

Sails trim optimisation using mesh morphing

The study is focused on the use of **mesh morphing** to explore the effect of **sails trim** in a simplified boat configuration used during wind-tunnel testing.

CFD modeling using **ANSYS Fluent** has been first validated with respect to experiments.

Then **16 configurations** are reproduced using CFD building new meshes and using morphed versions of the baseline one.

The **RBF Morph** software has been used for mesh morphing achieving excellent agreement between new meshes and morphed meshes.

The continuum nature of morphing approach is then exploited showing how the **optimal trim** angles for a given flow condition can be easily identified.

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