



Preliminary  
Winterwind  
**2018**  
program

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Winterwind 2018 • Åre • Feb 5-7

**INTERNATIONAL WIND ENERGY CONFERENCE**



**MONDAY**

**FIELD TRIP DAY**

8:15	Departure from Åre
9:20	Pick up at the airport
09:30-16:00	Field trip
16:00-18:00	Travel back to Åre
18:00-20:00	Registration and Exhibition



**TUESDAY**

	Arenan	Solskog	Snöljus
08:30-10:30	Registration and Exhibition	Workshop - Ice throw	
10:30-12:00	<b>Inauguration and keynote 1</b> Open Innovation keynote Open innovation session - 5-7 ideas presented to a voting audience		
12.00-13.00	Lunch		
12:30-12:55	<b>Poster presentations</b>		
	Overview about the icing research at the Institute of Composite Structures and Adaptive Systems (German Aerospace Center) – Transfer to wind energy in cold climate possible? <i>Christian Mendig, German Aerospace Center (DLR), GER (37)</i>	Measurements of cloud droplet size and concentration related to icing <i>Mika Komppula, Finnish Meteorological Institute (34)</i>	Development of a reliable modeling system for the calculation of rime ice loads on overhead transmission lines <i>Øyvind Byrkjedal, Kjeller Vindteknikk, NO (44)</i>
			SINTEF’s crash test of a potentially dangerous frozen wet-snow cylinder at the Structural Impact Laboratory <i>Rolv Erlend Bredesen, Kjeller Vindteknikk (23)</i>
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13:00-14:30

<b>Pre-construction site assessment, measurements, models and standards</b> <i>Moderator:</i>	<b>Health, Safety and Environment (HSE) incl. ice throw and noise</b> <i>Moderator:</i>	<b>Forecasting and cloud physics</b> <i>Moderator:</i>
From icing loss to production loss – a comprehensive comparison of today’s tools <i>Daniel Lindholm, EMD International A/S (35)</i>	Making ice fall and throw predictions for wind turbines more reliable <i>Sten Barup, ENERCON, SE (7)</i>	Verification of high-resolution probabilistic forecasts of icing in Germany for the winter 2016/17 <i>Lukas Strauss, University of Vienna (17)</i>
Open Data sets from Cold Climate Wind Farms in Finland <i>Simo Rissanen, VTT, FI (13)</i>	Norwegian guidelines regarding the risk of icethrow for the public <i>Rolv Erlend Bredesen, Kjeller Vindteknikk, NO (24)</i>	Turbine-specific ice loss assessment - accuracy and advantages <i>Mark Žagar, Vestas, DK (15)</i>
Understanding Icing in the Nordics and North America <i>Till Beckford, DNV GL (16)</i>	Numerical simulation of ice-throw from wind turbines in cold climate <i>Hamid Sarlak, DTU, DK (25)</i>	Forecasting ice accretion on rotor blades: validation against webcam and ice detectors <i>Saskia Bourgeois, Meteotest, Switzerland (28)</i>
Modelled vs observed LWC – where do we stand? <i>Magnus Baltscheffsky, WeatherTech Scandinavia AB (21)</i>	Health & Safety Best Practices for Wind Farm O&M in Cold Climate <i>Charles Godreau, TechnoCentre éolien, Canada (31)</i>	Addressing forecast uncertainty of wind turbine icing with deterministic sampling <i>Jennie Persson Söderman, Uppsala Universitet, SWE (38)</i>

14.30-15.30

**Break**

15:00-15:55

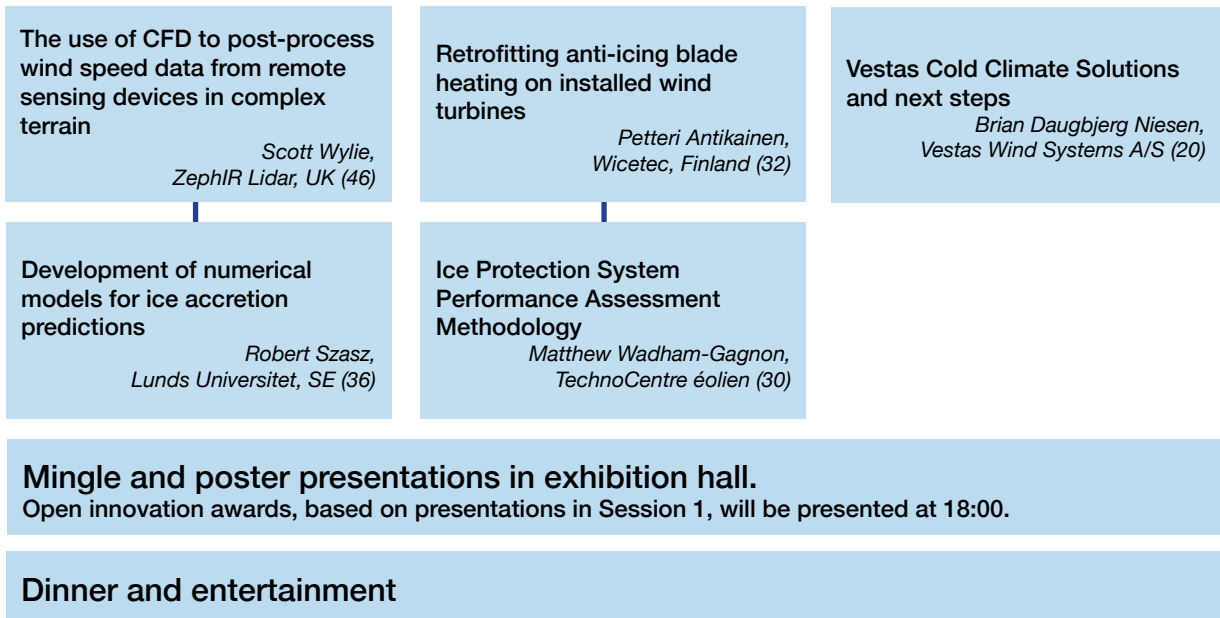
<b>Poster presentations</b>			
Making life easy – over 100 turbines in field under active fos4X rotor ice control <i>Bernd Kuhnle, fos4X, Germany (40)</i>	Indoor noise annoyance of 3-5 MW wind turbines <i>Valteri Hongisto, Turku University of Applied Sciences (29)</i>	Acoustic Condition Monitoring of wind turbines <i>Timo Mämmelä, APL Systems Oy (47)</i>	IEA Ice class detection with a mesoscale modeling stream and big data support <i>Abel Tortosa, Vortex (33)</i>

15:30-17:00

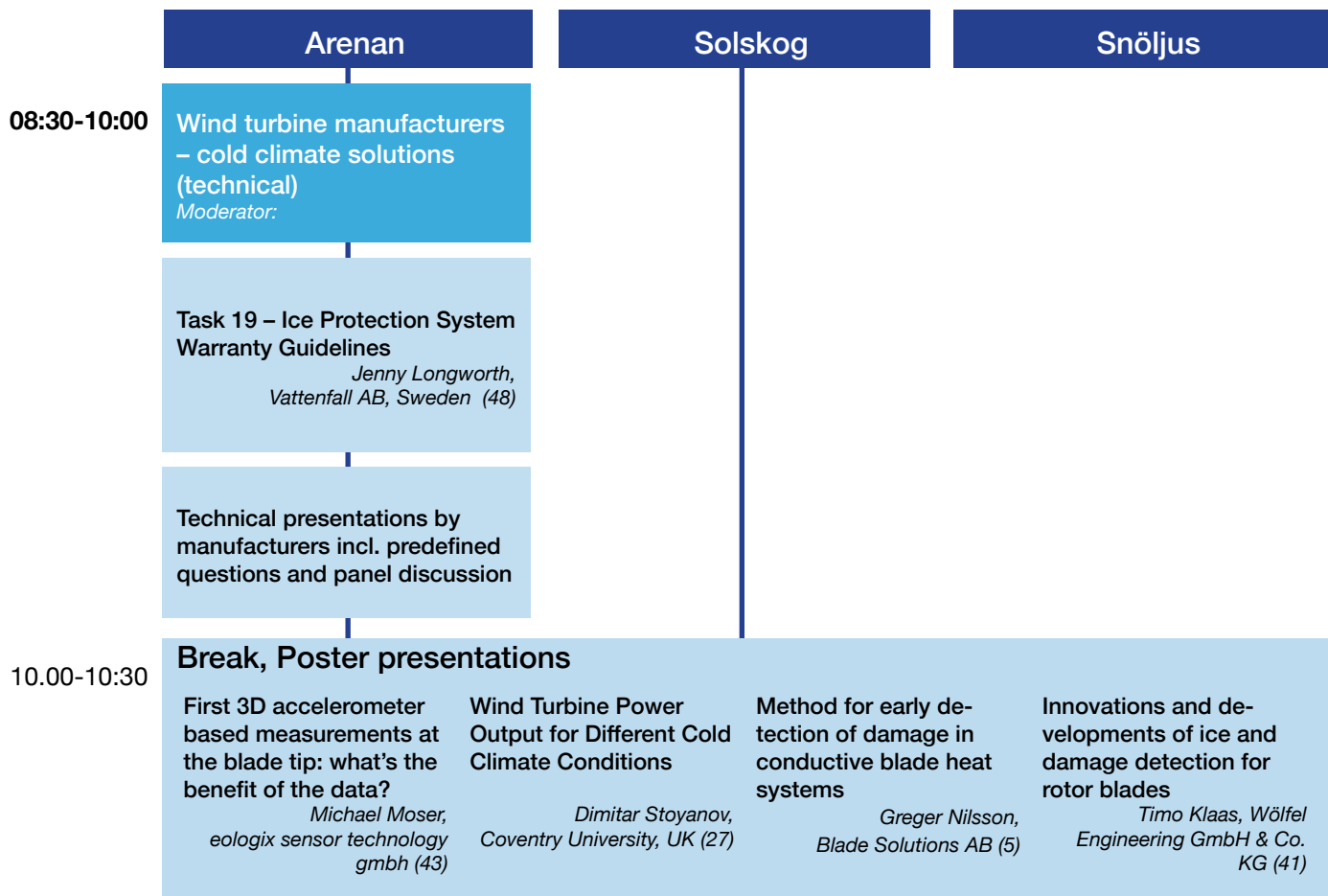
<b>Pre-construction site assessment, measurements, models and standards</b> <i>Moderator:</i>	<b>Operational experiences incl. performance optimization, big data and production losses</b> <i>Moderator:</i>	<b>Wind turbine manufacturers – cold climate solutions</b> <i>Moderator:</i>
Site-assessment and icing impact - using ERA5 assimilation data <i>Morten Lybech Thøgersen, EMD International A/S (EMD), DK (39)</i>	Benchmark SCADA analysis of 5 different wind turbine Ice Protection Systems <i>Ville Lehtomäki, VTT Technical Research Centre of Finland Ltd (9)</i>	Nordex advanced Anti-Icing System for N149/4.0-4.5 <i>Danela Jacob, Nordex Energy GmbH, Germany (2)</i>
Sensitivity of icing losses. Terrain versus elevation – a case study <i>Rickard Klinkert, Kjeller Vindteknikk, SE (42)</i>	Retrofitting a de-icing system on turbines affected by extreme icing: Our experience <i>Sebastien Trudel, EDF EN Canada (1)</i>	Leveraging insight from operational data to optimize performance in cold climate <i>Annike Skovgaard Sørensen, Siemens Gamesa Renewable Energy, SE (10)</i>



Winterwind 2018



**WEDNESDAY**



10.30-12:00

**De-/anti-icing, ice detection & control including standards**  
Moderator:

**Laboratory and full scale testing, test centers**  
Moderator:

**The importance of accurate detection for turbine ice prevention systems**  
*André Bégin-Drolet, Université Laval (26)*

**Atmospheric stability consideration for cold climates**  
*Hanna Vollan, Prevailing Ltd, UK (19)*

**Standardizing ice detector tests in icing wind tunnel - final results**  
*Timo Karlsson, VTT Technical Research Centre of Finland, FI (12)*

**Use of LIDAR for power curve measurements in Nordic climate**  
*Martin Grønsløth, Kjeller Vindteknikk AS, NO (45)*

**ICE CONTROL: Potential of innovative icing measurements and icing forecasts to optimize the operation of wind farms during icing conditions**  
*Thomas Burchhart, VERBUND Hydro Power GmbH (11)*

**Cold Climate testcenter in Sweden,**  
*Stefan Ivarsson, RISE (Research Institutes of Sweden) (3)*

**Variability in Ice Protection System efficiency**  
*Stefan Söderberg, WeatherTech Scandinavia AB (18)*

12:00-13:15

**Lunch**

12:45-13:10

**Poster presentations**

<p><b>Ice detector research results from wind turbine field tests and from icing wind tunnel tests</b> <i>Tatu Muukkonen, Labkotec Oy, FI (14)</i></p>	<p><b>UAVs in cold climates and their wind energy applications</b> <i>Richard Hann, Norwegian University of Science and Technology (NTNU), NO (8)</i></p>	<p><b>Evaluation of Anti-Icing behaviour in terms of EIROS-project</b> <i>Björn Speckmann, Fraunhofer IFAM, Germany (4)</i></p>	<p><b>Lessons learned from ice ablation tests in icing wind tunnel</b> <i>Raul Prieto, VTT Technical Research Centre of Finland (6)</i></p>
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13:15-15:00

**Grand finale - Past and future**  
Moderator:

**Don't look back in anger - a retrospective look on wind energy in cold climate**  
*René Cattin, Meteotest (22)*

14:30-14:50

**Summary of Conference**

14:50-15:00

**Final words**  
*Ulla Hedman Andrén*