

Dartmouth Brain Imaging Center (DBIC)

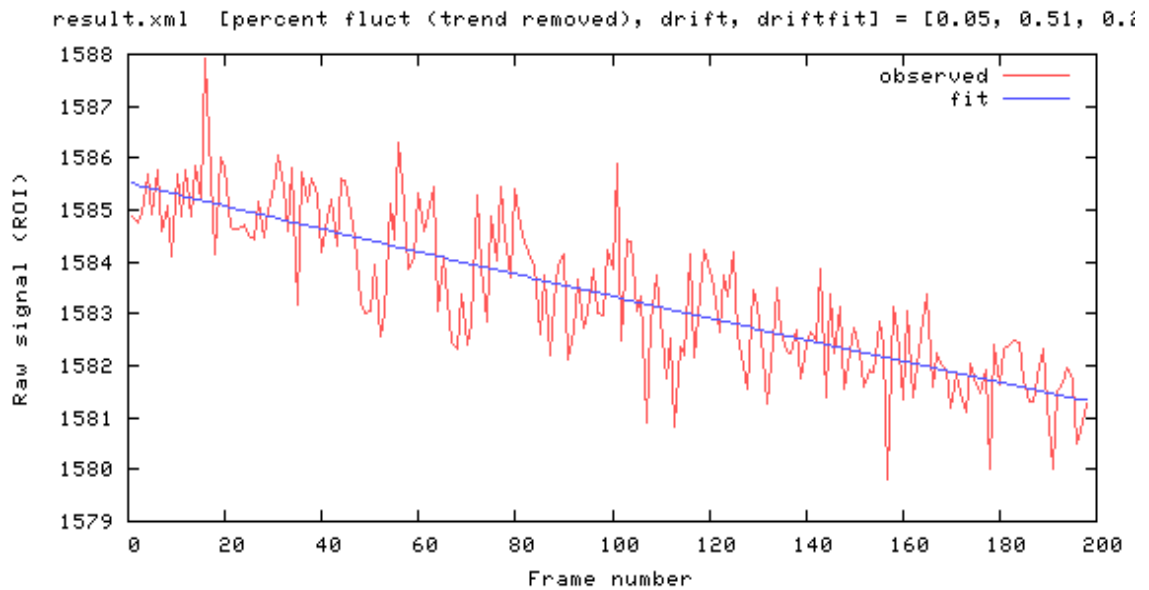
QA Report 32 CH

02192024

Measurements

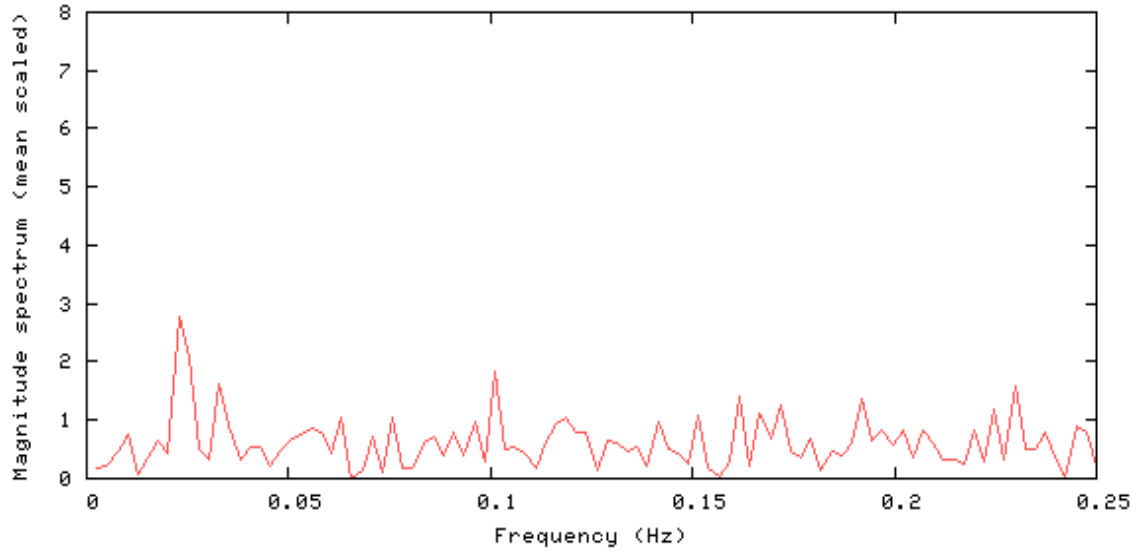
| Measurements | Value |
|------------------------------------|--------|
| mean signal (mean) | 1583.4 |
| Signal to Noise Ratio (SNR) | 255.3 |
| Signal to Fluctuation Ratio (SFNR) | 252.5 |
| Percent Fluctuation | 0.05 |
| Drift | 0.51 |
| Radius of Decorrelation (RDC) | 7.5 |
| Mean Ghost Percentage | 2.247 |
| Standard Deviation (std) | 0.87 |

Signal



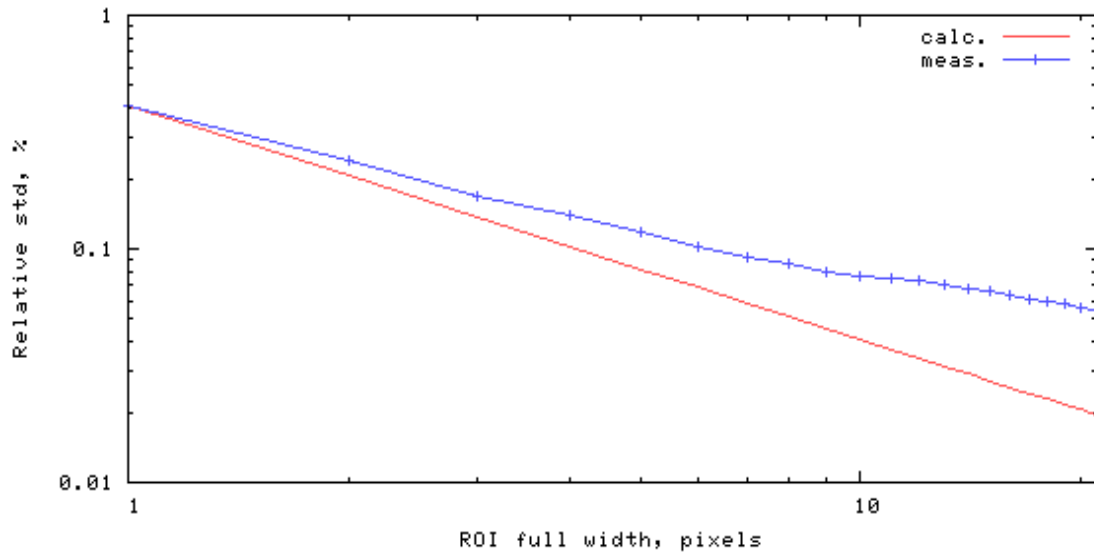
Frequency Spectrum

[mean, SNR, SFNR] = [1583.4 255.3 252.5]



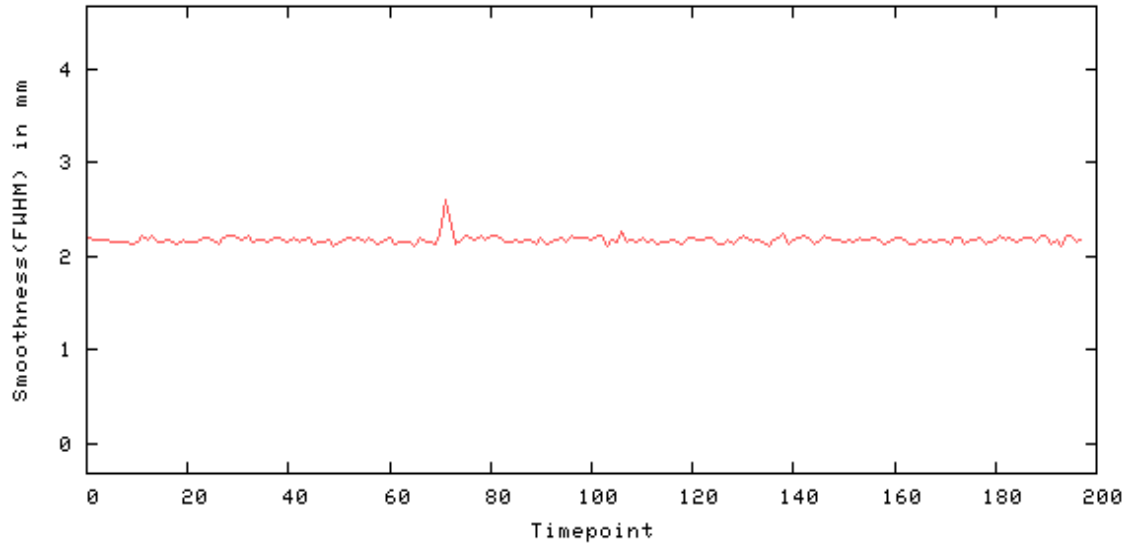
Radius of Decorrelation

rdc = 7.5 pixels



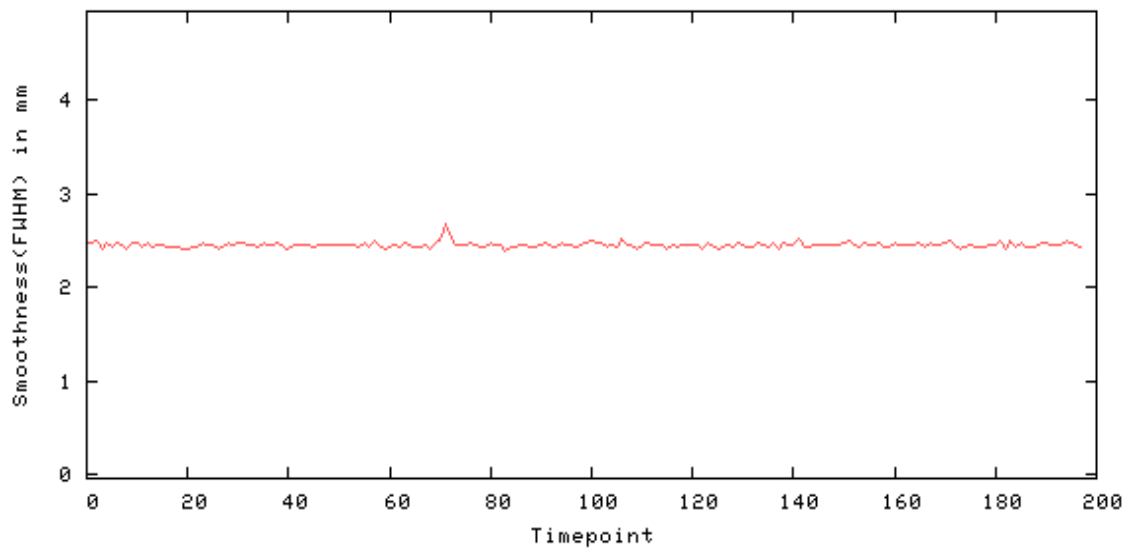
Smoothness - X

Smoothness(FWHM) in mm - X: [min mean max] = [2.101 2.174 2.592]



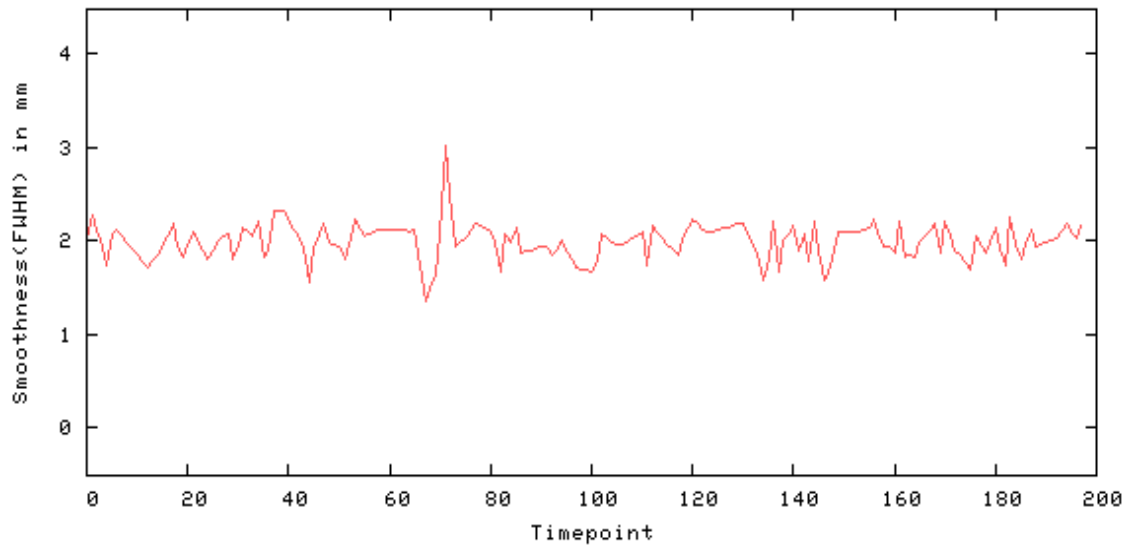
Smoothness - Y

Smoothness(FWHM) in mm - Y: [min mean max] = [2.390 2.453 2.677]



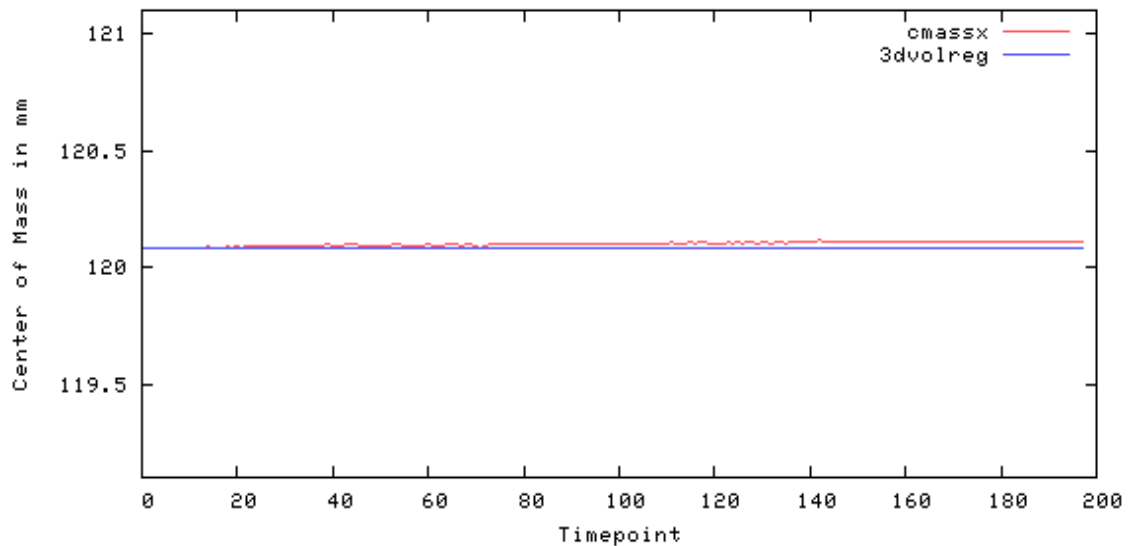
Smoothness - Z

Smoothness(FWHM) in mm - Z: [min mean max] = [1.347 1.980 3.017]



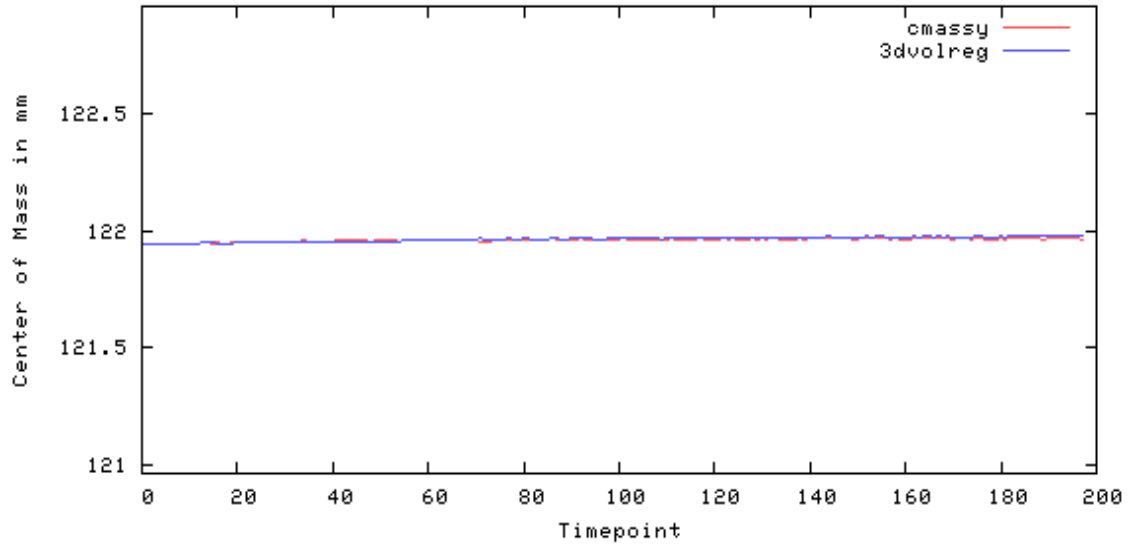
Center of Mass - X

Center of Mass in mm - X: [maxdisplacement drift] = [0.037 0.029]



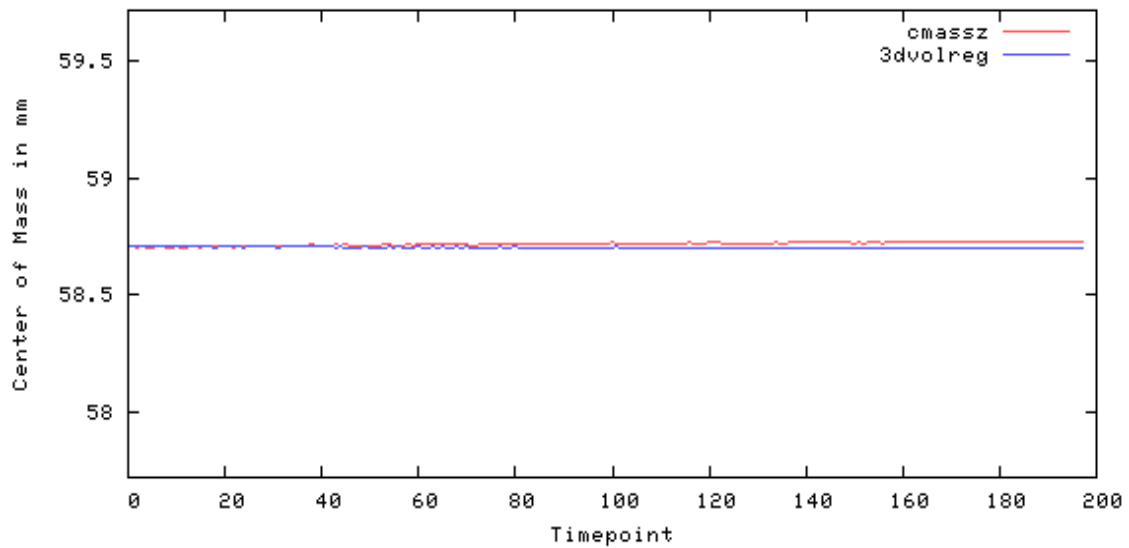
Center of Mass - Y

Center of Mass in mm - Y: [maxdisplacement drift] = [0.030 0.021]



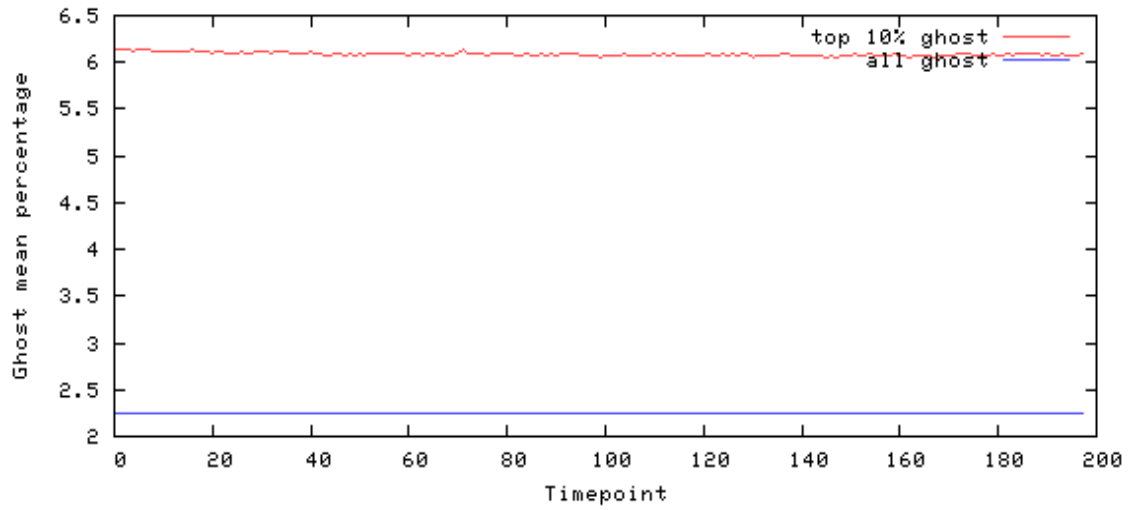
Center of Mass - Z

Center of Mass in mm - Z: [maxdisplacement drift] = [0.029 0.017]

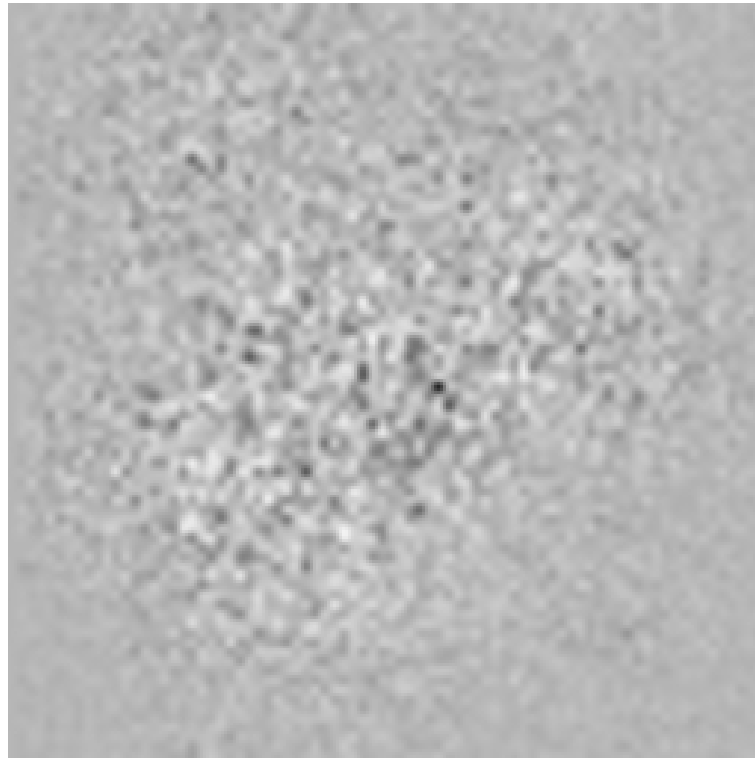


Ghost

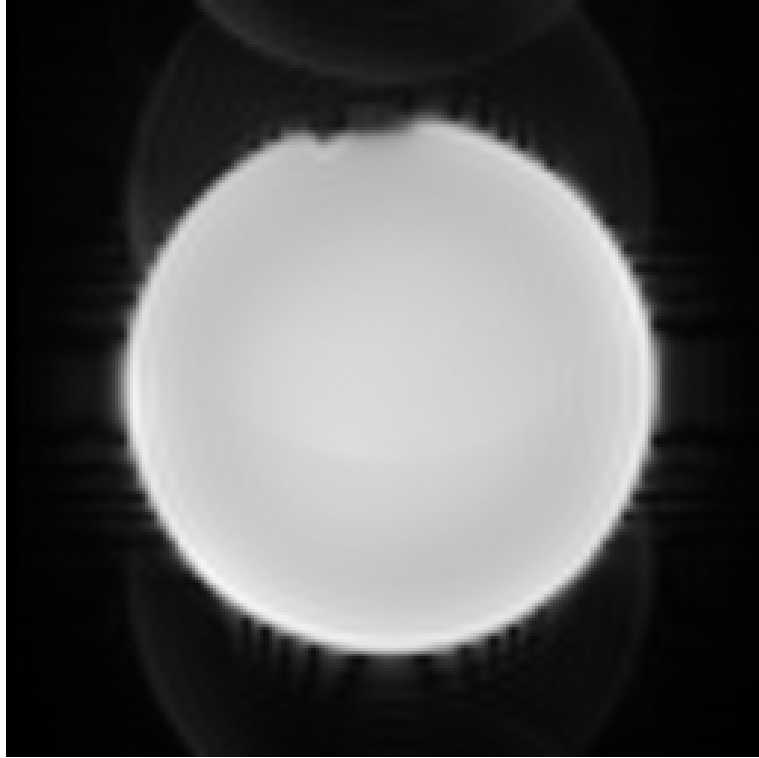
Mean of ghost voxels as % of non-ghost [masked] mean
(ghostmean, brightghostmean) = (2.247, 6.089)
(lower is better)



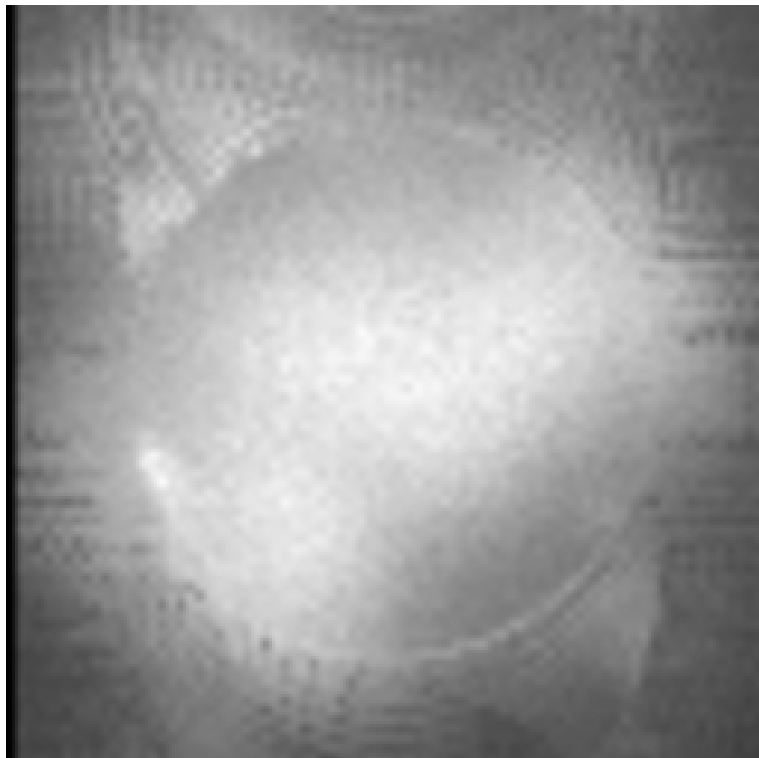
Odd-Even Difference Image



Mean Image



Standard Deviation Image



SFNR Image

