

Supplementary material

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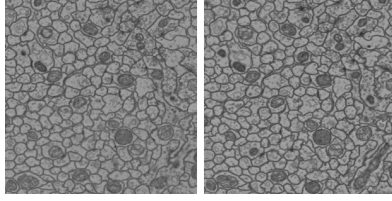
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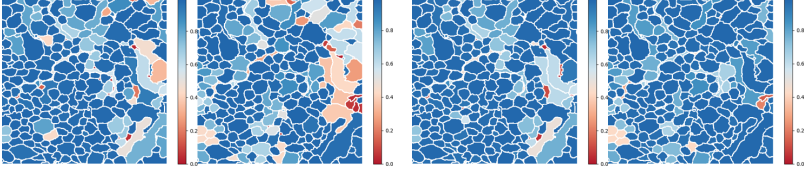
1 Comparison with state-of-the-art methods

Fig. 1 shows a comparison between our method with state-of-the-art methods. Our method correctly segments the membrane structures in images, that leads to outperforms the other methods in term of the number of the regions and also the quality of segmentation (color on the segmentation). It proves the strength of our method.

*These authors contributed equally to this work.

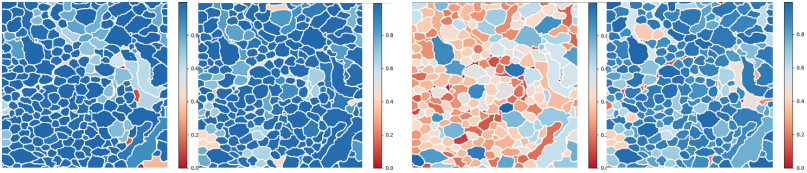


(a) Image



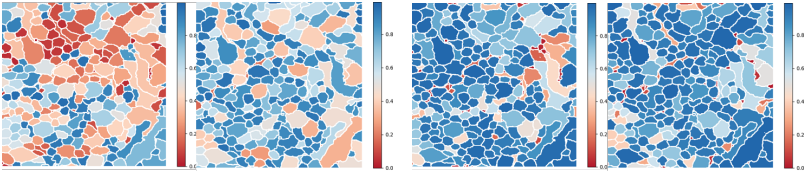
(b) Boundary loss

(c) DC UNET



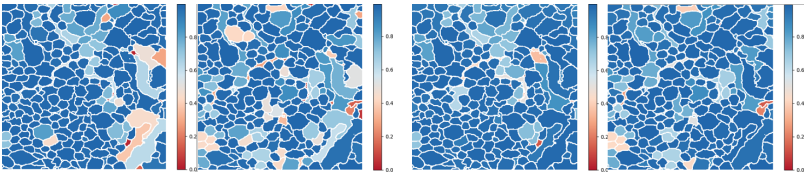
(d) IterNet

(e) MALA



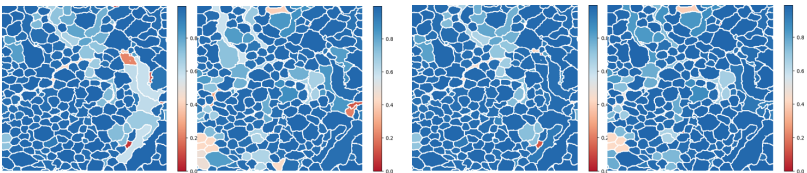
(f) MALIS

(g) Segfix



(h) Mosin

(i) Topoloss



(j) Unet

(k) Unet+BAL

Figure 1: Qualitative results of our proposed method compared to other state-of-the-art methods. The scale from bad to good segmentation is illustrated as from red to blue color.