

7th Baltic-Nordic School on Neuroinformatics BNNI 2019
Modeling Healthy and Diseased Brain: From Dendrites to
Neurons and Networks
Frankfurt am Main, Germany
26-28 August 2019

We invite

Advanced master students, doctoral students, and postdoctoral researchers are welcome to participate in the BNNI 2019 to be held at the FIAS, the Frankfurt Institute for Advanced Studies, Frankfurt Main, Germany in August 2019.

The Course

The course is interdisciplinary and covers modeling at different levels of organization of the brain, from single neurons to microcircuits and networks. We will focus on differences between healthy and diseased brains.

Participants will learn about compartmental and morphological modeling of synapses, dendrites and neurons, as well as simulating local field potentials (LFPs). The course combines lectures, tutorials and computer exercises. This summer school is the seventh in the series of the Baltic-Nordic Courses on Neuroinformatics (BNNI 2013 in Kaunas, Lithuania; BNNI 2014 in Tampere, Finland; BNNI 2015 in Tartu, Estonia; BNNI 2016 in Warsaw, Poland; BNNI 2017 in Kaunas, Lithuania; BNNI 2018 in Ventspils, Latvia).

Target audience

The target audience of the course will be advanced master students, doctoral students and postdoctoral researchers in biomedical and technology sciences, from medicine, biology, psychology, to mathematics, informatics, information technology, physics, chemistry, who would like to get an introduction to neuroinformatics and computational neuroscience. Some experience with programming and quantitative reasoning as well as strong interest in computational and mathematical modeling of the brain will be desirable but not necessary to benefit from the school. We will use the NEURON simulation environment for biophysical realistic models of neurons and the Matlab software package including the TREES toolbox. Desktop computers will be provided for the exercise part.

Important Dates

15 May 2019: Application deadline
1 June 2019: Acceptance notification
26 - 28 August 2019: School

Venue

The lectures will be held on 26th to 28th of August, 2019, at the:
Frankfurt Institute for Advanced Studies,
Ruth-Moufang-Straße 1, 60438 Frankfurt am Main, Germany.
Frankfurt is a very international city in the heart of Germany and Europe. The city centre combines the historic, medieval past with the modern, economic present. We are looking forward to welcoming you in Frankfurt!

More information and applications at

web.lsmuni.lt/bnni2019/en

Practical arrangements

The organizers will provide teaching materials, meals and coffee during the course. The participants are expected to cover their travel and health insurance expenses. There is a small fee to be paid (30 - 100 EUR).
If you are not sure whether you can afford it, apply anyway. We have some stipends for members of OCNS (www.cnsorg.org) to give away.
Student residence is provided and close to the campus in the Relexa hotel.

Faculty includes

Marja-Leena Linne, Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland
Bruce Graham, Institute of Mathematics and Informatics, University of Stirling, UK
Ausra Saudargiene, Neuroscience Institute, Lithuanian University of Health Sciences, Kaunas, Lithuania
Arnd Roth, Wolfson Institute of Biomedical Research, University College London, UK
Misha Tsodyks, Department of Neurobiology, Weizmann Institute of Science, Israel
Dieter Jäger, Biology Department, Emory University, Atlanta, USA
Gaute Einevoll, Norwegian University of Life Sciences & University of Oslo, Norway
Matthew Larkum, Neurocure Cluster of Excellence, Humboldt University, Berlin, Germany

Daniel Wojcik, Nencki Institute of Experimental Biology, Warsaw, Poland
Hermann Cuntz, ESI & FIAS, Frankfurt, Germany
Peter Jedlicka, ICAR3R, Justus Liebig University Gießen, Germany
Gilles Laurent, MPI for Brain Research, Frankfurt, Germany
Jochen Triesch, FIAS, Frankfurt, Germany
Tatjana Tchumatchenko, MPI for Brain Research, Frankfurt, Germany
Julijana Gjorgjieva, MPI for Brain Research, Frankfurt, Germany
Arvind Kumar, KTH Royal Institute of Technology, Stockholm, Sweden
Aiste Pranckeviciene, Lithuanian University of Health Sciences, Kaunas,
Lithuania
Viola Priesemann, MPI Göttingen, Germany
Matthias Kaschube, FIAS, Frankfurt, Germany

Organizing committee

Peter Jedlicka, ICAR3R, Justus Liebig University Gießen, Germany
Ausra Saudargiene, Neuroscience Institute, Lithuanian University of Health
Sciences, Kaunas, Lithuania
Marja-Leena Linne, Faculty of Biomedical Sciences and Engineering, Tampere
University of Technology, Tampere, Finland
Jochen Triesch, FIAS, Frankfurt, Germany

**We are looking forward to welcoming you at the BNNI 2019 in Frankfurt
am Main, Germany!**