Resource Summary Report

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TORTOISE

RRID:SCR_001645
Type: Tool

Proper Citation

TORTOISE (RRID:SCR_001645)

Resource Information

URL: http://www.tortoisedti.org

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Description: An integrated and flexible software package for processing of DTI data, and in general for the correction of diffusion weighted images to be used for DTI and potentially for high angular resolution diffusion imaging (HARDI) analysis. It can be run on both Linux and Mac platforms. It is composed of two modules named DIFF PREP and DIFF CALC. * DIFF_PREP - software for image resampling, motion, eddy current distortion and susceptibility induced EPI distortion corrections, and for re-orientation of data to a common space * DIFF_CALC - software for tensor fitting, error analysis, color map visualization and ROI analysis In addition, TORTOISE contains additional Utilities, such as a tool for the analysis of multi-center phantom data.

Abbreviations: TORTOISE

Synonyms: Tolerably Obsessive Registration and Tensor Optimization Indolent Software Ensemble

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

Keywords: diffusion mri, dti, image motion correction, distortion correction, tensor computation, visualization, analysis, tensor fitting, modeling, magnetic resonance, tensor metric

Funding: NICHD

Availability: Acknowledgement requested

Resource Name: TORTOISE

Resource ID: SCR_001645

Alternate IDs: nlx_153921

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

License: Other/Commercial license License, TORTOISE License

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Ratings and Alerts

No rating or validation information has been found for TORTOISE.

No alerts have been found for TORTOISE.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 90 mentions in open access literature.

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

Wang S, et al. (2024) Post-mortem changes of anisotropic mechanical properties in the porcine brain assessed by MR elastography. Brain multiphysics, 6.

Donald KA, et al. (2024) Prenatal alcohol exposure and white matter microstructural changes across the first 6-7 years of life: A longitudinal diffusion tensor imaging study of a South African birth cohort. NeuroImage. Clinical, 41, 103572.

Madzime J, et al. (2024) Reduced white matter maturation in the central auditory system of children living with HIV. Frontiers in neuroimaging, 3, 1341607.

Pas KE, et al. (2024) Direct segmentation of cortical cytoarchitectonic domains using ultra-high-resolution whole-brain diffusion MRI. bioRxiv : the preprint server for biology.

Magondo N, et al. (2024) Distinct alterations in white matter properties and organization related to maternal treatment initiation in neonates exposed to HIV but uninfected. Scientific reports, 14(1), 8822.

Magondo N, et al. (2024) Distinct alterations in white matter properties and organization related to maternal treatment initiation in neonates exposed to HIV but uninfected. bioRxiv : the preprint server for biology.

Takemura H, et al. (2024) A prominent vertical occipital white matter fasciculus unique to primate brains. Current biology : CB, 34(16), 3632.

Bouhrara M, et al. (2023) Adult lifespan maturation and degeneration patterns in gray and white matter: A mean apparent propagator (MAP) MRI study. Neurobiology of aging, 124, 104.

Wang S, et al. (2023) Mechanical stiffness and anisotropy measured by MRE during brain development in the minipig. NeuroImage, 277, 120234.

Zampieri C, et al. (2023) Associations between white matter integrity and postural control in adults with traumatic brain injury. PloS one, 18(11), e0288727.

Williamson BJ, et al. (2023) Altered white matter connectivity in children with congenital heart disease with single ventricle physiology. Scientific reports, 13(1), 1318.

Zhang X, et al. (2023) Increased glymphatic system activity in migraine chronification by diffusion tensor image analysis along the perivascular space. The journal of headache and pain, 24(1), 147.

Wu Y, et al. (2023) High resolution 0.5mm isotropic T1-weighted and diffusion tensor templates of the brain of non-demented older adults in a common space for the MIITRA atlas. NeuroImage, 282, 120387.

O' Brien S, et al. (2023) Rapid white matter changes in children with conduct problems during a parenting intervention. Translational psychiatry, 13(1), 339.

Puthillathu N, et al. (2023) Brief isoflurane administration as an adjunct treatment to control organophosphate-induced convulsions and neuropathology. Frontiers in pharmacology, 14, 1293280.

Reveley C, et al. (2022) Diffusion MRI anisotropy in the cerebral cortex is determined by unmyelinated tissue features. Nature communications, 13(1), 6702.

Roos A, et al. (2022) Prenatal depression exposure alters white matter integrity and neurodevelopment in early childhood. Brain imaging and behavior, 16(3), 1324.

Li Z, et al. (2022) The direction-dependence of apparent water exchange rate in human white matter. NeuroImage, 247, 118831.

Khobo IL, et al. (2022) Multimodal magnetic resonance neuroimaging measures characteristic of early cART-treated pediatric HIV: A feature selection approach. Human brain mapping, 43(13), 4128.

Mackes NK, et al. (2022) A Prospective Study of the Impact of Severe Childhood Deprivation on Brain White Matter in Adult Adoptees: Widespread Localized Reductions in Volume But Unaffected Microstructural Organization. eNeuro, 9(6).