Gregor Giebel - DTU Orbit (07/02/2019)

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Research outputs:

Possible power of down-regulated offshore wind power plants
Research output: Research - peer-review › Journal article – Annual report year: 2019

Data-driven Wake Modelling for Reduced Uncertainties in short-term Possible Power Estimation: Paper
Research output: Research - peer-review › Conference article – Annual report year: 2018

Large Scale Offshore Wake Impact on the Danish Power System
Research output: Research › Poster – Annual report year: 2018

Large Scale Offshore Wake Impact on the Danish Power System (OffshoreWake)
Research output: Research › Conference abstract for conference – Annual report year: 2018

Uncertainties and Wakes for Short-term Power Production of a Wind Farm
Research output: Research › Article in proceedings – Annual report year: 2018

Do regional weather models contribute to better wind power forecasts? A few Norwegian case studies.
Research output: Research - peer-review › Report – Annual report year: 2017

IceWind final scientific report
Research output: Research - peer-review › Report – Annual report year: 2017

IRPWIND ScanFlow project
Research output: Research › Poster – Annual report year: 2017

Optimization of wind farm power production using innovative control strategies
Research output: Research › Report – Annual report year: 2017

Wind power forecasting-a review of the state of the art
Research output: Research - peer-review › Book chapter – Annual report year: 2017

An Overview of Offshore Wind Farm Design
Research output: Research - peer-review › Book chapter – Annual report year: 2016

Estimation of turbulence intensity using rotor effective wind speed in Lillgrund and Horns Rev-I offshore wind farms
Research output: Research - peer-review › Journal article – Annual report year: 2016
Framework of Multi-objective Wind Farm Controller Applicable to Real Wind Farms
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Possible Improvements for Present Wind Farm Models Used in Optimal Wind Farm Controllers
Research output: Research - peer-review › Paper – Annual report year: 2016

Scanflow: High-resolution full-scale wind field measurements of the ECN's 2.5 MW aerodynamic research wind turbine using DTU's 3D WindScanner and SpinnerLidar for iRPWind's and EERA's benchmark
Research output: Research › Sound/Visual production (digital) – Annual report year: 2016

Uncertainty Quantification of the Real-Time Reserves for Offshore Wind Power Plants
Research output: Research - peer-review › Paper – Annual report year: 2017

Wind power forecasting: IEA Wind Task 36 & future research issues
Research output: Research - peer-review › Conference article – Annual report year: 2016

Design tool for offshore wind farm cluster planning
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Design tool for offshore wind farm cluster planning
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Design tool for offshore wind farm clusters
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

EERA Design Tool for Offshore wind farm Cluster (DTOC)
Research output: Research › Sound/Visual production (digital) – Annual report year: 2015

EERA-DTOC cost optimized farm design
Research output: Research › Sound/Visual production (digital) – Annual report year: 2016

EERA-DTOC planning tool for large offshore wind farms
Research output: Research › Sound/Visual production (digital) – Annual report year: 2015

Experimental verification of a real-time power curve for down-regulated offshore wind power plants
Research output: Research › Poster – Annual report year: 2015

Importance of detailed meteorological information for smart city development
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Limited area forecasting for wind energy scheduling
Research output: Research › Poster – Annual report year: 2015

Real-time available power estimation for offshore wind power plants
Research output: Research › Poster – Annual report year: 2015
Wind Speed Estimation and Parametrization of Wake Models for Downregulated Offshore Wind Farms within the scope of PossPOW Project
Research output: Research - peer-review › Conference article – Annual report year: 2014

EERA-DTOC: Design tools for off-shore wind farm clusters including new results on wake bench
Research output: Research › Sound/Visual production (digital) – Annual report year: 2013

Energy yield prediction of offshore wind farm clusters at the EERA-DTOC European project
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Implementation of a Model Output Statistics based on meteorological variable screening for short-term wind power forecast
Research output: Research - peer-review › Journal article – Annual report year: 2013

Offshore Wind Farm Clusters - Towards new integrated Design Tool
Research output: Research - peer-review › Poster – Annual report year: 2013

PossPOW: possible Power of Downregulated Offshore Wind Power Plants
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

PossPOW: Possible Power of Downregulated Offshore Wind Power Plants
Research output: Research › Poster – Annual report year: 2013

POSSPOW: Possible Power of Offshore Wind Power Plants
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Renewable Energy Resources — Onshore/Offshore Wind Energy
Research output: Research - peer-review › Book chapter – Annual report year: 2013

The future challenges in wind power forecasting - the experts' vision
Research output: Research › Sound/Visual production (digital) – Annual report year: 2013

Using forecast information for storm ride-through control
Research output: Research › Sound/Visual production (digital) – Annual report year: 2013

Using forecast information for storm ride-through control
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Autonomous Aerial Sensors for Wind Power Meteorology - A Pre-Project
Research output: Research › Report – Annual report year: 2012

Autonomous aerial sensors for wind power meteorology - lessons learnt
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Autonomous aerial sensors for wind power meteorology - lessons learnt
Research output: Research - peer-review › Poster – Annual report year: 2012

EERA-DTOC: Design tools for offshore clusters
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012
EERA-DTOC: Design tools for offshore clusters
Research output: Research - peer-review › Poster – Annual report year: 2012

Integrated Wind Power Planning Tool
Research output: Research - peer-review › Poster – Annual report year: 2012

Integrated Wind Power Planning Tool
Research output: Research - peer-review › Poster – Annual report year: 2013

Integrated Wind Power Planning Tool
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2013

On the Predictability of Hub Height Winds
Research output: Research › Ph.D. thesis – Annual report year: 2012

Short Term Wind Power Forecasting
Research output: Research - peer-review › Book chapter – Annual report year: 2012

State of the Art in Wind Power Forecasting
Research output: Research › Sound/Visual production (digital) – Annual report year: 2013

Variability and smoothing effect of wind power production compared to load variability in the Nordic countries
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Wind Power Forecasting Error Distributions: An International Comparison
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

WIRE - Weather Intelligence for Renewable Energies
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

WIRE - Weather Intelligence for Renewable Energies
Research output: Research - peer-review › Poster – Annual report year: 2012

Autonomous aerial sensors for wind power meteorology
Research output: Research › Article in proceedings – Annual report year: 2011

Autonomous Aerial Sensors for Wind Power Meteorology
Research output: Research - peer-review › Conference article – Annual report year: 2011

On the impact of the assimilation of nacelle winds and yaw angles with WRF-FDDA and WRF-DART for short-term wind energy predictions
Research output: Research › Sound/Visual production (digital) – Annual report year: 2011

On the Impact of the Assimilation of Nacelle Winds and Yaw Angles With WRF-FDDA and WRF-DART for Short-Term Wind Energy Predictions
Research output: Research › Poster – Annual report year: 2011

The State-Of-The-Art in Short-Term Prediction of Wind Power: A Literature Overview, 2nd edition
Research output: Research - peer-review › Report – Annual report year: 2011

Wind fluctuations over the North Sea
Research output: Research - peer-review › Journal article – Annual report year: 2010
Wind Power Meteorology - An Overview
Research output: Research - peer-review › Conference article – Annual report year: 2011

Autonomous Aerial Sensors for Wind Power Meteorology
Research output: Research › Article in proceedings – Annual report year: 2010

Autonomous Aerial Sensors for Wind Power Meteorology
Research output: Research - peer-review › Conference article – Annual report year: 2010

Idealised simulations of open cellular convection and horizontal wind fluctuations over the North Sea
Research output: Research - peer-review › Conference article – Annual report year: 2010

Resolving Nonstationary Spectral Information in Wind Speed Time Series Using the Hilbert-Huang Transform
Research output: Research - peer-review › Journal article – Annual report year: 2010

Validation of boundary-layer winds from WRF mesoscale forecasts with applications to wind energy forecasting
Research output: Research › Poster – Annual report year: 2010

Validation of boundary-layer winds from WRF Mesoscale Forecasts with applications to wind energy forecasting
Research output: Research › Conference abstract in proceedings – Annual report year: 2010

Validation of Boundary-Layer Winds from WRF Mesoscale Forecasts with Applications to Wind Energy Forecasting
Research output: Research › Article in proceedings – Annual report year: 2010

Adding Forecasts to the IEC 61400-25 Communication Standard
Research output: Research › Article in proceedings – Annual report year: 2009

Characterisation of wind variability at the Horns Reef wind farm
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Communication of wind power forecast uncertainty: towards a standard
Research output: Research › Report – Annual report year: 2009

Integrating wind: Developing Europe’s power market for the large-scale integration of wind power
Research output: Research › Report – Annual report year: 2009

Integrating Wind. Developing Europe’s power market for the large-scale integration of wind power: Executive Summary
Research output: Research › Report – Annual report year: 2009

Prediction of waves, wakes and offshore wind - the results of the POWWOW project
Research output: Research › Article in proceedings – Annual report year: 2009

Spectral verification of a mesoscale ensemble
Research output: Research › Article in proceedings – Annual report year: 2009

Variability forecasts for wind farms using high resolution initial conditions
Research output: Research › Article in proceedings – Annual report year: 2009

Wind. Developing Europe’s power market for the large-scale integration of wind power: Final report
Research output: Research › Report – Annual report year: 2009
Best practice in the use of short-term forecasting - Results from 2 workshops organized by the POWWOW Coordination Action
Research output: Research › Article in proceedings – Annual report year: 2008

Connecting the offshore wind and wave resource calculations
Research output: Research › Article in proceedings – Annual report year: 2008

Forecasting of wind generation: recent advances and future challenges
Research output: Research › Article in proceedings – Annual report year: 2008

Forecasting of wind generation - The wind power of tomorrow on your screen today!
Research output: Communication › Journal article – Annual report year: 2008

HRensembleHR project progress in applying short-range ensemble forecasts for offshore wind power
Research output: Research › Article in proceedings – Annual report year: 2008

HRensemble project progress in applying short-range ensemble forecasts for offshore wind power
Research output: Research › Article in proceedings – Annual report year: 2008

Planning of offshore wind farms
Research output: Research › Conference abstract for conference – Annual report year: 2008

POWWOW - Workshops and virtual laboratories supporting wind research
Research output: Research › Article in proceedings – Annual report year: 2008

Uncertainty on predicted cross border flows caused by wind forecast errors
Research output: Research › Article in proceedings – Annual report year: 2008

Virtual laboratories for short-term forecasting and other benchmarks of the POW
Research output: Research › Article in proceedings – Annual report year: 2008

A variance analysis of the capacity displaced by wind energy in Europe
Research output: Research - peer-review › Journal article – Annual report year: 2007

Best practice in short-term forecasting - A users guide
Research output: Research › Article in proceedings – Annual report year: 2007

CONMOW: Condition Monitoring for Offshore Wind Farms
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Ensemble predictions: Understanding uncertainties
Research output: Research › Article in proceedings – Annual report year: 2007

Ensemble predictions: Understanding uncertainties
Research output: Research › Article in proceedings – Annual report year: 2007

Hohe Anteile an Windenergie im Energiemix der Zukunft: Potenziale, Verfügbarkeit, Technik
Research output: Research › Conference abstract for conference – Annual report year: 2007
POW'WOW. A coordination action on the prediction of waves, wakes and offshore wind
Research output: Research › Article in proceedings – Annual report year: 2006

POW'WOW. A coordination action on the prediction of waves, wakes and offshore wind (poster)
Research output: Research › Article in proceedings – Annual report year: 2006

Prediction of wind speed profiles for short-term forecasting in the offshore environment (poster)
Research output: Research › Article in proceedings – Annual report year: 2006

Short-term (30 min - 72 hrs) prediction for power output from wind farms
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Short-term forecasting using advanced physical modelling - The results of the Anemos project. Results from mesoscale, microscale and CFD modelling
Research output: Research › Article in proceedings – Annual report year: 2006

Wind power ensemble forecasting using wind speed and direction ensembles from ECMWF or NCEP
Research output: Research › Report – Annual report year: 2006

A comparison of the DMI-Hirlam and DWD-Lokalmodell for short-term forecasting (poster)
Research output: Research › Article in proceedings – Annual report year: 2005

Comparison of corrections to site wind speeds in the offshore environment: Value for short-term forecasting
Research output: Research › Article in proceedings – Annual report year: 2005

Is least cost wind power always local in Europe
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Short-term forecasting of wind speeds in the offshore environment
Research output: Research › Article in proceedings – Annual report year: 2005

What performance can be expected by short-term wind power prediction models depending on site characteristics?
Research output: Research › Article in proceedings – Annual report year: 2005

Wind farm modelling and short-term prediction
Research output: Research › Conference abstract for conference – Annual report year: 2005

Wind power has a capacity credit. A catalogue of 50+ supporting studies
Research output: Research › Journal article – Annual report year: 2005

Wind Power Prediction using Ensembles
Research output: Research - peer-review › Report – Annual report year: 2005

A comparison of the DMI-Hirlam and DWD-Lokalmodell for short-term forecasting (poster)
Research output: Research › Poster – Annual report year: 2004

ANEMOS: Development of a next generation wind power forecasting system for the large-scale integration of onshore and offshore wind farms
Research output: Research › Article in proceedings – Annual report year: 2004
CleverFarm - A superSCADA system for wind farms
Research output: Research - peer-review › Report – Annual report year: 2004

Fluctuations and predictability of wind and hydropower. Deliverable 2.1
Research output: Research › Report – Annual report year: 2004

IEC sets the standard
Research output: Communication › Journal article – Annual report year: 2005

Shear and stability in high met masts, and how WAsP treats it
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

The future of wind
Research output: Communication › Journal article – Annual report year: 2005

The state-of-the-art in short-term prediction of wind power. A literature overview. Version 1.1
Research output: Research - peer-review › Book – Annual report year: 2004

The state-of-the-art in short-term prediction of wind power from a Danish perspective
Research output: Research › Article in proceedings – Annual report year: 2004

The state of the art in short-term prediction of wind power - from an offshore perspective
Research output: Research › Conference abstract for conference – Annual report year: 2004

Towards next generation short-term forecasting of wind power - the ANEMOS project (poster paper)
Research output: Research › Article in proceedings – Annual report year: 2004

Using prediction models in other applications (PowerPoint presentation)
Research output: Research › Conference abstract in proceedings – Annual report year: 2004

Wind power Ensemble forecasting
Research output: Research › Article in proceedings – Annual report year: 2004

Wind power forecasting using Ensembles
Research output: Research › Article in proceedings – Annual report year: 2004

Effects of large-scale distribution of wind energy in and around Europe
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

On the stability treatment in WAsP
Research output: Research › Journal article – Annual report year: 2003

State-of-the-art on methods and software tools for short-term prediction of wind energy production
Research output: Research › Article in proceedings – Annual report year: 2003

Using ensemble forecasting for wind power
Research output: Research › Article in proceedings – Annual report year: 2003

Wind resource estimation - on timescales from 12 hours to 30 years
Research output: Research - peer-review › Book chapter – Annual report year: 2003
Poor-man's ensemble forecasting for error estimation
Research output: Research › Article in proceedings – Annual report year: 2002

Prediction of regional wind power (poster)
Research output: Research › Article in proceedings – Annual report year: 2002

The CleverFarm project: Working towards an intelligent wind farm
Research output: Research › Article in proceedings – Annual report year: 2002

The CleverFarm project. Working towards an intelligent wind farm
Research output: Research › Article in proceedings – Annual report year: 2002

The Zephyr-project. The next generation prediction system (poster)
Research output: Research › Article in proceedings – Annual report year: 2002

Wind energy in the liberalised market - forecast errors in a day-ahead market compared to a more flexible market mechanism
Research output: Research › Conference abstract for conference – Annual report year: 2002

A comparison of intra- and extraeuropean options for an energy supply with wind power
Research output: Research › Conference abstract for conference – Annual report year: 2001

Availability of wind turbines in remote places. A statistical and a real-time view
Research output: Research › Article in proceedings – Annual report year: 2001

A variance analysis of the capacity displaced by wind energy in Europe
Research output: Research › Article in proceedings – Annual report year: 2001

CleverFarm
Research output: Research › peer-review › Book chapter – Annual report year: 2001

CleverFarm. The intelligent wind farm
Research output: Research › peer-review › Article in proceedings – Annual report year: 2001

Short-term prediction
Research output: Research › peer-review › Book chapter – Annual report year: 2001

The quality of a 48-hours wind power forecast using the German and Danish weather prediction model
Research output: Research › peer-review › Article in proceedings – Annual report year: 2001

The Zephyr-project - the next generation prediction system
Research output: Research › peer-review › Article in proceedings – Annual report year: 2001

The Zephyr project - The next generation prediction system (poster)
Research output: Research › Article in proceedings – Annual report year: 2001

Working towards an intelligent wind farm
Research output: Research › Conference abstract for conference – Annual report year: 2001

Zephyr and short-term wind power prediction models
Research output: Research › peer-review › Article in proceedings – Annual report year: 2001
Zephyr - The prediction models (poster)
Research output: Research › Article in proceedings – Annual report year: 2001

A variance analysis of the capacity displaced by wind energy in Europe
Research output: Research › Conference abstract for conference – Annual report year: 2000

CleverFarm - The intelligent wind farm
Research output: Research › Conference abstract for conference – Annual report year: 2000

Das Zephyr-Projekt - eine neue Phase der Kurzzzeitprognose
Research output: Research › Article in proceedings – Annual report year: 2000

Einfluss des dänischen und des deutschen Wettervorhersagemodells auf die Qualität einer 48-Stunden-Windleistungsprognose
Research output: Research › Article in proceedings – Annual report year: 2000

Equalizing effects of the wind energy production in Northern Europe determined from reanalysis data
Research output: Research › peer-review › Report – Annual report year: 2000

Short-term prediction towards the 21st century
Research output: Research › peer-review › Article in proceedings – Annual report year: 2000

The capacity credit of wind energy in Europe, estimated from reanalysis data
Research output: Research › Article in proceedings – Annual report year: 2000

The quality of a 48-hours wind power forecast using the German and Danish weather prediction model
Research output: Research › Conference abstract for conference – Annual report year: 2000

The value of distributed generation in Europe to utilities
Research output: Research › Article in proceedings – Annual report year: 2000

Zephyr - the next generation prediction system
Research output: Research › Conference abstract for conference – Annual report year: 2000

Zephyr, the short-term prediction models
Research output: Research › Conference abstract for conference – Annual report year: 2000

Effects of distributing wind energy generation over Europe
Research output: Research › Article in proceedings – Annual report year: 1999

Implementation of Short-term Prediction
Research output: Research › peer-review › Article in proceedings – Annual report year: 1999

Model output statistics applied to wind power prediction
Research output: Research › peer-review › Article in proceedings – Annual report year: 1999

Relative performance of different numerical weather prediction models for short term prediction of wind energy
Research output: Research › Article in proceedings – Annual report year: 1999
Short-term prediction of wind farm output
Research output: Research › Conference abstract for conference – Annual report year: 1999

The economic value of accurate wind power forecasting to utilities
Research output: Research › Article in proceedings – Annual report year: 1999

The use of reanalysis data in a capacity credit assessment of wind energy in Europe
Research output: Research › Conference abstract for conference – Annual report year: 1999

Model output statistics in wind power forecasting
Research output: Research › Conference abstract for conference – Annual report year: 1998

Model output statistics in wind power forecasting
Research output: Research › Conference abstract for conference – Annual report year: 1998

European wind energy capacity effects
Research output: Research › Conference abstract for conference – Annual report year: 1997

Projects:

Large scale offshore wake impact on the Danish power system
Project: Research

Wind Farm Control Trials
Project: Research

Coastal Offshore Winds, Ocean Waves and Current using Remote Sensing
Project: PhD

Impact of wind power uncertainty on electric power system reliability
Project: PhD

Possible Power of Downregulated Offshore Wind power plants
Project: PhD

Forecasting Wind Turbine Lcing Conditions
Project: PhD

New data assimilation techniques for short-term wind energy forecast models with a rapid update cycle
Project: PhD

Mesoscale Atmospheric Variability and the Variation of wind and Production for Off-shore Wind Farms
Project: PhD

ESA ResGrow
Project: Research

EERA DTOC: European Energy Research Alliance Design Tools for Offshore wind farm Clusters
Project: Research
ICEWIND: Improved forecast of wind, waves and icing
Project: Research

Activities:

Farm Control : Interest and Activities in DTU Wind
Activity: Talks and presentations › Conference presentations

Parameter Uncertainty Reduction of the Re-calibrated Larsen Wake Model
Activity: Talks and presentations › Conference presentations

Framework of Multi-Objective Wind Farm Controller Applicable to Real Wind Farms
Activity: Talks and presentations › Conference presentations

The new State-of-the-Art report and the European Experience in SafeWind and other projects
Activity: Talks and presentations › Conference presentations

The role of wind energy in the future energy supply
Activity: Talks and presentations › Conference presentations