Resource Summary Report

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Diffusion Tractography with Kalman Filter

RRID:SCR_002585
Type: Tool

Proper Citation

Diffusion Tractography with Kalman Filter (RRID:SCR_002585)

Resource Information

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

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Description: Software framework which uses an unscented Kalman filter for performing tractography. At each point on the fiber the most consistent direction is found as a mixture of previous estimates and of the local model. It is very easy to expand the framework and to implement new fiber representations for it. Currently it is possible to tract fibers using two different 1-, 2-, or 3-tensor methods. Both methods use a mixture of Gaussian tensors. One limits the diffusion ellipsoids to a cylindrical shape (the second and third eigenvalue are assumed to be identical) and the other one uses a full tensor representation. The project is written in C++. It could be used both as a Slicer3 module and as a standalone commandline application.

Abbreviations: Diffusion Tractography with Kalman Filter

Synonyms: Tractography with Unscented Kalman Filter

Resource Type: software resource, software application

Defining Citation: PMID:19694258

Keywords: c++, diffusion mr fiber tracking, fiber tracking, microsoft, magnetic resonance, nrrd, posix/unix-like, tractography, win32 (ms windows), windows

Funding:

Availability: GNU Lesser General Public License

Resource Name: Diffusion Tractography with Kalman Filter

Resource ID: SCR_002585

Alternate IDs: nlx_155990

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Record Last Update: 20250524T055858+0000

Ratings and Alerts

No rating or validation information has been found for Diffusion Tractography with Kalman Filter.

No alerts have been found for Diffusion Tractography with Kalman Filter.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.