



Scientific  
& Social  
Program

27<sup>th</sup> ANT Neuromeeeting, 2018

# Wednesday January 17

## Arrival

## Introduction / Satellite Events

### Latest developments in dry and mobile EEG

Innovative dry EEG sensors and compact amplifiers are changing the way researchers conduct EEG experiments, offering easy handling and fast setup time with improved efficiency for experimenter and subject. During the symposium the latest developments of mobile EEG and dry sensor technology will be shared.

- 14:00 - 14:30 The future of dry EEG acquisition  
by [Dr.-Ing. Patrique Fiedler](#)
- 14:30 - 15:30 State-of-Art EEG Research in Neurophysiology and Mobile EEG Applications  
by [Prof. Dr. Klaus Gramann - \(Technical University Berlin, Germany\)](#)
- 15:30 - 16:00 *Coffee break*

### Functional presurgical mapping: in-depth understanding

This symposium is dedicated to presurgical motor and speech mapping and its added value for neurosurgeons to decide about the extent of brain tumor resection while keeping the post-surgery risks (e.g. of aphasia) as low as possible. The direct comparison of nTMS and intraoperative DES will be described with the data acquired in Kings College Hospital (London, United Kingdom).

- 16:00 - 16:45 Pre-surgical motor and speech mapping of tumor patients with navigated TMS: direct comparison with DES  
by [Dr. Francesco Vergani MD, FRCS \(SN\) - \(King's College Hospital, London, United Kingdom\)](#)
- 16:45 - 17:15 Implementing verb tasks in nTMS language mapping to improve map reliability compared to DES mapping  
by [Ann-Katrin Ohlerth M.Sc. - \(University of Groningen, The Netherlands\)](#)
- 17:15 - 17:30 Concluding remarks  
by [Dr. Molood Sadat \(Farnoosh\) Safavi](#)
- 18:30 - 20:00 *Wine tasting + poster session*
- 20:00 - *ANT Neuromeeeting 2018 welcome dinner*

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The ANT Neuromeeeting is one of the most enjoyable, if not the most enjoyable, focused meetings I have, now regularly, attended.

As always I feel very welcomed and feel that not only I learn a lot through the thoughtfully chosen keynotes, but that I hopefully contribute something small intellectually in return.

As the years go by I am increasingly impressed by the technical developments ANT makes and hope that I am able to remain associated in the coming years!

- **Prof. David Liley** -  
*Swinburne University of Technology - Melbourne, Australia*

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# Thursday January 18

## Morning – Neurotechnology Symposium



Chaired by Prof. Dr. Klaus Gramann (Technical University Berlin; Germany.)

Keynote speaker: Dr. Femke Nijboer (University of Leiden; The Netherlands)

Topics: neurofeedback, BCI, neurorehabilitation etc.

Location: Symposium hall

- 08:10 - 08:20 Opening speech by [Frank Zanow](#) and [Wim Rooijers](#)
- 08:20 - 08:40 Introduction by [Klaus Gramann](#)
- 08:40 - 09:40 Keynote talk by [Femke Nijboer](#)
- 09:40 - 10:00 Biological neural networks assessment with TMS-EMG and TEP in patients with brain tumors and symptomatic epilepsy: critical view by [Ovidiu C. Banea](#)
- 10:00 - 10:20 *Coffee break*
- 10:20 - 10:40 Towards a specific, one size fits all cognitive brain computer by [Sophie Capron](#)
- 10:40 - 11:00 Deep learning with convolutional neural networks for detection of interictal epileptiform discharges by [Michel van Putten](#)
- 11:00 - 11:20 Recent progress in brain state decoding for neurotechnological applications by [Michael Tangermann](#)
- 11:20 - 11:40 Investigating neural correlates of biofeedback learning by [Aurore Jaumard-Hakoun](#)
- 11:40 - 12:00 Dry ground and reference electrodes for multichannel EEG caps by [Jens Haueisen](#)
- 12:00 - 14:00 *Lunch*

## Afternoon – Neurocare Symposium



Chaired by Dr. Michael Funke MD (Memorial Hermann Hospital; Houston, USA)

Keynote speaker: Prof. Dr. Ir. Michel van Putten (University of Twente; The Netherlands)

Topics: neonatal EEG, epilepsy (adult/neonatal), EEG/EP diagnostics

Location: Symposium hall

- 14:00 - 14:10 Introduction by [Michael Funke](#)
- 14:10 - 15:10 Keynote talk by [Michel van Putten](#)
- 15:10 - 15:30 Prospective comparison of ictal versus inter-ictal electric source imaging to localize the epileptogenic zone by [Louis Maillard](#)
- 15:30 - 15:50 From delta to high frequency oscillations: dynamics of epileptic networks by [Stefan Rampp](#)
- 15:50 - 16:10 QEEG and ERP measurements combined with other psychometric instruments into an innovative model for individualized and personalized medicinal use in the treatment of psychological and psychiatric disorders by [Khashayar Pazooki](#)
- 16:10 - 16:30 *Coffee break*
- 16:30 - 16:50 The organization of functional networks in Alzheimer's Disease [Fernando Maestú](#)
- 16:50 - 17:10 Home-based Neurofeedback treatment for Autism Spectrum Disorders by [Emanuela Russo](#)
- 17:10 - 17:30 Magnetoencephalographic recordings in infants: a retrospective review by [Michael Funke](#)
- 17:30 - 17:50 Brain disorders: a network perspective from dense electroencephalography by [Mahmoud Hassan](#)
- 17:50 - 18:10 Outcome prediction in postanoxic coma with deep neural networks by [Michel van Putten](#)
- 18:10 - 18:30 CloudTS, an infrastructure for large-scale analysis of biosignals; an application on signal quality by [David Ojeda](#)
- 18:30 - 20:00 *Wine tasting + Poster session*
- 20:00 - *Dinner*

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Workshop

Thursday January 18  
Morning  
10:20 - 12:00

**New generation medical devices  
for changing care setting**

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Workshop

Thursday January 18  
Afternoon  
16:30 - 17:15

**The waveguard touch versus the  
wet cap: a direct comparison**

3

Workshop

Thursday January 18  
Afternoon  
17:20 - 18:20

**EEG & tDCS**

# Friday January 19

## Morning – Neuromodulation Symposium



Chaired by Prof. Dr. Andrew Leuchter MD (UCLA; Los Angeles, USA)

Keynote speaker: Prof. Dr. Keyoumars Ashkan (King's College Hospital; London, UK)

Topics: neuromodulation, neurorepair, TMS presurgical mapping, TMS depression, electrical

Location: Symposium hall

- 08:20 - 08:40 Introduction by [Andrew Leuchter](#)
- 08:40 - 09:40 Keynote talk by [Keyoumars Ashkan](#)
- 09:40 - 10:00 Time lapse of individualized rTMS effects on resting state functional connectivity of healthy brains by [Aditya Singh](#)
- 10:00 - 10:20 *Coffee break*
- 10:20 - 10:40 Motor cortex synchronization affects the rhythm of motor performance in Huntington's Disease by [John Rothwell](#)
- 10:40 - 11:00 Spastic abbreviation in brain injured people with transcutaneous spinal cord stimulation by [Thordur Helgason](#)
- 11:00 - 11:20 Modeling the precise effect of TMS in primary motor cortex by [Thomas Knösche](#)
- 11:20 - 11:40 Repetitive transcranial magnetical stimulation as a potential diagnostic and treatment technique for refractory epilepsy and epilepsia partialis continua by [Antonio Valentin](#)
- 11:40 - 14:00 *Lunch*

## Afternoon – Neuroscience Symposium



Chaired by Dr. John Foxe (University of Rochester Medical Center; Rochester, USA)

Keynote speaker: Prof. Dr. Roelien Bastiaanse (University of Groningen; The Netherlands)

Topics: memory, attention, cognition, brain connectivity, etc.

Location: Symposium hall

- 14:00 - 14:20 Introduction by [John Foxe](#)
- 14:20 - 15:20 Keynote talk by [Roelien Bastiaanse](#)
- 15:20 - 15:40 Theta networks during a calibrated stop signal task: potential biomarkers of anxiety and the behavioural inhibition system by [Tom Lockhart](#)
- 15:40 - 16:00 From "Three - Two - One" to moral 'Ought': is the CNV a neural correlate of moral (and amoral) advice? by [Christiane Neuhaus](#)
- 16:00 - 16:20 *Coffee break*
- 16:20 - 16:40 Cross-species studies on pain-related brain responses by [Li Hu](#)
- 16:40 - 17:00 Speech sound errors after focal brain injury: can they be tracked by using EEG? by [Jakolien den Hollander](#)
- 17:00 - 17:20 Sleep under simulated microgravity conditions by [Ivana Rosenzweig](#)
- 17:20 - 17:40 Drug addiction evoked cortical plasticity by [Yuan Tifei](#)
- 17:40 - 18:00 Deep learning with convolutional neural networks for brain imaging and interfacing by [Tonio Ball](#)
- 19:00 - 19:45 *Social event + gin tonic tasting*
- 19:45 - 20:00 Meet-up at lobby for bus shuttle to the gala dinner
- 20:30 - *Gala dinner*

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Workshop

Friday January 19  
Morning  
10:20 - 11:20  
**Recording high density EEG**

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Workshop

Friday January 19  
Afternoon  
16:20 - 17:05  
**QEEG methods in psychiatric disorders' diagnosis**

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Workshop

Friday January 19  
Afternoon  
17:05 - 18:00  
**Mapping of eloquent brain areas with navigated TMS**

# Saturday January 20

## Morning - Sports, Movement & Free Communication Symposium



Chaired by **Dr. Reinhold Scherer (University of Technology; Graz, Austria)**

**Topics:** neurofeedback, neurogaming, multimodality, sports & movement

**Location:** Symposium hall

- 09:30 - 10:00 Introduction by [Reinhold Scherer](#)
- 10:00 - 10:20 Exploration of event-related dynamics of brain oscillations in an ice hockey shooting task by [Sommer Christie](#)
- 10:20 - 10:40 *Coffee break*
- 10:40 - 11:00 Potential biomarker of ketamine response: rapid reduction of excess frontal midline theta by [Shelly Menolascino](#)
- 11:00 - 11:20 EEG and apnoea-diving: EEG during extended breath holding - a comparison of expert-apnoea divers and novices by [Michael Doppelmayr](#)

## Afternoon

- 12:00 - 14:00 *Self-service lunch*
- 14:00 - *Departure*

