

Eighth International Meeting
on
Wind Turbine Noise
Lisbon, Portugal, 12th-14th June 2019

Abstracts accepted

Presentations will be either oral, poster or part of a workshop session.

Comparison of two statistical methods for the automatic classification of wind turbine noise in relation to acoustic propagation conditions

ALBERT ALARCON, David Ecotièrè , Isabelle Schmich-Yamane

Noise Source Location in Wind Turbines

Pablo Alloza, Benjamin Vonrhein, Michael Kerscher

Renewable energy policy and public perceptions of renewable energy.

Koy Amisi

A comparison of long term background noise measured at multiple sites during different seasons

Payam Ashtiani, Duncan Halstead, Nicholas Tam

A comparison of tonal audibility assessments using ISO/PAS 20065 and IEC 61400-11

Payam Ashtiani, Adam Suban-Loewen, Kevin He

Wind Turbine Noise modelling: A measurement based appraisal of modelling parameters

Payam Ashtiani, Kohl Clarke, Allan Munro

Background noise map creation comparing a CFD and a mass continuity wind model

Andrea Bartolazzi

Current regulations for the protection against noise from wind turbines in Germany

Andrea Bauerdorff

A Wind Turbine Noise Code Benchmark - Round 1

Franck Bertagnolio, Benchmark Participants (TBA)

Computational Analysis of Vortex Induced Aerodynamic Noise

Vasishta Bhargava nukala, Samala Rahul

Is it possible to predict background noise levels from measured meteorological data with machine learning techniques?

Alexis Bigot

Review of Masking of Wind Turbine Noise from Ambient Sound

Karl Bolin

Intentional Yaw Misalignment and the Effects on Amplitude Modulation of Wind Turbine Noise
Ian Bonsma, Nathan Gara, Nick McCabe, Brian Howe

Measurement of wind turbine noise characteristics in receptor position – A new IEC Technical Specification
Sylvia Broneske, Bo Søndergaard

Wind Farm Environmental Noise and Vibration Impact Analyses: Background Sound, Project Construction, and Modeling of Final Project Noise and Vibration Immissions
Ethan Brush, James Barnes

The problem of noise nuisance enforcement in Scotland
John Campbell

Amplitude Modulation analysis - now and in the future
Matthew Cand

An experimental study on the noise mitigation mechanisms of trailing edge serrations using near- and far-field acoustic measurements.
Alper Celik, B. Zang, Yannick D. Mayer, Xiao Liu, Mahdi Azarpeyvand

Noise propagation at short range farfield position investigated by simultaneous measurements in the nearfield and the farfield.
Niels Christensen, Rune Egedal, Bo Søndergaard

Wind Turbines and Groundwater Contamination: An Analysis
W. David Colby

An example of effective amplitude modulation mitigation and how to prove it
David Coles

Twenty Years of Wind Turbine Noise Assessment in Portugal
Luis Conde Santos, Ana Bicker, Jorge Preto

Impact of low-level wind maxima on wind turbine sound propagation
Kristina Conrady, Karl Bolin, Anna Sjöblom, Anna Rutgersson

Measuring infrasound from wind turbine: the benefits of a wind shielding dome
Sarah D'Amico, Timothy Van Renterghem, Dick Bottendooren

WHO Environmental Noise Guidelines for the European Region conditional recommendation for wind turbine noise in the context of Australian regulations
Christophe Delaire, Justin Adcock, Edward Griffen

France – Germany: A Comparison of the Acoustic Assessment Procedures
Pierre Dutilleux

PIBE : a new French project for predicting the impact of wind turbine noise
David Ecotiere, Benoit GAUVREAU, Benjamin COTTE, Michel ROGER, Isabelle SCHMICH-YAMANE, Marie-Cécile NESSI

Danish experiences with measuring wind turbine noise at neighbor dwellings.

Rune Egedal, Niels F. Christensen, Bo Søndergaard

Directivity corrections for wind turbine noise predictions

Tom Evans, Jon Cooper

Noise monitoring for wind farms: the use of wind data

Tom Evans, Jon Cooper

Measurement of sound efficiency of trailing edge serrations (TES) on wind turbines in the Jura mountains.

Xavier Falourd, Lukas Rohr, Dominique Bollinger

Long-term noise monitoring of wind turbine amplitude modulation

Christopher Feist, Matt Lueker, William Herb, Jeff Marr, Peggy Nelson

A proposal for the prediction of sound pressure levels due to wind turbine operation

Alice Elizabeth González, Pablo Gianoli Kovar, Matteo Deambrosi Papini, Luciana Olazábal Barrios, Nicolás Rezzano Tizze

Simulation of sound radiation of wind turbines using large-scale finite element models

Thomas Grätsch, Marc Zarnekow, Frank Ihlenburg

Advancements in continuous learning for tonality free turbine design

Mranal Gupta, Kaj Dam Madsen

Atmospheric absorption in sound power measurements of wind turbines

Tomas Hansen, Lars Enggaard

Effect of grid resolution on airfoil self-noise prediction by large eddy simulation

Seyed Mohammad Hasheminasab Zavare, S.M.Hosseini Karimian, Sahar Noori, Mohammad Saeidi, Naser Akhavi

Aeroacoustic Assessment of Wind Turbine Blade Tips

Michaela Herr, C.-H. Rohardt, B. Faßmann, J. M. Pereira-Gomes, C. Appel, K. Rohde-Brandenburger

Evolution of background noise over one year of measurement

ERIC HOINVILLE

Residential survey on the annoyance of wind turbine noise in Finland

Valtteri Hongisto, Jenni Radun

Annoyance penalty of amplitude-modulated sound

Valtteri Hongisto, Petra Virjonen

Development of design guidelines for low noise but high yield wind turbines

Cordula Hornung, Thorsten Lutz, Ewald Krämer

Time dependent changes in sound pressure levels caused by wind turbines at long distances

Till Kühner

Relative influence of environmental parameters on long-range propagation of wind turbine noise

Bill Kayser, Benoît Gauvreau, David Ecotièrre

A comparison of standardized methods for prominence analysis of tonal components

Tomohiro Kobayashi, Sakae Yokoyama

I can still hear it and it's making me ill

Geoff Leventhall

Frequency Content of Measured Wind Farm Noise Levels and Band-Limited Regressions

Tom Levet

Wind Turbine Sound Prediction: Modelling and Validation

Leonard Mackowski, Thomas Carolus, Rémy Binois

Numerical Investigation of Porous Trailing Edge Noise Reduction Mechanism using lattice-Boltzmann Method

Farhan Manegar, Christopher Teruna, Francesco Avallone, Daniele Ragni, Alejandro Rubio Carpio, Damiano Casalino, Thomas H. Carolus

Measuring and Analyzing the Sound Propagation of Wind Turbines

Susanne Martens, Tobias Bohne, Raimund Rolfes

Airfoil LE Noise prediction supplement for PNoise Code

Alexandre Martuscelli Faria, Joseph Youssif Saab Jr., Sara Rodriguez, Marcos de Mattos Pimenta

Testing the human response to wind turbine emissions

Peggy Nelson, Christopher Feist, Matthew Waggenpack, Andrew Byrne, Jeffrey Marr, Matthew Lueker

Creating a Human Health Hazard – The Shirley Wind Story

Isaac Old

A More Realistic Method of Measuring Wind Turbine Noise at a Receptor

William (Bill) Palmer

Background noise seasonality and its influence on acoustic curtailments

Arthur PETIT, Colin LEBOURDAT

Numerical study of aerodynamic radiated noise of a Coflow-Jet Vertical Axis Wind Turbine

Dan Radulescu, Marius Deaconu, Georgel Vizitiu, Narcisa Burtea

Aerodynamic radiated noise of a Serrated Leading Edge Vertical Axis Wind Turbine

Dan Radulescu, Marius Deaconu, Georgel Vizitiu, Narcisa Burtea

A Brief Study on Noise Propagation of Airfoils from Wind Turbines Using the Lattice Boltzmann Method

Sara Rodriguez, Joseph Youssif Saab Junior, Alexandre Martuscelli Faria, Marcos de Mattos Pimenta

Adjustments required in the ISO 9613-2 method for wind turbine noise predictions

Vitor Rosão, Rui Leonardo

Prominent tones in wind turbine noise – Round robin test of the IEC 61400-11 and ISO/PAS 20065 methods for analyzing tonality content

Lars Sommer Søndergaard

How Critical is Low Frequency Noise for the Micrositing?

Thomas Sørensen

Methodology for the Quasi-3D TE Rotor Noise Prediction Tool of the PNoise Code.

Joseph Youssif Saab Jr., Sara Rodriguez, Alexandre Martuscelli Faria, Marcos de Mattos Pimenta

Scales of turbulence on a wind turbine leading edge

Ronan Serré, Kristian Balschmidt Godsk, Tomas Vronsky

Wind turbine noise propagation in flat terrain for wind farm layout optimization frameworks

Matias Sessarego, Emre Barlas, Wen Zhong Shen

Experimental Investigation of Trailing Edge Serrations with Fixed and Self-Aligned Flap Angles

Kathrin Stahl, F. Manegar, Th. Carolus, R. Binois

An Update on the Measurement, Prediction and Compliance of Wind Farm Noise in Australia

Peter Teague, Arnold Mafu, Joseph Lee

Self-reported health in the vicinity of five wind power areas in Finland

Anu Turunen, Pekka Tiittanen, Tarja Yli-Tuomi, Pekka Taimisto, Timo Lanki

Aerodynamic and Acoustic Prediction of Full Scale Wind Turbines

Wouter van der Velden

IDENTIFICATION OF WIND TURBINE NOISE IN A WIND FARM OF SOUTHERN BRAZIL

E. Felipe Vergara, Eduardo P. Luz, Marcelo Mohr, Bryan W. Gonçalves

Aeroacoustic Optimization of a Small Wind Turbine - Methodology and Experimental Validation

Kevin Volkmer, N. Kaufmann, T. Carolus

A low noise microphone for wind turbine noise measurement

Sabine von Hünerbein, Stuart Bradley

Analyses of a high fidelity aero-servo-elastic process chain to assess low-frequency emissions from wind turbines

Florian Wenz, Levin Klein, Thorsten Lutz, Ewald Krämer