Resource Summary Report

Generated by kravitz2 on Jul 30, 2026

Brain Connectivity Toolbox

RRID:SCR_004841
Type: Tool

Proper Citation

Brain Connectivity Toolbox (RRID:SCR_004841)

Resource Information

URL: http://www.brain-connectivity-toolbox.net

Proper Citation: Brain Connectivity Toolbox (RRID:SCR_004841)

Description: A large selection of complex network measures in Matlab that are increasingly used to characterize structural and functional brain connectivity datasets. Several people have contributed to the toolbox, and if you wish to contribute with a new function or set of functions, please contact Olaf Sporns. All efforts have been made to avoid errors, but users are strongly urged to independently verify the accuracy and suitability of toolbox functions for the chosen application. Please report bugs or substantial improvements.

Abbreviations: BCT

Resource Type: software toolkit, software resource

Defining Citation: PMID:19819337

Keywords: brain, connectivity, matlab, brain network, c++, structure, function, brain connectivity, matlab, magnetic resonance, os independent, statistical operation

Funding: CSIRO ICT Centre scholarship ;
J.S. McDonnell Foundation Brain NRG JSMF22002082

Resource Name: Brain Connectivity Toolbox

Resource ID: SCR_004841

Alternate IDs: nlx_143925

Alternate URLs: http://www.nitrc.org/projects/bct

Record Creation Time: 20220129T080226+0000

Record Last Update: 20260729T044107+0000

Ratings and Alerts

No rating or validation information has been found for Brain Connectivity Toolbox.

No alerts have been found for Brain Connectivity Toolbox.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 324 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Aghamoosa S, et al. (2025) Accelerated iTBS-Induced changes in resting-state functional connectivity correspond with cognitive improvement in amnestic MCI. Brain stimulation, 18(3), 957.

Wainstein G, et al. (2025) Evidence from pupillometry, fMRI, and RNN modelling shows that gain neuromodulation mediates task-relevant perceptual switches. eLife, 13.

Dong Y, et al. (2025) Effects of tDCS of the DLPFC on brain networks: A hybrid brain modeling study. PLoS computational biology, 21(9), e1013486.

Roshanaei M, et al. (2025) EEG-based functional and effective connectivity patterns during emotional episodes using graph theoretical analysis. Scientific reports, 15(1), 2174.

McIntyre CC, et al. (2025) Triple network dynamics and future alcohol consumption in adolescents. Alcohol, clinical & experimental research, 49(6), 1206.

Monai E, et al. (2025) Case Report: Electro-cortical network effects of an acute stroke revealed by high-density electroencephalography. Frontiers in neuroscience, 19, 1486249.

Liu L, et al. (2025) Tripartite organization of brain state dynamics underlying spoken narrative comprehension. eLife, 13.

Shappell HM, et al. (2025) Dynamic Resting-State Network Markers of Disruptive Behavior Problems in Youth. bioRxiv : the preprint server for biology.

Zhu X, et al. (2025) Modulation of brain oscillations by continuous theta burst stimulation in patients with insomnia. Translational psychiatry, 15(1), 416.

Jung EY, et al. (2025) Time-varying brain state dynamics in trait impulsivity and anxiety: An HSMM analysis of resting-state fMRI. Social cognitive and affective neuroscience, 20(1).

Nakuci J, et al. (2025) The neuroreceptors and transporters underlying spontaneous brain activity. Communications biology, 8(1), 1130.

Song B, et al. (2025) Effects of Cerebellar Repetitive Transcranial Magnetic Stimulation at Different Frequencies on Working Memory: An EEG Study. CNS neuroscience & therapeutics, 31(7), e70491.

Yu L, et al. (2025) Age-Specific Functional Connectivity Changes After Partial Sleep Deprivation Are Correlated With Neurocognitive and Molecular Signatures. CNS neuroscience & therapeutics, 31(2), e70272.

Jahani A, et al. (2025) Preictal connectivity dynamics: Exploring inflow and outflow in iEEG networks. Frontiers in network physiology, 5, 1539682.

Yang L, et al. (2025) Stable individualized brain computing model informed by spatiotemporal co-activity patterns. PLoS computational biology, 21(12), e1013817.

Chopra S, et al. (2025) The Transdiagnostic Connectome Project: an open dataset for studying brain-behavior relationships in psychiatry. Scientific data, 12(1), 923.

Huang JY, et al. (2025) From initial formation to developmental refinement: GABAergic inputs shape neuronal subnetworks in the primary somatosensory cortex. iScience, 28(3), 112104.

Gatica M, et al. (2025) Understanding the high-order network plasticity mechanisms of ultrasound neuromodulation. PLoS computational biology, 21(10), e1013514.

Saha S, et al. (2025) Local homeostasis preserves global neural dynamics compensating for structural loss during human lifespan aging. Communications biology, 8(1), 1251.

Wang X, et al. (2024) The dynamics of functional brain network segregation in feedback-driven learning. Communications biology, 7(1), 531.