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# Seminar Schedule

The BSL Seminar regularly takes place Tuesdays at 4:00pm (PST) unless otherwise noted. **Seminars will be hybrid with in-person people joining from the BSL Conference Room (220 McCone Hall) and many others joining virtually.** Please email Barbara Romanowicz ([barbarar@berkeley.edu](mailto:barbarar@berkeley.edu)) to be added to the mailing list to receive the Zoom link.

## Spring 2024 Seminars

|             | <b>Name</b>                             | <b>Affiliation</b>                       | <b>Title</b>  |
|-------------|---|--|---|
| January 23  | <b>Mengsu HU</b>                        | Lawrence Berkeley National Laboratory    | Modeling chemo-mechanical effects on multiscale roughness   |
| January 30  | <b>No Seminar-USGS Hazards Workshop</b> |  |   |
| February 6  | <b>Rudy Wenk</b>                        | UC Berkeley                              | Seismic anisotropy of rocks: from serpentine to hydrous mantle phases   |
| February 13 | <b>Mark Richards</b>                    | UC Berkeley                              | Chasing Darwin's Shadow: Geophysics and Evolution in the Galapagos  |
| February 20 | <b>Aaron Micallef</b>                   | Monterey Bay Aquarium Research Institute | A paradigm shift towards finer scale field measurements in seafloor geomorphology                                   |
| February 27 | <b>Max Rudolph</b>                      | UC Davis                                 | Cracks and eruptions on icy moons   |
| March 5     | <b>Jeremy Requier</b>                   | Obs. Royal de Belgique                   | Free oscillations in the Earth's liquid core, an overview   |
| March 12    | <b>Arben Pitarka</b>                    | Lawrence Livermore National Laboratory   | Physics-based Ground Motion Modeling and Simulations in the San Francisco Bay Area using High Performance Computing |
| March 19    | <b>Eric Dunham</b>                      | Stanford                                 | Forensic seismic analysis and source modeling of the 2022 Nord Stream gas pipeline sabotage                         |

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|----------|------------------------|---------------------------------------|--|
| March 26 | <b>Spring Break</b>    |                                       |  |
| April 2  | <b>Larry Hutchings</b> | Lawrence Berkeley National Laboratory | Rock Physics Applied to Interpreting Tomographic Images of Elastic Parameters for Geothermal Reservoir Identification and Characterization in the Philippines and Taiwan |
| April 9  | <b>Robert Skoumal</b>  | USGS Moffett Field                    | Improving focal mechanisms with machine learning   |
| April 16 | <b>Solene Antoine</b>  | NASA Jet Propulsion Laboratory        | Kilometer-wide shallow bulk plastic yielding around continental active faults, and its relation to the earthquake source and fault structure                             |
| April 23 | <b>Betsy Madden</b>    | San Jose State University             | Contributions and challenges of fault and earthquake modeling in seismic hazard assessment   |

[2023 Seminars \(pdf\) \(/docs/BerkeleySeismoLabPreviousSchedule-2023.pdf\)](#)

[Previous Seminars \(pdf\) \(/docs/BerkeleySeismoLabPreviousSchedulePre-2022.pdf\)](#)

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## Fall 2023 Seminars

|              | <b>Name</b>              | <b>Affiliation</b>                    | <b>Title</b>  |
|--------------|--------------------------|---------------------------------------|---|
| August 29    | <b>Zach Ross</b>         | Caltech                               | Insights on magma transport and the state of stress in the mantle sill complex beneath Pahala, Hawai'i                                  |
| September 5  | <b>Sonia Tikoo</b>       | Stanford                              | Origins of lunar magnetic records and implications for the Moon's dynamo history  |
| September 12 | <b>Joe Byrnes</b>        | Northern Arizona University           | Lithosphere-Asthenosphere Coupling and the Depth Extent of Anisotropy Beneath the Pacific Ocean   |
| September 19 | <b>Sin-Mei Wu</b>        | Lawrence Berkeley National Laboratory | From Hydrothermal to Magmatic Systems: Probing the Subsurface with Dense Array Seismology   |
| September 26 | <b>Jenny Suckale</b>     | Stanford                              | Why do persistently degassing volcanoes erupt? Preliminary insights from multi-scale, multi-physics modeling                            |
| October 3    | <b>Wenyuan Fan</b>       | UC San Diego                          | Very low frequency earthquakes in between the seismogenic and tremor zones in Cascadia  |
| October 10   | <b>Rodrigo Chi-Duran</b> | UC Berkeley                           | Waveforms, First Motions and SAR: Revealing North Korea's Nuclear Tests   |
| October 17   | <b>Gaspard Farge</b>     | UC Santa Cruz                         | Sounds of the subduction plumbing system — How transient fluid circulation processes in the subduction shape patterns of seismic tremor |
| October 24   | <b>John Vidale</b>       | University of Southern California     | Earth's inner core is noticeably both rotating and changing   |

October 31

**No Seminar-  
Happy  
Halloween!**

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November 7

**Alice Gabriel**

UC San Diego

Rupture Dynamics of Large, Multi-fault Earthquakes: Understanding the physics of the 2023 Kahramanmaraş, Turkey, earthquake doublet using early observations

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November 14

**Magali Billen**

UC Davis

Linking long term deformation of sinking tectonic plates and earthquakes occurring in the deep mantle

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November 21

**Marine Denolle**

University of  
Washington

Exploring the Synergy of Cloud Computing and Seismology

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November 28

**Nori Nakata**

Lawrence Berkeley  
National Laboratory

Coupling effects of source-path-site for microseismicity characterization

# Seminar Schedule

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## Spring 2023 Seminars

|             | Name                              | Affiliation                            | Title  |
|-------------|-----------------------------------|--|--|
| January 17  | <b>No Seminar</b>                 |  |  |
| January 24  | <b>Christina Morency</b>          | Lawrence Livermore National Laboratory | Subsurface characterization based on seismic, electromagnetic and seismoelectric techniques<br><br><a href="https://youtu.be/StIKDf9oj0Q">https://youtu.be/StIKDf9oj0Q</a> (<br><a href="https://youtu.be/StIKDf9oj0Q">https://youtu.be/StIKDf9oj0Q</a> )                                  |
| January 31  | <b>No Seminar - NEHRP Meeting</b> |  |  |
| February 7  | <b>Dorian Soergel</b>             | Berkeley Seismological Laboratory      | Measuring azimuthal anisotropy in the Alps from ambient noise beamforming  |
| February 14 | <b>Peter Shearer</b>              | Scripps Institution of Oceanography    | Adventures in Measuring Variations in High-Frequency Radiation for Small to Moderate Earthquakes<br><br>Link to video on BSL Internal webpage<br>( <a href="https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html">https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html</a> ) |
| February 21 | <b>Kenichi Soga</b>               | UC Berkeley                            | Distributed Sensing for Smart Infrastructure<br><br><a href="https://youtu.be/JnPVKu4RUuQ">https://youtu.be/JnPVKu4RUuQ</a> (<br><a href="https://youtu.be/JnPVKu4RUuQ">https://youtu.be/JnPVKu4RUuQ</a> )   |
| February 28 | <b>Fan-Chi Lin</b>                | University of Utah                     | High-resolution crustal imaging using dense seismic arrays: geysers, volcanos, and seismic hazards   |

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|----------|----------------------------------|--|--|
| March 7  | <b>Julia Correa</b>              | Lawrence Berkeley National Laboratory    | Autonomous and continuous seismic monitoring using distributed acoustic sensings (DAS) and surface orbital vibrators (SOV)   |
| March 14 | <b>Gareth Funning</b>            | UC Riverside                             | Why you should consider studying the faults of northern California (if you aren't already!)<br><br><a href="https://youtu.be/IPr-fu8tRpo">https://youtu.be/IPr-fu8tRpo</a> ( <a href="https://youtu.be/IPr-fu8tRpo">https://youtu.be/IPr-fu8tRpo</a> )                   |
| March 21 | <b>Nathan Simmons</b>            | Lawrence Livermore National Laboratory   | The SPiRaL model and the next stage of global tomography at LLNL<br><br><a href="https://youtu.be/-XyUr6Ou8C0">https://youtu.be/-XyUr6Ou8C0</a> ( <a href="https://youtu.be/-XyUr6Ou8C0">https://youtu.be/-XyUr6Ou8C0</a> )  |
| March 28 | <b>No Seminar - Spring Break</b> |  |  |
| April 4  | <b>Josh Crozier</b>              | United States Geological Survey          | Earthquakes and magma resonance reveal the dynamics of a decade long eruption at Kīlauea Volcano<<br><br><a href="https://youtu.be/ju6wj_UnDuw">https://youtu.be/ju6wj_UnDuw</a> ( <a href="https://youtu.be/ju6wj_UnDuw">https://youtu.be/ju6wj_UnDuw</a> )             |
| April 11 | <b>Max Schneider</b>             | United States Geological Survey          | Effective risk and uncertainty visualization for earthquake hazards<br><br>Link to video on BSL Internal webpage ( <a href="https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html">https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html</a> )               |
| April 18 | <b>No Seminar -SSA meeting</b>   |  |  |
| April 25 | <b>Martin Karrenbach</b>         | Monterey Bay Aquarium Research Institute | Long-Range Fine-Scale Distributed Acoustic Sensing - Challenges and Opportunities<br><br>Link to video on BSL Internal webpage ( <a href="https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html">https://seismo.berkeley.edu/internal/BSL_ONLY_Seminars.html</a> ) |

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## Fall 2022 Seminars

|              | Name  | Affiliation                          | Title   |
|--------------|---|--------------------------------------|---|
| August 30    | <b>Alicia J. Hotovec-Ellis</b>                                    | USGS; California Volcano Observatory | Using earthquake-derived seismic velocity changes to monitor strain at volcanoes  |
| September 6  | <b>Yuankun Xu</b>   | BSL                                  | Remote sensing and hydromechanical characterization of landslides   |
| September 13 | <b>Daria Holdenried-Chernoff</b>                                  | EPS                                  | A statistical description of kinematic dynamos using field theory methods   |
| September 20 | <b>Alba Rodriguez Padilla</b>                                     | UC Davis                             | The geologic fingerprint of multi-fault earthquakes in Southern California<br><br><a href="https://youtu.be/02sYuYsZfDY">https://youtu.be/02sYuYsZfDY</a><br>( <a href="https://youtu.be/02sYuYsZfDY">https://youtu.be/02sYuYsZfDY</a> )      |
| September 27 | <b>Eiichiro Araki</b><br><br><b>(Presented remotely via Zoom)</b> | JAMSTEC                              | Very broadband low noise fiber optic sensing with seafloor cable off Muroto Nankai Trough, Japan. Development of sensing instruments and experiments<br><br>Link to video on BSL Internal webpage   |
| October 4    | <b>Shujuan Mao</b>  | Stanford                             | 4D seismic interferometry: New constraints on groundwater monitoring and beyond<br><br><a href="https://youtu.be/UglxUPgMnp4">https://youtu.be/UglxUPgMnp4</a><br>( <a href="https://youtu.be/UglxUPgMnp4">https://youtu.be/UglxUPgMnp4</a> ) |

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|------------|--|--------------------------------|---|
| October 11 | <b>Kelian Dascher-Cousineau</b>                            | BSL                            | Earthquake Forecasting in a Data Rich Era<br><br><a href="https://youtu.be/66zU14wRdNI">https://youtu.be/66zU14wRdNI</a><br>( <a href="https://youtu.be/66zU14wRdNI">https://youtu.be/66zU14wRdNI</a> )   |
| October 18 | <b>So Ozawa</b>  | Stanford                       | Mechanics of earthquakes on nonplanar faults<br><br><a href="https://youtu.be/_VZmCt6feC0">https://youtu.be/_VZmCt6feC0</a><br>( <a href="https://youtu.be/_VZmCt6feC0">https://youtu.be/_VZmCt6feC0</a> )  |
| October 25 | <b>Chris Milliner</b><br><br>(Presented remotely via Zoom) | Caltech                        | Constraining the Frictional Strength and State of Stress Along Coseismic Fault Ruptures using 3D Geodetic Imaging Data<br><br><a href="https://youtu.be/AQ6kCWLZYD8">https://youtu.be/AQ6kCWLZYD8</a><br>( <a href="https://youtu.be/AQ6kCWLZYD8">https://youtu.be/AQ6kCWLZYD8</a> )                            |
| November 1 | <b>Ozgur Kozaci</b>  | InfraTerra                     | Bi-modal behavior of the North Anatolian fault documented using paleoseismology, cosmogenic nuclide dating, dendroseismology and archeoseismology<br><br><a href="https://youtu.be/OIrp4fEOFQM">https://youtu.be/OIrp4fEOFQM</a><br>( <a href="https://youtu.be/OIrp4fEOFQM">https://youtu.be/OIrp4fEOFQM</a> ) |
| November 8 | <b>Sophie Coulson</b>                                      | Los Alamos National Laboratory | Predicting and Observing Patterns of Modern Sea Level Change and Crustal Deformation<br><br><a href="https://youtu.be/wlce8vOnpSI">https://youtu.be/wlce8vOnpSI</a><br>( <a href="https://youtu.be/wlce8vOnpSI">https://youtu.be/wlce8vOnpSI</a> )  |

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|-------------|------------------------------------|--|--|
| November 15 | <b>Ahmed Ettaf<br/>Elbanna</b>     | University of Illinois<br>Urbana Champaign | Building the Earthquake Virtual<br>Machine: Modeling sequences of<br>earthquakes and aseismic slip in<br>complex fault zones<br><br><a href="https://youtu.be/ZCWuQM1u-Ig">https://youtu.be/ZCWuQM1u-Ig</a><br>( <a href="https://youtu.be/ZCWuQM1u-Ig">https://youtu.be/ZCWuQM1u-Ig</a> )         |
| November 22 | <b>Johan (Yoshi)<br/>Gilchrist</b> | University of British<br>Columbia          | The collapse dynamics and<br>terraced deposits of the largest<br>explosive eruptions on Earth<br><br><a href="https://youtu.be/JsbOFdaWI_s">https://youtu.be/JsbOFdaWI_s</a><br>( <a href="https://youtu.be/JsbOFdaWI_s">https://youtu.be/JsbOFdaWI_s</a> )  |
| November 29 | <b>Andrea Chiang</b>               | Lawrence Livermore<br>National Laboratory  | Regional Moment Tensor<br>Inversion Using a Three-<br>Dimensional Earth Model and its<br>Application to the Western<br>United States<br><br><a href="https://youtu.be/NISyGyK6ePE">https://youtu.be/NISyGyK6ePE</a><br>( <a href="https://youtu.be/NISyGyK6ePE">https://youtu.be/NISyGyK6ePE</a> ) |

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## Spring 2022 Seminars

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|             | <b>Name</b>  | <b>Affiliation</b>       | <b>Title</b>  |
|-------------|--|--------------------------|---|
| January 25  | <b>Li-Wei Chen</b><br><b>(Presented remotely via Zoom)</b>                                     | UC Berkeley Exit Seminar | Accelerating full-waveform inversion at the global scale via source stacking followed by cross-correlations |
| February 1  | <b>Nicolas Coltice</b><br><br><b>**12 Noon PST</b><br><br><b>(Presented remotely via Zoom)</b> | ENS, Paris               | Tectonics is a hologram   |
| February 8  | <b>Wenbo Wu</b><br><br><b>(Presented remotely via Zoom)</b>                                    | WHO                      | Seismic ocean thermometry - challenges and opportunities  |
| February 15 | <b>Sujoy Mukhopadhyay</b>  | UC Davis                 | There and back again: A Story of Earth's volatile accretion and evolution                                   |
| February 22 | <b>Max Rudolph</b>   | UC Davis                 | Earth's mantle viscosity and the evolution of large-scale structure   |
| March 1     | <b>Heather Shaddock</b>  | BSL                      | Seismic detection of oceanic internal gravity waves   |

|          |   |                                     |  |
|----------|---|-------------------------------------|--|
| March 8  | <b>Julien Aubert</b><br><br><b>** 12 Noon PST</b><br><br><b>(Presented<br/>remotely via<br/>Zoom)</b> | PG Paris                            | Rapid geomagnetic variations -<br>a new core message to decipher   |
| March 15 | <b>Neala Creasy</b>   | LANL                                | Seismic Anisotropy from Crust<br>to Core with 3D Forward Wave<br>Simulations and Full Waveform<br>Inversion        |
| March 22 | <b>No Seminar</b>   |                                     | Spring Break   |
| March 29 | <b>Sarah Lambart</b>  | Univ. of Utah                       | Melt2Mantle - New proxy to<br>constrain the lithological<br>makeup of the mantle                                   |
| April 5  | <b>Yifang Chen</b>  | BSL                                 | Volumetric interactions<br>between major ruptures and<br>fault zones illuminated by small<br>earthquake properties |
| April 12 | <b>Jin Zhang</b><br><br><b>**12 Noon<br/>PDT**</b>  | Univ. of New Mexico                 | Toward quantitative<br>understanding of the volatile<br>storage and transport in the<br>Earth's interior           |
| April 19 | <b>Rishav Mallick</b>   | Caltech                             | Understanding lithosphere<br>deformation by bridging<br>timescales from earthquake<br>sequences to geodynamics     |
| April 26 | <b>William<br/>Barnhart</b>   | USGS-Moffet                         | Earth's Rapid and Permanent<br>Deformation: The View From<br>Low Earth Orbit                                       |
| May 3    | <b>Robert Bridges,<br/>Matt Lee, &amp;<br/>Chris Sine</b>   | California Resources<br>Corporation | Active Source Seismic in the<br>Upstream Energy Business   |

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## Fall 2021 Seminars

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|              | <b>Name</b>   | <b>Affiliation</b>                     | <b>Title</b>  |
|--------------|---|--|---|
| August 31    | <b>Ruijia Wang</b><br><br><b>(Presented remotely via Zoom)</b>                                | University of New Mexico               | Complexity and Simplicity of Injection-induced Earthquakes in the Raton Basin<br><br><a href="https://youtu.be/7ix3V9npLa4">https://youtu.be/7ix3V9npLa4</a><br>( <a href="https://youtu.be/7ix3V9npLa4">https://youtu.be/7ix3V9npLa4</a> )   |
| September 7  | <b>Grzegorz Kwiatek</b><br><br><b>**9:00 AM PDT**</b><br><b>(Presented remotely via Zoom)</b> | GFZ Potsdam                            | Adaptive stimulation strategy, reservoir structure and stress conditions as key factors contributing to successful 2018 and 2020 hydraulic stimulations performed in a frame of St1 Deep Heat project in Helsinki, Finland<br><br><a href="https://youtu.be/s3_9U8VkiCk">https://youtu.be/s3_9U8VkiCk</a> ( <a href="https://youtu.be/s3_9U8VkiCk">https://youtu.be/s3_9U8VkiCk</a> ) |
| September 14 | <b>Dennise Templeton</b><br><br><b>(Presented remotely via Zoom)</b>                          | Lawrence Livermore National Laboratory | Recommended practices for managing induced seismicity associated with geologic carbon storage<br><br><a href="https://youtu.be/1DeJ-g1ZguQ">https://youtu.be/1DeJ-g1ZguQ</a><br>( <a href="https://youtu.be/1DeJ-g1ZguQ">https://youtu.be/1DeJ-g1ZguQ</a> )   |
| September 21 | <b>Curtis Baden</b>   | Stanford University                    | Bridging Earthquakes and Mountain Building in the Santa Cruz Mountains, CA<br><br><a href="https://youtu.be/UAXodXQKyRw">https://youtu.be/UAXodXQKyRw</a><br>( <a href="https://youtu.be/UAXodXQKyRw">https://youtu.be/UAXodXQKyRw</a> )  |

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|--------------|---|--|--|
| September 28 | <b>Masayuki Kano</b><br><br><b>**4:30 PDT**</b><br><b>(Presented remotely via Zoom)</b> | Tohoku University  | Spatial slip behavior for short-term slow slip events and relation to megathrusts along the Nankai subduction zone<br><br>Link to video on BSL Internal webpage  |
| October 5    | <b>Daniel Blatter</b>   | UCSD   | Constraining melt and volatiles at the lithosphere-asthenosphere boundary with efficient Bayesian sampling based on regularized inversion<br><br><a href="https://youtu.be/-5CNUK0RA04">https://youtu.be/-5CNUK0RA04</a> ( <a href="https://youtu.be/-5CNUK0RA04">https://youtu.be/-5CNUK0RA04</a> ) |
| October 12   | <b>Javier Fulla</b><br><br><b>(Presented remotely via Zoom)</b>                         | Universidad Complutense de Madrid, Spain<br><br>Dublin Institute of Advanced Studies | Upper mantle thermochemical heterogeneity from coupled geophysical-petrological inversion of terrestrial and satellite data<br><br><a href="https://youtu.be/CFp-d8EVDJw">https://youtu.be/CFp-d8EVDJw</a> ( <a href="https://youtu.be/CFp-d8EVDJw">https://youtu.be/CFp-d8EVDJw</a> )               |
| October 19   | <b>Annemarie Baltay-Sundstrom</b>   | USGS   | Unraveling Earthquake Physics and Attenuation from Observed Ground Motions in California   |
| October 26   | <b>Junle Jiang</b><br><br><b>(Presented remotely via Zoom)</b>                          | University of Oklahoma   | Exploring connections between microseismicity, aseismic slip, and large earthquakes in Southern California<br><br><a href="https://youtu.be/evRZZnP1ykw">https://youtu.be/evRZZnP1ykw</a> ( <a href="https://youtu.be/evRZZnP1ykw">https://youtu.be/evRZZnP1ykw</a> )                                |
| November 2   | <b>No Seminar</b>   |  |  |

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|-------------|-----------------------|-------------------------------|--|
| November 9  | <b>Valère Lambert</b> | UCSC                          | Absolute stress levels on mature faults: Bridging insight from the lab and field through physics-based modeling<br><br>Link to video on BSL Internal webpage   |
| November 16 | <b>No Seminar</b>     |                               |  |
| November 23 | <b>Heather DeShon</b> | Southern Methodist University | Insights and conundrums stemming from induced earthquakes in Texas<br><br><a href="https://youtu.be/GF57_VLoLkM">https://youtu.be/GF57_VLoLkM</a><br>( <a href="https://youtu.be/GF57_VLoLkM">https://youtu.be/GF57_VLoLkM</a> ) |
| November 30 | <b>Luca Malagnini</b> | INGV Rome                     | Fluctuations of Crustal Permeability Inferred From Seismic Attenuation: Impacts on a Multi-Mainshock Sequence  |

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## Spring 2021 Seminars

|             | <b>Name</b>                                   | <b>Affiliation</b> | <b>Title</b>   |
|-------------|---|--------------------|--|
| January 26  | <b>No Seminar - ShakeAlert meeting</b>        |                    |  |
| February 2  | <b>No Seminar - Northern CA NEHRP meeting</b> |                    |  |
| February 9  | <b>Rachel Abercrombie</b>                     | Boston University  | Using Small Earthquakes to Probe the Controls on Earthquake Source Processes   |
| February 16 | <b>Zhongwen Zhan</b>                          | Caltech            | Geophysical sensing on submarine cables: a cocktail for two communities  |
| February 23 | <b>Juliane Dannberg</b>                       | Univ. of Florida   | The morphology, evolution and seismic visibility of partial melt at the core-mantle boundary: Implications for ULVZs |

|          |                                     |                                       |   |
|----------|-------------------------------------|---------------------------------------|---|
| March 2  | <b>Verónica Rodríguez Tribaldos</b> | LBL                                   | Towards regional subsurface characterization and monitoring using Dark Fiber DAS: challenges and opportunities          |
| March 9  | <b>Naoki Uchida</b>                 | Tohoku University                     | A Decade of Lessons Learned from the 2011 Tohoku-oki Earthquake   |
| March 16 | <b>Christopher Johnson</b>          | Los Alamos National Laboratory        | Seismic noise is the signal: Learning the earthquake activity on the central San Andreas Fault                          |
| March 23 | <b>No Seminar - Spring Break</b>    |                                       |   |
| March 30 | <b>Lauren Waszek</b>                | James Cook University                 | Constraints on structure, dynamics, and composition of the upper mantle using automated seismic waveform identification |
| April 6  | <b>Saeko Kita</b>                   | Graduate Institute for Policy Studies | Intraslab earthquake, slow slip and repeating earthquake beneath Kii peninsula, southwestern Japan                      |
| April 13 | <b>Whyjay Zheng</b>                 | UC Berkeley Statistics                | The demise of Arctic ice caps: from glacier surge to ice stream   |
| April 20 | <b>No Seminar - SSA Meeting</b>     |                                       |   |
| April 27 | <b>Kate Huihsuan Chen</b>           | National Taiwan Normal University     | The nature of a dip-slip creeping fault in Taiwan: How and where it creeps  |

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## Fall 2020 Seminars

|              | Name            | Affiliation   | Title   |
|--------------|-----------------|---|---|
| September 1  | Matti Morzfeld  | UCSD  | What is Bayesian inference, why is it useful in Earth science and why is it challenging to do numerically?                  |
| September 8  | Susan Schwartz  | UCSC  | Where's Waldo? The Application of Template Matching to Understanding Fault and Glacier Mechanics                            |
| September 15 | Lars Stixrude   | UCLA  | Planetary magnetic fields produced by silicate dynamos  |
| September 22 | Sylvain Barbot  | USC   | Excitation of San Andreas tremors by thermal instability below the seismogenic zone   |
| September 29 | Kevin Kwong     | U. Washington   | Insights into seismic deformation and subducting slab structure beneath Ecuador using teleseismic relocation and tomography |
| October 6    | Magali Billen   | UC Davis  | Deep slab seismicity limited by rate of deformation in transition zone  |
| October 13   | Laura Wallace   | GNS Science, New Zealand and University of Texas Institute for Geophysics | Relationships between slow slip events, megathrust locking, and seismicity at the Hikurangi subduction zone, New Zealand    |
| October 20   | Ebru Bozdog     | CSM   | Investigation of the Earth's mantle & outer core with 3D wave simulations   |
| October 27   | Frederik Simons | Princeton University  | Through the Ocean to the Mantle: Twenty Thousand Leagues Under the Seas with a Fleet of Floating Seismic Robots             |
| November 3   |                 |   | No seminar  |

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|-------------|------------------|--------------------------|---|
| November 10 | Dan Shim         | Arizona State University | Calcium Dissolution in Bridgmanite in the Earth's Deep Mantle     |
| November 17 | Brandon Schmandt | University of New Mexico | Seismically imaging magma reservoirs under large silicic calderas |
| November 24 | Alex Robson      | UC Berkeley              | Exit Seminar  |
| December 1  | Ved Lekic        | University of Maryland   | To Be Announced   |

## Spring 2020 Seminars

|             | Speaker  | Affiliation   | Title  |
|-------------|--|---|--|
| January 21  | <b>Arthur Rodgers</b>                          | LLNL  | Toward Exascale Earthquake Ground Motion Simulations: Mw 7.0 Hayward Fault Ruptures  |
| January 28  | <b>Heather Shaddock</b>                        | UC Santa Cruz   | Burst-type Repeating Earthquakes as a Proxy for Transient Aseismic Slip  |
| February 4  | <b>Max Wyss</b>                                | ICES International Centre for Earth Simulation Foundation | Estimating fatalities in earthquakes, and why probabilities of large earthquakes cannot be estimated based on the Gutenberg-Richter relation   |
| February 11 | <b>Sue Hough</b>                               | USGS, Pasadena  | Earthquake Ground Motions and Building Damage: The Long and Short of It  |
| February 18 | <b>Tarje Nissen-Meyer</b>                      | Oxford University (visiting at Stanford)                  | Good Vibrations? Deciphering complex wavefields for deep Earth, shallow planets, explosions and elephants  |
| February 25 | <b>Vashan D. Wright</b>                        | LSU (BSL visitor)   | Neotectonics and Aging Sands: A Jamaican Story   |
| March 3     | <b>Federico Munch</b>                          | BSL postdoc   | Determining Earth's mantle thermo-chemical structure from joint analysis of seismic and electromagnetic sounding data  |
| March 10    | <b>Seminar canceled</b>                        |   |  |
| March 17    | <b>Yann Klinger</b>                            | BSL/IPGP  | The Dead Sea fault, a strike-slip fault model  |
|             | <b>(Presented remotely via Zoom.)</b>          |   |  |
| March 24    | <b>Spring Recess - no seminar</b>              |   |  |
| March 31    | <b>Avinash Nayak (presented via Zoom only)</b> | LBNL  | Joint inversion of body-wave travel times and surface-wave dispersion in Central California and identification of higher mode Rayleigh waves (Video Recording) ( <a href="https://drive.google.com/file/d/16FP1oDBK2mkFskFTleMjgTRn6o6oVBOG/view">https://drive.google.com/file/d/16FP1oDBK2mkFskFTleMjgTRn6o6oVBOG/view</a> ) |
| April 7     | <b>Luca Dal Zilio</b>                          | Caltech   | Building of the Himalaya Across Scales: From Tectonics to Earthquakes (Video Recording) ( <a href="https://drive.google.com/a/berkeley.edu/file/d/1Ppy7mDHakYsXOYniUDGReeoCh6_vak_W/view?usp=sharing">https://drive.google.com/a/berkeley.edu/file/d/1Ppy7mDHakYsXOYniUDGReeoCh6_vak_W/view?usp=sharing</a> )                  |
| April 14    | <b>Yen Joe Tan</b>                             | Stanford  | Axial Seamount as a unique laboratory to study how stress changes affect earthquake occurrence   |

|          |                          |                                |  |
|----------|--------------------------|--------------------------------|--|
| April 21 | <b>Johanna M. Nevitt</b> | USGS, Moffett Field            | Mechanical controls on fault slip and deformation at Earth's surface during the 2014 M6.0 South Napa earthquake  |
| April 28 | <b>Eric Lindsey</b>      | Earth Observatory of Singapore | Unlocking the physics of earthquake hazards with geodesy: Megathrusts, mountains and Myanmar (Video Recording) ( <a href="https://drive.google.com/a/berkeley.edu/file/d/1M8GgEYDs1RWrhYWhqKAcJFD6ipVNQL_c/view?usp=sharing">https://drive.google.com/a/berkeley.edu/file/d/1M8GgEYDs1RWrhYWhqKAcJFD6ipVNQL_c/view?usp=sharing</a> ) |

## Fall 2019 Seminars:

|              | <b>Speaker</b>                   | <b>Affiliation</b>                            | <b>Title</b>   |
|--------------|----------------------------------|---|--|
| September 3  | <b>Marco Bohnhoff</b>            | GFZ   | Seismomechanical reservoir characterization and controlling induced seismicity: Recent examples from The Geysers/California and Helsinki/Finland geothermal projects |
| September 10 | <b>Robert Martin-Short</b>       | BSL   | Multi-scale seismic imaging of the Alaskan subduction zone   |
| September 17 | <b>Lauren Waszek</b>             | New Mexico State University                   | Thermochemical controls for the visibility of upper and mid-mantle discontinuities   |
| September 24 | <b>Kathryn Materna</b>           | BSL   | Seismic coupling on plate boundary faults at the Mendocino Triple Junction   |
| October 1    | <b>Stuart Russell</b>            | Berkeley                                      | Global seismic monitoring: A Bayesian approach   |
| October 8    | <b>Chi-Yuen Wang</b>             | BSL   | Earthquake effects on groundwater - studied with Earth tides   |
| October 15   | <b>Men-Andrin Meier</b>          | Caltech                                       | Harnessing the Power of Deep Learning Algorithms to Design the Next-Generation Seismic Monitoring System   |
| October 22   | <b>Sylvain Barbot</b>            | USC   | From the microphysics of faulting to subduction-zone dynamics: constitutive and structural controls on the seismic cycle   |
| October 29   | <b>Amy Williamson</b>            | U Oregon                                      | Coseismic or Landslide? The source of the 2018 Palu Tsunamis   |
| November 5   | <b>Dan Frost</b>                 | BSL   | Dynamic history of the inner core constrained by seismic anisotropy  |
| November 12  | <b>Camilla Emily Penney</b>      | Cambridge                                     | The role of lateral rheology contrasts in the evolution of mountain ranges: insights from South East Tibet   |
| November 19  | <b>Jeremy Maurer</b>             | JPL   | Geodetic remote sensing constrains moment release from the 2017/2018 combined SSE and earthquakes near Guerrero, Mexico  |
| November 26  | <b>THANKSGIVING - no seminar</b> |   |  |
| December 3   | <b>Jeff McGuire</b>              | USGS Menlo Park                               | Imaging the subducted Gorda plate from the deformation front to the ETS zone   |
| December 10  | <b>AGU - no seminar</b>          |   |  |
| December 17  | <b>Felipe Orellana</b>           | University of the Chinese Academy of Sciences | Thermo-chemical plume interactions with mantle viscosity layering and phase transformations: comparisons with seismic imaging  |

## Spring 2019 Seminars:

| Title                    | Speaker  | Affiliation               | Title   |
|--------------------------|--|---------------------------|---|
| January 29               | <b>Dr. Walter Mooney</b>   | USGS/Menlo Park           | The Upper Mantle Beneath North America: A New View from USArray Data  |
| February 5               | <b>Prof. William Frank</b>   | USC                       | Self Diagnostic low-frequency earthquakes and the slow slip that drives them  |
| February 12              | <b>Prof. Michael Bostock</b>   | Univ. of British Columbia | Controls on Seismicity in Cascadia  |
| February 19              | <b>Prof. Cliff Thurber</b>   | Univ. of Wisconsin        | What lies beneath Laguna del Maule, Chile?  |
| February 26              | <b>Camilla Cattania</b>  | Stanford U.               | Crack models to explain seismic cycles at different scales: small repeating earthquakes and vertical strike slip faults |
| March 5                  | <b>Dr. Arben Pitarka</b>   | LLNL                      | Ground Motion Simulations of the M7, 2016 Kumamoto, Japan Earthquake Using Physics Based Rupture Models                 |
| March 12                 | <b>Prof. Philippe Lognonné</b>   | IPG Paris                 | SEIS on Mars: Development challenges and first observations<br><a href="#">Abstract</a>                                 |
| March 19                 | <b>Prof. Ebru Bozdog</b>   | Colorado School of Mines  | Imaging Earth's mantle with adjoint tomography: From measurements to interpretation                                     |
| March 26                 | <b>Spring Break</b>  |                           |   |
| April 2                  | <b>Guang Zhai</b>  | BSL postdoc               | Mechanical Modeling of Fluid-Rock Interactions: Volcano Deformation and Induced Seismicity                              |
| April 9                  | <b>Felipe Gonzalez</b>   | EPS postdoc               | Melting and stability of minerals at high pressure: consequences for Super-Earths and gas giants                        |
| April 16                 | <b>Prof. Heather Ford</b>  | UC Riverside              | Imaging the mantle structure of cratons: Implications for the formation and modification of the Wyoming lithosphere     |
| April 23                 | <b>Mark Jellinek</b>   | U. of British Columbia    | Ice, fire or fizzle: The climate footprint of Earth's supercontinental cycles   |
| <b>Tuesday, April 30</b> | <b>Jill Banfield (Faculty Research Lecture)<br/>4PM Sibley Auditorium<br/>Bechtel Engineering Center</b> |                           | <b>Mysteries of the Invisible World of Microbes</b>   |
| May 7                    | <b>Tushar Mittal</b>   | U.C Berkeley              | Eruptive tempo and climatic impact of the Deccan Traps  |

## Fall 2018 Seminars:

|           | Speaker            | Affiliation | Title                   |
|-----------|--------------------|-------------|-------------------------|
| August 28 | <b>Kayla Kroll</b> | Lawrence    | Testing the Efficacy of |

|             |                         |  |  |
|-------------|-------------------------|--|--|
| February 14 | <b>Han Yue</b>          | Caltech                                | The 2016 Kumamoto Earthquake Sequence: how the main shock starts and stops   |
| February 21 | <b>Ana Aguiar Moya</b>  | Lawrence Livermore National Laboratory | Data Mining Microseismicity using PageRank   |
| February 28 | <b>Pierre Dutilleul</b> | McGill University                      | Multi-frequential periodogram and correlation analyses of earthquake numbers and hypocenter depths in central California |
| March 7     | <b>Bill Hammond</b>     | University of Nevada, Reno             | GPS Imaging of Earth's Vertical Motion: From Sierra Nevada to North America  |

**Monday, March 13, special seminar Room 141 McCone (no seminar March 14th)**

|                 |                                 |                                       |  |
|-----------------|---------------------------------|---------------------------------------|--|
| <b>March 13</b> | <b>Harriet Lau</b>              | Harvard                               | Tidal Tomography and Deep Mantle Buoyancy ( <b>Monday seminar</b> )  |
| March 21        | <b>Asaf Inbal</b>               | BSL                                   | Transient aseismic deformation and deep seismicity along the San-Jacinto and the Newport-Inglewood faults                          |
| March 28        | <i>spring break</i>             |                                       |  |
| April 4         | <b>Yves Guglielmi</b>           | Lawrence Berkeley National Laboratory | Exploring processes of induced seismicity from mesoscale field experiments   |
| April 11        | <b>Amir Allam</b>               | University of Utah                    | The Denali Fault as a Plate Boundary: New Results from Double-difference Tomography, Receiver Functions, and Fault Zone Head Waves |
| April 18        | <b>Matt Hornbach</b>            | Southern Methodist University         | Seismic Imaging of hydrates on US Margins (Arctic/Atlantic) with implications for hydrate/margin stability and climate             |
| April 25        | <b>Chris Johnson</b>            | BSL                                   | Exit Seminar   |
| May 2           | <b>Felipe Orellana Rovirosa</b> | BSL                                   | Exit Seminar   |
| May 9           | <b>Anya Reading</b>             | University of Tasmania                | Ocean Microseisms and Antarctic Lithosphere: Seismological and Interdisciplinary Investigations                                    |

**Fall 2016 Seminars:**

|         | Speaker                 | Affiliation                            | Title  |
|---------|-------------------------|--|--|
| Aug 30  | <b>Kuo Fong Ma</b>      | National Central University, Taiwan    | Investigation on fault zone and fluid migration activity after the 1999 M7.6 Chi-Chi, Taiwan, earthquake |
| Sept 6  | <b>Janire Prudencio</b> | BSL                                    | 2D and 3D attenuation tomographies of active volcanoes   |
| Sept 13 | <b>William Walter</b>   | Lawrence Livermore National Laboratory | Explosion Monitoring and the Source Physics Experiment (SPE)   |

|                         |                          |   |   |
|-------------------------|--------------------------|---|---|
| March 31                | <b>Estelle Chaussard</b> | UC Berkeley                                     | Interseismic deformation and potential for larger earthquakes on the Hayward-Calaveras Fault system                 |
| April 7                 | <b>Jiayi Xie</b>         | University of Colorado Boulder                  | Inferring the oriented elastic tensor from surface wave observations: Preliminary application across the Western US |
| April 14                | <b>Sarah Bennett</b>     | Stanford University                             | Dig a Little Deeper: Decoding Intermediate-depth Earthquakes  |
| April 21<br>(Cancelled) | <b>Stephen Morris</b>    | UC Berkeley                                     | Modelling of slab-scale stresses caused by the olivine-spinel transformation  |
| April 28                | <b>Anne Obermann</b>     | Swiss Seismological Service (SED) at ETH Zurich | Monitoring with ambient noise: applications to volcanoes, fault zones and injection wells                           |

## Fall 2014 Seminars:

|              | Speaker                    | Affiliation  | Title   |
|--------------|----------------------------|--------------|---|
| September 2  | <b>Pierre Boue</b>         | Stanford     | Teleseismic body waves retrieval from ambient seismic noise correlation   |
| September 9  | <b>Allen McNamara</b>      | ASU          | Understanding the compositional structure of Earth's mantle   |
| September 16 | <b>Yousef Bozorgnia</b>    | UC Berkeley  | NGA-West2 Research Project  |
| September 23 | <b>Angie Chung</b>         | Stanford     | Rapidly Evaluating Damage Using High Density Networks in Noisy Urban Environments                                 |
| September 30 | <b>Artie Rodgers</b>       | LLNL         | Simulations of Earthquake Ground Motions in the San Francisco Bay Area  |
| October 7    | <b>Justin Rubinstein</b>   | USGS         | Determining the Seismic Hazard of Natural and Induced Earthquakes   |
| October 14   | <b>Zhongwen Zhan</b>       | UC San Diego | Rupture complexity of deep earthquakes: the large, the hot, and the fast  |
| October 21   | <b>Adrien Arnulf</b>       | UC San Diego | Anatomy of an active submarine volcano using wavefield based techniques   |
| October 28   | <b>Ben Brooks</b>          | USGS         | Harvesting point clouds: Near field deformation from the South Napa Earthquake from Mobile Laser Scanning geodesy |
| November 4   | <b>Meghan Miller</b>       | USC          | Imaging the upper mantle structure of northwest Africa: Influence of mantle flow on continental deformation       |
| November 11  | <b>NONE - Veterans Day</b> |              |   |
| November 18  | <b>Sang-Ho Yun</b>         | JPL          | InSAR Error Budget in the Air   |
| November 25  | <b>Diego Melgar</b>        | UC Berkeley  | Tsunami inundation prediction with kinematic earthquakes  |