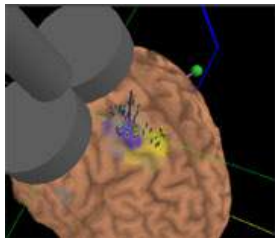


Toolkit of Cognitive Neuroscience: Transcranial Brain Stimulation September 22-25, 2015. Nijmegen, the Netherlands

This intensive four-day toolkit course will provide in-depth knowledge on transcranial magnetic stimulation (TMS) and transcranial current stimulation (tDCS/tACS). The course will cover both basic and advanced topics, discussing online and offline approaches of quantification, interference, and modulation of neural activity. We will specifically address multimodal applications of non-invasive brain stimulation, with a special emphasis on concurrent electroencephalography (EEG).



Source: [MagVenture](#),
C-B60 Butterfly coil



Source: [Localite](#),
TMS Navigator

The course involves a series of lectures from internal staff and external keynotes and hands-on training of stimulation application, data acquisition and data analysis. These address fundamental paradigms, such as single-pulse TMS, repetitive TMS, tDCS and tACS, and advanced topics, such as paired-pulse TMS and concurrent TMS-EEG, and MEG. Please see the program below for more details.

The participation fee is €300 for (PhD) students and €400 for more senior researchers. This includes coffee/tea, Dutch sandwich lunches, and social events. Because of space limitations the number of participants in the hands-on sessions is limited to 30.

Location: Donders Institute for Brain, Cognition and Behaviour
Centre for Cognitive Neuroimaging
Kapittelweg 29, 6525 EN Nijmegen

Organizers: Ian Cameron (ian.cameron@donders.ru.nl)
Dilene van Campen (advancampen@gmail.com)
Tom Marshall (t.marshall@donders.ru.nl)

Registration:
<http://www.ru.nl/donders/agenda-news/tool-kits-cognitive/transcranial-brain/>

We are happy to thank our sponsors:



Source: [Brain Products](#),
BrainCap TMS

PROGRAM

Tuesday 22nd of Sept 2015: TMS

09.00 - 10.00 **Registration & Coffee**

10.00 - 10.15 **Intro/Overview of toolkit**

Tom Marshall

10.15 - 10.45 **Physics of TMS**

Arno Janssen

10.45 - 11.45 **Experimental approaches & protocols & mechanisms**

Dilene van Campen

Break coffee (15 min)

12.00 - 13.00 **Keynote lecture:** title to be announced

Hartwig Siebner

13.00-14.00 Lunch & interaction with the Brain stimulation companies

14.00 - 14.30 **Safety aspects & guidelines**

Ian Cameron

14.30 - 15.00 **TMS intensities & thresholds**

Ruud Berkers

Break (15 minutes)

15.15 - 17.00 **HANDS ON / DEMO TMS**

Ian Cameron

17.00-17.45 **Honours Lecture** title to be announced

Lennart Verhagen

20.30 Social Drinks

Wednesday 23rd of Sept 2015: TCS

09.00 - 10:00 **Physics and Mechanisms of tCS**

Tom Marshall

10.15 - 11.00 **Approaches & protocols: TACS vs. TDCS**

Miles Wischnewski

Break (15 min)

11.15 – 12.15 **Keynote Lecture:** title to be announced

Jacinta O'Shea

12.15-13.15 Lunch & interaction with the Brain stimulation companies

13.15 - 15.15 **Safety & HANDS ON TCS**

Verena Ly

Break (15 min)

15:30- 17:00 **Discussion forum** (Panel discussion with Keynotes, Fellows and honours lectures)

Topics: Cognitive enhancement & ethics, Experimental design & control sessions, Mechanisms

17.00- 18.00 **Posters & drinks**

The goal of presenting a poster is to get feedback on any specific proposals/data from our experts.

You can choose to present whatever you would like. The organizers will also bring posters of our current work or future plans.

Social dinner (included)

Thursday 24th of Sept 2015: Multimodal Techniques

09.00 – 09.45 **TMS-EEG fundamentals**

Dilene Van Campen

break (15 min)

10.00 - 11.00 **keynote Lecture:** title to be announced

Gregor Thut

break (15 min)

11.00 – 12.30 **HANDS ON TMS-EEG & TCS-MEG DEMO**

Dilene van Campen/ Tom Marshall

12.45-13.30 Lunch

13.30 - 13.45 **Introduction to fieldtrip**

to be announced

13.45 - 14.15 **Introduction to analysis of TMS-EEG data**

Jim Herring

14:15 - 16.45 **HANDS ON TMS-EEG analyses**

Jim Herring

17.00 17.45 **Honours Lecture:** title to be announced

Til Ole Bergmann

20.30 Social drinks

Friday 25th of Sept 2015: Advanced Brain stimulation

09.30 – 10.30 **Connectivity and Plasticity**

Rogier Mars

10.30 - 11.15 **Brain stimulation & Imaging**

Ian Cameron

break (15 min)

11.30 - 12.00 **Clinical neurophysiology & advanced EMG**

Sigrid Dupan

11.45- 12.30 **Higher order cognitive functions**

to be announced

12.30-13.15 Lunch

13.15– 14.15 **Keynote lecture:** title to be announced

Julie Duqué

14.15- 14.30 Wrap up