











| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|--|--|---|---|
| <i>7:30 Breakfast</i> | <i>7:30 Breakfast</i> | <i>7:30 Breakfast</i> | <i>7:30 Breakfast</i> | <i>7:30 Breakfast</i> |
| <p>8:45 Welcome by organizing committee</p> <hr/> <p>THE COMPLETE SLIP SPECTRUM</p> <p><i>Observational Constraints</i></p> <p>9:00 keynote talk Aitaro Kato</p> <p>A long-persisting seismic swarm and the subsequent nucleation of the 2024 M7.6 Noto earthquake -Role of fluid-driven slow slip-</p> <p>9:50 short talk Bryan Raimbault</p> <p>Secondary Weak and Shallow Faults Revealed by Large Earthquakes in Haiti</p> <p>10:05 short talk Colin Pennington</p> <p>Quantifying the complex rupture characteristics of microearthquakes</p> | <p>THE COMPLETE SLIP SPECTRUM</p> <p>8:30 keynote talk Romain Jolivet</p> <p>The anatomy of slowly slipping faults: a seismo-geodetic view of continental active faults</p> <p>9:35 short talk Celeste Hofsetter</p> <p>What stopped the 2023 M7.7 Pazarcik earthquake rupture?</p> <p>09:50 short talk</p> <p>Okubo Kurama Near-field strong pulse caused by the coseismic off-fault damage on the 2016 Kumamoto earthquake</p> <p>10:05 Panel-led group discussion</p> | <p>EARTHQUAKE NUCLEATION & TRIGGERING</p> <p><i>Models: laboratory, numerical, empirical</i></p> <p>8:30 keynote talk Chris Marone</p> <p>Earthquake Physics: Learning from Labquakes, the Spectrum of Slip Modes and Lab Earthquake Prediction</p> <p>9:35 short talk Michele De Solda</p> <p>Probing Fault Structure Evolution Using Ultrasonic Measurements: A Full Waveform Inversion Application to Laboratory Experiments</p> <p>9:50 short talk Giuseppe Volpe</p> <p>Frictional Instabilities in Clay and Implications for Shallow Slow Slip</p> <p>10:05 panel-led group discussion</p> | <p>THE EARTHQUAKE CYCLE</p> <p>8:30 keynote talk Ake Fagereng</p> <p>Geological constraints on fault zone structure, rheology, and slip style</p> <p>9:35 short talk Joaquim Julve</p> <p>Geological and upper plate control on the seismic cycle of Chilean megathrust earthquakes</p> <p>9:50 short talk Diego Molina</p> <p>Slip behavior of seismic barriers</p> <p>10:05 Panel-led group discussion</p> | <p>NATURAL & INDUCED HAZARDS</p> <p>8:30 keynote talk Jean-Philippe Avouac</p> <p>Induced earthquakes modeling and forecasting</p> <p>9:35 short talk</p> <p>Gina-Maria Geffers Frequency-size parameters as a function of dynamic range</p> <p>09:50 intermediate talk Ioannis Stefanou</p> <p>On earthquake controllability and prevention</p> <p>Group photo</p> |
|  10:20 Coffee break |  10:20 Coffee break |  10:20 Coffee break |  10:20 Coffee break |  10:20 Coffee break |
| <p><i>Theoretical framework</i></p> <p>10:40 keynote talk Yoshi Kaneko</p> <p>Potential links between foreshocks, slow slip and short-term earthquake predictability</p> <p>11:45 short talk</p> <p>Nicolas Brantut Dilatancy Toughening of Shear Cracks and Implications for Slow Rupture Propagation</p> <p>12:00 short talk Alexis Sáez</p> <p>Segmentation of slow and fast earthquakes and scaling laws</p> <p>12:15 Panel-led group discussion</p> <p>12:30 intro SIG and Tutorial</p> | <p>EARTHQUAKE NUCLEATION & TRIGGERING</p> <p><i>Observational Constraints</i></p> <p>10:40 keynote talk Andreas Rietbrock</p> <p>Imaging the structure of the seismogenic interface</p> <p>11:45 short talk Anne Soquet</p> <p>Initiation and propagation of a shallow slow slip event in Chile driven by structurally trapped fluids</p> <p>12:00 short talk Lingsen Meng</p> <p>Dual-Initiation Ruptures at a Fault Asperity in the 2024 Mw 7.5 Noto Earthquake</p> <p>12:15 short talk Mindaleva Diana</p> <p>Short-Lived and Voluminous Fluid-Flow in a Single Fracture Related to Seismic Events in the Middle Crust</p> <p>12:30 intro SIG and Tutorial</p> | <p>THE EARTHQUAKE CYCLE</p> <p><i>Observational Constraints</i></p> <p>10:40 keynote talk Rolland Burgmann</p> <p>Seismic and Aseismic Slip Through Earthquake Cycles</p> <p>11:45 short talk Estelle Neyrinck</p> <p>The slow slip event cycle along the Izmit segment of the North Anatolian Fault observed by InSAR data</p> <p>12:00 short talk Violeta Veliz-Borel</p> <p>Multi-scale fault interactions throughout the seismic cycle of large splay faults in the eastern Hellenic subduction forearc</p> <p>12:15 short talk Ana Beatriz Cosenza-Muralle</p> <p>Regional Strain Partitioning and Fault Coupling in Northern Central America from InSAR Time Series</p> <p>12:30 intro SIG and Tutorial</p> | <p><i>Theoretical framework</i></p> <p>10:40 keynote talk Brittany Erickson</p> <p>State-of-the-Art Forward Modeling of Earthquake Sequences with Rate-and-State Friction</p> <p>11:45 short talk Corentin Noël</p> <p>Exploring the impact of frictional heterogeneities on the seismic cycle: Insights from laboratory experiments</p> <p>12:00 short talk Yifan Yin</p> <p>Stress Test: Earthquake Cycles Under Different Loading Conditions</p> <p>12:15 Panel-led group discussion</p> <p>12:30 intro SIG and Tutorial</p> | <p>10:40 short talk Natalia Berrios-Rivera</p> <p>Models of injection-induced seismic slip with permeability enhancement and rate-and-state friction</p> <p>10:55 short talk Xie Yuqing</p> <p>Innovative Imaging of Earthquake Ruptures with Ocean Bottom DAS Data</p> <p>11:10 keynote talk Michael Blanpied</p> <p>Toward improved seismic hazard forecasts and risk-mitigation strategies</p> <p>12:15 Panel-led group discussion</p> |

| 12:35 lunch break | 12:35 lunch break | 12:35 lunch break | 12:35 lunch break | 12:35 lunch break |
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| <p>14:00 Seaside Special Interest Group (SIG) Discussions Community-driven and open publishing: Seismica and beyond (coord.: T. Ragon & M. Radiguet)</p> | <p>14:00 Code and Processing Overview Motorcycle I: A spectral boundary-integral method for seismic cycles on multiple faults (coord.: S. Barbot)</p> | <p>14:00 Hike</p> | <p>14:00 Seaside Special Interest Group (SIG) Discussions Earthquake mechanics: what laws govern laboratory and natural faults? (coord.: S. Barbot)</p> | <p>14:00 Session for Early career participants Recent progress, pressing questions and future directions <i>See end of program</i></p> |
| <p>15:00 Code and Processing Overview Overview of Machine Learning tools in earthquake seismology (coord.: Q. Bletery)</p> | <p>15:00 Code and Processing Overview Application of Seismic Array Back-Projections to Rupture Imaging (coord.: L. Meng)</p> | | <p>15:00 Code and Processing Overview ML-based tools for seismic phase picking and association (coord.: A. Rietbrock)</p> | <p>15:00 Code and Processing Overview Motorcycle II: A spectral boundary-integral method for seismic cycles on multiple faults (coord.: S. Barbot)</p> |
| <p> 15:45 Coffee break</p> | <p> 15:45 Coffee break</p> | <p> 15:45 Coffee break</p> | <p> 15:45 Coffee break</p> | <p> 16:00 Coffee break</p> |
| <p><i>Models: laboratory, numerical, empirical</i></p> <p>16:00 keynote talk Sylvain Barbot Thermobaric controls of fault friction</p> <p>17:05 intermediate talk Yihe Huang The contribution of the co-evolution of earthquakes and fault zones to fault slip spectrum</p> <p>17:35 Panel-led group discussion</p> <p>17:50 lightning poster intro (1 min/each)</p> <hr/> <p>18:25 poster session with drinks (Group I)</p> | <p>16:00 short talk Lucile Costes What controls seismicity at intermediate depths in subducting slabs: a study of the M7.1 2003 Miyagi-oki intraslab earthquake sequence</p> <p><i>Theoretical framework</i></p> <p>16:15 keynote talk Dmitry Garagash Generation of low effective stress along faults by upwelling fluid flow in Laboratory and in Nature, and Seismogenesis</p> <p>17:20 short talk Gong Zekang RuptureNet2D, a deep neural network based surrogate for dynamic earthquake rupture simulation in 2D</p> <p>17:35 short talk Tian Lu Deep learning in microseismicity and aftershock sequence analysis of at the Bedretto Underground Laboratory</p> <p>17:50 Panel-led group discussion</p> <hr/> <p>18:20 poster session (Group I)</p> | <p>18:00 lightning poster intro (1 min/each)</p> <hr/> <p>18:30 poster session (Group II)</p> | <p><i>Models: laboratory, numerical, empirical</i></p> <p>16:00 keynote talk Alice Gabriel Understanding the physics of multi-fault earthquakes using supercomputing, fracture mechanics and seismic, geodetic and tsunami observations</p> <p>17:05 intermediate talk Fabio Corbi Scaled seismotectonic models of megathrust seismicity: state of the art and future directions</p> <p>17:35 short talk Quentin Bletery Do earthquakes start with a precursory phase of slow slip?</p> <p>17:50 panel-led group discussion</p> <hr/> <p>18:20 poster session (Group II)</p> | <p>MOVING FORWARD</p> <p>16:20 Early career participant-led</p> <p>17:50 Final remarks</p> |
| | | | <p>19:30 Gala BBQ (on-site)</p> | |

Poster sessions

Prefer the portrait format, best is A0 format

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|---------------------------|---------------------|---|--|
| Group I - Day 1 & 2 | Solares | Margarita | Towards systematic kinematic source models of historically large earthquakes |
| | Fan | Caiyuan | Experimental and numerical investigation of thermo-hydro-mechanical (THM) couplings during earthquake rupture |
| | Sato | Daisuke | Reconciling Aging Law and Slip Law as canonical laboratory observations on rate-and-state friction |
| | Shibata | Ritsuya | Source processes revealed by waveform inversion with radiation-corrected empirical Green's function |
| | Yoshida | Keisuke | Relationship between Final Size Diversity and Initial Rupture Process in Earthquake Cycles |
| | Liu | Dong | Poroelastic Heterogeneity Between Fault Zones and Wall Rocks and Its Coupling with Fault Instability |
| | Journeau | Cyril | Investigating Slow Slip Transients and Earthquake Swarms on the Blanco Transform Fault with OBS Data Mining |
| | Volpe | Giuseppe | Frictional Instabilities in Clay and Implications for Shallow Slow Slip |
| | Hutchings | Sean | Upper Mantle Earthquakes in Western North America and the link to Lithospheric Edges |
| | Norisugi | Reiju | Machine learning predicts meter-scale laboratory earthquakes |
| | Nunez | Sebastian | Illuminating the preparatory processes of the 2023 Türkiye Earthquake Sequence using an enhanced seismicity catalog |
| | Bayramov | Zaur | Dynamic Triggering of a-seismic slip along the West Caspian fault (West Caspian region) by the 2023 Kahramanmaraş earthquakes: A joint analysis of SAR Interferometry and Seismic Data |
| | Sun | Yudong | Back-propagating Earthquakes on a simple faults |
| | Zhou | Yishuo | Laboratory investigation of dynamically triggered earthquakes on faults filled with granular gouge |
| | Walakulu Arachchige | Dilini | Earthquake Propagation in a Seismogenic Zone Using 2.5D Finite Difference Model |
| | Iwasaki | Yuriko | Intraslab Seismicity Near Subducted Seamounts Induced by the 2019 Large Slow Slip Event at the Offshore Hikurangi Subduction Zone |
| | Jie | Yaqi | Earthquake clustering and statistics at the Alaska Peninsula |
| | Can | Birsen | Monitoring Prince Islands Segment of the North Anatolian Fault Zone Using Novel Earthquake Detection and Location Techniques |
| Chalumeau | Caroline | Revisiting the 2010 Maule aftershock sequence with machine learning: insights into the fine-scale structure of the megathrust | |
| Barbot | Sylvain | Does the direct effect of friction increase continuously with absolute temperature? | |

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| Group II - Day 3 & 4 | Haiyang | Qiu | The Presence of Low-Velocity Zones Reduces the Critical Nucleation Radius |
| | Liu | Min | Fluids and fault structures underlying the complex foreshock sequence of the 2021 MW 6.1 Yangbi earthquake |
| | Seo | Min-Seong | Rupture properties of small earthquakes in southern Korean Peninsula |
| | Liardon | Tristan | Experimental observations on fluid-induced aseismic slip |
| | Rahmani | Sofiane Takeddine | Unraveling Seismic Patterns: A Deep Dive into Earthquake Sequences and Swarms in Northeastern Algeria through a Dual Method Approach |
| | Deng | Di | Investigate Rupture Dynamics Using Near-Fault Ground Velocity and Displacement in the 2023 Mw 7.8 Kahramanmaraş, Türkiye earthquake |
| | Alloncle | Marion | Earthquake source characterization: Application to the Armorican Massif, France |
| | Kaveh | Hojjat | Reduced Order Modeling of Earthquake Cycle Simulation Using Machine Learning |
| | Rodriguez Piceda | Constanza | How normal fault interactions impact the generation of complex seismic sequences in the southern Apennines |
| | Shrestha | Rajani | Variability in the Recurrence Interval of System-size Events on a Homogeneous Fault |
| | Mokhtari | Farès | Slip Dynamics Along the Creeping Section of the Haiyuan Fault, Gansu, China: Analysis from InSAR, Seismological, and Strainmeter Data |
| | Dérاند | Paul | Interactions between coseismic slip of the Kahramanmaras earthquakes (Türkiye, 2023) and post-seismic slip on secondary faults |
| | Romanet | Pierre | Fluid induced slow-slip events in a network of interacting faults |
| | Gable | Sydney | Refining Earthquake Magnitudes Using a Relative Approach with Implications for Seismic Hazard in Induced and Tectonic Settings |
| | Thomas | Ann Mariam | Detecting Seismic Events in a Noisy Urban and Industrial Environment |
| | Burkett | Francesca | Seismicity of the Tierra del Fuego region as recorded on two small aperture phased arrays |
| | Sarma | Antareep Kumar | Fluid Injection Induced Seismicity: A Numerical Study of Aseismic Cascade Slip Events in Fault Damage Zones |
| | Gautam | Rachit | Induced seismicity at the Balmatt geothermal doublet (northern Belgium) |
| | Mauro | Michele | Probing the Micromechanics of Laboratory Faults using Ultrasonic Waves: Insights from Borehole Samples from Delaware Basin, Texas |
| | Carrero Mustelier | Emily | Imaging interseismic activity along the North Anatolian Fault with kinematic models constrained by dense geodetic observations |
| | Karashi | Jafar | Investigation of the spatiotemporal variability of ground-motion during the 2016 Central Italy seismic sequences |
| | Magnani | Maria Beatrice | Reconciling a critically stress crust with long-term fault slip history in intraplate regions |
| | Arroyo Solorzano | Mario | Unveiling the Impact of Neglecting Slow-Slip Earthquakes in PSHA for Subduction Zones, a study case for Costa Rica |
| | Barbot | Sylvain | Thermobaric activation of fault friction |

- Friday 2-3 PM: Recent progress, pressing questions and future directions

PhD students, postdoctoral researchers, and early-career academics are invited to gather in the designated area near the group photo location. Please form groups of 3-4 participants and engage in a structured discussion around the following questions:

1. Key Takeaways :

- Identify 2-4 key messages or insights you have gained from this week.
- Explain why these takeaways are particularly significant for your research or professional development.

2. Future Directions :

- list 2-4 potential pathways forward, both in terms of fundamental research and broader societal implications.
- How can your work contribute to advancing knowledge or addressing societal challenges?

3. Discussion Points :

- list any specific questions or topics that emerged this week which you feel require further exploration or collective discussion?

This exercise is intended to foster reflection and collaborative thinking. Each group will be asked to share their points at 4:20pm in our final discussion session