

UNREST* TAG Workshop

*Understanding Natural Recurrence of Earthquakes and Slip over Time

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Workshop Goals

- **Foster sustained collaboration between modelers and earthquake geologists** who generate geologic records of fault slip, rupture extent, slip rates, and the timing and regularity or irregularity of past earthquakes across California.
- **Identify and prioritize the types and locations of geologic data that are most needed** to reduce uncertainties in seismic hazard models and to more rigorously evaluate earthquake simulators.
- **Constrain and explore the implications of discrepancies** between deformation models informed by geologic data and those based primarily on geodetic observations.

Day 1 Agenda

- **Session 1** (8:00-10:00): Geologic data needed for improvement of time independent seismic hazard models
- **Session 2** (10:15-12:00): Geologic data needed for validation of earthquake catalog simulators and time-dependent seismic hazard models
- Lunch (12:00-13:00)
- **Session 3** (13:00-14:30): Geologic data needed for comparison to geodetic and/or mechanical deformation models
- **Session 4** (14:45-17:00): Setting priorities for the UNREST community effort (Part 1) *break-out groups 15:45-17:00*

Day 2 Agenda

- **Session 5** (8:00-10:15): Geologic data needed for validation of dynamic rupture models and multi-cycle earthquake models
- **Session 6** (10:30-11:45): Setting priorities for the UNREST community effort (Part 2) *breakout groups, continued*
- Lunch in breakout groups (11:45-13:00)
- **Session 7** (13:00-15:00): Building and sustaining the UNREST community

UNREST Community is a Big Tent

UNREST Target Faults (Proposal Figure 1)

We should not feel constrained to limit discussion to the proposed target faults.



Session 1: Geologic data needed for improvement of time independent seismic hazard models

08:15 - 08:30	Invited: Utilization of Earthquake Geology Constraints in the USGS NSHM	Ned Field
08:30 - 08:45	Invited: Development of Earthquake Geology Constraints for the USGS NSHM	Alex Hatem
08:45 - 09:00	Invited: Do earthquake ruptures propagate through the creeping section of the San Andreas Fault? Evidence from geology	Belle Philibosian
09:00 - 09:10	Missed events and over-interpretation in paleoseismic records: implications for recurrence intervals	Devin McPhillips
09:10 - 09:15	Quantifying Fault Offset Uncertainty from Displaced Landforms: Case Studies from Western North America	Veronica Prush
09:15 - 10:00	Large-group discussion	Mike Oskin