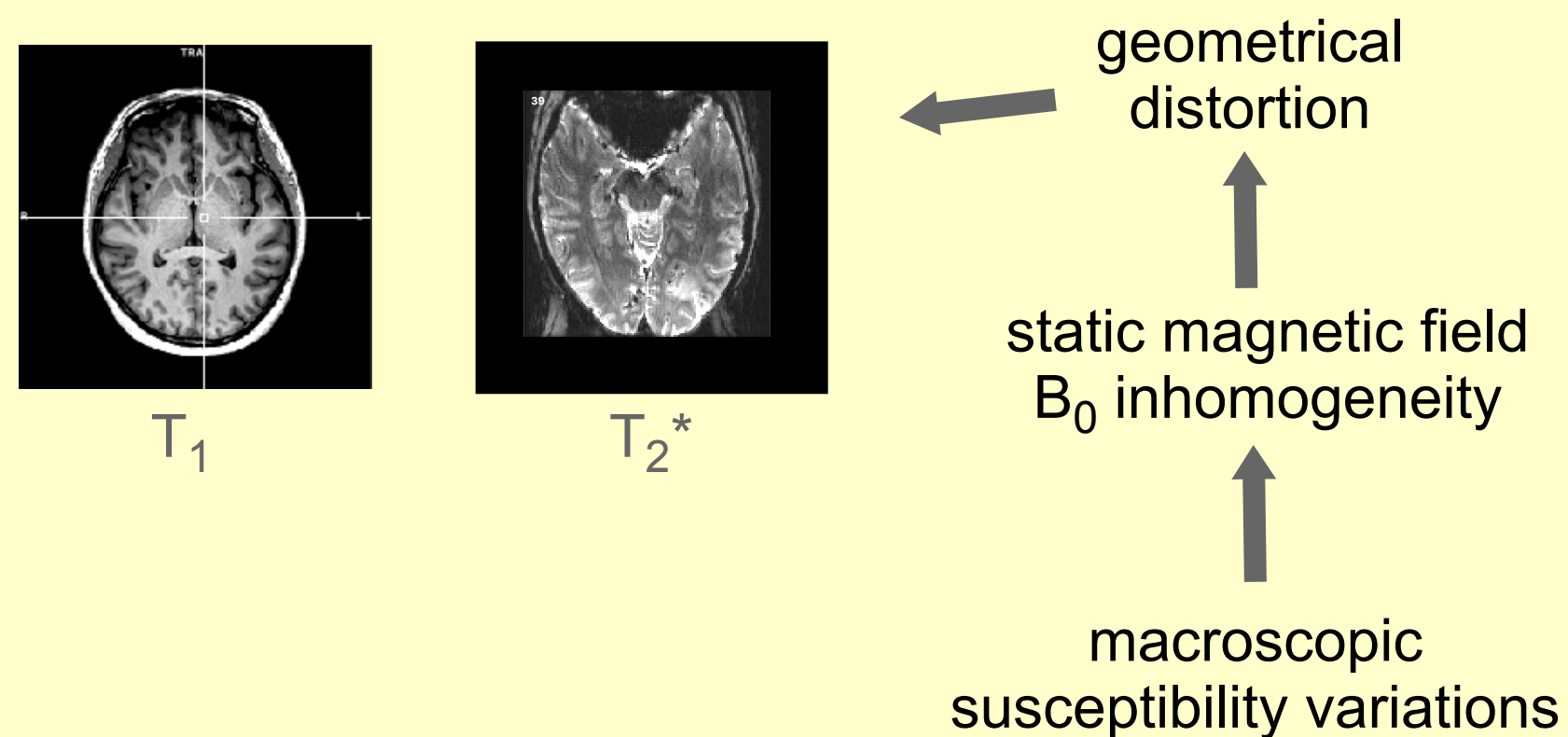


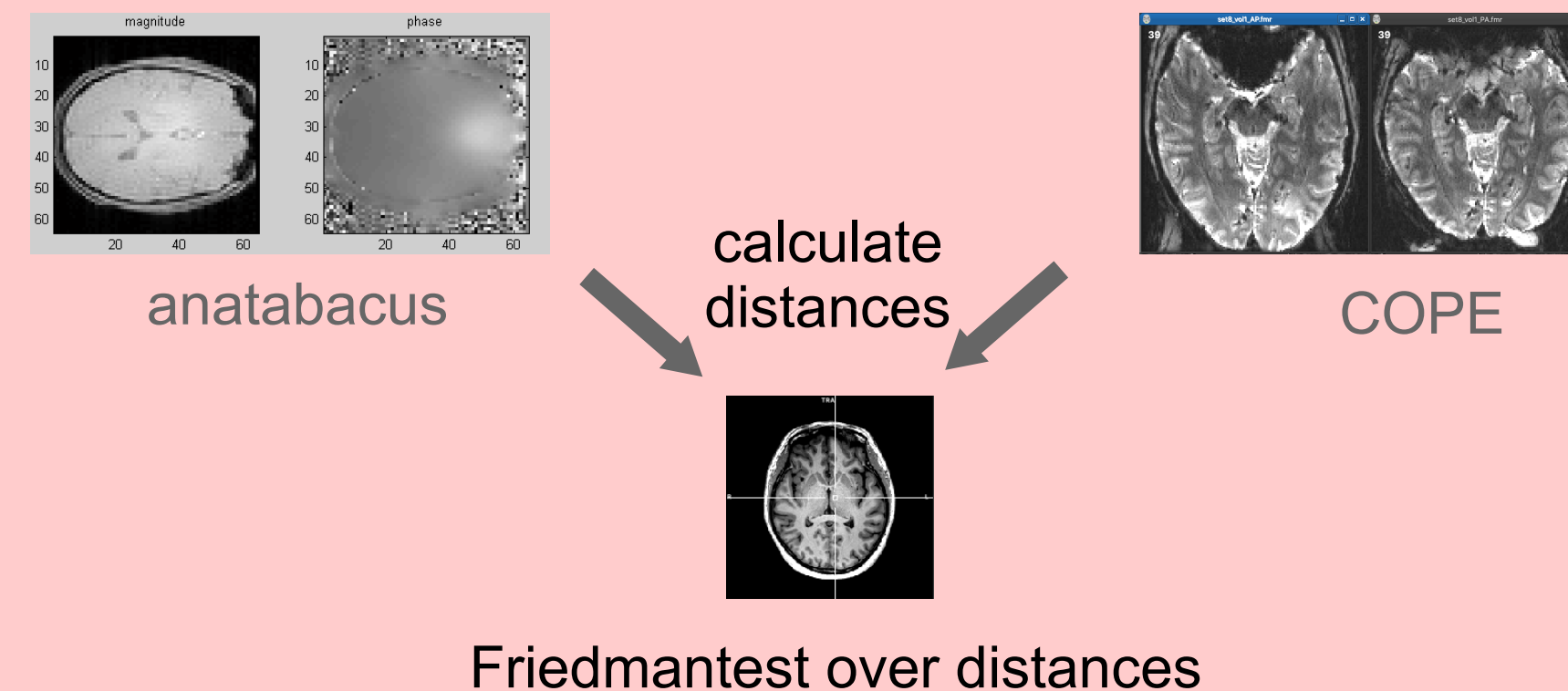
## THE PROBLEM

geometric distortion in echo-planar images (EPI)



## VALIDATION

fieldmap-based correction vs image registration-based correction



## OUR SOLUTION

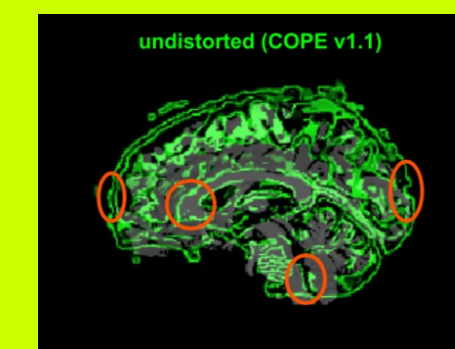
epi distortion Correction based on Opposite Phase Encoding (COPE)



1. image registration with Gauss-Newton optimisation
2. local cost aggregation to refine the voxel displacement map

## RESULTS

COPE can be useful for correcting 7T data



dataset 1-5 (3T, 1 DWI): no improvement  
dataset 6-10 (7T): image registration-based more improvement than fieldmap-based correction