ORE SEMINAR

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OCEAN AND RESOURCES ENGINEERING

IN THE SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY AT THE UNIVERSITY OF HAWAI'I AT MĀNOA

Applied Computational Fluid Dynamics as a Hydrodynamic Design Tool for Lifting Bodies and other Innovative Designs

Charlie Field and Zensho Heshiki

MSB 114

Wednesday, November 13

3:00-3:30 pm Coffee Hour
3:30-4:30 pm Seminar

Abstract

Navatek is a world leader in the application of computational fluid dynamics (CFD) to the design of ship hull forms, ocean structures, underwater lifting bodies, and coupled hydrodynamic systems. Navatek employs a full complement of tools from simple empirical models, through proprietary medium-fidelity potential flow codes, to commercial Reynolds Average Navier Stokes (RANS) codes to perform these analyses. Navatek's philosophy in CFD is "The right tool for the job". Navatek is co-developer of the potential flow code Aegir, a NURBS-based, "panel-less", high-order, boundary-element method for the computation of steady and unsteady forces and motions of systems operating at or near the free surface. Unique to Navatek is a history of full-scale sea trials, including a retrofit of an Aft Lifting Body (ALB) to a Navy Standard RIB, which have proven the utility and validity of our CFD tools.

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Please join us for the coffee hour at the seminar venue a half hour before the seminar, 3:00 – 3:30 pm