Research outputs:

Chance-constrained optimal power flow with non-parametric probability distributions of dynamic line ratings
Research output: Contribution to journal › Journal article – Annual report year: 2020 › Research › peer-review

Temporal hierarchies with autocorrelation for load forecasting
Research output: Contribution to journal › Journal article – Annual report year: 2020 › Research › peer-review

Optimal allocation of HVDC interconnections for exchange of energy and reserve capacity services
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

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

Energy forecasting in the big data world
Research output: Contribution to journal › Editorial – 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

A Mid-Term DSO Market for Capacity Limits: How to Estimate Opportunity Costs of Aggregators?
Research output: Contribution to journal › Journal article – 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
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

Negotiation 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

Offering Strategy of a Flexibility Aggregator in a Balancing Market Using Asymmetric Block Offers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Optimal Offering Strategy of an EV Aggregator in the Frequency-Controlled Normal Operation Reserve Market
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Polyhedral Predictive Regions for Power System Applications
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Prévision météorologique pour les énergies renouvelables
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Price-Taker Offering Strategy in Electricity Pay-as-Bid Markets
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Smart grids innovation challenge
Research output: Chapter in Book/Report/Conference proceeding › Report chapter – Annual report year: 2018 › Research › peer-review

Visualizing big energy data
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A Bayesian inference approach to unveil supply curves in electricity markets
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Attribution mechanisms for ancillary service costs induced by variability in power delivery
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Coordinating Flexibility under Uncertainty in Multi-Area AC and DC Grids
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Data-driven Demand Response Characterization and Quantification
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › 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

Real-Time Trading Strategies of Proactive DISCO with Heterogeneous DG Owners.
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

RE-Europe, a large-scale dataset for modeling a highly renewable European electricity system
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Spatial models for probabilistic prediction of wind power with application to annual-average and high temporal resolution data
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Statistical modelling of space-time processes with application to wind power.
Towards fully renewable energy systems - Experience and trends in Denmark
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

以用户为中心的新兴电力市场模式
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Accountability for Uncertainty in Electricity Markets
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2016 › Research › peer-review

Adaptive robust polynomial regression for power curve modeling with application to wind power forecasting
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Research output: Book/Report › Report – Annual report year: 2016 › Research › peer-review

A Robust Optimisation Approach using CVaR for Unit Commitment in a Market with Probabilistic Offers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Demand Forecasting at Low Aggregation Levels using Factored Conditional Restricted Boltzmann Machine.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › 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

An Integrated Multiperiod OPF Model with Demand Response and Renewable Generation Uncertainty
Research output: Contribution to journal › Journal article – Annual report year: 2016 › 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 › Editorial – Annual report year: 2015 › Research › peer-review

From responsibility to accountability: Electricity market mechanisms accomodating probabilistic offers
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Generation of scenarios from calibrated ensemble forecasts with a dynamic ensemble copula coupling approach
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Improving offering strategies for wind farms enhanced with storage capability
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Methodology and forecast products for the optimal offering of ancillary services from wind in a market environment
Research output: Book/Report › Report – Annual report year: 2015 › Research

On Quantification of Flexibility in Power Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review
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

The Cobweb Effect in Balancing Markets with Demand Response

The new IEA Wind Task 36 on Wind Power Forecasting

The "Weather Intelligence for Renewable Energies" Benchmarking Exercise on Short-Term Forecasting of Wind and Solar Power Generation.

Analysis of the Impact of Wind Power Participating in Both Energy and Ancillary Services Markets – The Danish Case

Automatic Classification of Offshore Wind Regimes With Weather Radar Observations

Benefits and challenges of electrical demand response: A critical review

Comments on: Space-time wind speed forecasting for improved power system dispatch.

Discussion of "Prediction intervals for short-term wind farm generation forecasts" and "Combined nonparametric prediction intervals for wind power generation"

Early warnings of extreme winds using the ECMWF Extreme Forecast Index
Electricity market clearing with improved dispatch of stochastic production
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Exponential smoothing approaches for prediction in real-time electricity markets
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

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: 2013 › Research › peer-review

Prévoir l’électricité produite par nos énergies renouvelables
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – 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: 2014 › 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
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

Space-time scenarios of wind power generation produced using a Gaussian copula with parametrized precision matrix
Research output: Book/Report › Report – Annual report year: 2013 › Research

Statistical Modelling of Wind Profiles - Data Analysis and Modelling
Research output: Book/Report › Report – Annual report year: 2013 › Research

Stochastic power generation
Research output: Chapter in Book/Report/Conference proceeding › Report chapter – Annual report year: 2013 › Research › peer-review

Trading wind energy on the basis of probabilistic forecasts both of wind generation and of market quantities
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

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

Using forecast information for storm ride-through control
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Weather radars for wind energy applications
Research output: Contribution to conference › Poster – Annual report year: 2013 › Research

Wind Energy: Forecasting Challenges for its Operational Management
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Wind Power Forecasting with a Focus on Risk and Uncertainties
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2013 › Research

Adaptive calibration of (u,v)-wind ensemble forecasts
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Adaptive modelling and forecasting of offshore wind power fluctuations with Markov-switching autoregressive models
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review
Benefits from the increased contribution of the European weather forecasting community to wind power prediction

Can Weather Radars Help Monitoring and Forecasting Wind Power Fluctuations at Large Offshore Wind Farms?

Ensemble and probabilistic forecasting of (u,v)-wind for the energy application

Forecasting ocean wave energy: A Comparison of the ECMWF wave model with time series methods

Forecasting uncertainty around the timing of large variation of wind power

Influence of local wind speed and direction on wind power dynamics – Application to offshore very short-term forecasting

Meso-scale Wind Variability. Final Report

Radar@Sea - Towards improving short-term wind power forecasts

Scenario generation: A review

Spatio-temporal analysis and modeling of short-term wind power forecast errors

Spatio-temporal correction targeting Nysted Offshore. Probabilistic forecasts

The influence of the new ECMWF Ensemble Prediction System resolution on wind power forecast accuracy and uncertainty estimation

Wind fluctuations over the North Sea

An application of ensemble/multi model approach for wind power production forecast

Conditional prediction intervals of wind power generation
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.
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.
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 POW/WOW 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

HRensembleHR 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

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
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:

Peer-to-peer Markets for Heat and Electricity
Project: PhD

Data-driven Optimization of Distribution Grids
Project: PhD

Market Design for Future Highly Interconnected Multi-Carrier Energy Systems
Project: PhD

Optimization and Market Integration of Multi-Area AC/HVDC Grids under Uncertainty
Project: PhD

Efficient and Scalable Market Design for Renewable-based Integrated Energy Systems
Project: PhD

Advanced Game-Theoretical Aspects in Electricity Markets
Project: PhD

Optimization, Control, and Stability of AC-DC Grids under Uncertainty
Project: PhD

Market design and operations for Energy Collectives
Project: PhD

Predicting and mobilizing energy flexibility in intelligent buildings
Project: PhD

Optimal Voltage Control of Distribution Networks with High Penetration of Distributed Energy Resources (DERs)
Project: PhD

Market Mechanisms for Integrated Energy Systems
Project: PhD

Smart end user data analysis and pattern recognition
Project: PhD

Market Mechanisms for Integrated Energy Systems
Project: PhD

Statistical modelling of space-time processes with
Project: PhD
Project: PhD

A Diagnostic and Predictive Framework for Wind Turbine Drive Train Monitoring
Project: PhD

Integrated Wind Power Planning Tool
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
Project: PhD

Estimation of Conditional densities for predictions in nonlinear stochastic processes - with applications to wind power systems
Project: PhD

Multivariate Probabilistic Forecasting for Energy Systems
Project: PhD

Modeling and Forecasting for Optimal Participation of Renewable Energy in Deregulated Energy Markets
Project: PhD

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

Impact of Stochastic Generation on Electricity Market Dynamics
Project: PhD

Exploring Market Models for a European Electricity Grid With a High Penetration of Renewable Energy Sources
Project: PhD

Control Strategies for price based control of demand side units
Project: PhD

Static Security Assessment and PMU Data Validation
Project: PhD

System-wide socio-economic and reliability impact of active management of distribution grids and distributed energy resources
Project: PhD

Electricity market design for distributed energy resources and flexible demand
Project: PhD

Market Design and Network Planning for distribution Grid
Project: PhD

On-line Dynamic Security Assessment in Power Systems
Project: PhD
Energy and Ancillary Services in Future Electricity Markets
Project: PhD

NonLinear modelling for energy systems
Project: PhD

Modelling Of Market-Based Cross-Border Exchange Of Balancing Power
Project: PhD

Stochastic Dynamics of Demand Response and the Impact on Power Systems Service Provision
Project: PhD

Impact assessment of HVDC Systems at the European level
Project: PhD

Best Paths
Project: Research

Market Mechanisms for Integrated Energy Systems
Project: Research

5s - Future Electricity Markets
Project: Research

GenSoOn - Variable generation production scenario generation for planning and integration studies
Project: Research

Computational methods for wind-energy forecasting
Project: Research

Power Fluctuations from Large Offshore Wind Farms
Project: Research

EcoGrid EU - Large scale Smart Grids demonstration of real time market-based integration of DER and DR
Project: Research

Activities:

Integrated bidding and operating strategies for wind farm-energy storage systems
Activity: Talks and presentations › Conference presentations

Modelling of high-dimensional space-time dynamics of renewables
Activity: Talks and presentations › Conference presentations

Renewable energy forecasting
Activity: Talks and presentations › Conference presentations

Towards future electricity markets with large penetration of renewable generation
Activity: Talks and presentations › Conference presentations
Towards the usage of new large datasets for renewable energy applications
Activity: Talks and presentations › Conference presentations

Global Energy Forecasting Competition 2014
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

International Journal of Forecasting (Journal)
Activity: Editorial work and peer review › Journal editor › Research

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

Prevoir l'électricité produite par nos énergies renouvelables
Activity: Other

Rendre la consommation d'électricité plus flexible et contrôlable
Activity: Other

Renewable energy forecasts ought to be probabilistic!
Activity: Talks and presentations › Conference presentations

Renewables in electricity markets: Stochastic modelling and optimization
Activity: Talks and presentations › Conference presentations

Stochastic power generation from renewables: forecasting and optimization challenges for its optimal integration.
Activity: Talks and presentations › Conference presentations

The value of probabilistic information for energy applications - from theory to reality.
Activity: Talks and presentations › Conference presentations

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

I E E E Transactions on Power Systems (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Wind Energy (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Prizes:

IDA Elektropris
Prize: Prizes, scholarships, distinctions

Second best student paper award (Basil Papadias Award) at IEEE PowerTech 2019 Conference
Prize: Prizes, scholarships, distinctions

Press clippings:
La France sans nucléaire, c'est possible!