

Symposium
on
The Application of Mechanics to Geophysics

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Co-Chairs:

Yuri Fialko and Xanthippi Markenscoff

Engineering Building II, Room 479
University of California, San Diego
La Jolla, CA

January 17-18, 2015

Program
Saturday, January 17, 2015
EBUII, Room 479

Coffee & Muffins at 9:15 a.m.

9:30 – 9:40	Albert Pisano , Dean, Jacobs School of Engineering	<i>Welcoming address</i>
9:40 – 10:20	James Rice , Harvard University	<i>“Shear localization due to thermal pressurization of pore fluids in rapidly sheared granular media”</i>
10:20 – 11:00	Ze’ev Reches , University of Oklahoma	<i>“Earthquake physics in light of high-velocity laboratory experiments followed by high-resolution of fault gauge”</i>
11:00 – 11:40	David Goldsby , University of Pennsylvania	<i>“Experimental Constraints on Dynamic Fault Weakening Due to Flash Heating and Thermal Pressurization of Pore Fluids”</i>
11:40 – 11:55	Coffee break	
11:55 - 12:35	Yuri Fialko , SIO, UCSD	<i>“Experimental and theoretical investigation of the temperature dependence of rock friction”</i>
12:35 – 2:00	Lunch	
2:00 - 2:40	Harry Green , UC Riverside	<i>“A Universal (?) Nanometric Flow Mechanism for Earthquake Sliding”</i>
2:40 - 3:20	Nadia Lapusta , CalTech	<i>“Response of rate-and-state faults to quasi-static stress perturbations”</i>
3:20 – 3:35	Coffee break	
3:35 – 4:15	Xanthippi Markenscoff , UCSD	<i>“The elastodynamics of defects: moving dislocations and expanding inclusions and evolution of damage by dynamic asymptotic homogenization”</i>
4:15 – 4:55	Sia Nemat-Nasser , UCSD	<i>“Compression Cracking and Exfoliation”</i>
6:30	Dinner	<i>The Shores Restaurant, La Jolla Shores Hotel</i>

Program
Sunday, January 18, 2015

Coffee & Muffins at 8:45 am

9:00 - 9:40	Eric Dunham , Stanford University	<i>"Wave Propagation through Interconnected Networks of Conduits and Cracks: Application to Volcanoes and Hydraulic Fracturing"</i>
9:40 - 10:30	Yajing Liu , McGill University	<i>"Earthquakes on Oceanic Transform Faults: Scaling Relations and Rupture Patterns"</i>
10:30 - 11:10	Yehuda Ben-Zion , USC	<i>"Seismic radiation from regions sustaining brittle damage"</i>
11:10 - 11:25	Coffee break	
11:25 - 12:05	Kyung-Suk Kim , Brown University	<i>"Mechanics of hierarchically rough surfaces: scale dependence in ruga mechanics and friction"</i>
12:05 - 12:45	Muneo Hori , The University of Tokyo	<i>"Continuumnization of regularly arranged rigid bodies to estimate overall properties"</i>
12:45 - 2:00	Lunch	
2:00 - 2:40	Harsha Bhat , Institut de Physique du Globe de Paris	<i>"Reproducing the supershear portion of the 2002 Denali earthquake rupture in laboratory"</i>
2:40 - 3:40	Poster Session and Coffee	EBUII Room 584
3:40 - 4:20	Victor Tsai , CalTech	<i>"Marine Ice Sheet Dynamics Over Short and Long Timescales"</i>
4:20 - 5:00	John Platt , Harvard University	<i>"The role of thermal decomposition during an earthquake"</i>