Wave effect on two cylinders using the panel method

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ABSTRACT

The general objective of the present work is to develop a computational framework able to study in real time the hydrodynamic forces acting on marine offshore and nearshore structures operating in the Romanian coastal enviroment. As a first step, this paper reviews the extensive analytical and numerical accomplishments related to the performances of the numerical model WAMIT (acronym for Wave Analysis of the Massachusetts Institute of Technology) in this field. Using the numerical above mentioned model the effects of mean drift force, on two cylinders, are analyzed. Simulations were carried out, with varied separation distances between the cylinders and for different relative body positions and orientations.

Keywords*:hydrodynamic, cylinder, drift force, Green function, WAMIT, Black Sea*

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