Resource Summary Report

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Multivariate Exploratory Linear Optimized Decomposition into Independent Components

RRID:SCR_024916
Type: Tool

Proper Citation

Multivariate Exploratory Linear Optimized Decomposition into Independent Components (RRID:SCR_024916)

Resource Information

URL: https://fsl.fmrib.ox.ac.uk/fsl/fslwiki/MELODIC

Proper Citation: Multivariate Exploratory Linear Optimized Decomposition into Independent Components (RRID:SCR_024916)

Description: Software tool to use at both the subject and group level to decompose FMRI data into time courses and spatial maps using Independent Component Analysis. Used to decompose single or multiple 4D data sets into different spatial and temporal components.

Abbreviations: MELODIC

Synonyms: MELODIC:Multivariate Exploratory Linear Optimized Decomposition into Independent Components

Resource Type: software resource, software application

Keywords: Independent Component Analysis, decompose FMRI data, decompose single or multiple 4D data sets, spatial and temporal components,

Funding:

Availability: Free, Freely available

Resource Name: Multivariate Exploratory Linear Optimized Decomposition into Independent Components

Resource ID: SCR_024916

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Ratings and Alerts

No rating or validation information has been found for Multivariate Exploratory Linear Optimized Decomposition into Independent Components.

No alerts have been found for Multivariate Exploratory Linear Optimized Decomposition into Independent Components.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 20 mentions in open access literature.

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

Gengeç Benli ?, et al. (2024) Data-driven exploratory method investigation on the effect of dyslexia education at brain connectivity in Turkish children: a preliminary study. Brain structure & function, 229(7), 1697.

Pelzer EA, et al. (2024) Data-driven MEG analysis to extract fMRI resting-state networks. Human brain mapping, 45(4), e26644.

Gálber M, et al. (2024) Depressed patients with childhood maltreatment display altered intra- and inter-network resting state functional connectivity. NeuroImage. Clinical, 43, 103632.

Cheng H, et al. (2024) Reversibility of Impaired Large-Scale Functional Brain Networks in Cushing's Disease after Surgery Treatment: A Longitudinal Study. Neuroendocrinology, 114(3), 250.

Kim RY, et al. (2024) Alterations in Brain Morphometric Networks and Their Relationship with Memory Dysfunction in Patients with Type 2 Diabetes Mellitus. Experimental neurobiology, 33(2), 107.

Lipka R, et al. (2024) No changes in triple network engagement following (combined) noradrenergic and glucocorticoid stimulation in healthy men. Social cognitive and affective neuroscience, 19(1).

Ponticorvo S, et al. (2024) Resting-state functional MRI of the nose as a novel investigational window into the nervous system. Scientific reports, 14(1), 26352.

Joliot M, et al. (2024) Modulate the impact of the drowsiness on the resting state functional connectivity. Scientific reports, 14(1), 8652.

Bridgen P, et al. (2023) High resolution and contrast 7 tesla MR brain imaging of the neonate. Frontiers in radiology, 3, 1327075.

Pszczolkowski S, et al. (2022) Connectivity-Guided Theta Burst Transcranial Magnetic Stimulation Versus Repetitive Transcranial Magnetic Stimulation for Treatment-Resistant Moderate to Severe Depression: Magnetic Resonance Imaging Protocol and SARS-CoV-2-Induced Changes for a Randomized Double-blind Controlled Trial. JMIR research protocols, 11(1), e31925.

Jandric D, et al. (2021) Mechanisms of Network Changes in Cognitive Impairment in Multiple Sclerosis. Neurology, 97(19), e1886.

Fathy YY, et al. (2020) Anterior insular network disconnection and cognitive impairment in Parkinson's disease. NeuroImage. Clinical, 28, 102364.

Jollant F, et al. (2020) Neural and molecular correlates of psychological pain during major depression, and its link with suicidal ideas. Progress in neuro-psychopharmacology & biological psychiatry, 100, 109909.

Burzynska AZ, et al. (2015) Physical Activity Is Linked to Greater Moment-To-Moment Variability in Spontaneous Brain Activity in Older Adults. PloS one, 10(8), e0134819.

Bordier C, et al. (2015) Time-resolved detection of stimulus/task-related networks, via clustering of transient intersubject synchronization. Human brain mapping, 36(9), 3404.

Burzynska AZ, et al. (2015) White matter integrity supports BOLD signal variability and cognitive performance in the aging human brain. PloS one, 10(4), e0120315.

Albieri G, et al. (2015) Rapid Bidirectional Reorganization of Cortical Microcircuits. Cerebral cortex (New York, N.Y. : 1991), 25(9), 3025.

Cheng JS, et al. (2014) Resting-state fMRI using passband balanced steady-state free precession. PloS one, 9(3), e91075.

Koopmans PJ, et al. (2012) Whole brain, high resolution spin-echo resting state fMRI using PINS multiplexing at 7 T. NeuroImage, 62(3), 1939.

Erhardt EB, et al. (2011) Comparison of multi-subject ICA methods for analysis of fMRI data. Human brain mapping, 32(12), 2075.