

Toolkit of Cognitive Neuroscience: Transcranial Brain Stimulation September 2-4, 2013. Nijmegen, the Netherlands

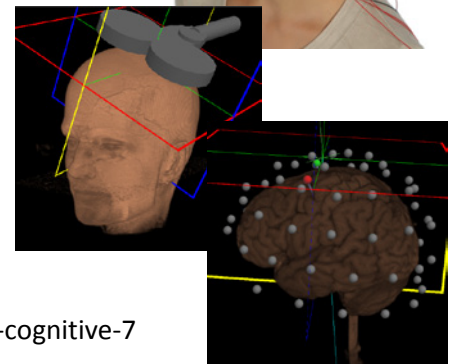


This intensive three-day toolkit course will provide in-depth knowledge on transcranial magnetic stimulation (TMS) and transcranial current stimulation (tDCS/tACS). The course will cover both basic and advanced topics, discussing online and offline approaches of quantification, interference, and modulation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



The course involves a series of lectures 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-tDCS-EEG. Keynote lectures will be given by Rogier Mars (Oxford), Jacinta O'Shea (Oxford), Alexander Sack (Maastricht), and Gregor Thut (Glasgow). Please see the program below for more details.

The participation fee is €150 for (PhD) students and €300 for more senior researchers. This includes coffee/tea, Dutch sandwich lunches, a social diner and drinks. Because of space limitations the number of participants in the hands-on sessions is limited to 30; please indicate your preference to join these additional sessions when registering.



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

Organizers: Lennart Verhagen (l.verhagen@donders.ru.nl)
Til Ole Bergmann (t.bergmann@donders.ru.nl)

Registration: www.ru.nl/donders/course-information/2013courses/toolkit-cognitive-7

Sponsors:



PROGRAM

Monday, September 2

morning

9:00		registration, coffee & tea	(canteen)
9:15	talk	overview	Til Ole Bergmann
9:30	talk	TMS physics & fundamentals	Arno Janssen
10:00	talk	TMS paradigms & approaches	Lennart Verhagen
10:45		coffee & tea, questions & discussion	
11:00	talk	TMS safety	Til Ole Bergmann
11:30	HANDS-ON	TMS fundamentals	Moniek Munneke
13:00		lunch	

afternoon

14:00	talk	mechanisms of online TMS	Lennart Verhagen
14:30	talk	mechanisms of offline TMS	Lennart Verhagen
15:15		coffee & tea, questions & discussion	
15:30	KEYNOTE	TMS & connectivity	Rogier Mars (Oxford)
17:00		coffee & tea, questions & discussion	
17:15	talk	how to determine TMS site and intensity	Marius Zimmermann
17:30	HANDS-ON	TMS neuronavigation & paired-pulse	Marius Zimmermann
18:30		end	
19:30		social event in town (included)	

Tuesday, September 3

morning

9:00	talk	tCS physics & fundamentals	Sumientra Rampersad
9:20	talk	tCS paradigms & approaches	Til Ole Bergmann
9:40	talk	mechanisms of online and offline tCS	Til Ole Bergmann
9:50	talk	tCS safety	Til Ole Bergmann
10:00		coffee & tea, questions & discussion	
10:15	talk	clinical neurophysiology & advanced EMG	Dick Stegeman
10:45	talk	clinical treatment	Moniek Munneke
11:15		coffee & tea, questions & discussion	
11:30	KEYNOTE	tDCS & plasticity	Jacinta O'Shea (Oxford)
13:00		lunch	

afternoon

14:00	HANDS-ON	tCS fundamentals	Sumientra Rampersad
15:15		coffee & tea, questions & discussion	
15:30	talk	brain stimulation & imaging	Tom Marshall
16:15		coffee & tea, questions & discussion	
16:30	KEYNOTE	concurrent TMS-fMRI-EEG	Alexander Sack (Maastricht)
18:00		end	
19:00		social event in town (included)	

Wednesday, September 4

morning

9:00	talk	TMS-EEG fundamentals	Til Ole Bergmann
9:45		coffee & tea, questions & discussion	
10:00	KEYNOTE	TMS-EEG & oscillations	Gregor Thut (Glasgow)
11:15		coffee & tea, questions & discussion	
11:30	HANDS-ON	TMS-tCS-EEG acquisition	Jim Herring
13:00		lunch	(during hands-on)

afternoon

14:00	talk	introduction to FieldTrip	Robert Oostenveld
14:15	talk	TMS-EEG analyses	Jim Herring
14:45		coffee & tea, questions & discussion	
15:00	HANDS-ON	TMS-EEG analyses	Jim Herring
17:30	talk	discussion, testimonial & closing	Lennart & Til
18:00		end	