

SCITS MEETING AGENDA

May 3 & 4, 2018

Black Community Service Center

[418 Santa Teresa Street, Stanford, CA 94305](#)

Thursday, May 3

8:00 Continental Breakfast

8:30-8:40 *Welcome* – Mark Zoback and Claudia Baroni

Morning Session

8:40-8:50 Introduction to seismic hazard forecasts (Jack Baker)

8:50-9:20 Physics-based forecasting of man-made earthquake hazards in
Oklahoma and Kansas (Cornelius Langenbruch)

9:20-9:40 Testing the USGS 1-year seismicity forecasts (Mostafa Mousavi)

9:40-9:55 Tutorial on “Rate and State” friction and faulting (Paul Segall)

9:55-10:20 A hydromechanical earthquake nucleation model that forecasts
onset, peak, and falling rates of induced seismicity in Oklahoma and
Kansas (Justin Rubinstein)

10:20-10:50 Break

10:50-11:10 Seismicity Declustering and Hazard for Oklahoma (Ganyu Teng)

11:10-11:30 Site amplification for PSHA (Zack Spica)

11:30-12:00 Discussion of seismic hazard forecasts

12:00-1:00 Lunch on Patio

Thursday, May 3

Afternoon Session

- 1:00-1:20 Pre-injection Seismic Hazard Assessment for Fallon, NV (Ole Kaven)
- 1:20-2:20 The Mw 5.4 Pohang, South Korea earthquake: Induced by EGS? (Bill Ellsworth and Domenico Giardini)
- 2:20-2:50 Break**
- 2:50-3:20 Do propagating fractures cross or follow existing fractures? (Ayaka Abe)
- 3:20-3:40 Triggering seismicity by poroelastically induced creep on faults with rate and state dependent friction (Elias Heimisson)
- 3:40-4:00 Developing a general modeling tool for induced seismicity and earthquake rupture in fractured poroelastic media (Lei Jin)
- 4:00-4:20 Better magnitudes for induced earthquakes (Fatimah Al-Ismail)
- 4:20-4:40 Risk matrix for assessing hydrofrac induced seismicity risk (Tim Tyrrell)
- 4:40-5:15 Open Discussion
- 5:15-6:30 Reception (Patio)**

Friday, May 4

8:00 Continental Breakfast

Morning Session

8:30-9:00 Raton Basin seismicity and fluid injection (Jens Lund Sneek and Matt Weingarten)

9:00-9:20 How does pore pressure influence earthquake size on rough faults? (Jeremy Mauer)

9:20-9:40 Near field observation of induced earthquakes at Collab Project in South Dakota (Ankush Singh)

9:40-10:00 Reanalyzing the Rangely earthquake control experiment using machine learning (Kaiwen Wang)

10:00-10:30 Break

10:30-10:40 Public release of the FAST Earthquake detection software (Greg Beroza)

10:40-11:10 Updated stress maps in unconventional basins (Jens Lund Sneek)

11:10-11:40 Discussion of SCITS engagement in the Permian Basin (Mark Zoback)

11:40-12:00 Priorities for Future Research

12:00 Adjourn