Henrik Madsen - DTU Orbit (27/10/2017)

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Department of Applied Mathematics and Computer Science - Professor, Head of section
Dynamical Systems

Publications:

Overnight glucose control in people with type 1 diabetes
Publication: Research - peer-review › Journal article – Annual report year: 2017

Online short-term forecast of greenhouse heat load using a weather forecast service
Publication: Research - peer-review › Journal article – Annual report year: 2017

Evaluation of pharmacokinetic model designs for subcutaneous infusion of insulin aspart
Publication: Research - peer-review › Journal article – Annual report year: 2017

Adaptive control in an artificial pancreas for people with type 1 diabetes
Publication: Research - peer-review › Journal article – Annual report year: 2016

An Adaptive Nonlinear Basal-Bolus Calculator for Patients With Type 1 Diabetes
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Economic MPC based on LPV model for thermostatically controlled loads
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

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

Harnessing Flexibility from Hot and Cold
Publication: Research - peer-review › Journal article – Annual report year: 2017
Heating of indoor swimming pools by solar thermal collectors in summerhouses in Denmark
Publication: Research › Report – Annual report year: 2017

Leveraging stochastic differential equations for probabilistic forecasting of wind power using a dynamic power curve
Publication: Research - peer-review › Journal article – Annual report year: 2017

Modeling Pharmacokinetics and Pharmacodynamics of Glucagon for Simulation of the Glucoregulatory System in Patients with Type 1 Diabetes.
Publication: Research › Ph.D. thesis – Annual report year: 2017

Multi-site solar power forecasting using gradient boosted regression trees
Publication: Research - peer-review › Journal article – Annual report year: 2017

On site characterisation of the overall heat loss coefficient: comparison of different assessment methods by a blind validation exercise on a round robin test box
Publication: Research - peer-review › Journal article – Annual report year: 2017

Relationship between Optimum Mini-doses of Glucagon and Insulin Levels when Treating Mild Hypoglycaemia in Patients with Type 1 Diabetes - A Simulation Study
Publication: Research - peer-review › Journal article – Annual report year: 2017

Simulating clinical studies of the glucoregulatory system: in vivo meets in silico
Publication: Research › Report – Annual report year: 2017

Spatial bias and uncertainty in numerical weather predictions for urban runoff forecasts with long time horizons
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Stochastic model of wind-fuel cell for a semi-dispatchable power generation
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

Validation of the dynamic wake meander model with focus on tower loads: Paper
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
Hidden Markov Models for indirect classification of occupant behaviour
Publication: Research - peer-review › Journal article – Annual report year: 2016

Impacts of urban development and climate change in exposing cities to pluvial flooding
Publication: Research › Ph.D. thesis – Annual report year: 2016

Inverse Optimization and Forecasting Techniques Applied to Decision-making in Electricity Markets
Publication: Research › Ph.D. thesis – Annual report year: 2016

Learning from nature: Nature-inspired algorithms
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Load forecasting of supermarket refrigeration
Publication: Research - peer-review › Journal article – Annual report year: 2015

Long Memory of Financial Time Series and Hidden Markov Models with Time-Varying Parameters
Publication: Research - peer-review › Journal article – Annual report year: 2016

Methodologies for managing the Energy-Water-Food nexus at different scales
Publication: Commissioned - peer-review › Report chapter – Annual report year: 2016

Methods and Algorithms for Economic MPC in Power Production Planning
Publication: Research › Ph.D. thesis – Annual report year: 2016

Model Identification using Continuous Glucose Monitoring Data for Type 1 Diabetes
Publication: Research - peer-review › Conference article – Annual report year: 2016

Modeling and Control for Price Responsive Electricity Loads
Publication: Research › Ph.D. thesis – Annual report year: 2016

Modeling and Prediction Using Stochastic Differential Equations
Probabilistic runoff volume forecasting in risk-based optimization for RTC of urban drainage systems
Löwe, R., Vezzaro, L., Mikkelsen, P. S., Grum, M. & Madsen, H. 2016 In : Environmental Modelling & Software. 80, p. 143-158
Publication: Research - peer-review › Journal article – Annual report year: 2016

Short-term Probabilistic Forecasting of Wind Speed Using Stochastic Differential Equations
Publication: Research - peer-review › Journal article – Annual report year: 2015

Madsen, H., Parvizi, J. & Bacher, P. 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Statistical modelling using CTSM-R
Publication: Research › Ph.D. thesis – Annual report year: 2016

A Bolus Calculator Based on Continuous-Discrete Unscented Kalman Filtering for Type 1 Diabetics
Publication: Research › Conference article – Annual report year: 2015

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

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
Publication: Research › Journal article – Annual report year: 2015

A Non-linear Stochastic Model for an Office Building with Air Infiltration
Publication: Research › Journal article – Annual report year: 2015

Bi-hormonal Closed-loop Control of Blood Glucose for People With Type 1 Diabetes - the Diacon Project
Publication: Research › Conference article in journal – Annual report year: 2015

Bi-hormonal control of blood glucose in people with type 1 diabetes
Bátor, V., Tárnik, M., Murgaš, J., Schmidt, S., Nørgaard, K., Poulsen, N. K., Madsen, H. & Jørgensen, J. B. 2015
Proceedings of the 14th European Control Conference (ECC 2015) . IEEE, p. 25-30
Publication: Research › Article in proceedings – Annual report year: 2015

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

Comparison of Prediction Models for a Dual-Hormone Artificial Pancreas
A model predictive control strategy for the space heating of a smart building including cogeneration of a fuel cell-electrolyzer system
Publication: Research - peer-review › Journal article – Annual report year: 2014

Assessment of Model Predictive and Adaptive Glucose Control Strategies for People with Type 1 Diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Automatic Classification of Offshore Wind Regimes With Weather Radar Observations
Publication: Research - peer-review › Journal article – Annual report year: 2014

Benefits and challenges of electrical demand response: A critical review
Publication: Research - peer-review › Journal article – Annual report year: 2014

Bihormonal model predictive control of blood glucose in people with type 1 diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Bio Inspired Algorithms in Single and Multiobjective Reliability Optimization
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Characterization of heat dynamics of an arctic low-energy house with floor heating
Publication: Research - peer-review › Journal article – Annual report year: 2014

CITIES: Centre for IT-Intelligent Energy Systems in Cities
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Determining reserve requirements in DK1 area of Nord Pool using a probabilistic approach
Publication: Research - peer-review › Conference article – Annual report year: 2014

Dynamic modeling of presence of occupants using inhomogeneous Markov chains
Publication: Research - peer-review › Journal article – Annual report year: 2014

Evaluation of Dynamical Downscaling Resolution Effect on Wind Energy Forecast Value for a Wind Farm in Central Sweden
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015
Evaluation of Dynamical Downscaling Resolution Effect on Wind Energy Forecast Value for a Wind Farm in Central Sweden
Rosgaard, M. H., Hahmann, A. N., Nielsen, T. S., Sørensen, P. E., Madsen, H. & Giebel, G. 2014
Publication: Research - peer-review › Poster – Annual report year: 2015

Exponential smoothing approaches for prediction in real-time electricity markets
Jónsson, T., Pinson, P., Nielsen, H. A. & Madsen, H. 2014 In : Energies. 7, 6, p. 3710-3732
Publication: Research - peer-review › Journal article – Annual report year: 2014

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

Model Predictive Control for Smart Energy Systems
Publication: Research › Ph.D. thesis – Annual report year: 2014

Neutrosophic Logic Applied to Decision Making
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Optimal charging of an electric vehicle using a Markov decision process
Publication: Research - peer-review › Journal article – Annual report year: 2014

Predicting Plasma Glucose From Interstitial Glucose Observations Using Bayesian Methods
Publication: Research - peer-review › Journal article – Annual report year: 2014
Predictive densities for day-ahead electricity prices using time-adaptive quantile regression
Jónsson, T., Pinson, P., Madsen, H. & Nielsen, H. A. 2014 In : Energies. 7, 9, p. 5523-5547
Publication: Research - peer-review › Journal article – Annual report year: 2014

Probabilistic Forecasting for On-line Operation of Urban Drainage Systems
Publication: Research › Ph.D. thesis – Annual report year: 2014

Probabilistic Forecasts of Solar Irradiance by Stochastic Differential Equations
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Probabilistic modelling in urban drainage – two approaches that explicitly account for temporal variation of model errors
Löwe, R., Del Giudice, D., Mikkelsen, P. S., Rieckermann, J. & Madsen, H. 2014
Publication: Research - peer-review › Paper – Annual report year: 2014

Probabilistic online runoff forecasting for urban catchments using inputs from rain gauges as well as statically and dynamically adjusted weather radar
Publication: Research - peer-review › Journal article – Annual report year: 2014

Regulating Power from Supermarket Refrigeration
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Risk-Based Model Predictive Control of Urban Drainage Networks: When Uncertainty matters
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Robust Management of Combined Heat and Power Systems via Linear Decision Rules
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Setting up and validating a complex model for a simple homogeneous wall
Publication: Research - peer-review › Journal article – Annual report year: 2014

Stochastic rainfall-runoff forecasting: parameter estimation, multi-step prediction, and evaluation of overflow risk
Publication: Research - peer-review › Journal article – Annual report year: 2013

Waste Water Treatment Plants and the Smart Grid
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Weather radars – the new eyes for offshore wind farms?
Publication: Research - peer-review › Journal article – Annual report year: 2013

Wind resource assessment and wind power forecasting
Publication: Research - peer-review › Book chapter – Annual report year: 2014

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

A Coordination Scheme for Distributed Model Predictive Control: Integration of Flexible DERs
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

An arctic low-energy house as experimental setup for studies of heat dynamics of buildings
Andersen, P. H. D., Rode, C. & Madsen, H. 2013 In : Frontiers of Architectural Research. 2, 4, p. 488-499
Publication: Research - peer-review › Journal article – Annual report year: 2013

A non-parametric method for correction of global radiation observations
Publication: Research - peer-review › Journal article – Annual report year: 2013

Chance-constrained optimization of demand response to price signals
Dorini, G. F., Pinson, P. & Madsen, H. 2013 In : IEEE Transactions on Smart Grid. 4, 4, p. 2072-2080
Publication: Research - peer-review › Journal article – Annual report year: 2014

Clinical Data for Advanced Glucose Modeling
Publication: Research › Report – Annual report year: 2013

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

Decentralized Large-Scale Power Balancing
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System
Publication: Research - peer-review › Journal article – Annual report year: 2013

Exercise effects in a virtual type 1 diabetes patient: Using stochastic differential equations for model extension
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013
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
Publication: Research - peer-review › Paper – Annual report year: 2013

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

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

Grey-box Modeling for System Identification of Household Refrigerators: a Step Toward Smart Appliances
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

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

Informal uncertainty analysis (GLUE) of continuous flow simulation in a hybrid sewer system with infiltration inflow - Consistency of containment ratios in calibration and validation?
Publication: Research - peer-review › Journal article – Annual report year: 2013

Inhomogeneous Markov Models for Describing Driving Patterns
Publication: Research › Report – Annual report year: 2013

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

Load forecasting for supermarket refrigeration
Publication: Research › Report – Annual report year: 2013

Low-energy house in Sisimiut - Data overview
Publication: Research › Report – Annual report year: 2013
Low-energy house in Sisimiut - Measurement equipment
Publication: Research › Report – Annual report year: 2013

Model-Based Closed-Loop Glucose Control in Type 1 Diabetes: The DiaCon Experience
Publication: Research - peer-review › Journal article – Annual report year: 2013

Model Identification Using Stochastic Differential Equation Grey-Box Models in Diabetes
Publication: Research - peer-review › Journal article – Annual report year: 2013

Modeling and forecasting of wind power generation - Regime-switching approaches
Publication: Research › Ph.D. thesis – Annual report year: 2014

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

Models for the energy performance of low-energy houses
Publication: Research › Ph.D. thesis – Annual report year: 2013

Online load forecasting for supermarket refrigeration
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Online short-term heat load forecasting for single family houses
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

On the best learning algorithm for web services response time prediction
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Optimization Under Uncertainty for Management of Renewables in Electricity Markets
Publication: Research › Ph.D. thesis – Annual report year: 2013

Pool Strategy of a Price-Maker Wind Power Producer
Publication: Research - peer-review › Journal article – Annual report year: 2013
Reliability in the utility computing era: Towards reliable Fog computing
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Short-term heat load forecasting for single family houses
Publication: Research - peer-review › Journal article – Annual report year: 2013

Short-term wind power forecasting: probabilistic and space-time aspects
Publication: Research › Ph.D. thesis – Annual report year: 2013

Solar/electric heating systems for the future energy system
Publication: Research › Report – Annual report year: 2013

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

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

Statistical aspects of fish stock assessment
Publication: Research › Ph.D. thesis – Annual report year: 2014

Stochastic Differential Equations in Artificial Pancreas Modelling
Publication: Research › Ph.D. thesis – Annual report year: 2013

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

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

Stokastiske prognoser for afløb og real tids styring
Publication: Research › Journal article – Annual report year: 2013

Stokastiske prognoser for afløb og real tids styring
Control of Blood Glucose for People with Type 1 Diabetes: an In Vivo Study

Descriptive and Predictive Evaluation of High Resolution Markov Chain Precipitation Models

Designing a Reliable Protocol for Web Services Based Robots Interconnection

Development of a Restricted State Space Stochastic Differential Equation Model for Bacterial Growth in Rich Media

Economic Model Predictive Control for Building Climate Control in a Smart Grid

Efficient Iterated Filtering

Electric Vehicle Charge Planning Using Economic Model Predictive Control

ESO2 Optimization of Supermarket Refrigeration Systems: Mixed Integer MPC and System Performance

Evaluation of Energy Storage System to Support Danish Island of Bornholm Power Grid

Evaluation of Probabilistic Flow Predictions in Sewer Systems Using Grey Box Models and a Skill Score Criterion

Forecast Generation for Real-Time Control of Urban Drainage Systems Using Greybox Modelling and Radar Rainfall
Integrated Wind Power Planning Tool
Rosgaard, M. H., Hahmann, A. N., Nielsen, T. S., Madsen, H., Giebel, G. & Sørensen, P. E. 2012
Publication: Research - peer-review › Poster – Annual report year: 2012

Integrated Wind Power Planning Tool
Rosgaard, M. H., Hahmann, A. N., Nielsen, T. S., Madsen, H., Giebel, G. & Sørensen, P. E. 2012
Publication: Research - peer-review › Poster – Annual report year: 2013

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

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

Model Based Analysis of Ethnic Differences in Type 2 Diabetes
Publication: Research › Ph.D. thesis – Annual report year: 2012

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

Modeling Smart Energy Systems for Model Predictive Control
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

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

Model Predictive Control Algorithms for Pen and Pump Insulin Administration
Publication: Research › Ph.D. thesis – Annual report year: 2013

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

Models for efficient integration of solar energy
Publication: Research › Ph.D. thesis – Annual report year: 2012

Optimal reliability allocation for large software projects through soft computing techniques
Overnight Control of Blood Glucose in People with Type 1 Diabetes

State-space adjustment of radar rainfall and stochastic flow forecasting for use in real-time control of urban drainage systems

Stochastic flow forecasting with calibrated radar rainfall input


Stochastic Model Predictive Control with Applications in Smart Energy Systems

Studies of Heat Dynamics in an Arctic Low-energy House

Tuning of Controller for Type 1 Diabetes Treatment with Stochastic Differential Equations

Uncertainty in prediction and simulation of flow in sewer systems

Weather radars - A new pair of eyes for offshore wind farms?

Web server’s reliability improvements using recurrent neural networks
Introduction to general and generalized linear models
Publication: Research - peer-review › Book – Annual report year: 2011

Markov chain modeling of precipitation time series: Modeling waiting times between tipping bucket rain gauge tips
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Mechanism-based population modelling for assessment of L-cell function based on total GLP-1 response following an oral glucose tolerance test
Publication: Research - peer-review › Journal article – Annual report year: 2011

Meso-scale Wind Variability. Final Report
Publication: Research › Report – Annual report year: 2011

Models of the heat dynamics of solar collectors for performance testing
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

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

Online Short-term Solar Power Forecasting
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Online Short-term Solar Power Forecasting
Bacher, P., Madsen, H. & Nielsen, H. A. 2011
Publication: Research - peer-review › Poster – Annual report year: 2011

Parameter estimation in a simple stochastic differential equation for phytoplankton modelling
Møller, J. K., Madsen, H. & Carstensen, J. 2011 In : Ecological Modelling. 222, 11, p. 1793-1799
Publication: Research - peer-review › Journal article – Annual report year: 2011

Radar@Sea - Towards improving short-term wind power forecasts
Publication: Research › Poster – Annual report year: 2011

Scenario generation: A review
Publication: Research › Report – Annual report year: 2011

Short-Term Solar Collector Power Forecasting
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011
Spatio-temporal analysis and modeling of short-term wind power forecast errors
Publication: Research - peer-review › Journal article – Annual report year: 2011

Spatio-temporal correction of DONG forecast errors
Publication: Research › Report – Annual report year: 2011

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

Statistical Modeling of Long Historical Rain Series
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2011

Stochastic State Space Modelling of Nonlinear systems - With application to Marine Ecosystems
Publication: Research › Ph.D. thesis – Annual report year: 2012

Strategies for glucose control in people with type 1 diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

The Universal Primer - An open source solution for archiving, organizing and streaming live lectures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Nonlinear Stochastic Modelling of Antimicrobial resistance in Bacterial Populations
Publication: Research › Ph.D. thesis – Annual report year: 2010

Markov and mixed models with applications
Publication: Research › Ph.D. thesis – Annual report year: 2010

Self-Organising Distributed Control of a Distributed Energy System with a High Penetration of Renewable Energy
Publication: Research › Ph.D. thesis – Annual report year: 2010

Analysis of energy consumption in single family houses
Publication: Research › Article in proceedings – Annual report year: 2010

ARX MPC for people with type 1 diabetes
Calibration of Local Area Weather Radar-Identifying significant factors affecting the calibration
Publication: Research - peer-review › Journal article – Annual report year: 2010

Characterization and optimized control by means of multiparameter controllers
Publication: Research › Report – Annual report year: 2010

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

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

Dynamic testing, analysis and modelling
Bloem, J. J., Baker, P. H., Strachen, P., Madsen, H. & Vandaele, L. 2010 Stimulating increased energy efficiency and better building ventilation: Leading actions coordinated by INIVE EEIG and sources of other relevant information on EU level and IEA ECBCS projects. p. 473-500
Publication: Research - peer-review › Book chapter – Annual report year: 2010

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

Feedback, competition and stochasticity in a day ahead electricity market
Publication: Research - peer-review › Journal article – Annual report year: 2010

From State Dependent Diffusion to Constant Diffusion in Stochastic Differential Equations by the Lamperti Transform
Publication: Research › Report – Annual report year: 2010

Hidden Markov modelling of movement data from fish
Publication: Research › Ph.D. thesis – Annual report year: 2010

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

Implications and Limitations of Ideal Insulin Administration for People with Type 1 Diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010
Individual based population inference using tagging data
Publication: Research › Report – Annual report year: 2010

Mathematical and Statistical Models and Methods for Describing the Thermal Characteristics of Buildings
Publication: Research › Article in proceedings – Annual report year: 2010

Meal Estimation in Nonlinear Model Predictive Control for Type 1 Diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Modelling conjugation with stochastic differential equations
Publication: Research - peer-review › Journal article – Annual report year: 2010

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

Multivariate conditional parametric models for a spatio-temporal analysis of short-term wind power forecast errors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Nonlinear Model Predictive Control for an Artificial Beta-Cell
Publication: Research - peer-review › Book chapter – Annual report year: 2010

Non-linear phenomena in greybox-modeling of heat dynamics in buildings
Publication: Research › Article in proceedings – Annual report year: 2010

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

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

Optimal Insulin Administration for People with Type 1 Diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Predictive performance for population models using stochastic differential equations applied on data from an oral glucose tolerance test
Publication: Research - peer-review › Journal article – Annual report year: 2010
Procedure for identifying models for the heat dynamics of buildings: Financed by The Danish Electricity Saving Trust and Vind i Øresund - Interreg 4A
Publication: Research - peer-review › Report – Annual report year: 2010

Quantification of the spatial variability of rainfall based on a dense network of rain gauges
Pedersen, L., Jensen, N. E., Christiansen, L. E. & Madsen, H. 2010 In : Atmospheric Research. 95, 4, p. 441-454
Publication: Research - peer-review › Journal article – Annual report year: 2010

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

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

Robust model Identification applied to type 1diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Service-oriented Reliability Analysis for Collaborative Mechatronic Laboratories Involved in Virtual Training
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Statistical models describing the energy signature of buildings
Publication: Research › Article in proceedings – Annual report year: 2010

Predictive tools for designing new insulins and treatment regimens
Publication: Research › Ph.D. thesis – Annual report year: 2009

Data Assimilation in Marine Models
Publication: Research › Ph.D. thesis – Annual report year: 2009

Identification and Quantification of Uncertainties Related to Using Distributed X-band Radar Estimated Precipitation as input in Urban Drainage Models
Pedersen, L., Madsen, H. & Jensen, N. E. Aug 2009 Kgs. Lyngby, Denmark: Technical University of Denmark (DTU). (The PhD is an Industrial PhD and the work has been conducted in a cooperation between DHI Weather Radar Systems, (Chief Engineer, Niels Einar Jensen), and DTU Informatics, the Technical University of Denmark.).
Publication: Research › Ph.D. thesis – Annual report year: 2009

Adaptive modelling and forecasting of offshore wind power fluctuations with Markov-switching autoregressive models
Publication: Research › Report – Annual report year: 2009
Communication of wind power forecast uncertainty: towards a standard
Publication: Research › Report – Annual report year: 2009

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

Dynamic two state stochastic models for ecological regime shifts
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Publication: Research - peer-review › Journal article – Annual report year: 2009

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

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

A Grey Box Model for the Hydraulics in a Creek
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Publication: Research - peer-review › Report – Annual report year: 1998

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

An Introduction to CUSUM Charts for COntrolling Measurement Systems
Publication: Research - peer-review › Report – Annual report year: 1998
Nonlinear Filtering of Univariate Stochastic Volatility Models
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Online data validation: Outlier detection and accommodation
Publication: Research - peer-review › Report – Annual report year: 1998

On the Mathematics behind the CUSUM Control Charts
Publication: Research - peer-review › Report – Annual report year: 1998

SAS-makroer til estimation og prædiktion i elforbrugsmodel
Publication: Research - peer-review › Report – Annual report year: 1998

Some Tools for Identification of Nonlinear Time Series
Nielsen, H. A. & Madsen, H. 1998 Department of Mathematical Modelling, Technical University of Denmark. 27 p.
Publication: Research - peer-review › Report – Annual report year: 1998

Statistics in Finance
Publication: Education › Book – Annual report year: 1998

WPPT, A Tool for On-Line Wind Power Prediction
Publication: Research - peer-review › Report – Annual report year: 1998

A Method for Automatic Calibration of Parameters of an Integrated Model
Jacobsen, J. L., Madsen, H., Rauch, W. & Harremoes, P. 1997
Publication: Research - peer-review › Report – Annual report year: 1997

ARX-models with parameter variations estimated by local fitting
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

A Stochastic model for two-station hydraulics exhibiting transient impact
Publication: Research - peer-review › Journal article – Annual report year: 1997

Conditionally Parametric ARX-models for Modelling time delays in district heating systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

Control of Supply Temperature in District Heating Systems - An Application.
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997
Modelling of Hydraulic Robot
Publication: Research - peer-review › Report – Annual report year: 1997

Modelling the Embedded Rainfall Process using Tipping Bucket Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

On Optical Flow Estimation in Radar Images for Precipitation Forecasting
Publication: Research - peer-review › Book chapter – Annual report year: 1997

Using meteorological forecasts in on-line predictions of wind power.
Publication: Research - peer-review › Report – Annual report year: 1997

Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Application of a Thermal Network Model on Case 3. System Identification Competition
Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Publication: Research › Article in proceedings – Annual report year: 1996

Control of Supply Temperature: EFP 1323/93-07
Publication: Research - peer-review › Report – Annual report year: 1996

En Statistisk Bearbejdning af Slaggeanalyser og Forslag til Godkendelse af Slagger
Madsen, H. 1996
Publication: Research - peer-review › Report – Annual report year: 1996

Grey Box Modelling of Oxygen Levels in a Small Stream
Publication: Research - peer-review › Journal article – Annual report year: 1996

Interpretation of a pumping station as an on-line flow measurement
Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Modelling heat dynamics using thermal networks: Chapter 13 in System Identification Competition
Publication: Research › Article in proceedings – Annual report year: 1996
Modelling of Heat Dynamics using Thermal Networks: System Identification Competition
Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Modelling the transient impact of rain events on the oxygen content of a small creek
Jacobsen, J. L., Madsen, H. & Harremoes, P. 1996 *Water Science and Technology*. 33, 2, p. 177-185
Publication: Research - peer-review › Journal article – Annual report year: 1996

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

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

Predictive Control of Air Temperature in Greenhouses: 13th World Congress of IFAC, San Francisco, California, July 1996
Madsen, H. & Nielsen, B. 1996 *Predictive Control of Air Temperature in Greenhouses*. San Francisco: International Federation of Automatic Control
Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Sampling Techniques in stochastic differential equations: Conference on Mathematical Finance
Publication: Research › Article in proceedings – Annual report year: 1996

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

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

Experiment Design for Grey Box Identification
Publication: Research - peer-review › Journal article – Annual report year: 1995

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

Methodologies for the Analysis of Data from Sewers and Wastewater Treatment Plants
Publication: Research - peer-review › Article in proceedings – Annual report year: 1995

Methodologies for the Analysis of Data From Sewers and Wastewater Treatment Plants
Publication: Research › Article in proceedings – Annual report year: 1995
Model for brændselsforbrug og elproduktion på Korsør kraftvarmeværk
Publication: Research - peer-review › Report – Annual report year: 1995

Publication: Research - peer-review › Book – Annual report year: 1995

Optimal input design for fault detection and diagnosis
Publication: Research - peer-review › Article in proceedings – Annual report year: 1995

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

Identification of wastewater processes
Publication: Research › Ph.D. thesis – Annual report year: 1994

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

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

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

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

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

On Flow and Supply Temperature Control in District Heating Systems
Madsen, H. 1994 In : Heat Recovery Systems and CHP. 14, 6, p. 613-620
Publication: Research - peer-review › Journal article – Annual report year: 1994

Optimal experiment design for identification of grey-box models
Publication: Research - peer-review › Article in proceedings – Annual report year: 1994
Tidsrækkeanalyse: Time series analysis
Madsen, H. 1989 Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Publication: Education › Book – Annual report year: 1989

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
Publication: Research - peer-review › Journal article – Annual report year: 1988

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

Projects:

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

Stochastic Predictive Control of Wastewater Treatment Processes
Stentoft, P. A., Møller, J. K., Madsen, H., Mikkelsen, P., Munk-Nielsen, T. & Vezzaro, L.
15/09/2017 → 14/09/2020
Project: PhD

Stochastic Dynamic Optimization and Control Theory
Brok, N. L., Madsen, H., Jørgensen, J. B. & Poulsen, N. K.
01/09/2017 → 31/08/2020
Project: PhD

Tools for Reliable Energy Performance Characterisation of Buildings
Rasmussen, C., Madsen, H. & Rode, C.
01/01/2017 → 31/12/2019
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.
01/10/2016 → 30/09/2019
Project: PhD

Statistics and Data Analytics on Smart Zero
Wolf, S. & Madsen, H.
15/09/2016 → 14/09/2019
Project: PhD

Statistics and Data Analytics on Smart Zero
Wolf, S., Madsen, H. & Krogstie, J.
15/09/2016 → 14/09/2019
Project: PhD

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

Datadriven models for energy advising leading to behavioural changes in SMEs and residences
Liisberg, J. A. R., Møller, J. K., Bacher, P. & Madsen, H.
15/05/2016 → 14/05/2019
Project: PhD

Classification and aggregation of energy components
Richert, T. P., Bindner, H. W., Gehrke, O. & Madsen, H.
01/04/2016 → 31/03/2019
Project: PhD

Market Mechanisms for the integration of Distributed Energy Resources
De Zotti, G., Morales González, J. M. & Madsen, H.
01/04/2016 → 31/03/2019
Project: PhD

Sensor Based Process Monitoring of Large Scale Vacuum Casting Process
Nauheimer, M., Madsen, H., Kirkeby, K. & Olesen, B.
01/01/2016 → 31/12/2018
Project: PhD

Decision-making for the Management and Planning of Integrated Energy Systems
Blanco, I., Madsen, H., Morales González, J. M. & Kitzing, L.
01/11/2015 → 31/10/2018
Project: PhD

Analysis of high frequency (*smart meter*) energy consumption data
Tureczek, A. M., Nielsen, P. S. & Madsen, H.
01/08/2015 → 31/07/2018
Project: PhD

Nystrup, P., Madsen, H., Hansen, B. W., Larsen, H. O. & Lindstrøm, K. J. E. L.
15/11/2014 → 14/11/2017
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, B. & Poulsen, N. K.
01/09/2014 → 01/12/2017
Project: PhD

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

IEA EBC Annex 67 - Energy Flexible Buildings
Heller, A., Madsen, H., Gianniou, P. & Foteinaki, K.
01/06/2014 → 01/06/2019
Project
Waste-2-Energy Smart Grid Upgrade
Halvgaard, R. F. & Madsen, H.
02/04/2014 → 02/04/2016
Project

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

Center for IT-Intelligent Energy Systems for Cities
01/01/2014 → 31/12/2019
Project

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

Stochastic energy systems
15/12/2012 → 12/12/2016
Project: PhD

Adaptive Load Forecasting
Parvizi, J., Madsen, H., Sørensen, M. P., Petersen, S. & Sartori, I.
15/09/2012 → 31/07/2016
Project: PhD

Stochastic Model Predictive Control with Applications in Smart Energy Systems
01/07/2012 → 31/03/2016
Project: PhD

Methodologies for the economic and societal valuation of wind, energy storage and demand-side management in the electricity supply
Simonsen Nielsen, M. P., Pinson, P. & Madsen, H.
01/05/2012 → 30/04/2015
Project: PhD

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

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

Multivariate Probabilistic Forecasting for Energy Systems
01/10/2011 → 21/09/2015
Adaptive Load Forecasting
de Saint-Aubain, P. A. & Madsen, H.
15/09/2011 → 30/06/2012
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.
01/01/2011 → 25/09/2014
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.
01/11/2010 → 25/04/2014
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.
01/05/2010 → 24/01/2014
Project: PhD

Impact of Stochastic Generation on Electricity Market Dynamics
01/01/2010 → 30/08/2013
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.
01/11/2009 → 30/08/2013
Project: PhD

Model Predictive Control algorithms for pen and pump insulin administration
Boiroux, D., Jørgensen, J. B., Madsen, H., Poulsen, N. K., Sørensen, M. P., Knudsen, J. K. H. & del Re, L.
01/09/2009 → 22/11/2012
Project: PhD

Stokastisk dynamisk modellering til kort-tidsregulering af glukose/insulin-metabolismen
Duun-Henriksen, A. K., Madsen, H., Jensen, P. R., Christiansen, L. E., Andreassen, S. & Gabrielsson, J.
01/06/2009 → 12/12/2013
Project: PhD

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

Model based analysis of ethnic differences in Type 2 diabetes
01/10/2008 → 24/08/2012
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.
01/10/2008 → 24/08/2012
Project: PhD
Grey box Modelling of Hydraulic Systems
Thordarson, F. Ø., Madsen, H., Madsen, H., Poulsen, N. K., Rasmussen, M. R. & Willems, P.
01/10/2007 → 23/02/2012
Project: PhD

Framework for Real Time Control of Integrated Urban Wastewater Systems
Breinholt, A., Mikkelsen, P. S., Grum, M., Madsen, H., Bauer-Gottwein, P., Madsen, H. & Vanrolleghem, P.
01/09/2007 → 27/06/2012
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., Kariniotakis, G. & Lindström, E.
01/08/2007 → 12/12/2013
Project: PhD

Statistical modelling of tagging data from marine animals
Pedersen, M. W., Madsen, H., Thyrsgesen, U. H., Poulsen, N. K., Huse, G. & Zucchini, W.
01/07/2007 → 02/02/2011
Project: PhD

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

Identification of Ecological Thresholds of Sustainability in Marine Ecosystems
Møller, J. K., Madsen, H., Carstensen, N. J., Nielsen, B. F., Ditlevsen, S. & Guttorp, P.
01/08/2006 → 25/05/2011
Project: PhD

Improved Statistical Analysis of Sleep EEG Data in Relation to Pharmacokinetics
01/07/2006 → 10/02/2010
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.
01/07/2006 → 16/12/2009
Project: PhD

Methods for Investigation of QT Prolongations
Jónsdóttir, A. H. & Madsen, H.
01/04/2006 → 31/05/2010
Project: PhD

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

Automatisk kalibrering og attenuation korrektion i netværk af små vejrradar
Pedersen, L., Madsen, H., Jensen, N. E., Mikkelsen, P. S., Overgaard, S. & Sempere-Torres, D.
01/02/2006 → 26/08/2009
Project: PhD
Self-Organising Distributed Control of a Distributed Energy System with a High Penetration of Renewable Energy
01/04/2005 → 17/02/2010
Project: PhD

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

Conflict-based Method for Economical, Subsustainable, 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.
01/02/2004 → 25/09/2008
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. & Lübbert, A.
01/09/2003 → 02/06/2008
Project: PhD

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

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

Stokastisk dynamik i kompakte systemer
01/07/2002 → 25/10/2006
Project: PhD

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

Minimizing antibiotic resistance development MINIRESIST
11/01/2001 → 14/12/2013
Project

Data assimilation in atmosphere dispersion of radioactive material
Drews, M., Madsen, H., Lauritzen, B., Poulsen, N. K., Finck, R. R. & Holst, J.
01/10/2000 → 18/03/2005
Project: PhD

Data assimilering og autokalibrering i 2D/3D hydrodynamisk numerisk modellering af det marine miljø
Sørensen, J. V. T., Madsen, H., Madsen, H., Poulsen, N. K., Cañizares, R. & Heemink, A. W.
Nonlinear identification and optimal control of fed-batch processes
01/08/1999 → 24/03/2003
Project: PhD

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

Non- and semiparametric methods with applications in engineering
01/01/1999 → ...
Project

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

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

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

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

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

Efforbrugsmodeller for ELKRAFT-området
Madsen, H. & Nielsen, H. A.
01/12/1997 → 01/03/1998
Project

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

Center for IT-tools in the Energy Sector
Madsen, H. & Andersen, K. K.
01/09/1997 → 31/08/2001
Modellering og styring af sprøjtestøbeproces
Madsen, H., Spliid, H. & Thyregod, P.
01/08/1997 → 31/07/2000
Project

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

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

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.
01/04/1997 → 20/05/2003
Project: PhD

Multivariate Calibration in Optical Sensors
Madsen, H., Thyregod, P. & Øjelund, H.
01/04/1997 → 31/05/2001
Project

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

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

Estimation Techniques in Stochastic
Baadsgaard, M. & Madsen, H.
01/09/1996 → 01/09/1999
Project: PhD

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

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

Stochastic modelling of nonlinear systems
Nielsen, J. N., Madsen, H., Poulsen, N. K. & Ljung, L.
01/03/1996 → 29/03/2001
Project: PhD
Prædiktører i komplekse stokastiske systemer
Nielsen, H. A., Madsen, H. & Holst, J. J.
01/02/1996 → 25/09/2000
Project: PhD

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

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

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

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

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

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

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

Identification af modeller for kedel og varmeanlæg
Madsen, H., Hansen, L. H., Holst, J., Bidstrup, N. & Vadstrup, P.
01/06/1994 → 31/05/1997
Project

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

Tidsrækkeanalyse og Danamisk Modellering af Regnvands påvirkede Recipienter
Jacobsen, J. L. & Madsen, H.
01/04/1994 → ...
Project: PhD
Time series analysis and dynamic modelling of processes in rivers affected by precipitation runoff
Madsen, H., Jacobsen, J. L., Harremoes, P. & Linde Jensen, J. J.
01/04/1994 → 31/05/1997
Project

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

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

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

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

Udvikling, afprøvning og implementering af GPC-regulatorer i fjernvarmesystemer
Madsen, H. & Nielsen, T. S.
01/07/1993 → 30/06/1996
Project

Identifikation og styring af spildevandsprocesser
Carstensen, N. J., Madsen, H. & Harremoes, P.
01/01/1991 → ...
Project: PhD

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

Identifikation af dynamiske systemer i kontinuerligt tid
Melgaard, H., Madsen, H., Hendricks, E. & Holst, J.
01/03/1990 → 17/03/1995
Project: PhD

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

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

System til optimal regulering af fjernvarme produktion
Madsen, H., Nielsen, T. S. & Nielsen, H. A.
01/01/1988 → …
Project

Activities:

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

5-års seminar om Lavenergihuset i Sisimiut
Madsen, H. (Speaker)
2 Jun 2010
Activity: Other