

EMSE[®] Workshop Schedule

November 8-9, 2007

Source Signal Imaging offices, 2323 Broadway #102
San Diego CA

Thursday, November 8

0800-0900 **Registration**

Coffee, tea and light breakfast snack will be provided

0900-1030 **Introduction to EMSE and Time Series Analysis I**

- Introduction
- Overview of EMSE Suite Software modules
- Elements of time series analysis with EMSE Data Editor
 - Workspaces, projects, and data files
 - Interactive time series visualization and data exploration
 - Compressed Trial Array mode
 - Filtering and filter pipeline (history)
 - Averaging, events, linear merge, grand average
 - Batch averaging
- Spatial components analysis (PCA and ICA)

1030-1045 **Coffee break**

1045-1215 **Time Series Analysis II; Image Processing**

- Frequency (FFT, power spectrum, coherence) and time/frequency (wavelet) analysis
- Macro recorder
- Importing image data
- Coregistration (EEG/MRI)
- Tissue segmentation, 2D and 3D tiling with EMSE MR Viewer and Image Processor
- Cortical surface extraction Tissue segmentation continued
- Creating boundary element, finite element, and source volume models

1215-1315 **Lunch**

On your own at local restaurants

1315-1445 **Source Estimation**

- Principles of EEG/MEG Source Estimation and Multimodal Dynamic Functional Brain Imaging

- Spatiotemporal dipole modeling
- Tomographic Estimation (sLORETA) and beamformers
- Cortically constrained current density
- DICS (Dynamic Imaging of Coherent Sources)

1445-1500 *Coffee break*

1500-1630 *Statistics*

- Automatic peak detection
- Permutation testing in signal space
- Permutation testing in source space
- Plus-minus testing for nonzero signals

Friday, November 9

0830-0900 *Registration*

Coffee, tea and light breakfast snack will be provided

0900-1630 *Individual Instruction with EMSE and SSI Staff*

This second day will be devoted to working one-on-one with workshop attendees. Bring your laptop with data from your own lab, or we can provide you with data. Bring problems or topics on which you want to focus. The software developers at SSI will be available all day to work with you to get the most out of EMSE for your specific needs.