

THE EFFECT OF ROUGH SURFACES – FROM CANONICAL FLOWS TO SHIPS

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Key words: Surface roughness, Boundary layer flows, Drag, Ship-scale performance, CFD

ABSTRACT

The impact of surface roughness on fluid flow is receiving increasing attention in marine engineering areas, relating to full scale resistance predictions of vessels and impact of fouling for ships and marine renewable energy or off-shore installations. Several both experimental and computational studies on flat plate or channel flows have been published recently, but there is a lack of studies looking at flows with pressure gradients or over curved surfaces, like a ship hull. This session invites studies related to both fundamental work on the physics and modelling of flow over rough surfaces as well on assessing impact of including roughness in the simulation of real installations to get an image of the state-of-the-art over a range of applications.