Hierarchical models for predicting above ground biomass with 3D LiDAR signals.

Recent advancements in remote sensing technology, specifically Light Detection and Ranging (LiDAR) sensors, provide the data needed to quantify forest characteristics at a fine spatial resolution over large geographic domains. In this talk, we’ll introduce Bayesian hierarchical models for prediction of above ground biomass with high resolution 3D LiDAR signals. Details of modeling strategies will be given and be illustrated with a real dataset. (Received August 27, 2018)