

Accepted Manuscript

Quantifying the brain's sheet structure with normalized convolution

Chantal M.W. Tax , Carl-Fredrik Westin , Tom Dela Haije ,
Andrea Fuster , Max A. Viergever , Evan Calabrese , Luc Florack ,
Alexander Leemans

PII: S1361-8415(17)30043-9
DOI: [10.1016/j.media.2017.03.007](https://doi.org/10.1016/j.media.2017.03.007)
Reference: MEDIMA 1241



To appear in: *Medical Image Analysis*

Received date: 17 June 2016
Revised date: 24 January 2017
Accepted date: 28 March 2017

Please cite this article as: Chantal M.W. Tax , Carl-Fredrik Westin , Tom Dela Haije , Andrea Fuster , Max A. Viergever , Evan Calabrese , Luc Florack , Alexander Leemans , Quantifying the brain's sheet structure with normalized convolution, *Medical Image Analysis* (2017), doi: [10.1016/j.media.2017.03.007](https://doi.org/10.1016/j.media.2017.03.007)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A new method is proposed to quantify the extent of sheet structure in the brain
- Clustering and computing derivatives of diffusion MRI fiber directions is required
- Normalized convolution is adopted to calculate these derivatives
- The reliability of the method is demonstrated with simulations and experimental data
- The method is more robust than a recent method that is based on tractography

Download English Version:

<https://daneshyari.com/en/article/4953384>

Download Persian Version:

<https://daneshyari.com/article/4953384>

[Daneshyari.com](https://daneshyari.com)