

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; session chair: Martijn van Otterlo)

Claudio Reggiani, Yann-Aël Le Borgne and Gianluca Bontempi

Feature selection in high-dimensional dataset using MapReduce

Dirk van der Hoeven and Tim van Erven

Is Mirror Descent a Special Case of Exponential Weights?

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; session chair: Marieke van Vugt)

Linford Goedschalk, Tibor Bosse and Marco Otte

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

Vincent Jaco Koeman, Koen V. Hindriks and Catholijn M. 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 V. Hindriks and Mark Neerincx

Expectation Management in Child-Robot Interaction

NATURAL LANGUAGE PROCESSING (Room 1.12; session chair: Marco Wiering)

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 Descriptor 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; session chair: Diederik Roijers)

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; session chair: Harmen de Weerd)

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; session chair: Henry Prakken)

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

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

(Room 1.08)

Jonathan Gerbscheid, Thomas Groot and Arnoud Visser
Intelligent News Conversation with the Pepper Robot

(Central hall 1st floor)

Denis Steckelmacher, Hélène Plisnier, Diederik M. Roijers and Ann Nowé
Hierarchical Reinforcement Learning for a Robotic Partially Observable Task

(Room 1.09)

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 and Lars Zwanepol Klinkmeijer
RoboCup HQ: A new benchmark focusing on AI, HMI and Autonomous Agents
Manon Legrand, Roxana Rădulescu, 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

POSTERS (Central hall 1st 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

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

Fabiano Dalpiaz, Mehdi Dastani and Davide Dell'Anna

Reasoning about Norms Revision

Jérôme Renaux, Jan Ramon and Andrea Argentin

A Hierarchical Bayesian Network for the Optimization of SRM Assays

Max van de Westelaken and Yingqian Zhang

An Agent-Based Model for Feasibility and Diffusion of Crowd Shipping

Hendrik Vincent Koops, 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 Feithhuis, Martinikerkhof 10)

PROGRAM BNAIC 2017 – GRONINGEN

THURSDAY NOVEMBER 9

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

9:10 – 10:30 PAPER SESSIONS

GAMES (Congreszaal; session chair: Nico Roos)

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; session chair: Tibor Bosse)

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; session chair: Siamak Mehrkanon)

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. Velkamp

Melody Retrieval and Classification Using Biologically-Inspired Techniques

Mostafa Dehghani, Hamed Zamani, Aliaksei Severyn, Jaap Kamps and W. Bruce Croft
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; session chair: Tom Lenaerts)

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; session chair: Marco Wiering)

NVIDIA – *Guillaume Barat*

Target Holding – *Jean-Paul van Oosten*

Anchormen – *Arjen van Wijngaarden*

Sim-Cl – *Tijn van der Zant*

Panel discussion

POSTERS (Central hall 1st 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 F.G. Haselager

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

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

Robin Manhaeve, Luc De Raedt, Kurt De Grave and Laura Antanas
Realtime Road User Detection and Classification 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 Matúš Mihalák
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)