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Applications of Computational Fluid Dynamics for Marine and Offshore Engineering

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Message from the Guest Editors

The aim of this Special Issue is to disseminate the latest advancement in CFD techniques for flow problems arising from marine and offshore applications. A particular focus will be on the development and applications of high-fidelity and efficient numerical techniques for emerging offshore and marine engineering problems, e.g., modelling of wave interaction with multi-use platforms including offshore renewable energy and aquaculture devices. The scope of the special issue will include, but not limited to, the following topics:

- Review of the latest development in offshore and marine CFD;
- Novel CFD methods (mesh or particle based) for free surface flows;
- Violent wave impact on coastal and offshore structures including aeration and fluid compressibility effects;
- Modelling of novel offshore renewable energy devices and multi-use offshore platforms;
- Development and application of OpenFoam and other open sources CFD codes for offshore and marine engineering problems;
- Wave interaction with floating and/or flexible structures (hydro-elasticity);
- Integrated numerical wave tank through effective code coupling;
- Implementation of high performance computing in CFD.

Special Issue

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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