

PHYSICS AND ASTRONOMY COLLOQUIUM (In Person Only)

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"Aerosol Physics: A Short Introduction to Climate Science's Biggest Uncertainty"

<u>Abstract</u>

Aerosols – tiny airborne particles – are the largest source of uncertainty in current estimates of anthropogenic climate change. What makes their climate impacts so uncertain, and what can we do to reduce that uncertainty? In this talk I will take a tour through the physics of aerosol-climate interactions, exploring some of the key uncertainties in the interactions between aerosols, radiation, clouds, and precipitation. Highlighting recent case studies, I will discuss the ways in which real-world observations can be combined with Earth system model simulations to make progress in this rapidly-evolving field.

> Wednesday, October 2nd, 2024 3:30 p.m. PST BWC A104