

# AMS SHORT COURSE: WIND ENERGY APPLICATIONS, SUPPORTED BY ATMOSPHERIC BOUNDARY LAYER THEORY, OBSERVATIONS AND MODELING

1 AUGUST 2010

KEYSTONE CONFERENCE CENTER

KEYSTONE, CO

**ORGANIZER**  
Branko Kosovic

**AMS COMMITTEE ON BOUNDARY LAYERS AND TURBULENCE**  
Wayne Merrill Angevine, Chairperson  
Rebecca J. Barthelmie, Sukanta Basu, Andrew R. Brown, Fotini Katopodes Chow,  
Robert John Conzemius, David Pino, Anna Rutgersson, Bas J.H. Van de Wiel, and Shiyuan Zhong

## PROGRAM

<b>8:20 A.M.</b>	<b>INTRODUCTION.</b> Branko Kosovic, NCAR, Boulder, CO	<b>1:00 P.M.</b>	<b>PANEL DISCUSSION: BROADER ISSUES FOR WIND ENERGY IN THE FUTURE AND CAREER OPPORTUNITIES FOR ATMOSPHERIC SCIENTISTS IN THE WIND ENERGY INDUSTRY.</b> <i>Moderator:</i> Bill Mahoney, NCAR, Boulder, CO <i>Panelists:</i> Gennaro Crescenty, Iberdrola, Portland, OR, Niels LeWhite, Second Wind, Somerville, MA, Kaspar Mortensen, Siemens, Boulder, CO, Mark Zagar, Vestas, Aarhus, Denmark
<b>8:30 A.M.</b>	<b>BOUNDARY LAYER TURBULENCE AND TURBINE INTERACTIONS WITH A HISTORICAL PERSPECTIVE.</b> Neil Kelley, National Renewable Energy Laboratory, Golden, CO	<b>2:00 P.M.</b>	<b>OBSERVATIONAL NEEDS FOR IMPROVING DATA ASSIMILATION FOR FORECASTING AND RE SOURCE ASSESSMENT.</b> Julie K. Lundquist, Univ. of Colorado / National Renewable Energy Laboratory, Boulder, CO
<b>9:30 A.M.</b>	<b>CURRENT PRACTICES AND APPLICATION AREAS OF METEOROLOGICAL TOOLS USED IN THE WIND ENERGY INDUSTRY, FROM RESOURCE ASSESSMENT TO SHORT-TERM FORECASTING TO SEASONAL FORECASTING.</b> Robert Conzemius, WindLogics, Grand Rapids, MN	<b>3:00 P.M.</b>	<b>COFFEE BREAK</b>
<b>10:30 A.M.</b>	<b>COFFEE BREAK</b>	<b>3:30 P.M.</b>	<b>HIGH RESOLUTION SIMULATIONS OF FLOW OVER COMPLEX TERRAIN.</b> Fotini (Tina) Katopodes Chow, Univ. of California, Berkeley, CA
<b>11:00 A.M.</b>	<b>INNOVATIVE MEASUREMENT TECHNIQUES FOR WIND ENERGY APPLICATIONS INCLUDING REMOTE SENSING TECHNIQUES.</b> Robert Banta, NOAA, Boulder, CO	<b>4:30 P.M.</b>	<b>ISSUES, OPPORTUNITIES, AND FUTURE DIRECTIONS IN WIND RESOURCE FORECASTING AND ASSESSMENT.</b> Gregory Poulos, V-bar, Salt Lake City, UT
<b>12:00 A.M.</b>	<b>SHORT COURSE LUNCHEON (included).</b>	<b>5:30 P.M.</b>	<b>DISCUSSION AND WRAP-UP.</b> Branko Kosovic, NCAR, Boulder, CO