



Shape Optimization of Engineering Systems for Superior Hydrodynamic Performance

Guest Editors:

Dr. Giuliano Vernengo

Department of Electric,
Electronic, Telecommunication
Engineering and Naval
Architecture (DITEN), Polytechnic
School of the University of
Genova, 16145 Genova, Italy

Prof. Dr. Stefano Brizzolara

Kevin T. Crofton Department of
Aerospace and Ocean
Engineering, Randolph Hall, 332-
4, Virginia Tech, 460 Old Turner
St., Blacksburg, VA 24061, USA

Deadline for manuscript
submissions:

closed (5 August 2021)

Message from the Guest Editors

Modern engineering design processes are driven by the quest for ever-increasing performance and higher efficiency and environmental sustainability. Naval architecture and ocean engineering are no exception.

Optimizing the hydrodynamic performance is surely one of the most important domains in the design process of the abovementioned systems, since it intimately affects most of their operational performance metrics and efficiency level.

We propose this Special Issue which focuses on hydrodynamic shape optimization for naval architecture and ocean engineering systems in order to define the state of the art and guide future research efforts. Topics of interest include smart shape representation and modification techniques, such as, e.g., parametric modeling, free form deformation and radial basis functions, and sensitivity and optimization methods spanning from genetic algorithms to set-based design, robust design under uncertainty approaches, and machine learning algorithms.





an Open Access Journal by MDPI

Editor-in-Chief

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

Message from the Editor-in-Chief

Journal of Marine Science and Engineering (JMSE, ISSN: 2077-1312) focuses on research in the fields of Ocean Engineering, Coastal Engineering, Physical Oceanography, Geological Oceanography, Marine Biology, and Marine Environmental Science. It publishes reviews, regular research papers, and short communications, as well as Special Issues on particular subjects. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the maximum length of the papers.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

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)

Contact Us

*Journal of Marine Science and
Engineering* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/jmse
jmse@mdpi.com
X@JMSE_MDPI