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Multi-atlas Learner Fusion: An efficient segmentation approach for large-scale data

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Highlights

- We build the multi-atlas learner fusion (MLF) framework for mapping weak initial segmentations to the more accurate multi-atlas segmentation.
- The MLF framework cuts the runtime from 36 hours down to 3-8 minutes.
- We demonstrate significant increases in the reproducibility of intra-subject segmentations
- We show the large-scale data model significantly improve the segmentation over the small-scale model under the MLF framework
- The MLF framework has comparable performance as state-of-the-art multi-atlas segmentation algorithms without using non-local information

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