

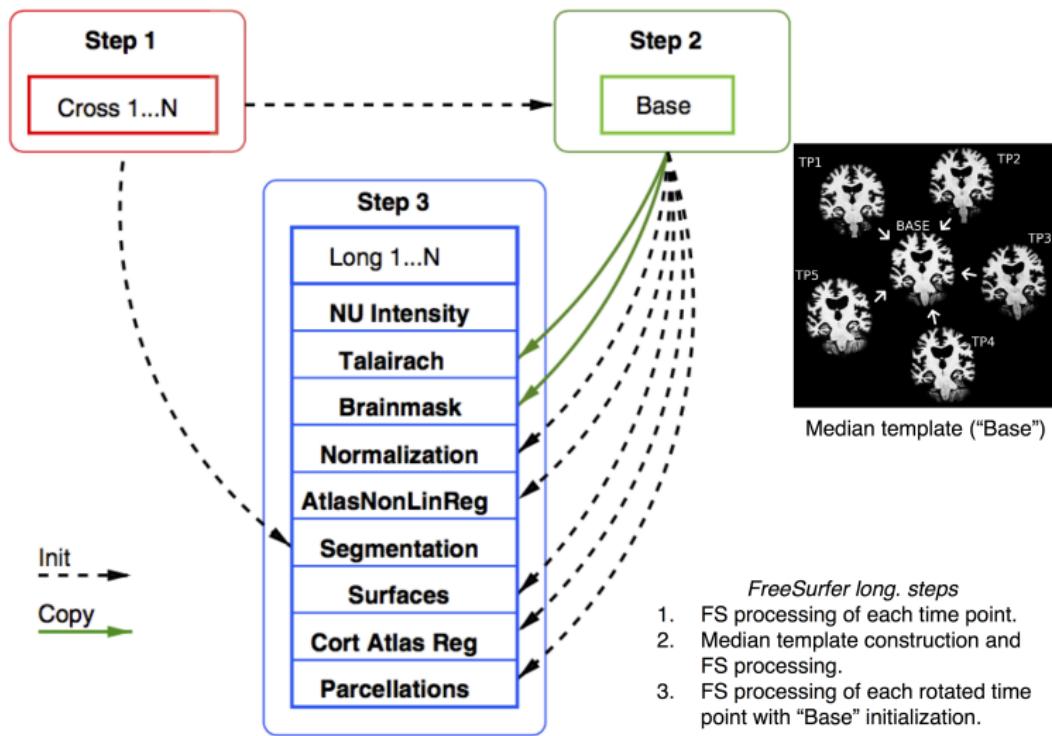
The ANTs longitudinal cortical thickness pipeline

N. Tustison et al.

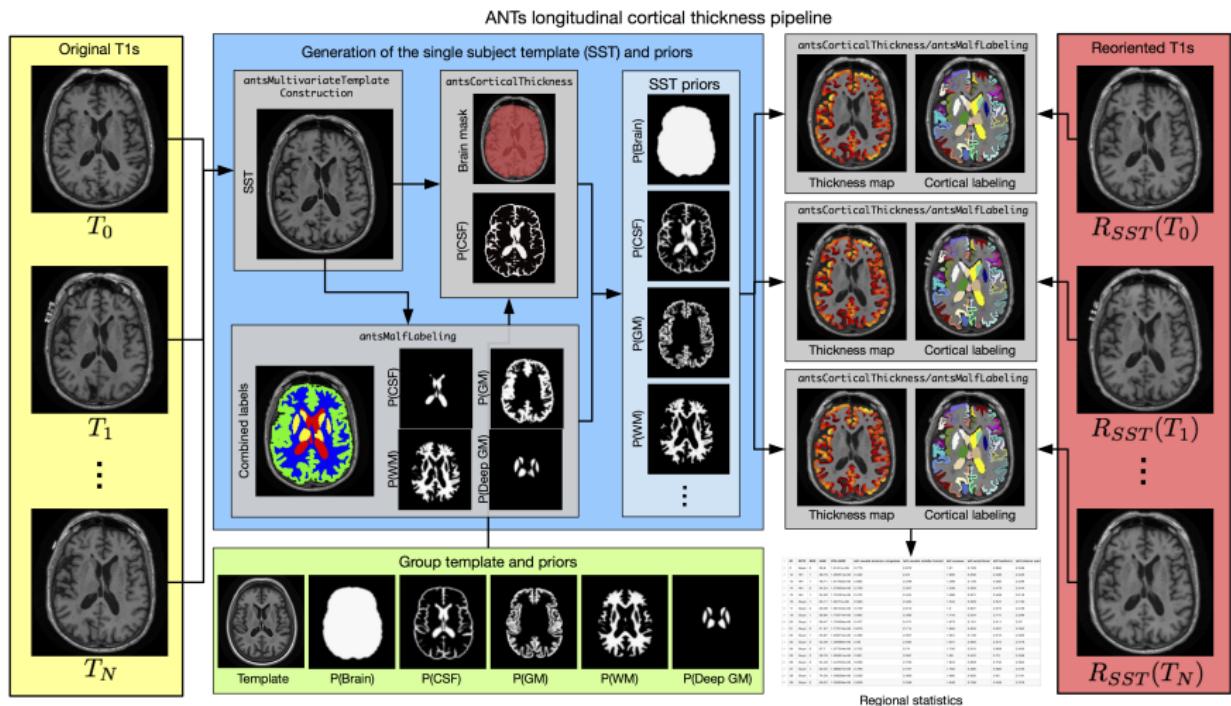
UVa/UCI

Longitudinal cortical structural changes from MRI

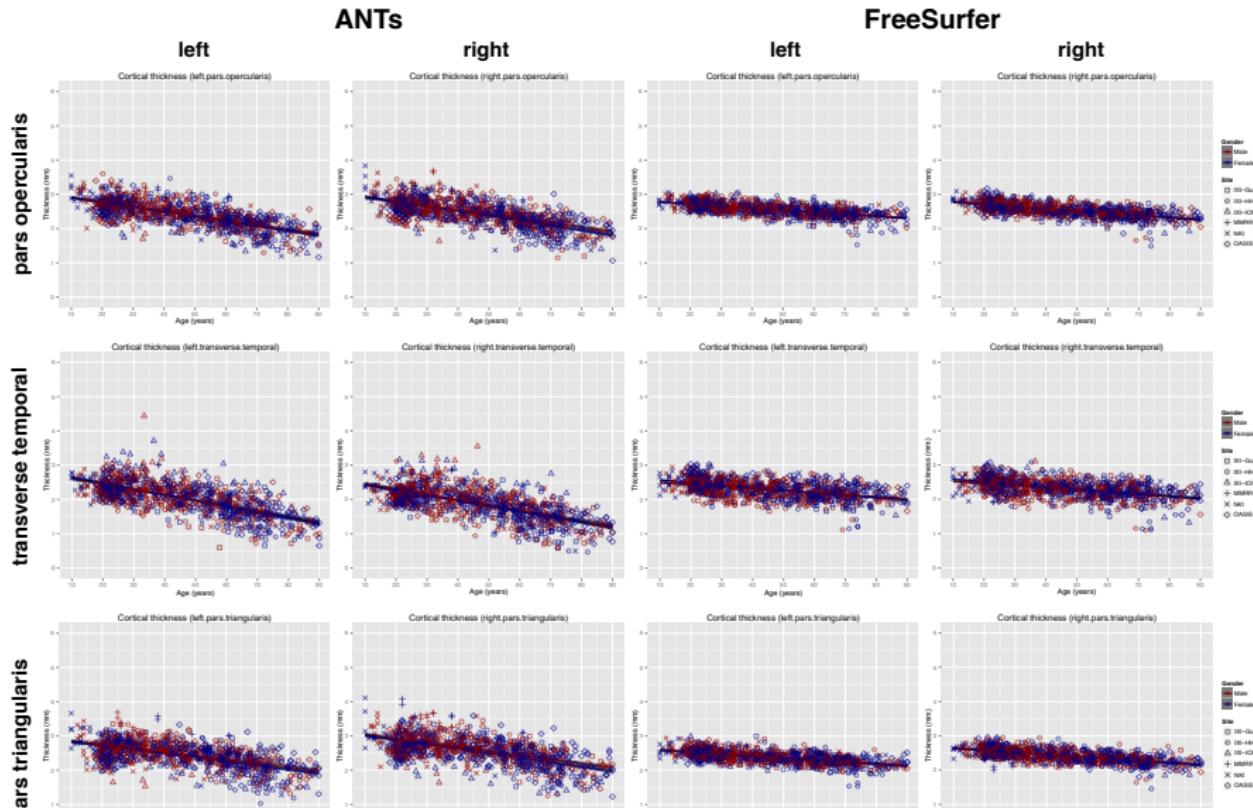
FreeSurfer longitudinal pipeline



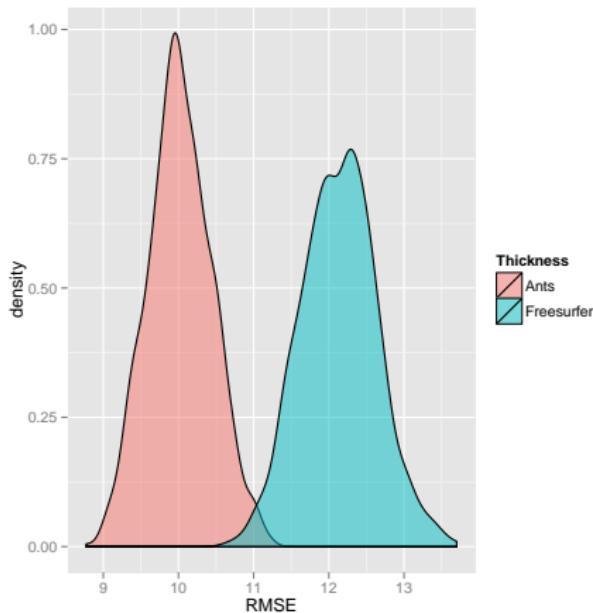
ANTs longitudinal pipeline



Cross-sectional comparison

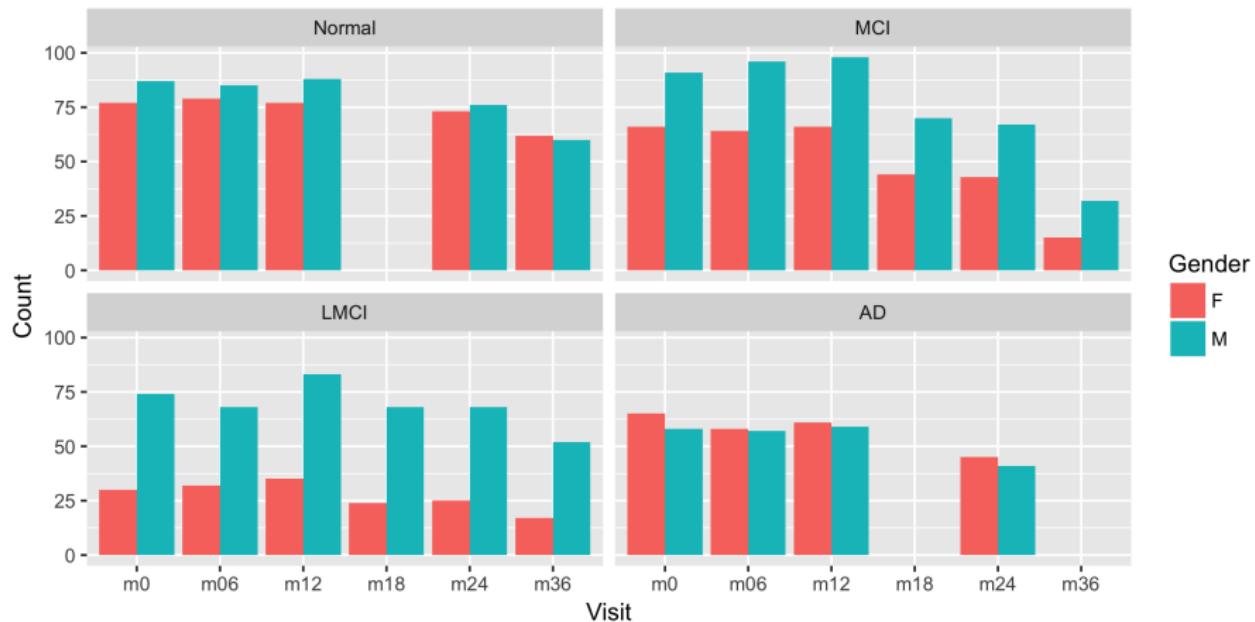


Cross-sectional evaluation (age prediction)

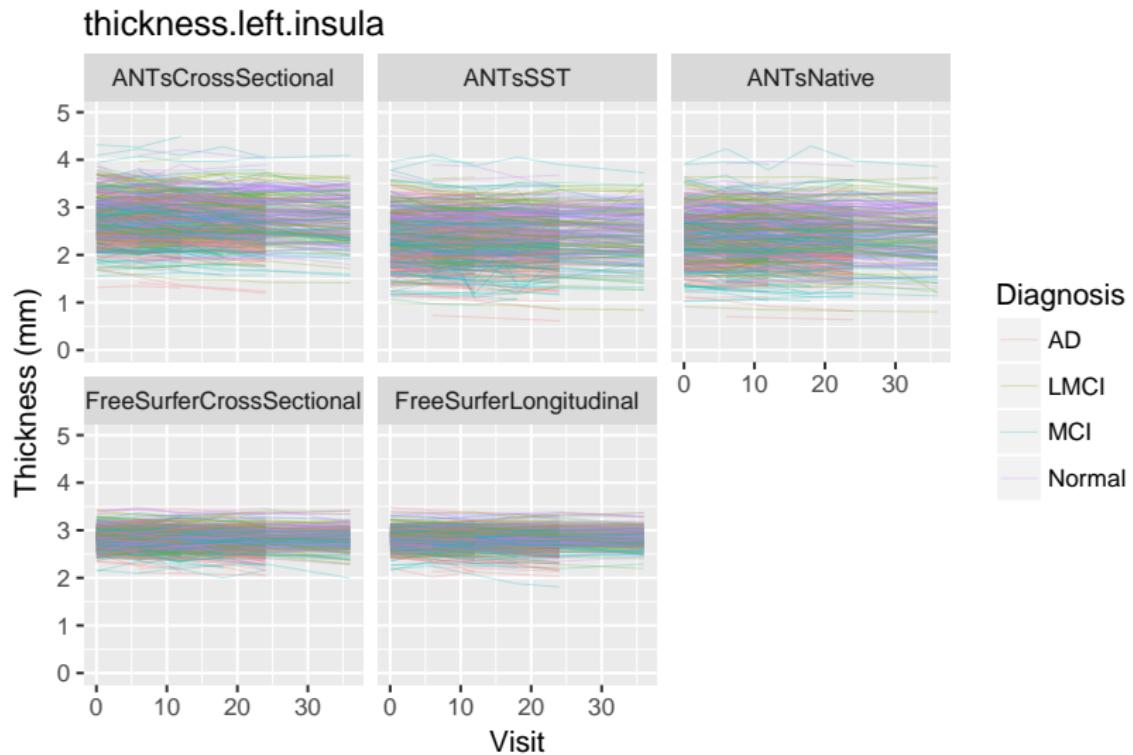


Repeatability: $ICC_{FS} = 0.97$, $ICC_{ANTS} = 0.98$

Longitudinal comparison (ADNI-1)

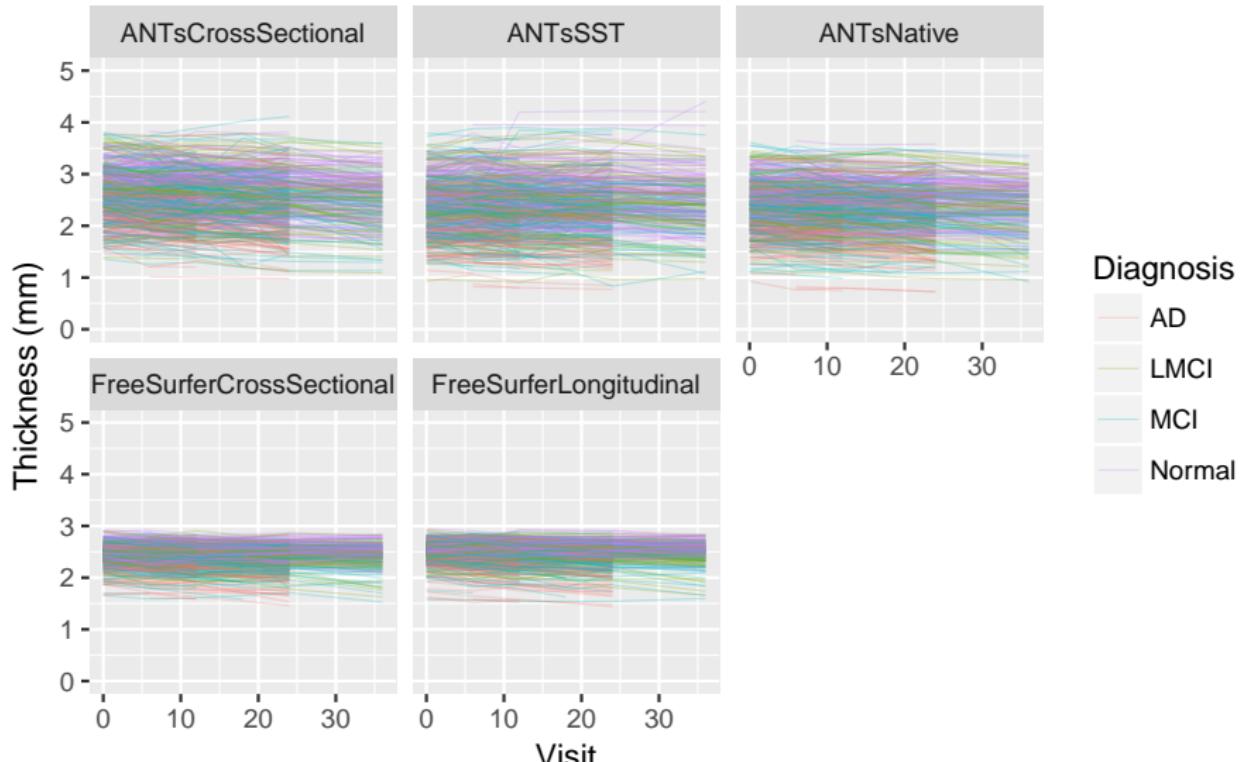


Spaghetti plots (left insula)

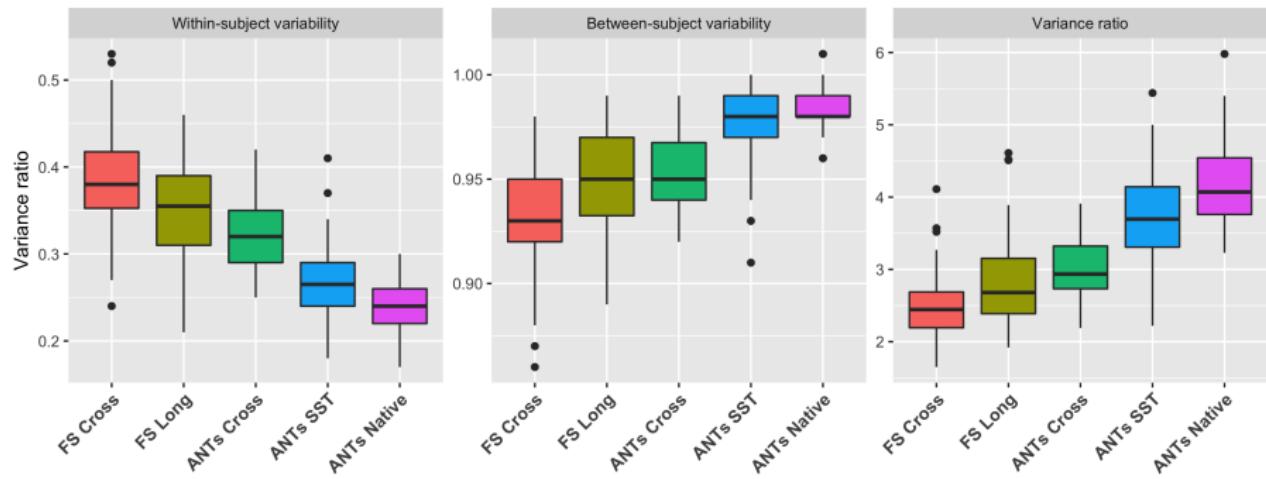


Spaghetti plots (left middle temporal)

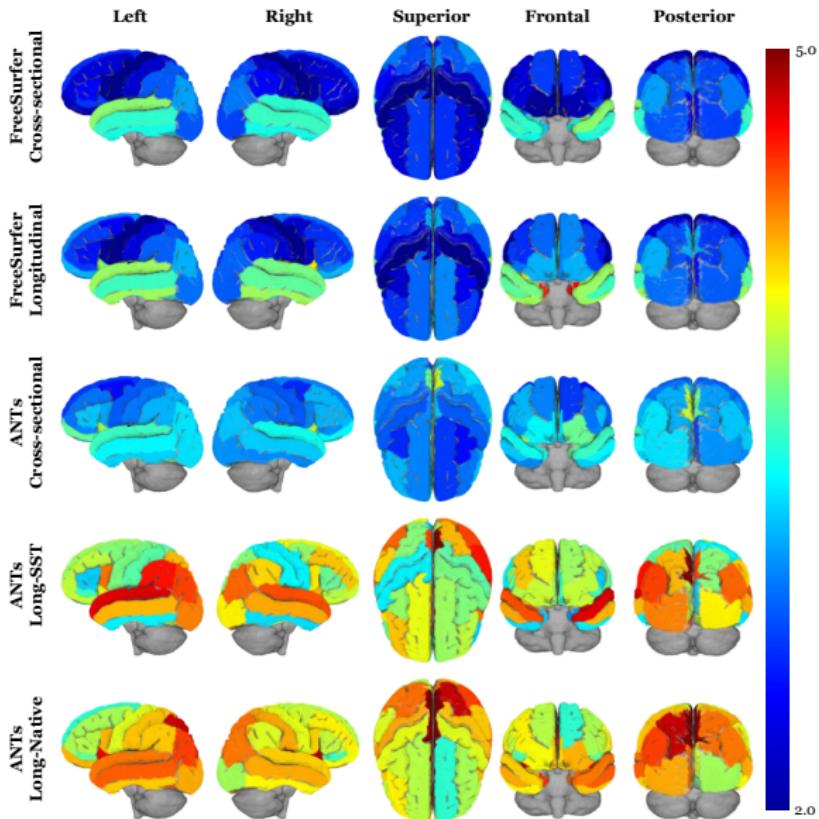
thickness.left.middle.temporal



Within-subject and between-subject variability



Regional comparisons



Issues in the EC

Xie et al., *Accounting for the Confound of Meninges in Segmenting Entorhinal and Perirhinal Cortices in T1-Weighted MRI*, MICCAI 2016.

