

Ninth International Meeting
on
Wind Turbine Noise
18th - 21st May 2021

Abstracts accepted

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

A review of different methodologies to measurement of Sound Pressure Level from Wind Farms

Payam Ashtiani

EFFICIENT MANAGEMENT OF ACOUSTIC STUDIES OF LARGE WIND FARM PROJECTS

Miguel Ausejo Prieto, Laura Simón Otegui, Rubén García Morales

A model to calculate the delta between internal noise with open windows vs external noise

Andrea Bartolazzi, Cecilia Pompili

A tower Wake Model for Low-Frequency Noise of Downwind Turbine Rotors

Franck Bertagnolio

Wind sector management using Beilis Tappert Parabolic Equation

Karl Bolin

Validation Efforts of an Open-Source Aeroacoustics Model for Wind Turbines

Pietro Bortolotti, Yi Guo, Eric Simley, Nicholas Hamilton, Patrick Moriarty, Carlo Sucameli, Franck Bertagnolio

Development of IEC/TS 61400-11-2: Measurement of wind turbine noise characteristics in receptor position

Sylvia Broneske, Bo Søndergaard

The (psychoacoustic) Basics of Tonality Perception

Markus Buße, Robin Woodward, Sylvia Broneske

Comparison between Modelled and Measured Noise Impact with Varying Ground Factors

Kohl Clark, Payam Ashtiani

Prediction of wind turbines infrasound from meteorological parameters

Sarah D'Amico, Timothy Van Renterghem, Dick Botteldooren

Meteorological effects on wind turbine noise at the receptor location

Pierre Dutilleux

Different sound source setups in the simulation of wind turbine sound propagation

Katharina Elsen, Arthur Schady

Robust noise indicators using Gaussian Processes

Arthur Finez, Favrot N., Petit A., Le Bourdat C., Antoni J.

estimation of the sound emergence of wind turbines by semi-supervised learning technique

Jean-Rémy Gloaguen, David Ecotièrre, Benoit Gauvreau, Arthur Finez, Arthur Petit, Colin Lebourdat

A study of the relationship between wind direction and sound level for wind turbines measured in the far field

Duncan Halstead

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

S. Mohammad Hasheminasab, S.M.Hossein Karimian, Sahar Noori, Saman Lak

Turbulence Inflow Noise Prediction of Wind Turbine Rotors: The physically correct Representations of the Simplified Amiet and Lowson Model

Cordula Hornung, Christoph Scheit, Nils Noffke, Mohammad Kamruzzaman

Calculation of wind turbine noise uncertainty for downwind conditions

Bill Kayser, Vivien Mallet, Benoit Gauvreau, David Ecotièrre

If they are not being made ill by infrasound, then what is it?

Geoff Leventhall

Amplitude Modulation Characteristics with Distance and Direction

Tom Levet

The effect of wind turbine noise on polysomnographically measured and subjective sleep onset latency in wind turbine noise naïve participants

Tessa Liebich, Leon Lack; Gorica Micic; Kristy Hansen; Branko Zajamsek; Nicole Lovato; Claire Dunbar; Bastien Lechat; Felix Decup; Peter Catcheside

Human subjective responses to wind turbine sound amplitude modulation: meta-analysis and synthesis of laboratory listening studies

Michael Lotinga, Toby Lewis

Changing States: A developer review of the evolution wind farm permissions under New York's Article 10

Krispian Lowe, Isaac Old (RSG, US), Kenneth Kaliski (RSG, US)

A Review on the Development of Airfoils for Wind Turbine Blades

Alexandre Martuscelli Faria, Joseph Youssif Saab Jr., Sara Rodriguez, João Paulo Sales Barreto, Marcos de Mattos Pimenta

Physics-based auralization of wind turbine noise

David Mascarenhas, Benjamin Cotté, Olivier Doaré

Comparison of Tonality Analysis Methods for Wind Turbine Receptor Based Long-term Monitoring Datasets

Allan Munro, Adam Suban-Loewen, Cooper Hatfield, Payam Ashtiani

Wind Turbine Sound Quality Rating

Isaac Old

Establishing Sound Limits for Wind Energy: What is the Role of Annoyance?

Christopher Ollson, Mark Bastasch, Jacobos, United States

Stymied by Standards? Arguments for wind turbine noise standards that actually measure irritant drivers.

William (Bill) Palmer

Assessment and rating of Wind turbine noise immission at dwellings – the influence of amplitude modulation, aerodynamic noise sources and the Doppler effect

Kai Pies, Sergio Martinez

Assessing Wind Turbine Noise Perception by means of contextual Laboratory and Online Studies

Stephan Preihs, Jakob Bergner, Daphne Schössow, Jürgen Peissig

Decisions made to arrive at an implementation of ISO PAS 20065:2016 as the recommended tonality method for IEC/TS 61400-11-2, and a description of the current and developing implementation specifics to stimulate input and discussion

Tonality Expert Group to PT61400-11-2, tbc

The Quasi-3D Blade and Rotor Noise Prediction Methodology for the PNoise Code and Results

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

On the need for improved prediction models and updated noise regulations to utilize the advanced controls strategies that are available modern for wind turbines

Bo Søndergaard

Tonality content analysed with both 1/3 octave band methods and narrowband methods and compared with listening test

Lars Sommer Søndergaard, Mark Bastasch

Long distance noise propagation measurements over water for an elevated sound source – investigating multiple reflections

Lars Sommer Søndergaard, Erik Thysell, Christian Weirum Claumarch, Andrea Vignaroli

Wind farm neighbourhood investigated by a daily app questionnaire combining weather, noise and annoyance

Lars Sommer Søndergaard, Christer P Volk, Tomas Rosenberg Hansen, Lars Enggaard, Thomas Sørensen, Alfredo Peña

Developing new airfoils for larger wind turbine blades

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

Numerical Study of the Impact of Vortex Generators on Trailing Edge Noise

Ferdinand Seel, Thorsten Lutz, Ewald Krämer

Further experience of reviewing noise assessments for wind farms in Scotland and the implementation of the IOA Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise

Steve Summers, Graham Parry

Identifying the flap side-edge noise contribution of a wind turbine blade section with an active trailing-edge

Alexandre Suryadi, Christoph Jätz, Michaela Herr, Jörg Seume

A characterization of wind turbine noise and background noise levels distributions in far-field receptor testing of wind turbine facilities

Nicholas Tam, Dorsa Fardaei, Duncan Halstead

Audibility and health effects of infrasound

Frits van den Berg, Irene van Kamp (RIVM)

Health effects related to wind turbine sound: an update

Irene van Kamp, Frits van den Berg,

Listening Test Design for Adaption of ISO/PAS 20065 (2016) for Wind Farm Noise Assessment

Robin Woodward, Markus Buße

Listening Test Results for Adaption of ISO/PAS 20065 (2016) for Wind Farm Noise Assessment

Robin Woodward, Markus Buße, Sylvia Broneske, tbc