

## PROGRAM BNAIC 2017 – GRONINGEN

WEDNESDAY NOVEMBER 8

8:30 – 9:00 REGISTRATION (Ground floor)

9:00 – 9:10 OPENING DAY 1 (Congreszaal)

9:10 – 10:30 PAPER SESSIONS

### MACHINE LEARNING (Congreszaal)

*Claudio Reggiani, Yann-Aël Le Borgne and Gianluca Bontemp*

Feature selection in high-dimensional dataset using MapReduce

*Dirk van der Hoeven and Tim van Erven*

Is Exponential Weights a Special Case of Mirror Descent

*Siamak Mehrkanoon and Johan A.K. Suykens*

Regularized Semi-Paired Kernel CCA for Domain Adaptation

*Lynn Houthuys, Zahra Karevan and Johan A. K. Suykens*

Multi-View LS-SVM for Temperature Prediction

### AGENT SYSTEMS (Room 1.04)

*Linford Goedschalk, Tibor Bosse and Marco Otte*

Get Your Virtual Hands Off Me! - Developing Threatening Agents Using Haptic Feedback

*Vincent Jaco Koeman, Koen Hindriks and Catholijn Jonker*

Omniscient Debugging for Cognitive Agent Programs

*Lenin Medeiros and Tibor Bosse*

An Empathic Agent that Alleviates Stress by Providing Support via Social Media

*Mike Ligthart, Olivier Blanson Henkemans, Koen Hindriks and Mark Neerincx*

Expectation Management in Child-Robot Interaction

### NATURAL LANGUAGE PROCESSING (Room 1.12)

*Mathijs Pieters and Marco Wiering*

Comparison of Machine Learning Techniques for Multi-label Genre Classification

*Verna Dankers, Aysenur Bilgin and Raquel Fernández*

Modelling the Generation and Retrieval of Word Associations with Word Embeddings

*Verna Dankers, Aysenur Bilgin and Raquel Fernández*

Modelling Word Associations and Interactiveness for Describer Agents in Word-Guessing Games

*Nikita Galinkin, Zoltán Szilávik, Lora Aroyo and Benjamin Timmermans*

Catch Them If You Can: Malicious Behavior Simulation in Deep Question Answering

10:30 – 11:00 COFFEE/TEA (Grand Café)

11:00 – 12:00 KEYNOTE LECTURE (Congreszaal)

Rineke Verbrugge

*Recursive Theory of Mind: Between Logic and Cognition*

12:00 – 13:00 LUNCH (Grand Café)

KION MEETING (Room 1.04)

13:00 – 14:00 PAPER SESSIONS

REINFORCEMENT LEARNING (Congreszaal)

*Nico Roos*

Learning-based diagnosis and repair

*Paul Ozkohen, Jelle Visser, Martijn van Otterlo and Marco Wiering*

Learning to Play Donkey Kong Using Neural Networks and  
Reinforcement Learning

*Thomas M. Moerland, Joost Broekens and Catholijn M. Jonker*

Learning Multimodal Transition Dynamics for Model-Based  
Reinforcement Learning

AGENT SYSTEMS (Room 1.04)

*Bram Wiggers and Harmen de Weerd*

The origin of mimicry: Deception or merely coincidence?

*Daniel Formolo and C. Natalie Van Der Wal*

Simulating Collective Evacuations with Social Elements

*Jens Nevens and Katrien Beuls*

The Effect of Tutor Feedback in Language Acquisition Models

UNCERTAINTY IN AI (Room 1.12)

*Remi Wieten, Floris Bex, Linda van der Gaag, Silja Renooij and Henry Prakken*

Refining a Heuristic for Constructing Bayesian Networks from  
Structured Arguments

*Johan Kwisthout*

The Parameterized Complexity of Approximate Inference in Bayesian  
Networks

*Sander Beckers and Joost Vennekens*

The Transitivity and Asymmetry of Actual Causation

14:00 – 14:15 COFFEE/TEA (Grand Café)

14:15 – 16:00

NVIDIA DEEP LEARNING WORKSHOP (Room 1.04)

IPN SIG AI MEETING (Room 1.12)

DEMONSTRATIONS (Rooms 1.08 and 1.09, Central hall 1<sup>st</sup> floor)

*Denis Steckelmacher, Hélène Plisnier, Diederik M. Roijers and Ann Nowé*

Hierarchical Reinforcement Learning for a Robotic Partially Observable Task

*Peter Vamplew, Dean Webb, Luisa M Zintgraf, Diederik M. Roijers, Richard Dazeley, Rustam Issabekov and Evan Dekker*

MORL-Glue: A Benchmark Suite for Multi-Objective Reinforcement Learning

*Tijn van der Zant*

RoboCup HQ: A new benchmark focusing on AI, HMI and Autonomous Agents

*Manon Legrand, Roxana Radulescu, Diederik M. Roijers and Ann Nowé*

The SimuLane Highway Traffic Simulator for Multi-Agent Reinforcement Learning

*Benjamin Timmermans, Zoltán Szilávik, Manfred Overmeen and Alessandro Bozzon*

ECrowd: Enterprise Crowdsourcing for Training Cognitive Systems using the Workforce

*Jonathan Gerbscheid, Thomas Groot and Arnoud Visser*

Intelligent News Conversation with the Pepper Robot

POSTERS (Central hall 1<sup>st</sup> floor)

*Diego Alvarez-Estevéz and Vicente Moret-Bonillo*

A Proposal to Solve Rule Conflicts in the Wang-Mendel Algorithm for Fuzzy Classification Using Evidential Theory

*William Kos, Marijn Schraagen, Matthieu Brinkhuis and Floris Bex*

Classification in a Skewed Online Trade Fraud Complaint Corpus

*Laura van der Lubbe and Tibor Bosse*

Studying Gender Bias and Social Backlash via Simulated Negotiations with Virtual Agents

*Marjolein Troost, Katja Seeliger and Marcel van Gerven*

Generalization of an Upper Bound on the Number of Nodes Needed to Achieve Linear Separability in Two-Layer Neural Networks

*Kim Veltman, Harmen de Weerd and Rineke Verbrugge*

Socially smart software agents entice people to use higher-order theory of mind in the Mod game

*Elie Merhej, Steven Schockaert, T. Greg McKelvey and Martine De Cock*

Recommending Treatments for Comorbid Patients Using Word-Based and Phrase-Based Alignment Methods

*Davide Dell'Anna, Mehdi Dastani and Fabiano Dalpiaz*

Reasoning about Norms Revision

*Jerome Renaux, Jan Ramon and Andrea Argentin*

I A Hierarchical Bayesian Network for the Optimization of SRM Assays

*Max van de Westelaken*

Agent-based Model of Crowd Shipping

*Hendrik Vincent Kooops, W. Bas de Haas, Jeroen Bransen and Anja Volk*

Chord Label Personalization through Deep Learning of Integrated Harmonic  
Interval-based Representations

*John Bruntse Larsen and Jørgen Villadsen*

An Approach for Hospital Planning with Multi-Agent Organizations

*David Stap, Bert Bredeweg and Natasa Brouwer*

Gamification for Learning by Modelling in Interactive Learning Environments

16:00 – 16:15 COFFEE/TEA (Grand Café)

16:15 – 17:15 KEYNOTE LECTURE (Congreszaal)

Luc Steels

*Digital Replicants and Mind-Uploading*

17:45 SOCIAL EVENT: VISIT MARTINITOREN (Martinikerkhof 3)

19:00 CONFERENCE DINNER ('t Feithhuys, Martinikerkhof 10)

## PROGRAM BNAIC 2017 – GRONINGEN

THURSDAY NOVEMBER 9

8:30 – 9:00 REGISTRATION (Ground floor)

9:00 – 9:10 OPENING DAY 2 (Congreszaal)

9:10 – 10:30 PAPER SESSIONS

### GAMES (Congreszaal)

*Gleb Polevoy and Mathijs de Weerd*

Competition between Cooperative Projects

*Gleb Polevoy and Mathijs de Weerd*

Reciprocation Effort Games

*Elias Fernández Domingos, Juan Carlos Burguillo and Tom Lenaerts*

Reactive Versus Anticipative Decision Making in a Novel Gift-Giving Game

*Qing Chuan Ye and Yingqian Zhang*

Participation Behavior and Social Welfare in Repeated Task Allocations

### KNOWLEDGE & REASONING (Room 1.04)

*Zhisheng Huang, Jie Yang, Frank Van Harmelen and Qing Hu*

Constructing Knowledge Graphs of Depression

*Rijk Mercur, Virginia Dignum and Catholijn Jonker*

Using Values and Norms to Model Realistic Social Agents

*Neil Yorke-Smith*

Evaluating Intelligent Knowledge Systems

*Henry Prakken*

On the Problem of Making Autonomous Vehicles Conform to Traffic Law

### MACHINE LEARNING (Room 1.12)

*David Roschewitz, Kurt Driessens and Pieter Collins*

Simultaneous Ensemble Generation and Hyperparameter Optimization for Regression

*Marieke van Vugt, Armin Brandt and Andreas Schulze-Bonhage*

Tracking Perceptual and Memory Decisions by Decoding Brain Activity

*Dimitrios Bountouridis, Dan Brown, Hendrik Vincent Koops, Frans Wiering and Remco C. Veltkamp*

Melody Retrieval and Classification Using Biologically-Inspired Techniques

*Mostafa Dehghani and Jaap Kamps*

Neural Ranking Models with Weak Supervision

10:30 – 11:00 COFFEE/TEA (Grand Café)

11:00 – 12:00 KEYNOTE LECTURE (Congreszaal)

*Marco Dorigo*

Swarm Robotics: Current Research Directions at IRIDIA

12:00 – 13:00 LUNCH (Grand Café)

13:00 – 14:00 FACT TALKS – FACULTY FOCUSING ON THE FACTS OF ARTIFICIAL INTELLIGENCE  
(Congreszaal)

*Bert Bredeweg*

Humanly AI: Creating smart people with AI

*Eric Postma*

Towards Artificial Human-like Intelligence

*Geraint Wiggins*

Introducing Computational Creativity

14:00 – 14:15 COFFEE/TEA (Grand Café)

14:15 – 15:45

BNVKI GENERAL ASSEMBLY (Congreszaal)

RESEARCH & BUSINESS SESSION (Room 1.04)

NVIDIA – *Guillaume Barat*

Target Holding – *Jean-Paul van Oosten*

Anchormen – *Arjen van Wijngaarden*

Sim-Cl – *Tijn van der Zant*

*Panel discussion*

POSTERS (Central hall 1<sup>st</sup> floor)

*Jonathan Hogervorst, Emmanuel Okafor and Marco Wiering*

Deep Colorization for Facial Gender Recognition

*Henry Maathuis, Luuk Boulogne, Marco Wiering and Alef Sterk*

Predicting Chaotic Time Series using Machine Learning Techniques

*Daphne Lenders and Willem Haselager*

‘Well, at least it tried’ The Role of Intentions and Outcomes in Ethically  
Evaluating Robot Actions

*Manon Legrand, Roxana Radulescu, Diederik M. Roijers and Ann Nowé*  
Neural Network Reuse in Deep RL for Autonomous Vehicles among Human Drivers

*Robin Manhaeve*  
Realtime Road User Detection with Single Pass Deep Learning

*Marten Schutten, Marco Wiering and Pamela MacDougall*  
Balancing Imbalances

*Jesse Bakker, Wouter Beek and Erwin Folmer*  
Should you link(ed) data?

*Michiel Van Lancker, Annemie Vorstermans and Mathias Verbeke*  
Customer Profiling based on Electronic Payment Transaction Data

*Sébastien Hoorens, Katrien Beuls and Paul Van Eecke*  
Constructions at Work! Visualising Linguistic Pathways for Computational Construction Grammar

*Stefan Huijser, Niels Taatgen and Marieke van Vugt*  
Distracted in a Demanding Task: A Classification Study with Artificial Neural Networks

*Marco Stam, Charlotte Gerritsen, Ward van Breda and Elias Krainsk*  
Assessing the Spatiotemporal Relation between Twitter Data and Violent Crime

*Florian Wimmerauer, Evgueni Smirnov and Matus Mihalak*  
Distribution-driven Regression Ensemble Construction for Time Series Forecasting

15:45 – 16:00 COFFEE/TEA (Grand Café)

16:00 – 17:00 KEYNOTE LECTURE (Congreszaal)

Laurens van der Maaten  
*From Visual Recognition to Visual Understanding*

17:00 – 17:30 CLOSING: AWARDS, BNAIC 2018 (Congreszaal)