Research outputs:

**Peer-to-peer and community-based markets: A comprehensive review**
Research output: Contribution to journal › Review – Annual report year: 2019 › Research › peer-review

**Online adaptive clustering algorithm for load profiling**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**A DSO-level contract market for conditional demand response**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

**An Integrated Market for Electricity and Natural Gas Systems with Stochastic Power Producers**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Coordination of Power and Natural Gas Systems: Convexification Approaches for Linepack Modeling**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

**Do unit commitment constraints affect generation expansion planning? A scalable stochastic model**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Exogenous Cost Allocation in Peer-to-Peer Electricity Markets**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Incentive-Compatibility in a Two-Stage Stochastic Electricity Market with High Wind Power Penetration**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**A consensus-ADMM approach for strategic generation investment in electricity markets**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review
Active Distribution Grid Management based on Robust AC Optimal Power Flow
Soares, T., Bessa, R. J., Pinson, P. & Morais, H., 2018, In : I E E E Transactions on Smart Grid. 9, 6, p. 6229 - 6241
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A local energy market for electricity and hydrogen
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A Stochastic Market Design With Revenue Adequacy and Cost Recovery by Scenario: Benefits and Costs
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Benefits of spatiotemporal modeling for short-term wind power forecasting at both individual and aggregated levels
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Benefits of spatio-temporal modelling for short term wind power forecasting at both individual and aggregated levels
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Consensus-based Approach to Peer-to-Peer Electricity Markets with Product Differentiation
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Convex Relaxations and Approximations of Chance-Constrained AC-OPF Problems
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Correlation-constrained and sparsity-controlled vector autoregressive model for spatio-temporal wind power forecasting
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Cost-Optimal ATCs in Zonal Electricity Markets
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Data-driven Security-Constrained AC-OPF for Operations and Markets
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Ellipsoidal prediction regions for multivariate uncertainty characterization
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Energy Collectives: a Community and Fairness based Approach to Future Electricity Markets
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Negociation Algorithms for Peer-to-Peer Electricity Markets: Computational Properties
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review
Data-Driven Security-Constrained OPF
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Decision support program for congestion management using demand side flexibility
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Demand response evaluation and forecasting — Methods and results from the EcoGrid EU experiment
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Exploiting Flexibility in Coupled Electricity and Natural Gas Markets: A Price-Based Approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Guest Editorial - Special Section on Emerging Informatics for Risk Hedging and Decision Making in Smart Grids
Research output: Contribution to journal › Editorial – Annual report year: 2017 › Research › peer-review

Impact of Public Aggregate Wind Forecasts on Electricity Market Outcomes
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Modeling the transient security constraints of natural gas network in day-ahead power system scheduling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Offering strategy of a price-maker energy storage system in day-ahead and balancing markets
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Optimal offering and allocation policies for wind power in energy and reserve markets
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Optimal Offering and Operating Strategy for a Large Wind-Storage System as a Price Maker
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Optimal planning of integrated multi-energy systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review
Effects of Risk Aversion on Market Outcomes: A Stochastic Two-Stage Equilibrium Model
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Evaluating price-based demand response in practice – with application to the EcoGrid EU Experiment
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Generation and evaluation of space-Time trajectories of photovoltaic power
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Generation Expansion Planning with Large Amounts of Wind Power via Decision-Dependent Stochastic Programming
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Generation of scenarios from calibrated ensemble forecasts with a dual ensemble copula coupling approach
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Identifying and characterizing the impact of turbine icing on wind farm power generation: Impact of turbine icing on wind farm production
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Impact of Inter- and Intra-Regional Coordination in Markets With a Large Renewable Component
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Impact of Renewable Energy Forecast Imperfections on Market-Clearing Outcomes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Information Uncertainty in Electricity Markets: Introducing Probabilistic Offers
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Integrated Bidding and Operating Strategies for Wind-Storage Systems
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Introducing distributed learning approaches in wind power forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Optimal bidding strategy of battery storage in power markets considering performance based regulation and battery cycle life
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review
Optimal coupling of heat and electricity systems: A stochastic hierarchical approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Optimal offering and operating strategies for wind-storage systems with linear decision rules
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Optimal Offering Strategies for Wind Power in Energy and Primary Reserve Markets
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Population Dynamics for Renewables in Electricity Markets: A Minority Game View
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Probabilistic energy forecasting: Global Energy Forecasting Competition 2014 and beyond
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Ranking Method for Peak-Load Shifting Considering Different Types of Data
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Real-Time Procurement Strategies of a Proactive Distribution Company with Aggregator-Based Demand Response
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

RESGen: Renewable Energy Scenario Generation Platform
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Sharing wind power forecasts in electricity markets: A numerical analysis
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Stochastic Integrated Market for Electric Power and Natural Gas Systems
Research output: Contribution to conference › Poster – Annual report year: 2016 › Research

Strategic wind power trading considering rival wind power production
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review
Trading Strategies for Distribution Company with Stochastic Distributed Energy Resources.
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Very-short-term wind power probabilistic forecasts by sparse vector autoregression.
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Wind offering in energy and reserve markets
Research output: Contribution to journal › Conference article – Annual report year: 2016 › Research › peer-review

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

Analysis of Strategic Wind Power Participation in Energy Market using MASCEM simulator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

A Spatial Model for the Instantaneous Estimation of Wind Power at a Large Number of Unobserved Sites
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Demonstration of Market-Based Real-Time Electricity Pricing on a Congested Feeder
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Economic Dispatch of Demand Response Balancing through Asymmetric Block Offers
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Forecasting for dynamic line rating
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Foreword for the special section on wind and solar energy: uncovering and accommodating their impacts on electricity markets
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review
From responsibility to accountability: Electricity market mechanisms accommodating probabilistic offers

Generation of scenarios from calibrated ensemble forecasts with a dynamic ensemble copula coupling approach

Improving offering strategies for wind farms enhanced with storage capability

Methodology and forecast products for the optimal offering of ancillary services from wind in a market environment

On Quantification of Flexibility in Power Systems

Optimal dynamic capacity allocation of HVDC interconnections for cross-border exchange of balancing services in presence of uncertainty.

Price-Maker Wind Power Producer Participating in a Joint Day-Ahead and Real-Time Market

Probabilistic maximum-value wind prediction for offshore environments

Quantile forecast discrimination ability and value

Robust optimisation for self-scheduling and bidding strategies of hybrid CSP-fossil power plants

Stochastic Unit Commitment via Progressive Hedging - Extensive Analysis of Solution Methods
FLECH - A Danish market solution for DSO congestion management through DER flexibility services
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Global Energy Forecasting Competition 2012
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Guest Editorial: Special Section on Analytics for Energy Forecasting with Applications to Smart Grid
Research output: Contribution to journal › Editorial – Annual report year: 2014 › Research

High-quality Wind Power Scenario Forecasts for Decision-making Under Uncertainty in Power Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

IceWind Inter-comparison of Icing Production Loss Models
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2014 › Research

Integrating Renewables in Electricity Markets: Operational Problems
Research output: Book/Report › Book – Annual report year: 2014 › Research › peer-review

Model Identification for Control of Display Units in Supermarket Refrigeration Systems
Research output: Book/Report › Report – Annual report year: 2015 › Research

Modelling and Assessment of the Capabilities of a Supermarket Refrigeration System for the Provision of Regulating Power
Research output: Book/Report › Report – Annual report year: 2014 › Research

Operational Strategies for Predictive Dispatch of Control Reserves in View of Stochastic Generation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Optimal prediction intervals of wind power generation
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Predictive densities for day-ahead electricity prices using time-adaptive quantile regression
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review
Probabilistic forecasting of wind power generation using extreme learning machine.
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Probabilistic forecasts of wind power generation accounting for geographically dispersed information
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Redefining the merit order of stochastic generation in forward markets.
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Regulating Power from Supermarket Refrigeration
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Renewables in Electricity Markets
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Towards electricity markets accommodating uncertain offers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Weather radars – the new eyes for offshore wind farms?
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Wind resource assessment and wind power forecasting
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2014 › Research › peer-review

A bilevel model for electricity retailers' participation in a demand response market environment
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

A comparison between the ECMWF and COSMO Ensemble Prediction Systems applied to short-term wind power forecasting on real data
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review
Chance-constrained optimization of demand response to price signals
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Controlling Electricity Consumption by Forecasting its Response to Varying Prices
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Direct Interval Forecasting of Wind Power
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Discrimination ability of the Energy score
Research output: Book/Report › Report – Annual report year: 2013 › Research

Forecasting Electricity Spot Prices Accounting for Wind Power Predictions
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Forecasting Production Losses at a Swedish Wind Farm
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2013 › Research

Forecasting the conditional dynamic elasticity of electricity consumers
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Impact of Wind Power Generation on European Cross-Border Power Flows
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Monitoring and characterizing offshore wind variability with weather radars for wind energy applications
Trombe, P-J. & Pinson, P., 2013
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2013 › Research

Pool Strategy of a Price-Maker Wind Power Producer
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Regime-based supervisory control to reduce power fluctuations from offshore wind power plants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Renewable Energy Resources — Onshore/Offshore Wind Energy
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2013 › Research › peer-review
Very short-term probabilistic forecasting of wind power with generalized logit-Normal distributions
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Weather radars - A new pair of eyes for offshore wind farms?
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research › peer-review

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

Benefits from the increased contribution of the European weather forecasting community to wind power prediction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research

Can Weather Radars Help Monitoring and Forecasting Wind Power Fluctuations at Large Offshore Wind Farms?
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Ensemble and probabilistic forecasting of (u,v)-wind for the energy application
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2011 › Research › peer-review

Forecasting ocean wave energy: A Comparison of the ECMWF wave model with time series methods
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Forecasting uncertainty around the timing of large variation of wind power
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research › peer-review

Influence of local wind speed and direction on wind power dynamics – Application to offshore very short-term forecasting
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Meso-scale Wind Variability. Final Report
Research output: Book/Report › Report – Annual report year: 2011 › Research
Radar@Sea - Towards improving short-term wind power forecasts
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research

Scenario generation: A review
Research output: Book/Report › Report – Annual report year: 2011 › Research

Spatio-temporal analysis and modeling of short-term wind power forecast errors
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Spatio-temporal correction targeting Nysted Offshore. Probabilistic forecasts
Research output: Book/Report › Report – Annual report year: 2011 › Research

The influence of the new ECMWF Ensemble Prediction System resolution on wind power forecast accuracy and uncertainty estimation
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2011 › Research › peer-review

Wind fluctuations over the North Sea
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

An application of ensemble/multi model approach for wind power production forecast
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Conditional prediction intervals of wind power generation
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Conditional Weighted Combination of Wind Power Forecasts
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Decision making strategies for trading wind power in deregulated energy markets
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Defining a catalogue of extreme events
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Feedback, competition and stochasticity in a day ahead electricity market
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review
Idealised simulations of open cellular convection and horizontal wind fluctuations over the North Sea
Research output: Contribution to journal › Conference article – Annual report year: 2010 › Research › peer-review

Multivariate conditional parametric models for a spatio-temporal analysis of short-term wind power forecast errors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

On probabilistic forecasting of wind power time-series
Research output: Book/Report › Report – Annual report year: 2010 › Research

On the market impact of wind energy forecasts
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

On the Market Impact of Wind Power (Forecasts) - An Overview of the Effects of Large-scale Integration of Wind Power on the Electricity Market
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Prediction of extreme wind events by utilisation of a weather-type Extreme Forecast Index - Part I: Early warnings of extreme wind events utilizing DWD objective weather type classification & ECMWF Ensemble Prediction System Extreme Forecast Index
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Reliability diagrams for non-parametric density forecasts of continuous variables: Accounting for serial correlation
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

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

Trading wind energy in a liberalized electricity market: a real-world test case in Eastern Denmark
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Adaptive modelling and forecasting of offshore wind power fluctuations with Markov-switching autoregressive models
Research output: Book/Report › Report – Annual report year: 2009 › Research

Catalogue of complex to extreme situations
Research output: Book/Report › Report – Annual report year: 2009 › Research
Characterisation of wind variability at the Horns Reef wind farm
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

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

Dynamic sizing of energy storage for hedging wind power forecast uncertainty
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Effects of increasing wind power penetration on the physical operation of large electricity market systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Ensemble-based forecasting at Horns Rev: Ensemble conversion and kernel dressing
Research output: Book/Report › Report – Annual report year: 2009 › Research

Ensemble-based Probabilistic Forecasting at Horns Rev
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Forecasting day-ahead electricity prices and regulation costs in markets with significant wind power penetration
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research

From probabilistic forecasts to statistical scenarios of short-term wind power production
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Modelling and Forecasting of wind power fluctuations at large offshore wind farms.
Trombe, P-J. & Pinson, P., 2009
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2009 › Research

Modelling and Forecasting of wind power fluctuations using Markov-Switching AR-GARCH models.
Trombe, P-J. & Pinson, P., 2009
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2009 › Research

On the reliability assessment of density forecasts of continuous variables with reliability diagrams
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research
Power fluctuations from large wind farms - Final report
Research output: Book/Report › Report – Annual report year: 2009 › Research

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

Skill forecasting from ensemble predictions of wind power
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Spectral verification of a mesoscale ensemble
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research

Temperature prediction at critical points in district heating systems
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Variability forecasts for wind farms using high resolution initial conditions
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research

Best practice in the use of short-term forecasting - Results from 2 workshops organized by the POWWOW Coordination Action
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

Ecogrid.dk Phase 1 WP4 report: New measures for integration of large scale renewable energy
Research output: Book/Report › Report – Annual report year: 2008 › Research

Forecasting of wind generation: recent advances and future challenges
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

Forecasting of wind generation - The wind power of tomorrow on your screen today!
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Communication
Forecasting the potential magnitude of power fluctuations at large offshore wind farms with an adaptive Markov-switching approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

From meteorological ensembles to reliable probabilistic forecasts of wind generation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

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

Local linear regression with adaptive orthogonal fitting for the wind power application
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Modeling of spatial dependence in wind power forecast uncertainty
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

Modelling of power fluctuations from large offshore wind farms
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Modelling the nonlinear temperature response of district heating systems for model predictive control applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

POW'WOW - Workshops and virtual laboratories supporting wind research
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

Probabilistic forecasting of wind power at the minute time-scale with Markov-switching autoregressive models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review
Probabilistic tools for planning and operating power systems with distributed energy storage
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

Regime-switching modelling of the fluctuations of offshore wind generation
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Spatio-temporal modeling of wind power prediction errors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

The effects of wind power forecasts on electricity spot prices in Denmark
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research

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

Adaptive Markov-switching modelling for offshore wind power fluctuations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

Ensemble predictions: Understanding uncertainties
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research

Evaluation of Nonparametric Probabilistic Forecasts of Wind Power
Research output: Book/Report › Report – Annual report year: 2007 › Research › peer-review

Fluctuations of offshore wind generation: Statistical modelling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review
Generation of statistical scenarios of short-term wind power production
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

**HRensembleHR - High Resolution Ensemble for Horns Rev**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research

**Improvement and automation of tools for short term wind power forecasting**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

**Intelligent wind power prediction systems: Final report**
Research output: Book/Report › Report – Annual report year: 2007 › Research

**Methods for the estimation of the uncertainty of wind power forecasts**
Research output: Book/Report › Report – Annual report year: 2007 › Research › peer-review

**Non-parametric probabilistic forecasts of wind power: required properties and evaluation**
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

**POW’WOW virtual laboratories for wind resource assessment and forecasting**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research

**Robust estimation of time-varying coefficient functions - Application to the modelling of wind power production**
Pinson, P., Nielsen, H. A. & Madsen, H., 2007, Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Research output: Book/Report › Report – Annual report year: 2007 › Research › peer-review

**Skill forecasting from different wind power ensemble prediction methods**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

**Statistical models and methods for wind power forecasting**
Research output: Book/Report › Report – Annual report year: 2007 › Research › peer-review

**Temperature prediction in district heating systems with cFIR models**
Research output: Book/Report › Report – Annual report year: 2007 › Research › peer-review
Towards smart integration of wind generation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research

Trading wind generation from short-term probabilistic forecasts of wind power
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

ViLab: a Virtual Laboratory for Collaborative Research on Wind Power Forecasting
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Advanced statistical modeling and uncertainty assessment for wind power forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research

On the quality and value of probabilistic forecasts of wind generation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Properties of Quantile and Interval Forecasts of Wind Generation and their Evaluation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Standardizing the performance evaluation of short-term wind prediction models
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research

A protocol for standardizing the performance evaluation of short-term wind power prediction models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Projects:

Market Design for Future Highly Interconnected Multi-Carrier Energy Systems
Ratha, A., Pinson, P., Kazempour, J. & Virag, A.
01/12/2018 → 30/11/2021
Project: PhD

Optimization and Market Integration of Multi-Area AC/HVDC Grids under Uncertainty
Tosatto, A., Chatzivasileiadis, S., Pinson, P. & Weckesser, J. T. G.
Forskningsrådsfinansiering
01/02/2018 → 31/01/2021
Project: PhD
Efficient and Scalable Market Design for Renewable-based Integrated Energy Systems
Schwele, A., Pinson, P. & Kazempour, J.
Forskningsrådsfinansiering
01/09/2017 → 31/08/2020
Project: PhD

Advanced Game-Theoretical Aspects in Electricity Markets
Dvorkin, V., Pinson, P. & Kazempour, J.
Technical University of Denmark
01/09/2017 → 31/08/2020
Project: PhD

Optimization, Control, and Stability of AC-DC Grids under Uncertainty
Venzke, A., Chatzivasileiadis, S. & Pinson, P.
Technical University of Denmark
01/06/2017 → 31/05/2020
Project: PhD

Market design and operations for Energy Collectives
Moret, F., Pinson, P. & Papakonstantinou, A.
Offentlig finansiering
01/05/2017 → 30/04/2020
Project: PhD

Predicting and mobilizing energy flexibility in intelligent buildings
Christensen, M. H., Pinson, P. & Rønsberg, S.
Industrial PhD
01/11/2016 → 30/04/2020
Project: PhD

Optimal Voltage Control of Distribution Networks with High Penetration of Distributed Energy Resources (DERs)
Samfinansieret - Andet
01/09/2014 → 24/03/2019
Project: PhD

Market Mechanisms for Integrated Energy Systems
Samfinansieret - Andet
01/11/2015 → 31/01/2019
Project: PhD

Smart end user data analysis and pattern recognition
Le Ray, G., Pinson, P. & Winther, O.
Eksternt finansieret virksomhed
01/12/2015 → 25/04/2019
Project: PhD

Market Mechanisms for Integrated Energy Systems
Eksternt finansieret virksomhed
01/07/2015 → 23/01/2019
Project: PhD

Statistical modelling of space-time processes with
Science Without Borders, Brasi
01/11/2013 → 16/08/2017
Industrial PhD
15/11/2014 → 13/03/2018
Project: PhD

A Diagnostic and Predictive Framework for Wind Turbine Drive Train Monitoring
Bach-Andersen, M., Winther, O., Rømer-Odgaard, B., Pinson, P., Gram-Hansen, K. & Giusti, A.
Industrial PhD
01/03/2014 → 15/11/2017
Project: PhD

Integrated Wind Power Planning Tool
Rosgaard, M. H., Hahmann, A. N., Madsen, H., Pinson, P., Nissen, J. N. & Wilson, C. G.
Ansat eksternt
01/10/2011 → 24/08/2015
Project: PhD

Methods for enabling utilisation of the potential flexibility in power production and consumption of entities connected in the low voltage network in a Virtual Power Plants framework
Thavlov, A., Bindner, H. W., Hilger, K. B., Pinson, P., Ferrarini, L. & Nordström, L. M.
Institut, samfinansiering
01/02/2010 → 28/09/2015
Project: PhD

Estimation of Conditional densities for predictions in nonlinear stochastic processes - with applications to wind power systems
Tastu, J., Madsen, H., Pinson, P., Poulsen, N. K., Lindstrøm, E. & Kariniotakis, G.
DTU-lønnet stipendie
01/08/2007 → 12/12/2013
Project: PhD

Multivariate Probabilistic Forecasting for Energy Systems
Technical University of Denmark
01/10/2011 → 21/09/2015
Project: PhD

Modeling and Forecasting for Optimal Participation of Renewable Energy in Deregulated Energy Markets
Jónsson, T., Pinson, P., Nielsen, T. S., Poulsen, N. K., Kulaahi, M., McSharry, P. E. & Melbom, P.
ErhvervsPhD-ordningen VTU
01/11/2008 → 24/08/2012
Project: PhD

Mesoscale Atmospheric Variability and the Variation of wind and Production for Off-shore Wind Farms
Vincent, C. L., Giebel, G., Hahmann, A. N., Pinson, P., Badger, J., Barstad, I. & Knievel, J. C.
Centerfinansieret
01/01/2008 → 06/04/2011
Project: PhD

Impact of Stochastic Generation on Electricity Market Dynamics
Technical University of Denmark
01/01/2010 → 30/08/2013
Project: PhD
Exploring Market Models for a European Electricity Grid With a High Penetration of Renewable Energy Sources
Jensen, T. V., Pinson, P., Greiner, M. O. W., Wu, Q., Bjørndal, M. H. & Papavasiliou, A.
Samfinansieret - Andet
01/09/2013 → 13/09/2017
Project: PhD

Control Strategies for price based control of demand side units
Sossan, F., Bindner, H. W., Gehrke, O., Nærgård, P. B., Pinson, P., Andersson, G. & Anjos, M. F.
Institut, samfinansiering
01/12/2010 → 20/08/2014
Project: PhD

Static Security Assessment and PMU Data Validation
Samfinansierede - Virksomhed
01/08/2013 → 12/04/2017
Project: PhD

System-wide socio-economic and reliability impact of active management of distribution grids and distributed energy resources
Technical University of Denmark
15/06/2013 → 30/09/2016
Project: PhD

Electricity market design for distributed energy resources and flexible demand
Larsen, E. M., Pinson, P., Ding, Y., Østergaard, J., Kok, K., Gibescu, M. & Biskas, P.
Technical University of Denmark
01/12/2011 → 09/12/2015
Project: PhD

Market Design and Network Planning for distribution Grid
Zhang, C., Pinson, P., Ding, Y., Nielsen, A. H., Zhang, X. & Wen, F.
Technical University of Denmark
15/11/2012 → 16/03/2016
Project: PhD

On-line Dynamic Security Assessment in Power Systems
Weckesser, J. T. G., Østergaard, J., Jóhannsson, H., Pinson, P., Glavic, M. & Kundur, P.
Technical University of Denmark
01/09/2011 → 07/05/2015
Project: PhD

Energy and Ancillary Services in Future Electricity Markets
Soares, T., Pinson, P., Wu, Q., Ernst, D. & Bell, K. R. W.
Technical University of Denmark
01/02/2014 → 10/05/2017
Project: PhD

NonLinear modelling for energy systems
Trombe, P., Madsen, H., Pinson, P., Larsen, R. W., Greiner, M. O. W. & Thorarinsdottir, T. L.
Technical University of Denmark
01/01/2009 → 22/03/2013
Project: PhD

NonLinear modelling for energy systems
Trombe, P., Madsen, H., Pinson, P., Larsen, R. W., Greiner, M. O. W. & Thorarinsdottir, T. L.
Technical University of Denmark
01/01/2009 → 22/03/2013
Project: PhD
Modelling Of Market-Based Cross-Border Exchange Of Balancing Power
Delikaraoglou, S., Pinson, P., Morales González, J. M., Heussen, K., Repke, S., Tomasgard, A. & Kirschen, D.
Technical University of Denmark
01/05/2013 → 07/12/2016
Project: PhD

Stochastic Dynamics of Demand Response and the Impact on Power Systems Service Provision
O'Connell, N., Madsen, H., O'Malley, M. J., Pinson, P., Bindner, H. W., Meibom, P. & Botterud, A.
Technical University of Denmark
01/01/2013 → 20/04/2016
Project: PhD

Impact assessment of HVDC Systems at the European level
Halilbasic, L., Chatzivasileiadis, S., Pinson, P., Kazempour, J., Hiskens, I. A. & Papavasiliou, A.
Samfinansieret - Andet
01/12/2015 → 02/03/2019
Project: PhD

Best Paths
Pinson, P., Thams, F., Halilbasic, L. & Chatzivasileiadis, S.
01/10/2014 → 30/09/2018
Project: Research

Market Mechanisms for Integrated Energy Systems
Ordoudis, C., Pinson, P. & Morales González, J. M.
01/07/2015 → 30/06/2018
Project: Research

5s - Future Electricity Markets
Pinson, P., Jensen, T. V., Soares, T., Papakonstantinou, A. & Kazempour, J.
01/04/2013 → 31/10/2017
Project: Research

GenScen - Variable generation production scenario generation for planning and integration studies
Pinson, P. & Iversen, J. E. B.
01/01/2015 → 31/12/2015
Project: Research

Computational methods for wind-energy forecasting
Guillot, G., Pinson, P. & Bezzera, E.
01/02/2015 → 29/02/2016
Project: Research

Power Fluctuations from Large Offshore Wind Farms
Sørensen, P. E., Cutululis, N. A., Madsen, H. & Pinson, P.
01/10/2004 → 30/09/2008
Project: Research

EcoGrid EU: EcoGrid EU - Large scale Smart Grids demonstration of real time market-based integration of DER and DR
EU FP7
01/04/2011 → 30/09/2015
Project: Research

Activities:
Integrated bidding and operating strategies for wind farm-energy storage systems
Pierre Pinson (Invited speaker)
2015
Activity: Talks and presentations › Conference presentations

Modelling of high-dimensional space-time dynamics of renewables
Pierre Pinson (Invited speaker)
2015
Activity: Talks and presentations › Conference presentations

Renewable energy forecasting
Pierre Pinson (Lecturer)
2015
Activity: Talks and presentations › Conference presentations

Towards future electricity markets with large penetration of renewable generation
Pierre Pinson (Invited speaker)
2015
Activity: Talks and presentations › Conference presentations

Towards the usage of new large datasets for renewable energy applications
Pierre Pinson (Lecturer)
2015
Activity: Talks and presentations › Conference presentations

Global Energy Forecasting Competition 2014
Pierre Pinson (Participant)
2014 → …
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

International Journal of Forecasting (Journal)
Pierre Pinson (Editor)
2014 → …
Activity: Editorial work and peer review › Journal editor › Research

Discrimination ability of the Energy score(s)
Pierre Pinson (Lecturer)
2013
Activity: Talks and presentations › Conference presentations

Prevoir l'électricité produite par nos énergies renouvelables
Pierre Pinson (Participant)
2013
Activity: Other

Rendre la consommation d'électricité plus flexible et contrôlable
Pierre Pinson (Participant)
2013
Activity: Other

Renewable energy forecasts ought to be probabilistic
Pierre Pinson (Lecturer)
2013
Activity: Talks and presentations › Conference presentations
Renewables in electricity markets: Stochastic modelling and optimization
Pierre Pinson (Lecturer)
2013
Activity: Talks and presentations › Conference presentations

Stochastic power generation from renewables: forecasting and optimization challenges for its optimal integration.
Pierre Pinson (Lecturer)
2013
Activity: Talks and presentations › Conference presentations

The value of probabilistic information for energy applications - from theory to reality.
Pierre Pinson (Lecturer)
2013
Activity: Talks and presentations › Conference presentations

Web-based wind power forecasting competition 2012 - Wind Forecasting
Pierre Pinson (Organizer)
2012
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

IEEE Transactions on Power Systems (Journal)
Pierre Pinson (Editor)
2011 → …
Activity: Editorial work and peer review › Journal editor › Research

Wind Energy (Journal)
Pierre Pinson (Editor)
2010 → …
Activity: Editorial work and peer review › Journal editor › Research

Prizes:

IDA Elektropris
Pierre Pinson (Recipient), 2018
Prize: Prizes, scholarships, distinctions

Press clippings:

Spotlight on Denmark
Pierre Pinson
01/01/2015
1 media contribution
Press/Media: Press / Media

La France sans nucleaire, c'est possible!
Pierre Pinson
01/01/2015
1 media contribution
Press/Media: Press / Media