



GRADIENTS OF BRAIN ORGANIZATION

8:30 – 9:00

Registration & Coffee

9:00 – 9:15

Welcome

9:15 – 10:45

Methods and multimodal applications

Chairs: Sofie Valk and Jessica Royer

- Integrated Effective Connectivity Reveals Sensory-Fugal Hierarchy in the Human Brain
Younghyun Oh (Sungkyunkwan University, Korea)
- Multiparametric mapping of superficial white matter architecture using 7T quantitative MRI
Youngeun Hwang and Raul Rodriguez-Cruces (McGill University, Canada)
- Biologically annotated brain connectomes
Vincent Bazinet (McGill University, Canada)
- Uncovering principles of white matter organization in relation to cognition in youth
Joelle Bagautdinova (University of Pennsylvania, USA)
- Panel discussion

10:45 – 11:00

Coffee break

11:00 – 12:15

Gradients beyond the neocortex

Chairs: Boris Bernhardt and Shinwon Park

- Striatal connectivity gradients map onto cortico-striatal and dopaminergic projections across health and disease
Marianne Oldehinkel (Radboud University, Netherlands)
- Statistical mapping of cortico-subcortical gradients using geometric eigenmodes
Nikitas Koussis (University of Newcastle, Australia)
- Task-general connectivity model reveals variation in convergence of cortical input to cerebellum
Maedbh King (Massachusetts Institute of Technology, USA)
- Panel discussion

12:15 – 13:15

Lunch break



GRADIENTS OF BRAIN ORGANIZATION

13:15 – 13:30	Flash talks
13:30 – 14:45	<div>Gradients and artificial intelligence</div> <div>Chairs: Bo-yong Park and Seok-Jun Hong</div> <ul style="list-style-type: none">• GAN-MAT: Generative Adversarial Network-based Microstructural Profile Covariance Analysis Toolbox Yeong Jun Park (Sungkyunkwan University, Korea)• Adolescent maturation of cortical excitation-inhibition balance based on individualized and GPU-accelerated biophysical network modeling Amin Saberi (Max Planck Institute for Human Cognitive and Brain Sciences, Germany)• Title TBD Mashbayar Tugsbayar (Mila - Quebec AI Institute, Canada)• Panel discussion
14:45 – 15:00	Coffee break
15:00 – 16:15	<div>Gradients for individual phenotyping</div> <div>Chairs: Daniel Margulies and Sara Larivière</div> <ul style="list-style-type: none">• Variability in sensory-association axis, evidence from sex- and individual differences Bianca Serio (Max Planck Institute for Human Cognitive and Brain Sciences, Germany)• Using a neural state-space to understand cognition and behaviour Samyogita Hardikar (Max Planck Institute for Human Cognitive and Brain Sciences, Germany)• Motion Effects in Procrustes Aligned Individual-Level Gradients Leonard Sasse (Institute of Neuroscience and Medicine, Brain and Behaviour (INM-7), Germany)• Panel discussion
16:15 – 16:30	Closing comments
16:30 – 18:00	Poster session and cocktail