

# Resource Summary Report

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## Numerical Fibre Generator

RRID:SCR\_002457

Type: Tool

### Proper Citation

Numerical Fibre Generator (RRID:SCR\_002457)

### Resource Information

**URL:** <http://www.brain.org.au/software/>

**Proper Citation:** Numerical Fibre Generator (RRID:SCR\_002457)

**Description:** A collection of tools that generate numerical fiber structures with the complexity of human white matter and simulate Diffusion-Weighted MR images that would arise from them. Its primary use is to enable the testing of tracking algorithms

**Abbreviations:** NFG

**Synonyms:** Numerical Fibre Generator (NFG)

**Resource Type:** software resource

**Keywords:** analyze, c, console (text based), macos, microsoft, magnetic resonance, posix/unix-like, tractography, windows, dw-mri

**Availability:** Free, Available for download, Freely available

**Resource Name:** Numerical Fibre Generator

**Resource ID:** SCR\_002457

**Alternate IDs:** nlx\_155832

**Alternate URLs:** <http://www.nitrc.org/projects/nfg>

**License:** GNU General Public License

**Record Creation Time:** 20220129T080213+0000

**Record Last Update:** 20260829T182115+0000

### Ratings and Alerts

No rating or validation information has been found for Numerical Fibre Generator.

No alerts have been found for Numerical Fibre Generator.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 59 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [ASWG](#) .

Krijnen EA, et al. (2024) Intrinsic and extrinsic contributors to subregional thalamic volume loss in multiple sclerosis. *Annals of clinical and translational neurology*, 11(6), 1405.

Chen Q, et al. (2023) Structural connectome alterations in anxious dogs: a DTI-based study. *Scientific reports*, 13(1), 9946.

Takeshige-Amano H, et al. (2022) White matter microstructures in Parkinson's disease with and without impulse control behaviors. *Annals of clinical and translational neurology*, 9(3), 253.

Walker MR, et al. (2021) Peripheral Nerve Focused Ultrasound Lesioning-Visualization and Assessment Using Diffusion Weighted Imaging. *Frontiers in neurology*, 12, 673060.

Yasaka K, et al. (2021) Parkinson's disease: deep learning with a parameter-weighted structural connectome matrix for diagnosis and neural circuit disorder investigation. *Neuroradiology*, 63(9), 1451.

Soni N, et al. (2020) Combined Diffusion Tensor Imaging and Quantitative Susceptibility Mapping Discern Discrete Facets of White Matter Pathology Post-injury in the Rodent Brain. *Frontiers in neurology*, 11, 153.

Fortanier E, et al. (2019) Structural Connectivity Alterations in Amyotrophic Lateral Sclerosis: A Graph Theory Based Imaging Study. *Frontiers in neuroscience*, 13, 1044.

Cafiero R, et al. (2019) The Concurrence of Cortical Surface Area Expansion and White Matter Myelination in Human Brain Development. *Cerebral cortex (New York, N.Y. : 1991)*, 29(2), 827.

Kamagata K, et al. (2019) MR g-ratio-weighted connectome analysis in patients with multiple sclerosis. *Scientific reports*, 9(1), 13522.

Walker MR, et al. (2019) Acute MR-Guided High-Intensity Focused Ultrasound Lesion Assessment Using Diffusion-Weighted Imaging and Histological Analysis. *Frontiers in neurology*, 10, 1069.

Kamagata K, et al. (2018) Connectome analysis with diffusion MRI in idiopathic Parkinson's disease: Evaluation using multi-shell, multi-tissue, constrained spherical deconvolution. *NeuroImage. Clinical*, 17, 518.

Woodworth DC, et al. (2018) Changes in brain white matter structure are associated with urine proteins in urologic chronic pelvic pain syndrome (UCPPS): A MAPP Network study. *PloS one*, 13(12), e0206807.

Perlberg V, et al. (2018) Alterations of the nigrostriatal pathway in a 6-OHDA rat model of Parkinson's disease evaluated with multimodal MRI. *PloS one*, 13(9), e0202597.

Tsai PH, et al. (2017) Early white matter injuries in patients with acute carbon monoxide intoxication: A tract-specific diffusion kurtosis imaging study and STROBE compliant article. *Medicine*, 96(5), e5982.

Wirsich J, et al. (2017) Complementary contributions of concurrent EEG and fMRI connectivity for predicting structural connectivity. *NeuroImage*, 161, 251.

Liu C, et al. (2016) Altered structural connectome in adolescent socially isolated mice. *NeuroImage*, 139, 259.

Wright DK, et al. (2016) Behavioral, blood, and magnetic resonance imaging biomarkers of experimental mild traumatic brain injury. *Scientific reports*, 6, 28713.

Moseley RL, et al. (2016) Reduced Volume of the Arcuate Fasciculus in Adults with High-Functioning Autism Spectrum Conditions. *Frontiers in human neuroscience*, 10, 214.

Zhong J, et al. (2016) An In vivo Multi-Modal Structural Template for Neonatal Piglets Using High Angular Resolution and Population-Based Whole-Brain Tractography. *Frontiers in neuroanatomy*, 10, 92.

Nowell M, et al. (2016) Meyer's loop asymmetry and language lateralisation in epilepsy. *Journal of neurology, neurosurgery, and psychiatry*, 87(8), 836.