



THE LABORATORY OF TREE-RING RESEARCH

presents a talk by

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Tree-ring connections to ecosystem-scale NDVI in the terrestrial Mediterranean

Wednesday, November 9, 2016 - 12:00pm to 1:00pm

Room: Bannister 110

Linking radial tree-growth variables with remotely-sensed terrestrial vegetation indices provides a basis for using tree rings as proxies for ecosystem primary productivity over large space and long time scales. In contrast with most previous tree-ring/remote sensing studies which have focused on temperature-limited boreal and taiga environments, we compare gridded values of the Normalized Difference Vegetation Index (NDVI) with *Pinus brutia* tree-ring width chronologies in areas of the terrestrial Mediterranean where both radial tree growth and broader vegetation activity are largely controlled by drought. We find that precipitation, elevation, and land-cover type interact to generate a statistical relationship between radial tree growth and ecosystem-scale NDVI. Tree-rings are a promising proxy for reconstructing grassland and shrubland productivity in water limited environments, where drought-induced vegetation die-off is expected to alter biodiversity and ecosystem functioning in the 21st century.