Resource Summary Report

Generated by T1D on Aug 1, 2026

GLMdenoise: a fast, automated technique for denoising task-based fMRI data

RRID:SCR_014116
Type: Tool

Proper Citation

GLMdenoise: a fast, automated technique for denoising task-based fMRI data (RRID:SCR_014116)

Resource Information

URL: http://www.nitrc.org/projects/glmdenoise

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Description: A MATLAB toolbox for denoising task-based fMRI data. It derives noise regressors from voxels unrelated to the experimental paradigm and uses these regressors in a general linear model (GLM) analysis of the data. The technique only requires a design matrix indicating the experimental design and an fMRI dataset.

Synonyms: GLMdenoise

Resource Type: software resource, software toolkit

Keywords: matlab toolbox, software toolkit, denoise, fmri

Funding: McDonnell Center for Systems Neuroscience and Arts and Sciences at Washington University ;
NEI F32-EY022294;
NEI K99-EY022116;
NEI RO1-EY03164

Availability: Acknowledgement Requested

Resource Name: GLMdenoise: a fast, automated technique for denoising task-based fMRI data

Resource ID: SCR_014116

Alternate URLs: http://kendrickkay.net/GLMdenoise/

Record Creation Time: 20220129T080319+0000

Record Last Update: 20260801T042724+0000

Ratings and Alerts

No rating or validation information has been found for GLMdenoise: a fast, automated technique for denoising task-based fMRI data.

No alerts have been found for GLMdenoise: a fast, automated technique for denoising task-based fMRI data.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 7 mentions in open access literature.

Listed below are recent publications. The full list is available at T1D .

Li M, et al. (2025) Individual differences in vicarious pain as a shift in the self-other boundary. Imaging neuroscience (Cambridge, Mass.), 3.

Cheng YA, et al. (2025) A neural geometry approach comprehensively explains apparently conflicting models of visual perceptual learning. Nature human behaviour, 9(5), 1023.

Gifford AT, et al. (2025) A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. ArXiv.

Li M, et al. (2024) Can the neural representation of physical pain predict empathy for pain in others? Social cognitive and affective neuroscience, 19(1).

Kim SG, et al. (2024) Linguistic modulation of the neural encoding of phonemes. Cerebral cortex (New York, N.Y. : 1991), 34(4).

Ritchie JB, et al. (2021) The unreliable influence of multivariate noise normalization on the reliability of neural dissimilarity. NeuroImage, 245, 118686.

Agrawal A, et al. (2020) A compositional neural code in high-level visual cortex can explain jumbled word reading. eLife, 9.