**EEGLAB**

RRID:SCR_007292  
Type: Tool

**Proper Citation**

EEGLAB (RRID:SCR_007292)

**Resource Information**

**URL:** http://sccn.ucsd.edu/eeglab/index.html

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**Description:** Interactive Matlab toolbox for processing continuous and event-related EEG, MEG and other electrophysiological data incorporating independent component analysis (ICA), time/frequency analysis, artifact rejection, event-related statistics, and several useful modes of visualization of the averaged and single-trial data. First developed on Matlab 5.3 under Linux, EEGLAB runs on Matlab v5 and higher under Linux, Unix, Windows, and Mac OS X (Matlab 7+ recommended). EEGLAB provides an interactive graphic user interface (GUI) allowing users to flexibly and interactively process their high-density EEG and other dynamic brain data using independent component analysis (ICA) and/or time/frequency analysis (TFA), as well as standard averaging methods. EEGLAB also incorporates extensive tutorial and help windows, plus a command history function that eases users' transition from GUI-based data exploration to building and running batch or custom data analysis scripts. EEGLAB offers a wealth of methods for visualizing and modeling event-related brain dynamics, both at the level of individual EEGLAB "datasets" and/or across a collection of datasets brought together in an EEGLAB "studyset." For experienced Matlab users, EEGLAB offers a structured programming environment for storing, accessing, measuring, manipulating and visualizing event-related EEG data. For creative research programmers and methods developers, EEGLAB offers an extensible, open-source platform through which they can share new methods with the world research community by publishing EEGLAB "plug-in" functions that appear automatically in the EEGLAB menu of users who download them. For example, novel EEGLAB plug-ins might be built and released to "pick peaks" in ERP or time/frequency results, or to perform specialized import/export, data visualization, or inverse source modeling of EEG, MEG, and/or ECOG data. EEGLAB Features * Graphic user interface * Multiformat data importing * High-density data scrolling * Defined EEG data structure * Open source plug-in facility * Interactive plotting functions * Semi-automated artifact removal * ICA & time/frequency transforms * Many advanced plug-in
toolboxes * Event & channel location handling * Forward/inverse head/source modeling

**Abbreviations:** EEGLAB

**Resource Type:** data processing software, software application, software toolkit, software resource

**Defining Citation:** PMID:15102499

**Keywords:** visualization, eeg modeling, independent component analysis, meg modeling, eeg, erp, spectral decomposition, single-trial, matlab, meg, electrophysiology, format conversion, source separation analysis, fourier time-domain analysis, spectral analysis, temporal wavelet analysis, anova, event related potential, three dimensional display, two dimensional display

**Funding Agency:** NINDS

**Availability:** GNU General Public License

**Resource Name:** EEGLAB

**Resource ID:** SCR_007292

**Alternate IDs:** nif-0000-00076

**Alternate URLs:** http://www.nitrc.org/projects/eeglab/

**Old URLs:** http://www.nitrc.org/projects/incf_eeglab/

**Ratings and Alerts**


No alerts have been found for EEGLAB.

**Data and Source Information**

**Source:** SciCrunch Registry

**Usage and Citation Metrics**

We found 4793 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [FDI Lab - SciCrunch.org](http://FDI-Lab-SciCrunch.org).

Couto Pereira NS, et al. (2023) Aversive memory reactivation: A possible role for delta oscillations in the hippocampus-amygdala circuit. Journal of neuroscience research, 101(1),
Pattisapu S, et al. (2023) Stimulus-induced narrow-band gamma oscillations in humans can be recorded using open-hardware low-cost EEG amplifier. PloS one, 18(1), e0279881.


Srisrisawang N, et al. (2023) Transfer Learning in Trajectory Decoding: Sensor or Source Space? Sensors (Basel, Switzerland), 23(7).


Moretta T, et al. (2023) Familial risk for depression is associated with reduced P300 and late positive potential to affective stimuli and prolonged cardiac deceleration to unpleasant stimuli. Scientific reports, 13(1), 6432.


Fu J, et al. (2023) Correlation between the ERD in grasp/open tasks of BCIs and hand function of stroke patients: a cross-sectional study. Biomedical engineering online, 22(1), 36.

Han X, et al. (2023) Transcranial magnetic stimulation cortical oscillations and improve cognition in obstructive sleep apnea patients. Brain and behavior, 13(4), e2958.


Paraskevoudi N, et al. (2023) Sensory suppression and increased neuromodulation during actions disrupt memory encoding of unpredictable self-initiated stimuli. Psychophysiology, 60(1), e14156.


