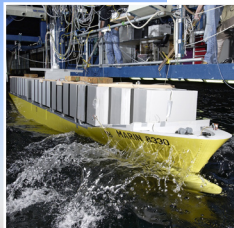
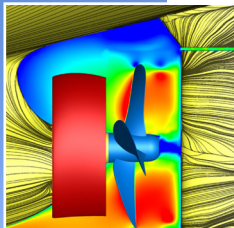




SEMINAR



SSSRI-MARIN SEMINAR

May 18, 2018, Shanghai

We are pleased to invite you to the second SSSRI-MARIN seminar.

The seminar will be held in Shanghai on May 18th 2018.
Experts from SSSRI, MARIN and the industry will present their views on these new roads.



Presentations will be given in English

Please turn over for the programme

Registration

You can register for the seminar until Friday May 11th, 2018.
Participation is free of charge.

Interested? Go to <http://www.sssri-marin-jv.com/event/sssri-marin-seminar-2018/> for information and registration or send an email to info@sssri-marin-jv.com.

Time and venue

Date: Friday, May 18, 2018
Venue: The Eton Hotel Shanghai, 535 Pudong Avenue,
Pudong New Area, Shanghai 200120
T +86 17621570775
E info@sssri-marin-jv.com
I www.sssri-marin-jv.com

Programme

08:30	Welcome and registration		
09:00 - 09:10	Opening	Mr. Johan de Jong	JV
09:10 - 10:00	naoe-FOAM-SJTU Solver for Ship Flows and Ocean Engineering Flows	Prof. Decheng Wan	SJTU
10:00 - 10:20	Voyage simulation in ship design	Mr. Rob Grin	MARIN
10:20 - 10:50	Coffee/Tea break		
10:50 - 11:10	Research and application on the technology of CFD & EFD	Ms. Yuling Gao	SSSRI
11:10 - 11:40	System integration, autonomous shipping and energy saving - the perspective of a new electric propulsion system	Mr. Longtang Xu	CRRC
11:40 - 12:00	Design considerations regarding manoeuvring aspects	Mr. Frans Quadvlieg	MARIN
12:00 - 13:30	Lunch		
13:30 - 13:50	The influence of a pre swirl stator's parameters on its performance	Mr. Fan Yang	SSSRI
13:50 - 14:10	Pre-Swirl stator design and optimization	Dr. Jie Dang	MARIN
14:10 - 14:30	Ship performance prediction/ship monitoring related research results	Mr. Zhenping Huang	SSSRI
14:30 - 15:00	Concept Validation through in-service measurements	Mr. Remco Hageman	MARIN
15:00 - 15:30	Coffee/Tea break		
15:30 - 16:00	Application of Speed-power Performance Prediction for a ship in wind and waves	Mr. Chuanqing Li	SSSRI
16:00	Closing remarks	Mr. Johan de Jong	JV

Chairmen: Mr. Dong Guoxiang (SSSRI) and Mr. Johan de Jong (MARIN)



SEMINAR





Brief Biography



Prof. Dr. Decheng Wan

Chair Professor of Chang Jiang Scholar | Distinguished Professor of Shanghai Eastern Scholar | Distinguished Professor of Shanghai Jiao Tong University | Vice Director of Office of Research Management | Acting Director of Office of Advanced Technology Research | Head of Computational Marine Hydrodynamics Laboratory

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Prof. Decheng Wan received his Ph.D from Shanghai Jiao Tong University (SJTU), China in 1994. He became a lecturer of Shanghai University in 1994, and was promoted to be an associate professor of Shanghai University in 1996. After successively worked as a research fellow of the Royal Society at University College London, UK, a senior research fellow at National University of Singapore, and a Wissenschaftliche Angestellter at Dortmund University, Germany from 1997 to 2005, he returned to Shanghai and was appointed as a full professor of Shanghai Jiao Tong University in 2006. He was selected as a distinguished professor of Shanghai Eastern Scholar in 2008, and promoted as a chair professor of Chang Jiang Scholar of China in 2014, and distinguished professor of Shanghai Jiao Tong University in 2015. Currently, Prof. Wan is Vice Director of Office of Research Management, Acting Director of Office of Advanced Technology Research, Head of Computational Marine Hydrodynamics Laboratory (CMHL) at SJTU.

His research interest is mainly on computational marine and coastal hydrodynamics, Computational Marine Hydrodynamics, Simulation Based Design for Offshore and Polar Structures, Renewable Energy in Deep Sea, numerical marine basin, nonlinear wave theory, wave loads on structures, numerical analysis of riser vortex-induced vibration (VIV) and platform vortex-induced motion (VIM), fluid- structure interaction, offshore wind turbine and other offshore renewable resources, as well as high performance computation on complex ship and ocean engineering flows, etc. In these areas, he has published over 420 papers and carried out more than 30 projects on marine hydrodynamics and computational hydrodynamics. He is Board of Directors and Chair of International Hydrodynamic Committee (IHC) of International Society of Offshore and Polar Engineering (ISOPE), Member of Advisor Committee of International Towing Tank Conference (ITTC), Member of Energy Saving Method Specialist Committee and CFD Specialist Committee of International Towing Tank Conference (ITTC), Member of Steering Committee of CFD Workshops in Ship Hydrodynamics, Standing Council Member of Association of Global Chinese Computational Mechanics, Member of External Advisory Committee (EAC) of the Department of Ocean Systems Engineering (OSE) of Korea Advanced Institute of Science and Technology (KAIST). He is associate editor of Journal of Hydrodynamics, Journal of Ocean Science and Engineering, as well as member of Editorial Board of Ocean Engineering, Applied Ocean Research, Journal of Ocean and Wind Energy, Journal of Shipping and Ocean Engineering, International Journal of Naval Architecture and Ocean Engineering, Journal of Ship Mechanics, Journal of Marine Science and Applications, Journal of China Ship Research as well as Journal of Chinese Quarterly of Mechanics.



Brief Biography



Zhenping Huang
29, research area of interest including model testing, CFD and ship performance in service.

Abstract

EEDI verification process include two stages: preliminary verification at design stage and final verification at sea trial. Sea trials are often carried out in ballast condition. The conversion from ballast to EEDI condition is based on model testing results. Therefore, extrapolation method and correction factors of model testing results is very crucial. Speed-power sea trials at different draughts were conducted on two ships. Long-term monitoring was also carried out to get ship performance in service conditions. Recommend procedures of sea trial data correction were evaluated to obtain more accurate ship full scale data. Long-term monitoring data, after quality filtering, were corrected for environmental influences using similar procedures. Speed-power performance data obtained from sea trials and long-term monitoring were then compared to predicted full-scale values based on model testing to determine model-ship correction factors.



Chuanqing Li

Chuanqing Li was born in 1987. He is an Assistant Researcher at SSSRI (Shanghai Ship and Shipping Research Institute). He is mainly engaged in seakeeping model test and numerical prediction. Application of Speed-power Performance Prediction for a ship in wind and waves

Abstract

The performance of a ship in wind and waves is taking more and more attention. The wind and waves are some of the important factors in the complicated environments which the sailing ship are encountered in fact. Based on model tests and numerical method, it is present speed-power performance prediction for a ship in wind and waves. Firstly, the predictions of speed-power for the ship in calm water are obtained from model test. Secondly, the increase power due to wind and waves are computed by RTIM(Resistance Trust Identical Method) considered according to ITTC recommend procedure, in which the added resistance due to wind is calculated by empirical formula or CFD, and the added resistance due ship motions in waves is calculated by radiated energy method proposed by Gerritsma and Beukelman(1972) together with STF strip method and the added resistance due to wave reflection is calculated by a approximate formula based reflecting law. Finally, the power of ship in wind and waves can be obtained from the power in calm water and the increase power due to wind and waves. The application based on the prediction method includes the ship hull optimization in wind and wave, the assessment of minimum propulsion power, the speed estimating in PRS(Redundant Propulsion and Separate), and the analysis of speed loss etc.

Keywords

Wind and waves, Speed-power Prediction, added resistance, wind resistance, minimum propulsion power, ship hull optimization, speed loss



Brief Biography



Yuling Gao is an associate professor of ship hydrodynamics in Marine Technology Division of SSSRI, principal study on ship resistance and propulsion. She is engaged in ship hull lines design and optimization and model test on high performance ships. She has rich experience in designing hull lines of many kinds of transport ships. Research and application on the technology of CFD & EFD

Abstract

Briefly introduce the facilities and capacity of model test and numerical calculation in SSSRI. The application of CFD & EFD facilities of three cases will be displayed and the detail process of design and optimization of lines of RO-RO ship, Live- stock carrier and River-sea vessel will be presented.



Research Assistant in ship hydrodynamic simulation field. With 8 years experiences in CFD software application, Fan Yang is good at dealing with not only the common engineering problems in ship resistance and self propulsion field but also the hull lines optimization and energy saving devices design.

Fan Yang

Abstract

Pre-swirl stator (PSS) is a kind of energy saving device (ESD) that attached to stern boss in front of a propeller, which consists of a number of stator blades. It is designed to generate pre-swirl flow into the propeller in order to modify ship's original wake and then improve propulsion efficiency. SSSRI innovated a specific pre-swirl stator (SSSRI's PSS), which consists of six stator blades with flaps. Its energy saving effect has been confirmed by model tests and applied in practice. This presentation focuses on showing the energy saving mechanism of this the pre-swirl stator and optimizing it for a large single screw bulk carrier. Many parameters can affect energy saving effect of the pre-swirl stator. To find an optimum configuration, a study is performed in viscous flow computation by varying three important parameters of the pre-swirl stator, i.e. the angle of flap, the length of flap and the diameter of stator blades. Based on the results of the study, an optimum flap angle can be found, power gain can be achieved by increasing the length of the flap properly. It is also suggested that the diameter of SSSRI's PSS should be somewhat longer than the diameter of propeller.



Brief Biography



Dr. Jie Dang

Dr. Jie Dang joined the R&D department at MARIN in January 2017 in developing panel method on cavitation simulation on propeller blades which developed further into the software called ProCal, widely used by CRS members. He obtained his PhD degree at TU Delft in 2001 and then joined LIPS Propeller Works in The Netherlands, which was later taken over by Wärtsilä. After 7 years' working in the industry as a principle scientist, he came back to MARIN in 2008. Since then he worked at MARIN as a senior project manager for more than 10 years, developed the Wageningen C-/D-series propellers in addition to running other Joint Industry Projects (JIPs). He is a very experience senior project manager on ship's powering performance with focus on propulsion systems.



Mr. Frans Quadvlieg

Frans Quadvlieg graduated in 1992 from Delft University of Technology at the Faculty of Mechanical Engineering and Naval Architecture in Ship Hydrodynamics. After working as a research assistant at Ship Hydrodynamics Laboratory in Delft, he joined MARIN in March 1993. First he worked in the software department, responsible for various projects on Seakeeping and Manoeuvring of ships and offshore constructions. In 1997, he became responsible as principal project manager for the Manoeuvring Department of MARIN. He covers many fields of ship manoeuvrability, commercial, joint industry and research projects. His competences are the manoeuvrability and course keeping of naval ships, cruise shuips and ferries, tugs, hopper dredgers, container vessels, inland ships and full block vessels. Both experimental, empirical and numerical ship manoeuvring simulations are in the expertise. Areas range from manoeuvrability at very low speeds (harbour manoeuvring) to very high speeds.

He was member of the ITTC (international towing tank conference) manoeuvring committee from 2005-2014. He acted as secretary in the period 2008-2011, and as chairman in the period 2011-2014.

He acted as co-chairman of the SIMMAN workshops for the benchmarking of manoeuvring prediction methods. Workshops are organised to raise the worldwide quality of manoeuvring prediction methds. Workshops are held in 2008, 2014, and the next workshop is planned in 2019.

He is invited lecturer at Delft University – department of naval Architecture and guided many Master Students in their masters thesis. He regularly gets invited for lectures at various locations on the world and to assist in solving manoeuvring problems.



Brief Biography



Mr. Remco Hageman

Remco Hageman is Project Manager at MARIN's Trials & Monitoring department. He has been involved in various research projects, concept validation studies and vibration trials. Remco specializes in structural strength and fatigue assessment. He has been involved in a 10-year continuous monitoring program for Coast Guard vessels. This work included measurement analysis, comparison with and validation of numerical models and the introduction of novel measurement concepts. Remco has also been involved in monitoring campaigns and validation studies in the offshore industry on more than 10 floating production units.

During the presentation, Remco will explore several concept validation studies related to ship performance and operational advice.



Mr. Rob Grin

Rob Grin is working at MARIN since 2003 and holds the current position of senior project manager. He is doing both scale model tests in the seakeeping basin and full numerical seakeeping studies. His specialism's are studies for passenger ships, voyage simulations, wave-added resistance and he is chairman of the SafeTrans User Group since 2006.