Resource Summary Report

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sLORETA

RRID:SCR_013829 Type: Tool

Proper Citation

sLORETA (RRID:SCR_013829)

Resource Information

URL: http://www.uzh.ch/keyinst/loreta#_NOTES:

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Description: A software application which computes images of electric neuronal activity from EEG and MEG. Standard Low Resolution Brain Electromagnetic Tomography, or sLORETA, localizes "test point sources" exactly (under ideal conditions) when estimating electric neuronal generators. This property can be generalized to any source distribution, based on the principles of linearity and superposition. However, it would be noted that sLORETA has very low spatial resolution.

Abbreviations: sLORETA

Synonyms: Standardized low-resolution brain electromagnetic tomography, Standard Low Resolution Brain Electromagnetic Tomography

Resource Type: software resource

Defining Citation: PMID:12575463

Keywords: software application, EEG, MEG, electric neuronal activity, image, LORETA, brain electromagnetic tomography

Funding:

Availability: Free, Not ready for public distribution, Must have administrator rights

Resource Name: sLORETA

Resource ID: SCR_013829

Alternate URLs: http://www.uzh.ch/keyinst/NewLORETA/sLORETA/sLORETA.htm

Old URLs: http://www.uzh.ch/keyinst/loretaOldy.htm

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Record Creation Time: 20220129T080318+0000

Record Last Update: 20250420T014705+0000

Ratings and Alerts

No rating or validation information has been found for sLORETA.

No alerts have been found for sLORETA.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 732 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>NIF</u>.

Lin W, et al. (2025) Source Causal Connectivity Noninvasively Predicting Surgical Outcomes of Drug-Refractory Epilepsy. CNS neuroscience & therapeutics, 31(1), e70196.

Dumitrescu AM, et al. (2025) Investigating the Spatio-Temporal Signatures of Language Control-Related Brain Synchronization Processes. Human brain mapping, 46(2), e70109.

Anderson L, et al. (2025) A safety and feasibility randomized placebo controlled trial exploring electroencephalographic effective connectivity neurofeedback treatment for fibromyalgia. Scientific reports, 15(1), 209.

Bosseler AN, et al. (2024) Infants' brain responses to social interaction predict future

language growth. Current biology : CB, 34(8), 1731.

Perrottelli A, et al. (2024) Electrophysiological Correlates of Reward Anticipation in Subjects with Schizophrenia: An ERP Microstate Study. Brain topography, 37(4), 1.

Higuchi Y, et al. (2024) Resting-state electroencephalogram in drug-free subjects with at-risk mental states who later developed psychosis: a low-resolution electromagnetic tomography analysis. Frontiers in human neuroscience, 18, 1449820.

Lopes Alves R, et al. (2024) Modulation of neural networks and symptom correlated in fibromyalgia: A randomized double-blind multi-group explanatory clinical trial of home-based transcranial direct current stimulation. PloS one, 19(11), e0288830.

Della Vedova G, et al. (2024) Neural signatures of imaginary motivational states: desire for music, movement and social play. Brain topography, 37(5), 806.

Kim MS, et al. (2024) Fatigue in Parkinson's Disease Is Due to Decreased Efficiency of the Frontal Network: Quantitative EEG Analysis. Journal of movement disorders, 17(3), 304.

Ghin F, et al. (2024) Response stopping under conflict: The integrative role of representational dynamics associated with the insular cortex. Human brain mapping, 45(6), e26643.

Fan T, et al. (2024) Functional Connectivity Alterations and Molecular Characterization of the Anterior Cingulate Cortex in Tinnitus Pathology without Hearing Loss. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(3), e2304709.

Zhou X, et al. (2024) The metacontrol of event segmentation-A neurophysiological and behavioral perspective. Human brain mapping, 45(11), e26727.

Mas-Cuesta L, et al. (2024) Brain signatures of catastrophic events: Emotion, salience, and cognitive control. Psychophysiology, 61(12), e14674.

Romeo Z, et al. (2024) Theta oscillations underlie the interplay between emotional processing and empathy. Heliyon, 10(14), e34581.

Ferracci S, et al. (2024) The role of impulsivity and binge eating in outpatients with overweight or obesity: an EEG temporal discounting study. Journal of eating disorders, 12(1), 130.

Iwama S, et al. (2024) EEG decoding with spatiotemporal convolutional neural network for visualization and closed-loop control of sensorimotor activities: A simultaneous EEG-fMRI study. Human brain mapping, 45(9), e26767.

Cai C, et al. (2024) Effects of color-flavor association on visual search process for reference pictures on beverage packaging: behavioral, electrophysiological, and causal mechanisms. Frontiers in psychology, 15, 1433277.

Krukow P, et al. (2024) Tracking EEG network dynamics through transitions between eyes-

closed, eyes-open, and task states. Scientific reports, 14(1), 17442.

Alipour M, et al. (2024) A classification-based generative approach to selective targeting of global slow oscillations during sleep. Frontiers in human neuroscience, 18, 1342975.

Patarini F, et al. (2024) On the role of visual feedback and physiotherapist-patient interaction in robot-assisted gait training: an eye-tracking and HD-EEG study. Journal of neuroengineering and rehabilitation, 21(1), 211.