

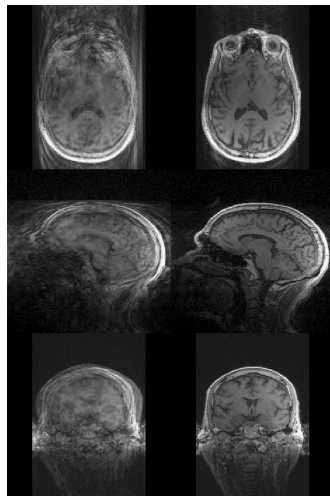
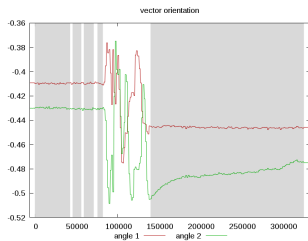
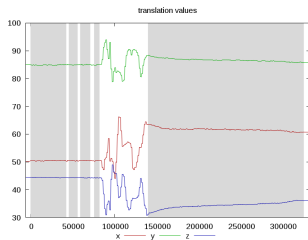
Summary of Data from 2019-06-25

- ▶ Data acquired on a 3T Trio (Waltham) with a 32-channel head coil.
- ▶ 3D Turbo FLASH sequence that has been modified to perform prospective motion correction with reacquisition.
- ▶ Reacquisition scan : $\sim 1.0\text{mm}$ isotropic; matrix size of $256 \times 256 \times 176$;
- ▶ Position verification scan:

Time-course plots (on the left side) illustrate the reported location of the Endoscout position sensor during the scan. Segments of time that were indicated as “motion free” by the feedback system are shown in light gray. The darker gray region shows the reacquisition period.

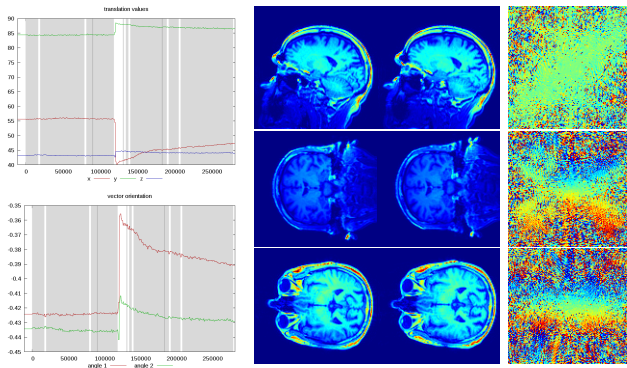
The MRI images show a comparison between the first volume of motion-corrupted data (left), and a volume reconstructed after the reacquisition data was used to replace the motion corrupted data (right).

Turbo FLASH with Reacquisition - 1.0mm isotropic - iPAT=2 - 3T Trio



Turbo FLASH Position Verification - 2.0mm isotropic - iPAT=2 - 3T Trio

3 reps: no motion; motion; no motion. Break between reps shown by black bars on time-plots.
1st (original) and 3rd (motion corrected) reps shown below.



The corrected position looks to be quite close to the original position. The biggest discrepancy appears in the axial image on the bottom row. The k-space phase-correlation between the two images is shown in the far right column. This indicates that there is a shift of about a pixel from left-to-right in the subject-coordinate system. This is a bug that should be resolved.