Department of Ocean Engineering

Outstanding Graduate Student Award Seminar

MEAN WAVE DRIFT FORCE ON FLEXIBLE BODIES

by

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Abstract

The mathematical formulation and computational implementation of the non-linear mean wave drift force on flexible bodies are presented. Mean wave force and moment on rigid 3-D bodies are discussed first and comparisons with others are given. The consistency in using the Green function method and the complex time harmonic factor is stressed and shows that in non-consistent approach one can get correct first order amplitudes, but not the phases which are crucial in obtaining the non-linear mean force. The approach used for 3-D bodies is entented to a 2-D body. Calculated results for the drift force on flexible 3-D bodies will be shown and discussed.