Special Issue

Observation, Prediction, Simulation, and Future Projections of Sudden Stratospheric Warming and Its Impact

Message from the Guest Editors

Manuscripts solicited for this Special Issue are in research areas including, but not limited to, the following topics:

- Observational characteristics of SSWs in both hemispheres in reanalysis and satellite datasets;
- The possible impact of SSWs on regional rainfall (drought and flood), near-surface temperature (cold surge and heat wave), and PM2.5 concentration;
- Case or composite studies of the SSW predictability using sub-seasonal to seasonal (S2S) reforecasts/forecasts;
- The reproducibility of the stratospheric polar vortex and SSWs in some individual models or multiple models from a series of CMIPs, especially the most recent CMIP6;
- Possible changes and future projection of SSW's impacts.

Other topics related to stratospheric dynamics, physics (especially radiation), and chemistry are also welcome.

Guest Editors

Dr. Jian Rao

Dr. Ming Bao

Dr. Yixiong Lu

Deadline for manuscript submissions

closed (7 November 2022)



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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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