

Special Issue

Nonlinear Wave Dynamics and Wake Structure

Message from the Guest Editor

The nonlinear dynamics of water surface waves demonstrates a great variety of manifestations. Experimental studies of the last two decades have revealed a number of new effects in the behavior of waves, which urgently require their proper theoretical study. Nonlinear dispersion of waves, well studied in weakly nonlinear models, still remains the object of active research in completely nonlinear wave models. The specific task of this issue is the study of highly nonlinear and dissipative processes, the transformation of breaking waves, and the evolution of the wave spectrum in the deep-water and coastal zones of the sea. The propagation of surface waves is usually accompanied by the influence of wind, coastal currents, tides, etc. Another theme of the issue is a radical change in the behavior of waves in the presence of the indicated “external” influences. The ship’s wake is one of the most striking examples of sea waves observed directly in natural conditions. One of the topics of the issue is the study of the structure of the ship’s wave wake under the influence of currents and wind in the coastal zone and in the open ocean.

Guest Editor

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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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