Special Issue

High-Resolution Regional Climate Modeling

Message from the Guest Editor

Climate change is currently the focus of public attention. Therefore, accurate projections are essential for decision-makers to take action by costly mitigation and adaptation measures. The current computation power enables us to start projecting the future with convective resolving regional climate models (RCMs). These models may enhance the climate projection accuracy in areas with mesoscale features such as complex terrain and sea breeze. Furthermore, precipitation projections that currently suffer from coarse-scale parametrizations may resolve better convection regimes and give decision-makers a better projection of future precipitation patterns. Manuscripts solicited in this Special Issue are in research areas including, but not limited to, the following topics:

- Convective permitting climate projections;
- Quantify the added value of high-resolution RCMs compared to CMIP data;
- Projection of changes in extreme events frequency and intensity;
- Natural variability compared to RCMs projections;
- Variability in RCMs past climate and projected climate;
- Statistical downscaling of high-resolution RCMs.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 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

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