

Special Issue

Nonlinear Numerical Modelling of Wave Energy Converters

Message from the Guest Editor

The performance of wave energy converters is traditionally estimated using numerical models based on linear radiation/diffraction theory. However, over the last couple of years, we have seen an increase in the use of high-fidelity nonlinear hydrodynamic modelling for wave energy converters. The nonlinear approach is, of course, used in order to overcome the shortcomings of the small-wave-amplitude/small-motion assumptions underlying the linear approach. To include nonlinearity in the modelling is especially important for survival cases including steep and breaking waves and large amplitude motions, as well as the often highly nonlinear response in the resonance region of wave energy converter (WEC). We would like to invite papers dealing with numerical method development especially of nonlinear models for wave energy. This includes, but is not limited to, computational fluid dynamics (CFD) as well as medium fidelity models. We are also interested in studies covering applications of nonlinear models in the wave energy field, and papers investigating nonlinear and viscous effects on WECs. Additionally, experimental papers looking into nonlinear effects are highly encouraged.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2019)



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About the Journal

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.

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