## **Resource Summary Report**

Generated by dkNET on May 21, 2025

# **Cortical connectivity data sets**

RRID:SCR\_003190 Type: Tool

### **Proper Citation**

Cortical connectivity data sets (RRID:SCR\_003190)

#### **Resource Information**

URL: https://sites.google.com/site/bctnet/datasets

Proper Citation: Cortical connectivity data sets (RRID:SCR\_003190)

**Description:** THIS RESOURCE IS NO LONGER IN SERVICE. Documented on January 5, 2023. This site has a collection of cortical connectivity datasets and modeling software components that can be downloaded and used for modeling of cortical circuits. The toolbox combines Matlab functions and neuroanatomical data sets useful in the analysis of structural or functional brain networks. Several people have made contributions and if you wish to contribute yourself with a new function or set of functions please contact osporns\_at\_indiana.edu.The following is a collection of commonly used large scale cortical connectivity data sets compiled from tract-tracing studies. Hence nodes represent cortical areas and links represent large cortico-cortical tracts. \* macaque71.mat (BD network). Macaque cortical connectivity: 71 nodes 746 links. Reference: Young (1993). Contributor: OS. Used in e.g. Sporns (2002). \* fve30.mat; fve32.mat (BD networks). Two version the macaque visual cortex. fve30.mat: 30 nodes 311 links. fve32.mat: 32 nodes 320 links. Reference: Felleman and van Essen (1991). Contributor: OS. Used in e.g. Sportns et al. (2000) Sporns and Kotter (2004). \* macaque47.mat (BD network). Large scale corticocortical connectivity matrix of the visual and sensorimotor areas in the macaque. 47 nodes; 505 links. Used in e.g. Honey et al. (2007). Contributor: RK. \* cat.mat (WD networks). Connection matrices of cat cortex. CIJall contains all cortical and thalamic areas: 95 nodes 2126 links. CIJctx contains only 52 cortical areas: 52 nodes 820 links. Reference: Scannell et al. (1999). Contributor: OS. Used in e.g. Sporns and Zwi (2004) Sporns and Kotter (2004). \* DSIhumanctx.mat (WU networks).

Synonyms: CCDS

**Resource Type:** data or information resource, simulation software, database, software resource, software application

**Keywords:** electrophysiology, macaque, modeling, neocortex, physiological model, visual cortex

Funding:

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: Cortical connectivity data sets

Resource ID: SCR\_003190

Alternate IDs: nif-0000-00584

Old URLs: http://sites.google.com/a/brain-connectivity-toolbox.net/bct/datasets

Record Creation Time: 20220129T080217+0000

Record Last Update: 20250521T060911+0000

#### **Ratings and Alerts**

No rating or validation information has been found for Cortical connectivity data sets.

No alerts have been found for Cortical connectivity data sets.

#### Data and Source Information

Source: SciCrunch Registry

#### **Usage and Citation Metrics**

We found 5 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>dkNET</u>.

Chamberlain BP, et al. (2018) Real-time community detection in full social networks on a laptop. PloS one, 13(1), e0188702.

Kim DH, et al. (2017) Enhanced storage capacity with errors in scale-free Hopfield neural networks: An analytical study. PloS one, 12(10), e0184683.

Takaguchi T, et al. (2016) Cycle and flow trusses in directed networks. Royal Society open science, 3(11), 160270.

Singh SS, et al. (2016) Scaling in topological properties of brain networks. Scientific reports, 6, 24926.

Pedersen M, et al. (2015) Increased segregation of brain networks in focal epilepsy: An fMRI graph theory finding. NeuroImage. Clinical, 8, 536.