

Special Issue

Clouds in Satellite Observations and Climate Models

Message from the Guest Editor

As one of the critical components in the atmosphere, clouds interact with air motions, modulate water vapor contents, and affect radiation balance in the atmosphere–Earth system. Variations of clouds can either amplify or reduce climate change. Aside from their direct climate effects, clouds show a strong relation with climate models. On one hand, the sensitivity of climate models strongly depends on the clouds; on the other hand, climate models can simulate cloud feedbacks. What is more, clouds detected in satellite observations allow us to better understand clouds themselves, but clouds are also important noise sources of remote sensing products. The journal *Atmosphere* proposes a Special Issue to collect studies on the state of the art in clouds. We invite original and review articles dedicated to the observation of clouds, the climate effects of clouds, the role and uncertainty of clouds in climate models, and the detection and qualitative effects of clouds in satellite observations.

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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