

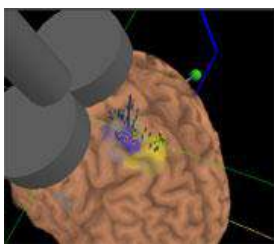


Toolkit of Cognitive Neuroscience: Transcranial Brain Stimulation June 14-17, 2016. Nijmegen, the Netherlands



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

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: [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 €350 for (PhD) students and €500 for more senior researchers. This includes coffee/tea, lunches, a dinner 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: Dilene van Campen (advancampen@gmail.com)
Ian Cameron (ian.cameron@donders.ru.nl)
Tom Marshall (t.marshall@donders.ru.nl)



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

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

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PROGRAM

Tuesday 14th of June 2016: TMS

09.00 - 10.00 **Registration & Coffee**

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

10.15 - 10.45 **Physics of TMS**

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

Tom Marshall

(to be announced)

Dilene van Campen

Break coffee (15 min)

12.00 - 13.00 **Keynote lecture:**

to be announced

13.00 - 14.00 Lunch & interaction with the brain stimulation companies

14.00 - 14.30 **Safety aspects & guidelines**

14.30 - 15.00 **TMS intensities & thresholds**

Ian Cameron

Ruud Berkers

Break (15 minutes)

15.15 - 17.45 **HANDS ON / DEMO TMS**

Ian Cameron/

Ruud Berkers

Social Drinks

Wednesday 15th of June 2016: TCS

09.30 - 10:15 **Physics and Mechanisms of tCS**

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

Tom Marshall

Miles Wischnewski

Break (15 min)

11.15 - 12.15 **Keynote Lecture:**

Michael Nitsche

12.15 - 13.15 Lunch & interaction with the brain stimulation companies

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

Break (15 min)

15:30- 17:00 **Discussion forum** (with Keynote Lecturers, Donders Fellows, and Researchers)

Topics: Experimental design & control sessions, Mechanisms, Ethics

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 16th of June 2016: Multimodal Techniques

09.30 - 10.30 **Connectivity and Plasticity**

10.30 - 11.15 **TMS-EEG fundamentals**

Rogier Mars
Dilene van Campen
/Jim Herring

Break (15 min)

11.30 - 12.00 **TCS-EEG/MEG fundamentals**

12.00 - 12.30 **Brain stimulation & Imaging**

Tom Marshall
Ian Cameron

12.30 - 13.30 Lunch & interaction with the brain stimulation companies

13.30 - 14.30 **Keynote Lecture:**

Nici Wenderoth

Break (15 min)

14.45 - 15.15 **Clinical neurophysiology & advanced EMG**

15.15 - 15.45 **Higher-order cognitive functions**

Dick Stegeman
(to be announced)

Break (15 min)

16.00 - 17.00 **HANDS ON TMS-EEG & TCS-MEG DEMO**

Dilene van Campen
/Tom Marshall /Jim Herring

20.00 Social drinks

Friday 17th of June 2016: Advanced Brain stimulation topics

09.15 - 09.15 **Introduction to fieldtrip**

(to be announced)

09.30 - 10.00 **Introduction to analysis of TMS-EEG data**

Jim Herring

10:00 - 12.30 **HANDS ON TMS-EEG analyses**

Jim Herring

12.30 - 13.30 Lunch & interaction with the brain stimulation companies

13.30 - 14.30 **Keynote lecture: Combined fMRI-TMS**

Alexander Sack

14.30 - 14.45 Wrap up