Cognitive Systems - Publications - DTU Orbit (16/03/2018)

A Diagnostic and Predictive Framework for Wind Turbine Drive Train Monitoring
Publication: Research › Ph.D. thesis – Annual report year: 2018

Altered auditory processing and effective connectivity in 22q11.2 deletion syndrome
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

Deep learning for automated drivetrain fault detection
Publication: Research - peer-review › Journal article – Annual report year: 2018

Design process robustness: A bi-partite network analysis reveals the central importance of people
Piccolo, S., Jørgensen, S. L. & Maier, A. 2018 In : Design Science Journal. 4, e1
Publication: Research - peer-review › Journal article – Annual report year: 2018

Functional Connectivity using a Wishart Mixture Model
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Optimizing targeted vaccination across cyber-physical networks: an empirically based mathematical simulation study
Publication: Research - peer-review › Journal article – Annual report year: 2018

Predictive assessment of models for dynamic functional connectivity
Publication: Research - peer-review › Journal article – Annual report year: 2017

Task-Modulated Cortical Representations of Natural Sound Source Categories
Publication: Research - peer-review › Journal article – Annual report year: 2018

Understanding predictability and exploration in human mobility
Publication: Research - peer-review › Journal article – Annual report year: 2018

How to target inter-regional phase synchronization with dual-site Transcranial Alternating Current Stimulation
Publication: Research - peer-review › Journal article – Annual report year: 2017

New frontiers of quantified self 3: Exploring understudied categories of users
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
Flexible non-linear predictive models for large-scale wind turbine diagnostics
Publication: Research - peer-review › Journal article – Annual report year: 2017

22q11.2 Deletion Syndrome Is Associated With Impaired Auditory Steady-State Gamma Response
Publication: Research - peer-review › Journal article – Annual report year: 2017

Active Self-Tracking of Subjective Experience with a One-Button Wearable: A Case Study in Military PTSD
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Active vibration-based structural health monitoring system for wind turbine blade: Demonstration on an operating Vestas V27 wind turbine
Tcherniak, D. & Molgaard, L. L. 2017 In : Structural Health Monitoring. 16, 5, p. 536-550
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

A Disentangled Recognition and Nonlinear Dynamics Model for Unsupervised Learning
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Alterations in the brain's connectome during recovery from severe traumatic brain injury: Protocol for a longitudinal prospective study
Publication: Research - peer-review › Journal article – Annual report year: 2017

An introduction to Deep learning on biological sequence data - Examples and solutions
Publication: Research - peer-review › Journal article – Annual report year: 2017

A pseudo-Voigt component model for high-resolution recovery of constituent spectra in Raman spectroscopy
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Bayesian inference for spatio-temporal spike-and-slab priors
Publication: Research - peer-review › Journal article – Annual report year: 2018

Bayesian Modelling of Functional Whole Brain Connectivity
Publication: Research › Ph.D. thesis – Annual report year: 2017
Bayesian state prediction of wind turbine bearing failure
Publication: Research - peer-review › Journal article – Annual report year: 2017

Boganmeldelse: Pascal - Matematik og mirakler
Publication: Communication › Literature review – Annual report year: 2017

Can smartphone-based electronic markers discriminate between patients with bipolar disorder, healthy first-degree relatives and healthy control individuals
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2017

Class attendance, peer similarity, and academic performance in a large field study
Publication: Research - peer-review › Journal article – Annual report year: 2017

Contact activity and dynamics of the social core
Publication: Research - peer-review › Journal article – Annual report year: 2017

Correlations between human mobility and social interaction reveal general activity patterns
Publication: Research - peer-review › Journal article – Annual report year: 2017

Data Mining and Visualization of Large Human Behavior Data Sets
Publication: Research › Ph.D. thesis – Annual report year: 2017

DeepLoc: prediction of protein subcellular localization using deep learning
Publication: Research - peer-review › Journal article – Annual report year: 2017

Deep recurrent conditional random field network for protein secondary prediction
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Difference-of-Convex optimization for variational kl-corrected inference in dirichlet process mixtures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

EEG Based Inference of Spatio-Temporal Brain Dynamics
Publication: Research › Ph.D. thesis – Annual report year: 2017
EEG in the classroom: Synchronised neural recordings during video presentation
Publication: Research - peer-review › Journal article – Annual report year: 2017

EEG source imaging assists decoding in a face recognition task
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Effective connectivity and gamma oscillations in a group at risk of psychosis
Publication: Research › Ph.D. thesis – Annual report year: 2017

Electrophysiological evidence for differences between fusion and combination illusions in audiovisual speech perception
Publication: Research - peer-review › Journal article – Annual report year: 2017

End-to-end information extraction without token-level supervision
Publication: Research - peer-review › Journal article – Annual report year: 2017

Enhancing User Experience in Next Generation Mobile Devices Using Eye Tracking as a Biometric Sensor
Publication: Research › Ph.D. thesis – Annual report year: 2017

Evidence of complex contagion of information in social media: An experiment using Twitter bots
Publication: Research - peer-review › Journal article – Annual report year: 2017

Examination of heterogeneous societies: Identifying subpopulations by contrasting cultures
Publication: Research - peer-review › Journal article – Annual report year: 2016

Excavating the mother lode of human-generated text: A systematic review of research that uses the Wikipedia corpus
Publication: Research - peer-review › Journal article – Annual report year: 2016

FindZebra - using machine learning to aid diagnosis of rare diseases
Publication: Research › Ph.D. thesis – Annual report year: 2017

Fostering Bilateral Patient-Clinician Engagement in Active Self-Tracking of Subjective Experience
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

From concept to in vivo testing: Microcontainers for oral drug delivery
Publication: Research - peer-review › Journal article – Annual report year: 2017
From Raw Data to Social Systems - Separating the Signal from the Noise in Smartphone Sensor Measurements
Publication: Research › Ph.D. thesis – Annual report year: 2017

Gaussian process based independent analysis for temporal source separation in fMRI
Publication: Research - peer-review › Journal article – Annual report year: 2017

Generative Temporal Modelling of Neuroimaging - Decomposition and Nonparametric Testing
Publication: Research › Ph.D. thesis – Annual report year: 2017

Gradient distortions in EEG provide motion tracking during simultaneous EEG-fMRI
Laustsen, M., Andersen, M., Madsen, K. H. & Hanson, L. G. 2017
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Hearables in hearing care: discovering usage patterns through IoT devices
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

High temperature SU-8 pyrolysis for fabrication of carbon electrodes
Publication: Research - peer-review › Journal article – Annual report year: 2017

Improved detection of chemical substances from colorimetric sensor data using probabilistic machine learning
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Inferring human intentions from the brain data
Publication: Research › Ph.D. thesis – Annual report year: 2017

Inferring Person-to-person Proximity Using WiFi Signals
Publication: Research - peer-review › Journal article – Annual report year: 2017

Infinite von Mises-Fisher Mixture Modeling of Whole Brain fMRI Data
Publication: Research - peer-review › Journal article – Annual report year: 2017

Large Scale Computing for the Modelling of Whole Brain Connectivity
Publication: Research › Ph.D. thesis – Annual report year: 2017

Modeling dynamic functional connectivity using a wishart mixture model
Modeling Structural Brain Connectivity
Publication: Research › Ph.D. thesis – Annual report year: 2017

Modeling the Temporal Nature of Human Behavior for Demographics Prediction
Publication: Research - peer-review › Book chapter – Annual report year: 2017

Modelling Digital Media Objects
Publication: Research › Ph.D. thesis – Annual report year: 2017

Multi-scale spatio-temporal analysis of human mobility
Publication: Research - peer-review › Journal article – Annual report year: 2017

On the Keyhole Hypothesis: High Mutual Information between Ear and Scalp EEG
Publication: Research - peer-review › Journal article – Annual report year: 2017

Open semantic analysis: The case of word level semantics in Danish
Nielsen, F. Å. & Hansen, L. K. 2017 Proceedings of 8th Language and Technology Conference. 5 p.
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Optimal allocation of reviewers for peer feedback
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Phenomenological theory of collective decision-making
Publication: Research - peer-review › Journal article – Annual report year: 2017

Probabilistic models for structured sparsity
Publication: Research › Ph.D. thesis – Annual report year: 2017

Quantifying Feedback – Insights Into Peer Assessment Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Quantifying functional connectivity in multi-subject fMRI data using component models
Publication: Research - peer-review › Journal article – Annual report year: 2016
The Bipolar Illness Onset study: research protocol for the BIO cohort study

The Choice of Prior in Bayesian Modeling of the Information Sampling Task
Axelsen, M. C., Jepsen, J. R. M. & Bak, N. 2017 In : Biological Psychiatry. 2 p.

The circle equation over finite fields

The GO-ACTIWE randomized controlled trial - An interdisciplinary study designed to investigate the health effects of active commuting and leisure time physical activity

The missing link: Predicting connectomes from noisy and partially observed tract tracing data

The role of gender in social network organization

Transformations Based on Continuous Piecewise-Affine Velocity Fields

Two subgroups of antipsychotic-naive, first-episode schizophrenia patients identified with a Gaussian mixture model on cognition and electrophysiology

Unraveling fermentation data – a Novozymes case study
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Using data- and network science to reveal iterations and phase-transitions in the design process

Using OR + AI to Predict the Optimal Production of Offshore Wind Parks: A Preliminary Study
Whole-brain functional connectivity predicted by indirect structural connections
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Why Do We Fall into Sync with Others? Interpersonal Synchronization and the Brain's Optimization Principle
Publication: Research - peer-review › Journal article – Annual report year: 2017

Working Memory Modulation of Frontoparietal Network Connectivity in First-Episode Schizophrenia
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New frontiers of quantified self 2: Going beyond numbers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Aberrant neural signatures of decision-making: Pathological gamblers display cortico-striatal hypersensitivity to extreme gambles
Publication: Research - peer-review › Journal article – Annual report year: 2016

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Guillot, G., Jónsson, H., Hinge, A., Manchih, N. & Orlando, L. 2016 In : Bioinformatics. 32, 7, p. 1106-1108
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Active vibration-based SHM system: demonstration on an operating Vestas V27 wind turbine
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Algebraic Varieties and System Design
Publication: Research › Ph.D. thesis – Annual report year: 2017

A locally adaptive normal distribution
Publication: Research - peer-review › Conference article – Annual report year: 2017

A Note on Powers in Finite Fields
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Archetypal Analysis for Modeling Multisubject fMRI Data
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A theory of solving TAP equations for Ising models with general invariant random matrices
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Autoencoding beyond pixels using a learned similarity metric
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Auxiliary Deep Generative Models
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Bayesian latent feature modeling for modeling bipartite networks with overlapping groups
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Bayesian leave-one-out cross-validation approximations for Gaussian latent variable models
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Brain-computer interfacing under distraction: an evaluation study
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Completely random measures for modelling block-structured sparse networks
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Publication: Research - peer-review › Journal article – Annual report year: 2016

Data-driven forward model inference for EEG brain imaging
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Decomposition and classification of electroencephalography data
Publication: Research › Ph.D. thesis – Annual report year: 2016

Design of Cognitive Interfaces for Personal Informatics Feedback
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Development and implementation of a PV performance monitoring system based on inverter measurements
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Development and validation of a colorimetric sensor array for fish spoilage monitoring
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Forward Models can be Inferred from EEG Data
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Forward Models can be Inferred from EEG Data
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Fundamental structures of dynamic social networks
Publication: Research - peer-review › Journal article – Annual report year: 2016

How to Train Deep Variational Autoencoders and Probabilistic Ladder Networks
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Independent vector analysis for capturing common components in fMRI group analysis
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Inferring Stop-Locations from WiFi
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Ladder Variational Autoencoder
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Literature, Geolocation and Wikidata
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Measure of Node Similarity in Multi-layer Networks
Publication: Research - peer-review › Journal article – Annual report year: 2016

Measuring Motion-Induced B0-Fluctuations in the Brain Using Field Probes
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Neural Markers of Responsiveness to the Environment in Human Sleep
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Obtaining Data on Hearing Experience Through Self-tracking
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Open Problem: Kernel methods on manifolds and metric spaces: What is the probability of a positive definite geodesic exponential kernel?
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Optimization of neural networks for time-domain simulation of mooring lines
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Oxytocin improves synchronisation in leader-follower interaction
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Prospective motion correction for MRI using EEG-equipment
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Resting-State Connectivity Predicts Levodopa-Induced Dyskinesias in Parkinson's Disease
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Retrieving Radio News Broadcasts in Danish: Accuracy and Categorization of Unrecognized Words
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Scalable Robust Principal Component Analysis Using Grassmann Averages
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Gil Carvajal, J. C., Cubick, J., Santurette, S. & Dau, T. 2016 In : Scientific Reports. 6, 10 p., 37342
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Spatio-temporal reconstruction of brain dynamics from EEG with a Markov prior
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Strategies of Legitimacy Through Social Media: The Networked Strategy
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Structural parcellation of the thalamus using shortest-path tractography
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Supervised hub-detection for brain connectivity
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Surface-enhanced Raman spectroscopic study of DNA and 6-mercapto-1-hexanol interactions using large area mapping
Syncopation affects free body-movement in musical groove
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Task relevance differentially shapes ventral visual stream sensitivity to visible and invisible faces
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The middle ear immune defense changes with age
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Towards Improving Overview and Metering through Visualisation and Dynamic Query Filters for User Interfaces Implementing the Stage Metaphor for Music Mixing
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Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
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Airway Inflammation in Chronic Rhinosinusitis with Nasal Polyps and Asthma: The United Airways Concept Further Supported
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A Random Riemannian Metric for Probabilistic Shortest-Path Tractography
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Dynamics of High-Resolution Networks
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Enhanced computational methods for quantifying the effect of geographic and environmental isolation on genetic differentiation
Publication: Research - peer-review › Journal article – Annual report year: 2016

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Guest Editorial: Machine Learning for Signal Processing
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Highly-Expressive Spaces of Well-Behaved Transformations: Keeping It Simple
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Statistical learning for predictive targeting in online advertising

Synchronised and complementary coordination mechanisms in an asymmetric joint aiming task

Systems for Personalization of Hearing Instruments: A Machine Learning Approach

Temporal fidelity in dynamic social networks

Testing Multimodal Integration Hypotheses with Application to Schizophrenia Data

The Danish 22q11 research initiative

The early maximum likelihood estimation model of audiovisual integration in speech perception


Thinking outside of the box or enjoying your 2 seconds of frame?
Topological Rankings in Communication Networks

Towards quantitative SERS detection of hydrogen cyanide at ppb level for human breath analysis

Tracking Human Mobility Using WiFi Signals

Towards quantitative SERS detection of hydrogen cyanide at ppb level for human breath analysis

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Action and Language Mechanisms in the Brain: Data, Models and Neuroinformatics
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