Resource Summary Report

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ExploreDTI

RRID:SCR_001643
Type: Tool

Proper Citation

ExploreDTI (RRID:SCR_001643)

Resource Information

URL: http://www.exploredti.com/

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Description: A graphical toolbox developed in Matlab for exploratory diffusion (tensor) MRI and fiber tractography. It includes diffusion reconstruction approaches, analysis and visualization tools for fiber tractography, atlas based segmentation, and connectivity networks. It also provides a wide range of quality assessment and pre-processing tools. Main features: * Visualization of scalar and vector maps of various diffusion tensor properties * Display of principal diffusion vectors, cuboids, and ellipsoids with several color-encodings * Deterministic (streamline) and 'probabilistic' (wild-bootstrap) fiber tractography * Clustering of fiber tracts * Data quality assessment tools * HARDI reconstructions (Q-ball and spherical deconvolution imaging) * Tract-specific measurements * Tract-segment analysis * Motion / distortion correction (with B-matrix rotation!) * Other cool stuff... (see publication link)

Abbreviations: ExploreDTI

Synonyms: Explore DTI

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

Keywords: diffusion mri, fiber tractography, dti, matlab, visualization, segmentation, connectivity network, quality assessment, pre-processing

Availability: Free, Freely Available

Resource Name: ExploreDTI

Resource ID: SCR_001643

Alternate IDs: nlx_153916

Record Creation Time: 20220129T080208+0000

Record Last Update: 20260806T054327+0000

Ratings and Alerts

No rating or validation information has been found for ExploreDTI.

No alerts have been found for ExploreDTI.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 299 mentions in open access literature.

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

Nivins S, et al. (2025) Sex-specific white matter alterations in children exposed to high pregestational BMI. Obesity (Silver Spring, Md.), 33(6), 1113.

Haker R, et al. (2025) Characterization of Brain Abnormalities in Lactational Neurodevelopmental Poly I:C Rat Model of Schizophrenia and Depression Using Machine-Learning and Quantitative MRI. Journal of magnetic resonance imaging : JMRI, 61(5), 2281.

Laamoumi M, et al. (2025) A taxonomic guide to diffusion MRI tractography visualization tools. NMR in biomedicine, 38(1), e5267.

Zhou M, et al. (2025) Oscillating gradient spin echo diffusion time effects implicate variations in neurite beading for the heterogeneous reduced diffusion in human acute ischemic stroke lesions. Magnetic resonance in medicine, 94(5), 2158.

Meindl T, et al. (2025) Assisted Parkinsonism Diagnosis Using Multimodal MRI-The Role of Clinical Insights. Brain and behavior, 15(1), e70274.

Royo J, et al. (2025) Evidence for an Evolutionary Continuity in Social Dominance: Insights from Nonhuman Primate Tractography. The Journal of neuroscience : the official journal of the Society for Neuroscience, 45(33).

Denier N, et al. (2025) Brain Connectivity of the Cingulate Cortex in Alcohol Use Disorder: Exploring Its Association With Mindfulness. Addiction biology, 30(10), e70036.

Tack RW, et al. (2025) Neuroinflammation in long-term cognitive impairment after aneurysmal subarachnoid hemorrhage. International journal of stroke : official journal of the International Stroke Society, 20(10), 1301.

Hosseini SM, et al. (2025) Structural and diffusion imaging in olfactory-related brain regions in Parkinson's disease: predictors of clinical progression. Scientific reports, 15(1), 35636.

Surbeck W, et al. (2025) Altered white matter microstructure of language pathways and semantic cognition deficiencies in early psychosis. Schizophrenia (Heidelberg, Germany), 11(1), 136.

Varga A, et al. (2025) Temporal changes and implications of diffusion tensor imaging metrics and cerebral white matter volume in patients undergoing carotid endarterectomy - a prospective study. Neuroradiology, 67(4), 943.

Madden M, et al. (2025) Jugular Foramen Syndrome: Concurrent Neurological Deficits, Advanced Imaging Findings, Underlying Diagnoses, and Outcomes in 14 Dogs (2016-2024). Journal of veterinary internal medicine, 39(3), e70088.

Drenthen GS, et al. (2025) Diffusion Tensor Imaging Reveals Altered Centrality of Pain-Related Regions in SCN9A-Associated Small Fiber Neuropathy. Journal of neuroimaging : official journal of the American Society of Neuroimaging, 35(6), e70105.

Courtney M, et al. (2025) Connecting the dots: microstructural properties of white matter hyperintensities predict longitudinal cognitive changes in ageing. Frontiers in aging neuroscience, 17, 1520069.

de Jong JJA, et al. (2024) Effect of Magnetic Resonance Image Quality on Structural and Functional Brain Connectivity: The Maastricht Study. Brain sciences, 14(1).

Gonzalez Alam TRJ, et al. (2024) Ventral and dorsal aspects of the inferior frontal-occipital fasciculus support verbal semantic access and visually-guided behavioural control. Brain structure & function, 229(1), 207.

Scholten C, et al. (2024) Prenatal tobacco and alcohol exposure, white matter microstructure, and early language skills in toddlers from a South African birth cohort. Frontiers in integrative neuroscience, 18, 1438888.

Ganesan K, et al. (2024) Cognitive control training with domain-general response inhibition does not change children's brains or behavior. Nature neuroscience, 27(7), 1364.

Caseras X, et al. (2024) Common risk alleles for schizophrenia within the major histocompatibility complex predict white matter microstructure. Translational psychiatry, 14(1), 194.

Gaughan C, et al. (2024) A Pilot Study of Adolescents with Psychotic Experiences: Potential Cerebellar Circuitry Disruption Early Along the Psychosis Spectrum. Cerebellum (London, England), 23(5), 1772.