



THE LABORATORY OF TREE-RING RESEARCH

presents a talk by

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A JOINT INSTITUTE OF THE ENVIRONMENT/LTRR SEMINAR: Volcanic Effects on Climate in the Late 20th and Early 21st Centuries

Wednesday, February 17, 2016 - 12:00pm to 1:00pm

Room: ENR2 S107 Agnese Nelms Haury Lecture Hall

The relatively muted warming of the surface and lower troposphere since 1998 has attracted considerable attention. One contributory factor to this “warming hiatus” is an increase in volcanic cooling over the early 21st century. Our recent research has identified the signals of late 20th and early 21st century volcanic activity in multiple observed climate variables. Volcanic signals are statistically discernible in spatial averages of tropical and near-global sea-surface temperature, tropospheric temperature, net clear-sky short-wave radiation, and atmospheric water vapor. Signals of late 20th and early 21st century volcanic eruptions are also detectable in near-global averages of rainfall. Successful volcanic signal detection is critically dependent on removal of variability induced by the El Niño–Southern Oscillation. Prospects for improved quantification of volcanic effects on climate are discussed at the end of the talk.