brainbox

initiative

Advanced Appliations of tES

Dec 4 - Dec 5

10:00 Welcome and introduction

10:30 Lecture: **The use of focal stimulation options and multi-electrode montages for targeted stimulation**

11:30 Practical session: **Setting up a focal stimulation study:**

- Single-channel stimulators
- Dedicated multi-channel stimulators
- Concentric ring stimulator setups
- Choosing the right electrodes

13:00 Lunch

14:00 Lecture: **Integrated multimodal applications using tES with MRI, EEG, TMS, or NIRS**

15:00 Practical session: **Integrated multimodal applications: tES with EEG and NIRS**

16:30 Group Q&A session

17:00 Wrap up day one

December 4

10:00 Lecture: **Using computational neurostimulation to understand what tDCS does**

Introduction of different modelling approaches and why these are relevant:
- Current flow modelling
- Neural network modelling

11:00 Practical session: **Current flow modelling for tES**

Delegates are encouraged to bring, if available, their own laptop with SimNIBS installed and their own anatomical MRI data:
- SimNIBS current modelling
- ROAST current modelling
- How to use and inspect models of current flow for both systems

13:00 Lunch

14:00 Practical session: **Neuronavigation for tES**

Using neuronavigation to identify electrode locations with respect to average or subject-specific MRI

15:00 Wrap up sessions: **Methods lab and group discussion**

Discuss and review delegates' concepts and ideas
Discuss the potential and relevance of tES in future research projects

16:30 Summary and close

December 5