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Spatial Downscaling of Coarse-Resolution Key Meteorological Parameters

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Deadline for manuscript submissions:

closed (30 December 2023)

Message from the Guest Editors

We invite researchers to spatially downscale (50 km x 50 km) only one year of coarse-resolution meteorological data (e.g., CRUNCEP, ERA that is at 50 km x 50 km spatial resolution) to a finer spatial resolution (e.g., 3 km x 3 km), share their obtained data, including R or Python scripts, and discuss the potential bias/limitations of their methods. The key meteorological parameters include air temperature, global radiation, humidity, and rainfall. Papers that attend to the applications of meteorological downscaling data are most welcome.

This Special Issue focus on the Spatial Downscaling of Coarse-Resolution Key Meteorological Parameters. Topics of interest include, but are not limited to, the following:

Specialsue

- 1. biogeochemical cycles
- 2. biosphere-atmosphere interactions
- 3. climate variability and change
- 4. statistical downscaling
- 5. regional environmental change



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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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