

Resource Summary Report

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Functional Network Connectivity (FNC)

RRID:SCR_015731

Type: Tool

Proper Citation

Functional Network Connectivity (FNC) (RRID:SCR_015731)

Resource Information

URL: <https://trendscenter.org/software/>

Proper Citation: Functional Network Connectivity (FNC) (RRID:SCR_015731)

Description: Software toolbox which finds and displays temporal relations amongst components. This can help determine causal relations in the brain.

Abbreviations: FNC

Synonyms: FNC Toolbox, GIFT toolbox, Functional Network Connectivity Toolbox

Resource Type: data analysis software, data processing software, software application, software resource, software toolkit

Defining Citation: [PMID:18082428](#)

Keywords: fmri, temporal relation, causal relation, neural connectivity,

Availability: Free, Available for download, Tutorial available

Resource Name: Functional Network Connectivity (FNC)

Resource ID: SCR_015731

Old URLs: <http://mialab.mrn.org/software/fnc/index.html>

Record Creation Time: 20220129T080327+0000

Record Last Update: 20260821T194026+0000

Ratings and Alerts

No rating or validation information has been found for Functional Network Connectivity (FNC).

No alerts have been found for Functional Network Connectivity (FNC).

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 26 mentions in open access literature.

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

Kuang LD, et al. (2026) CCPD under sparsity and low-rank constraints: multi-frequency dynamic functional network connectivity analysis in schizophrenia. *Frontiers in neuroscience*, 20, 1775687.

Sendi M, et al. (2025) Comprehensive mapping of cognitive and emotion networks in stress, anxiety, and depression implicates the precuneus as a critical hub. *Research square*.

Duda M, et al. (2025) Functionally Adaptive Structural Basis Sets of the Brain: A Dynamic Fusion Approach. *Human brain mapping*, 46(11), e70302.

Li Y, et al. (2025) Aberrant functional connectivity and the intrinsic activity of primary visual network and their relationship with adolescent atypical depression symptoms. *Frontiers in psychiatry*, 16, 1690871.

Bakiaj R, et al. (2025) Unmasking the Dark Triad: A Data Fusion Machine Learning Approach to Characterize the Neural Bases of Narcissistic, Machiavellian and Psychopathic Traits. *The European journal of neuroscience*, 61(2), e16674.

Edwards-Swart SJ, et al. (2025) Functional Brain Age Acceleration from Dynamic and Static Connectivity Predicts Working Memory and Attention Deficits in Schizophrenia. *medRxiv : the preprint server for health sciences*.

Sendi M, et al. (2025) Dynamic Brain Age Modeling Identifies Network-Specific Cognitive Deficits in Schizophrenia. *Research square*.

Sendi MSE, et al. (2025) Visualizing functional network connectivity differences using an explainable machine-learning method. *Physiological measurement*, 46(4).

Zhu Y, et al. (2024) Abnormal Functional Connectivity Intra- and Inter-Network in Resting-State Brain Networks of Patients with Toothache. *Journal of pain research*, 17, 2111.

Faghiri A, et al. (2024) Frequency modulation increases the specificity of time-resolved connectivity: A resting-state fMRI study. *Network neuroscience (Cambridge, Mass.)*, 8(3), 734.

Tu Y, et al. (2024) Relationship between brain white matter damage and grey matter atrophy in hereditary spastic paraplegia types 4 and 5. *European journal of neurology*, 31(8), e16310.

Wylie KP, et al. (2024) Hierarchical Principal Components for Data-Driven Multiresolution fMRI Analyses. *Brain sciences*, 14(4).

Sendi M, et al. (2024) Brain dynamics reflecting an intra-network brain state is associated with increased posttraumatic stress symptoms in the early aftermath of trauma. *Research square*.

Wang Z, et al. (2023) Differences in resting-state brain networks and gray matter between APOE ϵ 2 and APOE ϵ 4 carriers in non-dementia elderly. *Frontiers in psychiatry*, 14, 1197987.

Moser DA, et al. (2023) Within-network brain connectivity during a social optimism task is related to personal optimism and optimism for in-group members. *Human brain mapping*, 44(12), 4561.

Kreitz S, et al. (2023) 3T vs. 7T fMRI: capturing early human memory consolidation after motor task utilizing the observed higher functional specificity of 7T. *Frontiers in neuroscience*, 17, 1215400.

Zhang H, et al. (2022) Changes in the Intranetwork and Internetwork Connectivity of the Default Mode Network and Olfactory Network in Patients with COVID-19 and Olfactory Dysfunction. *Brain sciences*, 12(4).

Cui D, et al. (2022) Beneficial Effect of High-Frequency Repetitive Transcranial Magnetic Stimulation for the Verbal Memory and Default Mode Network in Healthy Older Adults. *Frontiers in aging neuroscience*, 14, 845912.

Bezmaternykh DD, et al. (2021) Brain Networks Connectivity in Mild to Moderate Depression: Resting State fMRI Study with Implications to Nonpharmacological Treatment. *Neural plasticity*, 2021, 8846097.

Kumar R, et al. (2021) Ground-truth "resting-state" signal provides data-driven estimation and correction for scanner distortion of fMRI time-series dynamics. *NeuroImage*, 227, 117584.