

Hydro-Seminar

by Lab. of Floating-Body Dynamics in Waves

The speaker in the 49th Hydro-Seminar is

Professor Odd M. Faltinsen

Centre for Autonomous Marine Operations and Systems (AMOS)
Norwegian University of Science and Technology
Trondheim, Norway

Date: Friday, 30 November, 2018

Time: 15:30 – 17:00

Venue: Library Hall of Science and Engineering Library
Suita Campus, Osaka University
http://suita.library.osaka-u.ac.jp/intro_access.html

Seakeeping of Ships

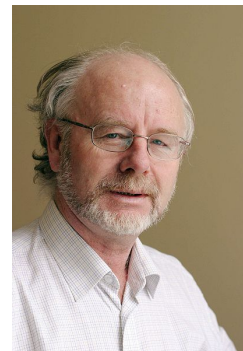
Abstract

The presentation describes continuing efforts in improving linear motion calculations of displacement vessels. The use of body-fixed coordinate system is advocated. The effect of viscosity and sloshing on motion predictions is discussed. Results for the moonpool problem by a domain decomposition method with viscous and potential flow domains are presented. Challenges in predicting springing and whipping due to nonlinearities are presented. It is illustrated that state-of-the-art methods for second-order springing excitation lack important free-surface effects. Speed loss and CO₂ emission in waves require that both the added resistance, the wave effect on propulsion and the machinery are considered in a dynamic integrated way. Furthermore, ship maneuvering in waves, surfriding and broaching in following waves, replenishment operations, parametric roll with water on deck are discussed. Topics on high-speed vessels are slamming on catamarans and planing vessels, dynamic instabilities of semi-displacement and planning vessels, automatic control of SES and hydrofoil catamarans, accelerations and speed loss of SES and catamarans as well as ship motion predictions of semi-displacement vessels.

The Speaker: Professor Odd M. Faltinsen

Faltinsen took the PhD degree at the University of Michigan in 1971. He started his career in Det Norske Veritas from 1968 to 1974, and was appointed docent in marine technology at the Norwegian Institute of Technology in 1974. In 1976 he was promoted to professor of marine hydrodynamics. He has educated more than 60 PhD students. Faltinsen has been member of 5 ITTC committees including 2 as chairman, and 3 ISSC committees. He is a member of the Norwegian Academy of Science and Letters, the Norwegian Academy of Technological Sciences, the Chinese Academy of Engineering and the National Academy of Engineering of the United States of America as well as corresponding member of Croatian Academy of Sciences and Arts. Faltinsen received the Fridtjof Nansen award for outstanding research in science and medicine in 2011.

http://en.wikipedia.org/wiki/Odd_Magnus_Faltinsen



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