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HYDRODYNAMIC CHARACTERISTICS OF NOVEL AQUACULTURE FACILITIES IN OPEN SEA

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ABSTRACT

The open sea has a vast space for aquaculture and a suitable environment for water exchange, which is a good aquaculture area. Nevertheless, the complex environmental conditions in the open sea pose a significant threat to the safety of aquaculture facilities, which are susceptible to rough winds, severe waves and strong currents. Recently, conceptual aquaculture facility designs in various shapes and configurations have been proposed for open sea. Presentations on assessment about hydrodynamic characteristic of these novel conceptual designs are essential to validate innovative offshore aquaculture facility design before construction and deployment.

The objective of the session is to facilitate collaboration and exchange of expertise between researches involved in numerical, experimental modelling and design of hydrodynamic characteristics of all kinds of novel aquaculture facilities in open sea, including novel offshore aquaculture platform, integration of aquaculture farming and ocean renewable energy system, and other innovative multi-purpose aquaculture facilities. We invite papers on numerical analysis, testing, model-based design and artificial intelligence approach of such systems.