Presentations from the Aeroelastic Workshop – latest results from AeroOpt

This report contains the slides of the presentations at the Aeroelastic Workshop held at Risø-DTU for the wind energy industry in Denmark on January 27, 2011. The scientific part of the agenda at this workshop was:

• Anisotropic beam element in HAWC2 for modelling of composite lay-ups (Taeseong Kim)
• Nonlinear beam element in HAWC2 for modelling of mooring systems (Bjarne Kallesøe)
• Enhanced BEM including wake expansion and swirl (Christian Bak)
• Unsteady viscous-inviscid interactive airfoil code for wind turbines (Néstor Ramos García)
• PIV measurements on model scale wind turbine in water channel (Robert Mikkelsen)
• Potential of fatigue and extreme load reductions on swept blades using HAWC2 (David Verelst)
• Aeroelastic modal analysis of backward swept blades using HAWCStab2 (Morten H. Hansen)
• Aeroelastic rotor design minimizing the loads (Christian Bak)
• A small study of flat back airfoils (Niels N. Sørensen)
• Status of airfoil design and plans for wind tunnel tests of new thick airfoils (Christian Bak)

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