



17th EEGLAB workshop @ UCSD Program

Day 0 – Thursday 14th November, 2013

5:00 - 8:00 PM – SCCN Open House Reception and SfN Poster Show

5:00 - 7:00 PM – Registration open

Day 1 – Friday 15th Nov

8:00 AM – Registration open

8:00 – 8:30 AM – Continental breakfast

8:30 – 9:30 AM – Mining event-related brain dynamics I (Scott Makeig)

9:30 – 10:15 AM – ICA decomposition theory & evaluation (Jason Palmer)

10:15 - 10:30AM – Coffee break

10:30 – 11:30 AM – Time-frequency measures (Tim Mullen)

11:30 – 12:00 AM – EEGLAB overview (Arnaud Delorme)

12:00 - 1:15 PM – Get-together Group Lunch @ SDSC

1:25 – 1:40 PM – BCILAB: Building and testing a simple BCI model (Christian Kothe)

1:40 – 1:55 PM –SIFT: Computing and plotting Granger-causal models (Tim Mullen)

1:55 – 2:00 PM – Schedule overview: Workshop track system (Scott Makeig)

2:00 – 5:00 PM – Concurrent Basic & Advanced Track Sessions (C1)

3:00 - 3:15 PM – Coffee break

Track A (Main Auditorium) – Basic track EEGLAB processing

2:00 – 3:00	C1.A1: Data import, basic ERP visualization (Marissa Westerfield)
3:15 – 4:00	C1.A2: Data cleaning for ICA (Marissa Westerfield)
4:00 – 5:00	C1.A3: Performing ICA and evaluating components (J. Onton)

Track B (Vizlab) – Brain-Computer Interface Methods I (Christian Kothe)

2:00 – 3:00	C1.B1: Introduction to signals and signal processing in BCIs
3:15 – 4:00	C1.B2: Introduction to use of machine learning in BCIs
4:00 – 4:30	C1.B3: Analysis of event-related potentials in BCIs
4:30 – 5:00	C1.B4: Practicum: Performing ERP analysis in BCILAB

Track C (High-Tech room) – Modeling source-level information flow I (Tim Mullen)

2:00 – 3:00	C1.C1: Functional and effective connectivity, linear dynamical systems
3:15 – 3:45	C1.C2: Granger causality, scalp vs. source, adapting to non-stationarity
3:45 – 5:00	C1.C3: Practicum: hands-on walkthrough of SIFT

Day 2 – Saturday 16th Nov

8:00 – 8:30 AM – Continental breakfast

8:30 – 9:15 AM – Theory: The EEG forward and inverse problem (Zeynep Akalin Acar)

9:15 – 9:30 AM – NFT: Electrical head modeling and source localization (Zeynep Akalin Acar)

9:30 AM – 12 PM – Concurrent basic & advanced track sessions (C2)

10:15 - 10:30 AM – Coffee break

Track A (Main Auditorium) – Basic track EEGLAB processing

9:30 – 10:15	C2.A1: Plotting dataset measures (ERPimage, spectrum) (Julie Onton)
10:30 – 11:15	C2.A2: Localizing IC sources using DIPFIT (Julie Onton)
11:15 – 12:00	C2.A3: Advanced ICA component evaluation (M. Miyakoshi)

Track B (Vizlab) – Brain-Computer Interface Methods II (Christian Kothe)

9:30 – 10:15	C2.B1: Analysis of oscillatory processes
10:30 – 11:15	C2.B2: Mastering the BCILAB toolbox: scripting and inner workings
11:15 – 12:00	C2.B3: Practicum: scripting oscillatory-process analyses

Track C (High-Tech room) – Forward head modeling and source localization (Zeynep Akalin Acar)

9:30 – 10:15	C2.C1: Building head models using NFT
10:30 – 11:15	C2.C2: Forward and inverse problem solution and visualization
11:15 – 12:00	C2.C3: Practicum: hands-on NFT overview

12:00 - 1:15 PM – Lunch on your own

1:15 – 2:00 PM – EEGLAB processing across subjects and IC clustering (Arnaud Delorme)

2:00 – 5:00 PM – Concurrent basic & advanced sessions (C3)

3:00 – 3:15 PM – Coffee break

Track A (Main Auditorium) – Basic track Studies, ICA Clustering

2:00 – 3:00	C3.A1: Creating studies, plotting and working with STUDY designs (Delorme)
3:15 – 4:00	C3.A2: Clustering STUDY ICs (Makato Miyakoshi)
4:00 – 5:00	C3.A3: MPT: Measure Projection Analysis (Nima Bigdely Shamlo)

Track B (Vizlab) – Mobile Brain/Body Imaging (MoBI) and Real-Time Analysis Concepts

2:00 – 3:00	C3.B1: MoBI Concept (S. Makeig)
3:15 – 4:00	C3.B2: The Lab Streaming Layer for multi-modal data acquisition (C. Kothe)
4:00 – 4:30	C3.B3: SNAP environment for interactive experimental control (C. Kothe)
4:30 – 5:00	C3.B4: MoBILAB for analysis of multimodal brain imaging data (A. Ojeda)

Track C (High-Tech room) – Modeling source-level information flow I (Tim Mullen) [REPEAT]

2:00 – 3:00	C3.C1: Functional and effective connectivity, linear dynamical systems
3:15 – 3:45	C3.C2: Granger causality, scalp vs. source, adapting to non-stationarity
3:45 – 5:00	C3.C3: Practicum: hands-on walkthrough of SIFT

6:30 PM - Optional birds-of-a-feather group dinners (sign-up sheets at the registration table)

Day 3 – Sunday 17th Nov

8:00 – 8:30 AM – Continental breakfast

8:30 – 9:30 AM – EEG measures and STUDY statistics (Arnaud Delorme)

9:30 AM – 12 PM Concurrent basic & advanced sessions (C4)

10:15 - 10:30 AM – Coffee break

Track A (Main Auditorium) – Basic track EEGLAB study statistics and other study tools

9:30 – 10:15	C4.A1: Running statistics for EEGLAB STUDY measures (Arnaud Delorme)
10:30 – 11:00	C4.A2: Using the <i>std_envtopo</i> and other STUDY plug-ins (Makoto Miyakoshi)
11:00 – 11:30	C4.A3: Automated artifact rejection for large scale analysis (C. Kothe)
11:30 – 12:00	C4.A4: Comparison of auto. artifact rejection methods (N. Bigdely Shamlo)

Track B (Vizlab) – Forward head modeling and source localization (Zeynep Akalin Acar) [REPEAT]

9:30 – 10:15	C4.B1: Building head models using NFT
10:30 – 11:15	C4.B2: Forward and inverse problem solution and visualization
11:15 – 12:00	C4.B3: Practicum: hands-on NFT overview

Track C (High-Tech room) – Modeling information flow II (Tim Mullen)

9:30 – 10:15	C4.C1: Model validation, multivariate vs. bivariate, imposing constraints
10:30 – 11:00	C4.C2: Single-trial estimation, state-space models, statistical testing
11:00 – 12:00	C4.C3: Practicum: hands-on simulation-based training

12:00 – 3:00 PM Group excursion and picnic lunch at Torrey Pines State Park

3:00 – 5:30 PM Concurrent basic & advanced sessions (C5)

3:00 – 3:15 PM – Coffee break

Track A (Main Auditorium) – Basic track: EEGLAB scripting (Arnaud Delorme)

3:15 – 4:00	C5.A1: EEGLAB structures and basic scripting
4:00 – 4:30	C5.A2: More advanced EEGLAB scripting
4:30 – 5:30	C5.A3: Scripting using EEGLAB STUDY structures

Track B (Vizlab) – Brain-Computer Interface Methods III (Christian Kothe)

3:15 – 4:00	C5.B1: Optimization-based approaches
4:00 – 4:30	C5.B2: Neuroscience aspects and outlook
4:30 – 5:30	C5.B3: Practicum: extending BCILAB and implementing custom methods

Track C (High-Tech room) – Advanced Measure Calculation and Projection (Nima Bigdely Shamlo)

3:15 - 4:30	C5.C1: Advanced applications of the Measure Projection Toolbox (MPT)
4:30 - 5:30	C5.C2: Joint modeling of temporally overlapping responses

Day 4 – Monday 18th Nov

8:00 – 8:30 AM – Continental breakfast

8:30 - 9:30 AM – Mobile/wireless EEG – Hardware, software, and applications (Tzyy-Ping Jung)

9:30 AM – 12:00 PM Concurrent basic and advanced sessions (C6)

10:15 - 10:30 AM – Coffee break

Track A (Main Auditorium) – Basic track: Practice projects & EEGLAB plug-in programming

Track B (Vizlab) – EEG data mining in the Big Data era (N. Bigdely Shamlo, S. Makeig)

9:30 – 10:15 C6.B1: Imaging half a million ICA-component scalp maps

10:30 – 12:00 C6.B2: New open source tools for EEG data mining: ESS, HED, and HeadIT

Track C (High-Tech room) – Mobile Brain/Body Imaging and Real-Time Demos and practicum

Demo: Working with new dry EEG headsets (Y.T Wang, M. Chi, T. Mullen, C. Kothe)

Demo of the new SNAP, XDF and LSL real time software framework (C. Kothe)

New real-time brain imaging and BCI with BCILAB/SIFT (T. Mullen, C. Kothe)

Practicum for new MoBILAB toolbox for multimodal data analysis (A. Ojeda)

Track D (SCCN Conference Room) – Advanced ICA and AMICA concepts (Jason Palmer)

9:30 – 10:15 C6.D1: Assessing residual source dependence and dependent subspaces

10:30 – 12:00 C6.D2: Estimating multiple component models in non-stationary environments

12:00 – 1:15 PM – Lunch on own

1:15 – 3:15 PM Concurrent basic & advanced Q&A sessions (C7)

Follow-up questions & discussion:

Track A (Main Auditorium) – Basic track EEGLAB projects & Plug-in programming (A. Delorme)

Track B (Vizlab) – BCILAB and SIFT ‘hackathon’ (C. Kothe and T. Mullen)

Track C (High-Tech room) – Measure Projection (Nima Bigdely Shamlo)

Track D (SCCN Conference Room) – Head modeling (Zeynep Akalin Acar)

Track E (SCCN SE corner office) – Advanced ICA concepts and tools (Jason Palmer)

3:15 – 3:30 PM – Coffee break

3:30 – 4:30 PM – Mining event-related brain dynamics II (Scott Makeig)

4:30 - 5:00 PM – Group Discussion and Close