Computing the flow past Vortex Generators: Comparison between RANS Simulations and Experiments - DTU Orbit (27/07/2019)

Computing the flow past Vortex Generators: Comparison between RANS Simulations and Experiments
The flow around a wind turbine airfoil equipped with Vortex Generators (VGs) is examined. Predictions from three different Reynolds Averaged Navier Stokes (RANS) solvers with two different turbulence models and two different VG modelling approaches are compared between them and with experimental data. The best results are obtained with the more expensive fully resolved VG approach. The cost efficient BAY model can also provide acceptable results, if grid related numerical diffusion is minimized and only force coefficient polars are considered.

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Contributors: Manolesos, M., Sørensen, N. N., Troldborg, N., Florentie, L., Papadakis, G., Voutsinas, S.
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