CMHL SJTU COMPUTATIONAL MARINE HYDRODYNAMICS LAB 上海交大船舶与海洋工程计算水动力学研究中心

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Prof. Rickard Bensow is full professor in hydrodynamics since 2011 at the Department of Mechanics and Maritime Sciences at Chalmers University of Technology, Sweden. He is heading Chalmers research on ship resistance and propulsion with specialisation on simulation of cavitation and cavitation erosion, as well as developing scale resolving simulation methodologies, such as PANS and WMLES, for ship hydrodynamics. He is the director of the Kongsberg University Technology Centre in Computational Hydrodynamics since 2010 (previously within the Rolls-Royce group). He has currently almost 200 papers listed in Google scholar and about 2000 citations.



Plenary Lecture 2: Numerical assessment of cavitation nuisance in marine propulsion systems

Allowing propeller cavitation is necessary to achieve acceptable efficiency which makes it crucial to be able to control its negative effects, primarily related to induced pressure pulses, radiated noise, and erosion. In this talk, I will review our latest development and results related to predicting these effects in CFD. This includes a discussion on the physical mechanisms behind these nuisances that needs to be captured in CFD and thereby what the requirements will be on resolution and modelling to make this feasible