



Easter Workshop on Biomedical Imaging and Bioelectromagnetism, Tampere University of Technology, March 27th, 2018

Program

- 09:25 *Meeting at the ground level lobby (info desk) of the Kampusareena-building*
- 09:30-10:15 **Carsten H. Wolters**, *Institute for Biomagnetism and Biosignal Analysis, University of Münster*: Reconstruction and manipulation of neuronal networks in the human brain
- 10:15-10:40 *Discussion & Coffee*
- 10:40-11:25 **Katrina Wendel-Mitoraj**, *BrainCare Oy, Tampere*: Long-term epilepsy monitoring: From Research to Startup
- 11:35-11:55 **Tuan Vo**, *Laboratory of Mathematics, Tampere University of Technology*: Partial Differential Equations and the EEG forward model
- 11:55-12:40 *Lunch break (Teekkari Cabinet, Amica Reaktori)*
- 12:40-13:00 **Atena Rezaei**, *Laboratory of Mathematics, Tampere University of Technology*: Mathematics and Applications of Complete Electrode Model
- 13:05-13:25 **Simo Monto**, *Jyväskylä Centre for Interdisciplinary Brain Research, University of Jyväskylä*: Mapping phase-phase interactions with MEG — can we really do it?
- 13:30-13:55 **Defne Us**, *Signal Processing, Tampere University of Technology*: Reduction of artifacts in medical tomography: hardware and software solutions
- 14:00-14:20 *Coffee*
- 14:00-14:25 **Sara Sommariva**, *Department of Neuroscience and Biomedical Engineering, Aalto University*: An unsupervised clustering approach for MEG-based cortical parcellations with reduced source-leakage
- 14:30-14:55 **Narayan Subramaniam**, *Department of Neuroscience and Biomedical Engineering, Aalto University*: Particle Markov Chain Monte Carlo methods for joint estimation of neural sources and their connectivity from MEG data
- 15:00-15:30 *Final discussions & Ending*



List of Participants

Jarmo Hämäläinen, Jyväskylä Centre for Interdisciplinary Brain Research, University of Jyväskylä

Olli Koskela, *Computational Biophysics and Imaging Group, Biomedical Science and Engineering, Tampere University of Technology.*

Simo Monto, Jyväskylä Centre for Interdisciplinary Brain Research, University of Jyväskylä

Jukka-Pekka Pirhonen, BrainCare Oy, Tampere

Sampsa Pursiainen (Organizer), *Laboratory of mathematics of Mathematics, Tampere University of Technology*

Atena Rezaei, *Laboratory of Mathematics, Tampere University of Technology*

Sara Sommariva, *Department of Neuroscience and Biomedical Engineering, Aalto University.*

Narayan Subramaniyam, *Department of Neuroscience and Biomedical Engineering, Aalto University*

Defne Us, *Signal Processing, Tampere University of Technology:*

Katrina Wendel-Mitoraj, BrainCare Oy, Tampere

Tuan Vo, *Laboratory of Mathematics, Tampere University of Technology*

Carsten H. Wolters, *Institute for Biomagnetism and Biosignal, University of Münster*

Tuomo Ylinen, *Seinäjoki Neuromonitoring Research Group, The Hospital District of South Ostrobothnia*



Welcome!