

Resource Summary Report

Generated by PRECISE-TBI on Jul 31, 2026

EEGLAB

RRID:SCR_007292

Type: Tool

Proper Citation

EEGLAB (RRID:SCR_007292)

Resource Information

URL: <http://www.nitrc.org/projects/eeglab/>

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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: software toolkit, software resource, software application, data processing software

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: NINDS

Availability: Free, Available for download, Freely available

Resource Name: EEGLAB

Resource ID: SCR_007292

Alternate IDs: nif-0000-00076

Alternate URLs: https://eeglab.org/others/EEGLAB_References.html

Old URLs: http://www.nitrc.org/projects/incf_eeglab/,
<http://sccn.ucsd.edu/eeglab/index.html>

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Record Creation Time: 20220129T080241+0000

Record Last Update: 20260731T042735+0000

Ratings and Alerts

No rating or validation information has been found for EEGLAB.

No alerts have been found for EEGLAB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 6721 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

- Burke R, et al. (2026) Modulation of Non-Rhythmic Temporal Prediction by Subthalamic Nucleus Deep Brain Stimulation (STN-DBS) in Parkinson's Disease. *Movement disorders : official journal of the Movement Disorder Society*.
- Kulakova E, et al. (2026) Post-loss speeding and neurophysiological markers of action preparation and outcome processing in probabilistic reversal learning. *Quarterly journal of experimental psychology (2006)*, 79(1), 87.
- Widmann A, et al. (2026) Measuring the Genuine Mismatch Negativity in the Auditory Multi-Feature Paradigm. *The European journal of neuroscience*, 63(1), e70362.
- Wehmeyer L, et al. (2026) Thalamo-frontal functional connectivity patterns in Tourette Syndrome: Insights from combined intracranial DBS and EEG recordings. *Molecular psychiatry*, 31(1), 231.
- Wang Y, et al. (2026) Language exposure predicts infants' neural processing of others' actions based on language group. *Developmental cognitive neuroscience*, 77, 101645.
- Camenzind M, et al. (2026) Exploring prefrontal alpha modulation as a mechanistic treatment target in lupus-associated depression: A transcranial alternating current stimulation study. *Lupus*, 35(1), 86.
- Liu P, et al. (2026) Bidirectional associations between self-referential processing and depressive symptoms in early adolescents: A two-wave EEG study. *Developmental cognitive neuroscience*, 77, 101658.
- Kuznetsova E, et al. (2026) Mechanisms of Learning in Adults With ADHD During an Ecologically-Valid Visual Discrimination Task. *Journal of attention disorders*, 30(1), 38.
- Mahnan A, et al. (2026) Laryngeal Vibration to Treat Abductor-Type Laryngeal Dystonia: Effectiveness and Cortical Response. *The Laryngoscope*, 136(1), 368.
- Kosachenko AI, et al. (2026) Temporal Structure of Item Presentation Modulates Brain Oscillations in Verbal Working Memory. *The European journal of neuroscience*, 63(1), e70371.
- van der Wulp I, et al. (2026) Words and Meters: Neural Evidence for a Connection Between Individual Differences in Statistical Learning and Rhythmic Ability in Infancy. *Developmental science*, 29(2), e70116.
- Charalampaki A, et al. (2026) Comparing Metacognitive Representations of Bodily and External Agency. *eNeuro*, 13(1).
- Petrin A, et al. (2026) An Electroencephalographic Investigation of the Impact of Eye Movements in a Memory Probe Task. *Psychophysiology*, 63(1), e70220.
- H??den GP, et al. (2025) Longitudinal study of functional brain networks for processing infant-directed and adult-directed speech during the first year. *iScience*, 28(10), 113583.
- Michel L, et al. (2025) Unraveling variability in young children's brain responses to varied sensory stimulations. *iScience*, 28(11), 113773.

Bracco M, et al. (2025) Protocol to assess changes in brain network resistance to perturbation during offline processing using TMS-EEG. STAR protocols, 6(1), 103622.

Aggarwal S, et al. (2025) Changes in Higuchi Fractal Dimension Across Age in Healthy Human EEG Are Anticorrelated With Changes in Oscillatory Power and 1/f Slope. The European journal of neuroscience, 62(2), e70193.

Yue L, et al. (2025) Neuronal mechanisms of nociceptive-evoked gamma-band oscillations in rodents. Neuron, 113(5), 769.

Fang W, et al. (2025) Oscillatory control over representational geometry of sequence working memory in macaque frontal cortex. Current biology : CB, 35(7), 1495.

Liu S, et al. (2025) Context influence on speech perception: evidence for acoustic-level mechanism across the voice onset time continuum. NeuroImage, 310, 121140.