Special Issue

Hydroclimatic Extremes: Modeling, Forecasting, and Assessment

Message from the Guest Editor

Hydroclimatic extremes such as floods, droughts, and compound hot dry events are intensifying under anthropogenic climate change, posing severe threats to water security, ecosystem resilience, infrastructure integrity, and human wellbeing worldwide. A comprehensive understanding of the drivers, spatial temporal dynamics, and cascading impacts of these extremes is essential for developing robust adaptation, mitigation, and early warning systems.

This Special Issue seeks to assemble high quality original research and critical reviews on the modeling, forecasting, and impact assessment of hydroclimatic extremes. Aligned with the journal's focus on climate variability, extreme event analysis, and resilience, it aims to foster interdisciplinary collaboration and advance science-based solutions that inform water management and policy decisions.

Contributions may address process-based and statistical modeling; uncertainty quantification and bias correction; compound and multi-hazard event analysis; advanced forecasting methods leveraging data assimilation and machine learning; downscaling and projection evaluation; and the design of early warning or decision support tools.

Guest Editor

Dr. Parisa Hosseinzadehtalaei
Faculty of Sciences, Department of Physics and Astronomy, Universiteit Gent, Ghent, Belgium

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

mdpi.com/journal/climate

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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

Dr. Timothy G. F. Kittel
Institute of Arctic and Alpine Research, University of Colorado Boulder, Boulder, CO 80309-0450, USA

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