Experimental and numerical validation of active flaps for wind turbine blades - DTU Orbit (16/10/2019)

**Experimental and numerical validation of active flaps for wind turbine blades**

An industrial active flap concept for wind turbine rotor blades is validated numerically by means of CFD, as well as experimentally in a wind tunnel environment. This paper presents the numerical and experimental results, as well as a discussion regarding the testing of airfoils equipped with active flaps with a highly loaded aft portion. A conceptual implementation for an offshore wind turbine and the potential for load reduction is shown by means of aeroelastic calculations. The work presented herein is conducted within the frame of the Induflap2 project and is partially funded by the Danish funding board EUDP.

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