Special Issue

Numerical Modelling of Oil and Chemical (HNS) Spills in the Marine Environment

Message from the Guest Editor

The growth of maritime traffic and the variety of possible pollutants transported has led to a growing concern regarding accidental spills, especially oil and hazardous and noxious substances (HNS) spills. Over many years, operational and planning tools based on numerical models to simulate the transport and fate of marine pollutants have been developed and successfully applied to prevent and respond to accidental spills. Noticeable advances have been achieved especially for modelling oil spills at a regional scale. However, more research is needed to improve and develop new models, methodologies and tools for oil and HNS spills at sea and at local environments (e.g., estuaries, bays and ports). This Special Issue will publish the most recent research with respect to the numerical modelling of oil and HNS spills, both for operational and risk assessment applications at a regional and local scale. Novel methods and high-quality papers focused on the numerical modelling of accidental spills, risk assessment of HNS and oil spills and validation with field or laboratory experiments and uncertainty analysis in the prediction of spill trajectories are welcome.

Guest Editor

Dr. Ana J. Abascal

IHCantabria - Instituto de Hidráulica Ambiental de la Universidad de Cantabria, Santander, Spain

Deadline for manuscript submissions

closed (28 February 2021)



Journal of Marine Science and Engineering

an Open Access Journal by MDPI

Impact Factor 2.8 CiteScore 5.0



mdpi.com/si/42626

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





Journal of Marine Science and Engineering

an Open Access Journal by MDPI

Impact Factor 2.8 CiteScore 5.0





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).

