

Program at a glance

DAY 1 – Tuesday 10 (morning)		DAY 2 – Wednesday 11 (morning)		DAY 3 – Thursday 12 (morning)		DAY 4 – Friday 13 (morning)	
09:00-10:15	Conference start Registration and Coffee	09:00-10:20	Session 6 - Low-frequency noise	09:00-10:40	Session 10 - Noise assessment II	09:00-10:00	Copenhagen/Scandic to Risø Campus
						10:00-11:00	Open forum #3 Sound characteristics
10:20-12:00	Session 1 - Blade and airfoil noise I	10:20-11:00	Coffee Break	10:40-11:10	Coffee Break	11:00-11:30	Coffee Break
		11:00-12:00	Session 7 - Noise mitigation	11:10-12:10	Session 11 - Perception and annoyance I	11:30-12:30	Open forum #4 The noise we hear, the feelings we hold
12:00-13:00	Lunch Break	12:00-13:00	Lunch Break	12:10-13:10	Lunch Break	12:30-13:30	Lunch Break
DAY 1 – Tuesday 10 (afternoon)		DAY 2 – Wednesday 11 (afternoon)		DAY 3 – Thursday 12 (afternoon)		DAY 4 – Friday 13 (afternoon)	
13:00-13:40	Session 2 - Blade and airfoil noise II	13:00-14:40	Session 8 - Noise assessment I	13:10-14:10	Session 12 - Perception and annoyance II	13:30-14:45	Technical visit of the PLC wind tunnel
13:45-14:45	Session 3 - Rotor noise models I			14:10-14:50	Session 13 - Planning		
14:45-15:15	Coffee Break	14:40-15:10	Coffee Break	14:50-15:20	Coffee Break		
15:15-16:15	Session 4 - Rotor noise models II	15:10-15:50	Session 9 - Propagation	15:20-16:00	Session 14 - General aspects	15:00-17:00	Return to Copenhagen ETA at CPH airport: 16:30
16:20-17:00	Session 5 - Tonalities	16:00-17:00	Open forum #1 Wind turbine noise prediction	16:05-17:05	Open forum #2 WTN: industry, science and public		
18:00-19:00	Reception at Copenhagen City Hall			18:00-22:00	Conference dinner at DGI Byen		

DAY 1**Tuesday 10 (morning)****Registration desk opens at 09:00****Conference start****09:00-10:15**

09:00-09:50	Registration and Coffee
09:50-10:15	Foreword: Dick Bowdler Welcome speech: Christian Bak (DTU, Professor, Head of the Poul la Cour Wind Tunnel, Head of Section)

Session 1 - Blade and airfoil noise I (Chair: Michaela Herr)**10:20-12:00**

10:20-10:40	On the detection of vortex generator noise influence using beamforming in a large aeroacoustic wind tunnel Gelot, Matthieu <i>Abstract #5 (ID: 337)</i>
10:40-11:00	Aeroacoustic investigation of leading edge erosion in a wind tunnel Lylloff, Oliver <i>Abstract #13 (ID: 347)</i>
11:00-11:20	Multi-Scale Turbulence Structures in Grid-Generated Turbulence for Leading Edge Noise Prediction Sharma, Sparsh <i>Abstract #31 (ID: 365)</i>
11:20-11:40	Investigation of acoustics inside wind turbine blades and how it effects the outside Schneider, Lukas <i>Abstract #21 (ID: 355)</i>
11:40-12:00	Modifications to BPM model to incorporate trailing edge noise reduction by porous add-ons Caboni, Marco <i>Abstract #15 (ID: 349)</i>

Lunch Break**12:00-13:00****DAY 1****Tuesday 10 (afternoon)****Session 2 - Blade and airfoil noise II (Chair: Oliver Lylloff)****13:00-13:40**

13:00-13:20	A Native GPU CFD solver to predict trailing edge noise of wind turbine blades Reese, Hauke <i>Abstract #36 (ID: 371)</i>
13:20-13:40	Turbulent boundary layer trailing-edge noise reduction with permeable blade extensions at full-scale conditions Hartog, Friso <i>Abstract #44 (ID: 387)</i>

Session 3 - Rotor noise models I (Chair: Oliver Lylloff)**13:45-14:45**

13:45-14:05	A High-Fidelity, Multi-Disciplinary Framework for Wind Turbine Aero-acoustic and Vibro-acoustic Noise Reduction van der Velden, Wouter <i>Abstract #3 (ID: 333)</i>
14:05-14:25	Aeroacoustic investigation into the X-Rotor vertical-axis wind turbine using lattice-Boltzmann very large eddy simulation (LB-VLES) Wu, Yan <i>Abstract #27 (ID: 361)</i>
14:25-14:45	Design and Validation of Trailing-Edge Serration to achieve 3dB Reduction of Wind Turbine Noise Kamruzzaman, Mohammad <i>Abstract #10 (ID: 344)</i>

Coffee Break**14:45-15:15****Session 4 - Rotor noise models II (Chair: Cordula Hornung)****15:15-16:15**

15:15-15:35	Validation of a wind turbine noise high-frequency prediction tool Gimeno Garcia, Andres <i>Abstract #24 (ID: 358)</i>
15:35-15:55	Investigation of individual pitch control for infrasound noise reduction from wind turbines Shah, Anik Hirenkumar <i>Abstract #17 (ID: 351)</i>
15:55-16:15	Blade-tower interaction noise prediction using a simplified 2D vortex model Bertagnolio, Franck <i>Abstract #37 (ID: 372)</i>

Session 5 - Tonalities (Chair: Cordula Hornung)**16:20-17:00**

16:20-16:40	Comparing Narrow-Band and 1/3-Octave Band Methods for Detecting Tonal Wind Turbine Noise Boon, Jaap <i>Abstract #12 (ID: 346)</i>
16:40-17:00	A feasibility study on Neural Networks for Rating Prominent Tones in Noise Søndergaard, Lars Sommer <i>Abstract #19 (ID: 353)</i>

Reception at Copenhagen City Hall**18:00-19:00**

DAY 2**Wednesday 11 (morning)****Registration desk opens at 08:30****Session 6 - Low-frequency noise (Chair: Carlo Di Napoli)****09:00-10:20**

09:00-09:20	Wind turbine infrasound propagation over long distance Crozier, Steven	<i>Abstract #1 (ID: 331)</i>
09:20-09:40	Long term low frequency noise measurements near wind park Dijkstra, Mike	<i>Abstract #6 (ID: 338)</i>
09:40-10:00	The effects of low frequency noise considering the real complainants and real sites, and methodology for surveys of residents and development of mobile devices for good understanding on sound at wind turbine sites. Yamada, Shinji	<i>Abstract #8 (ID: 342)</i>
10:00-10:20	Acoustic Profiling of Infrasound and Audible Emissions from Wind Turbines: Field Measurements in Northern Sweden Chilo, José	<i>Abstract #43 (ID: 385)</i>

Coffee Break**10:20-11:00****Session 7 - Noise mitigation (Chair: Mark Bastasch)****11:00-12:00**

11:00-11:20	Production Optimized Noise Curtailment on Wind Farms Sørensen, Thomas	<i>Abstract #4 (ID: 335)</i>
11:20-11:40	Impact of a Novel Flexible Serrated Trailing Edge in the Reduction of Far-Field Wind Turbine Noise Church, Ryan	<i>Abstract #25 (ID: 359)</i>
11:40-12:00	A comparison of turbine mitigation methods to achieve an 'n' decibel reduction in sound power level Marshall, Kira	<i>Abstract #29 (ID: 363)</i>

Lunch Break**12:00-13:00****DAY 2****Wednesday 11 (afternoon)****Session 8 - Noise assessment I (Chair: David Ecoti re)****13:00-14:40**

13:00-13:20	Frequency Content of Measured Wind Farm Noise Levels and Band-Limited Regressions Levet, Tom	<i>Abstract #28 (ID: 362)</i>
13:20-13:40	Experimental validation of a prediction model of wind turbine noise variability Kayser, Bill	<i>Abstract #33 (ID: 367)</i>
13:40-14:00	Long-term Wind Farm Noise assessment over different meteorological conditions Lowe, Krispian	<i>Abstract #39 (ID: 375)</i>
14:00-14:20	Unwanted event removal and background noise characterization in wind turbine noise Fredianelli, Luca	<i>Abstract #40 (ID: 376)</i>
14:20-14:40	Procedure for predicting noise impact of new and repowered wind farms Bernardini, Marco	<i>Abstract #41 (ID: 380)</i>

Coffee Break**14:40-15:10****Session 9 - Propagation (Chair: Luca Fredianelli)****15:10-15:50**

15:10-15:30	Numerical investigation of noise propagation in wind farms and the influence of wind turbine layouts Colas, Jules	<i>Abstract #18 (ID: 352)</i>
15:30-15:50	Developing a coastal sound speed profile for propagation models McKeown, Eugene	<i>Abstract #42 (ID: 382)</i>

**Open forum #1 - Wind Turbine Noise Prediction:
Status and What needs to be improved****16:00-17:00**

16:00-16:10	Moderator/Introduction by: Damiano Casalino (TU Delft)	
16:10-17:00	Panelists: Franck Bertagnolio (DTU), Fabrice Junker (EDF renouvelables), Mohammad Kamruzzaman (Enercon), Stefan Oerlemans (Siemens Gamesa), Erik Sloth (Vestas)	

DAY 3**Thursday 12 (morning)****Registration desk opens at 09:00****Session 10 - Noise assessment II (Chair: Krispian Lowe)****09:00-10:40**

09:00-09:20	Examining the Effects of Atmospheric Parameters on Sound Power Level Measurements from Wind Turbines: Findings from Parallel Measurements in the IEC 61400-11 Reference Position and Extended Distances Christensen, Niels Frederik	<i>Abstract #34 (ID: 368)</i>
09:20-09:40	An investigation of immission spectrum resulting from increasing turbine rotor diameter Garnett, Merlin	<i>Abstract #30 (ID: 364)</i>
09:40-10:00	Estimating wind turbine noise in Swedish national noise map over green areas Ögren, Mikael	<i>Abstract #16 (ID: 350)</i>
10:00-10:20	Measurement of directivity patterns of a commercial wind turbine under yaw offset Finez, Arthur	<i>Abstract #20 (ID: 354)</i>
10:20-10:40	Acoustic and SCADA data for the wind turbine noise level estimation Rkhiss, Abdelazyz	<i>Abstract #26 (ID: 360)</i>

Coffee Break**10:40-11:10****Session 11 - Perception and annoyance I (Chair: Eoin King)****11:10-12:10**

11:10-11:30	Perceived noise impact of transitioning towards larger wind turbines using auralisations Pockelé, Josephine Siebert	<i>Abstract #9 (ID: 343)</i>
11:30-11:50	Psychological and physiological responses to amplitude-modulated low-frequency sounds Matsuda, Hiroshi	<i>Abstract #32 (ID: 366)</i>
11:50-12:10	How do Residents Experience Wind Turbine Noise? The Results of a Two-Year Study Koppen, Erik	<i>Abstract #11 (ID: 345)</i>

Lunch Break**12:10-13:10****DAY 3****Thursday 12 (afternoon)****Session 12 - Perception and annoyance II (Chair: Lars Søndergaard)****13:10-14:10**

13:10-13:30	Influence of Ambient Noise in Sound Quality Assessment of Auralised Wind Turbine Noise Pockelé, Josephine Siebert	<i>Abstract #23 (ID: 357)</i>
13:30-13:50	Estimating the effects of Wind Turbine Noise on annoyance and cognitive performance O'Hora, Denis	<i>Abstract #7 (ID: 340)</i>
13:50-14:10	The role of the planning process for wind turbine noise annoyance – results from multiple cross-sectional and longitudinal field studies Müller, Florian J. Y.	<i>Abstract #38 (ID: 374)</i>

Session 13 - Planning (Chair: Lars Søndergaard)**14:10-14:50**

14:10-14:30	Prediction Based Noise Limits and Why They Should Not Be Used When Consenting Wind Farms Baldwin, Jason	<i>Abstract #22 (ID: 356)</i>
14:30-14:50	Planning conditions - what should they cover? Mackay, James	<i>Abstract #35 (ID: 369)</i>

Coffee Break**14:50-15:20****Session 14 - General aspects (Chair: Gavin Irvine)****15:20-16:00**

15:20-15:40	Overview of the results of the PIBE project (Predicting the Impact of wind turbine noise) Ecotiere, David	<i>Abstract #14 (ID: 348)</i>
15:40-16:00	20 Years of Turbine Noise Bowdler, Dick	<i>Abstract #2 (ID: 332)</i>

Open forum #2 - Wind Turbine Noise: What the Industry Needs, What Science Knows, and What the Public Hears**16:05-17:05**

16:05-16:15	Moderator/Introduction by: Lars Martin Magnus (Statkraft)	
16:15-17:05	Panelists: TBA	

Conference dinner at DGI Byen**18:00-22:00**

DAY 4**Friday 13 (morning)****Copenhagen to Risø Campus (Niels Bohr auditorium)**

9:00-10:00

9:00-10:00	Bus from Scandic hotel area to Risø Campus PICK-UP will be in the Kødbyen area (<i>Not in front of hotel - TBA later</i>) - Departure at 9AM SHARP!
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**Open forum #3 - Sound Characteristics:
Amplitude Modulation and Tonalities**

10:00-11:00

10:00-10:10	Moderator/Introduction by: Matthew Cand (Hoare Lea) & Lars S. Søndergaard (FORCE Technology)
10:10-11:00	Panelists: TBA

Coffee break

11:00-11:30

**Open forum #4 - The Noise We Hear, the Feelings We Hold:
Exploring the Complexity of Wind Turbine Noise Reactions**

11:30-12:30

11:30-11:40	Moderator/Introduction by: Denis O'Hora (University of Galway)
11:40-12:30	Panelists: Birgit Junker (Statkraft), Florian Müller (MSH Hamburg), Lars S. Søndergaard (Force Technology)

Lunch break

12:30-13:30

DAY 4**Friday 13 (afternoon)****Technical visit of the Poul La Cour wind tunnel**

13:30-14:45

13:30-13:45	Introduction by: Christian Bak
13:45-14:00	Walk from Niels Bohr auditorium to PLC wind tunnel
14:00-14:45	Visit of the Poul La Cour wind tunnel

Return to Copenhagen

15:00-17:00

15:00-16:30	Bus from Risø Campus to Copenhagen First stop will be at CPH Airport with an ETA at 16:30!
16:30-17:00	CPH Airport to Scandic hotel/Kødbyen area