

GeoPRISMS Theoretical & Experimental Institute for the RIE Initiative Student & Post-Doc Symposium

ABQ Hotel, Albuquerque, NM

February 7-10, 2017

Agenda

Feb 7 – Student & Postdoc Symposium

(Alvarado Ballroom A+B)

- 1:00: Welcome & overview of GeoPRISMS and NSF – Demian Saffer (PSU) and Jennifer Wade (NSF)
 - 1:30: Overview of RIE science questions – James Muirhead (Syracuse) and Yelebe Birhanu (Bristol)
 - 2:00: 1 min, 1 slide pop ups on research related to RIE (part 1)
 - 2:30: Career opportunities panel
 - 3:00: Coffee break
 - 3:15: 1 min, 1 slide pop ups on research related to RIE (part 2)
 - 3:45: Group discussion
 - 5:00: Concluding remarks
 - 5:00-7:00: Ice breaker and student & postdoc posters
-

Feb 8 - Day 1

7:00 Breakfast (*Franciscan Ballroom*)

8:00 Welcome from GeoPRISMS Office & NSF – Demian Saffer and Jennifer Wade (*Alvarado Ballrooms D & E*)

8:15 Introduction to the RIE TEI – Tobias Fischer (UNM) and Donna Shillington (LDEO)

8:30 Session 1 | Rift evolution from initiation to post rift architecture

- *A brief history of ideas about rifting and the controversial role of magma in rift initiation* | Roger Buck (LDEO) – Keynote (20 min)
- *Controls on continental rifting processes from geophysical observations at mature margins* | Harm Van Avendonk (UTIG) – Keynote (20 min)
- *The interplay between morphodynamics and substrate fluid flow– An examination of active processes along passive margins* | Danny Brothers (USGS) – Keynote (20 min)
- Panel discussion with moderator – 30 min

10:00 Break

10:30 Session 2 | Geodynamics

- *Geodynamic models of rifting* | Jolante Van Wijk (New Mexico Tech) – Keynote (20 min)
- *The Woodlark Rift: a case study in young continental breakup* | Zach Eilon (Brown) – 15 min
- *Mineral-scale constraints on the geodynamics of rifting* | Andrew Smye (Penn State) – 15 min
- *Results of a high resolution heat flow survey across the Wagner Basin, Gulf of California* | Robert Harris (Oregon State U) – 15 min
- *Seismic anisotropy across the Eastern North American Margin (ENAM)* | Colton Lynner (U. Arizona) – 15 min
- Panel discussion – 20 min

12:10 Lunch (*Franciscan*)

1:10 **Report from Student Symposium and Break out 1 intro** (*Alvarado Ballroom D & E*)

1:30 **Break out 1 | Science gaps and priorities** (Alvarado Ballrooms A, B, F, D & E)

2:30 Break

3:00 **Session 3 | Magmatism, volcanism and volatile exchanges** (Alvarado Ballrooms D & E)

- *Origin of rift magmatism- overview, tools, wish list* | Conny Class (LDEO) – Keynote (20 min)
- *Melting of a deep subcontinental lithospheric mantle during the early stages of rifting* | Sara Mana (Salem State University) – 15 min
- *Magnetotelluric Imaging in the Ethiopian Rift Valley - Implications for Magma Storage and Pathways* | Juliane Huebert (Edinburgh) – 15 min
- *Ascent timescales at the Onset of the Oruanui, NZ Supereruption* | Madison Myers (University of Oregon) – 15 min
- *Cenozoic alkaline volcanism associated with the West Antarctic Rift System in North Victoria Land, Antarctica* | Philip Kyle (NMT) – 15 min
- Panel discussion – 20 min

4:30 Pop Up #1 (give 1 min summaries of posters)

5:00 - Poster/cash bar & Posters

Dinner on your own

Feb 9 - Day 2

7:30 Breakfast (*Franciscan*)

8:30 **Session 4 | Faulting and Strain** (Alvarado Ballrooms D & E)

- *Recipe for rifting* | Cindy Ebinger (Tulane) – Keynote (20 min)
- *Variations in faulting in the Gulf of California – Salton trough plate boundary* | Paul Umhoefer (Northern Arizona U) – 15 min
- *Faulting in the presence of magmatic volatiles during early-stage rifting in East Africa* | James Muirhead (Syracuse) – 15 min
- *Seismic coupling at divergent plate boundaries from rate-and-state friction* | Hannah Mark (WHOI) – 15 min
- *Geodetic constraints on crustal deformation in Africa / EAR* | Elifuraha Saria (Ardhi) – 15 min
- Panel discussion – 20 min

10:10 Break

10:40 Poster pop ups #2

11:10 Breakout reports & discussion

12:00 Lunch (*Franciscan*)

1:00 **Session 5 | Surface processes and feedbacks with rifting** (Alvarado Ballrooms D & E)

- *Lost in translation: Defining thresholds for signal storage in landscapes and stratigraphy* | Kyle Straub (Tulane) – Keynote 20 min
- *The role of surface processes in stabilizing half-graben structures* | Jean-Arthur Olive (LDEO) – 15 min
- Stratigraphic record of rift development at the Ledi-Geraru paleontological site, Afar, Ethiopia | Erin DiMaggio (Penn State) – 15 min
- *The effects of rapid sedimentation upon continental breakup: Seismic imaging and thermal modeling of the Salton Trough, Southern California* | Liang Han (UTIG) – 15 mins
- *Rift tectonics and sedimentation: Insights from an onshore-offshore synthesis of the Corinth Rift, Greece* | Rob Gawthorpe (Bergen / CSM) – 15 min
- Panel discussion – 20 min

2:40 Break
3:00 Poster session
5:00 cash bar
7:00 Conference Dinner (*Alvarado Ballroom E*)
8:00 – 8:30 **Overview of the Rio Grande Rift (Karl Karlstrom and Laura Crossey, UNM, Alvarado Ballroom E)**

Feb 10 - Day 3

7:30 Breakfast (*Tablao*)
8:30 **Session 6 | Hazards associated with rifts and rifted margins** (*Alvarado Ballrooms D & E*)

- *Hazards in rifts – An East African perspective* | Karen Fontijn (Oxford) – Keynote (20 min)
- Seismic Hazard in the East African Rift System (EARS): Challenges on imminent risk mitigation | Atalay Ayele (Addis Ababa U) – 15 min
- *Old rift faults never heal: Recent earthquakes of the St. Lawrence Paleorift System of eastern Canada* | Maurice Lamontagne (Geol Survey of Canada) - 15 min
- *The formation of backarc basins and potential geohazard issues related with nuclear power plant safety: A case in point from the East Sea/Sea of Japan* | Sang Mook Lee (Seoul National University) – 15 min
- Panel discussion – 20 min

10:00 Break
10:30 **Session 7 | Collaborative opportunities**
1 min pop-ups followed by panel discussion
12:00 Lunch (*Alvarado Ballrooms B & C*)
1:00 Intro to Breakout 2
1:30 **Breakout 2 | High priority data gaps / work needed to address science questions** (*Alvarado Ballrooms B, C, F, D & E*)
2:30 Break
3:00 Short reports of breakout (1 slide one most exciting thing discussed) / Plenary Discussion
5:00 Concluding remarks – Tobias Fischer (UNM) and Donna Shillington (LDEO)
5:30 Meeting adjourns

Feb 11 – Field Trip

8:00 am Breakfast (*Fireplace*)
9:00 am Board the bus in front of the hotel with your box lunch.
~4:30 pm arrive at hotel