Resource Summary Report

Generated by Kravitz on Sep 10, 2026

neuRosim

RRID:SCR_002154
Type: Tool

Proper Citation

neuRosim (RRID:SCR_002154)

Resource Information

URL: http://cran.r-project.org/web/packages/neuRosim/

Proper Citation: neuRosim (RRID:SCR_002154)

Description: Software package that allows users to generate fMRI time series or 4D data. Some high-level functions are created for fast data generation with only a few arguments and a diversity of functions to define activation and noise. For more advanced users it is possible to use the low-level functions and manipulate the arguments.

Abbreviations: neuRosim

Synonyms: neuRosim: Functions to Generate fMRI Data Including Activated Data Noise Data and Resting State Data

Resource Type: software resource

Keywords: r, fmri, time series, 4d

Availability: Free, Available for download, Freely available

Resource Name: neuRosim

Resource ID: SCR_002154

Alternate IDs: SciRes_000194

License: GNU General Public License, v2, v3

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260905T132444+0000

Ratings and Alerts

No rating or validation information has been found for neuRosim.

No alerts have been found for neuRosim.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 21 mentions in open access literature.

Listed below are recent publications. The full list is available at Kravitz .

Heitler WJ, et al. (2026) Computer simulations of a dynamic sodium pump-mediated hyperpolarization and short-term motor memory in the spinal locomotor network of Xenopus frog tadpoles. Journal of neurophysiology, 135(1), 165.

Francis J, et al. (2025) Inhibitory circuit motifs in Drosophila larvae generate motor program diversity and variability. PLoS biology, 23(4), e3003094.

Shin HS, et al. (2025) Resistive Switching Behavior of Sol-Gel-Processed ZnMgO/ZnO Bilayer in Optoelectronic Devices. Nanomaterials (Basel, Switzerland), 15(17).

Hong H, et al. (2025) Memristor-based adaptive analog-to-digital conversion for efficient and accurate compute-in-memory. Nature communications, 16(1), 9749.

Sung J, et al. (2024) Unveiling the Role of Side Chain for Improving Nonvolatile Characteristics of Conjugated Polymers-Based Artificial Synapse. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(16), e2400304.

Jeong BH, et al. (2024) RGB Color-Discriminable Photonic Synapse for Neuromorphic Vision System. Nano-micro letters, 17(1), 78.

Song HW, et al. (2024) A pattern recognition artificial olfactory system based on human olfactory receptors and organic synaptic devices. Science advances, 10(21), eadl2882.

Liu X, et al. (2023) An Optoelectronic Synapse Based on Two-Dimensional Violet Phosphorus Heterostructure. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 10(22), e2301851.

Yook CG, et al. (2023) Design Strategies of 40 nm Split-Gate NOR Flash Memory Device for Low-Power Compute-in-Memory Applications. Micromachines, 14(9).

Sahu DP, et al. (2023) Linear and symmetric synaptic weight update characteristics by controlling filament geometry in oxide/suboxide HfOx bilayer memristive device for neuromorphic computing. Scientific reports, 13(1), 9592.

Hossen I, et al. (2022) Data-driven RRAM device models using Kriging interpolation. Scientific reports, 12(1), 5963.

Zhao Y, et al. (2022) Group linear non-Gaussian component analysis with applications to neuroimaging. Computational statistics & data analysis, 171.

Kazemi A, et al. (2022) Achieving software-equivalent accuracy for hyperdimensional computing with ferroelectric-based in-memory computing. Scientific reports, 12(1), 19201.

Choi Y, et al. (2020) Vertical organic synapse expandable to 3D crossbar array. Nature communications, 11(1), 4595.

Degryse J, et al. (2020) A likelihood ratio approach for functional localization in fMRI. Journal of neuroscience methods, 330, 108417.

Olszowy W, et al. (2019) Accurate autocorrelation modeling substantially improves fMRI reliability. Nature communications, 10(1), 1220.

Saggar M, et al. (2018) Towards a new approach to reveal dynamical organization of the brain using topological data analysis. Nature communications, 9(1), 1399.

Nicolini C, et al. (2017) Community detection in weighted brain connectivity networks beyond the resolution limit. NeuroImage, 146, 28.

Degryse J, et al. (2017) Introducing Alternative-Based Thresholding for Defining Functional Regions of Interest in fMRI. Frontiers in neuroscience, 11, 222.

Bordier C, et al. (2017) Graph Analysis and Modularity of Brain Functional Connectivity Networks: Searching for the Optimal Threshold. Frontiers in neuroscience, 11, 441.