

The Second Announcement
CFD WORKSHOP TOKYO 2005
(CFDWS2005)

March 9(Wed) - 11(Fri), 2005
National Maritime Research Institute
Mitaka, TOKYO, JAPAN

Purpose

The purpose of the Workshop is to assess the state of the art in computations of viscous flows around a ship hull and to accelerate research and development of numerical ship hydrodynamics. This purpose is inherited from the preceding Workshops in 1980, 1990, 1994 and 2000.

Recommendations of the previous Workshop, Gothenburg 2000, are summarized as follows:

- Similar workshops should be conducted about every five years.
- Modern ship hull forms should be used as test cases.
- Surface streamlines and pressure distributions together with turbulence quantities should be analyzed in detail.
- Propeller-hull interaction, effect of drift angle and the forward speed diffraction problem should be considered for additional cases.
- Standard methodology for verification and validation for CFD methods and their solutions should be used.

The present Workshop aims at providing the marine CFD community with an opportunity to assess some of the above issues. The ship hull forms are the same as the ones used in Gothenburg 2000, but, reflecting the expanding need for CFD, in addition to the conventional subjects of resistance and self-propulsion, maneuvering (oblique motion) and sea-keeping (diffraction) simulations are considered as the new test cases. Resistance estimation with trim and sinkage free condition is also added. New experiments are planned to obtain additional data and towing-tank research community is invited to contribute to EFD validation database, including rigorous uncertainty analysis (contact the organizers for detail). Toward the establishment of verification and validation procedure, a grid dependence test using the common grids with different grid densities is also planned, which will enable the direct comparison of the characteristics of the different methods. Further, using statistical analysis of the collected data, we will discuss issues of code certification.

Date and Venue

The Workshop will be held on March 9(Wed)-11(Fri), 2005 at National Maritime Research Institute, Mitaka, Tokyo, JAPAN.

Test Cases

The test cases for the Workshop have been selected based on the number of expected participants as follows (visit the WEB site for detailed information of each test case):

(1) Towing condition in still water

- 1.1) KRISO Container Ship with Free Surface, Trim and Sinkage Fixed
- 1.2) DTMB Model 5415 with Free Surface, Trim and Sinkage Fixed
- 1.3) DTMB Model 5415 with Free Surface, Trim and Sinkage Free
- 1.4) KRISO VLCC2M without Free Surface

(2) Self propelled condition in still water

KRISO Container Ship with Free Surface, Trim and Sinkage Fixed

(3) Oblique motion in still water

KRISO VLCC2M without Free Surface

(4) Towing condition in incident waves (diffraction problem)

DTMB Model 5415 with Free Surface, Trim and Sinkage Fixed

(5) Common grids provided

KRISO VLCC2M without Free Surface

Note: KRISO VLCC2M is the faired version of the original IGES data of KRISO VLCC2. (Visit the WEB for detail.)

Registration

Registration can be made at the Workshop WEB page (<http://www.nmri.go.jp/cfd/cfdws05/index.html>).

Those who have already made pre-registration are requested to visit the above WEB and check the registered entries corresponding to the adopted Test Cases. (ID and password have been sent together with the receipt of pre-registration. Please contact the organizer for any help.)

Schedule

(March 17, 2003	First announcement and opening of the WEB site)
(October 1, 2003	Deadline for preliminary registration and return of the inquiry through the WEB site)
December 10, 2003	Second announcement and data package available (partially) on the WEB
November 1, 2004	Deadline for data and paper submission
January 1, 2005	Third (final) announcement
March 9-11, 2005	Workshop

Registration Fee (Planned)

JPY 40,000.

Organizers

Executive Committee

Dr. T. Hino (chairman)	National Maritime Research Institute, Japan
Dr. M. Hinatsu	National Maritime Research Institute, Japan
Dr. N. Hirata	National Maritime Research Institute, Japan
Dr. Y. Kodama	National Maritime Research Institute, Japan
Prof. F. Stern	Iowa Institute of Hydraulic Research, University of Iowa, USA
Dr. Y. Ukon	National Maritime Research Institute, Japan

Advisory Group

Dr. Y. Kodama	National Maritime Research Institute, Japan
Prof. L. Larsson	Chalmers University of Technology, Sweden
Prof. F. Stern	Iowa Institute of Hydraulic Research, University of Iowa, USA
Dr. M. Visonneau	Ecole Centrale de Nantes, France

Contact

Takanori Hino
Center for CFD Research
National Maritime Research Institute
6-38-1, Shinkawa, Mitaka, TOKYO
181-0004 JAPAN
Phone: +81-422-41-3044

Fax : +81-422-41-3136

Email: cfdws05@nmri.go.jp

URL: <http://www.nmri.go.jp/cfd/cfdws05/index.html>

(Registration can be made at the above URL.)