

# Dartmouth Brain Imaging Center (DBIC)

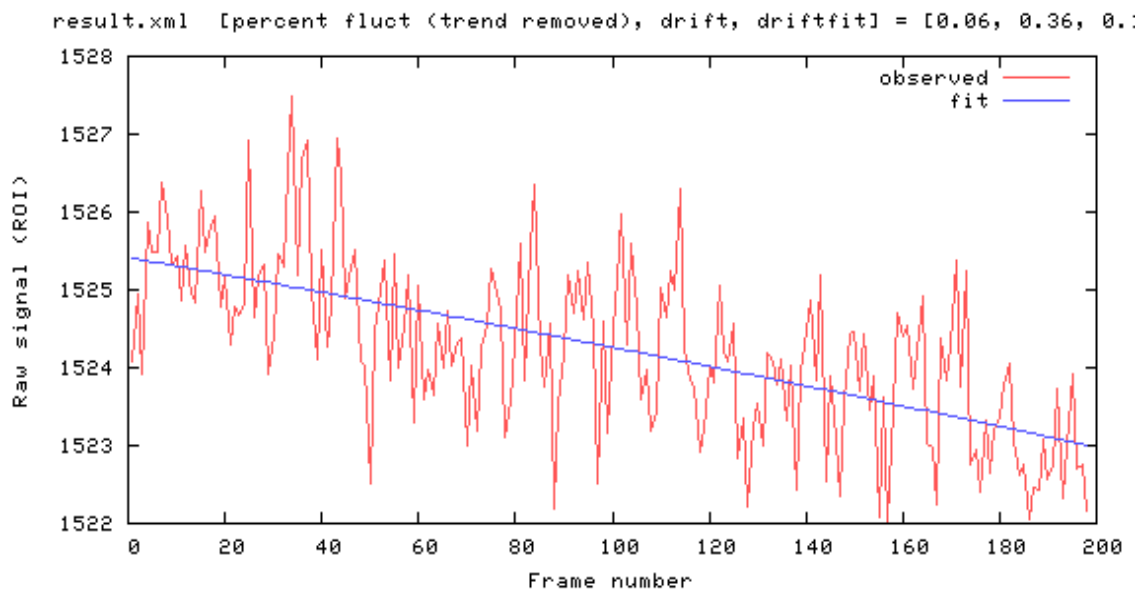
## QA Report 32 CH

02062023

### Measurements

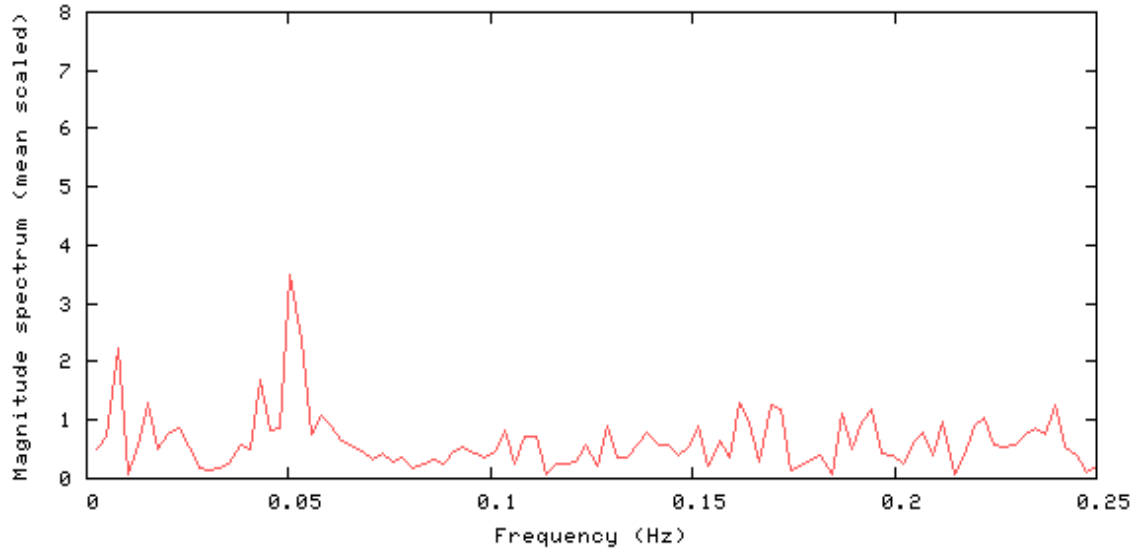
| Measurements                       | Value  |
|------------------------------------|--------|
| mean signal (mean)                 | 1524.2 |
| Signal to Noise Ratio (SNR)        | 245.1  |
| Signal to Fluctuation Ratio (SFNR) | 245.0  |
| Percent Fluctuation                | 0.06   |
| Drift                              | 0.36   |
| Radius of Decorrelation (RDC)      | 6.5    |
| Mean Ghost Percentage              | 2.548  |
| Standard Deviation (std)           | 0.87   |

### Signal



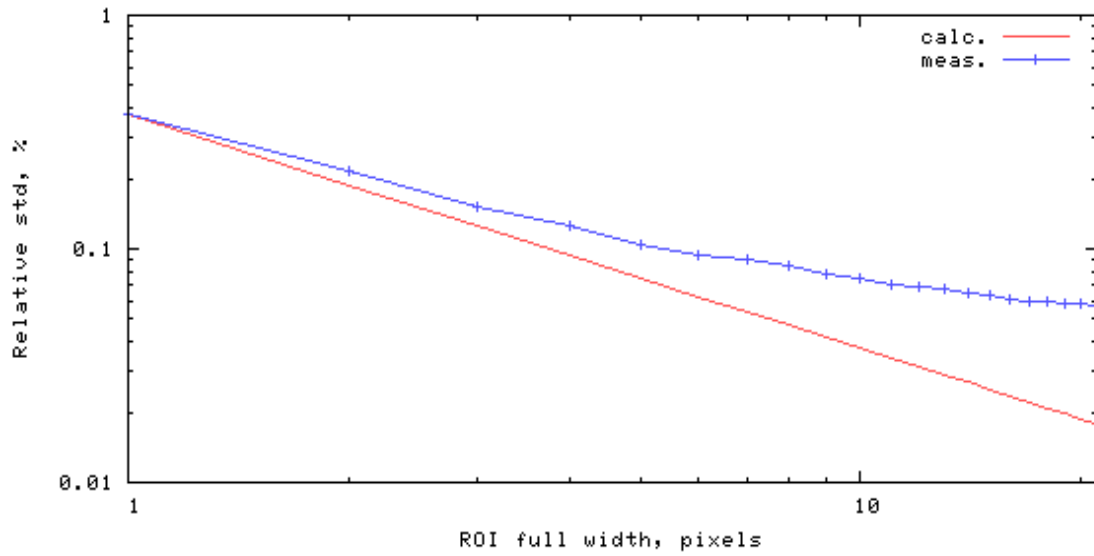
## Frequency Spectrum

[mean, SNR, SFNR] = [1524.2 245.1 245.0]



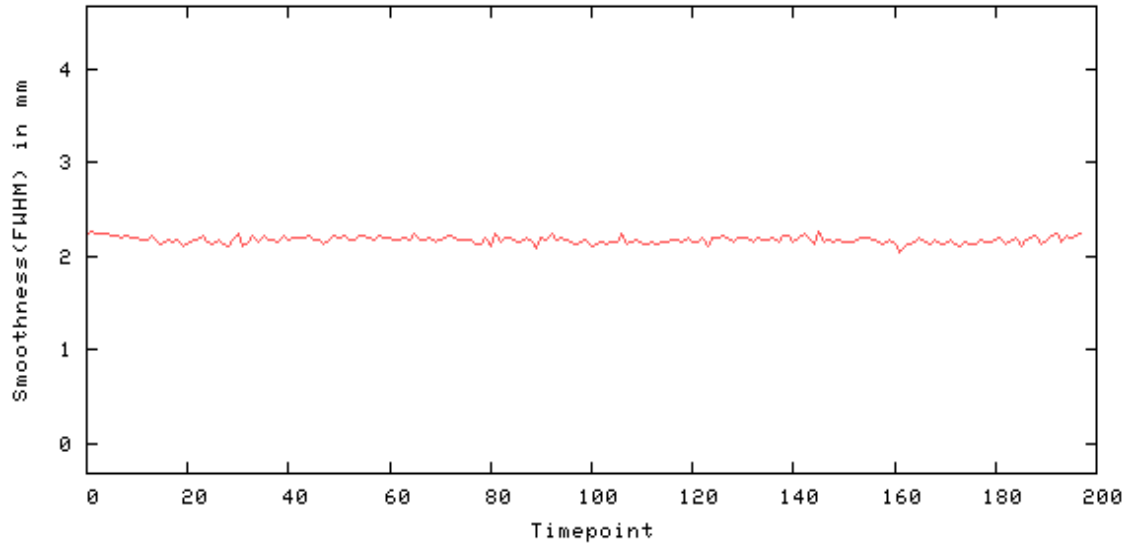
## Radius of Decorrelation

rdc = 6.5 pixels



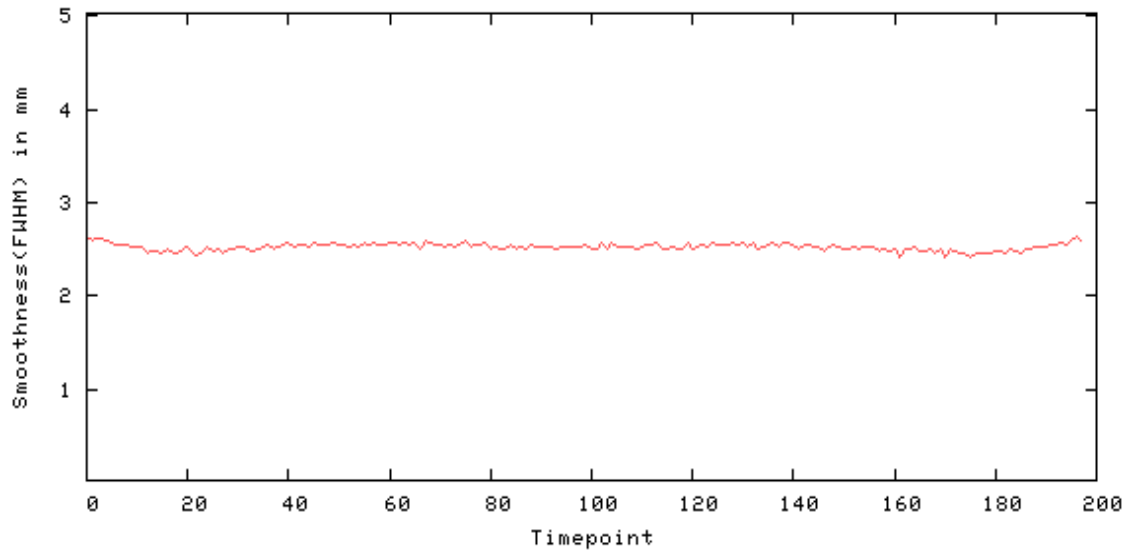
## Smoothness -X

Smoothness(FWHM) in mm - X: [min mean max] = [2.033 2.177 2.273]



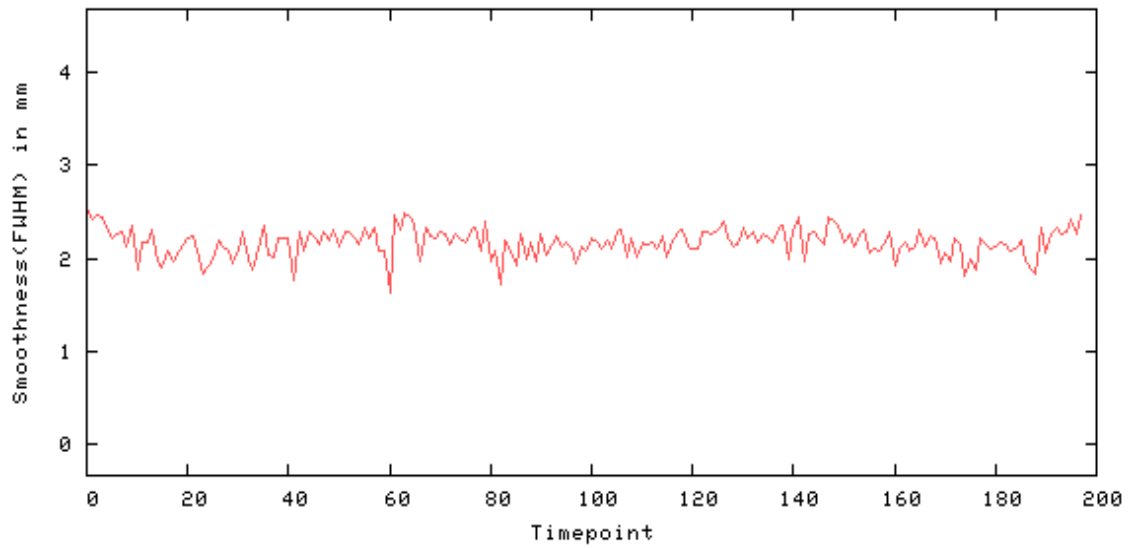
## Smoothness -Y

Smoothness(FWHM) in mm - Y: [min mean max] = [2.408 2.526 2.648]



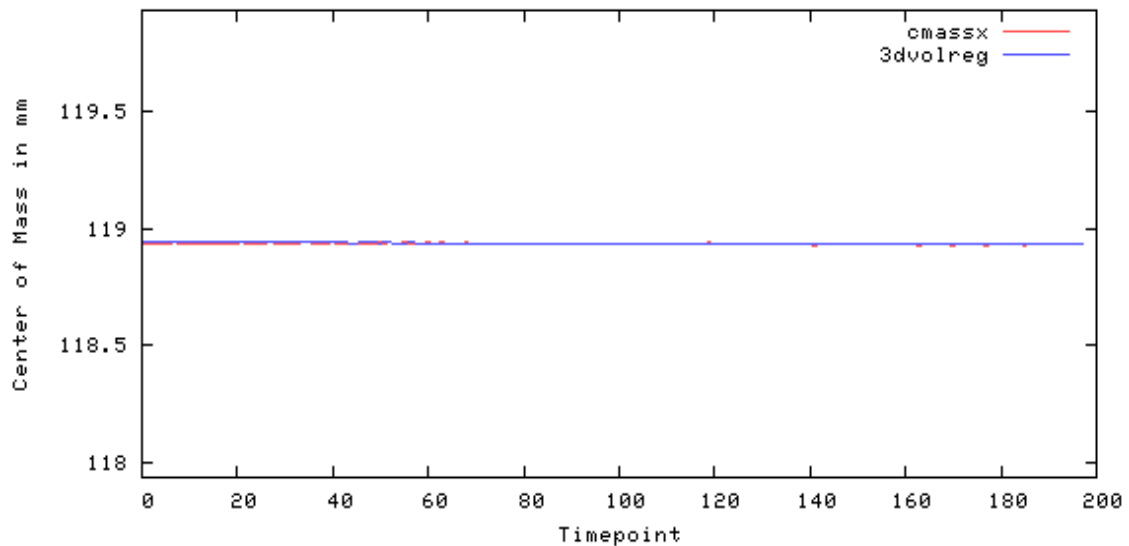
## Smoothness -Z

Smoothness(FWHM) in mm - Z: [min mean max] = [1.635 2.170 2.531]

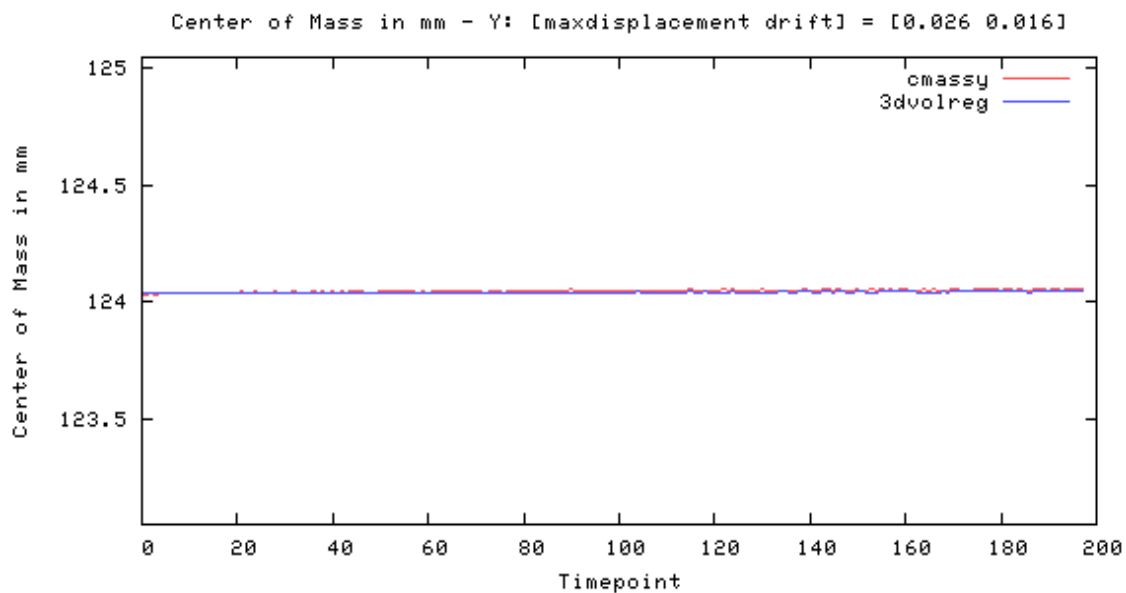


## Center of Mass -X

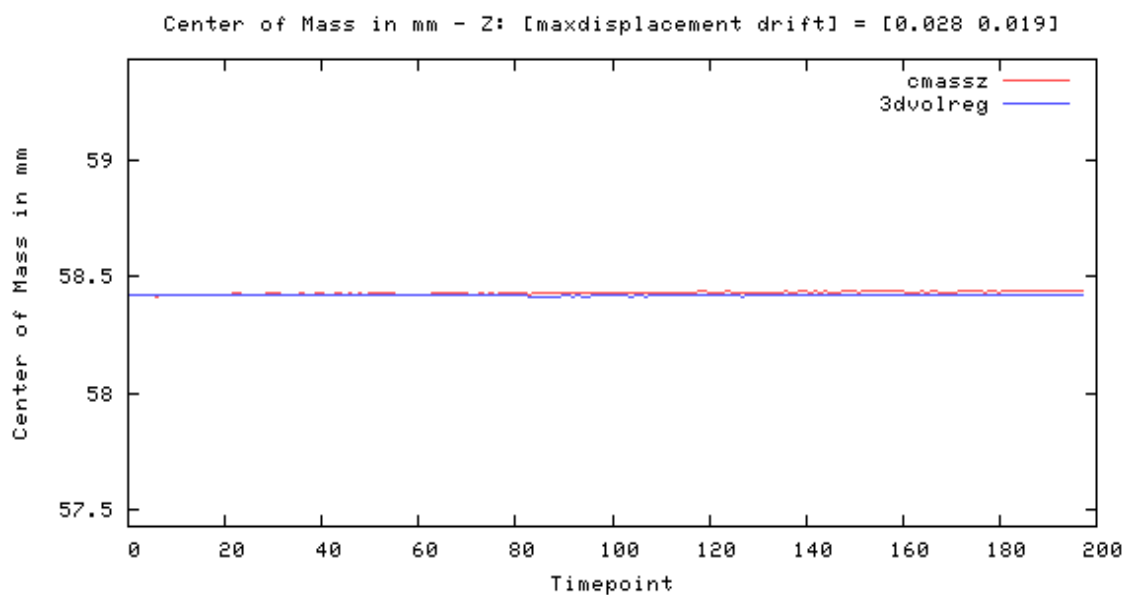
Center of Mass in mm - X: [maxdisplacement drift] = [0.011 -0.008]



## Center of Mass -Y

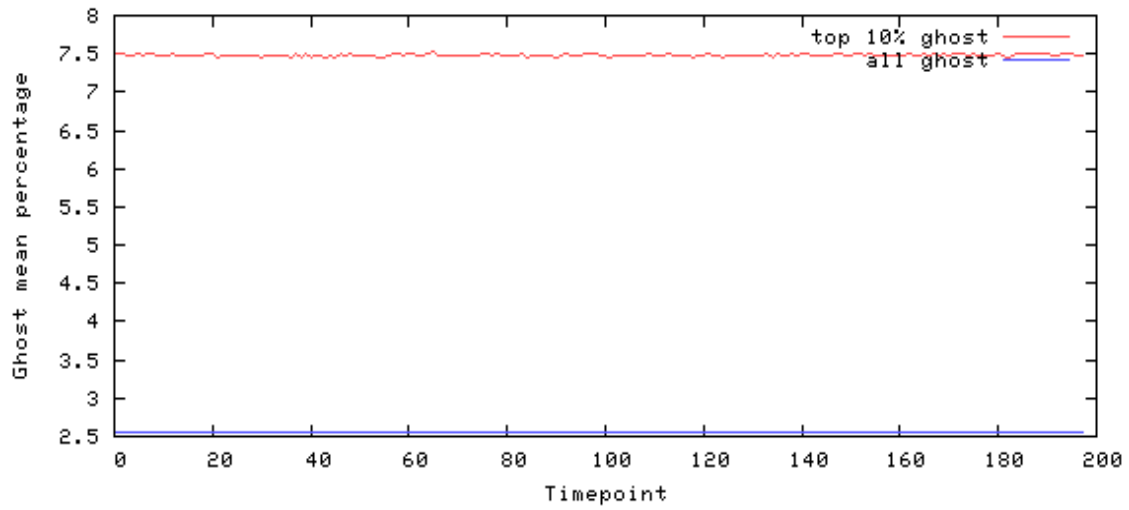


## Center of Mass -Z

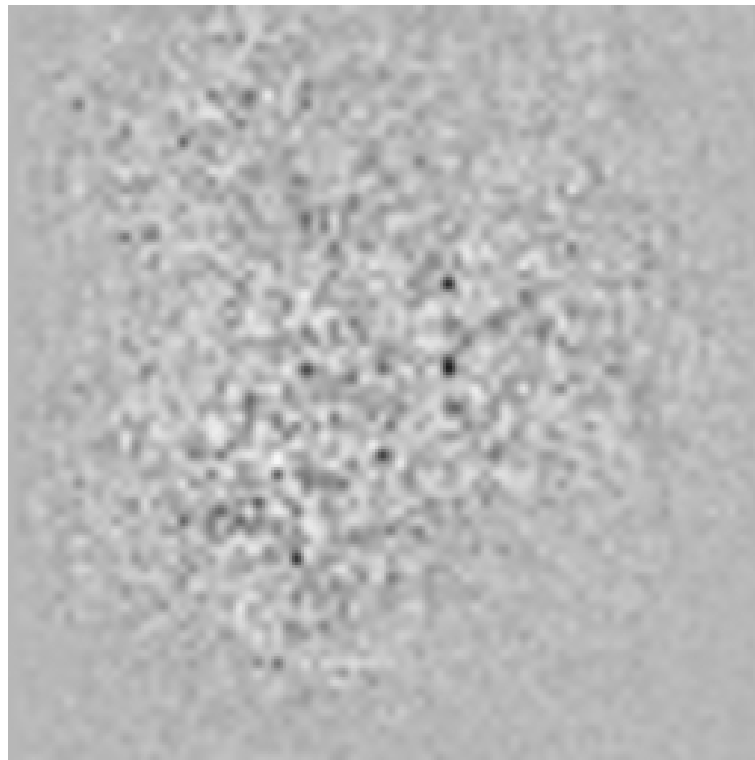


# Ghost

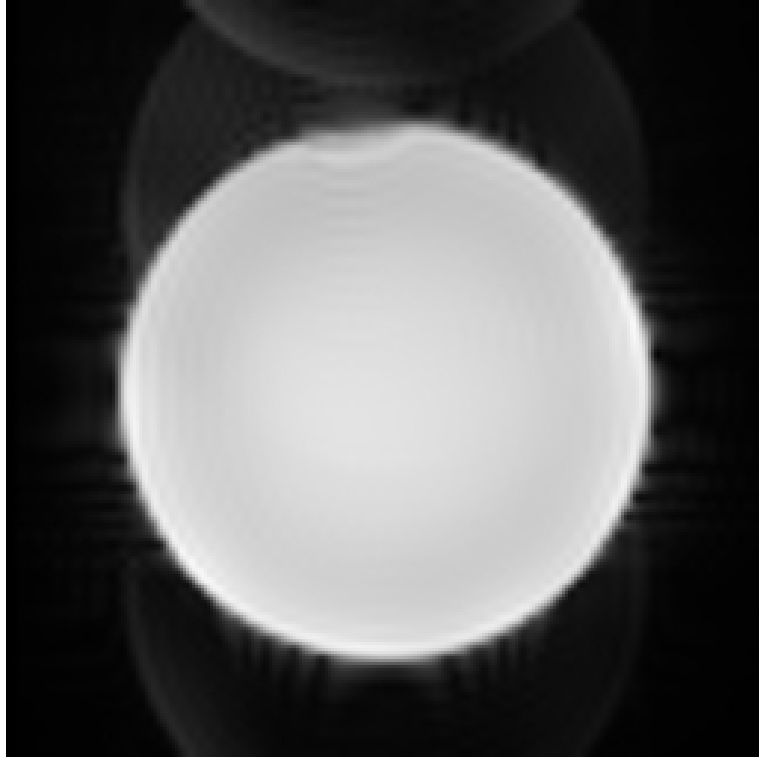
Mean of ghost voxels as % of non-ghost [masked] mean  
(ghostmean, brightghostmean) = (2.548, 7.483)  
(lower is better)



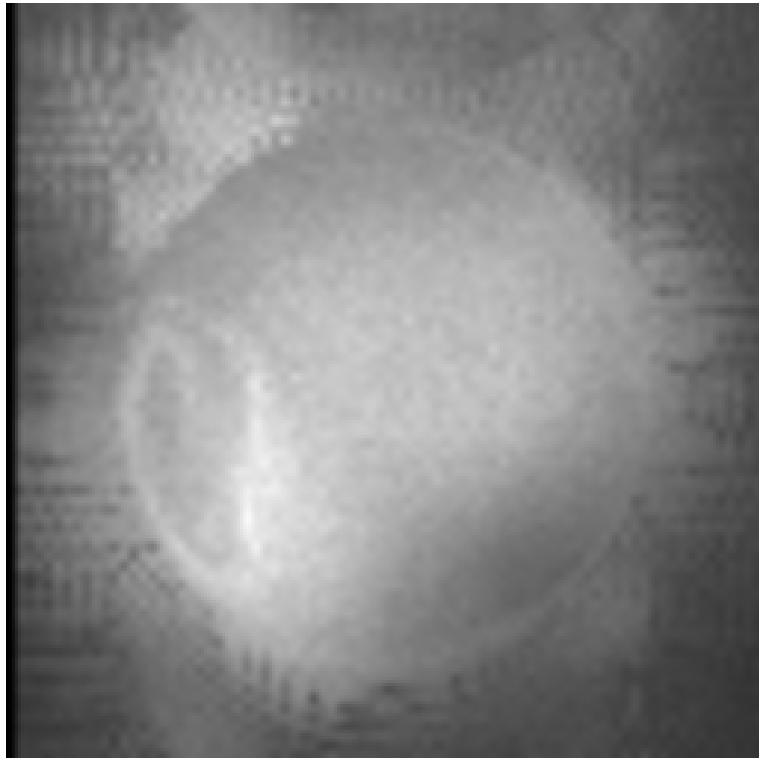
## Odd-Even Difference Image



Mean Image



Standard Deviation Image



SFNR Image

