

# **Satellite Symposium of Biomag 2012**

## **Advances in Source Space Functional Analysis of MEG/EEG data**

**Date:** August 26, 2012

**Time:** 9:00 AM– 3:00PM

**Contact persons:**

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**To those who plan to attend this symposium:  
Please send us email. This is because we would like to estimate the  
approximate number of symposium attendees.**

**Scope of the symposium**

Estimating the functional connectivity between activated brain regions continues to remain a significant problem in field of electromagnetic brain imaging. Many new methods are constantly being developed to reconstruct the functional coupling between activity patterns across brain regions from MEG and EEG data. Some of these advances include novel bivariate and multivariate metrics of non-directional and directional coupling, model-free versus model-based estimates, non-parametric versus Bayesian methods etc. The aim of this satellite symposium is to provide MEG researchers an opportunity to exchange ideas and discuss their preliminary results/work-in-progress investigations about novel analytical methods for functional connectivity analysis in a very friendly informal atmosphere.

**Preliminary program**

*(Session I 9:00—10:32)*

1. 9:00—9:23

Alex Gramfort, Steve Stufflebeam, Martin Luessi, Matti Hamalainen, Massachusetts General Hospital, USA, "A Pipeline for Mapping MEG/EEG, resting-state fMRI, and Anatomical Connectivity in a Common Cortical Space "

2. 9:23—9:46

Jan-Mathijs Schoffelen, Joachim Gross, Radboud University Nijmegen, The Netherlands, University of Glasgow, UK, "Blobbing the connections".

3. 9:46—10:09

Gareth Barnes, University College London, UK, "Multivariate measures of interaction for MEG"

4. 10.09—10:32

Kensuke Sekihara, Tokyo Metropolitan University, Japan, "Removal of spurious coherence in MEG source-space coherence analysis"

Coffee break 10.32—10.50

(Session II 10:50—12:00)

5. 10:50—11:13

Leighton Hinkley, University of California San Francisco, USA, "Mapping source functional connectivity with imaginary coherence"

6. 11:13—11:36

Mike X Cohen, Universitett van Amsterdam, "Source-space connectivity reveals fronto-parietal dynamics underlying spatial conflict resolution"

7. 11:36—11:59

Richard Leahy and Syed Ashrafulla, University of Southern California, USA, "Mapping cortical connectivity using canonical Granger causality"

Lunch break (12:00--13:00)

(Session III 13:00-15:00)

8. 13:00—13:23

Maher Quraan, Krembil Neuroscience Centre & Toronto Western Research Institute, Canada, "Estimates of functional connectivity using beamformer techniques: are they reliable?"

9. 13:23—13:46

Jens Haueisen, Hmenau University of Technology, "Thalamo-cortical information transfer in the somatosensory system revealed by oscillatory differential equation models"

10. 13:46—14:09

Matt Brookes, University of Nottingham, UK, "Moving beyond hemodynamic measurements"

11. 14:09 – 14:32

Mark Woolrich, Oxford University, UK, "Transiently synchronizing networks"

12. 14:32—14:55

Srikantan S. Nagarajan, University of California, San Francisco, USA, "Bayesian inference methods for mapping directional connectivity between sources"