

Special Issue

High-Resolution Regional Climate Modelling/Dynamical Downscaling

Message from the Guest Editors

In the recent years, high-resolution regional climate simulations have matured to resolutions of about 5–10 km. The need for higher resolutions also depends on the region, physical terrain, and climate influences.

Given challenges in HPC computations of long-term integrations, newer models and the increasing resolutions of global-scale models, this Special Issue invites papers that answer the following questions: How can dynamical downscaling be improved in the years to come?

What is the future of dynamical downscaling, and do we need more models in the research community?

How effective are CPM-scale simulations at urban and sub-regional scales?

What is the ‘added value’ in multi-RCM simulations?

Papers are generally invited on any aspect of dynamical downscaling that discuss high-resolution (10 km and above) simulations on urban or regional scales. The topics can be on model evaluations, sensitivities, parameterizations and their behavior at different resolutions, or climate projections and their quantifications. Multi-RCM comparisons, GCM forcing biases, and examinations on observational uncertainties against model simulations are also welcome.

Guest Editors

Dr. Srivatsan V. Raghavan

Tropical Marine Science Institute, National University of Singapore, 18 Kent Ridge Road, Block S2S, Singapore 119227, Singapore

Dr. Ngoc Son Nguyen

Tropical Marine Science Institute, National University of Singapore, Singapore 119227, Singapore

Deadline for manuscript submissions

closed (16 June 2022)



Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.9



mdpi.com/si/90164

Atmosphere
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
atmosphere@mdpi.com

[mdpi.com/journal/
atmosphere](https://mdpi.com/journal/atmosphere)





Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.9



[mdpi.com/journal/
atmosphere](https://mdpi.com/journal/atmosphere)



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

Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.

Journal Rank:

CiteScore - Q2 (Environmental Science (miscellaneous))