

# **NREL-Developed Wind Turbine Design Codes Workshop**

Hosted by Katherine Dykes, MIT  
Led by Dr. Jason Jonkman, NREL

Massachusetts Institute of Technology (MIT)  
Sloan Building E51, Room 145, MIT Campus  
Cambridge, Massachusetts (USA)

January 19, 2011, 9:00 – 17:00

## **Agenda**

- 9:00 Welcome and Introductions
- 9:30 Presentation 1: Design Codes Overview
- 10:00 Presentation 2: Overview of the FAST Servo-Elastic Module
- 10:45 Break
- 11:00 Demonstration 1: Onshore, Steady Wind – 8 m/s, No Control
- 11:30 Demonstration 2: Onshore, Steady Wind – 8 m/s
- 11:45 Presentation 3: Overview of the AeroDyn Aerodynamics Module
- 12:15 Demonstration 3: Onshore, Steady Wind – 18 m/s
- 12:30 Demonstration 4: Onshore, Turbulent Wind – 18 m/s
- 12:45 Lunch
- 13:45 Presentation 4: Overview of the HydroDyn Hydrodynamics Module
- 14:15 Demonstration 5: Offshore, Steady Wind – 8 m/s, Periodic Waves – 2 m, 8 s
- 14:45 Demonstration 6: Offshore, Turbulent Wind – 18 m/s, Irregular Waves – 6 m, 10 s
- 15:00 Demonstration 7: Offshore, Pitch Free Decay – No Aerodynamics, Still Water
- 15:15 Break
- 15:30 Presentation 5: Linearization of FAST with AeroDyn & HydroDyn
- 16:00 Demonstration 8: Linearization, Offshore, Parked
- 16:30 Presentation 6: Summary of Ancillary Tools & Pre- & Post-Processors
- 17:00 Adjourn