



## **CLIM Program Transition Workshop**

### **May 14-16, 2018**

**Lecture:** *Statistical Approaches for Un-Mixing Problem and Application to Satellite Remote Sensing Data*

**Speaker:** Zhengyuan Zhu

**Abstract:**

Remote sensing data from satellite with high temporal resolution typically have lower spatial resolution, with one pixel often spanning over a square kilometer. The signal recorded by such satellite at a pixel is typically a mixture of reflectance from different types of land covers within the pixel, resulting in a mixed pixel. In this talk we introduce a couple of parametric and non-parametric statistical approaches to deal with the un-mixing problem which integrate information from multiple sources, and present some preliminary results applying the methodology to data from the SMOS (Soil Moisture and Ocean Salinity) mission and the OCO-2 (Orbiting Carbon Observatory 2) mission, which motivated this research.