



# International Journal of Biomedical Imaging

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### Research Article

## Thalamus Segmentation from Diffusion Tensor Magnetic Resonance Imaging

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### Abstract

We propose a semi-automatic thalamus and thalamus nuclei segmentation algorithm from Diffusion Tensor Magnetic Resonance Imaging (DT-MRI) based on the mean-shift algorithm. Comparing with existing thalamus segmentation algorithms which are mainly based on K-means algorithm, our mean-shift based algorithm is more flexible and adaptive. It does not assume a Gaussian distribution or a fixed number of clusters. Furthermore, the single parameter in the mean-shift based algorithm supports hierarchical clustering naturally.

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