Colette Heald

Mitsui Career Development Associate Professor, Department of Civil and Environmental Engineering and Department of Earth, Atmospheric and Planetary Sciences Massachusetts Institute of Technology

"The Climate, Air Quality and Vegetation Traffic Circle"

Abstract: Atmospheric composition is driving global climate change, via rising greenhouse gas concentrations and short-lived climate forcers such as aerosols and ozone. At the same time, atmospheric composition is responding to climate feedbacks on the atmosphere and biosphere. In this talk I will highlight research from my group that examines different elements of the interactions between air quality, global climate, and vegetation: Why are recent estimates of the climate forcing of black carbon wrong? What is driving recent trends in North African dust? How do climate change and ozone pollution together impact projected crop yields? How is vegetation controlling surface ozone?