

Editorial

Dear readers of International Shipbuilding Progress,

This issue comes with interesting articles. But I would also like to share some good news. Open access is considered so important for the flow of information in the maritime industry that we have found a sponsor. The Axebow Foundation (Stichting Bijlboegfonds) is willing to sponsor the open access fee for three articles in ISP that will be selected by the editorial board, starting next year. Selection criteria will be quality of the publication and the urgency of the publication's main message. Next year we also celebrate our seventeenth volume, and what could be a better way to commemorate the occasion than to give away open access at no cost. Our ambition with more open access articles is to let the information flow towards industry more directly, to engage more people – also from industry – and to take away barriers for publication of ideas other than the quality of the work. More about this next year.

Issue 69(2) contains the following articles.

The first article, titled *Application of a maritime CFD code to a benchmark problem for non-Newtonian fluids: the flow around a sphere* by Lovato and colleagues, is an important stepping stone towards being able to compute maneuvering in shallow waters that could be affected by layers of mud. Mud should be modelled as a non-Newtonian fluid, i.e. with a nonlinear relation between viscosity and velocity gradients. The article presents a number of results of different fluid models in interaction with a sphere.

The next article is titled *A reduced order model for FSI of tank walls subject to wave impacts during sloshing* and written by Bos and colleagues. A rapid-assessment approach for the fluid-structure interaction (FSI) of wave impacts on flexible walls is proposed. The method is elaborated upon and compared to CFD simulations of wave impact on the same wall. The results demonstrate under which circumstances considering FSI is important for the response of the wall when it is impacted by a wave.

Gabriel and Wellens present a boundary element method with panels all around the fluid domain in an article named *A two-dimensional boundary element method with generating absorbing boundary condition for floating bodies of arbitrary shape in the frequency domain*. The approach reduces the complexity of the implementation and the extension to second order becomes more straightforward. One of the drawbacks of panels on all boundaries is that spurious reflection at domain boundaries needs to be prevented. The drawback was overcome by developing a generating absorbing boundary condition. The implementation was verified by considering the complete energy balance of a simulation with a wave energy converter, and by comparing second-order wave propagation to analytical results.

Important work that could make trawlers greener is presented. The title of the article is *Hydrodynamic Hull Form Optimization of a Single Trawler Based on Full Parametric Modeling* and it is written by Wu and colleagues. Hull form optimization using parametric modelling of a trawler, aided by CFD analyses, lead to a significant reduction of the total resistance at the design speed. The authors state that their optimization method has broad applicability in ship design.

The editorial board and I wish that you find this issue interesting and that you will enjoy the upcoming holiday season.

All the best,
Peter Wellens
Editor-in-chief