**Symposium on The Applications of Mechanics to Geophysics**

June 25-26, 2019 University of California, San Diego La Jolla, CA

<http://igppweb.ucsd.edu/~fialko/2019symposium.html>

Co-Chairs: Yuri Fialko and Xanthippi Markenscoff
   Sponsored by the National Science Foundation & the Green Foundation    

Venue: [Engineering Building II, Room 479](https://maps.ucsd.edu/map/?id=1005#!sbc/?ct/36591,27576,18312,18027,35364?mc/32.88135766351921,-117.23308905959132?z/19?lvl/0)

**Program**

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| Tuesday, June 25 |
| 9:15 | Coffee & Muffins |  |
| 9:30 | Dean Albert Pisano, Jacobs School of Engineering, UC San Diego | *Welcoming address* |
| 9:40 | James Rice, Harvard University | *Long-dormant faults in the sub-surface and their response to nearby fluid injection* |
| 10:20  | Nadia Lapusta, Caltech  | *Study of Potential Biases in Seismologically Estimated Stress Drops of Microseismicity using Dynamically Simulated Earthquake Sources* |
| 11:00  | Matt Weingarten, San Diego State University  | *Linking fluid flow and geomechanics to mitigate injection-induced seismicity* |
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| 11:40  | Coffee break  |  |
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| 11:55  | Xanthippi Markenscoff, MAE, UC San Diego  | *The mechanics of deep earthquakes* |
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| 12:35  | Lunch  |  |
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| 2:00  | Alain Molinari, University of Lorraine (France)  | *Fundamental aspects of a new micromechanical model of rate and state friction* |
| 2:40  | Sylvain Barbot, University of Southern California  | *Modulation of frictional strength by grain-size evolution around contact junctions and implications for fault dynamics* |
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| 3:20  | Coffee break  |  |
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| 3:35  | Hiroki Sone, University of Wisconsin-Madison  | *Viscous deformation of fault damage zones and implications for interseismic development of fault stress heterogeneity* |
| 4:15  | Ahmed Elbanna, University of Illinois at Urbana-Champaign  | *Modeling Earthquake Ruptures With High Resolution Fault Zone Physics* |
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| 6:30 | Dinner  |  |
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| Wednesday, June 26 |  |  |
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| 8:45 | Coffee & Muffins |  |
| 9:00  | James Dieterich, UC Riverside (emeritus)  | *Modeling seismicity induced by fluid injection* |
| 9:40  | Greg Mclaskey, Cornell University  | *Earthquake Nucleation, Seismic Wave Radiation, and Termination of Dynamic Rupture in a 3 m Rock Experiment* |
| 10:30  | Kyung-Suk Kim, Brown University  | *Scale Effects in Friction at Broad Scales: Roughness-Scaling Experiment* |
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| 11:10  | Coffee break  |  |
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| 11:25  | Steve WaiChing Sun, Columbia University  | *A machine-learning meta-modeling game for generating traction-separation law for frictional interfaces across length scale* |
| 12:05  | Yuri Fialko, SIO, UC San Diego  | *Mechanisms of unsteady shallow creep on active faults in Southern California (and elsewhere)* |
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| 12:45  | Lunch  |  |
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| 2:00  | Paul Segall, Stanford University  | *The Mechanics of Episodic Caldera Collapse as Revealed by the 2018 Kilauea, Hawaii Eruption* |
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| 2:40 - 4:00  | [Poster Session](http://igppweb.ucsd.edu/~fialko/2019symposium_posters.html) |  |
| 4:00  | Adjourn  |  |