

Resource Summary Report

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DTI Fiber Tract Statistics

RRID:SCR_009460

Type: Tool

Proper Citation

DTI Fiber Tract Statistics (RRID:SCR_009460)

Resource Information

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

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Description: This is a command line tool which allows the user to study the behavior of water diffusion (using DTI data) along the length of the white matter fiber-tracts. Various tract-oriented scalar diffusion measures obtained from DTI brain images, are treated as a continuous function of white matter fibers" arc-length. To analyze the trend along a given fiber tract, a command line tool performs kernel regression on this data. The idea is to try out different noise models and maximum likelihood estimates within kernel windows (along the tract), such that they best represent the data and are robust to noise and Partial Volume effect. The package contains several command line based modules and an GUI based tool called DTIAtlasFiberAnalyzer to access most functions. The features available in the tool currently, its use and input / output formats and other relevant details are provided in the first draft of the documentation. (<http://www.na-mic.org/Wiki/index.php/Projects:dtistatisticsfibers>).

Abbreviations: DTI Fiber Tract Statistics

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

Keywords: c, linux, magnetic resonance, posix/unix-like, regression, statistical operation, dti

Availability: 3D Slicer License

Resource Name: DTI Fiber Tract Statistics

Resource ID: SCR_009460

Alternate IDs: nlx_155606

Record Creation Time: 20220129T080253+0000

Record Last Update: 20260905T133045+0000

Ratings and Alerts

No rating or validation information has been found for DTI Fiber Tract Statistics.

No alerts have been found for DTI Fiber Tract Statistics.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Shi Y, et al. (2016) UNC-Emory Infant Atlases for Macaque Brain Image Analysis: Postnatal Brain Development through 12 Months. *Frontiers in neuroscience*, 10, 617.

Verde AR, et al. (2014) UNC-Utah NA-MIC framework for DTI fiber tract analysis. *Frontiers in neuroinformatics*, 7, 51.

Gerig G, et al. (2011) Synergy of image analysis for animal and human neuroimaging supports translational research on drug abuse. *Frontiers in psychiatry*, 2, 53.