Special Issue

Regional Climate Modeling with COSMO-CLM: Performance Assessment and Climate Projections

Message from the Guest Editors

The main aim of this Special Issue is to summarize the recent progress achieved with COSMO-CLM. The following four important segments should be at least included:

- Investigation of the capabilities of COSMO-CLM at very high resolution (convection resolving) to describe the mesoscale features of climate in a recent-past period for selected areas;
- Assessment of the effects of increasing resolution on the quality of results; such an analysis could be useful to stimulate in the future the scientific community to consider that, at least in some areas, high-resolution simulations could provide good earnings;
- Climate projections over targeted regions by employing the IPCC RCP scenarios, widening the range of projections already available in the literature but with higher resolution;
- Assessment of the model's ability to (realistically) represent the extreme weather events in the present climate as a preliminary and fundamental step to assess changes regarding extreme weather events expected under anthropogenic climate change.

Guest Editors

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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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