



Aerosol Cloud Radiation Interactions

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Message from the Guest Editor

Dear Colleagues,

In the treatment of aerosols, clouds, and radiation in climate models, and in efforts to achieve carbon peak and neutrality goals, renewable energy is anticipated to play an important role in energy revolution. This will require the nowcasting algorithm for global irradiance. However, the interactions and associated feedbacks among aerosols, clouds, and radiation are one of the largest sources of uncertainty in predicting any potential future climate change.

Areas to be covered in this research topic may include but are not limited to:

- Characterization of the effects of aerosols and clouds on energy and understanding the interactions among aerosols, clouds, and radiation;
- Application of remote sensing monitoring technology and modeling in aerosol and radiation, including data processing, phenomena, and evolution of interaction between aerosol and radiation;
- Air pollution physical and chemical processes that affect radiation, including aerosol pollution, biomass burning, dust, ozone, multiphase chemistry, etc.





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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!

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