

BrainSTIM 2023 program

Friday June 2

8:00-8:45	Registration, coffee & poster set-up
8:45-9:00	Opening: Vincent Clark
9:00-10:15	Keynote 1: Risto Ilmoniemi & Ulf Ziemann <i>Connecting to human brain networks with radically novel TMS technology</i> Chair: Vincent Clark
10:15-11:15	Oral session 1: TMS-EEG (4 x 10 min), chair Timo Roine 1. Ilenia Paparella: <i>GABA concentration relates to physiological measures of synaptic activity in the human motor cortex</i> 2. Gabriel Hassan: <i>TMS-EEG unveils reactivity changes in the occipital cortex of blind individuals</i> 3. Mohammad Daneshzand: <i>Combining a modular multichannel 3-axis TMS coil array with concurrent EEG acquisition</i> 4. Joonas Laurinoja: <i>Feasibility of EEG phase estimation towards closed-loop TMS-EEG inside MRI</i>
11:15-11:45	Coffee break
11:45-12:30	Keynote 2: Juho Joutsa <i>From brain lesions to brain stimulation targets</i> Chair: Satu Jääskeläinen
12:30-14:00	Lunch + Posters + Exhibition
14:00-14:45	Oral session 2 (6 x 4 min), chair Hanna Renvall 1. Orsolya Karácsony: <i>The effect of visual stimuli with an information content on epileptic severity</i> 2. Daniela Rodriguez Manrique: <i>Electrode localisation for electrical field (EF) modelling in tDCS studies using magnetic resonance</i> 3. Jordan Van Zyl: <i>tDCS for Cognitive Enhancement in Alzheimer's Disease: A Randomized Clinical Trial with Neuroimaging</i> 4. Fernando Galaz Prieto: <i>Metaheuristic L1-L1 method in optimizing focal multi-channel tES montages</i> 5. Rajat Joshi: <i>Behavioural validation of individualised low-intensity transcranial electrical stimulation protocols</i> 6. Elena Bondi: <i>The awe experience: a VR-TMS-EEG study</i>
14:45-15:00	Science Factory greetings
15:00-15:30	Coffee break
15:30-16:15	Keynote 3: Christoph Herrmann <i>First simulate then stimulate: Using brain imaging to improve brain stimulation</i> Chair: Risto Ilmoniemi
16:15-16:30	Break
16:30-17:30	<i>Reliability of TMS-EEG</i> , panel discussion with Marta Bortoletto Ulf Ziemann Hartwig Siebner Mario Rosanova Chair: Tuomas Mutanen
18:00	Departure for cruise to dinner
18:00-23:00	Cruise + dinner

Saturday June 3

8:30-9:00 Registration, coffee

Keynote 4: Charlotte Stagg

9:00-9:45 *Combining multimodal imaging and non-invasive brain stimulation to study human motor control*

Chair: Til Ole Bergmann

9:45-10:00 Break

Oral session 3 (5 x 10 min), chair Christoph Herrmann

- 10:00-11:15
1. David Haslacher: *Enhancement and suppression of brain oscillations using closed-loop tACS*
 2. Sampsa Pursiainen: *Metaheuristic L1 fitted and regularized (L1-L1) optimization in multi-channel DBS*
 3. Adrianna Giuffre: *TMS biomarkers predict postsurgical seizure outcomes in patients with refractory focal epilepsy*
 4. Stephanie Lefebvre: *Linking altered cortical excitability to neural substrates of the motor network in schizophrenia*
 5. Shokoofeh Parvin: *Effect of stimulus orientation and paired-pulse protocol on the spatial activation of forearm muscle*

11:15-11:45 Coffee break

Keynote 5: Hanna Renvall

11:45-12:30 *Magnetoencephalography - from university to clinic and back*

Chair: Paolo Belardinelli

12:30-14:00 Lunch + Posters + Exhibition
(mTMS workshop for those who have signed up in advance)

Oral session 4: TMS-EEG (5 x 4 min), chair Tuomas Mutanen

- 14:00-14:45
1. Danylo Lucio Ferreira Cabral: *Neurophysiological correlates of lifestyle diabetes care: A theoretical framework*
 2. Dominika Sulcova: *TMS-evoked potentials as biomarkers of cortical excitability: combining microstate and peak analysis*
 3. Davide Bonfanti: *Parietal phosphenes reveal asymmetric spatiotemporal dynamics between left and right IPS*
 4. Melina Engelhardt: *Repetitive TMS to facilitate recovery of motor deficits after supratentorial tumor resection*
 5. Valentina Pezzopane: *Default Mode Network connectivity abnormalities in Alzheimer disease: a multi-level approach study*

14:45-15:00 Break

Oral session 5: TMS-EEG (4 x 10 min), chair Pantelis Lioumis

- 15:00-16:00
1. Joëlle Schroën: *From Temporal to Frontal Cortex and Back: Testing the Dynamics of Speech Comprehension with TMS-EEG*
 2. Giacomo Guidali: *Unveiling the neurophysiological substrates of a visuo-motor PAS protocol: a TMS-EEG study*
 3. Xavier Corominas: *Exploring the potential impact of very low-intensity TMS on humans: a TMS-EEG study*
 4. Mikkel Beck: *The impact of methodological choices: a systematic review of TMS-EEG studies targeting the M1*

16:00-16:30 Coffee break

Oral session 6: TMS and EEG (6 x 4 min), chair Matti Stenroos

- 16:30-17:15
1. Joonas Lahtinen: *Adaptive Method for Non-Invasive EEG/MEG Source Localization to Support Focal Epileptic Treatments*
 2. Johannes Vorwerk: *Sensitivity of EEG forward and inverse solutions to conductivity uncertainties*
 3. Thais Marchetti: *Decision-making in transcranial magnetic stimulation robotized positioning*
 4. Harri Piitulainen: *Change in TMS stimulus orientation alters spatial activation of the forearm muscles*
 5. Fang Jin: *Assessing the overlap of cortical representations for hand and forearm muscles using navigated TMS*
 6. Tuomas Mutanen: *Suppressing TMS-evoked EEG Artifacts: A Simulation Study Comparing ICA and SSP*

17:15-17:30 Break

Keynote 6: Vincent Clark

17:30-18:15 *Fifteen years of BrainSTIM in my laboratory: What have we learned, and what's next?*

Chair: Risto Ilmoniemi

18:15-18:30 Closing: Vincent Clark