

## 2023 ARMA Future Leader Webinar Series

Every Two Weeks on Fridays 9-10 AM MT



**2<sup>nd</sup> lecture: February 24, 2023**

**Please reach out to [Shahrzad.Roshankhah@utah.edu](mailto:Shahrzad.Roshankhah@utah.edu) to get the Zoom meeting information.**

### **Speaker:**

Bing Li

### **Title & Abstract:**

#### **Eclectic selection of topics in energy geomechanics and rock mechanics**

This talk covers a range of topics. Firstly, we discuss waveform-based clustering of induced seismicity around the Tony Creek hydraulic fracturing test site in Western Alberta. Secondly, we discuss the joint classification of field and laboratory Acoustic Emission (AE) waveforms using transfer learning of a convolutional neural network (CNN). Lastly, we discuss 3D printing and shear testing of synthetic rock discontinuities.

### **Biography:**

Bing joined the Department of Civil and Environmental Engineering at the University of Western Ontario as an assistant professor in 2021. He is a research director at the Geotechnical Research Centre, with interests in geomechanical model calibration and induced seismicity in mining, energy, and volcanic settings. Prior to joining Western, he was a postdoctoral fellow at the Seismological Laboratory at Caltech, and served as a consulting geophysicist with Zanskar Geothermal and Total Energies. He obtained his Ph.D. from MIT in 2019 on high-resolution imaging and acoustic emissions in granite and shale fracture processes, and his B.ASc. in Mineral Engineering from the University of Toronto in 2013.