

Date: 11/10/2023, Friday

Time: 9:00 am - 7:30 pm EST

Location: Computing and Data Sciences (CDS) building at 665 Commonwealth Ave, 17th Floor

<p>9:00 am – 9:30 am</p>	<p>Breakfast and Coffee</p> <p>Introductions by Ayşe Coşkun</p>
<p>9:30 am – 10:20 am</p>	<p>Plenary Talk: Probing Seismogenic Faults with Machine Learning</p> <p>Speaker: Chris Johnson</p>
<p>Session 1: Earthquakes from the Lab Scale to Active Faults</p>	
<p>10:20 am – 10:40 am</p>	<p>Applications of Machine Learning to Earthquake Physics: Learning from Lab Earthquake Prediction</p> <p>Speaker: Chris Marone</p>
<p>10:45 am – 11:05 am</p>	<p>A (Very) Brief Introduction to Current Observational Earthquake Science</p> <p>Speaker: Rachel Abercrombie</p>
<p>11:10 am – 11:30 am</p>	<p>Deep Learning of Seismograms</p> <p>Speaker: Mostafa Mousavi</p>
<p>11:35 am – 12:00 pm</p>	<p>Discussion with three speakers – facilitated by: Brian Kulis</p>

12:00 pm – 1:00 pm	Lunch
1:00 pm – 1:50 pm	Plenary Talk: Machine Learning for Data-Driven Discovery in Solid Earth Geoscience: Progress and Challenges Ahead Speaker: Karianne Bergen
Session 2: Integrating ML into Geoscience	
1:50 pm – 2:10 pm	Deep Clustering Analysis for Data Exploration and Anomaly Detection in Distributed Acoustic Sensing (DAS) Systems Speaker: Peter Gerstoft
2:15 pm – 2:35 pm	Towards Learning Mechanical Models for Deforming Rocks, Augmented with Acoustic Information Speaker: Ben Holtzman
2:40 pm – 3:00 pm	Differentiable Programming: Bridging the Gap Between Numerical Models and Machine Learning Models Speaker: Daniel O'Malley
3:05 pm – 3:30 pm	Discussion with three speakers – facilitated by: Prakash Ishwar
3:30 pm – 3:50 pm	Coffee Break
Session 3: AI Challenge winners + Machine Learning and Fault Slip	

<p>3:50 pm – 4:00 pm</p>	<p>1st Place Challenge Winner Talk Artemii Novoselov, Stanford University</p>
<p>4:05 pm – 4:10 pm</p>	<p>2nd Place Challenge Winner: Video Presentation Seyifunmi Adeboboye, Georgia Tech & Joses Omojola, University of Arizona</p>
<p>4:10 pm – 4:15 pm</p>	<p>3rd Place Challenge Winner Talk Efe Sencan, Boston University</p>
<p>4:20 pm – 4:40 pm</p>	<p>Earthquake Precursors and Forecasting Through the Lens of Laboratory Experiments Speaker: Srisharan Shreedharan</p>
<p>4:45 pm – 5:05 pm</p>	<p>Using Deep Learning to Understand Variations in Fault Zone Properties: Distinguishing Foreshocks from Aftershocks Speaker: Laura Laurenti</p>
<p>5:10 pm - 5:20 pm</p>	<p>Discussion and Final Thoughts – facilitated by: Yannis Paschalidis</p>
<p>5:30 pm – 7:30 pm</p>	<p>Reception</p>