

Special Issue

Interactions Among Aerosols, Clouds, and Radiation

Message from the Guest Editor

This Special Issue aims to advance current understanding of aerosol–cloud–radiation interactions and their implications for weather and climate systems. Topics of interest include, but are not limited to:

- Observations of aerosols, clouds, and radiation using satellite, ground-based networks, radar, and lidar measurements.
- Model development and evaluation related to aerosol, cloud, and radiation, encompassing large-eddy simulations (LES), cloud-permitting, chemistry–climate models, and numerical weather prediction frameworks.
- Research of cloud microphysics and aerosol–cloud interactions, including ice nucleation, cloud droplet activation, autoconversion, accretion, deposition, evaporation, and the dynamics of stratocumulus, shallow cumulus, and deep convective systems.
- Aerosol-influenced meteorological and climatic phenomena, such as wildfires and biomass burning, climate change and global warming, the El Niño–Southern Oscillation, Rossby wave dynamics.
- This Special Issue seeks to integrate multidisciplinary perspectives and state-of-the-art methodologies to improve the representation of aerosol–cloud–radiation processes in models.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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