School of Earth and Environmental Sciences
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Leveraging NASA's Global Ecosystem Dynamics Investigation (GEDI) Lidar Mission Measurements for Large-Scale Aboveground Biomass Estimation

Lidar technology has improved our understanding of the distribution and amount of terrestrial above-ground biomass density (AGBD). Recent advancements in satellite lidar, such as the full waveform-based Global Ecosystem Dynamics Investigation (GEDI) lidar, have enabled global forest biomass and structure mapping. In this talk, I will present an innovative method to estimating aboveground biomass density (AGBD) from the Global Ecosystem Dynamics Investigation (GEDI) mission measurements. I will discuss the advantages of our approach and discuss the model performance in temperate forests in the northeastern U.S., montane forests in the western U.S., and tropical forests in central Africa. I will showcase the model's capability to estimate aboveground biomass on continental US (CONUS) and the approach we are taking to use it at the global scale.