



Osaka University

Graduate School of Engineering
Department of Naval Architecture & Ocean Engineering

Hydro-Seminar

by Lab. of Floating-Body Dynamics in Waves

The 38th Hydro-Seminar will be taken place with the following contents

Date: Monday, 27 February, 2017
Time: (Part-1) 15:00 – 15:50 (Part-2) 16:00 – 16:50
Venue: S1-412 (Lecture room, 4F of S1 building)
Suita Campus, Osaka University

Part-1: (15:00 – 15:50)

**CFD prediction of hydrodynamic forces acting on ships
in confined waterways**

by Dr. Lu ZOU

Lecturer

**School of Naval Architecture, Ocean & Civil Engineering,
Shanghai Jiao Tong University**



Dr. Lu Zou graduated from Wuhan University of Technology for her bachelor and master degrees in 2004 and 2007, respectively, and she joined the PhD course at Shanghai Jiao Tong University and got her PhD degree from Chalmers University of Technology in Sweden, Department of Naval Architecture and Ocean Engineering, under the direction of Prof. Lars Larsson. Dr. Zou's research interest is placed on Computational Fluid Dynamics (CFD) applied to ship hydrodynamics in restricted waters, such as shallow-water effects, bank effects, ship-ship interaction, ship-tug interaction, and also she is working on the accuracy evaluation in CFD, that is, verification and validation.

Part-2: (16:00 – 16:50)

**Multi-objective optimization of hull form design
based on CFD**

by Ms. Aiqin MIAO

PhD Candidate in the 2nd year

**School of Naval Architecture, Ocean & Civil Engineering,
Shanghai Jiao Tong University**



Ms. Qiqin Miao is currently the 2nd-year student in the PhD course at the Department of Naval Architecture, Ocean & Civil Engineering of Shanghai Jiao Tong University and working on hull-form optimization based on CFD. She is developing an in-house solver for hull form optimization by means of OpenFOAM-SJTU (which is named as OPTShip-SJTU), which consists of optimizer, surrogate model, full form modifier, and performance evaluator. In this presentation, she will explain the application of the FFD method as a hull form modifier and show some of the obtained results of hull-form optimization.



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