Special Issue

Observation and Simulation of Aerosol, Cloud and Their Interactions

Message from the Guest Editors

The large variability of cloud/aerosol properties and complex aerosol-cloud interactions (ACIs) remain a major source of uncertainty in future climate predictions. Remote sensing technologies have been widely used for detecting aerosols, clouds, and radiation with high resolution and global coverage. The development of retrieval algorithms, data assimilation, machine learning, and multi-sensor fusion for these active and passive sensors provide encouraging and promising opportunities to advance the understanding of aerosols, clouds, and their interactions, as well as for better quantifying the climate impacts of anthropogenic aerosol emission mediated by clouds. This Special Issue calls for original research focusing on remote sensing techniques, novel retrieval algorithms, high-accuracy simulations, and their applications in aerosol, cloud, precipitation, and radiation studies. We especially encourage submissions revealing new insights into aerosol effects on cloud formation, lifetime cycle, and precipitation efficiency, as well as further feedback on regional climate based on observation/simulation.

Guest Editors

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Dr. Yawen Liu

Dr. Xin Lu

Deadline for manuscript submissions

closed (31 October 2025)



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Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peerreview process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend Remote Sensing for your best research publications for a fast dissemination of your research.

Editor-in-Chief

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