



Fundamentals & Applications of tES Workshop

Programme

5 - 7 December, 2023

Welcome

Across three days, the Brainbox Initiative host a comprehensive workshop on transcranial-electrical stimulation (tES) techniques. This workshop brings together world-leading academic and technical experts in the field from the University College London, Imperial College London and Oxford University to provide attendees with a solid understanding of designing, setting up, carrying out, and analysing their own tES studies.

Location for Hybrid Attendies

Brainbox
The Creative Quarter, 8a,
Morgan Arcade,
Cardiff,
CF10 1AF



Programme Outline

This three-day workshop features the core lectures, discussions, and interactive practical demonstrations from our popular, in-person Fundamentals of tES and Advanced Applications of tES workshops, including:

- The basic principles and physiology of transcranial electrical stimulation;
- An overview of the various types of tES devices available and how to use these systems;
- Considerations for tES study designs, supplemented with group discussions to plan these studies;
- Demonstrations and examples of how to set up and execute a robust transcranial electrical stimulation session;
- Practical experience in using advanced current flow modelling techniques with ROAST and Neurophet tES Lab;
- and insights into advanced, multimodal applications of tES with MRI, EEG, fNIRS, TMS, and more.

Speakers

Professor Sven Bestmann, University College London (UCL)

Dr. Carys Evans, University College London (UCL)

Dr. Jenny Lee, University College London (UCL)

Dr. Danielle Kurtin, Imperial College London

Ketevan Alania, Imperial College London

Camille Lasbareilles, Oxford University

Dan Phillips, Brainbox

Mark Cawley, Brainbox

The knowledge gained in this workshop will provide attendees with all the required knowledge to design, set up, and carry out their own transcranial electrical stimulation study, and is suitable for both new users of tES, and those with existing knowledge of how to use this technique.

Programme is subject to change

DAY 1

12:30

Welcome & Introduction

13:00

Lecture: Basic Principles of tES Sven

14:00

Demonstration: Introduction to tES Devices

15:00

Break

15:10

Lecture: Considerations for tES Study Designs

16:10

Demonstration: HD-tDCS and Multi-Electrode Montage Setup

17:00

Workshop Day One End

DAY 2

10:00

Hybrid Sessions*

Practical tES Setup

12:00

Lunch

Virtual Sessions

13:00

Lecture: Integrated Multimodal Applications

14:00

Lecture: Introduction to Current Flow Modelling

16:00

Break

16:20

Demonstration: Current Flow Modelling

17:20

Workshop Day Two End

***In-person attendees only**

DAY 3

10:00

Hybrid Sessions*

Practical: Current Flow Modelling & Neuronavigation

12:00

Lunch

Virtual Sessions

13:00

Lecture: Temporal Interference

14:00

Demonstratino: Temporal Interference

15:00

Break

15:20

Demonstration: Full Set Up - Modelling to Electrode Prep

16:20

Methods Lab and Group Discussions

17:20

Workshop End

***In-person attendees only**



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