

2022 Northern California Earthquake Hazards Workshop

January 25-27, 2022

USGS, virtual from Menlo Park, California

Pacific Standard Time (UTC-8)

AGENDA

Day 1, Tuesday, January 25

9:30-10:15 a.m. Welcoming Remarks

Keith Knudsen, Northern California Earthquake Hazards Program Coordinator (USGS)

Sarah Minson, Workshop Overview (USGS)

John Grindle, Workshop Format (Grin Events)

10:15 a.m.-12:00 p.m. Disparate Hazard and Risk

Speakers [15 min each]:

Jamie Jones (USGS) *Communities-at-risk Analysis—Where? Who? And What?*

Gloria Muñoz (School of Environment, Education, and Development, University of Manchester) and **Elizabeth Reddy [presenting]** (Colorado School of Mines) *Environmental Justice and Participation in the San Diego – Tijuana earthquake scenario*

Nnenia Campbell (Natural Hazards Center) *Getting the Word Out: Disaster Risk Communication Through an Equity Lens*

Carson MacPherson-Krutsky (University of Colorado Boulder Natural Hazards Center) *Translating Hazard Risk Information for Specific Audiences: Examples of Existing Efforts and Lessons Learned*

Discussion: 45 min

Moderators: **Daniel Homsey** (Director of The Neighborhood Empowerment Network (NEN) for the City Administrator's Office of the City and County of San Francisco), **Anne Wein** (USGS)

12:00-1:00 p.m. Break

1:00-2:30 p.m. The Future is Now: Technological Advances

Speakers [15 min each]:

Ian Pierce (Oxford) *3D Trenching with iDar (iPad Detection and Ranging): Examples from California, Azerbaijan, & Kyrgyzstan*

Chris DuRoss (USGS) - *Portable optically stimulated luminescence age map of a paleoseismic exposure*

Amanda Thomas (U Oregon) *Data mining nontraditional seismicity using deep learning*

Xinxiang (Sean) Zhu (U Houston) *Urban geodesy along the Hayward fault - automated detection of planar primitives in MLS data and change detection*

Discussion: 30 min

Moderators: **Belle Philibosian** (USGS), **Noha Farghal** (RMS)

2:30-4:30 p.m. Posters

4:30 p.m. Adjourn day 1

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Day 2, Wednesday, January 26

9:30-11:00 a.m. **Eastern California: Our Friendly Faults of the East**

Speakers [15 min each]:

Steve Wesnousky (UNR) *The Walker Lane in 15 Minutes or Less*

Jessica Thompson Jobe (USGS) *Active Faults in NE California*

Graham Kent (UNR) *Lake Tahoe Faults and Swarms*

Brian Olson (CGS) *The Mw 6.0 Antelope Valley Earthquake of 8 July 2021*

Discussion: 30 min

Moderators: **Alex Hatem** (USGS), **Judy Zachariasen** (CGS)

11:00 a.m.-12:00 p.m. **Posters**

12:00-1:00 p.m. **Break**

1:00-2:30 p.m. **Colouring Outside the Earthquake: Creepy Crawly Faults**

Speakers [15 min each]:

Roger Bilham (CU Boulder) *The surface signature of subsurface fault creep: episodic dilation and gas emission*

Matt Tarling (McGill) *Preservation of fossil earthquakes in a creeping serpentinite shear zone*

Dan Gittins (Oxford) *Characterizing the along-strike rupture lengths of creep events on the San Andreas Fault. The long and the short of it.*

Rachel Abercrombie (Boston University) *Spatio-temporal variation in earthquake source properties on the San Andreas fault at Parkfield*

Discussion: 30 min

Moderators: **Diane Moore** (USGS), **Jess Murray** (USGS)

2:30-2:45 p.m. **Break**

2:45-4:00 p.m. **Short talks**

4:00-5:00 p.m. **Posters**

5:00 p.m. **Adjourn day 2**

Day 3, Thursday, January 27

9:30-11:00 a.m. **Cascadia (Northern California Edition)**

Speakers [15 min each]:

Erin Wirth (USGS/UW) *Ground shaking and hazards to northern California from Cascadia Subduction Zone earthquakes*

Jessie Pearl (Nature Conservancy) *Precision dating of Cascadia seismicity using multiproxy tree-ring records*

Tyler Ladinsky (CGS) *Upper-plate faults and their connection to the megathrust*

Janet Watt (USGS) *Morpho-tectonic variability offshore Cascadia: What does it mean for northern California earthquake hazards?*

Discussion: 30 min

Moderators: **Maureen Walton** (Naval Research Laboratory), **Harvey Kelsey** (Humboldt State University)

11:00 a.m.-12:00 p.m. **Posters**

12:00-1:00 p.m. **Break**

1:00-2:30 p.m. **The Earthquakes We Met Recently in California and Beyond**

Speakers [15 min each]:

Jessie Saunders (USGS) *A year of West Coast earthquake early warning: Alert performance comparisons of ShakeAlert and PLUM in 2021*

Kate Allstadt (USGS) *The USGS Rapid Remote Analysis of Landslides Triggered by the 14 August 2021 M7.2 Nippes, Haiti Earthquake*

Ben Brooks (USGS) *ASTUTI – Cell-Phone-Based Earthquake Early Warning in Costa Rica*

Kathryn Materna (USGS) *The 2021 M6.2 offshore northern California earthquake: Slip on the Mendocino Fault Zone*

Discussion: 30 min

Moderators: **Austin Elliott** (USGS), **Bill Hammond** (UNR)

2:30-3:45 p.m. **Earthquake Response Panel Discussion**

Speakers [5-15 min each]:

Cynthia L. Pridmore (CGS & California EQ Clearinghouse) *California Geological Survey and California Earthquake Clearinghouse Earthquake Response*

Maggie Ortiz (EERI) *EERI response planning & tools*

Mike Oskin (SCEC) *SCEC response planning*

Jonathan Stewart (GEER) *GEER response planning & tools*

Keith Knudsen (USGS) *USGS Northern California earthquake response planning & science questions to be answered*

Discussion: 20 min

Moderators: **Forrest Lanning** (FEMA), **Paul Earle** (USGS)

3:45 p.m. **Concluding Remarks, Keith Knudsen**

4:00 p.m. **Adjourn (posters remain open)**