The Royal Institution of Naval Architects

DEVELOPMENTS IN MARINE CFD

22 - 23 March 2011, London, UK

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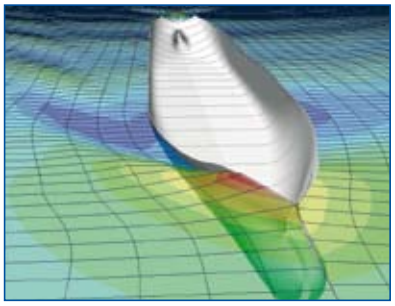
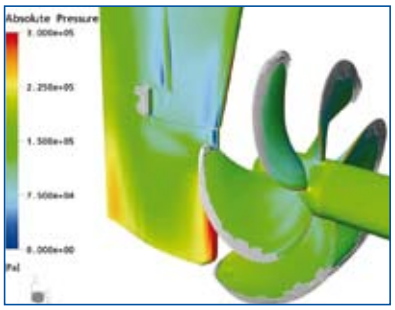
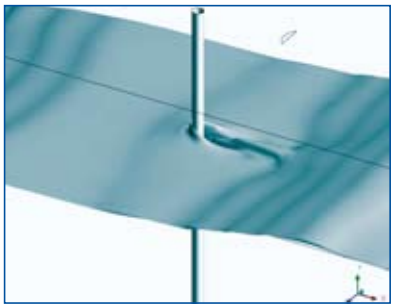
Call for Papers and First Notice







Computational Fluid Dynamics (CFD) is now used to solve a wide range of maritime applications from resistance prediction to slamming loads calculation. While it may still lack the accuracy to match results obtained in real-life experiments, it can provide important insights into physical flow characteristics and offers an economic way to investigate a range of design options.

Generic CFD codes often lack some features and capabilities needed to address specific maritime applications. The presence of the free surface provides a major departure from conventional CFD applications. The need to represent this fluid interface accurately presents a considerable challenge, not least because its behaviour can vary considerably within the computational domain, and as a function of hull form and speed.

While it might not yet be possible to develop a single CFD tool suitable for all maritime applications significant progress has been made in the past two decades towards the development of the 'numerical towing tank' and 'virtual basin or cavitation tunnel'. Research and development work is still ongoing to enhance their stability, accuracy, computational speed and to integrate CFD into the overall design process.

This International conference will offer delegates an opportunity to meet and discuss the latest developments and practical marine application of CFD.

Papers will relate to the following topics:

- Practical applications of CFD techniques to marine design
- Experimental and computational validation & benchmarking
- Improvements in automatic mesh generation
- Developments in adaptive grid generation
- Coupled CFD and structural analysis software
- Development of quality standards and best practise.

☐ I would like to offer and attach a synopsis of no more than 250 words by: 24 September 2010

☐ I wish to receive details on exhibition space and sponsorship opportunities

☐ I would like to receive a full programme brochure and registration form

Name: Position:

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