

Analysis of the Wave - Current Interactions in an Offshore Basin

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ABSTRACT

The theoretical background of the wave-current interactions, including the transformation of the wave spectrum due to currents, is first presented in this work. In the second part of the work, experimental data are presented as resulted from studies performed in an offshore wave basin of the Danish Hydraulic Institute concerning the wave-current interactions. Wave systems with several peak periods and significant wave heights, were subjected to currents, both in the same direction and opposing the wave propagation.

Keywords: wave, currents, interactions, experimental data

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