

Special Issue

Extreme Weather and Climate Events: Physical Drivers, Modeling and Impact Assessment

Message from the Guest Editors

Extreme weather and climate events, such as intense tropical cyclones (e.g., major hurricanes and super typhoons), explosive extra-tropical storms, atmospheric rivers, extreme precipitation, atmospheric and marine heat waves, floods and droughts, can cause tremendous economic losses, pose a great mortality risk and lead to substantial damage to ecosystems; thus, scientific understanding of the physical drivers controlling these extreme events will be important for improving the predictive skill regarding extreme events on day to decadal time scales. Publications in this Special Issue will aim at understanding the physical mechanisms underpinning the occurrence frequency of these extremes, improving model capabilities of simulating and predicting extreme events, and assessing their socioeconomic impacts.

With these issues in mind, among the various subjects, authors are invited to discuss physical drivers of extreme events, identify the key physical processes and/or model resolutions on revolving extreme events in weather/climate models, examine the predictability of extreme events and assess ecosystem responses to extreme events.

Guest Editors

Dr. Xiaosong Yang

Geophysical Fluid Dynamics Laboratory/NOAA, Princeton, NJ, USA

Dr. Wei Zhang

Department of Plants, Soils and Climate, Utah State University, Logan, UT 84322, USA

Deadline for manuscript submissions

closed (31 March 2020)



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/16386

*Journal of Marine Science and
Engineering*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmse@mdpi.com

[mdpi.com/journal/
jmse](https://mdpi.com/journal/jmse)





Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



[mdpi.com/journal/
jmse](https://mdpi.com/journal/jmse)



About the Journal

Message from the Editor-in-Chief

The *Journal of Marine Science and Engineering* (JMSE, ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi
School of Engineering, The UWA Oceans Institute, The University of
Western Australia, Perth, WA 6009, Australia

Author Benefits

High Visibility:

indexed with Scopus, SCIE (Web of Science), Ei
Compendex, GeoRef, Inspec, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Marine) / CiteScore - Q2 (Ocean
Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 15.6 days after
submission; acceptance to publication is undertaken in 1.9
days (median values for papers published in this journal in
the first half of 2025).