

Special Issue

Modelling and Forecasting Extreme Climate Events

Message from the Guest Editors

As the world's climate changes, extreme events are becoming more frequent and intense. Nowadays, the current state-of-the-art climate models consist of fundamental tools for analyzing and predicting climate and weather extremes. The accuracy of climate models' simulations is high for long-duration extremes (mainly monthly or seasonal scales). In contrast, there is great insufficiency due to uncertainty around high-resolution and short-timescale extreme events. Hence, understanding the mechanisms leading to the occurrence of climate and weather extremes will be the basis for assessing their predictability and enabling their prediction. This Special Issue of *Climate* is devoted to promoting advances in understanding, modeling, and predicting climate extremes. Pertinent examples of topics for this Special Issue include types of extreme; the frequency, intensity and duration of climate extremes; observed and projected climate extremes; short- and medium-range forecasts of weather extremes; modeling impacts of weather and climate extremes; statistical aspects of extremes; case studies of extreme events; and sensitivity experiments for extremes prediction.

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Climate

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Impact Factor 3.2
CiteScore 5.7



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Deadline for manuscript submissions

closed (31 October 2022)





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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).

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