Esben Lindgaard is nominated as NoACMs candidate [NoACM = Nordic Association for Computational Mechanics] for the European ECCOMAS PhD Prize 2011 (European Community on Computational Methods in Applied Sciences). Design of the composite structures as wind turbine blades is a complex task. Taking advantage of advanced materials as possible, it is necessary to tailor them to the specific requirements for stiffness, strength, cost and weight, so material utilization will be as good as possible. This is difficult to achieve with a conventional design process, so Esben Lindgaards PhD project ("Buckling Optimization of Composite Structures") has developed rational methodologies for optimal design of composite structures. The methods are based on mathematical techniques and computer simulation, and they make it possible to design lighter and yet stronger and stiffer structures. Esben Lindgaard grew up in Viborg and student from Viborg Gymnasium in 2001. He graduated as a civil engineer (mechanical engineer) from Aalborg University in 2007. He was awarded a PhD in 2011, and is now employed as an assistant professor at the Department of Mechanical and Manufacturing Engineering at Aalborg University.”

Selected Publications:
Erik Lund, Leon Stenholt Johansen, Christian Gram Hvejsel and Esben Lindgaard Olesen, “Multi-material topology optimization of geometrically nonlinear multi-layered composite shell structures”, 8th World Congress on Computational Mechanics (WCCM8), etc., 2008

Esben Lindgaard Olesen, Erik Lund and Lars C.T. Overgaard, “Optimization formulations for composite structures subjected to compression loads”, 8th World Congress on Computational Mechanics (WCCM8), etc., 2008


