Resource Summary Report

Generated by NIF on May 28, 2025

ConTrack

RRID:SCR_002681
Type: Tool

Proper Citation

ConTrack (RRID:SCR_002681)

Resource Information

URL: https://simtk.org/home/contrack

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Description: An algorithm for identifying pathways that are known to exist between two regions within DTI data of anisotropic tissue, e.g., muscle, brain, spinal cord. The ConTrack algorithms use knowledge of DTI scanning physics and apriori information about tissue architecture to identify the location of connections between two regions within the DTI data. Assuming a course of connection or pathway between these two regions is known to exist within the measured tissue, ConTrack can be used to estimate properties of these connections in-vivo.

Abbreviations: ConTrack

Synonyms: Connectivity Tracking, Connectivity Tracking (ConTrack)

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

Defining Citation: PMID:18831651

Keywords: diffusion tensor imaging, tractography, brain connectivity, mri, software, source code, pathway, fiber tractography, tissue analysis

Funding: NIH Roadmap for Medical Research ;
NIGMS U54 GM072970;
NEI EY015000

Availability: MIT License

Resource Name: ConTrack

Resource ID: SCR_002681

Alternate IDs: nif-0000-23303

Record Creation Time: 20220129T080214+0000

Record Last Update: 20250528T060514+0000

Ratings and Alerts

No rating or validation information has been found for ConTrack.

No alerts have been found for ConTrack.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 10 mentions in open access literature.

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

Chan AYC, et al. (2022) Neural Correlates of Sensory Eye Dominance in Human Visual White Matter Tracts. eNeuro, 9(6).

Moon Y, et al. (2021) In vivo Analysis of Normal Optic Nerve in an Elderly Population Using Diffusion Magnetic Resonance Imaging Tractography. Frontiers in neurology, 12, 680488.

Minami S, et al. (2020) Inter-individual Differences in Occipital Alpha Oscillations Correlate with White Matter Tissue Properties of the Optic Radiation. eNeuro, 7(2).

Takemura H, et al. (2020) Predicting Neural Response Latency of the Human Early Visual Cortex from MRI-Based Tissue Measurements of the Optic Radiation. eNeuro, 7(4).

Takemura H, et al. (2019) Diffusivity and quantitative T1 profile of human visual white matter tracts after retinal ganglion cell damage. NeuroImage. Clinical, 23, 101826.

Wang C, et al. (2018) White matter tract-specific quantitative analysis in multiple sclerosis: Comparison of optic radiation reconstruction techniques. PloS one, 13(1), e0191131.

Kuchling J, et al. (2018) Comparison of probabilistic tractography and tract-based spatial statistics for assessing optic radiation damage in patients with autoimmune inflammatory disorders of the central nervous system. NeuroImage. Clinical, 19, 538.

Klistorner A, et al. (2018) Diffusivity in the core of chronic multiple sclerosis lesions. PloS one, 13(4), e0194142.

Klistorner A, et al. (2015) Decoding diffusivity in multiple sclerosis: analysis of optic radiation lesional and non-lesional white matter. PloS one, 10(3), e0122114.

Li K, et al. (2015) The effects of acupuncture treatment on the right frontoparietal network in migraine without aura patients. The journal of headache and pain, 16, 518.