

**Second International Workshop on Intelligent Systems and
Computational Intelligence - WISCI 2019, March 28-29, 2019**
Bernoulli Institute for Mathematics, Computer Science and Artificial Intelligence

Attending the workshop sessions is free, students are very welcome to attend. Formal registration is not required, but a brief e-mail message would be appreciated if you plan to attend: m.biehl@rug.nl

Thursday, March 28, Computer Science Colloquium: Bernoulliborg, room 165 (5161.0165)

16:00 - 17:00 **Barbara Hammer**, CITEC, Bielefeld University, Germany

Interpretable models, learning with reject option, and learning with drift

Workshop Sessions, talks will be strictly limited to **15 minutes + 5 minutes** of discussion.

Friday, March 29, morning sessions: Bernoulliborg, room 165 (5161.0165)

08:50 - 09:00 **Opening**

Session I: Learning Vector Quantization

09:00 - 09:20 **Thomas Villmann**, Hochschule Mittweida, Germany

Investigation of activation functions for GLVQ

09:20 - 09:40 **Lars Holdijk**, University of Groningen & Porsche AG, Weissach, Germany

Robustness of Generalized LVQ methods vs. adversarial attacks

09:40 - 10:00 **Jensun Ravichandran**, Hochschule Mittweida, Germany

Dropout weights, not whisky

10:00 - 10:30 **Coffee Break**

Session II: Neural Networks

10:30 - 10:50 **Sascha Saralajew**, Hochschule Mittweida & Porsche AG, Weissach, Germany

Modeling negative reasoning in neural networks

10:50 - 11:10 **Nicola Strisciuglio**, University of Groningen, The Netherlands

The role of inhibition to improve robustness of convolutional neural networks

11:10 - 11:30 **Jan Philip Göpfert**, CITEC, Bielefeld University, Germany

Adversarial attacks hidden in plain sight

11:30 - 13:30 **Lunch Break**

Friday, March 29, afternoon sessions: Nijenborgh 4, room 0043 (5114.0043)

Session III: Life Science Applications

13:00 - 13:20 **Marika Kaden**, Hochschule Mittweida, Germany

Origin of life: mathematical approaches to compare RNA-sequences

13:20 - 13:40 **Rick van Veen**, University of Groningen & Philips Research Eindhoven, NL

Analysis of FDG-PET images for the diagnosis of neurodegenerative diseases

13:40 - 14:00 **Gert-Jan de Vries**, Philips Research Eindhoven, The Netherlands

Patient population exploration – gaining insights from patient data

14:00 - 14:30 **Coffee Break**

Session IV: Learning Scenarios

14:30 - 14:50 **Michiel Straat**, University of Groningen, The Netherlands

Online learning dynamics of ReLu neural networks

14:50 - 15:10 **Christina Göpfert**, CITEC, Bielefeld University, Germany

Semi-supervised learning: rate improvements through unlabeled data

15:10 - 15:30 **Discussion & Closing**

Friday, March 29, Computer Science Colloquium: Nijenborgh 4, room 0043 (5114.0043)

15:30 - 16:30 **Thomas Martinetz**, University of Lübeck, Germany

Multilayer relational networks