

## Special Issue

# Extreme Hydrometeorological Forecasting

### Message from the Guest Editors

Extreme hydrometeorological events include a variety of phenomena such as local thunderstorms, hurricanes, and droughts, among others that cause severe weather/climate conditions and impact the hydrological system and, consequently, communities. In this way, extreme hydrometeorological forecasting plays a vital role in mitigating the impacts of severe weather events. Improvements in numerical modeling can provide accurate and timely information to help communities prepare and respond to extreme weather conditions. In this Special Issue, we attempt to publish studies focusing on the atmospheric conditions that conduce the extreme hydrometeorological events, being observational and/or modeling studies, climate analysis focusing on compound events, convection-permitting simulations, streamflow simulations, and remote sensing to assess the state of water resources and prediction techniques for flood or drought situations. The keywords below indicate the wide spectrum of topics that can be addressed in this issue.

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### Guest Editors

Dr. Michelle Simões Reboita  
Dr. Vanessa Silveira Barreto Carvalho  
Dr. Anita Drumond

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### Deadline for manuscript submissions

closed (25 April 2025)



## Atmosphere

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*Atmosphere*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)

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## 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!

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### 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

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