



Published on *CD-adapco* (<http://www.cd-adapco.com>)

[Home](#) > CFD optimization of vortex generators forming the wake flow of large ship

CFD optimization of vortex generators forming the wake flow of large ship

The paper presents the results of preliminary investigation of the effectiveness of using the vortex generators for improving the wake flow of large merchant ships.

The idea of vortex generators is based on that from aerospace industry, where the vortex generators are used to prevent the flow separation on the suction side of the airplane's wing ? the vortices introduced to the boundary layer are attaching to the wing surface. It is expected that it is also possible to take advantage of this effect in ship design, by reducing the boundary layer thickness and reducing the areas of separated flows in the propeller disc region. Some promising results were already published (Schmode, 2008)

Author Name:

Pawel Dymarski
Marek Kraskowski

Author Company:

Ship Design and Research Centre S.A., Poland

Industries:

[Marine](#) ^[1]


Products:

[STAR-CCM+®](#) ^[2]

Conference Location:

Duisburg/Germany

Conference Proceeding PDF:

 [nutts_01_2010_duisburg.pdf](#)^[3]

Pages:

38-43

Conference Date:

Sunday, October 10, 2010

Conference Name:

13th Numerical Towing Tank Symposium

CD-adapco is the world's largest independent CFD focused provider of engineering simulation software, support and services. We have over 30 years of experience in delivering industrial strength engineering simulation.

Source URL: http://www.cd-adapco.com/conference_proceeding/cfd-optimization-vortex-generators-forming-wake-flow-large-ship

Links:

[1] <http://www.cd-adapco.com/industries/marine>

[2] <http://www.cd-adapco.com/products/star-ccm%C2%AE>

[3] http://www.cd-adapco.com/sites/default/files/conference_proceeding/pdf/nutts_01_2010_duisburg_1.pdf