2:00 PM	Repeated Coseismic Uplift of Coastal Lagoons Above the Patton Bay Splay Fault System, Montague Island, Alaska, USA. **DePaolis, J.**, Dura, T., Witter, R. C., Haeussler, P. J., Bender, A., *et al.*	Toward an Alternative Approach for Using VS Profiles in Estimating Seismic Site Response. **Pretell, R.**, Katuwal, S.	Detailed Analysis of Microseismic Activity Associated with Shutdowns of the San Emidio Geothermal Plant, Nevada. **Thurber, C. H.**, Guo, H., Cunningham, E., Roecker, S. W., Hampton, J., *et al.*	Subduction Ground Motion Models for Cascadia in the 2023 USGS National Seismic Hazard Model. **Rezaeian, S.**, Powers, P. M., Altekruse, J., Ahdi, S. K., Petersen, M. D., *et al.*		2:00 PM	ISC: Collaborating With Seismic Networks Worldwide. **Storchak, D.**, Harris, J., Di Giacomo, D., Garth, T., Gallacher, R., *et al.*	STUDENT: The Continental Collision and Rifting in East North America Margin Revealed by Full Waveform Tomography. **Lei, T.**, Wang, K., He, B., Du, N., Liu, T., *et al.*	Towards Deep-Learned Picking at the USGS National Earthquake Information Center. **Wells, D.**, Yeck, W., Cole, H., Patton, J., Shelly, D., *et al.*	STUDENT: The 2022 Mw 6.6 Menyuan Earthquake, Qinghai, China: An Early-terminated Runaway Rupture Revealed by the Dynamic Rupture Simulations. **Xu, D.**, Li, Z., Zhang, Z., Yu, H., Chen, X.	Surveying Active Fault Zones in California Using Quakes-I Wide-Swath Airborne Stereoimagery. **Zinke, R.**, Donnellan, A., Applegate, R., Padgett, C.
2:15 PM	Re-Examination of the 1958 Huslia Earthquake Sequence and Regional Tectonics of the Northwestern Koyukuk Basin, Alaska in Light of Post-1974 Seismicity, Mapped Faults and Geophysical Data. **Doser, D. I.**, Baker, M. R., Haeussler, P. J.	Resonance vs Shape of Sedimentary Basins. **Castellaro, S.**, Musinu, G.	Source Characteristics of Microseismicity Occurring During Operational Shut-in Periods at the Coso Geothermal Field, California. **Holmgren, J. M.**, Kaven, J., Oye, V.	Ground-Motion Characterization of Puerto Rico and the U.S. Virgin Islands for the 2025 Update of the USGS National Seismic Hazard Model. **Aagaard, B. T.**, Smith, J. A., Moschetti, M. P., Stephenson, W. J., Ahdi, S. K.		2:15 PM	The International Monitoring System Sustainment: A Technical Strategy. **Pérez-Campos, X.**, Sid Ahmed, Y., Kramer, A., Zampolli, M., Woods, V. T., *et al.*	STUDENT: P-Wave Attenuation Structure and Melting Processes of the Tonga-Lau Mantle Wedge. **Zhang, Y.**, Wei, S., Byrnes, J. S., Tian, D., Wang, F., *et al.*	Evaluating the Application of Machine Learning in Seismic Site Classification: A Case Study of Vs30 Development in Po Plain, Italy. **Mitra, D.**, Sethi, S.	Using a Dynamic Earthquake Simulator to Explore Three-Dimensional Multicycle Dynamics of Stepover Faults. **Duan, B.**	Improvements to Fault Displacement Models: Examples From the 2023 M7.8 Pazarcık, Türkiye Earthquake. **Mason, H. B.**, Lavrentiadis, G., Asimaki, D., Hatem, A. E., DuRoss, C. B., *et al.*
2:30 PM	Confirmation of Late Quaternary Surface Faulting and Preliminary Slip Rates for the Iditarod-Nixon Fork Fault and the Boss Creek and Holitna Sections of the Denali Fault in West-Central Alaska. **Zellman, M.**, Duckworth, W., Koehler, R. D., Zaleski, M. P., Ostenaa, D. A., *et al.*	Impact of Shallow Subsurface Stratigraphic Architecture on Shear-Wave Velocity Prediction: Examples From the Po Plain and Other Coastal Lowlands of Italy. **Amorosi, A.**, Di Martino, A.	STUDENT: Double-Pair Double-Difference Relocation for Dense Network Improves Depth Precision of Induced Seismicity, Leading to a Detailed 3D Fault Geometry Model. **Biegel, K.**, Dettmer, J., Igonin, N., Eaton, D.	STUDENT: Development of Ground Motion Models in Central and Eastern United States for Use in the Coastal Plain Using Sediment Thickness. **Akhani, M.**, Davatgari Tafreshi, M., Pezeshk, S.		2:30 PM	The Chilean Seismic Network: An Update. **Barrientos, S. E.**, Bravo, F., Koch, P., Baez, J. C., Rivet, D., *et al.*	INVITED: Illuminating Earth's Inner Core Fine-Scale Heterogeneity With Small Aperture Arrays. **Wu, S.**, Pang, G., Koper, K.	An AI-Assisted Real-Time Earthquake Forecasting Case Study in China. **Chen, Y.**, Saad, O., Chen, Y., Savvaidis, A., Fomel, S., *et al.*	Entropy Approach to the 2021 Alaska 8.2 Earthquake. **Vogel, E. V.**, Saravia, G., Pasten, D., Posadas, A., Aguilera, M.	Characterizing Surface Fault Displacement Uncertainty and Its Effects on Probabilistic Fault Displacement Hazard. Example From the 2023 M7.8 Pazarcık, Türkiye Earthquake. **Lavrentiadis, G.**, Mason, H. B., Asimaki, D., Hatem, A. E., DuRoss, C. B., *et al.*

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	From Faults to Fjords: Earthquake Evidence (continued)	**How Well Can We Predict Broadband Site-Specific Ground… (continued)**	**Induced Earthquakes: Source Characteristics… (continued)**	**The 2023 USGS National Seismic Hazard Model and Beyond (continued)**
2:45 PM	INVITED: A New Generation of High-Precision Dating Techniques for Coseismically-Killed or Damaged Trees. **Black, B.**	Near-Surface Attenuation Estimated With Coda Waves: Insights From Numerical Simulations and Empirical Observations. **Ji, C.**, Cabas, A., Pilz, M., Kottke, A.	Multi-Sensor Microseismic Monitoring of the Quest CCS site, Alberta, Canada. **Langet, N.**, Goertz-Allmann, B. P., Baird, A., Iranpour, K., Kühn, D. K., *et al.*	New Ground-Motion Model With Long-Period Non-Ergodic Path Effects From the Cybershake Simulations in the Southern California Region. **Sung, C.**, Abrahamson, N. A., Lacour, M., Meng, X.
3:00 PM	Precisely Dating Seismically Triggered Debris Avalanches in the Northern California Coast Range. Pearl, J. K., **Kelsey, H.**, Angster, S., Caldwell, D., Pryor, I., *et al.*	Site-Specific Response Spectra Estimation at Designated Seismic Stations of the Puerto Rico Strong Motion Program Seismic Network. **Huerta-López, C. I.**, Suarez-Colche, L. E., Martínez-Cruzado, J. A.	Advanced InSAR Analysis of Groningen's Subsurface Deformation: Enhancing Understanding of Reservoir Rheology and Induced Seismicity Modeling. **Li, Y.**, Acosta, M., Sirorattanakul, K., Bourne, S., Avouac, J.	An Updated Version of the New Empirical Source-Scaling Laws for Crustal Earthquakes Incorporating Fault Dip and Seismogenic-Thickness Effects. **Huang, J.**, Abrahamson, N. A., Sung, C., Chao, S.
3:15– 4:30 PM	Poster Break			

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Network Seismology: (continued)	**Earth's Structure from the Crust to the Core (continued)**	**Towards Advancing Earthquake (continued)**	**Numerical Modeling (continued)**	**Learning Across Geological, (continued)**
2:45 PM	Geophysical and Sea Level Monitoring in Puerto Rico. **Huerfano, V. A.**	STUDENT: Waveform Changes Due to Moving Scatterers - Application to the Inner Core. **Wang, R.**, Vidale, J.	Now-Casting With Real-Time Strong-Motion Response Spectra. **Franke, M.**, Lindquist, K., Vernon, F.	STUDENT: On the Dynamic of Peierls Creep at Subduction Zones: Implication for Intermediate-Depth Lower Plane Earthquakes. **Zhang, R.**, Yang, J., Zhao, L.	Relating Large-Volume Landslides and Potentially Active Faults Using Geotechnical Analyses in the Pocuro Fault System, Central Andes (32°-33°s). **Sepúlveda, S. A.**, Urrejola-Sanhueza, J. T., Pinto, L., Moreiras, S. M.
3:00 PM	Retrospective of the USGS National Earthquake Information Center Strategic Plan, 2019-23: How We Did and Future Directions. **Earle, P.**, Hayes, G., Yeck, W., Goldberg, D., Wald, D., *et al.*	2020-2030. A Golden Decade for Very Broad Band Planetary Seismology and Seismic Imaging of Mars and Moon Interiors. **Lognonné, P. H.**, Panning, M. P., Banerdt, W. B., Ceylan, S., Clinton, J., *et al.*	Abnormal Low-Magnitude Seismicity Preceding the M6.4–M7.1 2019 Ridgecrest (California) Sequence and the M7.1 2018 Anchorage (Alaska) Earthquake. **Girona, T.**, Drymoni, K.	STUDENT: Quadrangular Adaptive Mesh for Elastic Wave Simulation in Smooth Anisotropic Media. **Rapenne, M.**, Caumon, G., Cupillard, P., Gouache, C.	Measuring Gaps Between Geodetic, Geologic, and Seismic Moment Rates Across the Western U.S.: How to Determine a Budget for Earthquake Rates?. **Hatem, A. E.**, Briggs, R., Pollitz, F., Reitman, N., Tan, M.
3:15– 4:30 PM	Poster Break				

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom C
	From Faults to Fjords: Earthquake Evidence in Terrestrial and Subaqueous Environments (see page 1296).	**Planetary Seismology (see page 1382).**	**The OSIRIS-REx Sample Return Capsule Re-entry: Geophysical Observations (see page 1375).**	**Network Seismology: Recent Developments, Challenges and Lessons Learned (see page 1353).**
4:30 PM	STUDENT: Diatom-Based Coseismic Subsidence Estimates Spanning a ~4,500 Year History of Cascadia Subduction Zone Ruptures Along the Southcentral Coast of Oregon. **Bruce, D.**, Dura, T., Witter, R., Kelsey, H., Hemphill-Haley, E.	Near Surface Excitation of the Martian Ground as Measured by Insight. **Pou, L.**, Panning, M. P., Kedar, S., Stahler, S. C., Dahmen, N. J., *et al.*	First-Ever Detection of a Re-Entry Capsule With Distributed Acoustic Sensing (DAS): Initial Results and Data Comparison With Co-Located Seismic and Infrasound Sensors. **Carr, C.**, Donahue, C., Viens, L., Beardslee, L., McGhee, E., *et al.*	INVITED: Why Non-Seismic Sensors Are Actually Valuable to Network Seismology: Examples From Alaska. **West, M. E.**, Ruppert, N., Grapenthin, R., Mohler, M.
4:45 PM	Constraints on Cascadia Subduction Zone Paleoearthquakes from Terrestrial Shaking Proxies and Coseismic Land-level Change. **Grant, A.**, Wirth, E., Dunham, A., LaHusen, S., Maurer, B., *et al.*	Evaluation of Lunar Seismicity Parameters Based on Analysis of Newly Discovered Shallow Moonquakes in the Apollo Seismic Data. **Onodera, K.**	Array Data From the University of Memphis Seismo-Acoustic Coupling Experiment Fielded at the Eureka County Airport, Nevada. **Langston, C. A.**, Bazargan, S., Horton, S., Mitra, I., Islam, S.	Seismic Network Station Infrastructure as the Basis for Multi-Disciplinary Geophysical Stations. **Perlin, M.**

Time	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Marine Seismoacoustics (see page 1345).	**Special Applications in Seismology (see page 1420).**	**Translating Seismic Imaging into Geodynamic Understanding (see page 1446).**	**Structure, Seismicity and Dynamics of the Queen Charlotte-Fairweather Fault System (see page 1433).**
4:30 PM	STUDENT: Rupture Behavior of Large Strike-Slip Earthquakes at Equatorial Atlantic Oceanic Transform Faults: Constraints From Hydroacoustic Data. Sampaio **de Melo, G.**, Grevemeyer, I., Metz, D., Lange, D., Kopp, H.	STUDENT: Is Dynamically Triggered Seismicity Comparable to Background Seismicity?. **DeSalvio, N. D.**, Fan, W., Barbour, A. J.	INVITED: Integration of Geophysical Constraints in Global Mantle Flow Models for Insights Into Plate Tectonics. **Saxena, A.**, Dannberg, J., Gassmoeller, R., Fraters, M.	Aftershock Regions of Mw > 6.7 Earthquakes on the Queen Charlotte–Fairweather Plate Boundary, 1929 to 2013. **Tape, C.**, Lomax, A.
4:45 PM	STUDENT: Waveform Modeling of Hydroacoustic Teleseismic Earthquake Records from Autonomous Mermaid Floats. **Pipatprathanporn, S.**, Simons, F. J., Simon, J. D.	Ligabue—Large Induced Ground Amplitudes by Urban Excitations, as Recorded by a 7c-Station. **Braun, T.**, Famiani, D., Govoni, A., Keil, S., Wassermann, J.	STUDENT: Immersive Insights: Visualization of Earth's Interior in VR and Dome Theaters. **Hoyle, A. M.**, Orsvuran, R., Ghosh, A., Yu, K., Peter, D., *et al.*	Kinematics of the Fairweather-Queen Charlotte Transform System and Deformation Across the Broad Pacific-North America Plate Boundary Zone. **Elliott, J.**

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom C
	From Faults to Fjords (continued)	**Planetary Seismology (continued).**	**The OSIRIS-REx Sample Return Capsule Re-entry (continued)**	**Network Seismology (continued)**
5:00 PM	STUDENT: A Cycle of Memory Creation, Erasure, and Solid to Fluid-Like State Transitions Encoded Within Granular Assemblages Sheared by Faults. **Dasent, J.**, Kilburn, R., Wright, V., Scharer, K., Manga, M.	A Novel Statistical Technique to Distinguish Lunar Impacts From Shallow Moonquakes. **Turner, A. R.**, Gulick, S. P. S., Trugman, D. T., Civilini, F., Onodera, K.	Infrasound From the Osiris-Rex Src Re-Entry Observed Near the Nevada-Utah Border. **Elbing, B. R.**, Wilson, T. C., Spillman, K., Fox, D., KC, R. J., *et al.*	Small Aperture Seismic Arrays for Offshore Out-of-Network Events. **Perry, H.**, Crane, S., Eisermann, A. S., Ziv, A., McCormack, D. A., *et al.*
5:15 PM	Lost and Found: Evidence of the Penultimate Earthquake on the Hebgen and Red Canyon Faults, Montana. **Hecker, S.**, Stenner, H. D., Schwartz, D. P., Costa, C. H., Hamilton, J. C.	A Reference Marsquake Catalogue. **Clinton, J.**, Ceylan, S., Dahmen, N. J., Staehler, S., Horleston, A., *et al.*	INVITED: Direction-Finding Observation of Vlf Radio Emission Upon the Reentry of Osiris-Rex Sample Return Cuspule on 24 September 2023. **Watanabe, T.**, Kobayashi, M., Katoh, Y.	STUDENT: Determining the Feasibility of DAS for Urban Earthquake Monitoring in Athens, Greece. **Smolinski, K. T.**, Bowden, D. C., Lentas, K., Melis, N. S., Simos, C., *et al.*
5:30 PM	Unveiling Seismic Hazards: Paleoseismic Insights From the La Venta Fault in the Forearc Mountains, Mexico. **Ramírez-Herrera, M.**, Gaidzik, K., Dominguez, L. A., Coca, O., Vargas E., V. H.		INVITED: Airborne Acoustic Observations of the OSIRIS-REx Reentry. **Bowman, D. C.**, Krishnamoorthy, S., Silber, E. A., Popenhagen, S. K., Garces, M. A.	Towards the Inclusion of Distributed Acoustic Sensing in Earthquake Monitoring and Early Warning Operations. **Biondi, E.**, Saunders, J. K., Tepp, G., Yu, E. C., Bhadha, R., *et al.*
6:00–7:00 PM	Plenary: Challenges in Geohazards Research in Alaska			

Time	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Marine Seismoacoustics (continued)	**Special Applications (continued).**	**Translating Seismic Imaging (continued)**	**Structure, Seismicity... (continued)**
5:00 PM	INVITED: STUDENT: Decoding the Submarine Ambient Noise Field with Distributed Acoustic Sensing. **Fang, J.**, Williams, E. F., Yang, Y., Biondi, E., Zhan, Z.	STUDENT: #Utequake: An Outreach Project Combining Real-Time Large Crowd Seismology and Football. **Rabade, S.**, Farrell, J., Hale, J. M., Blycker, W., Morton, E., *et al.*	STUDENT: Investigating the Seismic Signature of Galápagos Mantle Flow Models. **Autumn, K. R.**, Hooft, E. E. E., Ito, G., Faccenda, M., VanderBeek, B. P., *et al.*	The Making of a Future Accreted Terrane: Plate Tectonics of the Queen Charlotte Fault System and the Development of the Queen Charlotte Terrace Adjacent to Haida Gwaii. **Furlong, K. P.**, Rohr, K. M. M., Riedel, M.
5:15 PM	Ocean Bottom Turbulence Evolution Observed by Arrayed Obs, Dpg, and a Temperature String. **Chi, W.**, Yang, C., van Haren, H.	Enhancing Classification Reliability With Anomaly Detection for Operational Monitoring of Continuous Seismic Data. **van Dinther, C.**, Malfante, M., Chiasson-Poirier, L., Gaillard, P., Cano, Y.	First Steps Towards Imaging the Antarctic's 3D Viscosity Structure Using GPS Observations. **Lloyd, A.**, Hollyday, A. E., Powell, E., Mitrovica, J. X., Gomez, N., *et al.*	STUDENT: Slope Evolution and the Accommodation of Oblique Convergence From the Central to the Northern Queen Charlotte Fault. **Adedeji, O.**, Worthington, L. L., Brandl, C. C., Walton, M. A. L., Roland, E., *et al.*
5:30 PM	STUDENT: Searching for Low-Amplitude Shallow Tectonic Tremor in Cascadia Using Buried Ocean Bottom Seismometers. **Krauss, Z.**, Wilcock, W., Creager, K.	Towards the Automatic Relocation of Intermediate-Depth Earthquakes Using Adaptive Teleseismic Arrays. **Craig, T. J.**, Blackwell, A., Rost, S.	Instantaneous 3D Tomography-Based Convection and Melt Generation Beneath the Rungwe Volcanic Province, East Africa. **Njinju, E. A.**, Stamps, D., Atekwana, E. A., Rooney, T., Rajaonarison, T. A.	A Spectral Perspective on Fault Geometry and Strike-Slip Rupture at Plate-Boundary Scales Along the Queen Charlotte Fault. **Miller, N.**, Brothers, D. S.
6:00–7:00 PM	Plenary: Challenges in Geohazards Research in Alaska			

Poster Sessions

1. STUDENT: Picking Regional Earthquake Waveforms With Neural Networks. **Aguilar, A. L.**, Beroza, G. C.
2. STUDENT: Moment Magnitude Estimation Using Machine Learning Algorithms for Western United States. **Alidadi, N.**, Pezeshk, S.
3. STUDENT: National Strong Motion Project's Advancements in Station Health and Integration to the Earthquake Early Warning System in the San Francisco Bay Area. **Amador, V. S.**, Schleicher, L. S., Carrasco Rodriguez, V., Childs, D. M., Luna, E., *et al.*
4. Building an Operational Low-Cost Seismic Network in Ukraine. **Amashukeli, T.**, Malatesta, L., Farfuliak, L., Haniiev, O., Kuplovskyi, B., *et al.*
5. Automated and Efficient Installation of AQMS. **Antolik, L.**, Friberg, P.
6. Enhancing Data Resiliency With Dual-Feed Telemetry. **Bhadha, R.**, Black, M. L., Hoggro, C., Hirata, T., Husker, A. L., *et al.*
7. Next Generation In-Vault Power Distribution to Increase Network Reliability and Remote Ops Capability. **Blom, L.**, Helmericks, J., Dalton, S.
8. Evaluation of Station Performance of the Idaho National Laboratory Seismic Monitoring Network Using Network Detection Thresholds. **Bockholt, B.**, Sandru, J.
9. Field Evaluation of Seismic Sensors for Monitoring Earthquakes, Tsunamis, Volcanoes, and Geodesy. **Bodin, P.**, Venkateswara, K., Wilcock, W., Tobin, H., Paros, J.
10. Performance of Raspberry Shake vs. Kentucky Seismic and Strong-Motion Network Instruments. Schmidt, J. P., **Carpenter, S.**, Wang, Z., Kalinski, M.
11. Access to Seismic Waveform Data, Services and Products in the Euro-Mediterranean Region and Beyond: Status and Outlook of Orfeus Coordinated Programs. **Cauzzi, C.**, Clinton, J., Crawford, W., Custódio, S., D'Amico, S., *et al.*
12. From Dense Seismic Monitoring to Mass-Movement Hazards and Their Impacts: Demonstrating an Operational Workflow and Associated Data Services. **Cauzzi, C.**, Böse, M., Clinton, J., Danciu, L., Kästli, P., *et al.*
13. Evolution of Volcano Hazards Monitoring of the Cascades Chain in Washington and Oregon: Cascades Volcano Observatory. **Darold, A. P.**
14. Seismic Network Modernization and Expansion in Ukraine. **Farfuliak, L.**, Amashukeli, T., Aderhold, K., Chiang, A., Mackey, K., *et al.*
15. Hydrothermal Monitoring Site in Norris Geyser Basin, Yellowstone National Park, Wyoming, United States of America. **Forbes, N. M.**, Farrell, J., Hale, J. M., Trow, A. J., Alexander, J., *et al.*
16. Improving Earthquake Monitoring Capabilities in Ohio With Low-Cost Robust Posthole Vaults. **Fox, J. L.**
17. Near Real-Time Earthquake Catalog for the Endeavour Segment of the Juan De Fuca Ridge: Integrating Community Code Into Ocean Networks Canada's Ocean 3.0 Data Portal. **Heesemann, M.**, Hutchinson, J., Ferguson, E., Biffard, B., Krauss, Z., *et al.*
18. AdriaArray—a Passive Seismic Experiment to Study the Geodynamics and Geohazards in Central Mediterranean. **Kolínský, P.**, Meier, T., Seismology Group, t.
19. Northern California Earthquake Data Now Available in AWS Cloud. **Marty, J.**, Zuzlewski, S., Taira, T., Thompson, S., Allen, R.
20. Assessment of Data Quality for the Alaska Geophysical Network. **McFarlin, H.**, Ruppert, N., Murphy, N., Holtkamp, S., Heslop, J.
21. A Review of Recent IDA Sensor Performance. **Mellors, R. J.**, Ebeling, C. W., Davis, P., Berger, J.
22. High Frequency Ground Motion and Electrical Calibrations of Seismometers Used at IMS Stations. **Merchant, B. J.**, Bloomquist, D. K., Slad, G. W.

23. STUDENT: Machine Learning Earthquake Catalog Performance for Characteristic Alaska Settings. **Noel, S. K.**, West, M. E., Ruppert, N. A.

24. Monitoring Induced Microseismicity (M>-1) With the Local Network at the Utah Frontier Observatory for Research in Geothermal Energy (FORGE). **Pankow, K. L.**, Whidden, K., Rutledge, J., Petersen, G., Niemz, P., *et al.*

25. Seismic Data Compression and Telemetry Bandwidth Considerations for EEW. **Perlin, M.**

26. Sensor Corrections for Multi-Component Monitoring of Seismic Translation and Rotation. **Rossi, Y.**, Guattari, F., Bernauer, F., Lin, C.

27. Comparative Analysis of Seismic Instrument Installations: Surface Vaulted Pier Mount, Direct Burial, and Bore Hole, Considering Noise Models. **Sandru, J.**

28. Applying Machine Learning Salves to Network Build-Out "Growing Pains" at the Pacific Northwest Seismic Network. **Stevens, N. T.**, Hartog, R., Ni, Y., Hutko, A., Denolle, M., *et al.*

29. System Monitoring, Telemetry Quality Control, and Planning Tools for Scsn. **Stubailo, I.**, Bhadha, R., Watkins, M., Husker, A. L., Yu, E. C., *et al.*

30. Quick Look at the Reoccupation and Installation of Seismic Stations at the NNSS. **Turley, R.**, Scalise, M., Zeiler, C. P., Gochenour, J., White, R., *et al.*

31. A Decade of the Seattle Liquefaction Array. **Williams, E. F.**, Denolle, M., Bodin, P., Steidl, J. H.

32. Improving Automatic Post-Processing at the Southern California Seismic Network With Machine Learning Algorithms. Tepp, G., **Yu, E. C.**, Zhu, W., Jaski, E., Newman, Z., *et al.*

33. Güralp SMART Sensors - A Comparison of Next Generation Mid-Band Seismometers and Traditional Sensor Technologies. **Lindsey, J. C.**, Watkiss, N., Hill, P., O'Neill, J.

Marine Seismoacoustics (see page 1346).

34. Pushing Boundaries With Ocean Bottom Seismometers (Obs) With a Pool-Ready System: Güralp Aquarius. **Lindsey, J. C.**, Watkiss, N., Hill, P., Nedimović, M., Cairns, G.

35. STUDENT: Probing Further the Cascadia Initiative Data to Detect New Cascadia Offshore Events. **Bito, H.**, Denolle, M. A., Ni, Y., Shi, Q., Krauss, Z.

36. Noise on Ocean Bottom Seismometers: Observations and New Directions. **Janiszewski, H. A.**, Russell, J., Hoots, C., Maso, E.

37. STUDENT: Changing Ambient Noise Patterns in the Beaufort Sea. **Niklasson, S.**, Rowe, C., Bilek, S.

38. RBRquartz³ APT: Innovative Instrumentation for Enhanced Marine Seismic Monitoring on Ocean Networks

Canada's NEPTUNE Cabled Observatory. **Schlesinger, A.**, Heesemann, M., Sun, T., Davis, E., Dexter, J., *et al.*

39. Observations From the Seafloor: Ultra-Low-Frequency Ambient Ocean-Bottom Nodal Seismology From the Gulf of Mexico. **Shragge, J. C.**, Girard, A. J.

40. High-Resolution Acoustic Seabed Quantification with an Autonomous Underwater Vehicle. **Sonnemann, T.**, Dettmer, J., Holland, C. W., Dosso, S. E.

41. Implementation Plan for the Cascadia Offshore Subduction Zone Observatory. **Wilcock, W. S. D.**, Harrington, M. J., Schmidt, D. A., Kelley, D. S., Tobin, H. J., *et al.*

42. CHIRP Acoustic Reflection Imaging: Toward Improved Signal Processing in Extant Glacial Lakes. **Woller, K. L.**, McGlue, M. M., Thigpen, J. R., Yeager, K. M., Woolery, E. W.

From Faults to Fjords: Earthquake Evidence in Terrestrial and Subaqueous Environments (see page 1301).

43. Lacustrine Paleoseismic Evidence From Two Large Lakes in Cascadia: Preliminary Comparisons of Post-Glacial Sediment Records From Ozette and Whatcom Lakes, Washington. **Brothers, D. S.**, Hill, J., Singleton, D., Derosier, B., Sherrod, B. L., *et al.*

44. Earthquake–triggered Submarine Landslides in Kachemak Bay, Alaska: New Constrains on Distribution and Timing Based on Marine Geophysical and Geological Data. **Brothers, D. S.**, Haeussler, P., Hill, J., Watt, J., Snyder, G., *et al.*

45. Possible Quaternary Faulting on the Picuris-Pecos Fault on the Eastern Margin of the Española Basin, New Mexico. **Cline, M. L.**, Thompson Jobe, J. A., Reitman, N., Briggs, R., Ellett, N.

46. Lacustrine Paleoseismic Investigation in the South Washington Cascade Range: Geophysical and Sedimentological Observations From Keechelus, Kachess, and Cle Elum Lakes. **Derosier, B.**, Singleton, D., Brothers, D. S., Sherrod, B. L., Hill, J., *et al.*

47. Comprehensive High-Resolution Geophysical Mapping and Sediment Coring in Lake Chelan, Wa: A Deep, Steep Lacustrine Environment Dominated by Mass Transport Processes. **Derosier, B.**, Brothers, D. S., Sherrod, B. L., Singleton, D., Dartnell, P., *et al.*

48. Introducing the Science Goals for the Cascadia Region Earthquake Science Center (Crescent) Cascadia Paleoseismology Working Group (Cpal). **Dura, T.**, Hawkes, A., Witter, R., Staisch, L., Kelsey, H., *et al.*

49. Detection Thresholds for Large to Great Subduction Earthquakes in South-Central Alaskan Marshes. **Engelhart, S. E.**, Woodroffe, S. A., Wood, K. L., Shennan, I., Witter, R. C.

50. STUDENT: Geotechnical Properties of Quaternary Marine Sediments of the Eel River Plateau, Southern Cascadia

Margin. **Fitzgerald, B. L.**, Sawyer, D. E., Hill, J. C., Brothers, D. S., Singleton, D.

51. A Refined Chronology of Tsunami Deposition at Discovery Bay, Washington State. **Garrison-Laney, C.**, Padgett, J. S., Pilarczyk, J. E., Giang, A.

52. Reconnaissance Implies a Potentially Complete Record of Holocene Earthquakes in Esther Lake Above the Alaska-Aleutian Megathrust. **Haeussler, P. J.**, Witter, R. C., Singleton, D. M., Marcuson, R. K., Brothers, D. S., *et al.*

53. Cataloging the Date of Last Event (DOLE) Across the Western U.S. **Hatem, A. E.**, Briggs, R., Tan, M.

54. Tectonic Oversteepening, Sediment Accretion, and Lower Slope Failure in the Cascadia Subduction Zone—A Recipe for Abyssal Seismoturbidites and Insights Into Earthquake History. **Hill, J. C.**, Brothers, D. S., Watt, J. T., Paull, C. K., Caress, D., *et al.*

55. Marine Seismoturbidites in the Cascadia Subduction Zone: Filling the Gaps and Refining the Offshore Records of Earthquake Shaking. **Hill, J. C.**, Watt, J. T., Paull, C. K., Caress, D., Brothers, D. S., *et al.*

56. Urban Paleoseismology of the Taylorsville Fault - New Data and Challenges from one of the Last Remaining Trench Sites on the West Valley Fault Zone, Utah. **Hiscock, A. I.**, Kleber, E. J., McDonald, G. N., Hylland, M. D., McLean, J. H., *et al.*

57. Middle to Late Pleistocene Faulting on the Puye Fault Zone, Española Basin, New Mexico. **Thompson Jobe, J. A.**, Cline, M. L., Reitman, N., Briggs, R., Sion, B., *et al.*

58. Chirp Correlation and Acoustic Characterization of Lacustrine Turbidite Deposits in Lake Ozette, Wa Using Ct-Derived Density, Synthetic Seismograms, and Advanced Chirp Processing. **Kluesner, J.**, Brothers, D. S., Snyder, G., La Selle, S., Singleton, D., *et al.*

59. How Do Large Lakes in the Seattle Area Respond to Different Sources of Seismic Shaking? Revisiting Lake Washington and Lake Sammamish With New High-Resolution Data. **Kluesner, J.**, Hill, J., Brothers, D. S., Sherrod, B. L., Conrad, J., *et al.*

60. Variations of the 1959 m7.3 Hebgen Lake Earthquake Record in Four Proximal Lacustrine Systems, West Yellowstone Region, USA. **Nicovich, S. R.**, DuRoss, C. B., Thompson Jobe, J. A., Briggs, R., Hatem, A. E., *et al.*

61. Evidence of Past Earthquakes Preserved in Coast Redwood Trees Along the Northern San Andreas Fault. Carroll, A., **Philibosian, B.**, Sillett, S., Antoine, M., Kozaci, O., *et al.*

62. Ground Surface Rupture Complexity on the Northern Alpine Fault, Aotearoa New Zealand. La Greca, J., **Quigley, M.**, Langridge, R., Morgenstern, R., Kulesza, O.

63. Using Modern Fires to Estimate Charcoal Age Inheritance at Paleoseismic Sites in California. **Scharer, K.**, McPhillips, D., Leidelmeijer, J., Kirby, M.

64. Refined Timing and Estimates of Coseismic Subsidence at the Southern Cascadia Subduction Zone: Combining

Modern Dendrochronology, Age Modeling, and Relative Sea-level Reconstruction Techniques in the Eel River Valley, CA. **La Selle, S.**, Padgett, J. S., Black, B. A., Kelsey, H. M., Witter, R. C., *et al.*

65. Off the Beaten Path: Preliminary Results of Reconnaissance Paleoseismic Surveys in Remote Alaskan Lakes. **Singleton, D. M.**, Haeussler, P. J., Brothers, D. S., Witter, R. C., Kaufman, D., *et al.*

66. A Comparative Study of Earthquake Ground-Shaking Site Effects From Lacustrine Sediments in a Subduction Zone Setting Using Active and Passive Seismic Methods. **Wils, K.**, Liberty, L., Montalva, G., Haeussler, P., Van Daele, M.

67. Temporal Clues Point to an Along-Strike Cascadia Megathrust Rupture Sequence Between 680–950 Years Ago. **Witter, R.**, Staisch, L., Nelson, A., Kelsey, H., Padgett, J.

The OSIRIS-REx Sample Return Capsule Re-entry: Geophysical Observations (see page 1376).

68. Infrasound Analysis of the OSIRIS-REx Reentry at the NVIAR Array. **Clarke, J.**, Arrowsmith, S., Park, J., Anderson, D.

69. Observation of Osiris-Rex via Shock Wave: Temporary Observation Network Utilizing Portable Infrasound Sensors and Comparative Analysis With Hayabusa and Hayabusa2. **Nishikawa, Y.**, Yamamoto, M., Hasumi, Y.

70. Leveraging Infrasound Detections of Sample Return Space Missions Towards Characterization of Meteors: A Review. **Silber, E. A.**, Bowman, D., Albert, S. A.

71. The Utility of Infrasound Towards Detection and Characterization of Bolides. **Silber, E. A.**

72. Infrasound Detection of the OSIRIS-REx Re-Entry: Signal Characteristics. **Silber, E. A.**, Bowman, D. C.

73. The OSIRIS-REx Sample Return Capsule Re-Entry: Initial Results From a Historic Geophysical Recording Campaign Against an 'Artificial Meteor'. **Silber, E. A.**, Bowman, D. C., Krishnamoorthy, S., Carr, C., Haaser, R. A., *et al.*

74. The First Detection of an 'Artificial Meteor' by a Large N Acoustic Array. **Silber, E. A.**, Bowman, D. C., Eisenberg, D. P.

Creating Actionable Earthquake Information Products (see page 1254).

75. Post-Earthquake Liquefaction Mapping by Semi-Supervised Machine Learning Using Partially Labeled Imagery. **Asadi, A.**, Baise, L. G., Sanon, C., Koch, M., Chatterjee, S., *et al.*

76. Investigating Different Methodologies for a Sar Coherence Change Detection Product. **Burgi, P. M.**

77. New Earthquake Tsunami Preparedness Magazine for Northern California. **Dengler, L.**, Ozaki, V., Uyeki, A.

78. Integration of Seismic Monitoring and Involvement of Civil Protection Volunteers for an Effective Post-Earthquake Response. Camassi, R., **Faenza, L.**, Ercolani, E., Brunelli, M., Pondrelli, S., *et al.*

79. Applying ShakeCast to Monitor Earthquake Hazards for Pipeline Infrastructure. **Hille, M.**, Zellman, M., Modney, T., Widmann, B., Duckworth, W., *et al.*

80. Student: Making the Crowdsourced "Did You Feel It?" System More Accessible: A Global Analysis. **Knodel, E. J.**, Loos, S., Quitoriano, V., Wald, D.

81. Global Structural Health Monitoring via MyShake: An Economical and Accessible Smartphone-Based Approach. **Kumar, U.**, Marcou, S., Patel, S., Allen, R.

82. ShakeCast: Pivoting USGS Products to Respond to User Needs. **Lin, K.**, Cheeck, L., Smith, K. K., Thompson, E. M., Wald, D.

83. Guidelines on Using (Uncertain) Macroseismic Data in ShakeMap. **Quitoriano, V.**, Wald, D. J., Worden, C. B., Thompson, E. M.

84. Creating Earthquake Early Warning Post-Alert Information Products: Harnessing Existing Earthquake Information Tools to Depict Alerting Efficacy. **Saunders, J. K.**, Wald, D. J.

85. A Framework for Implementing a New Intensity Metric for USGS's Shakemap: Cumulative Absolute Velocity (CAV). **Smith, K.**, Thompson, E. M., Worden, C. B., Wald, D.

Cryptic Faults: Advances in Characterizing Low Strain Rate and Environmentally Obscured Faults (see page 1259).

86. Seismic Imaging and Structure of the West Napa Fault Near Calistoga, California. **Chan, J. H.**, Catchings, R. D., Goldman, M. R., Philibosian, B. E., Sickler, R. R., *et al.*

87. Geologic and Geomorphic Evidence for Possible Reactivation Along the Dry Creek Fault Zone and Hoadley Fault, Cryptic Faults in the Northern Sacramento Valley and Surrounding Areas. **von Dassow, W.**, Klinger, R., Besana-Ostman, G., Reedy, T.

88. Constraints on Late-Quaternary Fault Displacement and Tectonic Hazards in the Sacramento–San Joaquin Delta, Northern California, From Shallow Sediment Cores Across the Pittsburg–Kirby Hills Fault System. **Trexler, C.**, Vermeer, J., Hammer, M., Doyle, M., Williams, T.

89. Characterization of Slip Rates Across the Buffalo Valley, Buena Vista Valley, and Southern Shoshone Faults, Central Nevada. **Koehler, R. D.**, Stirling, M. W.

90. Late Pleistocene Kinematics of the Great Southern Puerto Rico Fault Zone, Puerto Rico. **Lynch, E. M.**, Thompson Jobe, J. A., Briggs, R., Ortega Diaz, V. G.

91. Student: A Comprehensive Search for Evidence of Active Faulting in the Southern Coast Mountains of British Columbia, Canada: Progress and Preliminary Results. **Mendoza, R.**, Hobbs, T. E., Salomon, G., Finley, T., Nissen, E., *et al.*

92. Student: Investigating Holocene-Active Faulting in the Strait of Georgia, British Columbia Through Archived Seismic Reflection Data. **Podhorodeski, A.**, Douglas, K., Hobbs, T., Leonard, L., Schaeffer, A.

93. Steps Toward Linking the Kaltag and Tintina Faults in Interior Alaska. **Salisbury, B.**

94. Student: A Detailed Earthquake Catalog for Interior Alaska Fault Zones. **Sims, N. E.**, Tape, C.

95. Spatial Patterns of Tectonic Deformation at the Mendocino Triple Junction Inferred From River Terraces and Landscape Morphology. **Vermeer, J.**, DeLong, S., Hammer, M., Patton, J. R., Trexler, C., *et al.*

Induced Earthquakes: Source Characteristics, Mechanisms, Stress Field Modeling and Hazards (see page 1326).

96. The Critical State of Stress Preceding the Prague m5.7 Earthquake. **Alfaro-Diaz, R. A.**, Chen, T., Carmichael, J. D.

97. A 3-Dimensional P-Wave Tomography Model of the Pecos, Texas Region of the Delaware Basin. **Faith, J. L.**, Karplus, M. S., Doser, D. I., Savvaidis, A.

98. Student: Pore Pressure Effect on Coulomb Stress Change and Triggering of Earthquakes in Raton Basin, Colorado—New Mexico Region. **Fuentes, F. A.**, Mendoza, M. M., Brown, M. R. M., Ge, S., Sheehan, A. F.

99. The Minimal Effect of Solid-Earth Tides on Earthquake Rate in Oklahoma and Kansas. **Glasgow, M. E.**, Rubinstein, J. L., Hardebeck, J.

100. Student: Hindcasting the 1993 - 2023 Wirdum Induced Earthquake Sequence. **van der Heiden, V.**, Ulrich, T., Buijze, L., van Isselt, M., van de Wiel, L., *et al.*

101. Quake-Dfn, A Software for Simulating Sequences of Induced Earthquakes in a Discrete Fault Network. **Im, K.**, Avouac, J.

102. Crustal Rheological Layering Revealed in Multiscale Signals of Natural and Anthropogenic Processes at Pawnee, Oklahoma. **Jiang, J.**, Bodunde, S., Walter, J., Carpenter, B., Viteri Lopez, J.

104. Fluid-Induced Aseismic Slip May Explain the Non-Self-Similar Source Scaling of the Induced Earthquake Sequence Near the Dallas-Fort Worth Airport, Texas. **Lui, S.**, Jeong, S., Tan, X.

105. DC or Non-DC? Exploring Uncertainties and Resolution Limitations for Source Mechanism Studies in a Complex EGS Environment. **Niemz, P.**, Rutledge, J., Petersen, G., Finger, C., Pankow, K. L.

106. Wastewater Disposal and Hydraulic Fracturing Interaction Propagating Seismicity in Oklahoma. **Ogwari, P. O.**, Walter, J. I., Allen, B., Thiel, A., Woelfel, I., *et al.*

107. Student: Centroid Full Moment Tensor Analysis Reveals Geological and Injection Related Constraints of Induced Seismicity at the Experimental Otaniemi EGS Site, Helsinki Region, Finland. **Rintamäki, A. E.**, Hillers, G., Heimann, S., Dahm, T., Korja, A.

108. Inferring Maximum Magnitudes From the Ordered Sequence of Large Earthquakes. **Schultz, R.**

109. Constraining the Non-Double-Couple Components of Local Events Recorded by Dense Nodal Array. Yang, L., **Wang, R.**

110. Student: Unraveling the Subsurface Mosaic: Implications of Tectonic Structures and Fault Orientations on Induced Seismicity. **Wangari, V. N. N.**

111. On Delayed Triggering of Earthquakes by Anthropogenic Activities. **Yang, H.**, Zi, J., Yang, Y.

112. Student: Source Mechanisms Inversion of Induced "Seismicity" During Laboratory Hydraulic Fracturing. **Yuan, H.**, Gu, C., Zhong, Y., Wu, P., Chen, Z., *et al.*

113. How Induced Earthquakes Response to Pre-Existing Fractures and Hydraulic Fracturing Operations? a Case Study in South China. Li, D., **Zhang, M.**, Zheng, J., Peng, S.

Numerical Modeling in Seismology: Developments and Applications (see page 1373).

114. Student: Utilizing Metaheuristic Algorithms for Ground Motion Selection and Scaling in Structural Time History Analysis. **Akhani, M.**, Alidadi, N., Pezeshk, S.

115. Building Geologically Realistic Initial Conditions for Geodynamic and Seismological Models With the Geodynamic World Builder. **Fraters, M.**, Billen, M. I., Saxena, A., Gassmoeller, R., Li, H.

116. Passive Source Detection Technology Based on Short-Period Dense Seismic Array. **Gamez, R.**, Zou, L., Shen, J., Zhou, B.

117. Student: Effects of Bimaterial Interface on Rupture Along Strike-Slip Branch Faults. **Marschall, E.**, Douilly, R., Kame, N.

118. New Constraints on the Seismic Crustal Structure of the Southern Apennines (Italy): Numerical Modeling of P- and S- Body Waves for Moderate Earthquakes at Regional Scale. **Scarponi, M.**, Di Luccio, F., Piromallo, C., Sun, D.

119. A Numerical Model of the Earthquake Cycle Along the Gofar Oceanic Transform Fault. **Wei, M.**, He, L., Smith-Konter, B.

How Well Can We Predict Broadband Site-Specific Ground Motion and Its Spatial Variability So Far? (see page 1315).

120. Application of Conditional Dynamic Variational Autoencoder for Simulating Ground Motions in the Geysers Geothermal Field. **Bi, Z.**, Ren, P., Nakata, R., Nakata, N.

121. Lateral Variation in Coda Wave Attenuation in Sikkim Himalaya. Singh, C., **Dutta, A.**

122. Inversion of Earthquake-HVSR in the Anchorage Basin, Alaska, for Delineation of Shallow Sedimentary Structures. **Dutta, U.**, Thornley, J., Yang, Z., Zhao, Y., Stephenson, W.

123. Measuring Shallow Seismic Attenuation in the Pacific Northwest of the United States Using Ambient Noise Seismology. **Feng, K.**, Denolle, M., Ni, Y.

124. Relating Peak and Cumulative Ground Motions for Earthquakes in the San Francisco Bay Area. **Hirakawa, E. T.**, Parker, G. A., Baltay, A. S.

125. A Comparative Study Between the Resonance Frequency by Hvsr Analysis and Bedrock Depth in Western Busan, Korea. **Kang, S.**, Kim, K., Lee, S.

126. Student: Preliminary Site Characterization for Earthquake Hazard Assessment Using Ambient Vibration Techniques in Haines Junction, Yukon. **Leishman, T.**, Gosselin, J. M., Dettmer, J., Cassidy, J., Kang, T.

127. Influence of Buried Geometries on Ground Response Analysis: The Case of the Pescara Paleovalley System. **Di Martino, A.**, Sgattoni, G., Purri, F., Amorosi, A.

128. Influence of Seasonal Frozen Soil on High-Frequency Attenuation (κ0). Haendel, A., **Pilz, M.**, Cotton, F.

129. Combining Simulated and Empirical Nonergodic Ground Motion Models for Southern California. **Smith, J.**, Engler, D. T., Moschetti, M. P., Parker, G. A., Thompson, E. M., *et al.*

130. Student: Shear Wave Velocity Structure Beneath a Dense Seismic Array in the Presence of Local Noise Sources Using Matched Field Processing. **Soni, Y.**, Pulliam, J.

131. Constraining Shear-Wave Velocity Profiles in Anchorage, Alaska, Through Inversion of Microtremor Horizontal-to-Vertical Spectral Ratios. **Stephenson, W. J.**, Dutta, U., Lindberg, N. S., Leeds, A., Goozen, A., *et al.*

132. Student: Seismic Site Characterization of Sikkim Himalaya Using HVSR. **Uthaman, M.**, Singh, C., Singh, A., Bose, S.

The 2023 USGS National Seismic Hazard Model and Beyond (see page 1197).

133. The 2023 Alaska National Seismic Hazard Model: Hazard Implications. **Altekruse, J. M.**, Powers, P. M.

134. Implementing Rupture Directivity Effects Into PSHA. **Bayless, J.**, Abrahamson, N. A.

135. Conterminous U.S. Site Parameter Maps for Ground Motion Models. **Boyd, O. S.**, Smith, J. A., Moschetti, M. P.

136. Recurrence Model for Puerto Rico Subduction Zone Interface and Muertos Thrust Belt Earthquakes. **Briggs,**

R., ten Brink, U., Thompson Jobe, J. A., Hatem, A. E., Pratt, T., *et al.*

137. Seismic Hazard, Lithosphere Hydration, and Double-Verging Structure of the Puerto Rico Subduction Zone: A Seismic Reflection and Refraction Perspective. **Canales, J.**, Han, S., ten Brink, U., Vanacore, E., Harmon, N., *et al.*

138. Deploying the USGS National Seismic Hazard Models. **Clayton, B.**, Powers, P.

139. USGS Earthquake Hazard Toolbox. **Girot, D. L.**, Powers, P. M., Clayton, B. S.

140. The 2023 Alaska National Seismic Hazard Model: Inputs and Implications. **Herrick, J. A.**, Rukstales, K. S., Altekruse, J. M., Powers, P. M., Team, N.

141. STUDENT: A New Seismic Reflection Study for Southwestern Puerto Rico Fault Characterization. **Justiniano, C.**, Vanacore, E., Pratt, T., Lopez Venegas, A.

142. Gridded Seismicity Models for the 2025 USGS National Seismic Hazard Model for Puerto Rico and the U.S. Virgin Islands. **Llenos, A. L.**, Michael, A. J., Shumway, A. M., Haynie, K. L.

143. A Seismological Method for Estimating the Long-Period Transition Period Tl in the Seismic Building Code. **Pezeshk, S.**, Assadollahi, C.

144. Why Seismic Hazard Models Appear to Overpredict Historical Shaking Observations: An Intensely Simple Answer. **Salditch, L.**, Stein, S., Gallahue, M., Neely, J., Abrahamson, N. A.

145. Hybrid Empirical Ground-Motion Models for the Island of Hawaii Based on an Updated Strong Ground Motion Database. **Davatgari Tafreshi, M.**, Pezeshk, S., Haji-Soltani, A.

146. Empirical Models for Fourier Amplitude Spectrum of Ground-Motion Calibrated on Data From the Iranian Plateau. **Davatgari Tafreshi, M.**, Pezeshk, S., Singh Bora, S.

147. Methods to Evaluate and Improve the Modeling of Rupture Directivity in Assessment of Seismic Hazard. **Withers, K.**, Kelly, B., Bayless, J., Moschetti, M.

148. A Fault-Based Crustal Deformation Model With Buried Dislocation Sources for Slip-Rate Inversion of the Alaska Faults. **Zeng, Y.**

Towards Advancing Earthquake Forecasting and Nowcasting: Recent Progress Using AI-Enhanced Methods (see page 1445).

149. Short-Term Earthquake Forecast Using Precursor Phenomena. **Hattori, K.**

150. Deep Learning for Higher-Order Aftershock Forecasting in Near-Real-Time. Mizrahi, L., **Jozinović, D.**

151. STUDENT: Study of the b-Value Change Preceding the 2024 Noto Peninsula Earthquake M7.6, Japan. **Li, W.**, Yoshino, C., Hattori, K.

152. The January 1, 2024, Noto Hanto, Japan, Mw 7.6 Earthquake as a Plausible 'Dragon King' Event. **Liu, Y.**, Zhang, Y., Wu, Z.

153. STUDENT: Building an Enhanced Earthquake Catalogue for Aotearoa New Zealand: Applying an Automated Workflow With Cutting-Edge Machine Learning Methods to Mine New Zealand's Seismic Data. **Williams, C.**, Chamberlain, C. J., Townend, J.

Structure, Seismicity and Dynamics of the Queen Charlotte-Fairweather Fault System [Poster Session] (see page 1435).

154. STUDENT: Transpression Along the Southern Queen Charlotte Fault: Underthrusting and Strain Partitioning of the Queen Charlotte Terrace. **Brandl, C. C.**, Worthington, L. L., Roland, E. C., Walton, M. A. L., Nedimovic, M. R., *et al.*

155. Local Earthquake Monitoring of the Central Queen Charlotte Fault With an Ocean-Bottom Seismic Array. **Gase, A. C.**, Roland, E., Worthington, L. L., Walton, M. A. L., Bostock, M., *et al.*

156. STUDENT: Morphologic Expression of Shallow Volcanics and Ice Sheet Extent Along the Queen Charlotte Fault, Se Alaska and British Columbia. **Kennedy, K.**, Roland, E., Clark, D., Worthington, L. L., Baichtal, J., *et al.*

157. STUDENT: Crustal Velocity Structure of the 2013 m7.5 Craig Earthquake Source Region With Joint Ocean-Bottom Seismometer and Streamer Tomography. **Martin, E. C.**, Gase, A., Roland, E., Garza, L., Worthington, L. L., *et al.*

158. Crustal Structure Crossing the Queen Charlotte Fault and Trough in the Region of the Haida Gwaii 2012 m7.9 Thrust Earthquake Using P-Wave Tomography. **Roland, E.**, Worthington, L. L., Gase, A., Walton, M. A. L., Nedimovic, M.

159. Crustal Architecture Across the Queen Charlotte Fault Zone North of Haida Gwaii, British Columbia From 2d Tomography. **Walton, M. A. L.**, Worthington, L. L., Roland, E., Gase, A., Garza, L., *et al.*

160. New Constraints on Crustal Structure and Fault Zone Architecture in the m7.8 2012 Haida Gwaii Earthquake Source Region, Offshore British Columbia. **Worthington, L. L.**, Brandl, C. C., Roland, E., Walton, M. A. L., Nedimovic, M., *et al.*

Translating Seismic Imaging into Geodynamic Understanding (see page 1447).

161. Guiding Deep Earthquake Investigation with Subduction Modeling: Is Thermal Shear Instability Viable in the Deep Slab?. **Fildes, R. A.**, Billen, M. I., Thielmann, M.

162. Seismic Imaging of the Mendocino Triple Junction: Unraveling the Geodynamics of a Fundamental Plate

Boundary Transition. **Furlong, K. P.**, McKenzie, K. A., Herman, M. W., Benz, H. M., Villaseñor, A.

163. Image of Crust and Upper Mantle of Ne India Based on Surface Wave Tomography. **Mukhopadhyay, S.**, Kumar, N., Kumar, A., Chanu, M. N.

164. STUDENT: Transdimensional Mt. Etna Volcano P-Wave Anisotropic Seismic Imaging. **Del Piccolo, G.**, Lo Bue, R., VanderBeek, B. P., Faccenda, M., Cocina, O., *et al.*

165. Ecoman 2.0: An Open-Source Software for Exploring the Consequences of Mechanical Anisotropy in the Mantle. Faccenda, M., **VanderBeek, B. P.**, de Montserrat, A., Yang, J.

Special Applications in Seismology (see page 1423).

166. Sub-Daily Gnss Denoising Using Graph Neural Network. **Bachelot, L.**, Thomas, A. M., Melgar, D., Searcy, J.

167. Analysis of Characteristic Repeating Earthquakes in the Tehuantepec Triple Junction, Mexico. **Dominguez, L. A.**, Taira, T.

168. Nodal Seismometer Recordings of Aftershocks of the 11 May 2023 Mw 5.5 Lake Almanor Earthquake. **Goldman, M. R.**, Catchings, R. D., Sickler, R. R., Chan, J. H., Criley, C. J.

169. STUDENT: Machine Learning as a Tool to Build a Comprehensive Seismic Catalog for the Island of Hispaniola. **Muñoz, L. F.**, Walter, J., Pulliam, J., Leonel, J., Polanco Rivera, E.

170. Assessment of Atmospheric-Driven Ground Noises for Dragonfly's Seismic Observation on Titan. **Onodera, K.**, Kawamura, T., Nishida, K., Shiraishi, H., Tanaka, S., *et al.*

171. Ground Deformation Caused by Atmospheric Gravity Waves on Mars: An Independent Assessment of Martian Crustal Rigidity. **Onodera, K.**, Nishida, K., Widmer-Schnidrig, R., Kawamura, T., Spiga, A., *et al.*

172. STUDENT: Efficient Cataloging of Low-Frequency Earthquakes With Deep-Learning Model and Template Matching. **Papin, L.**, Thomas, A. M., Lin, J., Hawthorne, J.

Learning Across Geological, Geophysical & Model-Derived Observations to Constrain Earthquake Behavior (see page 1336).

173. STUDENT: Rupture Geometry and Static Stress Changes of the 2022 Mw 7.0 and Mw 6.4 Earthquakes in Abra, Philippines. **Catugas, S. A.**, Aurelio, M. A., Dianala, J. B.

174. STUDENT: Investigating Early Earthquake Rupture Characteristics With Borehole Strainmeters. **Dybing, S. N.**, Melgar, D., Barbour, A. J., Canitano, A., Goldberg, D. E.

175. STUDENT: Hybrid Model: A Tool for Combining Fault and Area Sources in Seismic Hazard Assessment. **Gamboa-Canté, C.**, Rivas-Medina, A., Ornelas-Agrela, A., Benito, B.

176. A New View on Interseismic Locking of the Hikurangi Megathrust Along the North Island of New Zealand. **Govers, R.**, Bijlsma, E., Vos, S.

177. Geological Constraints on the Seismic Activity of the Mid-section of the Minjiang Fault in the Eastern Margin of the Tibet Plateau. **Han, Z.**, Guo, P., Zhou, C., Niu, P., Li, J.

178. Seismic Structure, Lithospheric Deformation and Seismicity of the Indian Plate in Sikkim Himalaya. Singh, A., Uthaman, M., **Jana, N.**

179. Earthquake Rate Modelling Tools to Explore Uncertainties in Fault Source Parameters The Case of the Alboran Sea. Perea, H., Gómez-Novell, O., **Jiménez, M.**, García, M., Lozano, L., *et al.*

180. Mapping Finite-Fault Slip in 3D From Spatial Correlation Between Seismicity and Point-Source Coulomb Stress Change. **Lomax, A.**

181. STUDENT: Microseismicity and Fault Structure in the Daliangshan Subblock Within the Southeastern Tibetan Plateau. **Ma, J.**, Xiao, Z., Li, L., Ai, Y.

182. STUDENT: Mapping Outerrise Normal (and other) Dip-slip Fault Parameters using Semi-automated and Newly Developed Python Toolbox. **Nielson, Q.**, Losasso, E., Newman, A.

183. STUDENT: Diatom Evidence of Tsunami Inundation Extent Following the Great Ca. 1700 Ce Earthquake(s) at the Salmon River Estuary, Oregon, USA. **Priddy, M.**, Dura, T., Hawkes, A., Kelsey, H., La Selle, S., *et al.*

184. Moment Tensor Analysis for Earthquakes in Armenia. **Sahakyan, E.**, Babayan, G., Sargsyan, L., Gevorgyan, M., Nabelek, J.

185. Preliminary Constraints on Quaternary Fault Activity in the Malawi Rift from New High-resolution Bathymetry and Seismic Data. **Shillington, D. J.**, Scholz, C. A., Chindandali, P. R. N., Wood, D., Greenlee, J. M., *et al.*

186. STUDENT: Constraining Earthquake Nucleation using Response of Seismicity to Transient Slow-slip Event and Hydrological Surface Load. **Sirorattanakul, K.**, Avouac, J.

187. STUDENT: Towards Systematic Kinematic Source Models of Historically Large Earthquakes. **Solares-Colón, M. M.**, Melgar, D., Bato, M. G.

188. STUDENT: A Geologic Block Model of the Western Continental United States. **Travers, A. C.**, Evans, E. L.

189. Study on the Latest Activity and the Maximum Potential Earthquake in the Middle Section of the Minjiang Fault. **Zhou, C.**, Han, Z., Guo, P., Niu, P.

Thursday, 2 May 2024—Oral Sessions

Presenting author is indicated in bold.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	3D Wavefield Simulations: From Seismic Imaging to Ground Motion Modelling (see page 1201).	**Illuminating Complex, Multiplet Earthquake Sequences at Kahramanmaras (Turkiye), Herat (Afghanistan), and Beyond (see page 1318).**	**Detecting, Characterizing and Monitoring Mass Movements (see page 1262).**	**Seismic Monitoring, Modelling and Management Needed for Geothermal Energy and Geologic Carbon Storage (see page 1394).**
8:00 AM	INVITED: High Frequency (2+ Hz), 3D Wavefield Simulations of Large Earthquakes on the Southern Whidbey Island Fault, Washington State. **Stone, I.**, Wirth, E., Grant, A., Frankel, A.	The October 2023 Herat, Afghanistan Earthquake Quadruplet - Aftershock Locations and Moment Tensors. **Braunmiller, J.**, Ghods, A.	Infrasound Array Analysis of Rapid Mass Movements in Mountain Regions. **Johnson, J.**, Marchetti, E.	DOE's Best Practices for Addressing Induced Seismicity Associated With Enhanced Geothermal Systems. Majer, E., Robertson-Tait, A., Nelson, J., Savy, J., **Wong, I.**
8:15 AM	3D Kinematic Models of Ground Motions of Cascadia Megathrust Earthquakes: Preliminary Results and Comparison to Paleoseismic Subsidence Data. **Dunham, A.**, Wirth, E., Kim, J., Schmidt, D., Grant, A., et al.	STUDENT: Long-Term Seismicity of the East Anatolian Fault System and Its Relationship With the 2023 Mw 7.8 & 7.6 Kahramanmaraş (Se Türkiye) Earthquake Doublet. **Zhou, Y.**, Ding, H., Ghosh, A., Ge, Z.	The Mount Rainier Lahar Detection System: Risk Mitigation for an Unlikely, but Potentially Catastrophic, Event. **Moran, S. C.**, Thelen, W. A., Iezzi, A. M., Kramer, R. L., Pauk, B., et al.	Geophysical Monitoring of Anthropic Underground Operations in Italy: An Operative Center for Risk Mitigation. **Saccorotti, G.**, Anderlini, L., Anselmi, M., Braun, T., Caciagli, M., et al.
8:30 AM	Broadband Ground Motion Simulations for a Türkiye-like Earthquake "Doublet" on the Hayward and Calaveras Faults. **Graves, R.**, Wang-Connelly, J., Thompson, E., Quitoriano, V., Wald, D., et al.	STUDENT: The Kahramanmaras (Turkey) Earthquake Multiplet Sequence Revealed by Deep Learning Computer Vision. **Tan, F.**, Nissen, E., Kao, H.	Characterization of a Debris Flow at Mount Rainier via Seismoacoustics and a Novel Usage of a Laser Rangefinder. **Iezzi, A.**, Thelen, W. A., Bryant, E., Gabrielson, C., Moran, S. C., et al.	An Open-Source Tool for Operational Forecasting of Induced Seismicity (Orion). **Kroll, K.**, Sherman, C. S., Geffers, G., Wang, C., He, D. J., et al.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughneq' 3	Tubughneq' 4	Tubughneq' 5
	Characteristics and Mechanics of Fault Zone Rupture Processes, from Micro to Macro Scales (see page 1244).	**Advancements in Forensic Seismology and Explosion Monitoring (see page 1208).**	**Seismology in the Oceans: Pacific Hemisphere and Beyond (see page 1411).**	**From Earthquake Recordings to Empirical Ground-Motion Modelling (see page 1292).**	**Network Seismology: Recent Developments, Challenges and Lessons Learned (see page 1353).**
8:00 AM	Temporally-Varying Creep Behavior on the East Anatolian Fault and the End of the 2023 Pazarçik Rupture. **Funning, G. J.**, Hofstetter, C., Özarpaci, S.	INVITED: Seismology in Support of Negotiation, Implementation, and Verification of Nuclear Test Ban Treaties and Science Diplomacy: Where It Started and DOS R&D Challenges. **Jih, R.**	Structure of the Cascadia Margin Offshore Northern Oregon (44.5-46deg N) From Casie21-OBS Wide-Angle Seismic Profiles. **Canales, J.**, Jian, H., Mann, M., Miller, N., Carbotte, S., et al.	From Satellites to Soil Response: Analyzing Body Wave locity Variations at Shallow Depths in Sync With Satellite Soil Moisture. Kyriou, A., **Roumelioti, Z.**, Hollender, F.	Making Phase-Picking Neural Networks More Consistent and Interpretable. **Park, Y.**, Delbridge, B. G., Shelly, D. R.
8:15 AM	STUDENT: Modeling Rupture Propagation Into Creeping Faults by Thermal Pressurization. Stephenson, O., **Vescu, V.**, Lapusta, N.	Three-dimensional Nonlinear Calculations of Explosions at the Novaya Zemlya Nuclear Test Site. **Stevens, J. L.**, O'Brien, M. S.	STUDENT: A Newly Identified Mass-Transport Deposit in the Guaymas Basin, Gulf of California: Implications for Regional Tectonics and Continental Slope Stability. **Piña, A.**, Stock, J., Lizarralde, D., Berndt, C., González-Fernández, A., et al.	INVITED: Seeking for Dependencies of the High-Frequency "Kappa" Parameter of Earthquake Spectrum on Weather/climate Conditions. **Grendas, I.**, Roumelioti, Z., Hollender, F.	Evaluation of Deep Learning Phase Picking Models. **Parikh, N.**, Myren, S., Rael, R., Flynn, G., Casleton, E.
8:30 AM	Across-Slab Propagation and Low Stress Drops of Deep Earthquakes in the Kuril Subduction Zone. **Turner, A. R.**, Ferreira, A. M. G., Brantut, N., Faccenda, M., Kendall, E., et al.	Discriminating Collapses From Explosions and Earthquakes. **Walter, W. R.**, Pasyanos, M. E., Ichinose, G., Price, A., Pennington, C., et al.	Implications of Multi-Layer High-Vp/Vs Seafloor Sediments Characterized Using Passive Ocean Bottom Seismic Data: Toward Improving Crustal and Mantle Structure Analysis. **Kim, H.**, Kawakatsu, H., Akuhara, T., Takeuchi, N.	Beyond Site Response: On the Importance of Installation Depth on the Quality of Seismic Recordings - Example of Measurements Carried Out at Epos-France Seismological Network Stations. **Hollender, F.**, Iacobucci-Jund, H., Douste-Bacqué, I., Rischette, P., Buscetti, M., et al.	A Comparison of Machine Learning Methods of Association. **Pennington, C. N.**, McBrearty, I., Kong, Q., Walter, W. R.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	3D Wavefield Simulations: (continued)	**Illuminating Complex, Multiplet Earthquake (continued)**	**Detecting, Characterizing and Monitoring (continued)**	**Seismic Monitoring, Modelling (continued)**
8:45 AM	Toward High-Frequency Three-Dimensional Green's Function Databases. **Modrak, R. T.**, Kintner, J., Nelson, P., Gao, K., Zhou, R., *et al.*	Surface Expression of the Narlı and East Anatolian Fault Rupture Intersection in the 2023 M7.8 Pazarcık, Türkiye Earthquake. **DuRoss, C. B.**, Reitman, N. G., Hatem, A. E., Mason, H., Lavrentiadis, G., *et al.*	INVITED: STUDENT: Identification of Lahar Signals: A Supervised Learning Model Applied to Monitoring Data of Volcan De Fuego, Guatemala. **Bejar, G.**, Waite, G. P., Escobar-Wolf, R., Johnson, J. B., Bosa, A., *et al.*	Forecasting the Next Largest Earthquake During EGS Stimulations. **Grigoratos, I.**, Kwiatek, G., Wiemer, S.
9:00 AM	STUDENT: Iterative Global 3D Centroid Moment Tensor Inversions Using Stored Global Green Functions From Glad-M25. **Sawade, L.**, Ekström, G., Ding, L., Peter, D., Liu, Q., *et al.*	Seismic Analysis of the 2023 Earthquake Sequence in Southeast Türkiye: Insights From Mainshocks and Aftershocks. **Büyükakpınar, P.**, Petersen, G., Vera Sanhueza, F., Metz, M., Cesca, S., *et al.*	Lahar Early Warning at Volcano Santiaguito: A Classical and a Deep Learning Approach. **Jozinović, D.**, Massin, F., Roca, A., Clinton, J.	INVITED: Stress-Based Forecasting of Seismicity Induced by Geothermal Operations and CO2 Storage. **Avouac, J.**
9:15–10:30 AM	Poster Break			
	3D Wavefield Simulations: From Seismic Imaging to Ground Motion Modelling (see page 1201).	**Illuminating Complex, Multiplet Earthquake Sequences at Kahramanmaras (Turkiye), Herat (Afghanistan), and Beyond (see page 1318).**	**Detecting, Characterizing and Monitoring Mass Movements (see page 1262).**	**Seismic Monitoring, Modelling and Management Needed for Geothermal Energy and Geologic Carbon Storage (see page 1394).**
10:30 AM	SPECFEM++: A Modular and Portable Spectral-element Framework for Seismic Wave Propagation. **Kakodkar, R. R.**, Tromp, J.	High-Resolution Fault Imaging From Fault Zone Guided Waves Recorded by Dense Arrays in the Aftershock Zone of the 2023 Kahramanmaras Earthquake Sequence in Southern Türkiye. **Peng, Z.**, Mach, P. V., Ding, C., Yalvac, O., Sevim, F., *et al.*	STUDENT: Towards Building a Machine Learning Based Automatic Detection System for Surface Events in the Pacific Northwest. **Kharita, A.**	STUDENT: Factors Controlling Rate and Magnitudes of Induced Seismicity. **Kim, T.**, Avouac, J.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Characteristics and Mechanics of Fault Zone (continued)	**Advancements in Forensic Seismology (continued)**	**Seismology in the Oceans: (continued)**	**From Earthquake Recordings (continued)**	**Network Seismology: (continued)**
8:45 AM	INVITED: Fault Zone Material Heterogeneities May Trigger Repeating Earthquakes in Kanto, Japan. **Huang, Y.**, Ide, S., Kato, A., Yoshida, K., Jiang, C.	Source Characterization and Uncertainty Quantification of the North Korean Nuclear Tests 2006-2017. **Alfaro-Diaz, R. A.**, Kintner, J., Phillips, S., Delbridge, B., Carmichael, J. D.	Estimating the Extent of Low-temperature Ductile Deformation in the Lithosphere Using Seismic Anisotropy Measurements Around the Alpine Fault. **Mark, H. F.**	STUDENT: Perturbations of Free-Field Seismic Recordings Caused by Soil-Structure Interaction, From the Effects of Buildings to the Impact of Coupling Slabs: Preliminary Results From Empirical Studies Carried Out in Greece. **Rischette, P.**, Hollender, F., Theodoulidis, N., Roumelioti, Z., Perron, V., *et al.*	STUDENT: A Comprehensive Earthquake Focal Mechanism Catalog for Nevada Obtained Through Deep Learning Algorithms. **Chatterjee, A.**, Srikar, G., Pennington, C. N., Walter, W. R., Trugman, D. T.
9:00 AM	The Alto Tiberina Near Fault Observatory: A State of Art Monitoring Infrastructure for Studying Earthquakes Faults and Preparatory Phases. **Chiaraluce, L.**	Regional Characterization of Natural and Anthropogenic Seismic Events for Monitoring Efforts With Machine Learning. **Barama, L.**, Kong, Q.	Crustal and Uppermost Mantle Structure North of the Gloria Fault Inferred From OBS-Recorded Surface Waves. Pinzon, J., **Custódio, S.**, Silveira, G., Krüger, F., João, M., *et al.*	INVITED: Seismic Station Installations and Their Impact on Recorded Signals and Derived Quantities. **Castellaro, S.**, Musinu, G., Alessandrini, G.	STUDENT: Deep Learning Enhanced Earthquake Catalog for Northern California. **McBrearty, I. W.**, Beroza, G. C.
9:15–10:30 AM	Poster Break				
	Characteristics and Mechanics of Fault Zone Rupture Processes, from Micro to Macro Scales (see page 1244).	**Advancements in Forensic Seismology and Explosion Monitoring (see page 1208).**	**Seismology in the Oceans: Pacific Hemisphere and Beyond (see page 1411).**	**From Earthquake Recordings to Empirical Ground-Motion Modelling (see page 1292).**	**Network Seismology: Recent Developments, Challenges and Lessons Learned (see page 1353).**
10:30 AM	Dynamic Rupture Simulations on the Alpine Fault, New Zealand: Investigating the Role of Fault Geometry on Rupture Size and Behavior Over Multiple Earthquake Cycles. **Lozos, J.**, Warren-Smith, E., Townend, J.	Source-Type Discrimination Using Phase and Amplitude Metrics Derived From Nonlinear Alignment Methods. **Ramos, M. D.**, Tibi, R., Emry, E. L., Young, C. J.	Overthickened Lithosphere Beneath the Blanco Transform Faults. **Bao, X.**, Dai, A., Yang, Y., Hu, J., Zhang, W.	Three Relational Databases in Support of Model Development for Earthquake Hazard Products. **Hearne, M. G.**, Cunningham, A. E., Knodel, E. J., Ambruz, N. B., Aagaard, B. T., *et al.*	An Agent Based Model to Quantify Gains in Network Processing. **Carmichael, J. D.**

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	3D Wavefield Simulations (continued)	**Illuminating Complex, Multiplet Earthquake (continued)**	**Detecting, Characterizing and Monitoring Mass Movements (continued)**	**Seismic Monitoring, Modelling and Management (continued)**
10:45 AM	STUDENT: Forward Simulation of Air and Ground Vibration Induced by Series of Wind Turbines Using the Spectral-Element Method. **Fitzgerald, J.**, Wiboonwipa, N., Gharti, H., Braun, A.	Strong Ground Motion Characterization for the 6 February 2023 Mw 7.8 Pazarcık Earthquake in Kahramanmaraş, Türkiye. **Tang, Y.**, Şeşetyan, K., Mai, M.	Source Characterization of Surface Events in the Pacific Northwest. **Denolle, M. A.**, Skene, F., Smoczyk, N., Ni, Y., Kharita, A., *et al.*	How to Tame an Earthquake (Analogue). **Schultz, R.**
11:00 AM	Multiscale Rupture Modeling: Bridging Laboratory Acoustic Emissions and Earthquake Ground Motions. **Gu, C.**, Meng, C.	Conjugate Strike-Slip Faulting in the Truckee Basin of California, Northern Walker Lane. **Pierce, I. K. D.**, Koehler, R., Owen, L., Wesnousky, S., Figueiredo, P. M., *et al.*	Dissecting Seismic Signals to Estimate Landslide Volume. **Collins, E.**, Allstadt, K. E., Toney, L. D.	Picoseismic Response of Hectometer-Scale Fracture Systems to Stimulation With Cm-Scale Resolution Under the Swiss Alps, in the Bedretto Underground Laboratory. **Obermann, A.**, Rosskopf, M., Durand, V., Plenkers, K., Bröker, K., *et al.*
11:15 AM	Local Geological Changes and Simplicial Remeshing for Wave Propagation. **Cupillard, P.**, Caumon, G., Anquez, P., Legentil, C., Glinsky, N., *et al.*	How Often Do Subduction Interfaces and Overriding Upper-Plate Faults Rupture in the Same Earthquake (Or Close Enough in Time to Be the Same Situation)?. **Rollins, C.**, Penney, C. E., Howell, A., Fry, B., Nicol, A.	Radial Backprojection Imaging of Recent Mass Movements in Alaska. **Haney, M. M.**, Toney, L., Karasozen, E.	STUDENT: Characterization of Fracture Activation During EGS Stimulation Using Waveform Cross-Correlation: An Example Application at Utah Forge. **Asirifi, R.**
11:30 AM	3D Multiresolution Velocity Model Fusion With Probability Graphical Models. **Zhou, Z.**, Gerstoft, P., Olsen, K. B.	2021 and 2022 North Coast California Earthquake Sequences Light Up Gorda Plate Faults Beneath the North American Plate. **Hellweg, M.**, Dreger, D. S., Lomax, A., McPherson, R. C., Dengler, L. A.	Enhancing Real-Time Landslide Detection for Improved Tsunamigenic Landslides in Alaska. **Karasozen, E.**, West, M. E.	Circulation Experiments at Utah Forge: Post-Shut-in Fracture Growth Revealed by Limited Near-Surface Monitoring. **Niemz, P.**, McLennan, J., Pankow, K. L., Rutledge, J., England, K.
NOON–2:00 PM	Awards Luncheon and Presidential Address			

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Characteristics and Mechanics of Fault Zone (continued)	**Advancements in Forensic Seismology (continued)**	**Seismology in the Oceans (continued)**	**From Earthquake Recordings (continued)**	**Network Seismology (continued)**
10:45 AM	Deformation Partitioning, Directivity Effects, and Stress-Drop of Seismicity Along the Main Marmara Fault Offshore Istanbul/Türkiye in the Light of an Overdue M7+ Earthquake. **Bohnhoff, M.**, Cheng, X., Martinez-Garzon, P., Becker, D., Kwiatek, G., *et al.*	Seismic Observations and Aftershock Analysis from a Fully Coupled Chemical Explosion in Layered Tuff. **Sprinkle, D.**, St. Clair, J., Chojnicki, K., Knox, H., Strickland, C., *et al.*	The Anelastic Fingerprint of Small-Scale Convection: Grain-Size Reduction in Pacific Asthenosphere Revealed by Regional Shear Attenuation. **Russell, J. B.**, Dalton, C., Havlin, C., Holtzman, B., Eilon, Z., *et al.*	A Magnitude Invariant Workflow for Automated End-to-End Ground Motion Processing. **Lavrentiadis, G.**, Shi, Y., Aday, K., Asimaki, D.	Seismology as a Service: Portable Product Generation at the Southern California Seismic Network Using Service-Oriented Architecture and Cloud Computing. **Yu, E. C.**, Tepp, G., Tam, R., Bhaskaran, A., Chen, S., *et al.*
11:00 AM	INVITED: Insight Into Depth Variations in Effective Stress and Fault Strength From Geodynamic-Seismic Cycle and Earthquake Dynamic Rupture Modeling. **Madden, E. H.**, Gabriel, A. A., Ulrich, T., van Dinther, Y., van Zelst, I.	Seismic Source Parameters and Scaling Relations for Microseismic Lower-Yield Military Explosive Events. **Milburn, T. W.**	An Ocean-Bottom View of Mantle Convection Beneath the Pacific Basin. **Gaherty, J.**, Eilon, Z., Russell, J., Phillips, J., Hariharan, A., *et al.*	STUDENT: Epistemic Uncertainty Associated to Parametric and Non-Parametric Git Results Related to Initial Parametrization and Target Region Dataset: Application on the Epos-France Database. **Buscetti, M.**, Traversa, P., Hollender, F., Perron, V.	NEIC Developments: Updates on the U.S. Geological Survey National Earthquake Information Center's Earthquake Monitoring Systems. **Patton, J.**, Guy, M., Earle, P., Yeck, W., Cole, H.
11:15 AM	Deep Slip Occurs Prior to Surface Creep Events on the San Andreas Fault. **Gittins, D. B.**, Hawthorne, J. C.	Discriminating S-Wave Polarization Angles of Explosive and Earthquake Sources. **Nelson, P.**, Creasy, N.	Deep Learning for Deep Earthquakes in Oceans: Insights From Obs Observations of the Tonga Subduction Zone. **Wei, S. S.**, Xi, Z., Zhu, W., Beroza, G. C., Jie, Y., *et al.*	Ground Motion Models Uncertainties and Variability: The Impact of Seismic Station Installation Conditions and Earthquake Catalog Quality. **Traversa, P.**, Buscetti, M., Arroucau, P., Kotha, S. R., Hollender, F., *et al.*	gCent: Geodetic Centroid Products for Earthquake Monitoring. **Barnhart, W.**
11:30 AM	Simulating the Formation and Evolution of Complex Fracture Patterns Arising From Shallow Strike-Slip Faulting With Finite and Discrete Element Analyses. **Baden, C. W.**, Nevitt, J. M., Garcia, F. E.	Simulations of Local Wave Propagation Effects on the Performance of P/s Source Discriminant. **Pitarka, A.**, Walter, W. R., Pyle, M.	Earthquakes and Slab Morphology in Southern Mariana and Yap Subduction Zones. **Yang, H.**, Zhu, G.	Earthquake Ground Motion Insights From the USGS Lake Almanor, California, Aftershock Nodal Array Deployment. **Parker, G. A.**, Baltay, A. S., Hirakawa, E. T., Catchings, R. D., Goldman, M. R., *et al.*	Overcoming Challenges in Near-Field Seismic Velocity Estimation: Insights from continuos GPS and Strong Motion Data. **Riquelme, S.**, Crempien, J., Koch, P.
NOON–2:00 PM	Awards Luncheon and Presidential Address				

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	3D Wavefield Simulations: From Seismic Imaging to Ground Motion Modelling (see page 1201).	**Six Decades of Tsunami Science: From the Source of the 1964 Tsunami to Modern Community Preparedness** (see page 1416).	**Detecting, Characterizing and Monitoring Mass Movements** (see page 1262).	**Seismic Monitoring, Modelling and Management Needed for Geothermal Energy and Geologic Carbon Storage** (see page 1394).
2:00 pm	Multi-Scale Seismic Imaging of Fault-Zone Structures in Southern California With Full-Waveform Inversions of Regional and Dense Array Data. **Li, G.**, Ben-Zion, Y.	INVITED: The 2021 Antarctic (South Sandwich) Tsunami as Recorded in the North Pacific. **Rabinovich, A. B.**, Tsukanova, E., Thomson, R. E.	Seismic Collapse Mechanisms of Large (M~4) Rock and Ice Avalanches in Southeast Alaska. **Alvizuri, C.**, Rupper, N., Karasozen, E.	Geophysical Monitoring for Feeding Decision Support Tools: The Crucial Role of Uncertainty for a Sound Management of Induced Seismicity. **Garcia, A.**, Zaheer, A., Faenza, L., Danesi, S., Braun, T., *et al.*
2:15 pm	INVITED: STUDENT: Global Source-Encoded Waveform Inversion: Preliminary Results. **Cui, C.**, Bachmann, E., Tromp, J.	INVITED: Re-evaluating Global Threat of Tsunamis Generated by Air-pressure Waves from Volcano Explosions. **Titov, V.**	The Seismic Puzzles of the 2022 Chaos Canyon Landslide in Rocky Mountain National Park. **Allstadt, K.**, Coe, J., Collins, E., Rengers, F., Mangeney, A., *et al.*	B-Positive for Induced Seismicity Catalogs With Time-Varying Incompleteness? Proceed With Caution. **Muntendam-Bos, A. G.**
2:30 pm	STUDENT: LLNLGlobeFWI Analysing Alpine Fault Earthquakes: First Iterations Using a Semi-Automatic FWI Framework Applied to the Globe With Spiral as the Starting Model. **Vazquez, L.**, Morency, C., Simmons, N. A.	Multi-Scale Geophysical Characterization and Tsunami Modeling of Active Listric Normal Faults Offshore Grays Harbor, Wa. **Watt, J.**, Geist, E., La Selle, S., Hill, J.	New Insights on the Åknes Rockslide (Norway) Using Borehole Microseismic Data. **Langet, N.**, Oye, V., Grøvan Aspaas, A., Lacroix, P., Renard, F.	Heimdall: A Graph-Based Seismic Detector and Locator for Microseismicity. **Bagagli, M.**, Grigoli, F., Bacciu, D.
2:45 pm	Homogenized Full Waveform Inversion : Application to Earth Model for Long Period Seismic Waves. **Colvez, M.**, Burgos, G., Capdeville, Y., Guillot, L.	Real-Time Prediction of Tsunami Amplitude Using Gaussian Process Regression. **Nichols, T.**	How Do Slow-moving Landslides Maintain Steady Motion?. **Xu, Y.**, Bürgmann, R., Bilham, R.	STUDENT: Characterizing Subsurface Structures for Geologic Carbon Storage at Iron Mountain in Utah. **Li, D.**, Huang, L., Gao, K., Chen, B., Zheng, Y., *et al.*

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughneq' 3	Tubughneq' 4	Tubughneq' 5
	Regional-Scale Hazard, Risk and Loss Assessments (see page 1383).	**Advancements in Forensic Seismology and Explosion Monitoring** (see page 1208).	**Multidisciplinary Approaches for Volcanic Eruption Forecasting** (see page 1348).	**From Earthquake Recordings to Empirical Ground-Motion Modelling** (see page 1292).	**Network Seismology: Recent Developments, Challenges and Lessons Learned** (see page 1353).
2:00 pm	Development of a Physics-Guided Non-Ergodic Ground Motion Model for the Groningen, Netherlands Region. **Lavrentiadis, G.**, Oral, E., Aday, K., Asimaki, D.	Moment Tensor Inversion and Its Uncertainty from Green's Functions with Different Algorithms. **Zhou, R.**, Saikia, C. K., Roman-Nieves, J., VanDeMark, T. F.	INVITED: STUDENT: Fracture Insights and Predicting Failures: Acoustic Emission Study in Peteroa Volcano's Basalt Rock. **Vesga-Ramírez, A.**, Zitto, M. E., Filipussi, D., Camilión, E., Piotrkowski, R., *et al.*	Ground Motion and Entropy. **Clements, T.**, Cochran, E., Baltay, A. S., Minson, S., Yoon, C.	STUDENT: Precision and Accuracy of Earthquake Locators: Insights From a Synthetic 2019 Ridgecrest Sequence Experiment. **Yu, Y.**, Ellsworth, W. L., Beroza, G. C.
2:15 pm	Developing a Data-centric Workflow for Seismic Source Model Construction and Testing. **Styron, R. H.**, Pagani, M., Johnson, K. E., Bayliss, K.	Physics Experiment 1: Chemical Explosive, Gas Tracer, Electromagnetic, and Atmospheric Experiments for Improved Monitoring of Nuclear-Explosive Testing. **Myers, S.**, Foxe, M., Dzenitis, B., Knox, H., Cari Seifert, C., *et al.*	Small Earthquakes Matter for Triggering Volcanic Unrest. **Gomberg, J.**, Prejean, S., Taveras, O., Bodin, P., Pacheco, J., *et al.*	Comparisons of Recent Prediction Models of Ground-Motion and Seismic Duration for Mexican Interplate and Intraslab Earthquakes Including the Vertical Component and V/H Ratios. **García-Soto, A.**, Jaimes, M.	Improving Shear-Arrival Time Estimates for Real-Time Association and Location Algorithms. **Baker, B.**, Armstrong, A. D., Pankow, K. L.
2:30 pm	INVITED: Developing Software to Assess the Seismic Risk of Natural Gas Infrastructure: OpenSRA. **Zheng, B.**, **Largent, M.**, Watson-Lamprey, J., Bray, J., Abrahamson, N. A., *et al.*	Seismo-Acoustic Signals From an Accidental Chemical Explosion in South Korea. **Park, J.**, Arrowsmith, S., Che, I., Hayward, C., Stump, B.	Toward Unbiased Volcano-Seismic Monitoring: Leveraging Weakly Supervised Learning for Comprehensive Insights. **Titos, M.**, Benítez, M., Carthy, J., Ibáñez, J.	Using Proxies Obtained From Horizontal-to-Vertical Spectral Ratio to Reduce the Epistemic Uncertainty in Ground Motion Models. **Yazdi, M.**, Anderson, J. G., Motamed, R.	Comparing Three-Dimensional Seismic Velocity Models for Location Accuracy. **Begnaud, M.**, Conley, A., Davenport, K., Porritt, R., Ballard, S., *et al.*
2:45 pm	INVITED: Addressing Challenges in Regional Seismic Risk Assessments in British Columbia: M9 Cascadia Subduction Zone Earthquakes, Deep Sedimentary Basin Amplification and Non-Ductile Reinforced Concrete Shear Wall Buildings. **Molina Hutt, C.**, Kakoty, P.	Estimating Crustal Velocity Structure in Alaska From Acoustic-to-Seismic Coupling From the 2022 Hunga Eruption, Tonga. **Macpherson, K. A.**, Fee, D., Coffey, J. R., Awender, S., Chow, B., *et al.*	Volcanic Eruption Forecasts Through Seismic Data Assimilation: The 2023 Paroxysms of Shishaldin Volcano, Alaska. **Girona, T.**, Haney, M. M., Fee, D., Power, J.	Are Ground Motions Different for Aftershocks or Earthquakes Doublets?. **Baltay, A. S.**, Parker, G. A., Abrahamson, N. A., Hanks, T. C.	Regionalization of ML and Its Relation to Mw. **Herrmann, R. B.**, Benz, H. M.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B		Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	3D Wavefield Simulations (continued)	**Six Decades of Tsunami Science (continued)**	**Detecting, Characterizing and Monitoring (continued)**	**Seismic Monitoring, Modelling and Management (continued)**			**Regional-Scale Hazard, Risk and Loss (continued)**	**Advancements in Forensic Seismology (continued)**	**Multidisciplinary Approaches for (continued)**	**From Earthquake Recordings to (continued)**	**Network Seismology: Recent (continued)**
3:00 PM	Adjoint-State Traveltime Tomography (tomoatt.com). **Tong, P.**, Chen, J., Nagaso, M., Hao, S., Xu, M.	A Behavioral Theory Framework for Tsunami Preparedness. **Grant Ludwig, L.**	Big Tsunamis in Little Lakes. **Higman, B.**, Karasozen, E., Geertsema, M., Schwartz, S.	3D Fault Detection on a Seismic Migration Image at the Lightning Dock Geothermal Area. **Huang, L.**, Wu, B., Gao, K., Li, D., Zheng, Y., *et al.*		3:00 PM	Using Comparative Subductology to Constrain Future Subduction Zone Earthquake Losses. **Wald, D. J.**, Hayes, G., Haynie, K. L., Jaiswal, K. S., Marano, K.	Detection of Seismic and Acoustic Signals With Serial Network Data Fusion: Demonstration Against Atmospheric Explosions. **Carmichael, J. D.**, Alfaro Diaz, R., Light, T., Blom, P., Gammans, C., *et al.*	Source Mechanism and Catalog Statistics for the Last Decade of Seismicity at the Campi Flegrei Volcanic Complex, Italy. **Saccorotti, G.**, Bianco, F., Chiarabba, C., Piccinin i, D.	Why Did the Pulse-Like Ground-Motion Differ Three Times in Pgv and Tp Within a 3 Km Wide Near-Fault Region of the 2023 Mw 7.8 Turkiye Earthquake?. **Huang, J.**, Sung, C., Kuo, C., Lin, C.	Noisy Stations Make Earthquake Magnitudes Larger. **Ringler, A.**, Ambruz, N. B., Earle, P., Kragness, D., Shelly, D., *et al.*
3:15– 4:30 PM	Poster Break					3:15– 4:30 PM	Poster Break				

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom C		Time	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Applications and Discoveries in Cryoseismology Across Spatial and Temporal Scales (see page 1235).	**Special Applications in Seismology (see page 1420).**	**New Insights into the Development, Testing and Communication of Seismicity Forecasts (see page 1367).**	**Regional-Scale Hazard and Loss Assessments (see page 1383).**			**Advancements in Forensic Seismology and Explosion Monitoring (see page 1208).**	**Multidisciplinary Approaches for Volcanic Eruption Forecasting (see page 1348).**	**Leveraging Cutting-Edge Cyberinfrastructure for Large Scale Data Analysis and Education (see page 1340).**	**Cordilleran Strike-Slip Faults as Seismogenic and Seismological Features (see page 1249).**
4:30 PM	STUDENT: Integrated Geophysical and Temperature Sensing Techniques Towards Scalable Monitoring of Permafrost Variability in Utqiaġvik, AK. **Tourei, A.**, Ji, X., Martin, E. R., Xiao, M., Rocha dos Santos, G. F., *et al.*	STUDENT: Receiver Functions in the Los Angeles Basin. **Villa, V.**, Clayton, R., Gkogkas, K., Lin, F.	INVITED: Testing Rate-and-State Predictions of Aftershock Decay. **Page, M.**, van der Elst, N., Felzer, K.	Probabilistic Approach for Site Response Analysis and Seismic Microzonation. **Ansal, A.**		4:30 PM	Surface-to-Space Acoustic Propagation Model Validation Using Chemical Explosion Sources: The DARPA AtmoSense AIRWaveS Project. Nayak, M., Snively, J. B., Sabatini, R., **Bowman, D. C.**, Egan, S.	Resonance in the Earth's Crust as a Generation Mechanism of Very-Long-Period Volcanic Tremor. **Xia, Y.**, Feng, X., Chen, X.	INVITED: Advancing USGS Scientific Modeling Through Cloud Computing. **Haynie, K. L.**, Hunsinger, H., Martinez, E., Brito Silveria, L., Cassidy, K., *et al.*	STUDENT: Is the Rocky Mountain—Tintina Trench Tectonically Active?. **Finley, T.**, Nissen, E., Cassidy, J., Leonard, L., Sethanant, I., *et al.*
4:45 PM	STUDENT: Observations From an Active Seismic Distributed Acoustic Sensing Survey, Combatant Col, British Columbia. **Manos, J. M.**, Lipovsky, B., Gräff, D.	Resolving the Structure of the Los Angeles Basin Through High-Resolution Seismic Tomography. **Biondi, E.**, Li, J., Clayton, R., Zhan, Z.	Time-Dependent Earthquake Forecasts With Pre-Existing Populations of Faults: Application to the Groningen Gas Field, the Netherland. **Dahm, T.**, Hainzl, S.	STUDENT: Analysis of Shakemap Residuals for Spatially Variable Site Terms. **Cunningham, A. E.**, Knodel, E. J., Hearne, M. G., Thompson, E. M., Worden, C. B., *et al.*		4:45 PM	Solid/atmosphere Moment Partitioning in Hypervelocity Impacts on Mars From Seis Recorded Seismic and Acoustic Signals and High Resolution Crater Imaging. **Lognonné, P. H.**, Bill, C., Collins, G. S., Daubar, I. J., Kim, D., *et al.*	Volcanic Eruption Forecasting Using Shannon Entropy: 2021 Tajogaite Eruption (Spain). Rey-Devesa, P., Carthy, J., Titos, M., Benítez, C., D'Auria, L., **Prudencio, J.** *et al.*	STUDENT: Parallel Processing of Large Seismic Data Sets With Mspass. **Wang, C.**, Wang, Y., Pavlis, G. L., Mohapatra, S., Ma, J.	Evolution of Subsidiary Faults Associated With the Migration of the Mount Mckinley Restraining Bend, Denali Fault, Alaska. **Bemis, S. P.**, Benowitz, J. A., Goehring, B. M., Priddy, M. S., Terhune, P. J.
5:00 PM	Plucking Base Notes: Seismic Character of a Potential Glacial Quarrying Event at Saskatchewan Glacier, Canadian Rocky Mountains. **Stevens, N. T.**, Hansen, D. D., Zoet, L. K., Alley, R. B.	STUDENT: Upper-Plate Seismicity and Focal Mechanism for Studying the Stress State in the Mendocino Triple Junction. **Islam, M.**, Gong, J.	What Drives the Variability in Earthquake Sequence Productivity in California and Nevada?. **Trugman, D. T.**, Ben-Zion, Y.	Regionalized Earthquake Source Models of Subduction Interface Earthquakes. **Skarlatoudis, A.**, Thio, H. K., Somerville, P., Ahdi, S. K., Condon, S.		5:00 PM	End-to-End Numerical Simulation of Explosion Cavity Creation, Cavity Circulation Processes, Subsurface Gas Transport, and Prompt Atmospheric Releases. **Ezzedine, S. M.**, Velsko, C., Vorobiev, O.	Automated Identification and Characterization of Very Long-Period Seismic Events for Applications in Monitoring Volcanic Activities. **Gammaldi, S.**, Delle Donne, D., Cantiello, P., Bobbio, A., De Cesare, W., *et al.*	Enabling Large Data Analysis on the Earthscope Data Repositories. Trabant, C., **Dittmann, T.**, Bravo, T. K., Weekly, R. T., Johnson, S., *et al.*	Residual Yakutat Microplate Velocity Drives Rapid Thrust Faulting North of the Central Denali Fault. **Bender, A. M.**, Lease, R. O., Rittenour, T.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom C		Time	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Applications and Discoveries (continued)	Special Applications in Seismology (continued)	New Insights into the Development, Testing (continued)	Regional-Scale Hazard, Risk and Loss (continued)			Advancements in Forensic Seismology (continued)	Multidisciplinary Approaches for Volcanic (continued)	Leveraging Cutting-Edge (continued).	Cordilleran Strike-Slip Faults as (continued)
5:15 PM	Ross Ice Shelf Lamb Wave Propagation and Permanent Displacement Induced by Whillans Ice Stream Slip Events. **Wiens, D. A.**, Aster, R. C., Nyblade, A. A., Bromirski, P. D., Gerstoft, P., *et al.*	STUDENT: Complex Deformation of the Northern Deep Tonga Slab. **Williams, A.**, Wiens, D. A., Bergman, E. A.	INVITED: STUDENT: Modernizing Earthquake Forecasts Testing and Experimentation: CSEP Open-Software Contributions. **Iturrieta, P.**, Maechling, P. J., Savran, W. H., Bayona, J., Silva, F., *et al.*	STUDENT: Region-Specific Geospatial Liquefaction Model for Alaska by Bayesian Model Updating of the Global Liquefaction Model. **Shirzadi, H.**, Asadi, A., Baise, L. G., Moaveni, B.		5:15 PM	Joint Inversion of Body and Surface Waves at the Rock Valley Direct Comparison (Nevada) Study Site. **Syracuse, E. M.**, Rowe, C., Li, D., Ranasinghe, N.	Volcanic Eruption Forecasts Through Seismic Pattern Recognition: The 2023 Paroxysms of Shishaldin Volcano, Alaska. **Girona, T.**, Burgos, V.	STUDENT: Exploring the Impact of Lossy Compression on Passive Seismic Event Detection and Arrival Time Precision. **Issah, A. S.**, Martin, E. R.	Seismic Imaging of the Eastern Alaska Range Crustal Structure. **Miller, M. S.**, Zhang, P., Pickle, R., Waldien, T. S., Roeske, S.
5:30 PM	Seismology at South Pole, Antarctica: History and Future Opportunities. **Anthony, R. E.**, DuVernois, M., Aster, R. C., Bainbridge, G., Braun, J., *et al.*	Using Machine Learning Algorithms to Explore the Seismoacoustic Wavefield at an Industrial Facility. **Chai, C.**, Marcillo, O., Maceira, M., Park, J., Arrowsmith, S., *et al.*	Operational Earthquake Forecasting in Japan: A Study of Municipal Government Planning for an Earthquake Advisory or Warning in the Nankai Region. **Goltz, J. D.**, Yamori, K., Nakayachi, K., Shiroshita, H., Sugiyama, T., *et al.*	A Regional Earthquake-Triggered Landslide Susceptibility Map of the Cook Inlet Region, Southcentral Alaska. **Ellison, S. M.**, Allstadt, K. E., Thompson, E. M., Martinez, S. N.		5:30 PM	Joint Inversion Using Waveform, First-motion Polarities and InSAR Deformation for the 2007 Crandall Canyon Mine Collapse, Utah. **Chi-Durán, R.**, Dreger, D. S., Rodgers, A., Lindsay, D.	Enhancing Eruption Forecasting at Axial Seamount With Real-Time, Machine Learning-Based Seismic Monitoring. **Wang, K.**, Waldhauser, F., Schaff, D., Tolstoy, M., Wilcock, W., *et al.*	INVITED: Towards End-to-End Earthquake Monitoring Using a Multitask Deep Learning Model. **Zhu, W.**	INVITED: STUDENT: The Crustal Magmatic Structure Beneath the Denali Volcanic Gap in Central Alaska Across the Denali Fault. **Rabade, S.**, Lin, F., Tape, C., Ward, K. M., Allam, A.
6:00–8:00 PM	Joyner Lecture and Reception					6:00–8:00 PM	Joyner Lecture and Reception			

Poster Sessions

Earth's Structure from the Crust to the Core [Poster Session] (see page 1271).

1. Cenozoic Uplift and Volcanism of Hangai Dome, Central Mongolia Triggered by Lower Mantle Upwellings. **Bao, X.**, Wu, Y.
2. Single-Station Teleseismic Data Analysis and Structure Imaging on Both Earth and Mars. **Chen, L.**, Wang, X., Wang, X., Yang, R.
3. STUDENT: Full-Waveform Inversion of the Upper Mantle Beneath the Arabia-Eurasia Collision Zone. **Clennett, E. J.**, Liu, C., Grand, S. P., Becker, T. W.
4. STUDENT: Finite Difference Approach to Seismic Wavefield Modeling Across the Hawaii-Emperor Ridge. **Fujimoto, M.**, Dunn, R.
5. STUDENT: Global Shear-Wave Amplitude Observations using Full Waveform Modeling. **Ghosh, A.**, Bozdag, E., Ritsema, J.
6. Building a Community Velocity Model for the Cascadia Region and Beyond. **Hooft, E.**, Delph, J. R., Grant, A., Sahakian, V. J., Share, P., *et al.*
7. STUDENT: Complex Upper Mantle Flow Beneath the Southern Korean Peninsula Constrained by Shear Wave Splitting and Numerical Mantle Convection Simulation. **Jo, K.**, Song, J., Kim, S.
8. Advancing the Resolution of Mid-Mantle Structures: Full-Waveform Box Tomography of the Yellowstone Mantle Plume. **Kumar, U.**, Lyu, C., Munch, F., Romanowicz, B.
9. STUDENT: Imaging the Deformation Belt of Western Hispaniola Using Multi-Component Ambient Noise Cross-Correlations. **Lee, H.**, Rabade, S., Lin, F., Douilly, R.
10. STUDENT: The Crust was Strengthened or Weakened After Mantle Plume: Evidence from Tarim Basin. **Li, W.**, Wang, X., Liang, X., Zuo, S., Shilin, L., *et al.*
11. Using Multiple Voronoi Partitions to Conduct Array-Based Ambient Noise Surface Wave Imaging. **Li, Z.**, Dong, S., Shi, C., Chen, X.
12. Challenges and Triumphs Seismic Surveying in a Historic Underground Metals Mine. **McBride, J.**, Lambeck, L., Rey, K. A., Nelson, S. T., Keach, II, R.
13. Searching for Blind Faults Beneath Metropolitan Los Angeles: Preliminary Results From the 2023 San Fernando Valley Array. **Persaud, P.**, Juarez-Zuniga, A., Clayton, R.
14. STUDENT: Receiver Function Inversion at Erebus Volcano, Antarctica, With Multi-Station Weighting. **Reisinger, R.**, Chaput, J., Aster, R. C., Grapenthin, R.
15. Shallow Imaging of the Valles of Caldera, Northern New Mexico: Preliminary Results From Ambient Noise Tomography. **Rodriguez, E. E.**, Donahue, C., Roberts, P. M., Maier, N.
16. STUDENT: Lithospheric Modification in Northeastern Alaska Interpreted From Full-Wave Ambient Noise Tomography. **Sassard, V.**, Yang, X., Ridgway, K. D., Flesch, L. M.
17. High-Resolution Moho Depth Mapping Beneath the Italian Peninsula and Carpatho-Pannonian Region Using P-Wave Coda Autocorrelation. **Thapa, H. R.**, Vlahovic, G.
18. Shallow Seismic Structure of the Canary Islands Using Local Earthquakes Recorded on an Amphibious Seismic Network. **Villasenor, A.**, Díaz-Suárez, E. A., del Fresno, C., Domínguez-Cerdeña, I., Dannowski, A., *et al.*
19. STUDENT: Slab Morphology and Mantle Wedge Processes in the Tonga Subduction Zone Revealed by Body-wave Double-difference Tomography. **Wang, F.**, Wei, S., Wiens, D. A., Adams, A.
20. Direct Inversion of Ambient Noise Multi-Modal Surface Wave Dispersions for 3D Velocity Structures. **Zhang, G.**, Yu, C., Chen, X.
21. S-Wave Seismic Data Interpretation for Channel Sand Reservoir at Sanhu Area, West China. **Zhang, R.**
22. Multi-Scale, Finite-Frequency Body Wave Tomography With Relative Kernels. **Ben Mansour, W.**, Wiens, D., Maupin, V.

Seismology in the Oceans: Pacific Hemisphere and Beyond [Poster Session] (see page 1413).

23. Upper Mantle Velocity Structure Beneath the Galapagos Archipelagos From the Analysis of Pn Wave Recorded by Broadband Seismic Instruments and Mermaids. **Ben Mansour, W.**, Nolet, G.
24. Seismic Structure of the Young Oceanic Cocos Plate From the Ridge to the Trench Axis Offshore the Mexico Subduction Zone. **Bécel, A.**, Hagemeier, D., Acquisto, T., Cruz-Atienza, V. M., Boston, B., *et al.*
25. STUDENT: Adjoint Waveform Tomography of the Cascadia Subduction Zone Using CASIE21 Controlled-Source Data. **Brunsvik, B. R.**, Miller, N., Eilon, Z., Jian, H., Canales, J.

26. STUDENT: Seismicity of the Atlantis Massif Oceanic Core Complex: 2005-2006 OBS Data Revisit. **Dewaelsche, P.**, Gong, J.

27. STUDENT: P-Wave Anisotropic Velocity Model of the Galápagos Plume. **Hufstetler, R. S.**, Hooft, E. E. E., Toomey, D. R., VanderBeek, B. P.

28. Shear Wave Velocity Structure of the Upper Mantle Beneath the Oldest Pacific Seafloor Revealed by Finite-Frequency Traveltime Tomography. **Kim, Y.**, Kang, H., Hung, S., Lin, P., Isse, T., *et al.*

29. A New 3D Reference Velocity Model for Offshore Cascadia Based on CASIE21 Data. **Miller, N.**, Canales, J., Carbotte, S., Han, S., Boston, B.

30. STUDENT: Seismicity Observation in the Oldest Pacific Plate Using Pacific Array (Oldest-1) Data. **Park, J.**, Kim, Y., Isse, T., Kim, K., Shiobara, H., *et al.*

31. The Upflow Experiment: Data Report for 49 Ocean Bottom Seismometer Deployment in the Azores-Madeira-Canaries Region, Atlantic Ocean. Tsekhmistrenko, M., Ferreira, A., Miranda, M., **Tilmann, F.**, Harris, K., *et al.*

32. Using Deep Learning Algorithms to Study Seismicity Changes Preceding and Following the 2021 Central Hikurangi Slow Slip Event, New Zealand. Kwong, S., Savage, M. K., **Warren-Smith, E.**, Jacobs, K., Wallace, L., *et al.*

Leveraging Cutting-Edge Cyberinfrastructure for Large Scale Data Analysis and Education [Poster Session] (see page 1341).

33. SCOPED Update: A Cloud and HPC Software Platform for Computational Seismology. **Denolle, M. A.**, Tape, C., Wang, Y., Bozdag, E., Waldhauser, F., *et al.*

34. Updates to the U.S. Geological Survey's Product Distribution Layer and Impacts on Comcat and Realtime Systems. **Hunsinger, H.**, Martinez, E., Brown, J., Cloutet, Z., Haynie, K., *et al.*

35. Alaska Earthquake Center's Workforce Development Program Takes Shape. **Nadin, E. S.**, Low, G., West, M. E., Mohler, M., Parcheta, C.

36. Cloud-Based Gnss Processing Pipeline for the Shakealert Earthquake Early Warning System. **Ronan, T.**, Hamilton, A., Sievers, C., Dittmann, T., Berglund, H., *et al.*

37. STUDENT: Deep Implicit Time Series Modeling for Earthquake Phase Picking on Edge Devices. **Tsai, A.**, Chuang, L., Peng, Z., El Ghaoui, L.

38. Using Learning Analytics to Evaluate the Instructional Design and Student Performance in a Large-Enrollment Scientific Computing Workshop. Haberli, G., **Brudzinski, M. R.**, Hubenthal, M.

New Insights into the Development, Testing and Communication of Seismicity Forecasts [Poster Session] (see page 1368).

39. The Pattern of Earthquake Magnitude Clustering Based on Interevent Distance and Time. Gossett, D., **Brudzinski, M. R.**, Xiong, Q., Hampton, J.

40. ETAS-positive: An Epidemic-Type Aftershock Model That Is Insensitive to Catalog Incompleteness. **van der Elst, N.**

41. Correlations of Deep Low-Frequency and Crustal Earthquake Activity in Parkfield, Ca, and Implications for Their Joint Use in Forecasting Frameworks. **Farge, G.**, Dascher-Cousineau, K., Brodsky, E.

42. Stress Shadows: Insights into Physical Models of Aftershock Triggering. **Hardebeck, J.**, Harris, R. A.

43. The Generalized Long-Term Fault Memory Model and Applications to Paleoseismic Records. **Neely, J. S.**, Salditch, L., Spencer, B. D., Stein, S.

44. Prototyping Aftershock Forecast Maps and Products Based on User Needs. **Schneider, M.**, Artigas, B.

45. Observations of the Aftershock Sequences of Intermediate-Depth Earthquakes Beneath Japan. **Warren, L. M.**, Igarashi, T., Kato, A.

Multidisciplinary Approaches for Volcanic Eruption Forecasting [Poster Session] (see page 1351).

46. Information Theory in the Context of Volcano Seismic Singals for Forecasting Purposes. **Benítez, M.**, Rey-Devesa, P., Prudencio, J., Marcelino, M., Ibáñez, J.

47. STUDENT: Unraveling Dynamical Influences on Volcanic Structures Through Seismic Signatures. **Brenot, L.**, Caudron, C., Girona, T., Lecocq, T., Yates, A., *et al.*

48. Simulating Ground Deformation From Magma Migration Utilizing a Dipole Source. **Cannavo', F.**

49. Surface-Wave Relocation and Characterization of the October 2023 Izu Islands, Japan Earthquake Swarm. **Deane, C. A.**, Earle, P., Pesicek, J. D., Prejean, S. G., Shelly, D. R., *et al.*

50. The Relationship Between a 2022-2023 Magmatic Intrusion at Aniakchak Caldera and the 2021 m8.2 Chignik Earthquake, Alaska. **Grapenthin, R.**, Parameswaran, R., Angarita, M., Shreve, T., Cheng, Y., *et al.*

51. STUDENT: Characterization of the Onset of the 2021 Great Sitkin Dome-Building Eruption Through the Trans-Dimensional Bayesian Inversion of LP Seismicity. **Kim, K.**, Girona, T., Anderson, K.

52. How Is Differential Shannon Entropy Related to Volcanic Processes?. Rey-Devesa, P., Girona, T., **Prudencio, J.**, Ibáñez, J., Benitez, C.

53. STUDENT: Systematic Investigation and Comparison of the 2018 and 2020 Kīlauea Volcano Eruptions Based on Ambient Seismic Noise Analysis. **Vinarski, E.**, Lin, G.

54. Real-Time Seismic Estimation of Vei: Improving Reduced Displacement & Introducing the Mvo Energy Magnitude Scale. **Thompson, G.**, McNutt, S. R., Rodriguez Cardozo, F. R.

Detecting, Characterizing and Monitoring Mass Movements [Poster Session] (see page 1265).

55. The MVO Rockfall Location System 24 Years On: Reimplementation, and Re-Analysis of Pyroclastic Flow Trajectories. **Thompson, G.**

56. Using Infrasound to Detect Snow Avalanches and Inform Forecasts in Alaska. **Albert, S. A.**, Fleigle, M. J., Schaible, L. P.

57. Deep Transfer Learning Framework for Regional Landslide Mapping Using Post-Event Imagery. **Asadi, A.**, Baise, L. G., Chatterjee, S., Koch, M., Moaveni, B.

58. STUDENT: Quantifying Seismic Properties of a River Channel at Mount Rainier for Use in Debris-Flow Monitoring and Analysis. **Conner, A. E.**, Thomas, A. M., Allstadt, K. E., Collins, E., Thelen, W. A.

59. STUDENT: Investigating Seismic Signals From the Barry Arm Landslide. **Davy, G. K.**, Karasozen, E., West, M. E., Lyons, J.

60. Seismology Versus Infrasound: Which Monitoring Technique Is Better for Detecting Advancing Lahars?. Roca, A., Pineda, A., **Johnson, J.**, Mock, J., Bejar, G., *et al.*

61. STUDENT: Repeated Seismicity Conditions Paraglacial Valleys for Slope Failure in Prince William Sound, Alaska. **McCreary, M. E.**, Moore, J., Jensen, E., Gischig, V.

62. STUDENT: Optimizing Landslide Detection and Validation Through Sentinel-1 Radar Imagery: Case Studies of Hokkaido and Hiroshima in Japan. **Thapa, M.**, Jiang, J., Regmi, N.

63. STUDENT: Landslide Susceptibility Assessment Using Earthquake Ground Motion for Different Return Periods in Rasuwa District, Central Nepal. **Thapa, M.**, Pradhan, A. M. S., Chamlagain, D., Jiang, J., Regmi, N.

64. [Un]supervised Clustering of [Non-]Earthquake Signals Commonly Recorded on Regional Seismic Networks. **Toney, L.**, Allstadt, K., Collins, E., Yeck, W.

65. Seismically-Derived Ground Tilt From Rainfall-Triggered Lahars at Volcán De Fuego, Guatemala. **Waite, G. P.**, Bejar, G., Johnson, J. B., Escobar-Wolf, R., Roca, A., *et al.*

66. The September 16, 2023 Greenland Event: Mysterious Days-Long Monochromatic Very Long-Period Signal Triggered by a Landslide. Carrillo-Ponce, A., Petersen, G., Cesca, S., Heimann, S., Walter, T., **Dahm, T.**, *et al.*

Illuminating Complex, Multiplet Earthquake Sequences at Kahramanmaras (Turkiye), Herat (Afghanistan), and Beyond [Poster Session] (see page 1320).

67. Coulomb Stress Variation and Frictional Properties Control Postseismic Fault Slip and Late Aftershocks of the 2022 Zagros Earthquake Sequences: Deductions From Bayesian Inference and Insar Observations. Zhao, X., **Dahm, T.**, Vasyara-Bathke, H., Xu, C.

68. Rupture History and Elastic Interaction of the 2022 Multiple Earthquakes in the Zagros Mountains, Iran. Metz, M., Asayesh, B., Aref, M., Jamalreyhani, M., **Büyükakpınar, P.**, *et al.*

69. Nodal Seismometer Array Recordings of Aftershocks of the 6 February 2023 Mw 7.8 and Mw 7.6 Kahramanmaraş, Turkiye Earthquake Sequence. **Catchings, R. D.**, Celebi, M. K., Goldman, M. R., Chan, J. H., Sickler, R. R., *et al.*

70. STUDENT: High-Resolution Three-Month Aftershock Catalog using Nodal Stations of the 2023 Kahramanmaraş Earthquake Sequence in Southeastern Türkiye. **Mach, P. V.**, Peng, Z., Sandvol, E., Ergin, M., Zor, E., *et al.*

71. Investigating the Türkiye-Syria and Afghanistan 2023 Seismic Sequences. **Svigkas, N.**, Atzori, S., Striano, P., Bonano, M., Vavlas, N., *et al.*

72. Measuring Afterslip From the February 2023 Mw 7.8 Pazarcık Earthquake Using Optical Images and Radar Data. **Tan, M.**, Reitman, N., Burgi, P. M., Briggs, R.

73. STUDENT: Decoding the Rupture Kinematics of the 2023 Mw 7.8 and Mw 7.5 Kahramanmaraş Earthquake Doublet: Insights From Comprehensive Seismic and Geodetic Analysis. **Xu, L.**, Mohanna, S., Meng, L., Ji, C., Ampuero, J., *et al.*

Characteristics and Mechanics of Fault Zone Rupture Processes, from Micro to Macro Scales [Poster Session] (see page 1246).

74. Constraining 3D Fault Geometry With a Data-Driven Approach at the San Andreas—Calaveras Fault Junction. **Alongi, T.**, Elliott, A., Skoumal, R., Hatem, A. E., Harris, R. A., *et al.*

75. Unveiling Shallow Earthquake Ruptures in the Ryukyu Area: A Comprehensive Study Through Bp Imaging and Regional Cmt Catalog. **Jian, P.**, Tseng, T., Hsu, Y., Yang, H., Tang, C.

76. Probing Transient Rheology and Spatial Heterogeneity of Faults Using Repeating Earthquakes and Deformation Data. **Jiang, J.**, Taira, T.

77. Illuminating the Jericho Fault from A New Local Seismic Network. **Klinger, A. G.**, Kurzon, I.

78. STUDENT: Fault Network Geometry's Control on Earthquake Rupture Behavior. **Lee, J.**, Tsai, V. C., Hirth, G., Trugman, D. T., Chatterjee, A.

79. STUDENT: Posterior Exploration of Bayesian Kinematic Finite-Fault Earthquake Source Models. **Viteri Lopez, J.**, Jiang, J.

80. STUDENT: Comparing Fault Zones that Host Induced and Tectonic Earthquakes in Oklahoma and California. **Neo, J.**, Huang, Y., Gable, S.

81. STUDENT: Systematic Measurements of Rupture Directivity for Small-to-Moderate Earthquakes in California. **Patton, A.**, Trugman, D. T.

82. STUDENT: Lithospheric Structure of the Hispaniola and Puerto Rico/Virgin Islands Microplates Using Teleseismic and Local Data. **Rosero Rueda, S.**, Pulliam, J., Huerfano, V., Polanco Rivera, E., Leonel, J.

83. STUDENT: Investigation of Earthquake Nucleation Processes: A Case Study of the 2019 Ridgecrest Earthquake Sequence. **Wang, Y.**, Lin, G., Fan, W.

84. New Zealand's South Westland Alpine Fault: What's Down There and How Does It Make Earthquakes Stop?. **Warren-Smith, E.**, Townend, J., Lozos, J., Chamberlain, C. J., Eberhart-Phillips, D.

85. Spatio-Temporal Slip Distributions of Deep Short-Term Slow Slip Events in the Nankai Subduction Zone Using Gnss, Tilt, and Strain Data. **Yabe, S.**, Ochi, T., Matsumoto, N., Matsuzawa, T.

Cordilleran Strike-Slip Faults as Seismogenic and Seismological Features [Poster Session] (see page 1250).

86. STUDENT: Refining the Nature of Distributed and Localized Slip-Partitioning of the Totschunda-Fairweather to Denali Corridor Using Earthquake Relocations and Focal Mechanisms. **Biegel, K.**, Gosselin, J. M., Dettmer, J., Colpron, M., Enkelmann, E., *et al.*

87. Revisiting the Enigmatic Magnitude-7 Denali Fault Earthquake of July 7, 1912. **Tape, C.**, Lomax, A.

Seismic Monitoring, Modelling and Management Needed for Geothermal Energy and Geologic Carbon Storage [Poster Session] (see page 1398).

88. STUDENT: Applying Dynamic Fracture Propagation and Activation Models to Microseismicity Generation in a Geothermal Development Project at Blue Mountain, Nevada. **Awe, E.**

89. End-to-End High-Quality Geophysics Workflow to Analyze Das-Acquired Induced Seismicity. Calvez, J. L., Mizuno, T., **Ay, E.**

90. Application of State of Stress Analysis Tool (SoSAT) to Estimate Risk of Induced Seismicity From CO2 Injections. **Saxena, S.**, Haagenson, R. J., Wang, W., Appriou, D., Burghardt, J. A.

91. Toward Improving the Assessment of Induced Earthquakes in the Rome Trough of West Virginia.

Carpenter, S., Schmidt, J. P., Hickman, J. B., Sparks, T. N., Greb, S., *et al.*

92. OhioNET: Reducing Risk from Induced Seismicity Using Real-Time Seismic Monitoring for Regulation and Mitigation in Ohio. **Dade, S. L.**

93. Automated Earthquake Detection and Location Applied to Local-Scale Seismic Monitoring. **Dzubay, A.**, Leifer, J., Stachnik, J., Friberg, P.

94. STUDENT: Using Deep Learning for High-Resolution Fault Analysis and Stress Characterization at the Forge Site, Utah. **Mohammadi Ghanatghestani, A.**, Chen, X., Asirifi, R.

95. STUDENT: A Comparison of Machine Learning and Array-Beamforming Methods in Detecting Microearthquakes Near Cushing, Oklahoma, Using a Dense Nodal Array. Chen, X., Cheng, Y., **Hoefer, B. A.**

96. Innovative Use of Broadband Sensors for Carbon Capture Utilization and Storage ("CCUS") Monitoring Applications. **Lindsey, J. C.**, Watkiss, N., Hill, P., O'Neill, J.

97. The Utah Frontier Observatory for Research in Geothermal Energy: A Field Laboratory for Enhanced Geothermal System (EGS) Development. **Moore, J. N.**, McLennan, J., Pankow, K. L., Podgorney, R., Rutledge, J., *et al.*

98. Microseismicity Observation and Structure Characterization at Cape Modern, Utah. **Nakata, N.**, Wu, S., Hopp, C., Robertson, M., Jung, Y., *et al.*

99. Weak Soils, Active Faults, and the Inheritance of Groningen Induced Seismicity: How to Proceed With Safe Use of the Subsurface for the Energy Transition in the Netherlands?. **van der Wal, J. L. N.**, Muntendam-Bos, A. G., Schouten, M. W.

100. Application of Static Stress Drops and Similarity of Seismic Events Induced by Underground Fluid Injection in Characterization of Seismogenic Zones on the Example of The Geysers Geothermal Field. **Staszek, M.**, Rudziński, Ł., Wiszniowski, J.

101. Mapping of the Seismic B-Value Before and After Mine Collapse Main Shocks, Rudna Mine, SW Poland. Sobiesiak, M. M., **Staszek, M.**, Leptokaropoulos, K., Rudzinski, L.

102. Focal Mechanisms of Microseismicity at the Decatur, Illinois, CCS Site Inverted From Multiple Borehole Seismic Arrays. **Woo, J.**, Ting, C.

103. Microseismicity Moment Tensor Estimation Using Surface and Downhole Geophone Arrays at Utah FORGE. **Wu, S.**, Nakata, N.

104. Shear-wave Splitting Observed in the Geysers Geothermal Field to Monitor the Spatiotemporal Crustal Conditions. **Yoshimitsu, N.**

105. A Cost-Effective GCS Monitoring Approach Using Localized Seismic Waves. **Zheng, Y.**, Sun, M., Huang, L.

106. A Risk-Based Adaptive Monitoring Planning Tool Based on Elastic-Wave Sensitivities for Cost-Effective Seismic Monitoring for Geologic Carbon Storage. **Tian, Y.**, Yang, X., Huang, L., Gao, K., Vasylkivska, V., *et al.*

3D Wavefield Simulations: From Seismic Imaging to Ground Motion Modelling [Poster Session] (see page 1204).

107. A Detailed Analysis of Seismic Waves Amplification for Basins Using 3D Seismic Simulations. **Tian, Y.**, Tape, C.

108. STUDENT: Estimating Ground Motion Intensities Using Simulation-Based Estimates of Local Crustal Seismic Response. **Agrawal, H.**, McCloskey, J.

109. STUDENT: Effects of the Distribution of Ambient Noise Sources in Subsurface Models Inverted From Noise Correlations. **Valero Cano, E.**, Fichtner, A., Peter, D., Mai, P. M.

110. Southern Italy: An Intricate Litosphere. **Casarotti, E.**, Magnoni, F., Ciaccio, M., Di Stefano, R.

111. STUDENT: Synthetic Inversions for Anisotropic Structures using Wavefield Simulations and Adjoint Methods. **Gupta, A.**, Chow, B., Tape, C.

112. STUDENT: Analysing Alpine Fault Earthquakes Through Ambient Seismic Noise. **Juarez Garfias, I.**, Townend, J., Chamberlain, C., Holden, C.

113. Selection of a Starting Model for Adjoint Tomography of the Pacific Northwest. **Kehoe, H. L.**, Bozdag, E., Boyd, O. S., Wirth, E., Stephenson, W. J., *et al.*

114. Rupture Dynamics and Ground Motions Characteristics of the 2023 Türkiye Mw 7.8 and Mw 7.6 Earthquake Doublet. **Li, B.**, Palgunadi, K., Wu, B., Suhendi, C., Zhou, Y., *et al.*

115. STUDENT: Lithospheric Structures of the Central Cascadia Subduction Zone Resolved by Full-waveform Inversion of Ambient Noise and Receiver Functions. Du, N., **Liu, Q.**

116. Ambient Noise Attenuation and Differential Adjoint Tomography Applied to the Hongkou Linear Array Across the Longmenshan Fault Behind the 2008 M 7.9 Sichuan Earthquake. **Liu, X.**, Li, H., Beroza, G. C., Yang, L., Zhao, G.

117. STUDENT: Validating Tomographic Models of Alaska Using 3D Wavefield Simulations. **McPherson, A.**, Tape, C., Onyango, E., Chow, B., Peter, D.

118. High-Resolution Surface Wave Tomography of the Hayward Fault in the Berkeley Region Using Ambient Noise Recorded by a Dense Nodal Array. **Miao, W.**, Qiu, H., Qin, L.

119. Computational Challenges of Large-Scale Numerical Simulations and Full-Waveform Inversion Workflows. Orsvuran, R., **Nagaso, M.**, Wang, I., Peter, D., Bozdag, E.

120. STUDENT: Homogenization of Sedimentary Basins for the Simulation of Lithological Site Effects. **Rapenne, M.**, Cupillard, P., Gouache, C.

121. STUDENT: Rapid 3D Green's Functions Using Reduced-Order Models of Physics-Based Seismic Wave Propagation Simulations. **Rekoske, J. M.**, May, D. A., Gabriel, A. A.

122. Comparison of Fundamental Fault Green's Functions (GFs) Computed Using Frequency-Wavenumber and Finite-Difference (SW4) Techniques for 1D Velocity Models. **Saikia, C. K.**, Zhou, R., Modrak, R. T.

123. A Sparse Fault Parametrization for Large-scale Ruptures Based on Moment Tensor Interpolation. **Thurin, J.**

Advancements in Forensic Seismology and Explosion Monitoring [Poster Session] (see page 1213).

124. Moment Tensor Estimation and Uncertainty Quantification (MTUQ). **Thurin, J.**, Modrak, R., McPherson, A., Rodríguez-Cardozo, F., Braunmiller, J., *et al.*

125. Observations on Explosion-Triggered Seismic Events via Fiber Optic Sensing at Small Scales. **Beskardes, G. D.**, Young, B., Stanciu, C., Baker, M. G.

126. Leveraging Infrasound Signals for Integration of Ground- and Space-Based Nuclear Explosion Monitoring Capabilities. **Blom, P. S.**, Bishop, J., Gammans, C., Carmichael, J. D., Delbridge, B., *et al.*

127. Influence of Local 3-D Structure at Degelen Test Site on Short-Period Teleseismic P-Wave via Reciprocal Hybrid Modeling. **Burgos, G.**, Guillot, L.

128. Far-Field DAS Recordings of a Chemical Explosion. **St Clair, J. T.**, Chojnicki, K., Sprinkle, P., Ely, J.

129. Capturing the Spatial Variation of Seismic Observations in SW4 Simulations of the Dry Alluvium Geology Experiment Series at the Nevada National Security Site. **Saxena, S.**, St Clair, J., Sprinkle, P., Chojnicki, K., Knox, H., *et al.*

130. Time-Variable Moment Tensor Inversion of Seismic and Seismoacoustic Data at the Source Physics Experiment Phase II: Dry Alluvium Geology. **Darrh, A.**, Berg, E. M., Preston, L. A., Poppeliers, C.

131. Exploring Paired Neural Networks to Rapidly Characterize Aftershock Events. **Emry, E. L.**, Donohoe, B., Tibi, R., Young, C. J., Ramos, M., *et al.*

132. A New Tool to Integrate Instrument Responses From Seismological Databases Into Python Workflows. **Gammans, C.**, MacCarthy, J. K.

133. Ambient Seismic Noise Tomography of Heterogeneous Geological Formations. **Gochenour, J. A.**, Zeiler, C. P., Bilek, S., Luhmann, A. J.

134. Using Deep Learning Models to Characterize Subsurface Physical Parameters at Modeled Underground Chemical Explosion Sources. **Harding, J. L.**, Preston, L. A., Eliassi, M., Gauvain, S. J.

135. Comparing Observed and Modelled Station Terms from the Source Physics Experiments Phase 2 (Dry Alluvium Geology) Explosions. **Heyburn, R.**, Green, D.

136. Comparisons Between Geophone Array and DAS Array Detections. **Ichinose, G. A.**

137. Explosion Source Analysis and Discrimination From Regional Distance Seismic Observations. **Kintner, J. A.**, Pippin, J., Alfaro-Diaz, R., Delbridge, B., Ammon, C. J.

138. Inferring the Focal Depths of Small Earthquakes in Southern California Using Physics-Based Waveform Features. **Koper, K. D.**, Burlacu, R., Murray, R., Baker, B., Tibi, R., *et al.*

139. Providing Data for Nuclear Explosion Monitoring—WFNE Repository. **Oancea, V.**, Kung, Y., Murphy, J. R., Piraino, P. E.

140. Investigating Shallow Subsurface Structure Near Legacy Nuclear Test Sites Using Single Station HVSR. **Miller, D. J.**, Berg, E. M., Preston, L. A., Abbott, R. E.

141. Detecting Subsurface Mining Activity using Cross-Correlation and Local Surface Arrays. **Miller, D. J.**, Berg, E. M., Marcillo, O., Chai, C., Cunningham, E., *et al.*

142. Investigation of Full Moment Tensor Solutions for Earthquakes and Announced Nuclear Tests at the Punggye-Ri Test Site, DPRK. **Ogden, C. S.**, Selby, N., Heyburn, R., Nippress, S.

143. Relative Source Time Function Estimation, Applications to the Source Physics Experiments. **Pippin, J. E.**, Kintner, J., Ammon, C. J.

144. Transportability of a Convolutional Neural Network Seismic Denoising Model. **Quinones, L. A.**, Tibi, R.

145. Gravity Mapping to Validate the Rock Valley Geological Framework Model. **Ranasinghe, N. R.**, Rowe, C., Stanbury, C.

146. Observations of Epicentral Infrasound From Shallow Low-Magnitude Earthquakes in the Permian Basin, West Texas. **Schaible, L.**, Dannemann Dugick, F., Bowman, D. C., Savvaidis, A., McCabe, C.

147. Student: Seismic Soundscape of the Parks Highway Corridor, Central Alaska. **Seppi, I.**, Tape, C., West, M.

148. Seismic Data Denoising Using Multi-Scale Mathematical Morphological Filtering. **Tibi, R.**

149. Evaluation of Multiple-Event Location Methods Using Ground-Truth and Synthetic Data. **Tibuleac, I. M.**, Antolik, M. S., VanDeMark, T. F., Brumbaugh, D.

150. Moment Tensor Inversions for Rapid Seismic Source Detection and Characterization of the North Korean Nuclear Tests. **Guilhem Trilla, A.**

151. Modeling the Ground Motions From Chemical Explosions in Proximity of a Fault. **Vorobiev, O. Y.**, Ezzedine, S. M.

152. Signal Arrival Databases for Ground Truth Infrasound Events. Dannemann Dugick, F., **Wynn, N. R.**

From Earthquake Recordings to Empirical Ground-Motion Modelling [Poster Session] (see page 1292).

153. Simulation of Region-Specific Ground Motions at Bedrock by Combining Spectral Decomposition and Empirical Green's Functions Approaches. **Ameri, G.**, Shible, H., Baumont, D.

154. Frequency-Dependent Transfer Functions for Hydroseisms in Devils Hole. **Bonner, J. L.**, Symons, N., Russell, C.

155. High Frequency Seismic Waves of Normal and Leaky Modes Excited by Heavy Trains. **Feng, X.**, Li, Z., Chen, X.

156. Progress on the Characterization of Epos-France Accelerometric (Rap) and Broad-Band (Rlpb) Network Station: Focus on Implemented Methodologies. **Hollender, F.**, Burlot, R., Rischette, P., Douse-Bacqué, I., Wathelet, M., *et al.*

157. Student: Separation of Intrinsic and Scattering Seismic Wave Attenuation in the Crust of Central and South-Central Alaska. **Mahanama, A.**, Cramer, C. H., Gabrielli, S., Akinci, A.

158. Student: How Can Shaking Observations From the MyShake Smartphone Platform Inform Free-Field Ground Motion Residual Estimates?. **Marcou, S.**, Allen, R. M.

159. Student: Estimating Hazard From Crustal Sources: An Empirical Observation Approach. **Martínez-Jaramillo, D.**, Zúñiga Dávila-Madrid, F., Kotha, S.

160. Student: Multi-Resolution Basin Terms for Ground Motion Models in Central and Eastern North America. **Meyer, E. H.**, Dioslaki, A., Nie, S., Zhan, W., Kaklamanos, J., *et al.*

161. Student: The Effect of Short Wavelength Topography on Seismic Recordings: Results of Experiments Conducted on Kefalonia Island in Greece. **Rischette, P.**, Hollender, F., Theodoulidis, N., Roumelioti, Z., Perron, V., *et al.*

162. Student: Geospatial Variable Based Site Terms for Nonergodic Ground Motion Models. **Roberts, M. E.**, Gaskins Baise, L., Kaklamanos, J., Zhan, W., Nie, S.

163. NGA-Subduction Region-Specific Ground Motion Models Using Machine Learning Algorithms. **Sedaghati, F.**, Pezeshk, S.

164. Ground Motion Models Using Machine Learning Techniques Based on the NGA-West2 Data. **Sedaghati, F.**, Pezeshk, S.

165. Student: Developing a Hybrid Ground-Motion Modeling Framework for the Himalayan Region of India. **Sharma, S.**

166. Domain Confusion in Dispersions Picking Based on Neural Network and the Learning Features From Dispersion Spectrograms. **Song, W.**, Chen, X.

167. Monitoring Temporal Velocity Variations of Shallow Subsurface and Engineering Structures Using 6c Single-Station Measurement. **Yuan, S.**, Martin, E., Bernauer, F.

Six Decades of Tsunami Science: From the Source of the 1964 Tsunami to Modern Community Preparedness [Poster Session] (see page 1417).

168. Depth Variation in Megathrust Rupture Leads to Mature Tsunami Gap in Metropolitan Chile. **Carvajal, M.**, Cisternas, M., Wang, K., Moreno, M., Wesson, R. L., *et al.*

169. Student: Constraining Offshore Coupling in the 1946 Tsunami Earthquake Rupture Area. **Chavarria Esquivel, N.**, Newman, A.

170. Efficient Forward Modelling of Tsunamis Using the Spectral-Element Method. **Gharti, H.**, Fitzgerald, J.

171. Adding Tsunami Observations and Modeling to the USGS Finite Fault Modeling Procedure. **Goldberg, D. E.**, Koch, P., Melgar, D., Hunsinger, H., Haynie, K.

172. The What, When and Whys of Alert Progression During Tsunamigenic Events: A Simple Generative Approach to Forecasting Decision Points and Developing Heuristics. **Heath, B.**, Ohlendorf, S., Kim, Y., Gridley, J.

173. Estimating Tsunami Vulnerability along Western Coast of India. **Jha, K.**

174. Precise Point Positioning of Ships to Detect Tsunamis. **Manaster, A. E.**, Sheehan, A. F., Goldberg, D. E., Roth, E. H., Barnhart, K. R.

175. Testing Crustal Fault Tsunami Sources in the Salish Sea: Comparing Modeled Inundation With the Geologic Record at Discovery Bay, WA. Wei, Y., Garrison-Laney, C., **Moore, C.**, Pells, C.

176. KOERI Activities in Tsunami Early Warning and Risk Mitigation System in the Eastern Mediterranean and Its Connected Seas. **Ozener, H.**, Cambaz, M., Turhan, F., Güneş, Y., Deniz Hisarlı, P., *et al.*

177. Estimation of the Tsunami Hazard for the Bering and Chukchi Seas Based on Numerical Modeling of Trans-Oceanic and Local Tsunamis. Medvedeva, A. E., Fine, I. E., Medvedev, I., Kulikov, E., **Rabinovich, A. B.**, *et al.*

178. Real Time Tsunami Run-Up Estimation From Real Time Finite Fault Models. **Riquelme, S.**, Fuentes, M.

179. Student: Measuring and Forecasting the Background Open Ocean Tsunami Spectrum. **Santellanes, S. R.**, Melgar, D.

180. The Role of Climate-Change Sea Level Rise Exacerbating California's Tsunami Hazards. **Sepulveda, I.**, Mosqueda, A.

181. In Search of the Missing Tsunami: Is There a Tsunami Threat to Anchorage?. **Suleimani, E.**, Salisbury, J. B., Nicolsky, D., Picasso, A.

Applications and Discoveries in Cryoseismology Across Spatial and Temporal Scales [Poster Session] (see page 1237).

182. Student: Machine Learning for Icequake Detection and Location Across the Eastern Shear Margin of Thwaites Glacier, West Antarctica. **Gonzalez, L. F.**

183. Probabilistic Multiphysics Inference for Permafrost Characterization and Earthquake Site Hazards Assessment. **Gosselin, J. M.**, Dettmer, J., Shahsavari, P.

184. Student: Bayesian Surface Wave Dispersion Data Inversion of Glaciated Environments. **Lanteri, A.**, Gebraad, L., Zunino, A., Keating, S., Klaasen, S., *et al.*

185. Unsupervised Detection and Characterization of Glaciogenic Noise Sources in Greenland During Winter. **Maier, N.**

186. Student: Microseismicity Catalog of Icequakes Induced by Ocean Swell at the Ross Ice Shelf Ice-Front. **McGhee, E.**, Aster, R. C.

187. Distributed Acoustic Sensing Reveals What's in Store (Glacier). **Olinger, S.**, Lipovsky, B., Denolle, M., Booth, A.

188. Array-based Characterization of Seismicity from a Glacial Lake Outburst Flood. **Sawi, T.**, Holtzman, B. K., Beaucé, E., Walter, F., Seydoux, L.

189. Student: Controlled-Source Seismic Imaging of Mcmurdo Ice Shelf Near Williams Airfield. **Seldon, Y.**, Karplus, M. S.

190. Student: Unsupervised Clustering of Cryoseismic Events Recorded by Distributed Acoustic Sensing at Rhonegletscher, Switzerland. **Willis, R.**, Grimm, J., Stanek, F., Edme, P., Fichtner, A., *et al.*

Friday, 3 May 2024—Oral Sessions

Presenting author is indicated in bold.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B	Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	Advancing Seismology with Distributed Fiber Optic Sensing (see page 1224).	**Physics-Based Ground Motion Modeling (see page 1378).**	**Seismoacoustic, Geodetic and Other Geophysical Investigations of Active Volcanoes (see page 1402).**	**Structure and Behavior of the Alaska-Aleutian Subduction Zone (see page 1424).**		**The 2024 Magnitude 7.5 Earthquake and the Associated Earthquake Swarm Beneath the Noto Peninsula, Central Japan (See Supplemental Material)**	**End-to-End Advancements in Earthquake Early Warning Systems (see page 1276).**	**Understanding and Quantifying the Variability in Earthquake Source Parameter Measurements (see page 1449).**	**Anisotropy Across Scales (see page 1232).**	**Tectonics and Seismicity of Stable Continental Interiors (see page 1436).**
8:00 AM	High-Resolution Analysis of Earthquake Sources and Subsurface Structures Using Downhole Optical Fiber Crossing Active Fault. **Ma, K.**, Liao, J., Hsiao, L.	Evaluation of Seismic Community Velocity Models With Simulations of Small Earthquakes. **Pinilla Ramos, C.**, Ben-Zion, Y., Abrahamson, N. A., Maechling, P. J., Callaghan, S., *et al.*	STUDENT: Using Deep Long-Period Earthquakes to Constrain Magmatic Volatile Transport at Mauna Kea. **Scholz, K. J.**, Thomas, A. M., Townsend, M. R.	INVITED: Forty-Five Years of the Shumagin Gap: What Recent Earthquakes Tell Us About This Seismic Gap. **Herman, M. W.**, Furlong, K. P., Benz, H. M.	8:00 AM		Exploring Five Years of Social Science and Education Research for Shakealert, the Earthquake Early Warning System for the West Coast of the United States. **McBride, S. K.**, de Groot, R. M., Sumy, D. F.	Estimating Seismic Attenuation, Site Corrections and Geometrical Spreading From Large Seismic Catalogues Using Linearized Spectral Ratios and Regression Regularization Paths. **Lapins, S.**	A Seismic View of the Stress Field. **Delorey, A. A.**	Seismicity and Seismotectonics of the Basque-Cantabrian Zone and Adjacent Areas of the Pyrenean-Cantabrian Mountain Belt: New Data From the Siscan and Misterios Seismic Networks (2014-2020). **Olivar-Castaño, A.**, Díaz-González, A., Pulgar, J. A., Pedreira, D., González-Cortina, J., *et al.*
8:15 AM	STUDENT: Dascore: A Python Library for Distributed Acoustic Sensing. **Chambers, D. J. A.**, Martin, E. R., Jin, G., Tourei, A., Girard, A., *et al.*	Waveguide or Not? Expected Ground Motions in the Greater Los Angeles Area From the ShakeOut scenario. Yeh, T., **Olsen, K. B.**	Probing Magma Storage and Transport Beneath Pāhala, Hawai'i. **Janiszewski, H. A.**, Bennington, N., Wight, J., Glasgow, M.	STUDENT: Putting the Pieces Together: A Kinematic Coseismic Model of the Mw 7.2 Alaska Earthquake. **DeGrande, J.**, Crowell, B.	8:15 AM		STUDENT: The Development of a Real-Time Urban Earthquake Early Warning System for Asset-Level Protection for Increased Community Restoration. **Martí, A. T. J.**, Daiss, I., Martí, J. R., Ventura, C. E., Andjelic, D., *et al.*	Extraction of Source Parameters for French Seismicity Based on a Radiative Transfer Approach: Importance for Attenuation and Site Corrections. **Heller, G.**, Sèbe, O., Margerin, L., Traversa, P., Mayor, J., *et al.*	STUDENT: Seismic Anisotropy and Stress-Field Variations Along the Dead Sea Fault Zone in Northern Israel. **Ben-Dor, G.**	The Earthquake Swarms of Eastern Maine and Nearby New Brunswick Since 2006. **Ebel, J. E.**
8:30 AM	STUDENT: Characterizing South Pole Firn Structure With Fiber Optic Sensing. **Yang, Y.**, Zhan, Z., Reid-McLaughlin, A., Biondi, E., Karrenbach, M., *et al.*	Effect of Soil Nonlinearity on Physics-Based Ground Motion Simulations. **Zhang, W.**	Seismic Velocity Changes at Mauna Loa Derived From Seismicity Prior to and During Its 2022 Eruption. **Hotovec-Ellis, A. J.**	STUDENT: A Joint Coseismic and Early Postseismic Study of the 29 July 2021, Mw 8.2 Chignik Earthquake. **Zhuo, Z.**, Freymueller, J. T., Xiao, Z., Elliott, J., Grapenthin, R.	8:30 AM		What It Takes to Implement Earthquake Early Warning in the Real World. **Steele, W. P.**, Lotto, G.	A Joint Inversion Method for Computing Earthquake Stress Drop With Spectra and Spectral Ratios. **Guo, H.**, Thurber, C. H.	STUDENT: Imaging Los Angeles Basin via Directional Dependent Rayleigh Wave Ellipticity Using Data From the Lab2022 Nodal Array. **Gkogkas, K.**, Lin, F., Clayton, R., Villa, V., Ford, H., *et al.*	STUDENT: Seismotectonic Studies of the Nubia Fault System, Southwest Aswan Area, Egypt. **Elsayed Mohamed, M. M.**, Abdallah Hamimi, Z., Mohamed Moussa, H.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	Advancing Seismology with Distributed Fiber Optic (continued)	**Physics-Based Ground Motion Modeling (continued).**	**Seismoacoustic, Geodetic and Other Geophysical (continued)**	**Structure and Behavior of the Alaska-Aleutian Subduction (continued)**
8:45 AM	Assessing Distributed Acoustic Sensing (DAS) for Moonquake Detection. **Husker, A.**, Zhai, Q., Zhan, Z., Biondi, E., Yin, J., *et al.*	STUDENT: 3D 0-10 Hz Physics-based Simulations of the 2020 Magna, Utah Earthquake Sequence. **Xu, K.**, Olsen, K. B.	STUDENT: A Catalog of Automated Focal Mechanisms for Microearthquakes at Axial Seamount Based on Waveform Cross-Correlation. **Zhang, M.**, Wilcock, W., Waldhauser, F., Wang, K., Schaff, D., *et al.*	Estimating Slip Models and Ground Motion for the 1964 Mw 9.2 Alaska Earthquake. **Thurin, J.**, Thio, H. K., Tape, C.
9:00 AM	INVITED: Rupture Imaging of Firn Quakes with Distributed Acoustic Sensing. **Li, J.**, Yang, Y., Biondi, E., Reid-McLaughlin, A., Aster, R. C., *et al.*	Spe Rock-Valley-Direct-Comparison Chemical Explosions Near-Field 3-D Ground Motion Simulations and Predictions. **Ezzedine, S. M.**, Vorobiev, O.	STUDENT: The Influence of Multiple Scattered Waves on the Spectral Stability of Volcanic Tremors. **Bracale, M.**, Campillo, M., Shapiro, N., Brossier, R., Melnik, O.	Earthquake Location Improvements for the Aleutian-Alaska Subduction Zone by Using Waveform Cross-Correlation Data. **Lin, G.**
9:15–10:30 AM	Poster Break			
	Advancing Seismology with Distributed Fiber Optic Sensing (see page 1224).	**Physics-Based Ground Motion Modeling (see page 1378).**	**Seismoacoustic, Geodetic and Other Geophysical Investigations of Active Volcanoes (see page 1402).**	**Structure and Behavior of the Alaska-Aleutian Subduction Zone (see page 1424).**
10:30 AM	SUBMERSE Project Paves the Way for Continuous Fiber-optic Monitoring in the Oceans with Submarine Telecommunications Cables. **Tilmann, F.**, Atherton, C., Kvatadze, R., Asero, C., Evangelidis, C., *et al.*	STUDENT: Modeling Topography and Fault Geometry Effects on Earthquake Ruptures and Ground Motions Along Double Compressional Bends. **Madera, N.**, Lozos, J.	Local Infrasound Monitoring of Lava Eruptions at Nyiragongo Volcano (d.r. Congo) Using Urban and Near-Source Stations. Barrière, J., **Oth, A.**, d'Oreye, N., Subira, J., Smittarello, D., *et al.*	Upper Plate Stress in the Alaskan Continental Crust: Spooky Interactions at a Variety of Distances. **Levandowski, W.**, Coulter, C.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	The 2024 Magnitude 7.5 (continued)	**End-to-End Advancements in (continued)**	**Understanding and Quantifying the (continued)**	**Anisotropy Across Scales (continued)**	**Tectonics and Seismicity of Stable (continued)**
8:45 AM		From Shakealert to Post-Earthquake Assessment—Improving Situation Awareness of Building Managers and Occupants. Parrott, B., **Franke, M.**, Skolnik, D.	STUDENT: Earthquake Source Parameter Analysis Using Peak Narrow Band Displacement Amplitudes. **Knudson, T.**, Ellsworth, W. L., Beroza, G. C., Shaw, B. E.	INVITED: Anisotropy in Flowing Firn and Ice: Insights from Ambient Noise and Active Source Studies in Antarctica. **Chaput, J.**, Aster, R. C., Karplus, M. S., Nakata, N.	STUDENT: Focal Mechanism Analysis of the 2019 Mw 4.9 Wang Nuea Earthquake and Its Implication for Seismotectonics. **Chansom, C.**, Jitmahantakul, S., Shengji, W.
9:00 AM		The Ojai California Earthquake of August 20, 2023: Earthquake Early Warning Performance and Alert Recipient Response in the m5.1 Event. **Goltz, J. D.**, Wald, D. J., McBride, S. K., Reddy, E., Quitoriano, V., *et al.*	Three Years of the International SCEC/USGS Community Stress Drop Validation Study: What Have We Achieved and Where Next. **Abercrombie, R. E.**, Baltay, A. S., Chu, S., Taira, T.	Broadband Rayleigh and Love Wave Phase Velocity Maps Based on Double-Beamforming of Ambient Noise Cross-Correlations. **Yang, Y.**, Zhao, K., Luo, Y.	Middle Crustal Earthquakes and Neotectonics in the Western East Sea (Sea of Japan). **Hong, T.**, Park, S., Lee, J., Lee, J., Kim, B.
9:15–10:30 AM			Poster Break		
	The 2024 Magnitude 7.5 Earthquake and the Associated Earthquake Swarm Beneath the Noto Peninsula, Central Japan (See Supplemental Material)	**End-to-End Advancements in Earthquake Early Warning Systems -IV (see page 1276).**	**Understanding and Quantifying the Variability in Earthquake Source Parameter Measurements (see page 1449).**	**Anisotropy Across Scales (see page 1232).**	**Tectonics and Seismicity of Stable Continental Interiors (see page 1436).**
10:30 AM		High-Rate Real-Time Gnss Installation and Data Acquisition at the Alaska Earthquake Center. **Paris, G.**, Holtkamp, S., Khan, S., Underwood, L., Farrell, A., *et al.*	INVITED: STUDENT: Understanding the Contribution of Site Effects to Variability in Microearthquake Source Parameter Measurements Using a Large, Dense Array in Oklahoma. **Chang, H.**, Abercrombie, R. E., Nakata, N., Qiu, H., Zhang, Z., *et al.*	STUDENT: Flow in the Mantle Beneath Eritrea and Yemen: Evidence From Seismic Anisotropy. **Gauntlett, M. Z.**, Kendall, J., Hudson, T., Hammond, J. O. S., Goitom, B., *et al.*	Seismicity and Structure of SW Australia via the SWAN and Western Australia Seismic Networks. **Pickle, R.**, Zhang, P., Mousavi, S., Yuan, H., Murdie, R., *et al.*

Friday, 3 May (continued)

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	Advancing Seismology with Distributed Fiber Optic (continued)	**Physics-Based Ground Motion Modeling (continued).**	**Seismoacoustic, Geodetic and Other Geophysical (continued)**	**Structure and Behavior of the Alaska-Aleutian Subduction (continued)**
10:45 AM	Monitoring Soil Moisture With Distributed Acoustic Sensing in the Agricultural Setting. **Shi, Q.**, Collins, J., Denolle, M., Feng, K., Jeffery, S., *et al.*	STUDENT: The Effects of Surface Topography and Basin Layering on the Earthquake Ground Motion Intensities in Intermontane-Basin Settings. **Agrawal, H.**, Naylor, M.	Here Comes the Boom! Tracking Audible Acoustics Across Aotearoa New Zealand From the 2022 Eruption of Hunga Volcano. **Lamb, O.**, Clive, M., Lawson, R., Potter, S., Kilgour, G., *et al.*	STUDENT: A Chicken and Egg Dilemma: Forearc Strain Field and Seismic Behavior in the Andreanof Segment. **Cortés Rivas, V.**, Shillington, D. J., Lizarralde, D., Mark, H., Boston, B.
11:00 AM	Spatio-Temporal Fidelity of DAS Arrays to Compression Seismic Signals: Impacts on Real-Time Source Estimates. **Salaree, A.**, Miao, Y., Spica, Z., Nishida, K., Yamada, T., *et al.*	Analysis of Anomalously Large High-Frequency Amplification in Chugiak, Ak, From the 2018 Anchorage Earthquake and Aftershocks. Yeh, T., **Olsen, K. B.**, Steidl, J. H., Haeussler, P. J.	Internal Gravity Waves During the 2023 Eruption of Shishaldin Volcano, Alaska. **Haney, M. M.**, Fee, D., Lyons, J. J.	STUDENT: Structural and Compositional Controls on Megathrust Slip Behavior Inferred From a 3D, Crustal-Scale, P-Wave Velocity Model of the Alaska Subduction Zone Spanning the Incoming and Overriding Plates. **Acquisto, T. M.**, Bécel, A., Canales, J., Beauce, E.
11:15 AM	STUDENT: Understanding the Rupture Process of the Mw 7.6 2022 Michoacán Earthquake With Distributed Acoustic Sensing. **Miao, Y.**, Huang, Y., Neo, J., Spica, Z.	Findings from a Decade of Ground Motion Simulation Validation Research and a Path Forward. **Rezaeian, S.**, Stewart, J. P., Luco, N., Goulet, C.	Seismic and Infrasound Signals from the 2023 Shishaldin Volcano, Alaska Eruption. **Fee, D.**, Haney, M. M., Tan, D.	A Late Miocene to Pliocene Increase in Soft-Sediment Deformation in Cook Inlet Nonmarine Forearc Basin Strata—potential Evidence for Larger Magnitude Earthquakes Associated With Increased Sedimentation in the Alaska Trench. **Wartes, M. A.**, LePain, D. L., Stanley, R. G., Helmold, K. P., Gillis, R. J.
11:30 AM	INVITED: Distributed Environmental Sensing Using Trans-Oceanic Subsea Cables. **Mazur, M.**, Fontaine, N. K., Keheller, M., Kamalov, V., Ryf, R., *et al.*	Correlated Noise in Source Time Functions: A Method to Generate Realistic High Frequency Earthquake Sources. **Castro-Cruz, D.**, Aquib, T. T., Vyas, J. J., Mai, P. P. M.	A Seismic Sequence Capturing Magmatic Fluid Ascent and Phreatomagmatic Eruptions at Semisopochnoi Volcano, Alaska. **Lyons, J. J.**, Tan, D., Hotovec-Ellis, A., Lopez, T., Grapenthin, R., *et al.*	STUDENT: Variations in the Alaska-Aleutian Subduction Megathrust Properties Along Strike Using Several Seismic Imaging Techniques. **Daly, K. A.**, Abers, G. A., Mann, M. E., Pang, G., Kim, D.
11:45 AM–2:00 PM	Lunch Break			

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 3	Tubughnenq' 4	Tubughnenq' 5
	The 2024 Magnitude 7.5 (continued)	**End-to-End Advancements in (continued)**	**Understanding and Quantifying the (continued)**	**Anisotropy Across Scales (continued)**	**Tectonics and Seismicity of Stable (continued)**
10:45 AM		The Potential Contribution of Real-Time Distributed Slip Models to Subduction Zone Earthquake Early Warning in the Context of Ground Motion Thresholds and Alerting Strategy. **Murray, J. R.**	Demystifying Earthquake Stress Drop Discrepancies Using Synthetic Source Time Functions. **Neely, J. S.**, Park, S., Baltay, A. S.	INVITED: Modeling Layered Anisotropy in the Alaska-Aleutians Subduction Zone. **Birkey, A.**, Lynner, C.	Recurrent Large Intraplate Earthquakes on the Jindabyne Thrust, Southeast Highlands, Australia. **Griffin, J. D.**, Clark, D. J., Kemp, J., Stirling, M. W., King, T., *et al.*
11:00 AM		STUDENT: Toward Earthquake Early Warning in Alaska. **Fozkos, A.**, West, M., Ruppert, N., Grapenthin, R., Parcheta, C., *et al.*	Variable High Frequency Radiation From Complex Laboratory Ruptures Due to a Normal Stress Bump. **Cebry, S. B. L.**, McLaskey, G. C.	Depth-Dependent Seismic Azimuthal Anisotropy Beneath the Aleutian Subduction Zone and the Juan De Fuca-Gorda Plates. **Liu, C.**, Becker, T., Wu, M., Sheehan, A., Ritzwoller, M.	Seismic Evidence of Crustal Modifications Below the North American Midcontinent. **Yang, X.**, Stevens Goddard, A., Liu, L., Ridgway, K. D., Schmitt, D. R., *et al.*
11:15 AM		Application of the Support Vector Machine Classifier in Earthquake Magnitude Estimation. **Zaicenco, A. G.**, Weir-Jones, I.	INVITED: Source Parameter Scaling Relations for Shallow Crustal Earthquake with a Simple Heterogeneous Source Model. **Shimmoto, S.**	Exploring Mantle Dynamics of the Cascadia Subduction System Through Anisotropic Tomography With Transdimensional Inference Methods. **VanderBeek, B. P.**, Del Piccolo, G., Faccenda, M.	STUDENT: Crustal Thickness and Radial Anisotropy Below the North American Midcontinent. **Li, H.**, Yang, X., Herr, B., Liu, L., Stevens Goddard, A., *et al.*
11:30 AM		STUDENT: Enhancing Offshore Earthquake Early Warning with a Submarine DAS Array in Monterey Bay, California. **Gou, Y.**, Allen, R. M., Zhu, W., Chen, L., Taira, T., *et al.*	Reducing the Uncertainty of Stress-Drops. **Kurzon, I.**, Lyakhovsky, V., Sagy, A.	Segregated Melts Below the 660 in the Central Pacific: Implications on Water Transport in Mantle Upwellings. Deng, K., **Song, T.**	Lithospheric Layering and Seismic Activity of the British Isles. **Levin, V.**, Lebedev, S.
11:45 AM–2:00 PM		Lunch Break			

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	Advancing Seismology with Distributed Fiber Optic Sensing (see page 1224).	**Assessing Seismic Hazard for Critical Facilities and Infrastructure—Insights and Challenges (see page 1239).**	**Seismoacoustic, Geodetic and Other Geophysical Investigations of Active Volcanoes (see page 1402).**	**Structure and Behavior of the Alaska-Aleutian Subduction Zone (see page 1424).**
2:00 PM	Enhancing Seismic Monitoring in Cook Inlet, Alaska: Integration of Distributed Acoustic Sensing with the Existing Seismic Network for Advanced Earthquake Denoising, Detection and Location. **Shi, Q.**, Ni, Y., Denolle, M., Williams, E. F.	INVITED: Challenges in Site-Specific Seismic Hazard Analyses for Mine Tailings Storage Facilities in South America. **Wong, I.**, Gray, B., Givler, R., Wu, Q., Darragh, R. B., *et al.*	INVITED: STUDENT: Investigation of Tremor and Explosion Sequences from the 2021-2022 Eruption of Pavlof Volcano, Alaska using Deep Learning. **Tan, D.**, Fee, D., Girona, T., Haney, M. M., Witsil, A., *et al.*	Implications of Yakutat Oceanic Plateau Buoyancy Versus Variable Interface Coupling on Deformation in South-Central Alaska. **Haynie, K. L.**, Jadamec, M. A.
2:15 PM	On DAS Recorded Strain Amplitude. Forbriger, T., Karamzadeh, N., Azzola, J., Widmer-Schnidrig, R., Gaucher, E., **Rietbrock, A.** *et al.*	Landfill Design Ground Motion at the Paducah Gaseous Diffusion Plant (Central United States). **Wang, Z.**, Carpenter, N.	Unique Seismic and Eruption Precursors to the 1996 Magmatic Eruptions of Popocatépetl: Coupled and Fluidized Bed Events. **McCausland, W.**, Caballero Jimenez, G. V., Guevara Ortiz, E., Trujillo Castrillón, N., Valdés González, C. M., *et al.*	Controls on Bending-Related Faulting Offshore of the Alaska Peninsula. **Clarke, J.**, Shillington, D. J., Regalla, C., Gaherty, J., Estep, J., *et al.*
2:30 PM	Evaluation of Passive Source DAS Methods on the Source Physics Experiment (SPE) Phase II. **Porritt, R.**, Stanciu, A. C., Abbott, R. E., Luckie, T. W.	Characterizing Uncertainty in the Canadian National Seismic Hazard Model. **Kolaj, M.**, Adams, J.	Constraining Links Between Seismicity and Eruptive Processes for the December 2018 Flank Eruption at Mt Etna. **Eyles, J.**, Frank, W. B., Poli, P.	STUDENT: Outer-Rise Earthquakes and Their Contribution to Tsunami Hazards Across the Alaska Subduction Zone. **Matulka, P.**, Wiens, D., Li, Z., Abers, G., Ruppert, N., *et al.*
2:45 PM	STUDENT: Lossy Compression and Reconstruction of Distributed Acoustic Sensing Data Using Deep Learning. **Ni, Y.**, Denolle, M. A., Lipovsky, B., Shi, Q., Pan, S., *et al.*	Importance of Site-Specific Ground Motion Data for Critical Facilities. **Hassani, B.**, Yan, L.	Tracking Seismicity in an Underfunded Institution: The Case of La Soufrière St Vincent Volcanic Eruption 2020–2021. **Contreras-Arratia, R.**	High-Resolution Rayleigh-Wave Tomography Constraints on Hydration in the Incoming Plate Along the Alaska Subduction Zone. Yakubu, T., **Gaherty, J.**, Shillington, D.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughneq' 3	Tubughneq' 4	Tubughneq' 5
	ESC-SSA Joint Session: Climate Change and Environmental Seismology (see page 1284).	**End-to-End Advancements in Earthquake Early Warning Systems (see page 1276).**	**Understanding and Quantifying the Variability in Earthquake Source Parameter Measurements (see page 1449).**	**Advances in Operational and Research Analysis of Earthquake Swarms (see page 1220).**	**Tectonics and Seismicity of Stable Continental Interiors (see page 1436).**
2:00 PM	Multi-Decadal Analysis of the Global Microseism in Climate Context. **Aster, R. C.**	STUDENT: Improvement in Magnitude Estimation Performance with a Combined PGD-PGV Scaling Law for the G-Fast Earthquake Early Warning Module. **DeGrande, J.**, Crowell, B.	Constraining Source Parameters of Seismic Events Generated by Circular Gouge Patches on 4-meter-long Laboratory Fault. **Okubo, K.**, Yamashita, F., Fukuyama, E.	STUDENT: Seismic Clusters as Markers of Crustal Stability. **Zaccagnino, D.**, Telesca, L., Doglioni, C.	Complex and Contrasting Temporal Patterns of Large Intraplate and Interplate Earthquakes. **Liu, M.**, Chen, Y., Jin, X., Luo, G.
2:15 PM	STUDENT: Seismic Imprints of a Hurricane Landfall: Deciphering the Atmosphere-Generated Signals From Large-Eddy Simulation of Turbulence. **Ji, Q.**, Dunham, E. M., Dey, I.	Finite-Fault Rupture Detector (FinDer) for Earthquake Early Warning and Rapid Impact Estimates: Recent Developments using Large International Earthquakes. Böse, M., Andrews, J., **Saunders, J.**, Massin, F., Ceylan, S., *et al.*	Constraining the Rupture Extent of Mw 6--7 Intraslab Earthquakes Using Geodetic Data: The 110 Km Deep 2020 Calama Earthquake, Northern Chile. **Craig, T. J.**, Liu, F., Ebmeier, S., Elliott, J.	Investigating Slow Slip Transients and Earthquake Swarms on the Blanco Transform Fault With Obs Data Mining. **Journeau, C.**, Thomas, A. M., Hirao, B., Toomey, D. R., Hooft, E. E. E., *et al.*	Use of Seismometers in Studies of Precariously Balanced Rocks (PBRs) in the Eastern U.S. **Pratt, T. L.**, McPhillips, D., Stirling, M., Figueiredo, P., Lindberg, N. S.
2:30 PM	How Fast, How Deep, and How Much? — Rapid Assessment of Groundwater Recharge From 2023 California Storms With Seismic Sensing. **Mao, S.**, Beroza, G. C., Ellsworth, W. L.	Generalized Neural Networks for Universal Real-Time Earthquake Early Warning. **Zhang, X.**, Zhang, M.	Uncertainty Estimates for Moment Tensors and Quantities Derived From Them From Comparison of Global Catalogs. **Rösler, B.**, Stein, S., Spencer, B. D., Ringler, A., Vackář, J.	Distant Seismic Monitoring of a Volcanic Earthquake Swarm Near the Manu'a Islands, American Samoa, with Deep-learning and Template-matching Event Detection. **Yoon, C.**, Skoumal, R. J., Michael, A. J., Downs, D. T., Deligne, N. I., *et al.*	Identifying Probable Fault Planes in Stable Continental Regions of Canada for Use in Hazard Assessment. **Bent, A. L.**
2:45 PM	Monitoring Groundwater Dynamics at Lyon Water Catchment Using Seismic Attenuation Variations From Train Signals. **Pinzon Rincon, L.**, Nziengui Bâ, D., Mordret, A., Brenguier, F., Coutant, O.	STUDENT: Investigating Seismic Site Amplification for Improved Earthquake Early Warning in Canada. **Pietroniro, E.**, Perry, H., Crane, S., Audet, P.	Regional Moment Tensor Estimation With 3D Velocity Models—Application and Assessment to the 2017 Hojedk, Iran Sequence. **Rodriguez Cardozo, F. R.**, Braunmiller, J., Ghods, A., Sawade, L., Orsvuran, R., *et al.*	Improving Template Matching Detections Using a Convolutional Neural Network. **Jozinović, D.**, Toledo, T., Simon, V., Kraft, T.	INVITED: A Machine Learning Re-Analysis of Seismic Archives in the Northeastern U.S.: Implications for the Nature of Active Faults and Faulting. Beauce, E., **Wang, K.**, Waldhauser, F., Schaff, D., Kim, W.

Friday, 3 May (*continued*)

Time	Kʼenakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	Advancing Seismology with Distributed Fiber Optic (continued)	**Assessing Seismic Hazard for Critical Facilities (continued)**	**Seismoacoustic, Geodetic and Other Geophysical (continued)**	**Structure and Behavior of the Alaska-Aleutian Subduction (continued)**
3:00 PM	Exploring Urban Distributed Acoustic Sensing Datasets With Scattering Networks. **Viens, L.**, Seydoux, L., Delbridge, B. G.	STUDENT: Site-Response Assessment Using Empirical Techniques for Nuclear Sites in South-Eastern France: Comparisons With Ssr and Numerical Simulation Estimates. **Buscetti, M.**, Traversa, P., Hollender, F., Perron, V., Moczo, P., *et al.*	INVITED: Understanding Volcanic Tremors Based on Seismic Network Analysis. **Shapiro, N. M.**, Journeau, C., Soubestre, J., Barajas, A., Seydoux, L., *et al.*	STUDENT: Slab Dehydration Linked to Great Earthquake Rupture Barriers Along the Alaska Peninsula. **Moser, L.**, Canales, J., Bécel, A.
3:15– 4:30 PM			Poster Break	

Time	Kʼenakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B
	From Geodynamics to Earthquake Rupture, Models That Cross Time- and Length-Scales (see page 1308).	**Assessing Seismic Hazard for Critical Facilities and Infrastructure—Insights and Challenges (see page 1239).**	**Machine Learning for Full Waveform Inversion: From Hybrid to End-to-End Approaches (see page 1343).**	**Structure and Behavior of the Alaska-Aleutian Subduction Zone (see page 1424).**
4:30 PM	INVITED: Linking Geodynamic-Seismic Cycling Models With Earthquake Dynamic Rupture Models: 5 Choices to Consider. **Madden, E. H.**, van Dinther, Y., Gabriel, A. A., Ulrich, T., van Zelst, I.	INVITED: Issues in the Selection of Design Values for Surface Fault Rupture for Critical Facilities Using Probabilistic Fault Displacement Hazard Analysis. **Abrahamson, N. A.**	INVITED: Advancing Seismic Full Waveform Inversion: A Hybrid Approach of Machine Learning and Physical Models for Improved Generalizability and Efficiency. **Lin, Y.**	Seismic Structure of Arc Crust in the Andreanof Segment of the Aleutian Arc from Wide-angle Refraction Data. **Mark, H. F.**, Lizarralde, D., Shillington, D., Cortés Rivas, V.
4:45 PM	Using a Multi-Cycle, Physics-Based Earthquake Simulator to Explore Rupture Connectivity for Seismic Hazard: The Aotearoa New Zealand Example. **Howell, A.**, Penney, C., McLennan, T., Seebeck, H., Williams, C. A., *et al.*	Exposure of Australia's Infrastructure to Ground Surface Rupture Hazard. **Quigley, M.**, Werner, T., Yang, H.	STUDENT: Ambient Noise Full Waveform Inversion With Neural Operators. **Zou, C.**, Azizzadenesheli, K., Ross, Z. E., Clayton, R.	STUDENT: Along-strike Variations in Sub-arc Melting Beneath the Alaska Peninsula Revealed by Body Wave Attenuation. **Zhang, Z.**, Wei, S. S.
5:00 PM	INVITED: Bridging the Gap Between Millions of Years and Milliseconds in Visco-Elasto-Plastic Subduction Earthquake Sequence Models. **Koelzer, A. J.**, de Vos, M., Gerya, T., van Dinther, Y.	Studies of Fragile Geologic Features in Central New England, USA, and Northeastern New Zealand. **Stirling, M. W.**, Pratt, T. L.	Application of TCN, UMAP, and XGBoost to Pg and Lg Wave Amplitude to Identify Mining vs. Non Mining and Deep vs. Shallow Events. **Goddard, K.**, Saikia, C. K., Stanley, J., Patrick, T., Zhou, R., *et al.*	STUDENT: A Possible Slab Window Along the Alaska Subduction Zone Imaged by Full Wave Ambient Noise Tomography. **Sassard, V.**, Yang, X., Liu, L., Elliott, J.

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenqʼ 3	Tubughnenqʼ 4	Tubughnenqʼ 5
	ESC-SSA Joint Session: Climate Change (continued)	**End-to-End Advancements (continued)**	**Understanding and Quantifying (continued)**	**Advances in Operational (continued)**	**Tectonics and Seismicity (continued)**
3:00 PM	Merits of Installing Environmental Sensors at Seismic Stations. **Tanimoto, T.**	Predicting Ground Motion Waveforms for Earthquake Early Warning Using Convolutional Long Expressive Memory Models. Lyu, D., **Nakata, R.**, Erichson, B. N., Nakata, N., Ren, P., *et al.*	Quantifying the Effect of 3D Wavespeed Models on Moment Tensors Using Synthetic Data in the Middle East. **Doody, C.**, Chiang, A., Simmons, N., Rodgers, A.	INVITED: STUDENT: Automated Detection and Characterization of Swarms and Mainshock-Aftershock Sequences in Southern Mexico. **Ventura-Valentin, W. A.**, Brudzinski, M. R., Bennett, A., Khalkhali, M., Coker, S.	Active Seismicity Around a Cretaceous Magmatic Intrusion in Monchique, SW Iberia. Neres, M., Cunha, G., **Custódio, S.**, Soares, A., Vales, D., *et al.*
3:15– 4:30 PM			Poster Break		

Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenqʼ 4	Tubughnenqʼ 5
	ESC-SSA Joint Session: Climate Change and Environmental Seismology (see page 1284).	**End-to-End Advancements in Earthquake Early Warning Systems (see page 1276).**	**Advances in Operational and Research Analysis of Earthquake Swarms -II (see page 1220).**	**Tectonics and Seismicity of Stable Continental Interiors (see page 1436).**
4:30 PM	INVITED: Leveraging Distributed Fiber Optic Sensing for Year-Round Observation of Sea Ice and Submarine Permafrost: Successes and Lessons Learned From the Beaufort Sea, Alaska. **Baker, M. G.**, Stanciu, C., Abbott, R. E., Frederick, J. M.	Engineering Earthquake Early Warning. **Galasso, C.**	Seismological Study of the West Bohemia/Vogtland Swarm Region With Waveform and Catalog Data. **Olivar-Castaño, A.**, Büyükakpinar, P., Ohrnberger, M., Dahm, T., Doubravová, J., *et al.*	INVITED: Amplification and Attenuation: Putting the Puzzle Together for Ground Motions in the Atlantic and Gulf Coastal Plains. **Cabas, A.**, Gann-Phillips, C., Ji, C.
4:45 PM	STUDENT: Storms, Sea Ice, and Microseismic Noise in Alaska. **John, S.**, West, M.	STUDENT: Toward Earthquake Early Warning in Nevada. **Kinkel, D.**, Trugman, D.	Systematic Measurements of Parameters During Earthquake Swarms. **McNutt, S. R.**, Thompson, G., Braunmiller, J., Rodriguez Cardozo, F., Holtkamp, S.	The 1886 Charleston, South Carolina, Earthquake: Source Properties and Ground Motions. **Hough, S. E.**, Bilham, R.
5:00 PM	Correlation of Environmental Factors With Seismic Records on the Alaska Geophysical Network. **Heslop, J.**, Murphy, N., West, M., Parcheta, C., Ruppert, N., *et al.*	Evaluation of the Ocean Networks Canada Earthquake Early Warning System: Magnitude Estimation and Site Condition. **Babaie Mahani, A.**	INVITED: Earthquake Swarms as a Window to Characterize Transient Processes. **Chen, X.**, Jiang, J., Sagae, K., Uchide, T.	Reactivated Paleozoic and Mesozoic Basement Faults in the Charleston, South Carolina, Seismic Zone. **Shah, A. K.**, Pratt, T. L.

Time	K'enakatnu 6/Boardroom	Kahtnu 1	Kahtnu 2	Tikahtnu Ballroom A/B		Time	Tikahtnu Ballroom C	Tikahtnu Ballroom E/F	Tubughnenq' 4	Tubughnenq' 5
	From Geodynamics to Earthquake Rupture, Models (continued)	**Assessing Seismic Hazard for Critical Facilities (continued)**	**Machine Learning for Full Waveform Inversion: From Hybrid (continued)**	**Structure and Behavior of the Alaska-Aleutian Subduction (continued)**			**ESC-SSA Joint Session: Climate Change (continued)**	**End-to-End Advancements in Earthquake (continued)**	**Advances in Operational and Research Analysis of Earthquake (continued)**	**Tectonics and Seismicity of Stable Continental Interiors (continued)**
5:15 pm	Student: Fully Dynamic Earthquake Cycle Modeling to Explore Interactions Between Large Earthquakes and Slow Slip Events on Heterogeneous Faults. **Tang, Z.**, Duan, B., Meng, Q.	Fault-Displacement Models for Aggregate, Principal, and Distributed Displacements. **Lavrentiadis, G.**, Abrahamson, N. A.	Scaling Up Large Fourier Neural Operator Training in 3D Seismic Waveform Modeling. **Kong, Q.**, Matzel, E., Zou, C., Choi, Y., Ross, Z., *et al.*	The Structure of the Alaskan Mantle: A Full Waveform Inversion Approach. **Frost, D. A.**, Romanowicz, B., Adourian, S.		5:15 pm	Invited: An Extraordinary Tsunamigenic Rockslide Into a Greenland Fjord Rang the Earth for 9 Days. Svennevig, K., Hicks, S. P., Forbriger, T., Lecocq, T., Widmer-Schnidrig, R., **Mordret A.** et al.	Student: Impact Assessment of Eew Systems in Central America. **Orihuela, B.**, Clinton, J., Papadopoulos, A., Danciu, L., Böse, M., et al.	Deep Learning Analysis of Transient Signals Preceding the 2023 Mw 7.8 Kahramanmaraş Earthquake in Türkiye. **Zali, Z.**, Martinez Garzon, P., Kwiatek, G., Bohnhoff, M., Beroza, G.	Evidence of Quaternary Deformation in the Ste. Genevieve Fault Zone, Southeastern Missouri: Preliminary Results. **Counts, R. C.**, Vaughn, J., Nelson, W., Devera, J. A., Curry, B.
5:30 pm	Student: Insights Into Fault Interactions in Central New Zealand Using Paleoearthquake Records and Earthquake Simulators. **Humphrey, J. A.**, Howell, A., Penney, C., Nicol, A., Litchfield, N., *et al.*	Looking for kappa in the US and the UK Using Noise Modeling. **Ktenidou, O. J.**, Pikoulis, E. V., Darragh, R. B., Silva, W. J., Aldama-Bustos, G.	Invited: Physics-Informed Deep Generative Models to Quantify Uncertainties in the Geophysical Full-Waveform Inversion. **Elmeliegy, A. M.**, Dhara, A., Sen, M. K., Harding, J. L., Yoon, H.	Upper Mantle Velocity Structure and Anisotropy of the Alaskan Subduction Zone from Surface Wave Tomography. **Adams, A.**, Ramirez, C., Wen, J., Leclerc, P.		5:30 pm	Insights for Adjacent Sciences—Connecting Science, Art and Deep Knowledge for Climate Adaptation and Mitigation. **Strickert, G. E. H.**, Bradford, L. E. A., Helgason, W.	Performance of Operational Earthquake Early Warning Across Central America. **Massin, F.**, Clinton, J., Bose, M., Burgoa, B., Marroquin, G., et al.	Enhanced Seismicity at a Geothermal Spot in Southern Tibet Following 2004 Mw 9.1 Sumatra and 2005 Mw 8.6 Nias Earthquakes and Its Implication for Rifting Process. **Liang, X.**	Microgal-Precision Gravity Imaging Within an Active Intraplate Fault: The 2020 m5.1 Sparta, Nc Epicentral Zone. **Levandowski, W.**

Poster Sessions

The 2024 Magnitude 7.5 Earthquake and the Associated Earthquake Swarm Beneath the Noto Peninsula, Central Japan (See Supplemental Material)

Advancing Seismology with Distributed Fiber Optic Sensing (see page 1228).

1. Matched-Filter Earthquake Detection Applied to City-Scale DAS Fibre-Optic Systems in Aotearoa New Zealand: What More Can We Detect?. **Chamberlain, C. J.**, McNab, A., Lindsey, N., Townend, J., can Wijk, K.
2. Student: Using AIS Data to Determine the Location of Ocean Bottom Fiber Optic Cables. **Collares, M. P.**, Spica, Z., Viens, L.
3. Near-Source T-Wave Observations in the North Atlantic Using Distributed Acoustic Sensing. Schlaphorst, D., Loureiro, A., Matias, L., **Custódio, S.**, Corela, C., *et al.*
4. Student: Geolocalization and Preliminary Surface Signals of Cascadia DAS Array, Port Angeles, Washington. **Dingo, H.**, Sheehan, A. F., Mendoza, M. M., Martin, E. R.
5. Fiber Optic Wellbore Installation for Distributed Acoustic Sensing at Los Alamos National Laboratory. **Donahue, C.**, Maier, N., Roberts, P.
6. Student: Use of Distributed Acoustic Sensing as a Tool for Monitoring Geohazards at Mt. Rainier. **Gaete Elgueta, V. A.**, Lipovsky, B., Denolle, M., Thelen, W., Kharita, A.
7. Student: Signal Detection With Neural Networks in Dark Fiber Seismic Data. **Hoyle, A. M.**, Smolinski, K., Bozdag, E., Wu Fung, S., Fichtner, A., *et al.*
8. Student: Modelling Wavefield Complexity for Submarine DAS Data From Santorini (Greece). **Igel, J.**, Klaasen, S., Noe, S., Nomikou, P., Karantzalos, K., *et al.*
9. Earthquake Detection of the MiDAS Seismic Monitoring System Containing Downhole Optic-Fiber Distributed Acoustic Sensing and Borehole Seismometers. **Lin, Y.**, Chan, J.
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11. 2-D Shear-Wave Velocity Profile of Shallow Sediments Using Ocean Bottom Distributed Acoustic Sensing and Ambient Noise Probabilistic Inversion. **Ben Mansour, W.**, Spica, Z., Viens, L., Liu, M.
12. Towards a Metadata Standard for Distributed Acoustic Sensing (DAS) Data Collection. **Mellors, R. J.**, Hui Lai, V., Hodgkinson, K. M., Porritt, R.
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19. Examination of Usage Rates for the Multi-Hazards San Diego County Emergency App to Improve Earthquake Early Warning. **Brudzinski, M. R.**, Sumy, D., Gomez, K., Jordan, P., Robles, M., *et al.*
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32. Global Observation of an Up to 9 Day Long, Recurring, Monochromatic Seismic Source Near 10.9 mHz Associated With Tsunamigenic Landslides in a Northeast Greenland Fjord. Widmer-Schnidrig, R., **Mordret, A.**, Svennevig, K., Hicks, S. P., Forbriger, T., *et al.*

33. Exploration of Decadal Crustal Velocity Changes Associated With Tidal-Induced Strain Using Seismic Noise. **Wu, S.**, Nakata, N.

34. STUDENT: Resolving Temporal Variations in Subsurface Velocity and Attenuation Structure Across the Taklimakan Desert Using Road Traffic Seismic Signals. **Zhao, L.**, Meng, H., Liang, X.

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36. STUDENT: Developing Ground Motion Model Using Nonparametric Machine Learning Techniques for Induced Earthquakes in Central and Eastern North America (Cena). **Alidadi, N.**, Pezeshk, S.

37. Seismic Networks Important in Lower Seismic Hazard Environments like Australia. **Borleis, E.**

38. STUDENT: Neotectonic Mapping of the Charleston Seismic Zone, South Carolina. **Thompson Jobe, J. A.**, Briggs, R., Collett, C., Shah, A. K., Pratt, T.

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40. STUDENT: Africa's Lithospheric Architecture With Multi-Mode Body Wave Imaging. **Legre, J. B.**, Olugboji, T. M.

41. Crustal Structure and Mantle Deformation Across the Central African Plateau, Zambia: Evidence from Receiver Functions and Shear-Wave Splitting Analysis. Kounoudis, R., **Ogden, C. S.**, Chifwepa, C., Fishwick, S., Kendall, M., *et al.*

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43. The 2020 Sparta, North Carolina, Earthquake: Insights From Double-Difference Earthquake Relocations, Regional Moment Tensor Inversion and Coulomb Static Stress Transfer. **Parija, M.**, Chapman, M. C., Pollyea, R.

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45. Source Characterization of the 2020 Mw 5.1 Sparta, North Carolina, Earthquake Sequence. **Wu, Q.**, Chapman, M.

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46. STUDENT: Analysis of Anisotropic Characteristics in the Valley of Mexico. **Chacón, F.**, Quintanar-Robles, L., Rodríguez-Rasilla, I.

47. S Wave Velocity and Azimuthal Anisotropy From Ambient Noise Data in the Sanjiang Lateral Collision Zone of SE Tibetan Plateau. Tian, J., **Gao, Y.**, Li, Y.

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49. 3D Shear Wave Velocity and Azimuthal Anisotropy Model for the Crust and Upper Mantle in Alaska Extracted by the Joint Inversion of Wave Gradiometry Method and Ambient Noise Tomography Method. **Liang, C.**, Liu, Z., Cao, F.

50. Imaging Lower Crustal Flow Using Harmonic Decomposition of Receiver Functions Beneath a Dense Seismic Profile in Eastern Massachusetts. **Link, F.**, Luo, Y., Long, M. D., Kuiper, Y. D.

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52. A Reformulation of the Browaeys and Chevrot Decomposition of Elastic Maps. **Tape, W.**, Tape, C.

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57. Adjoint Earthquake Source Inversion Method Using P-Wave Spectra and Focal Mechanism Solutions. **Cheng, Y.**, Dreger, D. S., Allen, R. M.

58. Bayesian Inference for the Seismic Moment Tensor Using Regional Waveforms and a Data-Derived Distribution of Velocity Models. **Chiang, A.**, Ford, S. R., Pasyanos, M.

59. Characterizing Directivity in Small (M3-5) Aftershocks of the Ridgecrest Sequence. **Chu, S.**, Baltay, A. S., Abercrombie, R.

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62. STUDENT: Development of Empirical Scaling Relationships Between Spectral Displacement Amplitudes Measured in the Time Domain and Earthquake Magnitudes in South Korea. **Hong, Y.**, Kim, B., Sheen, D.

63. Moment-Rate Spectra, Source Scaling and Spectral Fall-Off in the Korean Peninsula Using the Coda Calibration Tool (2.0<Mw<5.5): Application to Natural and Man-Made Sources. **Mayeda, K.**, Roman-Nieves, J., Son, M.

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67. New Version of the Earthquake Mechanism of Mediterranean Area (EMMA) Database With a Web-Gis Interface. **Vannucci, G.**, Tarabusi, G., Taccone, R., Biondini, E., Lolli, B., *et al.*

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69. Automated Detection of Volcanic Seismicity Using Network Covariance and Image Processing. Maher, S., **Dawson, P.**, Hotovec-Ellis, A., Thelen, W., Matoza, R.

70. Long-Period Earthquakes in the Yellowstone Volcanic System: When, Where, Why?. **Farrell, J.**, Hale, M., Baker, B.

71. STUDENT: Mining for Hidden Seismicity at Mount St. Helens. **Hirao, B. W.**, Thomas, A. M., Shelly, D. R., Thelen, W.

72. Ground-Tilt Caused by Atmospheric Lamb Waves From the 2022 Tonga Eruption Recorded at Fiji and Pinon Flat Observatory. **Ichinose, G. A.**, Mellors, R. J.

73. Soundquakes: Seismo-Infrasonic and Seismo-Infra-Seismic Phases During a Swarm of Earthquakes at Kilauea Volcano on September 30th, 2021. **Johnson, J.**, Jolly, A., Anderson, J. F.

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75. Monitoring Unrest at a Supervolcano: Insights From the 2022-23 Unrest Episode at Taupō Volcano, Aotearoa New Zealand. **Lamb, O.**, Hreinsdóttir, S., Power, W., Bannister, S., Ristau, J., *et al.*

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78. Seismological Models and Seismicity Patterns in the Kivu Rift and Virunga Volcanic Province (D.R. Congo). Subira, J., Barrière, J., Caudron, C., **Oth, A.**, d'Oreye, N., *et al.*

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80. Analysis of the Seismicity Recorded Before the May 22, 2021 Eruption of Nyiragongo Volcano, Democratic Republic of the Congo. **Sadiki, A.**, Kyambikwa, A., Namogo, D., Diomi, L., Munguiko, O., *et al.*

81. Seismic Source Scaling of Volcano-Seismic Events: Tracking Magma Plumbing System Overpressure and Volume Through Macroscopic Seismic Source Parameters. Niu, J., **Song, T.**

82. Eruption Dynamics of the 2022 Mauna Loa Eruption Revealed Through Tremor. **Thelen, W.**, Iezzi, A. M., Chang, J. C., Dotray, P.

83. Using Remote Hydroacoustic Recordings to Track Volcanic Unrest Near the Ta'ū Islands, American Samoa. **Wech, A.**, Haney, M. M., Chang, J. C., Jolly, A., Yoon, C.

84. STUDENT: Inversion of Multiple Concurrent Resonant Oscillations at Kīlauea Volcano During Very-Long-Period Seismic Events Informs Magma System Properties. **Wilde, K. L.**, Karlstrom, L., Crozier, J. A., Lynn, K. J.

85. Seismic Velocity Changes Across Multiple Eruption Cycles at Shishaldin Volcano in the Eastern Aleutian Arc. **Yang, X.**, Freymueller, J. T., Kupres, C. A., Denolle, M. A., Haney, M. M.

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89. Physics-based Numerical Modeling of Site-specific Amplification in Ground Motions: A Case Study of Wellington Basin. **Li, D.**, Thingbaijam, K., Hill, M., Howell, A., Bora, S., *et al.*

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96. Geodynamic Modeling of Flat Slab Subduction Driving Microplate Tectonics in Alaska. **Jadamec, M. A.**, Haynie, K. L., Knepley, M. G.

97. Fast and Slow Earthquakes in Alaska: Insights From Three-Dimensional Thermal Structure and Slab Dehydration. **Ji, Y.**, Qu, R., Zhu, W.

98. STUDENT: Modeling the Proposed Deep Slab-Deformation Processes Behind Potential Precursory Signals Preceding Large Subduction Zone Earthquakes. **Lemus, I. C.**, Baden, C. W., Chanard, K., Wang, L., Bürgmann, R.

99. Geodynamic Models Connecting the Seismic Timescale to the Tectonic Timescale. **Moresi, L.**, Yang, H., Giordani, J., Knight, B.

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101. STUDENT: Physics-Guided Unsupervised Deep Learning Approach for the Inversion of Receiver Functions in Dipping and Anisotropic Media. **Dalai, B.**, Kumar, P., Sen, M. K.

102. Towards a Practical Physics-Informed Neural Network Method for End-to-End Full Waveform

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105. Take the Cook Inlet DAS Earthquake Challenge!. **Bodin, P.**, Williams, E. F., Shi, Q., Ni, Y., Lipovsky, B., *et al.*

106. STUDENT: Searching for Microseismic Precursors to the July 2020 Mw 7.8 Simeonof, Alaska Earthquake in a Machine-Learning Enhanced Catalog. **Friedman-Alvarez, C.**, Barcheck, G., Nolan, S., Abers, G. A.

107. Introducing the Alaska Broadband Accessory Deployment for Geophysical Research (BADGER): A New Seismic Dataset for Investigating Slow Slip and Subduction Zone Structure. **Golos, E.**, Aleid, M. H., Lord, N., Sobol, P., Denolle, M., *et al.*

108. Mapping the Alaskan Lithosphere Based Upon Joint Full-Waveform Inversion of Ambient Noise and Local Earthquake Data. **Liu, T.**, Wang, K., Tape, C., He, B., Yang, Y., *et al.*

109. Insights Into Inherited Crustal Features and Southern Alaska Tectonic History From Sp Receiver Functions and Seismicity. **Mann, M.**, Fischer, K. M., Benowitz, J. A., Wech, A.

110. STUDENT: Examining the Distribution of Earthquakes Within the Alaska-Aleutian Subduction Zone Using Events Detected by the Alaska Amphibious Community Seismic Experiment. **Nolan, S.**, Abers, G., Barcheck, G., Friedman-Alvarez, C., Roecker, S. W.

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112. STUDENT: Probabilistic Teleseismic Tomography of the Alaskan Mantle With Corrections for Distant Structure. **Okkonen, N.**, Burdick, S.

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114. STUDENT: Investigating Temporal Velocity Changes and Plate Interface Structure in the Southern Mw 9.2 1964 Great Alaska Earthquake Rupture Area: A Comparative Study of Ambient Noise and Earthquake Observations Using a Dense Node Array. **Osasona, J. O.**, Worthington, L. L., Schmandt, B., Barcheck, G., Abers, G., *et al.*

115. Upper Plate Structure in the Alaska Subduction Zone Across the 2020 and 2021 Ruptures From 2D Wide-Angle

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116. STUDENT: Comparison of Crustal Magmatic Storage at Aleutian Volcanoes, Gareloi and Kanaga, using Teleseismic Receiver Function Analysis. **Wandasan, C.**, Janiszewski, H., Wynn, I. V., Power, J. A., Haney, M. M.

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122. It's Swarmy Outside: Defining Swarms for the Purpose of Forecasting. **Llenos, A. L.**, Michael, A. J., McBride, S. K., Page, M. T., van der Elst, N., *et al.*

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125. What Has Unimak Island in Alaska Witnessed in the Last ~30 Years?—a Seismic Recap. **Parameswaran, R. M.**, Grapenthin, R.

126. Correlations and Change Points Identification in Crustal Anisotropy, b-Value and Vp/vs, Time Series During Seismic Swarm Occurrences in the Alto Tiberina Fault Zone (Italy). **Zaccarelli, L.**, Taroni, M., Baccheschi, P.

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127. Implementation of Interconnected Fault Systems in PSHA: Testing Existing Algorithms in Different Tectonic Context. El Kadri, S., **Beauval, C.**, Brax, M., Klinger, Y.

128. Magnitude Dependency of Spectral Decay Parameter (Kappa) at Rock Stations from Event Dataset that is Restricted Only from Events that are Originated around Eastern Anatolian Fault (EAF). **Biro, Y.**

129. Monitoring and No-Money-Toring of Oil and Gas Production in Southern Italy. **Braun, T.**, Danesi, S.

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131. Overcoming Factors That Limit the Predictive Power of Probabilistic Fault Displacement Hazard Models. **Elliott, A.**, Hammer, M., Vermeer, J., DeLong, S., Kottke, A., *et al.*

132. Time-Domain Seismic Response Retrieval from Ambient Noise Recorded by the Existing Seismometer of Dams Based on Interferometric Processing. **Kuroda, S.**

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134. STUDENT: The Role of Epistemic Uncertainty Estimations in Seismic Safety Decision Making and Relation to Levels of Input Model Simplification. **Liou, I. Y.**, Abrahamson, N. A.

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139. STUDENT: Ambient Vibration Testing of Canada's Tallest Wood Frame Building. **Leishman, T.**, Ventura, C. E., Motamedi, M., Cassidy, J. F., Dosso, S. E.

140. Wind Turbines as a Metamaterial-Like Urban Layer: An Experimental Investigation Using a Dense Seismic Array and Complementary Sensing Technologies. **Pilz, M.**, Roux, P., Mohammed, S. A., Garcia, R. F., Steinmann, R., *et al.*

141. Site-City Interaction in the Valley of Mexico: 3D Simulations and Observations. **Ramirez-Guzman, L.**, Carrillo Lucia, M. A., Contreras, M. G., Bañuelos, D.

142. Seismic Response of Nenana Sedimentary Basin, Central Alaska. **Smith, K.**, Tape, C., Tsai, V. C.

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146. Seismic Hazard and Risk in Lae City, Papua New Guinea (PNG). **Griffin, J. D.**, Cummins, P. R., Clark, D. J., Edwards, M., Espi, J., *et al.*

147. The "Earthquake Suitcase"—A Research-Inspired Educational Tool for Earthquake Vulnerable Communities. **Kouskouna, V.**, Sakkas, G., Sakellariou, N., Galanos, N., Ridge, H.

148. STUDENT: High-Impact Earthquakes on Hidden, Secondary Faults Within the Sparsely Instrumented Golden Triangle Region of Laos, Thailand, and Myanmar. **Sethanant, I.**, Nissen, E., Bergman, E., Oliva, S., Pousse-Beltran, L., *et al.*

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150. Validation of Probabilistic Coseismic Coastal Deformation Models using Geologic and Geomorphic Evidence. **Clark, K. J.**, Howell, A., Delano, J., Litchfield, N.

151. STUDENT: How Will Earthquakes Change Sea Level? a Probabilistic Coast-Seismic Hazard Model. **Delano, J.**, Howell, A., Clark, K., Rollins, C., Stahl, T., *et al.*

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167. An Empirical Bayesian Kriging Approach for Site Period Mapping of Santiago Basin, Chile. **Mitra, D.**

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169. Development of a Seismically Induced Landslide Susceptibility Scale for Greece for Addressing Data Imbalance. **Nath, R. R.**, Mitra, D.

170. National Seismic Hazard Assessment for Azerbaijan Using New Seismic Data and Ground Motion Simulations. **Onur, T.**, Gok, R., Yetirmishli, G., Herrera, C., Godoladze, T., *et al.*

171. Data-Driven Performance Evaluation of Ground Motion Models Applicable for Active Crustal Region in Italy. **Paramasivam, B.**, Kim, S., Seyhan, E.

172. Dependence of Seismic Hazard Assessment on the Observation Time Interval: Insights From Physics-Based Simulated Seismicity in Southeastern Spain. **Pascual-Sánchez, E.**, Álvarez-Gómez, J. A., García-Mayordomo, J., Herrero-Barbero, P.

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