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Rapid fully automatic segmentation of subcortical brain structures by shape-constrained surface adaptation

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Highlights

- Rapid segmentation of clinically relevant sub-cortical brain structures is proposed
- Proposed approach does not require pre-processing, such as bias-field correction, and requires about 30 seconds per scan
- Extensive evaluation demonstrates superior performance (accuracy, reproducibility) of the proposed approach over FSL FIRST or FreeSurfer
- Segmentation results of hippocampus highly coincide with ADNI-EANM ground truth

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