

Special Issue

Meteorological Forecasting and Modeling in Climatology

Message from the Guest Editor

The evolution of meteorological disasters is driven by multiple factors, including short-term weather processes, climate variability, and long-term climate change. Therefore, it is very important and necessary to understand the interaction of these different-scale processes and analyze the impact of climate change on the frequency and intensity changes in meteorological disaster events. This Special Issue aims to collect cutting-edge methods, challenges, and applications in meteorological forecasting, climate modeling, and prediction, promoting the cross-integration of multi-scale research and providing scientific support for disaster prevention and mitigation, as well as climate policies. Potential topics include but are not limited to:

- The impact of multiple climate indicators on the change in meteorological events;
- Forecasting and numerical simulation of extreme meteorological events;
- High-resolution numerical weather forecasting and climate prediction;
- Aerosol-cloud-precipitation interaction;
- Cloud microphysics, boundary layer processes, and parameterization schemes;
- Observation and simulation of atmospheric physical processes.

Guest Editor

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Deadline for manuscript submissions

31 August 2026



Climate

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 5.7



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About the Journal

Message from the Editor-in-Chief

Climate (ISSN 2225-1154) was established in 2013 to provide an open-access outlet for innovative research, review articles, new direction papers, and short communications relevant to all disciplines related to climate at all scales. The journal encourages papers ranging from climate change detection and attribution and Earth system modeling to ecosystem, hydrologic, and socioeconomic impacts and climate mitigation and adaptation measures. The influence of *Climate* is strong and growing (IF 3.2 in 2024, CiteScore 5.7 in 2024).

Editor-in-Chief

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Journal Rank:

JCR - Q2 (Meteorology and Atmospheric Sciences) /
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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.8 days after submission; acceptance to publication is undertaken in 3.8 days (median values for papers published in this journal in the second half of 2025).