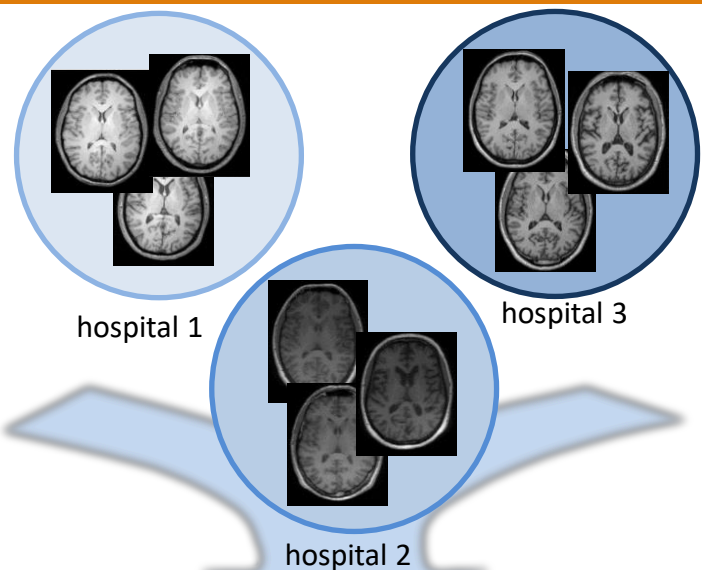


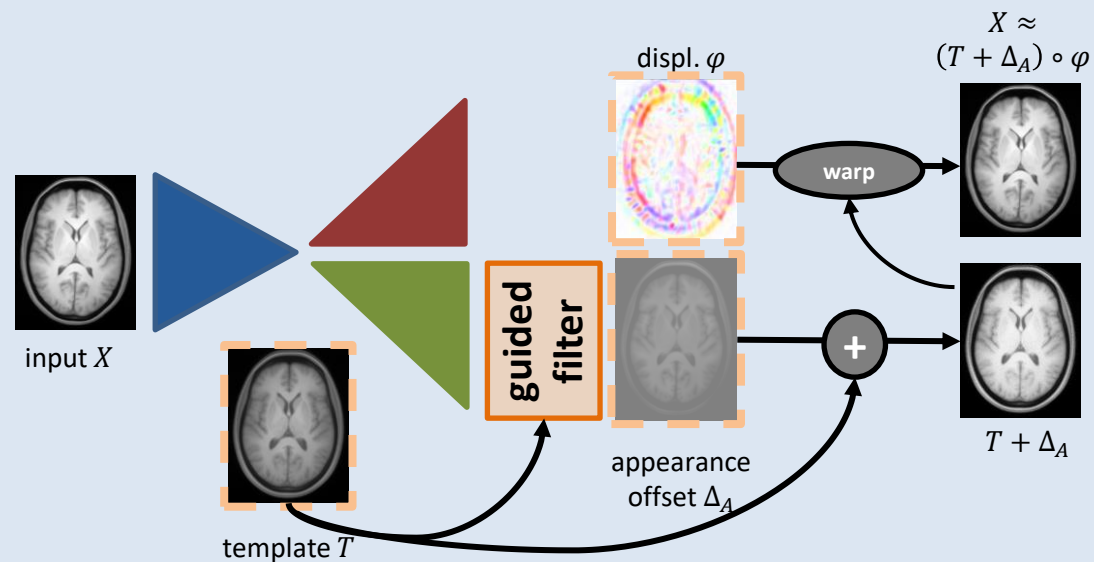
Guided Filter Regularization for Improved Disentanglement of Shape and Appearance in Diffeomorphic Autoencoders

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Model shape and appearance separately:
Diffeomorphic autoencoder with guided filter regularization



$$\text{Loss: } ||X - (T + \Delta_A) \circ \varphi||$$

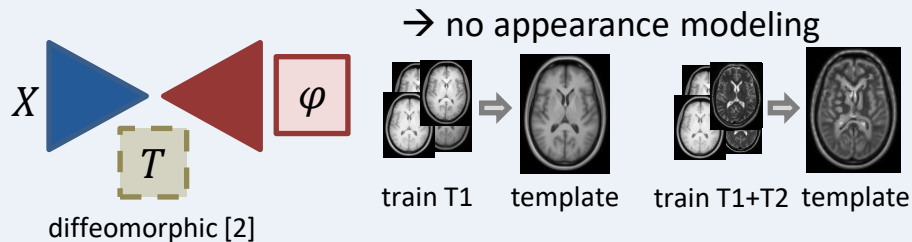
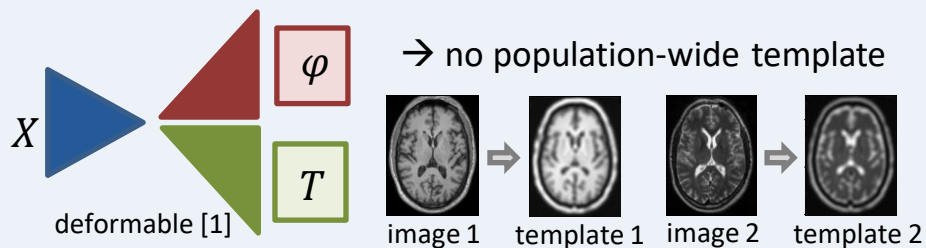
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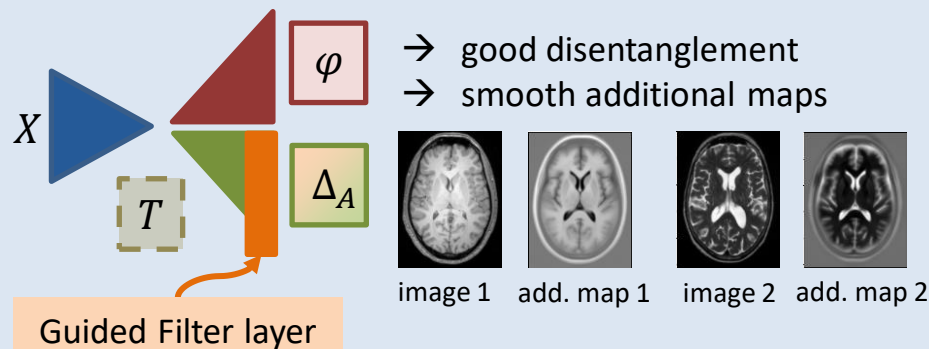
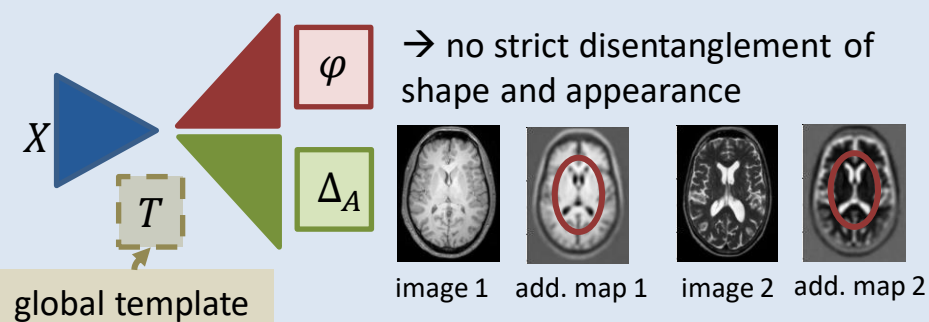
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Existing methods



Proposed



[1] Shu, Zhixin, et al. "Deforming autoencoders: Unsupervised disentangling of shape and appearance." *ECCV*, 2018.

[2] Wu, Huikai, et al. "Fast end-to-end trainable guided filter." *CVPR*, 2018.

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