

Resource Summary Report

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NeuralAct

RRID:SCR_002066

Type: Tool

Proper Citation

NeuralAct (RRID:SCR_002066)

Resource Information

URL: <http://www.neuralgate.org/download/NeuralAct>

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Description: Software to visualize electrocorticographic (ECoG) and possibly also other kinds of neural activity (EEG / EMG/ DOT) on a 3D model of the cortical surface. The tool has been used to produce cortical activation images and image sequences in several recent studies using ECoG. The tool is written in matlab. The package is thoroughly documented and includes a demo.

Abbreviations: NeuralAct

Synonyms: NeuralAct: A tool to visualize cortical activity on a 3D model of the cortex

Resource Type: software resource

Defining Citation: [PMID:25381641](#)

Keywords: brain, imaging, electrocorticographic, eeg, meg, dot, matlab, cortex, visualization, neural activity

Funding: NIH ;
NIBIB EB006356;
NIBIB EB000856;
United States army research office W911NF-08-1-0216;
United States army research office W911NF-07-1-0415

Availability: Free, Available for download, Freely available

Resource Name: NeuralAct

Resource ID: SCR_002066

Alternate IDs: SciRes_000162

Alternate URLs: <http://www.neuralgate.org/software>

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260829T182111+0000

Ratings and Alerts

No rating or validation information has been found for NeuralAct.

No alerts have been found for NeuralAct.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 13 mentions in open access literature.

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

Cho H, et al. (2023) Unexpected sound omissions are signaled in human posterior superior temporal gyrus: an intracranial study. Cerebral cortex (New York, N.Y. : 1991), 33(14), 8837.

Moheimanian L, et al. (2021) Modulation in cortical excitability disrupts information transfer in perceptual-level stimulus processing. NeuroImage, 243, 118498.

Yin Q, et al. (2020) Direct brain recordings reveal occipital cortex involvement in memory development. Neuropsychologia, 148, 107625.

Herff SA, et al. (2020) Prefrontal High Gamma in ECoG Tags Periodicity of Musical Rhythms in Perception and Imagination. eNeuro, 7(4).

Crowther LJ, et al. (2019) A quantitative method for evaluating cortical responses to electrical stimulation. Journal of neuroscience methods, 311, 67.

Schalk G, et al. (2017) Instantaneous voltage as an alternative to power- and phase-based interpretation of oscillatory brain activity. NeuroImage, 157, 545.

Cui Z, et al. (2017) Dynamic Correlations between Intrinsic Connectivity and Extrinsic Connectivity of the Auditory Cortex in Humans. Frontiers in human neuroscience, 11, 407.

Brumberg JS, et al. (2016) Spatio-Temporal Progression of Cortical Activity Related to Continuous Overt and Covert Speech Production in a Reading Task. PloS one, 11(11), e0166872.

Coon WG, et al. (2016) Oscillatory phase modulates the timing of neuronal activations and resulting behavior. NeuroImage, 133, 294.

de Pesters A, et al. (2016) Electrocorticographic mapping of expressive language function without requiring the patient to speak: A report of three cases. *Epilepsy & behavior case reports*, 6, 13.

de Pesters A, et al. (2016) Alpha power indexes task-related networks on large and small scales: A multimodal ECoG study in humans and a non-human primate. *NeuroImage*, 134, 122.

Kubaneck J, et al. (2015) NeuralAct: A Tool to Visualize Electrocortical (ECoG) Activity on a Three-Dimensional Model of the Cortex. *Neuroinformatics*, 13(2), 167.

Herff C, et al. (2015) Brain-to-text: decoding spoken phrases from phone representations in the brain. *Frontiers in neuroscience*, 9, 217.