BigData approaches in genetics and brain imaging of complex human disorders

10:00 – 11:20 Genetics

- **10:00-10:20 Ole A. Andreassen:** CoE NORMENT - structure of the centre and scientific goals ([link](#))
- **10:20-10:35 Oleksandr Frei:** Introduction to genetics of complex traits
- **10:35-10:50 Alexey A. Shadrin:** Big Data genetics and methods ([link](#))
- **10:50-11:05 Shahram Bahrami:** ConjFDR and genetic overlap SCZ, BIP, MDD and BMI
- **11:05-11:20 Kevin O'Connell:** Personalized medicine, age of onset prediction (PHS)

11:30 – 12:20 iPSC modeling and Brain Imaging

- **11:30-11:50 Evgeniia Frei:** Human iPSC-based modeling of neuropsychiatric disorders - update from NORMENT ([link](#))
- **11:50-12:05 Jaroslav Rokicki:** Multimodal imaging - projects overview ([link](#))
- **12:05-12:20 Ivan Maximov:** Structural, functional and diffusion brain imaging applications

12:20 – 13:00 Lunch

13:00 – 15:00 Presentations from groups at MIPT, HSE and Skoltech Research

- **13:00 – 13:30 Alexander Melerzanov:** Biological and Medical Physics Research at MIPT
- **13:30 – 13:45 Vera Fominykh:** Autoimmune encephalitis: between autoimmune neurology and immunoneuropsychiatry
- **13:45 – 14:00 Ekaterina Chernyak**: Clinical Natural Language Processing
- **14:00 – 14:30 Konstantin Vorontsov:** Applications of topic modeling and non-negative matrix factorization
- **14:30 – 15:00 Dmitry Vetrov:** Using neural networks for approximate Bayesian inference

15:00 – 15:30 Potential projects and discussion