

Resource Summary Report

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Buzsaki Lab

RRID:SCR_008020

Type: Tool

Proper Citation

Buzsaki Lab (RRID:SCR_008020)

Resource Information

URL: <http://www.buzsakilab.com/>

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Description: Lab interested in understanding how neuronal circuitries of the brain support its cognitive capacities. Its goal is to provide rational, mechanistic explanations of cognitive functions at a descriptive level. In the lab's view, the most promising area of cognitive faculties for scientific inquiry is memory, since it is a well-circumscribed term, can be studied in animals and substantial knowledge has accumulated on the molecular mechanisms of synaptic plasticity. Available software: * NeuroScope: NeuroScope can display local field potentials (EEG), neuronal spikes, behavioral events, as well as the position of the animal in the environment. It also features limited editing capabilities. * Klusters: Klusters is a powerful and easy-to-use cluster cutting application designed to help neurophysiologists sort action potentials from multiple neurons on groups of electrodes (e.g., tetrodes or multisite silicon probes). * KlustaKwik: KlustaKwik is a program for automatic cluster analysis, specifically designed to run fast on large data sets. * MATLAB m-files: A selection of MATLAB files developed in the lab., THIS RESOURCE IS NO LONGER IN SERVICE. Documented on September 16,2025.

Abbreviations: Buzsaki Lab

Synonyms: Buzsaki's Lab

Resource Type: software application, data analysis software, data or information resource, organization portal, data processing software, software resource, laboratory portal, portal

Keywords: eeg, electrode, environment, funtion, animal, application, behavioral, brain, capacity, circuit, cluster, cognitive, hippocampal, hippocampus, laboratory, local field potential, mechanism, memory, molecular, neuron, neuronal, plasticity, research, scientific, spike, synaptic, tetrode

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: Buzsaki Lab

Resource ID: SCR_008020

Alternate IDs: nif-0000-10182

Old URLs: <http://osiris.rutgers.edu/frontmid/indexmid.html>

Record Creation Time: 20220129T080245+0000

Record Last Update: 20260729T044158+0000

Ratings and Alerts

No rating or validation information has been found for Buzsaki Lab.

No alerts have been found for Buzsaki Lab.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 15 mentions in open access literature.

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

Mercier O, et al. (2024) Transient demyelination causes long-term cognitive impairment, myelin alteration and network synchrony defects. *Glia*, 72(5), 960.

Huang X, et al. (2023) Distinct spatial maps and multiple object codes in the lateral entorhinal cortex. *Neuron*, 111(19), 3068.

Yaghmazadeh O, et al. (2022) Neuronal activity under transcranial radio-frequency stimulation in metal-free rodent brains in-vivo. *Communications engineering*, 1.

Oberto VJ, et al. (2022) Distributed cell assemblies spanning prefrontal cortex and striatum. *Current biology : CB*, 32(1), 1.

Hagen E, et al. (2021) RippleNet: a Recurrent Neural Network for Sharp Wave Ripple (SPW-R) Detection. *Neuroinformatics*, 19(3), 493.

Sharif F, et al. (2021) Subcircuits of Deep and Superficial CA1 Place Cells Support Efficient Spatial Coding across Heterogeneous Environments. *Neuron*, 109(2), 363.

Vicente AF, et al. (2020) In Vivo Characterization of Neurophysiological Diversity in the Lateral Supramammillary Nucleus during Hippocampal Sharp-wave Ripples of Adult Rats. *Neuroscience*, 435, 95.

Angulo-Garcia D, et al. (2020) Cell Assemblies in the Cortico-Hippocampal-Reuniens Network during Slow Oscillations. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 40(43), 8343.

Senzai Y, et al. (2019) Layer-Specific Physiological Features and Interlaminar Interactions in the Primary Visual Cortex of the Mouse. *Neuron*, 101(3), 500.

Bali ZK, et al. (2019) Facilitation and inhibition of firing activity and N-methyl-D-aspartate-evoked responses of CA1 hippocampal pyramidal cells by alpha7 nicotinic acetylcholine receptor selective compounds in vivo. *Scientific reports*, 9(1), 9324.

Sales-Carbonell C, et al. (2018) No Discrete Start/Stop Signals in the Dorsal Striatum of Mice Performing a Learned Action. *Current biology : CB*, 28(19), 3044.

Ferraris M, et al. (2018) The Nucleus Reuniens Controls Long-Range Hippocampo-Prefrontal Gamma Synchronization during Slow Oscillations. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 38(12), 3026.

Lalla L, et al. (2017) Local or Not Local: Investigating the Nature of Striatal Theta Oscillations in Behaving Rats. *eNeuro*, 4(5).

Song YH, et al. (2017) A Neural Circuit for Auditory Dominance over Visual Perception. *Neuron*, 93(4), 940.

Maurer AP, et al. (2014) Back to the future: preserved hippocampal network activity during reverse ambulation. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 34(45), 15022.