Dynamical Systems - DTU Orbit (20/08/2018)

Dynamical Systems
Department of Applied Mathematics and Computer Science

Organisational unit: Section

Publications:

Spatio-temporal pattern formation in predator-prey systems with fitness taxis
Heilmann, I. T., Thygesen, U. H. & Sørensen, M. P. 1 May 2018 In : Ecological Complexity. 34, p. 44-57
Publication: Research - peer-review › Journal article – Annual report year: 2018

Electricity consumption clustering using smart meter data
Tureczek, A., Nielsen, P. S. & Madsen, H. 1 Apr 2018 In : Energies. 11, 4, 859
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

Adaptive model predictive control for a dual-hormone artificial pancreas
Publication: Research - peer-review › Journal article – Annual report year: 2018

A General Microscopic Traffic Model Yielding Dissipative Shocks
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

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

Carbon dioxide not suitable for extinguishment of smouldering silo fires: static electricity may cause silo explosion
Hedlund, F. H. 2018 In : Biomass & Bioenergy. 108, p. 113–119
Publication: Research - peer-review › Journal article – Annual report year: 2018

Chaos in Kuramoto Oscillator Networks
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

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

Closed loop identification of a piezoelectrically controlled radial gas bearing: Theory and experiment
Inferring parameters of prey switching in a 1 predator–2 prey plankton system with a linear preference tradeoff
Publication: Research - peer-review › Journal article – Annual report year: 2018

Integration of different CHP steam extraction modes in the stochastic unit commitment problem
Publication: Research - peer-review › Journal article – Annual report year: 2018

Kuldioxid er uegnet til kvælning af glødebrande
Hedlund, F. H. 2018 In : Dansk Kemi. 99, 1, p. 16-19
Publication: Communication › Journal article – Annual report year: 2018

Land-use planning risk estimates for a chemical industrial park in China - A longitudinal study
Publication: Research - peer-review › Journal article – Annual report year: 2018

Length measurement methods of Atlantic mackerel (Scomber scombrus) and Atlantic horse mackerel (Trachurus trachurus) – current practice, conversion keys and recommendations
Publication: Research - peer-review › Journal article – Annual report year: 2018

Minisymposium: New Developments in Models of Traffic and Crowds
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Modelling Clinic for Industrial Mathematics: A Collaborative Project Under Erasmus+ Program
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Modelling of fasting glucose-insulin dynamics from sparse data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Modelling of glucose-insulin dynamics from low sampled data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Multi-period portfolio selection with drawdown control
Publication: Research - peer-review › Journal article – Annual report year: 2018

Nonparametric Analysis of Nonlinear Distortions for Biomolecular Systems
Publication: Research - peer-review › Journal article – Annual report year: 2018

Optimal coordinated bidding of a profit-maximizing EV aggregator under uncertainty
Overnight glucose control in people with type 1 diabetes
Publication: Research - peer-review › Journal article – Annual report year: 2018

Physical-stochastic (greybox) modeling of slugging
Publication: Research - peer-review › Journal article – Annual report year: 2018

Polarization noise places severe constraints on coherence of all-normal dispersion femtosecond supercontinuum generation
Bravo Gonzalo, I., Engelsholm, R. D., Sørensen, M. P. & Bang, O. 2018 In : Scientific Reports. 8, 13 p., 6579
Publication: Research - peer-review › Journal article – Annual report year: 2018

Säkerhetsutmaningar med väte som energibärare
Hedlund, F. H. 2018 In : Kemivärlden Biotech med Kemisk Tidsskrift. 4, p. 23-26
Publication: Research - peer-review › Journal article – Annual report year: 2018

Scattering of flexural waves in Euler-Bernoulli beams by short-range potentials: Paper
Publication: Research - peer-review › Journal article – Annual report year: 2018

Silo response and safety: The dangers of using carbon dioxide to quench silo fires
Hedlund, F. H. & Nichols, J. 2018 In : Fire Fighting in Canada. 62, 3, p. 50-54
Publication: Research › Journal article – Annual report year: 2018

Silo response - The dangers of using carbon dioxide to quench silo fires
Hedlund, F. H. & Nichols, J. 2018 In : Canadian Biomass. 18, 2, p. 16-17
Publication: Communication › Journal article – Annual report year: 2018

Smart Buildings Retrofit Accelerator: "Making Housing Energy Renovation an Investment Opportunity"
Cali, D. & Rasmussen, C. 2018
Publication: Research - peer-review › Poster – Annual report year: 2018

Smart grids innovation challenge
Publication: Research - peer-review › Report chapter – Annual report year: 2018

Stort udslip af giftig gas ved aflæsning af madaffald (Major release of toxic gas while unloading food waste at biogas plant)
Hedlund, F. H. 2018 In : Dansk Kemi. 99, 5, p. 36-40
Publication: Communication › Journal article – Annual report year: 2018

Svovlbrinte stinker, men dræber uden lugt
Hedlund, F. H. 2018 In : Dansk Kemi. 99, 4, p. 6-7
Publication: Communication › Journal article – Annual report year: 2018

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Un tanque de levadura excedente falla con consecuencias catastróficas
Hedlund, F. H. & Selig, R. S. 2018 In : BRAUWELT En Español. 22, May, p. 76-79
Publication: Research › Journal article – Annual report year: 2018

Utilizing flexibility resources in the future power system operation: Alternative approaches
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Validation and optimization of air quality sensor based occupancy detection algorithms
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Wind Power Forecasting Based on Echo State Networks and Long Short-Term Memory
Publication: Research - peer-review › Journal article – Annual report year: 2018

WinProGen: A Markov-Chain-based stochastic window status profile generator for the simulation of realistic energy performance in buildings
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

Determination of thermal characteristics of standard and improved hollow concrete blocks using different measurement techniques
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

Condition monitoring of a rotor arrangement in particular a wind turbine
Niemann, H. H., Poulsen, N. K., Mirzaei, M. & Henrikson, L. C. 8 Jun 2017
Publication: Research › Patent – Annual report year: 2017

Inhomogeneous Markov Models for Describing Driving Patterns
Publication: Research - peer-review › Journal article – Annual report year: 2017

A combined experimental and simulation based approach to model the flow-front dynamics in the vacuum assisted resin transfer moulding process.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Adaptive control in an artificial pancreas for people with type 1 diabetes
Adaptive Unscented Kalman Filter using Maximum Likelihood Estimation
Publication: Research - peer-review » Journal article – Annual report year: 2016

A deep learning approach to adherence detection for type 2 diabetics
Publication: Research - peer-review » Article in proceedings – Annual report year: 2017

A Dynamic Characterization of Energy Flexibility
Publication: Research - peer-review » Conference abstract in proceedings – Annual report year: 2017

Aggregation model for curtailable generation and sheddable loads
Publication: Research - peer-review » Conference article – Annual report year: 2017

An Adaptive Nonlinear Basal-Bolus Calculator for Patients With Type 1 Diabetes
Publication: Research - peer-review » Journal article – Annual report year: 2017

An Aerial Robot for Rice Farm Quality Inspection With Type-2 Fuzzy Neural Networks Tuned by Particle Swarm Optimization-Sliding Mode Control Hybrid Algorithm
Publication: Research - peer-review » Journal article – Annual report year: 2018

Analysis of Trait-Based Models in Marine Ecosystems.
Publication: Research » Ph.D. thesis – Annual report year: 2017

An Efficient Robust Solution to the Two-Stage Stochastic Unit Commitment Problem
Publication: Research - peer-review » Journal article – Annual report year: 2017

An experimentally validated simulation model for a four-stage spray dryer
Publication: Research - peer-review » Journal article – Annual report year: 2017

An Improved Direction of Gradient-type Method for Large Scale Unconstrained Optimization
Publication: Research - peer-review » Journal article – Annual report year: 2017

Annex 67: Energy Flexible Buildings - Energy Flexibility as a key asset in a smart building future
Publication: Research » Report – Annual report year: 2018
A Robust Statistical Model to Predict the Future Value of the Milk Production of Dairy Cows Using Herd Recording Data
Publication: Research - peer-review › Journal article – Annual report year: 2017

År sprängplattan vänd åt rätt håll?
Hedlund, F. H. 2017 In : Kemivärlden Biotech med Kemisk Tidsskrift. 3, p. 22-23
Publication: Research › Journal article – Annual report year: 2018

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

Beskedent overtryk gav spektakulære følger
Hedlund, F. H. 2017 In : Kjemi. 77, 1, p. 16-18
Publication: Communication › Journal article – Annual report year: 2017

Biomass accident investigations – missed opportunities for learning and accident prevention
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

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

Blygsamt övertryck fick spektakulära följder
Hedlund, F. H. 2017 In : Kemivärlden Biotech med Kemisk Tidsskrift. 2, p. 21-23
Publication: Research - peer-review › Journal article – Annual report year: 2017

Comparison of Different Classification Algorithms for the Detection of User's Interaction with Windows in Office Buildings
Publication: Research - peer-review › Conference article – Annual report year: 2017

Comparison of three control strategies for optimization of spray dryer operation
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

Developing a simulation framework for safe and optimal trajectories considering drivers' driving style
Publication: Research - peer-review › Journal article – Annual report year: 2017

Dynamic Asset Allocation - Identifying Regime Shifts in Financial Time Series to Build Robust Portfolios
Dynamic portfolio optimization across hidden market regimes
Publication: Research - peer-review › Journal article – Annual report year: 2017

Dynamic Rearrangement of Cell States Detected by Systematic Screening of Sequential Anticancer Treatments
Publication: Research - peer-review › Journal article – Annual report year: 2017

Dynamics of a railway vehicle on a laterally disturbed track
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

Effect of different oral oxytetracycline treatment regimes on selection of antimicrobial resistant coliforms in nursery pigs
Publication: Research - peer-review › Journal article – Annual report year: 2017

Effect of tetracycline dose and treatment-mode on selection of resistant coliform bacteria in nursery pigs
Publication: Research - peer-review › Journal article – Annual report year: 2017

Er sprængpladen vendt korrekt?
Hedlund, F. H. 2017 In: Kjemi. 77, 1, p. 14-15
Publication: Communication › Journal article – Annual report year: 2017

Estimation of the transmission dynamics of African swine fever virus within a swine house
Publication: Research - peer-review › Journal article – Annual report year: 2017

Explosion i rötkammare med biogas
Hedlund, F. H. 2017 In: Kemivården Biotech med Kemisk Tidsskrift. 4, p. 20-23
Publication: Communication › Journal article – Annual report year: 2017

Fault and meal detection by redundant continuous glucose monitors and the unscented Kalman filter
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Fault diagnosis and condition monitoring of wind turbines
Publication: Research - peer-review › Journal article – Annual report year: 2018

Fighting Smoldering Fires in Silos – A Cautionary Note on Using Carbon Dioxide to Inert
Hedlund, F. H. 2017
Publication: Communication › Internet publication – Annual report year: 2017
Modelling the thermal properties of large diameter fibre ropes
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Multi-Period Trading via Convex Optimization
Publication: Research - peer-review › Journal article – 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: 2018

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

Risici ved midlertidige oplag af farligt gods.
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Sikring af risikovirksomheder
Hedlund, F. H. 2017 In : Dansk Kemi. 98, 6/7, p. 22-25
Publication: Communication › 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

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Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

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

Stochastic Greybox Modeling for Control of an Alternating Activated Sludge Process
Publication: Research › Report – Annual report year: 2017
Stochastic model of wind-fuel cell for a semi-dispatchable power generation
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Stochastic Programming for Fuel Supply Planning of Combined Heat and Power Plants
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Svigt af inertgas purge medførte eksplosion i beholder
Hedlund, F. H. 2017 In : Dansk Kemi. 98, 1/2, p. 12-15
Publication: Communication › Journal article – Annual report year: 2017

Synergies between energy supply networks
Publication: Research - peer-review › Editorial – Annual report year: 2017

Tank für Überschusshefe versagt – mit katastrophalen Folgen
Hedlund, F. H. & Selig, R. S. 2017 In : Brauwelt. 157, 8-9, p. 229-232
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Thermal stratification built up in hot water tank with different inlet stratifiers
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Urban runoff forecasting with ensemble weather predictions
Pedersen, J. W., Courdent, V. A. T., Vezzaro, L., Madsen, H. & Mikkelsen, P. S. 2017
Publication: Research - peer-review › Conference abstract for conference – 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 › Sound/Visual production (digital) – Annual report year: 2017

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Why is it so difficult to determine the lateral Position of the Rails by a Measurement of the Motion of an Axle on a moving Vehicle?
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剩余酵母罐出现故障-灾难性的后果
Hedlund, F. H. & Selig, R. S. 2017 In : Brauwelt International. 2, p. 9-11
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A Comparison of Dynamics in Two Models for the Spread of a Vector-Borne Disease
Active Fault Detection Based on a Statistical Test

Adaptive Test Schemes for Control of Paratuberculosis in Dairy Cows

A Data-Driven Bidding Model for a Cluster of Price-Responsive Consumers of Electricity

Adaptive and cow-specific decision support tool for control of mastitis

An Efficient UD-Based Algorithm for the Computation of Maximum Likelihood Sensitivity of Continuous-Discrete Systems

An Ensemble Nonlinear Model Predictive Control Algorithm in an Artificial Pancreas for People with Type 1 Diabetes


Application of the Continuous-Discrete Extended Kalman Filter for Fault Detection in Continuous Glucose Monitors for Type 1 Diabetes

Approaches for Accommodating Demand Response in Operational Problems and Assessing its Value

Associations between health, management and antimicrobial use in Danish swine and veal calves

Beskedent overtryk gave spektakulære følger
Hedlund, F. H. 2016 In : *Dansk Kemi*. 97, 4, p. 20-22
Capacity expansion of stochastic power generation under two-stage electricity markets
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Comparison of Three Nonlinear Filters for Fault Detection in Continuous Glucose Monitors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Compound waves in a higher order nonlinear model of thermoviscous fluids
Publication: Research - peer-review › Journal article – Annual report year: 2016

Detecting change points in VIX and S&P 500: A new approach to dynamic asset allocation
Publication: Research - peer-review › Journal article – Annual report year: 2016

Diagnosis of wind turbine rotor system
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Distributed Model Predictive Control for Smart Energy Systems
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Economic MPC for a linear stochastic system of energy units
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Economic valuation of heat pumps and electric boilers in the Danish energy system
Publication: Research - peer-review › Journal article – Annual report year: 2015
Modelling the glucose-insulin-glucagon dynamics after subcutaneous administration of native glucagon and a novel glucagon analogue in dogs
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Model of the Glucose-Insulin-Glucagon Dynamics after Subcutaneous Administration of a Glucagon Rescue Bolus in Healthy Humans
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Model Predictive Control of Sewer Networks
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Models to Estimate Lactation Curves of Milk Yield and Somatic Cell Count in Dairy Cows at the Herd Level for the Use in Simulations and Predictive Models
Publication: Research - peer-review › Journal article – Annual report year: 2016

MPC control of water supply networks
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Multistrain models predict sequential multidrug treatment strategies to result in less antimicrobial resistance than combination treatment
Ahmad, A., Zachariasen, C., Christiansen, L. E., Græsbøll, K., Toft, N., Matthews, L., Olsen, J. E. & Nielsen, S. S. 2016 In : B M C Microbiology. 16, 1, 10 p., 118
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Non-parametric method for separating domestic hot water heating spikes and space heating
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Löwe, R., Madsen, H. & McSharry, P. 2016 In : Water. 8, 3, 87
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Oscillating nonlinear acoustic shock waves
Pattern formation in annular systems of repulsive particles
Publication: Research - peer-review › Journal article – Annual report year: 2016

PK/PD modelling of glucose-insulin-glucagon dynamics in healthy dogs after a subcutaneous bolus administration of native glucagon or a novel glucagon analogue
Publication: Research › Report – Annual report year: 2016

Possible Power Estimation of Down-Regulated Offshore Wind Power Plants.
Publication: Research › Ph.D. thesis – Annual report year: 2016

Probabilistic Approaches to Energy Systems
Publication: Research › Ph.D. thesis – Annual report year: 2016

Probabilistic forecasting of the solar irradiance with recursive ARMA and GARCH models
Publication: Research - peer-review › Journal article – Annual report year: 2016

Probabilistic Forecasts of Wind Power Generation by Stochastic Differential Equation Models
Møller, J. K., Zugno, M. & Madsen, H. 2016 In : Journal of Forecasting. 35, April, p. 189-205
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Probing NWP model deficiencies by statistical postprocessing
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Real-Time Procurement Strategies of a Proactive Distribution Company with Aggregator-Based Demand Response
Publication: Research - peer-review › Journal article – Annual report year: 2016

Real-time Trading Strategies for Proactive Distribution Company with Distributed Generation and Demand Response.
Publication: Research › Ph.D. thesis – Annual report year: 2016

Short-term Probabilistic Forecasting of Wind Speed Using Stochastic Differential Equations
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Simulating the Epidemiological and Economic Impact of Paratuberculosis Control Actions in Dairy Cattle
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Publication: Research › Ph.D. thesis – Annual report year: 2018

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Thermal properties of Fiber ropes
Bossolini, E., Nielsen, O. W., Oland, E., Sørensen, M. P. & Veje, C. 2016
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Active Fault Diagnosis in Sampled-data Systems
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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 - peer-review › Journal article – Annual report year: 2015

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Publication: Research - peer-review › Journal article – Annual report year: 2015

A robust optimization approach to energy and reserve dispatch in electricity markets
Publication: Research - peer-review › Journal article – Annual report year: 2015

A smart rotor configuration with linear quadratic control of adaptive trailing edge flaps for active load alleviation
Publication: Research - peer-review › Journal article – Annual report year: 2015

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Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2015

Bi-hormonal control of blood glucose in people with type 1 diabetes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

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Publication: Research - peer-review › Conference article – Annual report year: 2015

Closed loop identification using a modified Hansen scheme: Paper
Publication: Research - peer-review › Journal article – Annual report year: 2015

Comparison of Linear and Nonlinear Model Predictive Control for Optimization of Spray Dryer Operation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
Comparison of Prediction Models for a Dual-Hormone Artificial Pancreas
Publication: Research - peer-review › Conference article – Annual report year: 2015

Comparison of two stochastic techniques for reliable urban runoff prediction by modeling systematic errors
Publication: Research - peer-review › Journal article – Annual report year: 2015

Consumption management in the Nord Pool region: A stability analysis
Publication: Research - peer-review › Journal article – Annual report year: 2015

Control of Electricity Load in Future Smart Cities
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Control of Electricity Loads in Future Electric Energy Systems
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Coupling of weather forecasts and smart grid-control of wastewater inlet to Kolding WWTP (Denmark)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Danish holsteins favor bull offspring: Biased Milk Production as a Function of Fetal Sex, and Calving Difficulty
Publication: Research - peer-review › Journal article – Annual report year: 2015

Decision Support Tools for Electricity Retailers, Wind Power and CHP Plants Using Probabilistic Forecasts
Publication: Research - peer-review › Journal article – Annual report year: 2015

Dynamic multi-stage dispatch of isolated wind–diesel power systems
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Economic Model Predictive Control for Large-Scale and Distributed Energy Systems
Publication: Research › Ph.D. thesis – Annual report year: 2015
Estimation of Parametric Fault in Closed-loop Systems
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Giebel, G., Göçmen Bozkurt, T., Sørensen, P. E., Réthoré, P.-E., Poulsen, N. K., Mirzaei, M., Skjelmose, M. R. & Kristoffersen, J. R. 2015
Publication: Research › Poster – Annual report year: 2015

High-Performance Small-Scale Solvers for Moving Horizon Estimation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Hydrodynamics studies of cyclic voltammetry for electrochemical micro biosensors
Publication: Research - peer-review › Journal article – Annual report year: 2015

iCull – A bioeconomic model for herd management and disease control
Kirkeby, C., Græsbøll, K., Nielsen, S. S., Christiansen, L. E., Toft, N. & Hisham Beshara Halasa, T. 2015
Publication: Research › Poster – Annual report year: 2015

Impact of forecast errors on expansion planning of power systems with a renewables target
Publication: Research - peer-review › Journal article – Annual report year: 2015

Integrated energy systems; aggregation, forecasting, and control
Publication: Research › Book chapter – Annual report year: 2015

Integrated energy systems modelling
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Intraday Trading of Wind Energy
Publication: Research - peer-review › Journal article – Annual report year: 2015

Introduction to Statistics - eNotes
Publication: Education › Internet publication – Annual report year: 2015

Kage årsag til iltmangel og indlæggelse på hospital
Hedlund, F. H. 2015 In: Dansk Kemi. 96, 12, p. 14-17
Publication: Research › Journal article – Annual report year: 2015
Limited area forecasting for wind energy scheduling
Publication: Research › Poster – Annual report year: 2015

Long memory of financial time series and hidden Markov models with time-varying parameters
Nystrup, P., Madsen, H. & Lindstrøm, E. 2015
Publication: Research - peer-review › Paper – Annual report year: 2015

Mean effective sensitivity for Mycobacterium avium subsp paratuberculosis infection in cattle herds
Kirkby, C., Græsbøll, K., Hisham Beshara Halasa, T., Toft, N. & Nielsen, S. S. 2015 In : B M C Veterinary Research. 11, 1, 6 p., 190
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Numerical Modeling of Microelectrochemical Systems
Publication: Research › Ph.D. thesis – Annual report year: 2015

Pharmacodynamic modelling of in vitro activity of tetracycline against a representative, naturally occurring population of porcine Escherichia coli
Publication: Research - peer-review › Journal article – Annual report year: 2015

Pharmacokinetic-Pharmacodynamic Model To Evaluate Intramuscular Tetracycline Treatment Protocols To Prevent Antimicrobial Resistance in Pigs
Pharmacokinetics Modeling of Glucagon and a Novel Glucagon Analogue after Subcutaneous Administration in Dogs

Real-time available power estimation for offshore wind power plants
Göçmen Bozkurt, T., Giebel, G., Sørensen, P. E., Réthoré, P.-E., Mirzaei, M., Poulsen, N. K., Skjelmose, M. R. & Kristoffersen, J. R. 2015

Regime-Based Versus Static Asset Allocation: Letting the Data Speak

Sampling and Pooling Methods for Capturing Herd Level Antibiotic Resistance in Swine Feces using qPCR and CFU Approaches

Simulating cyclic voltammetry under advection for electrochemical cantilevers

Space-time trajectories of wind power generation: Parameterized precision matrices under a Gaussian copula approach

Statistics for Finance

Stochastic Greybox Modeling of an Alternating Activated Sludge Process

Stochastic modelling of Listeria monocytogenes single cell growth in cottage cheese with mesophilic lactic acid bacteria from aroma producing cultures
A Decomposition Algorithm for Mean-Variance Economic Model Predictive Control of Stochastic Linear Systems

A finite-element method model for droplets moving down a hydrophobic surface

A Mean-Variance Criterion for Economic Model Predictive Control of Stochastic Linear Systems

A model predictive control strategy for the space heating of a smart building including cogeneration of a fuel cell-electrolyzer system

An Iterative Method for the Approximation of Fibers in Slow-Fast Systems

Application of Constrained Linear MPC to a Spray Dryer

A Reduced Dantzig-Wolfe Decomposition for a Suboptimal Linear MPC

Assessment of Model Predictive and Adaptive Glucose Control Strategies for People with Type 1 Diabetes

Association of MAP specific ELISA-responses and productive parameters in 314 Danish dairy farms
Græsbøll, K., Nielsen, S. S., Hisham Beshara Halasa, T., Kirkeby, C., Toft, N. & Christiansen, L. E. 2014

Association of map specific ELISA-responses and productive parameters in 367 danish dairy farms

Automatic Classification of Offshore Wind Regimes With Weather Radar Observations
Benefits and challenges of electrical demand response: A critical review
Publication: Research - peer-review › Journal article – Annual report year: 2014

Bifurcation analysis of a smoothed model of a forced impacting beam and comparison with an experiment
Elmegård, M., Krauskopf, B., Osinga, H. M., Starke, J. & Thomsen, J. J. 2014 In : Nonlinear Dynamics. 77, p. 951-966
Publication: Research - peer-review › Journal article – Annual report year: 2014

Bifurcation of learning and structure formation in neuronal maps
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

Coarse Analysis of Microscopic Models using Equation-Free Methods
Publication: Research › Ph.D. thesis – Annual report year: 2014

Coarse-grained particle model for pedestrian flow using diffusion maps
Publication: Research - peer-review › Journal article – Annual report year: 2014

CONTINEX: A Toolbox for Continuation in Experiments
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Controller modification applied for active fault detection
Publication: Research - peer-review › Article 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
Discussion of "Prediction intervals for short-term wind farm generation forecasts" and "Combined nonparametric prediction intervals for wind power generation"
Publication: Research - peer-review › Journal article – Annual report year: 2014

Drops on hydrophobic surfaces & vibrated fluid surfaces
Publication: Research › Ph.D. thesis – Annual report year: 2014

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

Economic Optimization of Spray Dryer Operation using Nonlinear Model Predictive Control
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Electricity market clearing with improved dispatch of stochastic production
Publication: Research - peer-review › Journal article – Annual report year: 2014

Equation-Free Analysis of Macroscopic Behavior in Traffic and Pedestrian Flow
Publication: Research - peer-review › Book chapter – Annual report year: 2014

Estimation of the Possible Power of a Wind Farm
Publication: Research - peer-review › Conference 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
Publication: Research - peer-review › Poster – Annual report year: 2015

Evaluation of Dynamical Downscaling Resolution Effect on Wind Energy Forecast Value for a Wind Farm in Central Sweden
Publication: Research › Poster – Annual report year: 2015
Optimal vaccination strategies against vector-borne diseases
Publication: Research - peer-review › Journal article – Annual report year: 2014

På dynamikken fik han skik - og Abelprisen til Sinai gik
Publication: Research › 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

Predictive Food Microbiology: new tools for risk assessment and dairy product development
Publication: Research › Ph.D. thesis – 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

Redefining the merit order of stochastic generation in forward markets.
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
Relative Lyapunov Center Bifurcations
Publication: Research - peer-review › Journal article – Annual report year: 2014

Reliability in the Power System Modeled in a Multi-Stage Stochastic Mixed Integer Programming Model
Simonsen Nielsen, M. P. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Retrospective community based explorative study on Cisplatin-based adjuvant chemotherapy vs. surgery only in completely resected stage IB non-small cell lung cancer (NSCLC)
Wallerek, S., Græsbøll, K. & Sørensen, J. B. 2014
Publication: Research - peer-review › Poster – 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

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

Unidirectionally Coupled Map Lattices with Nonlinear Coupling: Unbinding Transitions and Superlong Transients
Publication: Research - peer-review › Journal article – Annual report year: 2014

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: 2014

Wind economics
Publication: Research - peer-review › Book chapter – Annual report year: 2014

Wind resource assessment and wind power forecasting
Publication: Research - peer-review › Book chapter – Annual report year: 2014
Wind Speed Estimation and Parameterization of Wake Models for Downregulated Offshore Wind Farms
Göçmen Bozkurt, T., Giebel, G., Poulsen, N. K. & Mirzaei, M. 2014
Publication: Research - peer-review › Poster – Annual report year: 2014

Wind Speed Estimation and Parametrization of Wake Models for Downregulated Offshore Wind Farms within the scope of PossPOW Project
Publication: Research - peer-review › Conference article – Annual report year: 2014

Abelpris til Pierre Deligne for banebrydende matematisk rapsodi om de algebraiske ligninger geometri
Publication: Research › Journal article – 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

Adaptive Trailing Edge Flaps for Active Load Alleviation in a Smart Rotor Configuration
Bergami, L., Gaunaa, M., Poulsen, N. K. & Buhl, T. 2013 DTU Wind Energy. 308 p. (DTU Wind Energy PhD; No. 0020(EN)).
Publication: Research › Ph.D. thesis – Annual report year: 2013

A Grey-Box Model for Spray Drying Plants
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

An MPC approach to individual pitch control of wind turbines using uncertain LIDAR measurements
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

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

A Robust Optimization Approach to Energy and Reserve Dispatch in Electricity Markets
Publication: Research › Report – Annual report year: 2013

A simplified dynamic inflow model and its effect on the performance of free mean wind speed estimation
Publication: Research - peer-review › Journal article – Annual report year: 2013
Calculation of alternating current losses in stacks and coils made of second generation high temperature superconducting tapes for large scale applications
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

Comparing control strategies against foot-and-mouth disease: Will vaccination be cost-effective in Denmark?
Publication: Research - peer-review › Journal article – Annual report year: 2013

Computational Efficiency of Economic MPC for Power Systems Operation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

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

Controlling traffic jams by time modulating the safety distance
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Decisions on control of foot-and-mouth disease informed using model predictions
Publication: Research - peer-review › Journal article – Annual report year: 2013

Decisions on foot-and-mouth disease control informed by model prediction
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Discrimination ability of the Energy score
Publication: Research › Report – Annual report year: 2013
Frequency weighted model predictive control of wind turbine
Publication: Research - peer-review › Article in proceedings – 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

Guideline Adherence of Antithrombotic Treatment Initiated by General Practitioners in Patients With Nonvalvular Atrial Fibrillation: A Danish Survey
Publication: Research - peer-review › Journal article – Annual report year: 2014

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

Implementation of an integrated real-time control system of sewer system and waste water treatment plant in the city of Wilhelmshaven
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 › Paper – Annual report year: 2013

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

Kanalnetz- und Kläranlagenzuflusssteuerung am Beispiel des Einzugsgebiets Wilhelmshaven
Publication: Research - peer-review › Journal article – 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

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

Model Predictive Control of Wind Turbines using Uncertain LIDAR Measurements
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

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

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

Optimal vaccination scenarios against vector-borne diseases
Græsbøll, K., Enøe, C., Bødker, R. & Christiansen, L. E. 2013
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Optimization Under Uncertainty for Management of Renewables in Electricity Markets
322 p. (PHD-2013; No. 298).
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

Radial sine-Gordon kinks as sources of fast breathers
Publication: Research - peer-review › Journal article – Annual report year: 2013

Regime-based supervisory control to reduce power fluctuations from offshore wind power plants
IEEE, 6 p.
Publication: Research - peer-review › Article in proceedings – 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
Simulated effects of changes in herd sizes and densities with regard to FMD outbreaks in Denmark
Boklund, A., Christiansen, L. E., Hisham Beshara Halasa, T. & Enøe, C. 2013
Publication: Research - peer-review › Poster – Annual report year: 2013

Simulation of annual electric lighting demand using various occupancy profiles
Publication: Research - peer-review › Journal article – Annual report year: 2012

Simulation of Listeria monocytogenes single cell colonial growth
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Sizing of Microparticles from Angular Scattering Ratio
Hjorth, P. G. & Karamehmedovic, M. 2013
Publication: Research - peer-review › Paper – Annual report year: 2013

Solar/electric heating systems for the future energy system
Publication: Research - peer-review › 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

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

Stochastic control of traffic patterns
Gaididei, Y. B., Gorria, C., Berkemer, R., Christiansen, P. L., Kawamoto, A., Sørensen, M. P. & Starke, J. 2013 In : Networks and Heterogeneous Media. 8, 1, p. 261-273
Publication: Research - peer-review › Journal article – Annual report year: 2013

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 styling
Publication: Research › Journal article – Annual report year: 2013

Strategies for fitting nonlinear ecological models in R, AD Model Builder, and BUGS
Publication: Research - peer-review › Journal article – Annual report year: 2014

Subdural to subgaleal EEG signal transmission: The role of distance, leakage and insulating affectors
Publication: Research - peer-review › Journal article – Annual report year: 2013

The Potential of Economic Model Predictive Control for Spray Drying Plants
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

The range of attraction for light traps catching Culicoides biting midges
Publication: Research - peer-review › Poster – Annual report year: 2013

The range of attraction for light traps catching Culicoides biting midges
Publication: Research - peer-review › Poster – Annual report year: 2013

The range of attraction for light traps catching Culicoides biting midges (Diptera: Ceratopogonidae)
Publication: Research - peer-review › Journal article – Annual report year: 2013

Thermal Storage Power Balancing with Model Predictive Control
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

The smart grid research network: Road map for Smart Grid research, development and demonstration up to 2020
Publication: Research - peer-review › Report – Annual report year: 2013
New statistical approaches with consideration for extremes
Pinson, P. 2012
Publication: Research › Sound/Visual production (digital) – Annual report year: 2013

Optical characterisation of nanostructures using a discretised forward model
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Optimal reliability allocation for large software projects through soft computing techniques
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Susse Winther interviews Frank Hedlund in: [Når katastrofen rammer] /When disaster strikes: Hurricane Katrina
Hedlund, F. H. 2012 In : Fagmagasinet Samtænkning. p. 14-17
Publication: Communication › Journal article – Annual report year: 2012

Wind Turbine Control: Robust Model Based Approach
Publication: Research › Ph.D. thesis – Annual report year: 2013

The Matrix exponential, Dynamic Systems and Control
Publication: Research › Report – Annual report year: 2004

NNSYSID and NNCTRL Tools for system identification and control with neural networks
Nørgaard, M., Ravn, O. & Poulsen, N. K. 2001 In : Computing & control engineering journal. 12, 1, p. 29-36
Publication: Research - peer-review › Journal article – Annual report year: 2001

Projects:

Synchronization patterns in neural networks
Martens, E. A.
20/05/2018 → …
Project

Vascular network dynamics
Martens, E. A.
20/05/2018 → …
Project

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

Democratizing energy markets through the introduction of innovative flexibility-based demand response tools and novel business and market models for energy cooperatives
Azar, A. G., Relan, R., Bacher, P. & Madsen, H.
01/10/2017 → 30/09/2019
Project
Human Behavior of Track Pilot
Stockmarr, A. & Poulsen, N. K.
29/08/2016 → 07/02/2017
Project

Smart TSO-DSO interaction schemes, market architectures and ICT Solutions for the integration of ancillary services from demand side management and distributed generation
Azar, A. G., Madsen, H., Vardanyan, Y., Ebrahimy, R. & Dzamarija, M.
01/01/2016 → 31/12/2018
Project

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

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

iCull
Kirkeby, C. T., Hisham Beshara Halasa, T., Græsbøll, K., Christiansen, L. E., Toft, N. & Saxmose, S.
01/11/2013 → 31/10/2015
Project

Sizing of Microparticles from Angular Scattering Ratio
Karamehmedovic, M. & Hjorth, P. G.
22/10/2013 → 23/10/2013
Project

CITS - Copenhagen ITS
Høeg, P., Overton Chabre Holm, D., Starke, J., Bacher, P. & Nielsen, T. A. S.
01/10/2013 → 31/05/2014
Project

Activities:

Synchronization in stochastic oscillatory networks
Martens, E. A. (External examiner)
18 Jun 2018
Activity: Examinations and supervision › Internal examination

Polarization noise study in all-normal dispersion fiber supercontinuum generation
Bravo Gonzalo, I. (Speaker), Engelsonholm, R. D. (Other), Mieritz, A. F. (Other), Sørensen, M. P. (Other), Bang, O. (Other)
29 Jan 2018
Activity: Talks and presentations › Conference presentations

Chaotic Mean Field Dynamics In Two Populations of Phase Oscillators with Heterogeneous Phase-Lag
Martens, E. A. (Speaker)
2017
Activity: Talks and presentations › Conference presentations
Chimera states - mythological monsters from math arise in the real world
Martens, E. A. (Speaker)
2017
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

Controlling Chimeras
Martens, E. A. (Guest lecturer)
1 Dec 2017
Activity: Talks and presentations › Conference presentations

Speed of evolution in spatially extended habitats
Martens, E. A. (Guest lecturer)
Nov 2017
Activity: Talks and presentations › Conference presentations

Hvad spærer for god opklaring, læring og forebyggelse af ulykker
Hedlund, F. H. (Guest lecturer)
28 Nov 2017
Activity: Talks and presentations › Conference presentations

Security at chemical facilities – overview of different regulatory approaches taken in EU Member States
Hedlund, F. H. (Speaker)
2 Nov 2017
Activity: Talks and presentations › Conference presentations

Inferring feeding in Southern bluefin tuna from visceral temperature data using a mechanistic model of digestion
Thygesen, U. H. (Guest lecturer)
22 Sep 2017 → 27 Sep 2017
Activity: Talks and presentations › Conference presentations

ECSO 2017
Blanco, I. (Guest lecturer), Guericke, D. (Other)
20 Sep 2017 → 22 Sep 2017
Activity: Talks and presentations › Conference presentations

Sync patterns in phase oscillator community network structure
Martens, E. A. (Guest lecturer)
Aug 2017
Activity: Talks and presentations › Conference presentations

IFORS 2017
Blanco, I. (Speaker), Guericke, D. (Other)
17 Jul 2017 → 21 Jul 2017
Activity: Talks and presentations › Conference presentations

Decision-making for integrated energy systems
Guericke, D. (Invited speaker)
1 Jul 2017
Activity: Talks and presentations › Conference presentations

Konstantin Klemm
Martens, E. A. (Host)
Jun 2017 → Aug 2017
Activity: Hosting a guest lecturer
A Stochastic Method to Manage Delay and Missing Values for In-Situ Sensors in an Alternating Activated Sludge Process
Stentoft, P. A. (Speaker), Møller, J. K. (Other), Madsen, H. (Other), Mikkelsen, P. S. (Other), Thomas Munk-Nielsen (Other)
13 Jun 2017
Activity: Talks and presentations › Conference presentations

Dynamics Days Europe 2017
Martens, E. A. (Speaker)
5 Jun 2017
Activity: Talks and presentations › Conference presentations

DSWeb Magazine - The Dynamical Systems Web (Journal)
Martens, E. A. (Reviewer)
May 2017
Activity: Communication › Journal editor

Decision-making under uncertainty for energy companies in smart cities
Guericke, D. (Speaker), Blanco, I. (Other)
30 May 2017
Activity: Talks and presentations › Conference presentations

SMATAD 2017
Blanco, I. (Participant), Morales González, J. M. (Organizer)
8 May 2017 – 11 May 2100
Activity: Attending an event › Participating in or organising a conference

Chimera states-mythological monsters from mathsarise in the real world
Martens, E. A. (Guest lecturer)
Apr 2017
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

Tidligere uheld på biogas- og renseanlæg, herunder danske
Hedlund, F. H. (Speaker)
18 Nov 2016
Activity: Talks and presentations › Conference presentations

INFORMS Annual Meeting
Blanco, I. (Speaker), Morales González, J. M. (Other)
13 Nov 2016 → 17 Nov 2016
Activity: Talks and presentations › Conference presentations

Optimization challenges in the evolution of energy networks to smart cities.
Blanco, I. (Speaker), Morales González, J. M. (Other)
Activity: Talks and presentations › Conference presentations

Optimization challenges in the evolution of energy networks to smart grids
De Zotti, G. (Speaker)
Activity: Talks and presentations › Conference presentations

Smart Energy and Stochastic Optimization
De Zotti, G. (Participant)
30 May 2016 → 2 Jun 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.
A Data-driven Bidding Model for a Cluster of Price-responsive Consumers of Electricity
Morales González, J. M. (Invited speaker)
12 Jul 2015 → 17 Jul 2015
Activity: Talks and presentations › Conference presentations

Nordic Environmental Social Science Conference
Morales González, J. M. (Speaker)
9 Jun 2015 → 11 Jun 2015
Activity: Talks and presentations › Conference presentations

Statistical modelling for energy system planning
Morales González, J. M. (Organizer)
11 May 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Investigating the use of stochastic forecast for RTC of urban drainage systems
Löwe, R. (Lecturer)
25 Jun 2013
Activity: Talks and presentations › Conference presentations

Ude af øje, ude af sind, ude af kontrol: -er det sådan vores afløbssystemer skal fungere?
Löwe, R. (Lecturer)
13 Mar 2013
Activity: Talks and presentations › Conference presentations

Stochastic runoff forecasting and real time control of urban drainage systems
Löwe, R. (Lecturer)
11 Mar 2013
Activity: Talks and presentations › Conference presentations

Armax and Greybox Modeling in Water Systems
Löwe, R. (Lecturer)
1 Mar 2013
Activity: Other

Prizes:

Green Tech Challenge - Master Thesis
Peter Alexander Stentoft (Recipient), 23 Jun 2017
Prize: Prizes, scholarships, distinctions

Veolia Trophees Performance
Peter Alexander Stentoft (Recipient), 5 Dec 2017
Prize: Prizes, scholarships, distinctions

Press clippings:

Ekspert_ Forebyggelse af arbejdsulykker kræver ordentlig udredning
Frank Huess Hedlund
26/01/2017
1 media contribution
Risikoekspert: Hvor mange skal dø, før vi lærer noget?
Frank Huess Hedlund
25/01/2017
1 media contribution

Safety expert doubtful if root causes will be identified after Fredericia fire
Frank Huess Hedlund
05/02/2016
1 media contribution

When disaster strikes. On the balance between centralization of disaster response – and decentralization – the flexibility and improvisation, the ability to cope, a precondition for fast local decision making.
Frank Huess Hedlund
31/05/2012
1 item of media coverage