

ATS/CIRA Colloquium

Associate Professor Jeff Pierce

**An overview of smoke in Fort Collins in August 2020:
Sources, transport, and potential impacts**

**3 p.m. Thursday, Sept. 3
via Microsoft Teams**

Wildfires during August of 2020 brought Fort Collins its highest concentrations of particulate matter since the High Park Fire in 2012 and its most sustained smoke exposure in recent history. This smoke period was unique because smoke was both local (e.g. the Cameron Peak fire) and from long-range transport from California, with the two sources often mixing in Fort Collins. The impacts from the local fires showed a strong diurnal cycle with the highest concentrations overnight and in the mornings and minimal impact on Fort Collins during afternoons and evenings. However, the California smoke, once it came, provided us with a continuous moderate level of smoke throughout the day. In this talk, I will discuss the contributing factors to this intense fire season, the timeline of various fires, the local and synoptic meteorology that led to us receiving the smoke, and the potential impacts on human health from the smoke. I will discuss various research contributions around CSU that provide insight into our understanding of smoke, and I will show many many satellite images/animations (thanks NOAA and NASA!) and photographs (thanks colleagues!).