



## Measuring, Monitoring and Modeling the Ocean Waves: Possible Combined Uses for Advances and Future Perspectives

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### Message from the Guest Editors

Dear Colleagues,

Sea level rise and an increase in sea storminess are only some of the effects caused by climate change and variability. These phenomena interact at different temporal and spatial scales and play a fundamental role in coastal vulnerability and resilience, thus severely affecting the natural environment, residential areas, local ecosystems, existing engineering works, recreational and tourist activities, among others. Therefore, to prevent and/or mitigate such impact, a constant monitoring and a detailed analysis of the sea state are needed.

Currently, a large variety of sensors and models fulfill these requirements and are available to monitor and forecast the phenomena that govern the ocean waves. These tools provide a large amount of data relating to, for example, measurements of hydrodynamic parameters, reconstruction of wave motion and seabed morphology, as well as the prediction of meteo-marine events and beach inundation. However, such tools are rarely integrated to perform a deep and accurate analysis of the ocean waves and the phenomena related to their propagation toward the coast.

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## Message from the Editor-in-Chief

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