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Shape Optimization of Engineering Systems for Superior Hydrodynamic Performance

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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.











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Message from the Editor-in-Chief

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