Special Issue

High-Impact Weather in the Mediterranean Region: Dynamics, Forecasting, and Impacts

Message from the Guest Editor

The Mediterranean region is recognized as a climate change hotspot, experiencing an increasing frequency and severity of high-impact weather events. These phenomena pose significant challenges for forecasting, disaster risk reduction, and climate adaptation while also exerting profound socio-economic and environmental impacts. This Special Issue seeks to advance understanding of the dynamics, prediction, and impacts of high-impact weather in the Mediterranean region. We welcome contributions that explore the following:

- Fundamental atmospheric and oceanic processes driving extremes;
- Advances in forecasting, numerical weather prediction, and early-warning systems;
- Case studies of impactful events and their socio-economic consequences;
- Climate variability and change influences on the occurrence and intensity of extremes;
- Integrated and interdisciplinary approaches bridging atmospheric science, hydrology, oceanography, and risk management.

By gathering both original research articles and comprehensive reviews, this Special Issue aims to provide an updated and holistic perspective on high-impact weather in the Mediterranean.

Guest Editor

Dr. Stavros Dafis

Institute for Environmental Research and Sustainable Development, National Observatory of Athens, 15236 Athens, Greece

Deadline for manuscript submissions

31 May 2026

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/si/256648

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

mdpi.com/journal/atmosphere

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/journal/atmosphere

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!

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

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))

MDPI