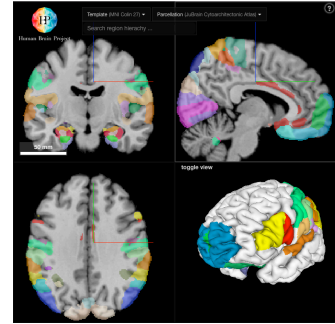


HBP School – The HBP Human Brain Atlas: Neuroscientific basis, tools and applications

Düsseldorf/Jülich, Germany | Maastricht, Netherlands

3-7 September 2018

<https://education.humanbrainproject.eu/web/hbp-school-the-hbp-human-brain-atlas/home>



Description

This HBP School will teach neuroanatomy and cognitive function of the human brain, including hands-on dissection courses, and give an overview about selected methodologies used in the Human Brain Project (HBP) to investigate the structural and functional organisation of the human brain. Students will receive hands-on training on the handling and usability of the Human Brain Atlas, part of the HBP Neuroinformatics Platform and an introduction to the services of the HBP High Performance Analytics and Computing Platform. The school programme also includes lectures on ethical implications and EU funding possibilities.

Participation information

Application is open to the entire student community and early career researchers, regardless of whether they are affiliated with the Human Brain Project or not.

Applications from young female investigators are highly encouraged.

A maximum of 40 participants will be selected by the Scientific Chair and the HBP Education Programme in a competitive selection process based on academic merit. Participants are required to submit an abstract on their current research, a CV and a motivation letter with their application.

Applicants selected for participation will be informed within three weeks after the application deadline.

Participation fee: 250 €

The fee does not include travel and accommodation. Fees will be collected after participants have been selected.

Application deadline: 27 June 2018

Programme structure

Lectures

Hands-on sessions & tutorials

Lab visits

Poster presentations

Social events

Scientific Chair

Katrin Amunts | Forschungszentrum Jülich, Heinrich Heine University Düsseldorf

Organised by

Sabine Bradler | Forschungszentrum Jülich

Viktoria Tipotsch | HBP Education Programme Office at Medical University Innsbruck

Contact

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Speakers and topics confirmed:

- **Katrin Amunts:** Welcome and introduction
Forschungszentrum Jülich and Heinrich Heine University Düsseldorf, Germany
- **Svenja Caspers:** Neuroanatomy and functional systems/Cytoarchitectonic mapping
Forschungszentrum Jülich and Heinrich Heine University Düsseldorf, Germany
- **Svenja Caspers, Nicola Palomero-Gallagher, Christiane Jockwitz, Sabine Bradler:** Hands-on dissection and hands-on digital dissection
Forschungszentrum Jülich, Germany
- **Nicola Palomero-Gallagher:** Neurotransmitter systems in brain function
Forschungszentrum Jülich, Germany
- **Dieter Sturma and Bert Heinrichs:** Ethics in the neurosciences
Forschungszentrum Jülich, University of Bonn, Germany
- **Claudia Häfner:** EU research funding: Horizon 2020 political background, funding opportunities and how to set thematic priorities
Forschungszentrum Jülich, Germany
- **Markus Axer:** Fibre architecture of the human brain (3D polarized light imaging)
Forschungszentrum Jülich, Germany
- **Markus Axer, Sabine Bradler/Sebastian Bludau, Sabrina Buller:** Lab visit – Brain slicing, light microscopy of brain slices and high throughput microscopy, polarized light imaging set-up
Forschungszentrum Jülich, Germany
- **Jean-Francois Mangin:** Variability of the cortical folding pattern and mapping of U-fiber bundles of white matter
Commissariat à l'Énergie Atomique, France
- **Svenja Caspers:** Diffusion-weighted MRI and aging (1000BRAINS)
Forschungszentrum Jülich and Heinrich Heine University Düsseldorf, Germany
- **Simon Eickhoff:** Functional MRI and functional connectivity modelling
Forschungszentrum Jülich and Heinrich Heine University Düsseldorf, Germany
- **Anna Lührs:** Introduction to the High Performance Analytics and Computing Platform and visit of Jülich supercomputers
Forschungszentrum Jülich, Germany
- **Rainer Goebel:** Resolving activity in cortical columns and cortical layers in the human brain with ultra-high field fMRI
Maastricht University, Netherlands

- **Alard Roebroek:** Multiscale imaging of the human brain with ultra-high field MRI and light sheet microscopy
Maastricht University, Netherlands
- **Mario Senden:** Co-Design Project 4 – From cognitive neuroscience to robotic applications
Maastricht University, Netherlands
- **Alard Roebroek:** MRI scanner visit – 7 & 9.4 Tesla
Maastricht University, Netherlands
- **Wim Vanduffel:** Bridging the gap between mice and humans – Comparative research in the Human Brain Project
KU Leuven, Belgium
- **Timo Dickscheid:** The Human Brain Atlas as a part of the Human Brain Project's Neuroinformatics Platform
Forschungszentrum Jülich, Germany
- **Sebastian Bludau:** Hands-on: Browsing reference atlases online
Forschungszentrum Jülich, Germany
- **Stefan Köhnen, Sara Zafarnia, Lyuba Zehl:** Tutorial: Bringing data to the HBP Atlas I – Metadata organisation and semantic data integration
Forschungszentrum Jülich, Germany
- **Yann Leprince, Stefan Köhnen:** Tutorial: Bringing data to the HBP Atlas II – Spatial anchoring of neuroscience data to atlases
Forschungszentrum Jülich, Germany
- **Timo Dickscheid:** Big data analytics for cellular-level brain mapping
Forschungszentrum Jülich, Germany
- **Timo Dickscheid, Anna Kreshuk:** Tutorial: Using the Neuroinformatics Platform to analyse data – Feature extraction from images using interactive machine learning
Forschungszentrum Jülich, University of Heidelberg, Germany

Keywords

Neuroanatomy, Cognitive function, Human Brain, Human Brain organisation, Human Brain Project Human Brain Atlas, Neuroinformatics, High Performance Computing, Ethics, EU funding possibilities