

WindTech 2017
October 24 - 26, 2017
Boulder, Colorado, USA

	Session	Time	Last Name (Speaker/Lead Author)	First Name	Title (Click for Abstract)
Tuesday, October 24, 2017	Plenary Session	9:00 AM	Haupt (Session Chair)	Sue Ellen	Welcome
	Plenary Session	9:00 AM	Thompson	Michael	Introduction to Boulder and NCAR with Sue Ellen Haupt
	Plenary Session	9:30 AM	Green (Plenary Speaker)	Peter	Wind Energy: Navigating the compelling road ahead
	Plenary Session	10:00 AM	Butterfield (Plenary Speaker)	Sandy	
	BREAK	10:30 AM			
	1.A: Obs Field Campaigns	11:00 AM	Lundquist (Session Chair)	Julie	
	1.A: Obs Field Campaigns	11:00 AM	Takle (Keynote Speaker)	Gene	Exchanges in Surface and Boundary Layer Reconsidered: Introducing FaNTASTIC-1
	1.A: Obs Field Campaigns	11:30 AM	Bromm	Marc	Challenges in recording high quality wake flow measurements of a wind turbine in field experiments
	1.A: Obs Field Campaigns	11:45 AM	Rajewski	Daniel	Tall Tower Measurements of Wake Loss Characteristics Within a Low-Density Wind Farm
	1.A: Obs Field Campaigns	12:00 PM	Bodini	Nicola	Three-Dimensional Structure of Wind Turbine Wakes as Measured by Scanning Lidar
	1.A: Obs Field Campaigns	12:15 PM	Mikkelsen	Torben	Wind field re-construction of 3D Wake measurements from a turbine-installed scanning lidar
	1.B: CDF Applications 1	11:00 AM	Stoellinger (Session Chair)	Michael	
	1.B: CDF Applications 1	11:00 AM	Brasseur, PhD (Keynote Speaker)	Prof. Jim	
	1.B: CFD Applications 1	11:30 AM	Bastine (Presented by Joachim Peinke)		Stochastic Wake Model Based on POD Analysis
	1.B: CFD Applications 1	11:45 AM	Taylor	Timothy	Evaluating Instantaneous Wake Center Position Determination Techniques for Data from High Fidelity Simulation Models
	1.B: CFD Applications 1	12:00 PM	Lavelly	Adam	Validation of an Actuator-Line Tower Model for Upwind and Downwind Turbine Configurations and Wind Farms
	1.B: CFD Applications 1	12:15 PM	Yang	Ziaolei	Coordinated turbine control through axial-induction factor: wake characteristics and wind farm power optimization
	LUNCH BREAK	12:30 PM			
	2.A: Obs & Models	1:30 PM	Wilczak (Session Chair)	James	
	2.A: Obs & Models	1:30 PM	Lundquist, PhD (Keynote Speaker)	Julie	
	2.A: Obs & Models	2:00 PM	Iungo	Valerio	Proactive monitoring of an onshore wind farm through LiDAR measurements, SCADA data and a data-driven RANS solver

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	2.A: Obs & Models	2:15 PM	LoTufo	Julien	Numerical Weather Prediction Capabilities for Power Grid Weather Services of the State Grid Corporation of China
	2.A: Obs & Models	2:30 PM	Cline	Joel	Meteorology Research in DOE's Atmosphere to Electrons (A2e) Program
	2.A: Obs & Models	2:45 PM	Ahsbahs	Tobias	Coastal wind speed gradients at the Anholt wind farm from SCADA, SAR and WRF
	2.B: CDF Applications 2	1:30 PM	Brasseur (Session Chair)	James	
	2.B: CDF Applications 2	1:30 PM	Mavriplis, PhD (Keynote Speaker)	Prof. Dimitri	
	2.B: CDF Applications 2	2:00 PM	Misner	Greg	Flow divergence around higher-solidity straight-bladed vertical axis wind turbines
	2.B: CDF Applications 2	2:15 PM	Nielson	Jordan	Convective Surface Heat Flux Effects on Wind Turbine Power
	2.B: CDF Applications 2	2:30 PM	Doubrawa	Paula	Wake Characteristics from Scaled and Full-Scale Wind Turbines Based on Measurements and Simulations
	2.B: CDF Applications 2	2:45 PM	Ali	Naseem	Turbulence Characteristics via Invariants of the Reynolds Stress Anisotropy Tensor in a Thermally Stratified Wind Turbine Array Boundary Layer
	BREAK	3:00 PM			
	3.A: WFIP2	3:30 PM	Cline (Session Chair)	Joel	
	3.A: WFIP2	3:30 PM	Delwik (Keynote Speaker)	Ebba	Modeling and Validation across Scales: Parametrizing the effect of the forested landscape
	3.A: WFIP2	4:00 PM	Berg	Larry	Overview of WFIP 2 Observations: Concept, Execution, and Results
	3.A: WFIP2	4:15 PM	Pichugina	Yelena	Lidar Technology for Improvements in Wind Resource Assessment and Power Forecasts.
	3.A: WFIP2	4:30 PM	Djalalova	Irina	A comparison of 80m wind speed measurements from lidars, sodars, and two operational models during WFIP2
	3.A: WFIP2	4:45 PM	Olson	Joseph	Model Development Efforts During the Wind Forecast Improvement Project 2 (WFIP2)
	3.B: Science & Applications	3:30 PM	Sempreviva (Session Chair)	Anna Maria	
	3.B: Science & Applications	3:30 PM	Bloom (Keynote Speaker)	Aaron	
	3.B: Science & Applications	4:00 PM	Jha	Pankaj	Wind Plant Power Optimization and Control under Uncertainties

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	3.B: Science & Applications	4:15 PM	Samara	Farid	In-blade Load Sensing and Control on 3D Printed Wind Turbine Blades Using Trailing Edge Flaps
	3.B: Science & Applications	4:30 PM	Bottasso	Carlo	Wind sensing: A new technology to estimate the inflow at the rotor disk for smart wind turbine and wind farm control
	3.B: Science & Applications	4:45 PM	Echeverria	Dura	Dealing with the curse of dimensionality in the blade multi-disciplinar optimization
Wednesday, October 25, 2017	4.A: MesoMicro Coupling 1	9:00 AM	Munoz-Esparza (Session Chair)	Domingo	
	4.A: MesoMicro Coupling 1	9:00 AM	Meneveau, PhD (Keynote Speaker)	Prof. Charles	
	4.A: MesoMicro Coupling 1	9:30 AM	Jimenez	Pedro	A three dimensional PBL parameterization to improve wind forecasting at sub-kilometer scales
	4.A: MesoMicro Coupling 1	9:45 AM	Mirocha	Jeffrey	An investigation of online and offline mesoscale-microscale coupling techniques during unsteady meteorological conditions
	4.A: MesoMicro Coupling 1	10:00 AM	Rai	Raj	Evaluation of the Impact on Terra Incognita for Mesoscale and Microscale WRF Simulations
	4.A: MesoMicro Coupling 1	10:15 AM	Neher	James	Coupled mesoscale and large-eddy simulations of a wind turbine wake over complex terrain
	4.B: Controls 1	9:00 AM	Pao (Session Chair)	Lucy	
	4.B: Controls 1	9:00 AM	Johnson, PhD (Keynote Speaker)	Prof. Kathryn	
	4.B: Controls 1	9:30 AM	Rott	Andres	Accounting for wind direction variability and uncertainty by robust active wake deflection control in wind farms
	4.B: Controls 1	9:45 AM	Zalkind	Daniel	An Analysis of Peak Load Shaving Control Methods
	4.B: Controls 1	10:00 AM	Hamilton	Nicholas	Towards a Wind Turbine Wake Reduced-Order Model
	4.B: Controls 1	10:15 AM	Kianbahkt	Sepideh	Shutdown Controller Design for a 13 MW Segmented Ultralight Morphing Rotor Wind Turbine
	BREAK	10:30 AM			
	5.A: MesoMicro Coupling 2	11:00 AM	Kosovic (Session Chair)	Branko	
	5.A: MesoMicro Coupling 2	11:00 AM	Meyers (Keynote Speaker)	Johan	
	5.A: MesoMicro Coupling 2	11:30 AM	Montornes	Alex	Articulating Wind Time Series Modeling to Reach the Microscale

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5.A: MesoMicro Coupling 2	11:45 AM	Munoz-Esparza	Domingo	Improved representation of small-scale turbulence and intra-hour variability in the stable boundary layer by coupling mesoscale and large-eddy simulation models
5.A: MesoMicro Coupling 2	12:00 PM	Mazzaro	Laura	Nested mesoscale-to-LES modeling of the atmospheric boundary layer in the presence of under-resolved convective structures
5.A: MesoMicro Coupling 2	12:15 PM	Kosovic	Branko	Assessment of large-eddy simulations of the atmospheric boundary layer for wind energy applications
5.B: Controls 2	11:00 AM	Veers (Session Chair)	Paul	
5.B: Controls 2	11:00 AM	Fleming, PhD (Keynote Speaker)	Paul	
5.B: Controls 2	11:30 AM	Sinner	Michael	Individual and Collective Pitch Actuation using Lidar-Enabled Model Predictive Control
5.B: Controls 2	11:45 AM	Bay	Christopher	Distributed Model Predictive Control of Wind Farms
5.B: Controls 2	12:00 PM	Bartl	Jan	Experimental testing of wind turbine wake control
5.B: Controls 2	12:15 PM	Cole	Samuel	Design and Performance of a Controllable One-Meter Scale Research Wind Turbine
LUNCH BREAK	12:30 PM			
6.A: Wind Power Forecasting	1:30 PM	Gail (Session Chair)	William	
6.A: Wind Power Forecasting	1:30 PM	Machefaux, PhD (Keynote Speaker)	Ewan	
6.A: Wind Power Forecasting	2:00 PM	Liu	Yubao	Numerical Weather Prediction Capabilities for Power Grid Weather Services of the State Grid Corporation of China
6.A: Wind Power Forecasting	2:15 PM	Martinez	Sergio	Wind Power Forecast Error Patterns Under Different Forecast Horizons
6.A: Wind Power Forecasting	2:30 PM	Draxl	Caroline	IEA Wind Task 36 Forecasting
6.A: Wind Power Forecasting	2:45 PM	Roadman	Jason	Technology Development and Innovation to Address Wind Wildlife Operational Challenges
6.B: Analysis & Design	1:30 PM	Pichugina (Session Chair)	Yelena	
6.B: Analysis & Design	1:30 PM	Keller, PhD (Keynote Speaker)	Jonathan	

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	6.B: Analysis & Design	2:00 PM	Larsen	Gunner	Loads in wind farms under non-neutral ABL stability conditions – a full-scale validation study of the DWM model.
	6.B: Analysis & Design	2:15 PM	Hassanzadeh	Arash	Design and Simulation of Small Scale Wind Turbine Blade for Wind Tunnel Wake Testing
	6.B: Analysis & Design	2:30 PM	Romanic	Djordje	Wind Resource Assessment in Tornado Prone Area in the United States
	6.B: Analysis & Design	2:45 PM	Worsnop	Rochelle	Gusts and Shear Within Hurricane Eyewalls Can Exceed Offshore Wind Turbine Design Standards
	BREAK	3:00 PM			
	POSTER SESSION	3:30 PM			
	RECEPTION (5:00 PM - 6:30 PM)	5:00 PM			
Thursday, October 26, 2017	8.A: Experimental Scale Simulations 1	9:00 AM	Peinke (Session Chair)	Joachim	
	8.A: Experimental Scale Simulations 1	9:00 AM	Nader (Keynote Speaker)	Jacques	
	8.A: Experimental Scale Simulations 1	9:30 AM	Schottler	Jannik	The wakes behind two different yawed model wind turbines: From wake deflection towards two-point statistics
	8.A: Experimental Scale Simulations 1	9:45 AM	Neunaber	Ingrid	Experimental study on the effect of intermittent inflow on properties in the wind turbine wake
	8.A: Experimental Scale Simulations 1	10:00 AM	Berger	Frederik	Scaled wind turbine test setup in a wind tunnel with active turbulence generation for induction aerodynamics, load and control experiments
	8.A: Experimental Scale Simulations 1	10:15 AM	Harms	Tanner	Analysis of the Cycle-to-Cycle Behavior of Dynamic Stall on Thick Airfoils
	8.B: Enabling Efforts	9:00 AM	Marquis (Session Chair)	Melinda	
	8.B: Enabling Efforts	9:00 AM	Sempreviva (Keynote Speaker)	Anna Maria	
	8.B: Enabling Efforts	9:30 AM	Vasiljevic, N.	Nikola	The rise of big lidar datasets and need for lidar data standardization, contextualization and dissemination
	8.B: Enabling Efforts	9:45 AM	Zilitinkevich	Sergej	Atmosphere – Earth’s surface interaction: turbulent fluxes in the surface layer
	8.B: Enabling Efforts	10:00 AM	Takle	Gene	Wind Energy Potential at Six Locations in the Midwest US at Higher Hub Heights
	8.B: Enabling Efforts	10:15 AM	Castillo	Luciano	The case for wind energy on water security
	BREAK	10:30 AM			
	9.A: Experimental Scale Simulations 2	11:00 AM	Naughton (Session Chair)	Jonathan	

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9.A: Experimental Scale Simulations 2	11:00 AM	Dixon (Keynote Speaker)	Kristian	
9.A: Experimental Scale Simulations 2	11:30 AM	Taylor-Power	Gregory	Experimental Study of the Turbulent Wake Flow of a One Meter Scale Research Wind Turbine in a Large Boundary Layer Wind Tunnel
9.A: Experimental Scale Simulations 2	11:45 AM	Camp	Elizabeth	Low Dimensional Representations and Anisotropy of a Model Wind Turbine Array Versus an Array of Porous Disks
9.A: Experimental Scale Simulations 2	12:00 PM	Turner	John	Fully developed experimental wind turbine array boundary layer
9.A: Experimental Scale Simulations 2	12:15 PM	Holmes	Marlin	Experimental Characterization of an Axisymmetric Swirling Wake
9.B: Optimization & Uncertainty Quantification	11:00 AM	Jha (Session Chair)	Pankaj	
9.B: Optimization & Uncertainty Quantification	11:00 AM	Maniaci (Keynote Speaker)	David	
9.B: Optimization & Uncertainty Quantification	11:30 AM	Delle Monache	Luca	Wind power forecasting with the analog ensemble
9.B: Optimization & Uncertainty Quantification	11:45 AM	Craig	Anna	Uncertainty propagation through wind flow and wake loss models
9.B: Optimization & Uncertainty Quantification	12:00 PM	Lee	Joseph	Evaluating the Methodology of Assessing Inter-Annual Variability of Wind Speed
9.B: Optimization & Uncertainty Quantification	12:15 PM	Quick	Julian	Optimization Under Uncertainty for Wake Steering Strategies