

6th Baltic-Nordic School on Neuroinformatics BNNI 2018

Understanding the Brain: from Neuroscience to Deep Learning

Ventspils, Latvia 11-13 June 2018

11 June 2018	Day 1	Auditorium
8.00 - 9.00	Registration.	Foyer
9.00 - 9.20	Opening and welcome	D104
<i>I-A session. Neuroinformatics methods in neuroscience and medicine.</i>		
9.20 - 10.40	Prof. B. Graham, Institute of Mathematics and Informatics, University of Stirling, UK From neurons and synapses to networks: Basics of Computational Neuroscience: Neurons and Synapses to Networks	D104
10.40 - 11.00	Coffee/Tea	Foyer
11.00 - 12.00	Dr. A.Roth, Wolfson Institute of Biomedical Research, University College London, UK Introduction to NEURON.	D104
12.00 - 12.40	Prof. A. Saudargiene, Neuroscience Institute, Lithuanian University of Health Sciences, Kaunas, Lithuania; Department of Informatics, Vytautas Magnus University, Kaunas, Lithuania Memory, learning and synaptic plasticity.	D104
12.40 - 13.40	Lunch.	TBA
13.40 - 14.40	Prof. P. Jedlicka, NeuroScience Center, Goethe-University, Frankfurt, Germany Compartmental models of neuronal excitability and plasticity in healthy and diseased hippocampus.	D104
14.40 - 15.40	Prof. D. Wojcik, Nencki Institute of Experimental Biology, Warsaw, Poland Extracellular electrophysiology from modeling perspective	D104
15.40 - 16.00	Coffee/Tea	Foyer
<i>I-B session. Computer exercises. Modeling the healthy brain</i>		
16.00 - 19.00	Prof. B. Graham, Institute of Mathematics and Informatics, University of Stirling, UK Dr. A.Roth, Wolfson Institute of Biomedical Research, University College London, UK Prof. A. Saudargiene, Neuroscience Institute, Lithuanian University of Health Sciences, Kaunas, Lithuania; Department of Informatics, Vytautas Magnus University, Kaunas, Lithuania Hands on NEURON software. Simulating synapses, neurons and networks in health.	D206
19.00 - 20.00	Coffee/Tea. Poster session and networking	Foyer
12 June 2018	Day 2	Auditorium
<i>I session. Neuroinformatics methods in neuroscience and medicine.</i>		
8.30 - 9.00	Morning Coffe/Tea	Foyer
9.00 - 10.00	Prof. M.-L.Linne, Tampere University of Technology, Finland; The Human Brain Project Introduction to Neuroinformatics: From wet-lab data, informatics tools and modeling of neuronal and glial functions to engineering applications	D104
10.00 - 11.00	Prof. G. Einevoll, UiO Department of Physics The Faculty of Mathematics and Natural Sciences, Norway Neuroscience with both hands – bridging brain scales with mathematics	D104
11.00 - 11.30	Coffee/Tea	Foyer
<i>II-A session. EEG/SEEG signal processing. Forward and Inverse modeling.</i>		
11.30 - 13.00	Prof. Louis Maillard / Olivier Aron, University of Lorraine, CRAN, France Clinical / Neuroscientific aspects of EEG and SEEG analysis.	D104
13.00 - 14.00	Lunch.	TBA
14.00 - 15.30	Prof. R.Ranta, University of Lorraine, CRAN, France EEG signal processing: from filtering and artifact removal algorithms to forward and inverse modeling.	D104
15.30 - 16.00	Coffee/Tea	Foyer
<i>II-B session. Computer exercises. Modeling head, simulating and localizing sources.</i>		
16.00 - 18.30	Prof. R.Ranta, University of Lorraine, CRAN, France Forward/Inverse modeling. EEG signal processing.	D206
20.00 - 23.00	Dinner and Networking	
13 June 2018	Day 3	Auditorium
<i>III-A session. From classical machine learning to deep learning algorithms.</i>		
8.30 - 9.00	Morning Coffe/Tea	Foyer
9.00 - 10.00	Ph.D. J. Hofmanis, Ph.D. G. Bergmanis-Korats Ventspils University of Applied Sciences, Smart Technology Research Centre, Ventspils, Latvia Introduction to Deep Learning: Object Detection using ConvNets Part I	D104
10.15 - 10.30	Coffee/Tea	Foyer
10.00 - 12.00	Ph.D. J. Hofmanis, Ph.D. G. Bergmanis-Korats Ventspils University of Applied Sciences, Smart Technology Research Centre, Ventspils, Latvia Introduction to Deep Learning: Object Detection using ConvNets Part II	D104
12.00 - 13.00	Lunch.	TBA
<i>III-B session. Computer exercises. Hands on DNN</i>		
13.00 - 17.00	Ph.D. J. Hofmanis, Ph.D. G. Bergmanis-Korats, Ventspils University of Applied Sciences, Ventspils, Latvia Introduction to Deep Learning: Data preparation, model training and deployment	D206
17.00 - 17.30	Farewell.	Foyer