Special Issue

Aerosol, Cloud, Precipitation Processes and Interactions Observed with Ground-Based Remote Sensing Measurements

Message from the Guest Editors

Atmospheric aerosol, cloud, and precipitation processes are among the most important factors that regulate Earth's radiation budget, hydrological cycle, and climate change. The spatial scales of these processes range from micrometers to thousands of kilometers and the temporal scales range from seconds to several days, which brings great challenges for Earth system model simulations and future projections. Ground-based passive and active remote sensing instruments have been developed and improved over the past several decades. They can provide measurements of atmospheric processes with high spatial and temporal resolutions.

This special issue calls for papers focusing on aerosol, cloud, and precipitation processes observed with ground-based remote sensing measurements. Original research studies on aerosol, cloud, precipitation processes and their interactions, retrieval algorithm developments, improvements, and model improvements and validations against observations, as well as review papers are all encouraged. Original results and review papers about the synergy of active and passive remote sensing instruments and scanning remote sensing measurements are welcomed.

Guest Editors

Dr. Damao Zhang

Dr. Adeyemi Adebiyi

Prof. Dr. Jean-Christophe Raut

Deadline for manuscript submissions

closed (28 July 2021)



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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

Dr. Daniele Contini

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