

Special Issue

Numerical Simulation of Fluid-Structure Interactions by CFD

Message from the Guest Editor

In recent years, the study of fluid–structure interactions (FSIs) has received increasing attention in various engineering fields, including ocean engineering. Numerical simulation has become a powerful and cost-effective tool for investigating ocean fluid–structure interaction (OFSI) problems. Simulations of wave motion, wave-induced flow velocity fields, energy transport and the stresses exerted on fixed or floating structures are the basis of the design and verification of engineering works such as offshore oil platforms, wave energy converters, floating dams or coastal defense structures. This Special Issue focuses on the use of computational fluid dynamics (CFD) to simulate OFSI problems. CFD-based numerical simulations can provide valuable insights into the underlying flow physics and performance of different types of offshore structures under various ocean wave conditions.

Guest Editor

Dr. Giovanni Cannata

Department of Civil, Constructional and Environmental Engineering,
Sapienza University of Rome, 00184 Rome, RM, Italy

Deadline for manuscript submissions

closed (1 June 2024)



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/177902

*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/)





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).