



**MONDAY**

**FIELD TRIP DAY**

10:00-16:00 Field trip day (times are approx)

18:00-20:00 Poster and exhibition set-up

18:00-20:00 Registration



**TUESDAY**

08:30-10:30 Registration and Exhibition

**Main Hall**

10:00-11:30 **OPENING SESSION WINTERWIND 2019**

Chairs: TBD

Welcome

*Ulla Hedman Andrén*

*Director of Operations Swedish Windpower Association*

11.30-13.00 **Lunch**

12:30-12:55 **Poster presentations**

Clear air in cold climates: performance of continuous-wave ground-based lidar

*Wulstan Nixon, ZX Lidars (33)*

Wind-farm-scale blockage in stable regime associated with cold climates

*Christiane Montavon, DNV GL, Netherlands (42)*

Verification of numerical weather model predictions and wind turbine production-loss due to ice using ceilometer measurements

*Niklas Sondell, Modern Energy, Sweden (44)*

Load monitoring and lifetime assessment for wind turbine towers

*Carsten Ebert, Wölfel Wind Systems GmbH, Germany (49)*

**Room 1**

**Room 2**

**Room 3**

13:00-14:30 **Health, Safety and Environment (HSE) incl. ice throw and noise**  
Chairs: TBD

**IEA Wind Task 19: International Recommendations for Ice Fall and Ice Throw Risk Assessments**

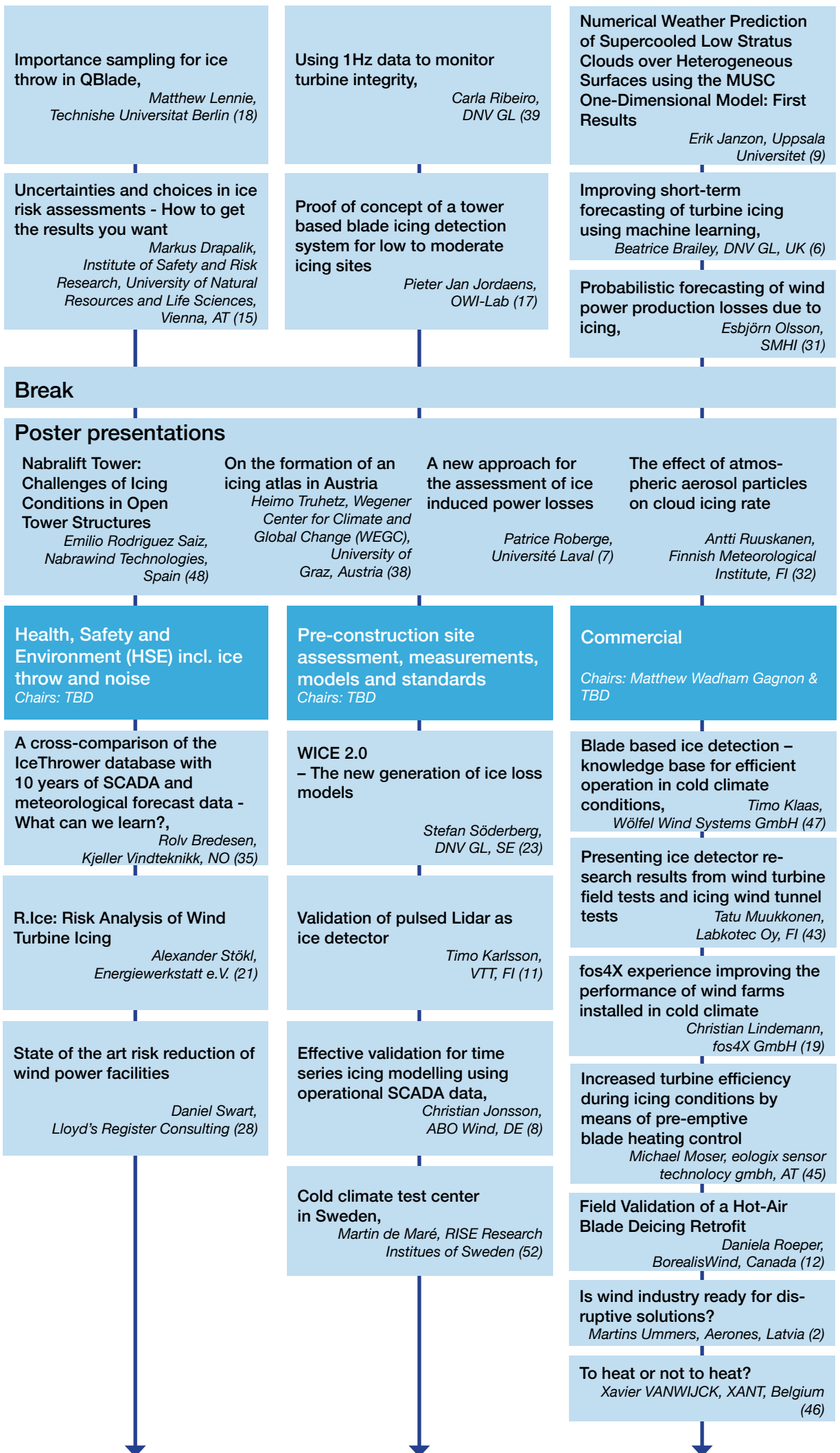
*Andreas Krenn, Energiewerkstatt e.V. (20)*

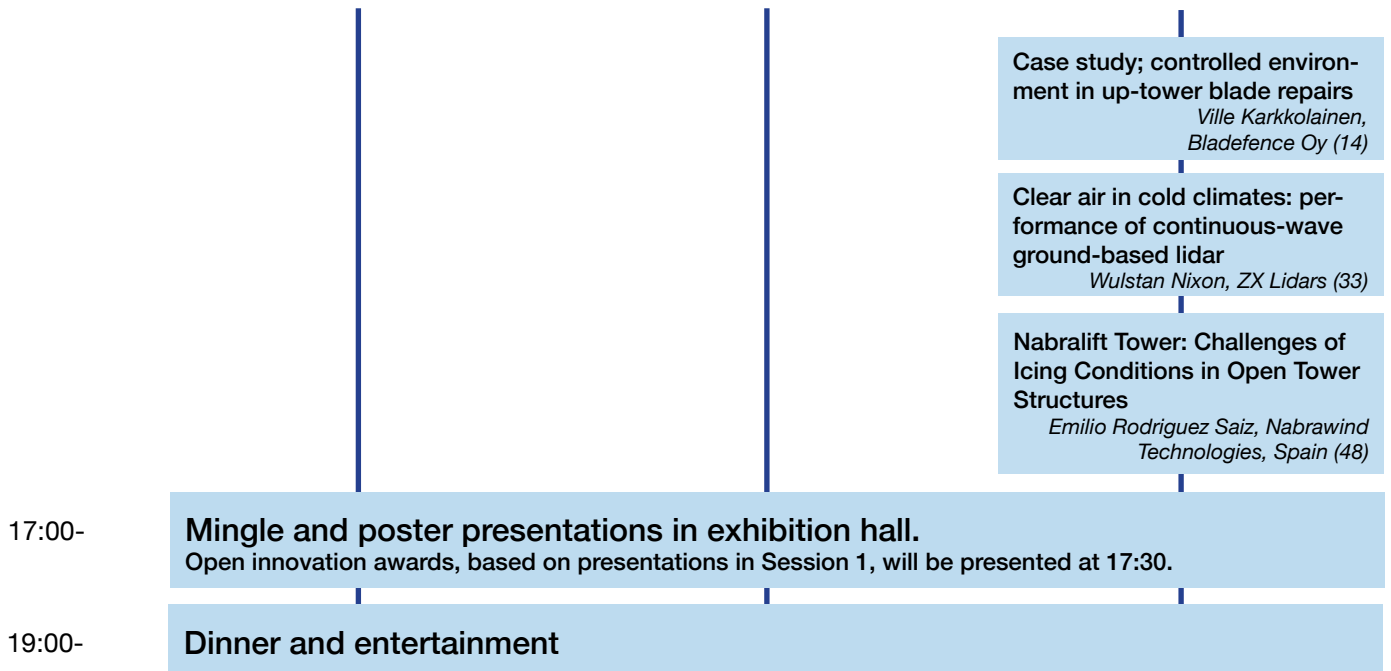
**De-/anti-icing including new technologies, ice detection & control incl. Standards**  
Chairs: TBD

**Unmanned aerial vehicles (UAVs) in cold climate and wind energy applications, Richard Hann,**  
*Norwegian University of Science and Technology (NTNU), Norway (3)*

**Forecasting cloud physics and aerodynamics**  
Chairs: TBD

**Forecasting of atmospheric icing – validation and applications within wind energy,**  
*Johannes Lindvall, Kjeller Vindteknikk (25)*





**WEDNESDAY**

	Room 1	Room 2	Room 3				
09:00-10:30	<p><b>Wind turbine manufacturers (commercial)</b>  <i>Moderators: TBD</i></p> <p><b>Technology retrofit and service approach for performance optimisation in cold climates,</b>  <i>Ulrik Rydstroem, Siemens Gamesa Renewable Energy (41)</i></p> <p><b>Nordex advanced Anti-Icing System for N149/4.0-4.5,</b>  <i>Konrad Sachse, Nordex Energy GmbH, DE (5)</i></p> <p><b>ENERCONs strategies for minimizing and assessing icing losses</b>  <i>Julian Schödler, ENERCON, DE (27)</i></p> <p><b>Vestas Cold Climate Solutions</b>  <i>Brian Daugbjerg Nielsen, Denmark (53)</i></p>						
10.30-11:30	<p><b>Break, Poster presentations</b></p> <table border="0"> <tr> <td> <p><b>Blade based ice detection – knowledge base for efficient operation in cold climate conditions</b>  <i>Timo Klaas, Wölfel Wind Systems GmbH (47)</i></p> </td> <td> <p><b>Presenting ice detector research results from wind turbine field tests and icing wind tunnel tests</b>  <i>Tatu Muukkonen, Labkotec Oy, FI (43)</i></p> </td> <td> <p><b>fos4X experience improving the performance of wind farms installed in cold climate</b>  <i>Christian Lindemann, fos4X GmbH (19)</i></p> </td> <td> <p><b>Field Validation of a Hot-Air Blade Deicing Retrofit</b>  <i>Daniela Roeper, Borealis Wind, Canada (12)</i></p> </td> </tr> </table>			<p><b>Blade based ice detection – knowledge base for efficient operation in cold climate conditions</b>  <i>Timo Klaas, Wölfel Wind Systems GmbH (47)</i></p>	<p><b>Presenting ice detector research results from wind turbine field tests and icing wind tunnel tests</b>  <i>Tatu Muukkonen, Labkotec Oy, FI (43)</i></p>	<p><b>fos4X experience improving the performance of wind farms installed in cold climate</b>  <i>Christian Lindemann, fos4X GmbH (19)</i></p>	<p><b>Field Validation of a Hot-Air Blade Deicing Retrofit</b>  <i>Daniela Roeper, Borealis Wind, Canada (12)</i></p>
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11.30-13:00

<b>Benchmarking</b> <i>Chairs: TBD</i>	<b>Design and construction</b> <i>Chairs: TBD</i>	<b>Laboratory and full-scale testing, small wind turbines</b> <i>Chairs: TBD</i>
How efficient is your blade heating? <i>André Bégin-Drolet, Canada (4)</i>	Construction of wind farms in cold climates areas – Owner’s Engineer experiences <i>Joachim Binotsch, Ramboll, Germany (30)</i>	Validation of Droplet Size in the VTT Icing Wind Tunnel Test Section <i>Tuomas Jokela, VTT Technical Research Centre of Finland Ltd (24)</i>
Performance benchmark analysis of four Ice prevention systems,, <i>Timo Karlsson, VTT, FI (10)</i>	Design features of wind diesel hybrid power plants in Russian Arctic climate, Viktor Elistratov, Science-education center «Renewable energy sources» <i>Peter the Great St. Petersburg Polytechnic University, Russia (16)</i>	Siemens Gamesa test case: extreme cold start-up validation of a wind turbine gearbox by the use of a large climatic test chamber <i>Pieter Jan Jordaens, OWI-Lab (51)</i>
Benchmark of four Blade-based Ice Detection Systems <i>Paul Froidevaux, Meteotest AG, CH (36)</i>	Icing alleviation for wind turbines with no ice-protected blades <i>Masafumi Yamazaki, Kanagawa Institute of Technology (34)</i>	Industrial research on the design of wind turbines for icing conditions <i>Inken Knop, Technische Universität Braunschweig, DE (40)</i>
Wind turbine rotor icing detectors performance evaluation <i>Charles Godreau, Nergica, Canada (22)</i>		EFAFLU test case: cold start-up validation of transformer pumps by the use of a large climatic test chamber <i>Daniele Brandolisio, OWI-Lab, BE (50)</i>

13:00-14:00

**Lunch**

13:30-13:55

<b>Poster presentations</b>			
Case study; controlled environment in uptower blade repairs <i>Ville Karkkolainen, Bladefence Oy (14)</i>	To heat or not to heat? <i>Xavier VANWIJCK, XANT, Belgium (46)</i>	Increased turbine efficiency during icing conditions by means of preemptive blade heating control <i>Michael Moser, eologix sensor technology gmbh, AT (45)</i>	Is wind industry ready for disruptive solutions? <i>Martins Ummers, Aeronex, Latvia (2)</i>

14:00-15:00

**Grand finale Next?**  
*Moderators: TBD*

IEA Wind Task 19 – key results from 2016-2018 and future plans 2019-2021  
*Ville Lehtomäki, KjellerVindteknikk, FI (26)*

14:40-14:50

**Summary of Conference**

14:50-15:00

**Final words**  
*Ulla Hedman Andrén*