



# THE LABORATORY OF TREE-RING RESEARCH

presents a talk by

Jia Hu

## *Interpreting tree ring records using a plant ecophysiological approach*

Wednesday, November 20, 2019 - 12:00pm to 1:00pm

Room: Bannister 110

Trees' rings record a wealth of information on climate, disturbance, and forest dynamics, and can record these processes from the plot to regional to global scales. However, extracting plant physiological processes from the tree ring record has proved to be more difficult, as integration of leaf to whole tree processes can often lead to confounding results. My research aims to bring a plant ecophysiological perspective to interpreting the tree ring isotopic record and to ask, what processes are the rings actually recording? For example, can different species growing in the same location record different environmental parameters? Or, can the same species growing in different locations record different environmental parameters? In this talk, I will present several ongoing studies aimed at addressing these questions, including: 1) How well do hydraulic traits determine where trees grow in the landscape? 2) How does vapor pressure deficit influence tree growth? and 3) How can we use oxygen isotopes of tree rings to infer source water and atmospheric aridity signals?