EOL/ACOM Seminar

Wildfires and Air Quality in a Warming World: Lessons from WE-CAN and Other Recent Studies
Emily Fischer

Colorado State University

**Tuesday, April 23rd, 2024, 11:00 am – 12:00 pm (MT)
FL0 1022**
Link: https://operations.ucar.edu/live-eol

ABSTRACT

The world has recently experienced several record-breaking wildfire seasons. In addition to devastating local impacts on people and ecosystems, wildfires are a major source of air pollution. Wildfire smoke influences the composition of the atmosphere over large temporal (weeks) and spatial (continental) scales. Given the sporadic nature of wildfires, understanding the composition of smoke and its impact on people is challenging. The relative importance of wildfires for air quality will grow as climate change exacerbates wildfires and the emissions of other anthropogenic air pollutants decline. Thus, there is an urgent need to understand the composition of wildfire smoke, improve our ability to forecast when and where wildfire smoke will impact people, and help society anticipate and minimize hazards associated with exposure. We will begin by describing global patterns of wildfire occurrence and then tighten our focus on the U.S. From here, we will talk about how the WE-CAN field program and subsequent analyses. We will discuss the composition of smoke emitted from wildfires and how it evolves in the atmosphere.