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

Long-term electricity load forecasting: Current and future trends  
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Evaluation method for the hourly average CO2eq. Intensity of the electricity mix and its application to the demand response of residential heating  
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

A Markov-Switching model for building occupant activity estimation  
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

Carbon dioxide-based occupancy estimation using stochastic differential equations  
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

climify.org: an online solution for easy control and monitoring of the indoor environment  
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

Clustering district heat exchange stations using smart meter consumption data  
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Flexible Control of Wastewater Aeration for Cost-Efficient, Sustainable Treatment  
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

“Green MPC” – an approach towards predictive control for minimimal environmental impact of activated sludge processes  
Electricity consumption clustering using smart meter data
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Economic nonlinear MPC for a population of thermostatically controlled loads
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

A Stochastic Spatio-Temporal Model of the Flow-Front Dynamics in a Vacuum Assisted Resin Transfer Moulding Process
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A cross-disciplinary path to healthy and energy efficient buildings
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Ancillary Services 4.0: A Top-To-Bottom Control-Based Approach for Solving Ancillary Services Problems in Smart Grids
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A novel optimization-based bidding method for combined heat and power units in district heating systems
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2019 › Research › peer-review

Characterizing the energy flexibility of buildings and districts
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Consumers' Flexibility Estimation at the TSO Level for Balancing Services
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Dynamic Allocation or Diversification: A Regime-Based Approach to Multiple Assets
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Estimation of a stochastic spatio-temporal model of the flow-front dynamics with varying parameters
Research output: Contribution to journal › Conference article – Annual report year: 2018 › Research › peer-review

Identification of Occupancy Status by Statistical Change Point Detection of CO2Concentration
Mixed-Effect Model of the Fluid Viscosity for Virtual Sensing of the Flow-Front Dynamics

Nonlinear Model Predictive Control for Stochastic Differential Equation Systems

Operational Planning and Bidding for District Heating Systems with Uncertain Renewable Energy Production

Optimal coordinated bidding of a profit-maximizing EV aggregator under uncertainty

Overnight glucose control in people with type 1 diabetes

Physical-stochastic (greybox) modeling of slugging

Probabilistic forecast algorithms for grid control D82.3

Robust Model Predictive Control with Scenarios for Aggregators in Grids with High Penetration of Renewable Energy Sources

Sensor-based detection and estimation of meal carbohydrates for people with diabetes

Smart grids innovation challenge
An Adaptive Nonlinear Basal-Bolus Calculator for Patients With Type 1 Diabetes
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Annex 67: Energy Flexible Buildings - Energy Flexibility as a key asset in a smart building future
Research output: Book/Report › Report – Annual report year: 2018 › Research

A Stochastic Method to Manage Delay and Missing Values for In-Situ Sensors in an Alternating Activated Sludge Process
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Biomass Supply Planning for Combined Heat and Power Plants using Stochastic Programming
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Cross-Validation of a Glucose-Insulin-Glucagon Pharmacodynamics Model for Simulation using Data from Patients with Type 1 Diabetes
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Dynamic portfolio optimization across hidden market regimes
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Economic MPC based on LPV model for thermostatically controlled loads
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Fault and meal detection by redundant continuous glucose monitors and the unscented Kalman filter
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Harnessing flexibility from Hot and Cold
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Heating of indoor swimming pools by solar thermal collectors in summerhouses in Denmark
Research output: Book/Report › Report – Annual report year: 2017 › Research

Leveraging stochastic differential equations for probabilistic forecasting of wind power using a dynamic power curve
Synergies between energy supply networks
Research output: Contribution to journal › Editorial – Annual report year: 2017 › Research › peer-review

Urban runoff forecasting with ensemble weather predictions
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Validation of a Simulation Model Describing the Glucose-Insulin-Glucagon Pharmacodynamics in Patients with Type 1 Diabetes
Research output: Contribution to conference › Poster – Annual report year: 2017 › Research

Validation of the dynamic wake meander model with focus on tower loads: Paper
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2017 › Research

A Data-Driven Bidding Model for a Cluster of Price-Responsive Consumers of Electricity
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

An Efficient UD-Based Algorithm for the Computation of Maximum Likelihood Sensitivity of Continuous-Discrete Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

An Ensemble Nonlinear Model Predictive Control Algorithm in an Artificial Pancreas for People with Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Application of the Continuous-Discrete Extended Kalman Filter for Fault Detection in Continuous Glucose Monitors for Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Commitment and dispatch of heat and power units via affinely adjustable robust optimization
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Comparison of Three Nonlinear Filters for Fault Detection in Continuous Glucose Monitors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Detecting change points in VIX and S&P 500: A new approach to dynamic asset allocation
Distributed Model Predictive Control for Smart Energy Systems

Economic MPC for a linear stochastic system of energy units

Economic valuation of heat pumps and electric boilers in the Danish energy system

Hidden Markov Models for indirect classification of occupant behaviour

Learning from nature: Nature-inspired algorithms

Load forecasting of supermarket refrigeration

Long Memory of Financial Time Series and Hidden Markov Models with Time-Varying Parameters

Methodologies for managing the Energy-Water-Food nexus at different scales

Model Identification using Continuous Glucose Monitoring Data for Type 1 Diabetes

Modeling and Prediction Using Stochastic Differential Equations
Short-term Probabilistic Forecasting of Wind Speed Using Stochastic Differential Equations
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2016 › Research › peer-review

A Bolus Calculator Based on Continuous-Discrete Unscented Kalman Filtering for Type 1 Diabetics
Research output: Contribution to journal › Conference article – Annual report year: 2015 › Research › peer-review

A Continuous-Discrete Extended Kalman Filter for State and Parameter Estimation in People with Type 1 Diabetes
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

An artificial pancreas for automated blood glucose control in patients with Type 1 diabetes
Schmidt, S., Boiroux, D., Ranjan, A., Jørgensen, J. B., Madsen, H. & Nørgaard, K., 2015, In : Therapeutic Delivery. 6, 5, p. 211-221
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

A Non-linear Stochastic Model for an Office Building with Air Infiltration
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Bi-hormonal Closed-loop Control of Blood Glucose for People With Type 1 Diabetes - the Diacon Project
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2015 › Research › peer-review

Bi-hormonal control of blood glucose in people with type 1 diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Characterising the Actual Thermal Performance of Buildings: Current Results of Common Exercises Performed in the Framework of the IEA EBC Annex 58-Project
Research output: Contribution to journal › Conference article – Annual report year: 2015 › Research › peer-review

Comparison of Prediction Models for a Dual-Hormone Artificial Pancreas
Research output: Contribution to journal › Conference article – Annual report year: 2015 › Research › peer-review

Comparison of two stochastic techniques for reliable urban runoff prediction by modeling systematic errors
Regime-Based Versus Static Asset Allocation: Letting the Data Speak
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Space-time trajectories of wind power generation: Parameterized precision matrices under a Gaussian copula approach
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2015 › Research › peer-review

Statistics for Finance
Research output: Book/Report › Book – Annual report year: 2015 › Research

Stochastic Greybox Modeling of an Alternating Activated Sludge Process
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Stylised facts of financial time series and hidden Markov models in continuous time
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Temporal knowledge discovery in big BAS data for building energy management
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

The contribution of glucagon in an Artificial Pancreas for people with type 1 diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Thermal Performance Characterization using Time Series Data - IEA EBC Annex 58 Guidelines
Research output: Book/Report › Report – Annual report year: 2015 › Research

A Dantzig-Wolfe decomposition algorithm for linear economic model predictive control of dynamically decoupled subsystems
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A Decomposition Algorithm for Mean-Variance Economic Model Predictive Control of Stochastic Linear Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

A Mean-Variance Criterion for Economic Model Predictive Control of Stochastic Linear Systems
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 Coordination Scheme for Distributed Model Predictive Control: Integration of Flexible DERs
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

An arctic low-energy house as experimental setup for studies of heat dynamics of buildings
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

A non-parametric method for correction of global radiation observations
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

Clinical Data for Advanced Glucose Modeling
Research output: Book/Report › Report – Annual report year: 2013 › Research

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

Decentralized Large-Scale Power Balancing
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review
Exercise effects in a virtual type 1 diabetes patient: Using stochastic differential equations for model extension
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2013 › Research › peer-review

Following a drop of water from the cloud, throughout the sewer system, into the receiving water - Model predictive control of integrated sewer-wastewater treatment systems
Research output: Contribution to conference › Paper – Annual report year: 2013 › Research › peer-review

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

Investigating the use of stochastic forecast for RTC of urban drainage systems
Research output: Contribution to conference › Paper – Annual report year: 2013 › Research › peer-review

Inhomogeneous Markov Models for Describing Driving Patterns
Research output: Book/Report › Report – 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

Investigating the use of stochastic forecasts for RTC of urban drainage systems
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2013 › Research

Load forecasting for supermarket refrigeration
Research output: Book/Report › Report – Annual report year: 2013 › Research
Low-energy house in Sisimiut - Data overview
Andersen, P. H. D., Rode, C. & Madsen, H., 2013, Kgs. Lyngby: Technical University of Denmark. 19 p. (DTU Compute-
Research output: Book/Report › Report – Annual report year: 2013 › Research

Low-energy house in Sisimiut - Measurement equipment
Andersen, P. H. D., Rode, C. & Madsen, H., 2013, Kgs. Lyngby: Technical University of Denmark. 54 p. (DTU Compute-
Research output: Book/Report › Report – Annual report year: 2013 › Research

Model-Based Closed-Loop Glucose Control in Type 1 Diabetes: The DiaCon Experience
Schmidt, S., Boiroux, D., Duun-Henriksen, A. K., Frøssing, L., Skyggebjerg, O., Jørgensen, J. B., Poulsen, N. K., Madsen,
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Model Identification Using Stochastic Differential Equation Grey-Box Models in Diabetes
Journal of Diabetes Science and Technology. 7, 2, p. 431-440
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Modelling the Effect of Exercise on Insulin Pharmacokinetics in "Continuous Subcutaneous Insulin Infusion" Treated Type
1 Diabetes Patients
Research output: Book/Report › Report – Annual report year: 2013 › Research

Online load forecasting for supermarket refrigeration
EUROPE). IEEE, 5 p. 6695467
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 ›
Research › peer-review

Online short-term heat load forecasting for single family houses
Bacher, P., Madsen, H. & Nielsen, H. A., 2013, 39th Annual Conference of the IEEE Industrial Electronics Society, IECON
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 ›
Research › peer-review

On the best learning algorithm for web services response time prediction
& Francis Group, p. 3229-3234
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 ›
Research › peer-review

Pool Strategy of a Price-Maker Wind Power Producer
p. 3440-3450
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Reliability in the utility computing era: Towards reliable Fog computing
Signals and Image Processing (IWSSIP). IEEE, p. 43-46
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 ›
Research › peer-review
Short-term heat load forecasting for single family houses
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Solar/electric heating systems for the future energy system
Research output: Book/Report › Report – 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

State-space adjustment of radar rainfall and skill score evaluation of stochastic volume forecasts in urban drainage systems
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Stochastic runoff forecasting and real time control of urban drainage systems
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2013 › Research › peer-review

Stochastic runoff forecasting and real time control of urban drainage systems
Research output: Non-textual form › 2D/3D (physical products) – Annual report year: 2013 › Research › peer-review

Stokastiske prognoser for afløb og real tids styring
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research

Stokastiske prognoser for afløb og real tids styring
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research

Thermal Storage Power Balancing with Model Predictive Control
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

The smart grid research network: Road map for Smart Grid research, development and demonstration up to 2020
Research output: Book/Report › Report – 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 Power Forecasting with a Focus on Risk and Uncertainties
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2013 › Research
Development of a restricted state space stochastic differential equation model for bacterial growth in rich media
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Economic Model Predictive Control for Building Climate Control in a Smart Grid
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Efficient Iterated Filtering
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Electric vehicle charge planning using Economic Model Predictive Control
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

ESO2 Optimization of Supermarket Refrigeration Systems: Mixed Integer MPC and System Performance
Research output: Book/Report › Report – Annual report year: 2012 › Research › peer-review

Evaluation of Energy Storage System to Support Danish Island of Bornholm Power Grid
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Evaluation of probabilistic flow predictions in sewer systems using grey box models and a skill score criterion
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Forecast generation for real-time control of urban drainage systems using greybox modelling and radar rainfall
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

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

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

Load Forecasting for Households
Research output: Book/Report › Report – Annual report year: 2012 › Research › peer-review

Modeling Demand Response in Electricity Retail Markets as a Stackelberg Game
Research output: Contribution to conference › Paper – Annual report year: 2012 › Research › peer-review

Modeling Smart Energy Systems for Model Predictive Control
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Modelling the heat dynamics of a monitored Test Reference Environment for Building Integrated Photovoltaic systems using stochastic differential equations
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Model predictive control for a smart solar tank based on weather and consumption forecasts
Research output: Contribution to journal › Conference article – Annual report year: 2012 › Research › peer-review

Optimal reliability allocation for large software projects through soft computing techniques
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Overnight Control of Blood Glucose in People with Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

State-space adjustment of radar rainfall and stochastic flow forecasting for use in real-time control of urban drainage systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review
Stochastic flow forecasting with calibrated radar rainfall input
Research output: Book/Report › Report – Annual report year: 2012 › Research

Stochastic Model Predictive Control with Applications in Smart Energy Systems
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Studies of Heat Dynamics in an Arctic Low-energy House
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Tuning of Controller for Type 1 Diabetes Treatment with Stochastic Differential Equations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – 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

Web server's reliability improvements using recurrent neural networks
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Analysis and treatment of the Søndersø time series: Grey Box Well Field Modelling
Research output: Book/Report › Report – Annual report year: 2011 › Research › peer-review

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

Closed-Loop and Semi Closed-Loop Strategies for Control of Blood Glucose in People with Type 1 Diabetes
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research

Estimating animal behaviour and residency from movement data
Pedersen, M. W., Patterson, T. A., Thygesen, U. H. & Madsen, H., 2011, In : Oikos. 120, p. 1281-1290
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review
Models of the heat dynamics of solar collectors for performance testing
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Nonlinear tracking in a diffusion process with a Bayesian filter and the finite element method
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Online Short-term Solar Power Forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Online Short-term Solar Power Forecasting
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research › peer-review

Parameter estimation in a simple stochastic differential equation for phytoplankton modelling
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

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

Short-Term Solar Collector Power Forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

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 of DONG forecast errors
Research output: Book/Report › Report – Annual report year: 2011 › Research

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

Statistical Modeling of Long Historical Rain Series
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2011 › Research › peer-review
**Strategies for glucose control in people with type 1 diabetes**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

**The Universal Primer - An open source solution for archiving, organizing and streaming live lectures**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

**Analysis of energy consumption in single family houses**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

**ARX MPC for people with type 1 diabetes**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2010 › Research › peer-review

**Calibration of Local Area Weather Radar-Identifying significant factors affecting the calibration**
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

**Characterization and optimized control by means of multiparameter controllers**
Research output: Book/Report › Report – Annual report year: 2010 › Research

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

**Data for Energy Performance Analysis: Financed by The Danish Electricity Saving Trust**
Research output: Book/Report › Report – Annual report year: 2010 › Research

**Dynamic testing, analysis and modelling**
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

**Experiments and Data for Building Energy Performance Analysis: Financed by The Danish Electricity Saving Trust**
Research output: Book/Report › Report – Annual report year: 2010 › Research

**Feedback, competition and stochasticity in a day ahead electricity market**
From State Dependent Diffusion to Constant Diffusion in Stochastic Differential Equations by the Lamperti Transform
Research output: Book/Report › Report – Annual report year: 2010 › Research

Identification of ecosystem parameters by SDE-modelling
Møller, J. K., Madsen, H. & Carstensen, J., 2010
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2010 › Research

Implications and Limitations of Ideal Insulin Administration for People with Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Individual based population inference using tagging data
Research output: Book/Report › Report – Annual report year: 2010 › Research

Mathematical and Statistical Models and Methods for Describing the Thermal Characteristics of Buildings
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Meal Estimation in Nonlinear Model Predictive Control for Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Modelling conjugation with stochastic differential equations
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Models for Energy Performance Analysis: Financed by The Danish Electricity Saving Trust
Research output: Book/Report › Report – Annual report year: 2010 › Research

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

Nonlinear Model Predictive Control for an Artificial Beta-Cell
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

Non-linear phenomena in greybox-modeling of heat dynamics in buildings
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

Optimal Insulin Administration for People with Type 1 Diabetes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Predictive performance for population models using stochastic differential equations applied on data from an oral glucose tolerance test
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Procedure for identifying models for the heat dynamics of buildings: Financed by The Danish Electricity Saving Trust and Vind i Øresund - Interreg 4A
Research output: Book/Report › Report – Annual report year: 2010 › Research › peer-review

Quantification of the spatial variability of rainfall based on a dense network of rain gauges
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

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

Robust model identification applied to type 1 diabetes
IEEE, p. 2021-2021
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Service-oriented Reliability Analysis for Collaborative Mechatronic Laboratories Involved in Virtual Training
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review
Statistical models describing the energy signature of buildings
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

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

DiaCon: an interdisciplinary approach to diabetes control
Research output: Contribution to conference › Poster – Annual report year: 2009 › Research › peer-review

Dynamic two state stochastic models for ecological regime shifts
Research output: Contribution to journal › Journal article – 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

Geolocating fish using Hidden Markov Models and Data Storage Tags
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2009 › Research › peer-review

Glucose modeling and prediction using physical activity variables
Research output: Contribution to conference › Poster – Annual report year: 2009 › Research › peer-review
Identification of the main thermal characteristics of building components using MATLAB
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Introduction to PK/PD modelling - with focus on PK and stochastic differential equations
Research output: Book/Report › Report – Annual report year: 2008 › Research › peer-review

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

Mathematical model for the growth of P. aeruginosa and four mutator strains in sub-MIC concentration of Ciprofloxacin
Research output: Contribution to conference › Poster – Annual report year: 2008 › Research › peer-review

Maximum Likelihood based comparison of the specific growth rates for P. aeruginosa and four mutator strains
Research output: Contribution to journal › Journal article – 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

Models for describing the thermal characteristics of building components
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

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

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

Simulation Study for Transfer of Antibiotic Resistance via Mutator Subpopulation
Research output: Contribution to conference › Poster – Annual report year: 2008 › Research

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

Time-adaptive quantile regression
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Using random walk in models specified by stochastic differential equations to determine the best expression for the bacterial growth rate
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2008 › Research

A Computational Efficient and Robust Implementation of the Continuous-Discrete Extended Kalman Filter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

A Computationally Efficient and Robust Implementation of the Continuous-Discrete Extended Kalman Filter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

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

A matlab framework for estimation of NLME models using stochastic differential equations
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

A Numerically Robust ESDIRK-Based Implementation of the Continuous-Discrete Extended Kalman Filter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

Automatic selection of tuning parameters in wind power prediction
Research output: Book/Report › Report – Annual report year: 2007 › Research

Comparative uncertainty analysis of copper loads in stormwater systems using GLUE and grey-box modeling
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Conditional parametric models for storm sewer runoff
Research output: Contribution to journal › Journal article – 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
Pinson, P., Møller, J. K., Nielsen, H. A. O.,..., Madsen, H. & Kariniotakis, G. N., 2007, Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
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

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

Network architecture for small X-band weather radars: Test bed for automatic inter-calibration and nowcasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research

New Extended Kalman Filter Algorithms for Stochastic Differential Algebraic Equations
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – 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
Systematic qualitative experimental design based upon identifiability analysis
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – 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

The Effect of Wind Power on Electricity Prices in Denmark
Jonsson, T. & Madsen, H., 2007, Lyngby: Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Research output: Book/Report › Report – Annual report year: 2007 › Research

Time series analysis
Research output: Book/Report › Book – Annual report year: 2007 › Research › peer-review

A Continuous-Discrete Extended Kalman Filter Algorithm for Prediction-Error-Modelling
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2006 › 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

Algorithms for Adaptive Quantile Regression - and a Matlab Implementation
Møller, J. K., Nielsen, H. A. O. . . . & Madsen, H., 2006
Research output: Book/Report › Report – Annual report year: 2006 › Research › peer-review

An Introduction to Generalized Linear Models.
Research output: Book/Report › Book – Annual report year: 2006 › Education

Application of Local Area Weather Radar (LAWR) in relation to hydrological modelling – Identification of the pitfalls in using high resolution radar rainfall data
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

From wind ensembles to probabilistic information about future wind power production - results from an actual application
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Grey-box stochastic modelling of industrial fed-batch cultivation
Efficient Filtering and Prediction in Stochastic Differential Equations

Insights to the minimal model of insulin secretion through a mean-field beta cell model

Non-linear mixed-effects models with stochastic differential equations: implementation of an estimation algorithm

On Using Soft Computing Techniques in Software Reliability Engineering

Standardizing the performance evaluation of short-term wind prediction models

Stochastic differential equations in NONMEM: implementation, application, and comparison with ordinary differential equations

Time series analysis in astronomy: Limits and potentialities

Using Stochastic Differential Equations for PK/PD Model Development

Wind farm controllers with grid support

Wind Power Ensemble Forecasting Using Wind Speed and Direction Ensembles from ECMWF or NCEP

Wind Power Prediction using Ensembles
Data assimilation in hydrodynamic modelling: on the treatment of non-linearity and bias
Sørensen, J. V. T. & Madsen, H., Aug 2004, In : Stochastic Environmental Research and Risk Assessment. 18, 4, p. 228-244
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

A Decision Support System for Pollution Control in Cement Plants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

A Method for Systematic Improvement of Stochastic Grey-Box Models
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

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

Comparison of ensemble forecasts with the measurements from the meteorological mast at Risø National Laboratory
Research output: Book/Report › Report – Annual report year: 2004 › Research

Computer Aided Modeling and Pollution Control in Cement Plants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Effects of Climate on Incidence of Campylobacter spp. in Humans and Prevalence in Broiler Flocks in Denmark
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Efficient Kalman filter techniques for the assimilation of tide gauge data in three-dimensional modeling of the North Sea and Baltic Sea system
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Forecasting wind speeds on the minute time-scale using up-stream information
Nielsen, H. A. & Madsen, H., 2004
Research output: Book/Report › Report – Annual report year: 2004 › Research

Grey-Box Modelling of Pharmacokinetic/Pharmacodynamic Systems
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Grey-box pharmacokinetic/pharmacodynamic modelling of a euglycaemic clamp study
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review
Ultra-short term wind speed forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Using quantile regression to extend an existing wind power forecasting system with probabilistic forecasts
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Wind Power Ensemble Forecasting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Wind Power Forecasting Using Ensembles
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Adaptiv kalibrering af COD-sensor baseret på fluorescens-spektre
Nielsen, H. A. & Madsen, H., 2003
Research output: Book/Report › Report – Annual report year: 2003 › Research

An investigation of some tools for process model identification for prediction
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2003 › Research › peer-review

A unified framefowk for systematic model improvement
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review

Climate as a predictor of prevalence of campylobacter spp. in humans and broilers in Denmark
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

Data assimilation in an operational forecast system of the North Sea-Baltic Sea system
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

Estimating Functions with Prior Knowledge, (EFPK) for diffusions
Research output: Book/Report › Report – Annual report year: 2003 › Research › peer-review

Flavor release measurement by atmospheric pressure chemical ionization ion trap mass spectrometry, construction of interface and mathematical modeling of release profiles
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review

**Fluorescens-spektre målt vha. BioView i indløbet på reningsanlæg**
Nielsen, H. A. & Madsen, H., 2003
Research output: Book/Report › Report – Annual report year: 2003 › Research › peer-review

**How to get physical parameters using MATLAB**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

**Identification of Continuous Time Models Using Discrete Time Data**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research

**Kalibrering af COD-sensor (BioView) placeret i indløb til renseanlæg**
Nielsen, H. A. & Madsen, H., 2003
Research output: Book/Report › Report – Annual report year: 2003 › Research › peer-review

**Model Validation in Non-Linear Continuous-Discrete Grey-Box Models**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

**Non-Linear Mixed-Effects Models in NLME with Differential Equations**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2003 › Research › peer-review

**Population pharmacokinetic modeling of a subcutaneous depot for GnRH antagonist degarelix**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2003 › Research › peer-review

**Population pharmacokinetic modelling of a subculaneous depot for GnRH antagonist degarelix**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research

**Short-term Prediction - An Overview**
Research output: Contribution to journal › Review – Annual report year: 2003 › Research › peer-review

**Stochastic Grey-Box Modelling as a Tool for Improving the Quality of First Engineering Principles Models**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research

**Teksturdata til beregning af friktionsværdier - anvendelse på vejoverflader?**
Nielsen, H. A. & Madsen, H., 2003
Analyse og simulering af prædiktionsfejl for vindenergiproduktion ved indmelding til NordPool
Nielsen, H. A. & Madsen, H., 2002
Research output: Book/Report › Report – Annual report year: 2002 › Research › peer-review

Anvendelse af teksturdata til beregning af friktionsværdier for vejbelægninger
Nielsen, H. A. & Madsen, H., 2002
Research output: Book/Report › Report – Annual report year: 2002 › Research › peer-review

Calibration with empirically weighted mean subset
Research output: Contribution to journal › Journal article – Annual report year: 2002 › Research › peer-review

Control of Supply Temperature in District Heating Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Grey-box modelling of aeration tank settling
Research output: Contribution to journal › Journal article – Annual report year: 2002 › Research › peer-review

Improving Prediction Models in Complex Terrain
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Modeling of a thermostatic valve with hysteresis effects
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

On On-line Systems for Short-term Forecasting for Energy Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Optimal control of micro CHP
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Prediction based on mean subset
Research output: Contribution to journal › Journal article – Annual report year: 2002 › Research › peer-review

Prediction of Regional Wind Power
Computer Aided Continuous Time Stochastic Process Modelling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2001 › Research › peer-review

Data Assimilation of tidal gauge data in a three-dimensional coastal model
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2001 › Research

Intelligent Control
Research output: Contribution to journal › Journal article – Annual report year: 2001 › Research

Måling af COD i indløbet på rensningsanlæg på basis af fluorescens-spektre fra BioView
Nielsen, H. A. & Madsen, H., 2001
Research output: Book/Report › Report – Annual report year: 2001 › Research › peer-review

Modellering og analyse af kvælstof i Randers Fjord
Le, T. T. D., Madsen, H., Rasmussen, B. & Sømod, B., 2001
Research output: Book/Report › Report – Annual report year: 2001 › Research

Prediction models in complex terrain.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2001 › Research

Spectral transformation and range-selection in multivariate calibration
Research output: Contribution to conference › Poster – Annual report year: 2001 › Research

Zephyr - the next generation prediction.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2001 › Research

Zephyr - the prediction models.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2001 › Research

Estimating Multivariate Exponential-Affine Term Structure Models from Coupon Bound Prices using Nonlinear Filtering
Research output: Other contribution › Other contribution – Annual report year: 2000 › Research

Estimation in continuous-time stochastic volatility models using nonlinear filters
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review
Experimental design and setup for heat exchanger modelling
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

Grey Box Modelling of First Flush and Incoming Wastewater at a Wastewater Treatment Plant
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research

Load scheduling for decentralized CHP plants
Research output: Book/Report › Report – Annual report year: 2000 › Research › peer-review

Modelling the heat dynamics of a building using stochastic differential equations
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

Modelling the heat dynamics of buildings using stochastic
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

Parameter Estimation in Stochastic Differential Equations; An Overview
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research

Predicting the Heat Consumption in District Heating Systems using Meteorological Forecasts
Nielsen, H. A. O. . . . & Madsen, H., 2000, Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Research output: Book/Report › Report – Annual report year: 2000 › Research › peer-review

Short-term prediction towards the 21st century
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2000 › Research › peer-review

The Zephyr-Project - The Next Generation Prediction System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2000 › Research › peer-review

Tracking time-varying coefficient-functions
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

Tracking time-varying parameters with local regression
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

WPPT - A Tool for Wind Power Prediction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2000 › Research › peer-review
Zephyr and short-term wind power prediction models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2000 › Research › peer-review

A Semi-parametric Approach for Decomposition of Absorption Spectra in the Presence of Unknown Components
Sadegh, P., Nielsen, H. A. O. & Madsen, H., 1999, Department of Mathematical Modelling, Technical University of Denmark.
Research output: Book/Report › Report – Annual report year: 1999 › Research › peer-review

Estimating parameters in discretely, partially observed stochastic differential equations
Nielsen, J. N., Madsen, H. & Melgaard, H., 1999
Research output: Book/Report › Report – Annual report year: 1999 › Research › peer-review

Experiences with Statistical Methods for Wind Power Prediction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Fiction and Reality In The Modelling World
Research output: Contribution to journal › Journal article – Annual report year: 1999 › Research › peer-review

Goodness of fit of stochastic differential equations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research

Grey-box Modelling of Pollutant Loads From a Sewer System
Research output: Contribution to journal › Journal article – Annual report year: 1999 › Research › peer-review

Identification of continuous time smooth threshold models of physical systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Implementation of Short-term Prediction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Implementing short-term prediction at utilities
Research output: Book/Report › Report – Annual report year: 1999 › Research › peer-review

Integer Valued Autoregressive Models for Tipping Bucket Rainfall Measurements
Research output: Contribution to journal › Journal article – Annual report year: 1999 › Research › peer-review
Model output statistics applied to wind power prediction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Parameter Estimation in Nonlinear Stochastic Differential Equations: An Overview
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Subset Selection by Local Convex Approximation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1999 › Research › peer-review

Tracking Time-Varying Coefficient-Functions
Research output: Book/Report › Report – Annual report year: 1999 › Research › peer-review

Using meteorological forecasts in on-line predictions of wind power
Research output: Book/Report › Report – Annual report year: 1999 › Research › peer-review

A Grey Box Model for the Hydraulics in a Creek
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1998 › Research › peer-review

Research output: Book/Report › Report – Annual report year: 1998 › Research › peer-review

A New Reference for Wind Power Forecasting
Research output: Contribution to journal › Journal article – Annual report year: 1998 › Research › peer-review

An Introduction to CUSUM Charts for COntrolling Measurement Systems
Research output: Book/Report › Report – Annual report year: 1998 › Research › peer-review

Control of Sewer systems and Wastewater treatment plants using pollutant concentration profiles
Research output: Contribution to journal › Journal article – Annual report year: 1998 › Research › peer-review

Design Values for the CUSUM-MS Chart
Research output: Book/Report › Report – Annual report year: 1998 › Research › peer-review

Empirisk bestemt model for elforbruget i Østdanmark
Research output: Book/Report › Report – Annual report year: 1998 › Research › peer-review
Nielsen, H. A. O. . . . & Madsen, H., 1997, Department of Mathematical Modelling, Technical University of Denmark, DK-2800 Lyngby, Denmark in collaboration with NESA A/S,
Research output: Book/Report › Report – Annual report year: 1997 › Research › peer-review

Estimation in Stochastic Differential Equations with a State Dependent Diffusion Term: 11th IFAC Symposium on System Identification, Vol. 3
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research › peer-review

Estimation of a low pass filter for solar radiation data
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research › peer-review

Identification of Physical Parameters for A Hydraulic Robot
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research

Implementation of mini CHP
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research › peer-review

Integer valued autoregressive models for rainfall measurement processes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research › peer-review

Lecture notes for Advanced Time Series Analysis
Madsen, H. & Holst, J., 1997
Research output: Book/Report › Book – Annual report year: 1997 › Research › peer-review

Local fitting of autoregressive models with external input
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research

Maxmin Input Design for Linear Dynamic Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1997 › Research › peer-review

Modelling of Hydraulic Robot
Research output: Book/Report › Report – Annual report year: 1997 › Research › peer-review
Modelling the transient impact of rain events on the oxygen content of a small creek
Research output: Contribution to journal › Journal article – Annual report year: 1996 › Research › peer-review

Models and Methods for Predicting Wind Power
Nielsen, H. A. & Madsen, H., 1996
Research output: Book/Report › Report – Annual report year: 1996 › Research › peer-review

Madsen, H., 1996
Research output: Book/Report › Report – Annual report year: 1996 › Research › peer-review

Predictive Control of Air Temperature in Greenhouses: 13th World Congress of IFAC, San Francisco, California, July 1996
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1996 › Research › peer-review

Sampling Techniques in stochastic differential equations: Conference on Mathematical Finance
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1996 › Research

Wind Power Prediction using ARX Models and Neural Networks: Proceedings of the Fifteenth IASTED International Conference on Modelling, Identification and Control
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1996 › Research › peer-review

Estimation of Continuous-Time Models for the Heat Dynamics of a Building
Research output: Contribution to journal › Journal article – Annual report year: 1995 › Research › peer-review

Experiment Design for Grey Box Identification
Research output: Contribution to journal › Journal article – Annual report year: 1995 › Research › peer-review

Identification of Transfer Functions for Control of Greenhouse Air Temperature
Research output: Contribution to journal › Journal article – Annual report year: 1995 › Research › peer-review

Methodologies for the Analysis of Data from Sewers and Wastewater Treatment Plants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1995 › Research › peer-review
Methodologies for the Analysis of Data From Sewers and Wastewater Treatment Plants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1995 › Research

Model for brændselsforbrug og ejproduktion på Korsør kraftvarmevark
Research output: Book/Report › Report – Annual report year: 1995 › Research › peer-review

Research output: Book/Report › Book – Annual report year: 1995 › Research › peer-review

Optimal input design for fault detection and diagnosis
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1995 › Research › peer-review

Statistical Identification of Monod-Kinetic Parameters from On-line Measurements
Research output: Contribution to journal › Journal article – Annual report year: 1995 › Research › peer-review

Emission of Dioxins from Danish Wood-Stoves
Research output: Contribution to journal › Journal article – Annual report year: 1994 › Research › peer-review

Generalized Predictive Control for Non-Stationary Systems
Research output: Contribution to journal › Journal article – Annual report year: 1994 › Research › peer-review

Identification and Control of Nutrient Removing Processes in Wastewater Treatment Plants
Research output: Contribution to journal › Conference article – Annual report year: 1994 › Research › peer-review

Identification of wastewater treatment processes for nutrient removal on a full-scale WWTP by statistical methods
Research output: Contribution to journal › Journal article – Annual report year: 1994 › Research › peer-review

Methods for Robust Estimation of AR-parameters
Research output: Contribution to journal › Journal article – Annual report year: 1994 › Research › peer-review

On Flow and Supply Temperature Control in District Heating Systems
Research output: Contribution to journal › Journal article – Annual report year: 1994 › Research › peer-review

Optimal experiment design for identification of grey-box models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1994 › Research › peer-review
Estimation of traffic models for a packet-switched network
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1989 › Research › peer-review

Tidsrækkeanalyse: Time series analysis
Madsen, H., 1989, Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Research output: Book/Report › Book – Annual report year: 1989 › Education

Modelling the Time Correlation in Hourly Observations of Direct Radiation in Clear Skies
Madsen, H. & Thyregod, P., 1988, In : Energy and Buildings. 11, p. 201-211
Research output: Contribution to journal › Journal article – Annual report year: 1988 › Research › peer-review

Markov models in discrete and continuous time for hourly observations of cloud cover
Research output: Contribution to journal › Journal article – Annual report year: 1985 › Research › peer-review

Projects:

AI for Flexible Energy Systems
Blomgren, E. M. V., Poulsen, N. K. & Madsen, H.
15/08/2019 → 14/08/2022
Project: PhD

Stochastic Differential Equations for Modeling Energy Systems Integration
Real, J. P., Madsen, H. & Bacher, P.
15/02/2019 → 14/02/2022
Project: PhD

Decision support by optimization and simulation of households and SMEs in energy systems
01/01/2019 → 31/12/2021
Project: PhD

Energy Informatics and Forecasting
Bergsteinsson, H. G., Madsen, H., Møller, J. K. & Nielsen, H. A.
Technical University of Denmark
15/08/2018 → 14/08/2021
Project: PhD

Intelligent Energy Management for Multi-family Buildings
Yan, Y., Dittmann, L., Cali, D. & Madsen, H.
01/01/2018 → 31/12/2019
Project: Research

SCA: Smart Cities Accellerator
Heller, A., Madsen, H. & Nielsen, P. S.
20/04/2018 → 20/07/2018
Project: Research

Stochastic Predictive Control of Wastewater Treatment Processes
Stentoft, P. A., Møller, J. K., Madsen, H., Mikkelsen, P. S., Munk-Nielsen, T. & Vezzaro, L.
Industrial PhD
15/09/2017 → 14/09/2020
Project: PhD
Stochastic Dynamic Optimization and Control Theory
Brok, N. B., Madsen, H., Jørgensen, J. B., Poulsen, N. K. & Thygesen, U. H.
Technical University of Denmark
01/09/2017 → 14/12/2020
Project: PhD

SDE-modelling in CITIES
Junker, R. G., Madsen, H., Jørgensen, J. B., Thygesen, U. H. & Relan, R.
Samfinansieret - Andet
15/07/2016 → 13/11/2019
Project: PhD

Tools for Reliable Energy Performance Characterisation of Buildings
Rasmussen, C., Madsen, H. & Rode, C.
Samfinansieret - Andet
01/01/2017 → 31/12/2019
Project: PhD

SDE-modelling in CITIES
Samfinansieret - Andet
15/07/2016 → 13/11/2019
Project: PhD

Statistics and Data Analytics on Smart Zero
Technical University of Denmark
15/09/2016 → 14/09/2019
Project: PhD

Models for real time warning and control strategies in urban drainage and wastewater systems
Pedersen, J. W., Mikkelsen, P. S., Madsen, H. & Vezzaro, L.
Samfinansieret - Andet
01/10/2016 → 10/04/2020
Project: PhD

Automatisk kalibrering og attenuation korrektion i netværk af små vejrradar
Pedersen, L., Madsen, H., Mikkelsen, P. S., Overgaard, S., Sempere-Torres, D. & Jensen, N. E.
ErhvervsPhD-ordningen VTU
01/02/2006 → 26/08/2009
Project: PhD

Statistisk modellering af marine økosystemer
Berg, C. W., Madsen, H., Nielsen, A., Thygesen, U. H., Andersen, K. H., Cadigan, N. G. & Nielsen, S. F.
Technical University of Denmark
01/11/2009 → 30/08/2013
Project: PhD

Data assimilering og autokalibrering i 2D/3D hydodynamisk numerisk modellering af det marine miljø
Sørensen, J. V. T., Madsen, H., Madsen, H., Poulsen, N. K., Cañizares, R. & Heemink, A. W.
Innovationsfonden
01/04/2000 → 05/07/2004
Project: PhD

Modellering og styring af sprøjtestøbeproces
Thyregod, P., Madsen, H., Melgaard, H., Spliid, H., Rootzén, H., Bisgaard, S. & Olsen, K. J.
Innovationsfonden
01/08/1997 → 06/04/2001
Project: PhD

Kombineret fysik og statistisk on-line forudsigelse af produktion fra vindmølleparker
Joensen, A. K., Madsen, H., Landberg, L., Spliid, H., Knudsen, T. & Larsen, S. E.
Rise (Løn)
01/04/1997 → 20/05/2003
Project: PhD

Modellering og Prædiktiv Styring af Spildevandssystemer
Bechmann, H., Madsen, H. & Poulsen, N. K.
Innovationsfonden
01/05/1996 → 28/04/2000
Project: PhD

Stokastisk Prædiktiv Kontrol i Komplekse Systemer
Nielsen, T. S., Madsen, H., Holst, J., Poulsen, N. K., Bidstrup, N. & Egardt, B.
Kandidatstipendium ansat på DT
01/02/1996 → 14/11/2002
Project: PhD

Prædiktorer i komplekse stokastiske systemer
Nielsen, H. A., Madsen, H. & Holst, J. J.
Kandidatstipendium ansat på DT
01/02/1996 → 25/09/2000
Project: PhD

Identifikation af modeller for kedel- og varmeanlæg
Hansen, L. H., Madsen, H., Poulsen, N. K. & Hansen, P.
Innovationsfonden
01/06/1994 → 06/10/1998
Project: PhD

Tidsrækkeanalyse og Danamisk Modellering af Regnvands påvirkede Recipienter
Jacobsen, J. L. & Madsen, H.
Innovationsfonden
01/04/1994 → 26/11/1997
Project: PhD

Undersøgelser af kontrolstrategier for regulering af fjernvarmesystemer
Palsson, O. P., Madsen, H. & Ravn, H. V.
Nordisk finansiering - SU
01/07/1990 → 16/06/1994
Project: PhD

Classification and aggregation of energy components
Richert, T. P., Bindner, H. W., Gehrke, O., Madsen, H., You, S., Lauenburg, P. & Qadrdan, M.
Forskningsrådsfinansiering
01/04/2016 → 31/08/2019
Project: PhD

IEA EBC Annex 67 - Energy Flexible Buildings
Heller, A., Madsen, H., Gianniou, P. & Foteinaki, K.
01/06/2014 → 01/06/2019
Project: Research
Market Mechanisms for the integration of Distributed Energy Resources
Samfinansieret - Andet
01/04/2016 → 14/08/2019
Project: PhD

Data driven models for energy advising leading to behavioural changes in SMEs and residences
Liisberg, J. A. R., Møller, J. K., Bacher, P., Madsen, H., Christiansen, L. E., Rouchier, S. & Rydén, J.
Industrial PhD
15/06/2016 → 30/09/2019
Project: PhD

Sensor Based Process Monitoring of Large Scale Vacuum Casting Process
Nauheimer, M., Madsen, H., Kirkeby, K., Olesen, B., Bendtsen, J. D., Milhøj, A., Relan, R. & Møller, J. K.
Industrial PhD
01/01/2016 → 11/09/2019
Project: PhD

Decision-making for the Management and Planning of Integrated Energy Systems
Blanco, I., Madsen, H., Morales González, J. M., Kitzing, L., Guericke, D., McKenna, R., Detlefsen, N. K. & Pandzic, H.
Samfinansieret - Andet
01/11/2015 → 13/03/2019
Project: PhD

Analysis of high frequency (*smart meter*) energy consumption data
Tureczek, A. M., Nielsen, P. S., Madsen, H., Henningsen, G., Sand, K. & Thordarson, F. Ò.
Samfinansieret - Andet
01/08/2015 → 05/03/2019
Project: PhD

Industrial PhD
15/11/2014 → 13/03/2018
Project: PhD

Modeling of Pharmacokinetics and Pharmacodynamics of Novel Glucagon Analogues for Closed-Loop Dual Hormone Blood Glucose Control
Industrial PhD
15/03/2014 → 16/08/2017
Project: PhD

Model based analysis of ethnic differences in Type 2 diabetes
ErhvervsPhD-ordningen VTU
01/10/2008 → 24/08/2012
Project: PhD

Predictive Tools for Designing new Insulins and Treatment Regimes
Klim, S., Madsen, H., Ingwersen, S. H., Kristensen, N. R., Jørgensen, J. B., Gabrielsson, J. & Lavielle, M.
ErhvervsPhD-ordningen VTU
01/07/2006 → 16/12/2009
Project: PhD

Self-Organising Distributed Control of a Distributed Energy System with a High Penetration of Renewable Energy
Gehrke, O., Poulsen, N. K., Bindner, H. W., Madsen, H., Nielsen, A. H., Lind, M., Degner, T. & McCarthur, S.
Data assimilation in atmospheric dispersion of radioactive material
Drews, M., Madsen, H., Lauritzen, B., Poulsen, N. K., Finck, R. R. & Holst, J.
Risø (Løn) 01/10/2000 → 18/03/2005
Project: PhD

Multivariat kalibrering af kemiske sensorer
Øjelund, H., Madsen, H., Steen-Pedersen, J., Thyregod, P., Hansen, L. K., Sundberg, R. & Olsen, E. V.
Innovationsfonden 01/01/1998 → 03/12/2001
Project: PhD

Identifikation og styring af spildevandsprocesser
Carstensen, N. J., Madsen, H. & Harremoës, P.
Akademiets for de Tekniske Videnskaber 01/01/1991 → 03/11/1994
Project: PhD

Conflict-based Method for Economical, Substainable, Safe and Environmentally Clean Process (Retrofit) Design and Operation
Davidescu, F. P., Jørgensen, S. B., Madsen, H., Gernaey, K. V., Kristensen, N. R. & Marquardt, W.
Offentlig finansiering 01/02/2004 → 25/09/2008
Project: PhD

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

Computer Supported Drug Development
Ansæt eksternt 01/10/2002 → 20/10/2005
Project: PhD

Grey box Modelling of Hydraulic Systems
Thordarson, F. Ø., Madsen, H., Madsen, H., Poulsen, N. K., Rasmussen, M. R. & Willems, P.
Forskningsrådskfinansiering 01/10/2007 → 23/02/2012
Project: PhD

Identifikation af dynamiske systemer i kontinuert tid
Mølgaaard, H., Madsen, H., Hendricks, E. & Holst, J.
Gammel ordning u/skema-SU 01/03/1990 → 17/03/1995
Project: PhD

Identifikation og estimation af underliggende parametervariationer i stokastiske modeller
Søgaard, H. T., Madsen, H. & Holst, J.
Gammel ordning u/skema-SU 15/02/1989 → 30/05/1994
Project: PhD
Modelling and prediction of load in district heating systems
Sejling, K. & Madsen, H.
Gammel ordning u/skema-SU
01/02/1989 → 01/02/1994
Project: PhD

Modelling for Monitoring, Control and Optimization of Fed-Batch
Rasmussen, J. K., Jørgensen, S. B., Jørgensen, H. S., Madsen, H., Gernaey, K. V., Lei, F. & Lübber, A.
DTU, Samfinansiering
01/09/2003 → 02/06/2008
Project: PhD

Framework for Real Time Control of Integrated Urban Wastewater Systems
1/3 DTU-stip, 2/3 FUR/andet
01/09/2007 → 27/06/2012
Project: PhD

Stochastic Dynamic modelling of Oxigen
Jonsdottir, H., Madsen, H., Palsson, O. P., Poulsen, N. K., Olsson, G., Madsen, H. & Eliasson, J.
DTU stipendium
01/04/1997 → 08/02/2007
Project: PhD

Stochastic modelling of nonlinear systems
Nielsen, J. N., Madsen, H., Poulsen, N. K. & Ljung, L.
DTU stipendium
01/03/1996 → 29/03/2001
Project: PhD

Identifikation af Grey-Modeller
Sadegh, P., Madsen, H. & Ljung, L.
DTU stipendium
01/08/1993 → 21/03/1997
Project: PhD

Dynamic modelling of Energy Systems
Andersen, K. K., Madsen, H., Spliid, H., Bidstrup, N. & Lebrun, J.
DTU stipendium
01/01/1998 → 03/12/2001
Project: PhD

Model Predictive Control based on Stochastic Differential Equations - An Artificial Pancreas with Fast Insulin, Glucagon and Multiple Sensors
Hagdrup, M., Jørgensen, J. B., Madsen, H., Poulsen, N. K., Pedersen, M., Scherer, C. W., Cannon, M. & Poulsen, B.
Technical University of Denmark
01/09/2014 → 06/02/2019
Project: PhD

Improved Statistical Analysis of Sleep EEG Data in Relation to Pharmacokinetics
ErhvervsPhD-ordningen VTU
01/07/2006 → 10/02/2010
Project: PhD
Statistical modelling of tagging data from marine animals
Pedersen, M. W., Madsen, H., Thygesen, U. H., Poulsen, N. K., Huse, G. & Zucchini, W.
DTU stipendium
01/07/2007 → 02/02/2011
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., Lindström, E. & Kariniotakis, G.
DTU stipendium
01/08/2007 → 12/12/2013
Project: PhD

Estimationsteori for stokastiske differentialligninger
Nolsøe, K., Madsen, H., Kessler, M., Nielsen, B. F., Rydén, T. & Jørgensen, B.
DTU stipendium
01/10/2002 → 15/01/2007
Project: PhD

Stokastisk dynamik i kompekse systemer
DTU stipendium
01/07/2002 → 25/10/2006
Project: PhD

Antigiotika anvendelse og tidslig og rumlig spredning af antibiotikaresistens
Christiansen, L. E., Madsen, H., Andersen, J. S., Wegener, H. C., Thyregod, P., Agger, J. & Guttrop, P.
DTU stipendium
15/08/2001 → 27/04/2005
Project: PhD

Nonlinear identification and optimal control of fed-batch processes
DTU stipendium
01/08/1999 → 24/03/2003
Project: PhD

Stochastic energy systems
Technical University of Denmark
15/12/2012 → 12/12/2016
Project: PhD

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

Stochastic Model Predictive Control with Applications in Smart Energy Systems
Sokoler, L. E., Jørgensen, J. B., Madsen, H., Poulsen, N. K., Zavala, V., Bemporad, A. & Knudsen, J. K. H.
ErhvervsPhD-ordningen VTU
01/07/2012 → 31/03/2016
Project: PhD

Stokastisk dynamisk modellering til kort-tidsregulering af glukose/insulin-metabolismen
Duun-Henriksen, A. K., Madsen, H., Jensen, P. R., Christiansen, L. E., Gabrielsson, J. & Andreassen, S.
Forskningsrådsfinansiering
Model Predictive Control algorithms for pen and pump insulin administration
Boiroux, D., Jørgensen, J. B., Madsen, H., Poulsen, N. K., Sørensen, M. P., del Re, L. & Knudsen, J. K. H.
Forskningsrådsfinansiering
01/09/2009 → 22/11/2012
Project: PhD

Models for the energy performance of low-energy houses
Andersen, P. H. D., Madsen, H., Rode, C., Hattel, J. H., Heiselberg, P. & Roels, S.
Technical University of Denmark
01/05/2010 → 24/01/2014
Project: PhD

Impact of Stochastic Generation on Electricity Market Dynamics
Technical University of Denmark
01/01/2010 → 30/08/2013
Project: PhD

Model Predictive Control for Smart Energy Systems
Halvgaard, R. F., Jørgensen, J. B., Madsen, H., Poulsen, N. K., Bindner, H. W., Chmielewski, D. J. & Jones, C. N.
Technical University of Denmark
01/11/2010 → 25/04/2014
Project: PhD

Nonlinear Stochastic Modelling of Antimicrobial resistance in Bacterial Populations
Philipsen, K. R., Madsen, H., Christiansen, L. E., Molin, S., Diekmann, O. & Ersbøll, A. K.
Forskningsrådsfinansiering
01/10/2006 → 30/06/2010
Project: PhD

Data Assimilation in Marine Modelling
Frydendall, J., Madsen, H., Sørensen, J. V. T., Poulsen, N. K., Carstensen, N. J. & Heemink, A. W.
1/3 DTU-stip, 2/3 FUR/andet
01/03/2006 → 25/11/2009
Project: PhD

Scenario modeling for optimized integrated real-time control of sewer - wastewater treatment plant systems
Löwe, R., Madsen, H., Mikkelsen, P. S., Bauer-Gottwein, P., Heemink, A. W. & Muschalla, D.
Technical University of Denmark
01/01/2011 → 25/09/2014
Project: PhD

Identification of Ecological Thresholds of Sustaniability in Marine Ecosystems
Møller, J. K., Madsen, H., Carstensen, N. J., Nielsen, B. F., Ditlevsen, S. & Guttorp, P.
1/3 DTU-stip, 2/3 FUR/andet
01/08/2006 → 25/05/2011
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
Models for efficient integration of solar energy
Bacher, P., Madsen, H., Nielsen, H. A., Christiansen, L. E., Palsson, O. P. & Taboada, M. J. J.
Technical University of Denmark
01/10/2008 → 24/08/2012
Project: PhD

Stochastic Dynamics of Demand Response and the Impact on Power Systems Service Provision
Technical University of Denmark
01/01/2013 → 20/04/2016
Project: PhD

Stochastic Differential Equations in PK/PD Modelling
Juhl, R., Madsen, H. & Jørgensen, J. B.
Technical University of Denmark
15/01/2012 → 16/07/2015
Project: PhD

Waste-2-Energy Smart Grid Upgrade
Halvgaard, R. F. & Madsen, H.
02/04/2014 → 02/04/2016
Project: Research

Inno-SE: Innovationsnetwork Smart Energy (CLEAN)
Heller, A. & Madsen, H.
15/08/2014 → 31/12/2017
Project: Research

CITIES: Center for IT-Intelligent Energy Systems for Cities
Energy Programme
01/01/2014 → 31/12/2019
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

MINIRESIST: Minimizing antibiotic resistance development MINIRESIST
Forskningsprojekter - Andre ministerier og styrelser
11/01/2001 → 14/12/2013
Project: Research

Combined physical and statistical on-line prediction of wind power from wind farms.
Madsen, H., Joensen, A. K. & Nielsen, T. S.
Ukendt
01/04/1997 → 31/03/2000
Project: Research

System til optimal regulering af fjernvarmeproduktion
Madsen, H., Nielsen, T. S. & Nielsen, H. A.
Ukendt
01/01/1988 → ...
Udvikling, afprøvning og implementering af GPC-regulatorer i fjernvarmesystemer
Madsen, H. & Nielsen, T. S.
Ukendt
01/07/1993 → 30/06/1996
Project: Research

Identifikation af varmedynamikken for bygningskomponenter
Madsen, H. & Melgaard, H.
Ukendt
01/01/1990 → ...
Project: Research

Identification of models for boiler and heating systems
Madsen, H., Hansen, L. H., Holst, J., Bidstrup, N. & Vadstrup, P.
Ukendt
01/06/1994 → 31/05/1997
Project: Research

Dynamisk kvalitetskontrol
Madsen, H., Thyregod, P. & Iwersen, J.
01/01/1996 → ...
Project: Research

Forsøgsplanlægning for identifikation af delvis kendte systemer (grey-box modeller)
Madsen, H., Sadegh, P. & Holst, J.
Ukendt
01/01/1994 → 31/12/1996
Project: Research

Implementing Short Term Predictions at Utilities
Madsen, H., Nielsen, T. S. & Nielsen, H. A.
Ukendt
01/01/1995 → 31/12/1998
Project: Research

Vindmollepark-produktionsprediktor
Joensen, A. K., Madsen, H. & Nielsen, T. S.
Ukendt
01/04/1999 → 31/03/2002
Project: Research

Eleforbrugsmodeller for ELKRAFT-området
Madsen, H. & Nielsen, H. A.
Ukendt
01/12/1997 → 01/03/1998
Project: Research

IT based optimization of District Heating Networks
Nielsen, H. A., Madsen, H. & Laursen, P.
01/02/1998 → 31/12/2002
Project: Research

Prediction models for wind energy production
Madsen, H., Nielsen, T. S., Søgaard, H. & Sejling, K.
Ukendt
01/01/1996 → 31/12/1998
Project: Research

Optimering af fjernvarmestystemer
Madsen, H., Nielsen, T. S. & Nielsen, H. A.
Ukendt
01/07/1993 → 30/06/1996
Project: Research

Identifikation og regulering af rensningsanlæg
Madsen, H., Poulsen, N. K., Bechmann, H. & Nielsen, M.
Ukendt
01/05/1996 → 30/04/1999
Project: Research

Grey-box identification
Madsen, H. & Sadegh, P.
Ukendt
01/10/1997 → 01/11/1998
Project: Research

Development of methods for evaluation of electricity saving and load levelling measures
Madsen, H., Nielsen, H. A. & Bergstrøm, W.
Ukendt
01/03/1995 → 31/12/1997
Project: Research

Time series analysis and dynamic modelling of processes in rivers affected by precipitation runoff
Ukendt
01/04/1994 → 31/05/1997
Project: Research

Center for informationsteknologi i miljøsektoren
Madsen, H., Øjelund, H. & Sadegh, P.
Ukendt
01/06/1995 → 01/04/1999
Project: Research

Statistik finansieringsteori
Madsen, H., Nielsen, J. N. & Baadsgaard, M.
01/01/1994 → ...
Project: Research

Center for IT-tools in the Energy Sector
Madsen, H. & Andersen, K. K.
Ukendt
01/09/1997 → 31/08/2001
Project: Research

Multivariate Calibration in Optical Sensors
Madsen, H., Thyregod, P. & Øjelund, H.
Ukendt
01/04/1997 → 31/05/2001
Project: Research
Modelling and styring af sprøjtestøbeproces
Madsen, H., Spliid, H. & Thyregod, P.
Ukendt
01/08/1997 → 31/07/2000
Project: Research

Estimation in Stochastic Differential Equations
Madsen, H. & Baadsgaard, M.
Ukendt
01/09/1996 → 31/08/1999
Project: Research

Prognosemodeller for gasforbrug
Madsen, H. & Nielsen, T. S.
Ukendt
17/06/1994 → 30/06/1996
Project: Research

IT-baseret driftoptimering af fjernvarmedistribution
Madsen, H., Nielsen, H. A. & Nielsen, T. S.
Ukendt
01/02/1998 → 30/10/2000
Project: Research

Non- and semiparametric methods with applications in engineering
01/01/1999 → …
Project: Research

PRESS installation hos Sonderborg Fjernvarme
Madsen, H. & Nielsen, T. S.
Ukendt
01/01/1999 → 31/12/2000
Project: Research

Activities:

A Stochastic Method to Manage Delay and Missing Values for In-Situ Sensors in an Alternating Activated Sludge Process
Peter Alexander Stentoft (Speaker), Jan Kloppenborg Møller (Other), Henrik Madsen (Other), Peter Steen Mikkelsen (Other), Thomas Munk-Nielsen (Other)
13 Jun 2017
Activity: Talks and presentations › Conference presentations

Cities research for District Heating Innovation
Alfred Heller (Speaker), Henrik Madsen (Speaker)
6 Mar 2017
Activity: Talks and presentations › Conference presentations

5-års seminar om Lavenerghuset i Sisimiut
Henrik Madsen (Speaker)
2 Jun 2010
Activity: Other

Press clippings:
Forsknings- og uddannelsesministeren på besøg hos batteriforskere på DTU
Tejs Vegge, Johan Hjelm, Jakob Kibsgaard & Henrik Madsen
09/10/2018
1 Media contribution
Press/Media: Press / Media