

## Ship Hydromechanics Laboratory at Delft University of Technology

The TU Delft team have been focused on wind propulsion research for a number of years and that has resulted in numerous thesis, publications and collaborations on projects in this developing sector.

Currently, Giovanni Bordogna & Nico van der Kolk from the Ship Hydromechanics Laboratory at Delft University of Technology are working on research to calculate aerodynamic forces and their interaction of several wind-assisted propulsion systems on deck. They are focusing on the importance of proper performance prediction along with assessment of the aerodynamics and hydrodynamics of wind-assisted ships. This project was presented at the 5<sup>th</sup> Natural Propulsion Seminar, Wageningen, Netherlands – see attached.

Nico van der Kolk and Giovanni Bordogna's PhD at TU Delft/Politecnico Milano are also currently working with the Maritime Research Institute Netherlands (MARIN) on systematic variation of hull form and appendage arrangement in order to find the influence of lift, drag and yawing moment for application of the wind (assisted) ship propulsion. As that latter project is still very much ongoing for us, there is no public information available on it yet.

Other recent thesis and publications include:

[Performance of auxiliary wind propulsion for merchant ships using a kite](#)

Peter Naaijen, Delft University of Technology & Vincent Koster, Delft University of Technology

[Hydrodynamics of Wind-Assisted Ships: A Numerical and Experimental Study on a Systematic Series of Bare Hull Models at Drift Angles](#) - Struijk, G.D. MA Thesis, 2015, TU Delft

[Hydrodynamic Forces on Wind Assisted Ships using CFD](#) - Settels, J.W., MA Thesis, 2015 – TU Delft

Website: <http://www.3me.tudelft.nl/shs/>