Tampereen yliopisto
Tampere University

Coronal Seminar on the Bioelectromagnetic Signals of the Brain, Frenckell, Tampere, July 3rd, 2020 – State-of-the-Art and Perspectives of Modelling Amid the Coronavirus Pandemic

This seminar will focus on the state-of-the-art and perspectives of the advanced computational modelling and biosignal analysis targeting to detect and manipulate the activity of the brain. An important topic will be the 'Coronal Projection', that is, to share experiences of the coronavirus pandemic of 2020 which has prevented in-person meetings and laboratory work for several months, while data processing, method development and working online has been possible without major limitations.

Tentative Program:

10:00–11:00 Meeting and discussions
10:15–11:00 ***Keynote*** **Carsten H. Wolters,** Institute for Biomagnetism and Biosignal Analysis. *Using combined EEG/MEG source analysis in epilepsy diagnosis and multi-channel transcranial current stimulation for a reduction of seizure frequency and severity.*
11:00–11:45 **Dao T. A. Nguyen,** Biomedical Signal Analysis Group, University of Eastern Finland. *Motor-evoked Potential in TMS and using Robot Arm to controlling stimulation coil in TMS.*
11:45–12:30 **Narayan Subramaniyam,** Faculty of Medicine and Health Technology, Tampere University. *A stochastic approximation EM algorithm for brain connectivity estimation.*
12:30–13:15 Lunch
13:00–13:45 **Atena Rezaei,** Computing Sciences, Tampere University. *Hierarchical Bayesian Modelling to Detectec the Connectivity of Multiple Components.*
13:45–14:15 Coffee
14:15–15:00 **Sampsa Pursiainen**, Computing Sciences, Tampere University. *Ten Years of Combining Finite Elements and Inversion Methods in EEG/MEG*
15:00–15:30 Final discussions and ending

Venue:

Restaurant Frenckell Piha & Sali is situated right next to the central market square, the epicentre of Tampere. It belongs to the Frenckell building complex on the other side of which flows the rapids of Tampere that together with the old red-brick industrial buildings forms one of the National landscapes of Finland.



Funders:
This workshop will be a part of the activity of the Academy Centre of Excellence in Inverse Modelling and Imaging (2018-2025) and the bilateral researcher mobility program "Reconstructing Somatosensory Network Connectivity with Advanced Bayesian Imaging and Finite Element Computations", Academy of Finland / DAAD (2020-2021), between Tampere University and University of Münster.

Organizer:
Sampsa Pursiainen, Computing Sciences, Tampere University.