



## Extreme Hydrometeorological Forecasting

Guest Editors:

**Dr. Michelle Simões Reboita**

Instituto de Recursos Naturais,  
Universidade Federal de Itajubá,  
Itajubá 37500-903, Brazil

**Dr. Vanessa Silveira Barreto  
Carvalho**

Instituto de Recursos Naturais,  
Universidade Federal de Itajubá,  
Itajubá 37500-903, Brazil

**Dr. Anita Drumond**

Instituto de Astronomia,  
Geofísica e Ciências  
Atmosféricas, Universidade de  
São Paulo, São Paulo 05508-090,  
Brazil

Deadline for manuscript  
submissions:

**closed (30 August 2024)**

### Message from the Guest Editors

Dear Colleagues,

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.

*Guest Editors*





an Open Access Journal by MDPI

## 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

## 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!

## 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)*)

## Contact Us

---

Atmosphere Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/atmosphere](http://mdpi.com/journal/atmosphere)  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)  
[X@Atmosphere\\_MDPI](https://twitter.com/Atmosphere_MDPI)