

Programme Benelearn 2017

TU Eindhoven

June 9–10, 2017

Friday, June 9 (location: Zwarte Doos)

09.00-09.30	Welcome with coffee and tea
09.30-09.45	Opening Benelearn 2017
09.45-10.30	Keynote Toon Calders — Data mining, social networks and ethical implications
10.30-11.15	Conference Track session 1
11.15-11.30	Coffee break
11.30-12.15	Conference Track session 2
12.15-12.20	Sponsor talk Itility
12.30-13.30	Lunch
13.30-14.15	Keynote Jean-Charles Delvenne — Dynamics and mining on large networks
14.15-15.15	Complex Networks Track session
15.15-15.30	Coffee break
15.30-16.45	Conference Track session 3
16.45-17.00	Break
17.00-18.00	Conference Track session 4
18.00-18.30	Walk to DAF Museum
18.30-22.00	Conference dinner

Saturday, June 10 (location: Auditorium)

09.00-09.30	Welcome with coffee and tea
09.30-10.15	Keynote Holger Hoos — The transformative impact of automated algorithm design: ML, AutoML and beyond
10.15-11.00	Industry Track session
11.00-11.15	Coffee break
11.15-12.30	Poster spotlights
12.30-13.30	Lunch
13.30-14.15	Keynote Max Welling — Generalizing Convolutions for Deep Learning
14.15-15.30	Deep Learning Track session
15.30-17.00	Poster session
17.00-18.00	Drinks

Oral Presentation Sessions

Conference Track session 1 (Friday)

- 10.30-10.45 Marcia Fissette, Bernard Veldkamp and Theo de Vries: *Text mining to detect indications of fraud in annual reports worldwide*
- 10.45-11.00 Veronika Cheplygina, Lauge Sorensen, David Tax, Marleen De Bruijne and Marco Loog: *Do you trust your multiple instance learning classifier?*
- 11.00-11.15 Marco Cox and Bert de Vries: *A Gaussian process mixture prior for hearing loss modeling*

Conference Track session 2 (Friday)

- 11.30-11.45 Piotr Antonik, Marc Haelterman and Serge Massar: *Predicting chaotic time series using a photonic reservoir computer with output feedback*
- 11.45-12.00 Sibylle Hess, Katharina Morik and Nico Piatkowski: *PRIMPing Boolean Matrix Factorization through Proximal Alternating Linearized Minimization*
- 12.00-12.15 Niek Tax, Natalia Sidorova and Wil M.P. van der Aalst: *Local Process Models: Pattern Mining with Process Models*

Conference Track session 3 (Friday)

- 15.30-15.45 Christina Papagiannopoulou, Stijn Decubber, Willem Waegeman, Matthias Demuzere, Niko Verhoest and Diego Miralles: *A non-linear Granger causality approach for understanding climate-vegetation dynamics*
- 15.45-16.00 Michiel Stock, Bernard De Baets and Willem Waegeman: *An Exact Iterative Algorithm for Transductive Pairwise Prediction*
- 16.00-16.15 Jacopo De Stefani, Gianluca Bontempi, Olivier Caelen and Dalila Hattab: *Multi-step-ahead prediction of volatility proxies*
- 16.15-16.30 Jesse Krijthe and Marco Loog: *Projected Estimators for Robust Semi-supervised Classification*
- 16.30-16.45 Björn Brodén, Mikael Hammar, Bengt J. Nilsson and Dimitris Paraschakis: *An ensemble recommender system for e-commerce based on Thompson Sampling*

Conference Track session 4 (Friday)

- 17.00-17.15 Sara Magliacane, Tom Claassen and Joris Mooij: *Ancestral Causal Inference*
- 17.15-17.30 Martin Atzmueller: *Exceptional Model Mining in Ubiquitous and Social Environments*
- 17.30-17.45 Martijn Van Otterlo and Martin Warnaar: *Towards Optimizing the Public Library: Indoor Localization in Semi-Open Spaces and Beyond*
- 17.45-18.00 Sebastijan Dumancic and Hendrik Blockeel: *An expressive similarity measure for relational clustering using neighbourhood trees*

Complex Networks Track session (Friday)

- 14.15-14.30 Dounia Mulders, Cyril de Bodt, Johannes Bjelland, Alex Pentland, Michel Verleysen and Yves-Alexandre de Montjoye: *Improving Individual Predictions using Social Networks Assortativity*
- 14.30-14.45 Xander Wilcke, Victor de Boer and Frank Van Harmelen: *User-Driven Pattern Mining on Knowledge Graphs: an Archaeological Case Study*
- 14.45-15.00 Leto Peel: *Graph-based semi-supervised learning for complex networks*
- 15.00-15.15 Martin Atzmueller, Lisa Thiele, Gerd Stumme and Simone Kauffeld: *Contact Patterns, Group Interaction and Dynamics on Socio-Behavioral Multiplex Networks*

Industry Track session (Saturday)

- 10.15-10.30 Lodewijk Nauta and Max Baak: *Eskapade: a lightweight, python based, analysis framework*
- 10.30-10.45 Dejan Radosavljevik and Peter van der Putten: *Service Revenue Forecasting in Telecommunications: A Data Science Approach*
- 10.45-11.00 Michiel van Wezel: *Predicting Termination of Housing Rental Agreements with Machine Learning*

Deep Learning Track session (Saturday)

- 14.15-14.30 Jakub Tomczak and Max Welling: *Improving Variational Auto-Encoders using convex combination linear Inverse Autoregressive Flow*
- 14.30-14.45 Nanne van Noord: *Normalisation for painting colourisation*
- 14.45-15.00 Julia Berezutskaya, Zachary V. Freudenburg, Nick F. Ramsey, Umut Güçlü and Marcel A.J. van Gerven: *Modeling brain responses to perceived speech with LSTM networks*
- 15.00-15.15 Niek Tax, Ilya Verenich, Marcello La Rosa and Marlon Dumas: *Predictive Business Process Monitoring with LSTMs*
- 15.15-15.30 Stefan Thaler, Vlado Menkovski and Milan Petkovic: *Towards unsupervised signature extraction of forensic logs*

Poster Session (Saturday)

Conference Track

- * Thijs van de Laar and Bert de Vries: *A Probabilistic Modeling Approach to Hearing Loss Compensation*
- * L.F.J.M. Kanters: *Extracting relevant discussion from Reddit Science AMAs*
- * Anouk van Diepen, Marco Cox and Bert de Vries: *An In-situ Trainable Gesture Classifier*
- * Piotr Antonik, Marc Haelterman and Serge Massar: *Towards high-performance analogue readout layers for photonic reservoir computers*
- * Ivan Veul: *Locally versus Globally Trained Word Embeddings for Automatic Thesaurus Construction in the Legal Domain*

- * Dounia Mulders, Michel Verleysen and André Mouraux: *Characterizing Resting Brain Activity to Predict the Amplitude of Pain-Evoked Potentials in the Human Insula*
- * Quan Nguyen, Bert de Vries and Tjalling Tjalkens: *Probabilistic Inference-based Reinforcement Learning*
- * Veselka Boeva, Milena Angelova and Elena Tsiporkova: *Identifying Subject Experts through Clustering Analysis*
- * Rianne Conijn and Menno Van Zaanen: *Identifying writing tasks using sequences of keystrokes*
- * Sergio Consoli, Jacek Kustra, Pieter Vos, Monique Hendriks and Dimitrios Mavroeidis: *Towards an automated method based on Iterated Local Search optimization for tuning the parameters of Support Vector Machines*
- * Lars Lundberg, Håkan Lennerstad, Eva Garcia-Martin, Niklas Lavesson and Veselka Boeva: *Increasing the Margin in Support Vector Machines through Hyperplane Folding*
- * Tom Viering, Jesse Krijthe and Marco Loog: *Generalization Bound Minimization for Active Learning*
- * Dimitris Paraschakis: *Towards an Ethical Recommendation Framework*
- * Antoine Adam and Hendrik Blockeel: *Constraint-based measure for estimating overlap in clustering*

Complex Networks Track

- * Leonardo Gutierrez Gomez and Jean-Charles Delvenne: *Dynamics Based Features for Graph Classification*
- * Marijn ten Thij and Sandjai Bhulai: *Harvesting the right tweets: Social media analytics for the Horticulture Industry*

Industry Track

- * Dirk Meijer and Arno Knobbe: *Unsupervised region of interest detection in sewer pipe images: Outlier detection and dimensionality reduction methods*
- * Martin Atzmueller, David Arnu and Andreas Schmidt: *Anomaly Analytics and Structural Assessment in Process Industries*
- * Maria Biryukov: *Comparison of Syntactic Parsers on Biomedical Texts*

Deep Learning Track

- * Jim Clauwaert, Michiel Stock, Marjan De Mey and Willem Waegeman: *The use of shallow convolutional neural networks in predicting promotor strength in Escherichia coli*
- * Decebal Constantin Mocanu, Elena Mocanu, Phuong Nguyen, Madeleine Gibescu and Antonio Liotta: *Big IoT data mining for real-time energy disaggregation in buildings*