

# Dartmouth Brain Imaging Center (DBIC)

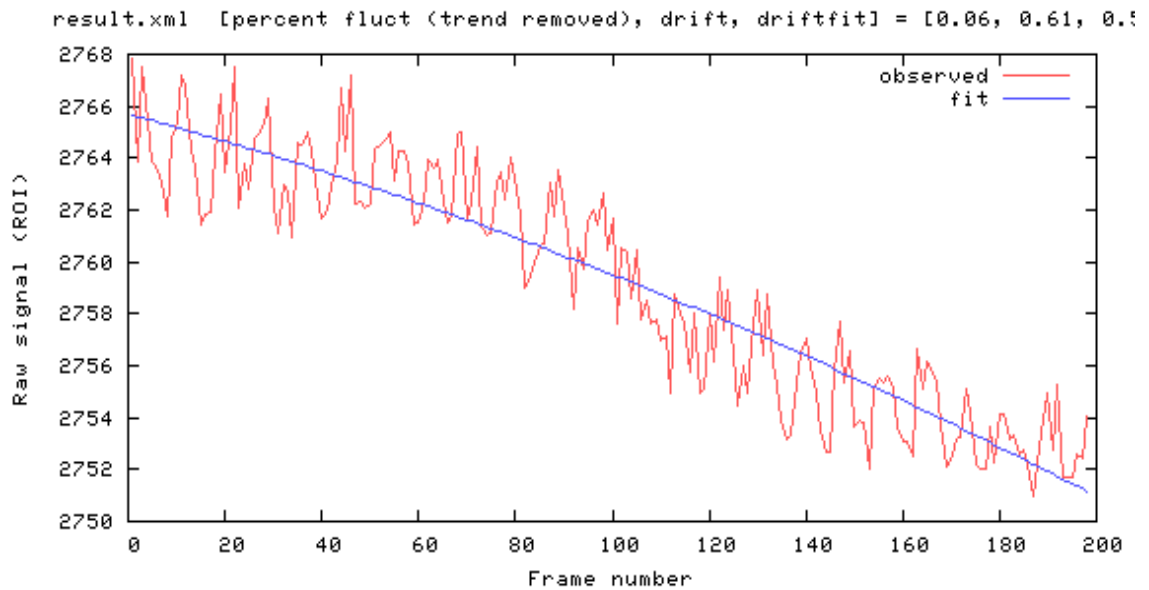
## QA Report 64 CH

11112024

### Measurements

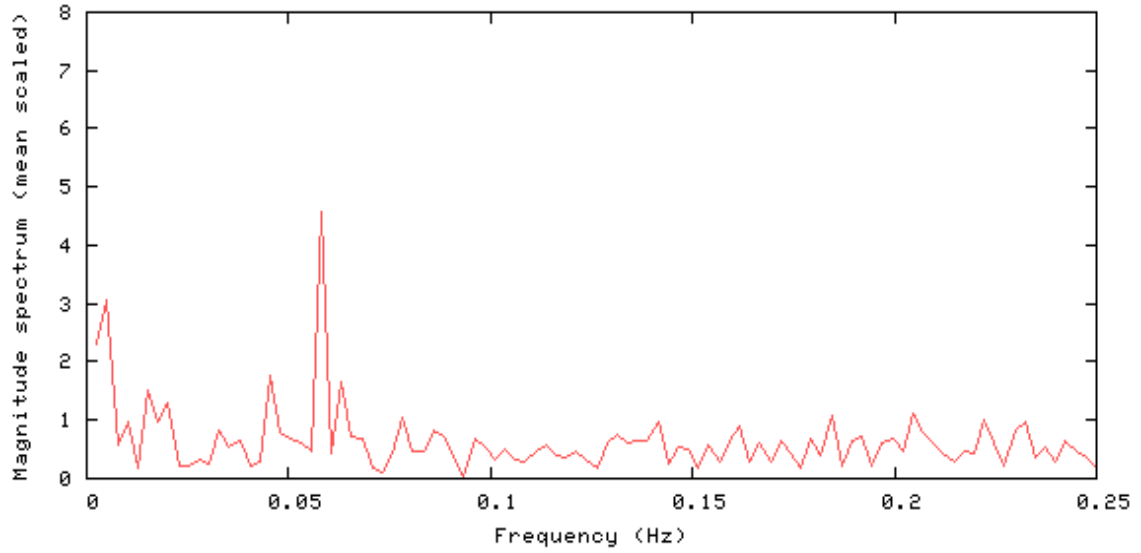
| Measurements                       | Value  |
|------------------------------------|--------|
| mean signal (mean)                 | 2759.2 |
| Signal to Noise Ratio (SNR)        | 187.9  |
| Signal to Fluctuation Ratio (SFNR) | 198.0  |
| Percent Fluctuation                | 0.06   |
| Drift                              | 0.61   |
| Radius of Decorrelation (RDC)      | 8.4    |
| Mean Ghost Percentage              | 2.156  |
| Standard Deviation (std)           | 1.72   |

### Signal



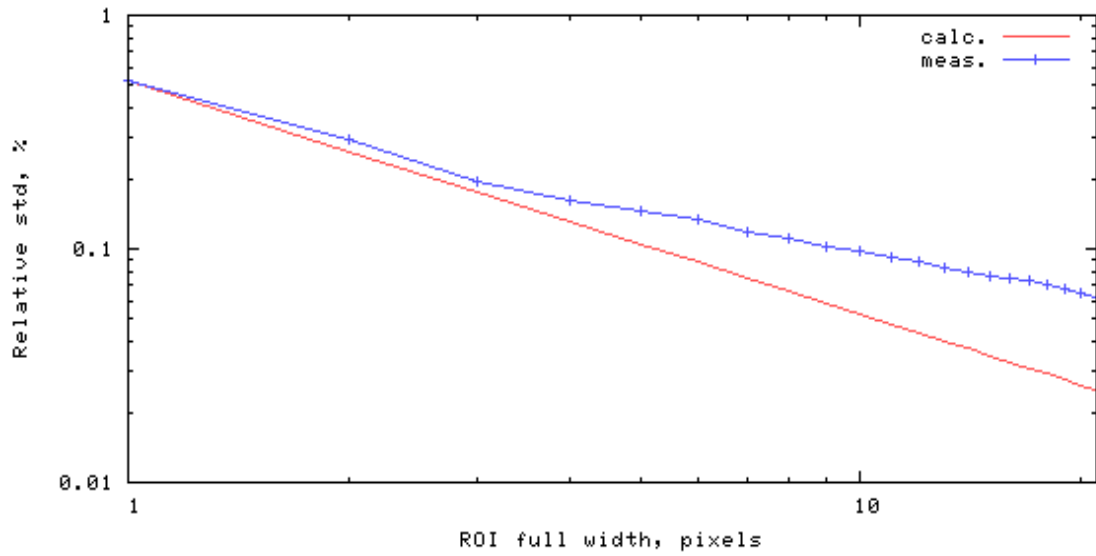
# Frequency Spectrum

[mean, SNR, SFNR] = [2759.2 187.9 198.0]



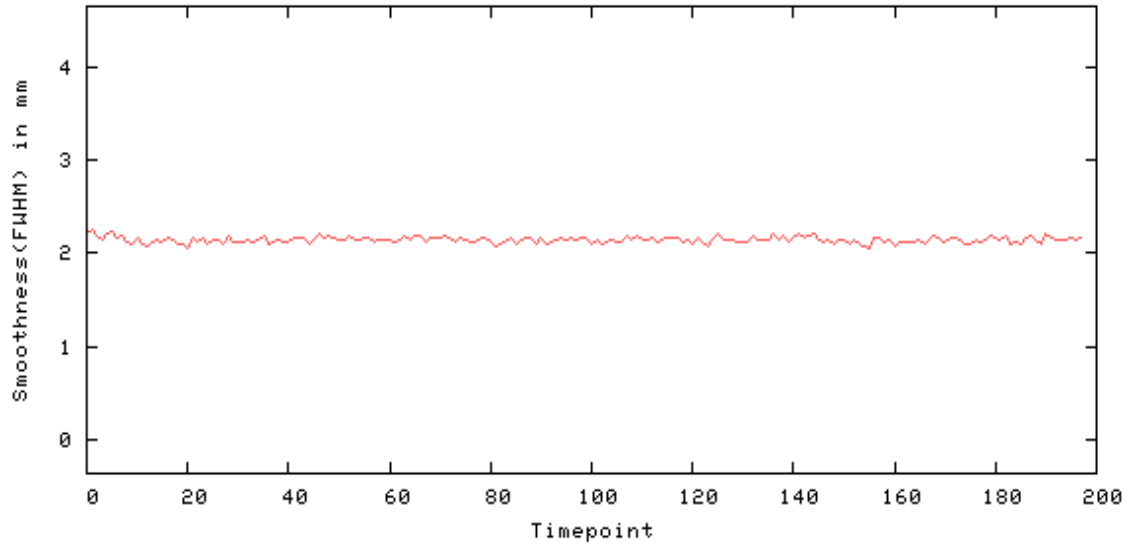
# Radius of Decorrelation

rdc = 8.4 pixels



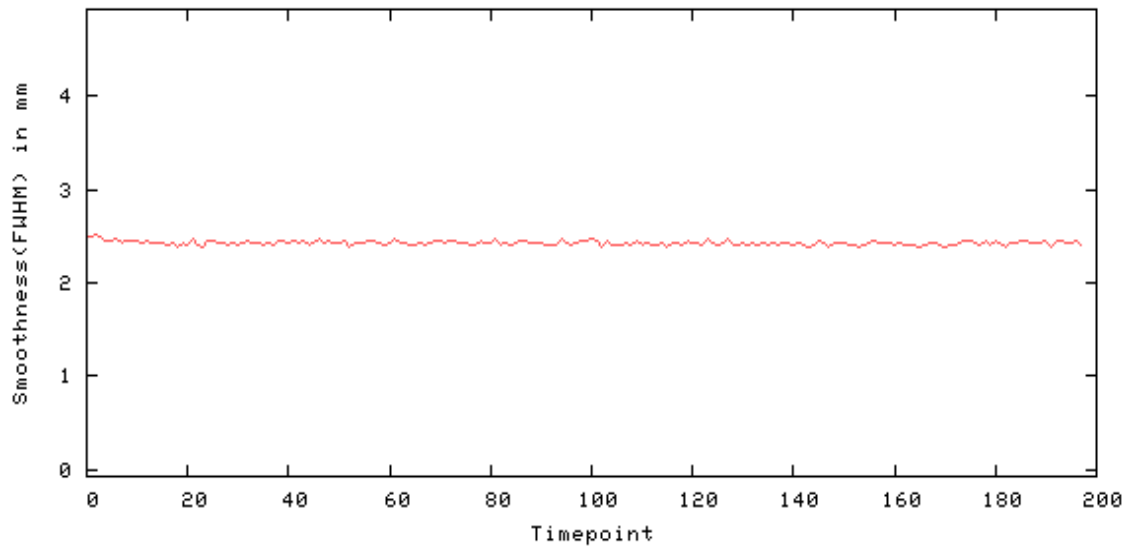
## Smoothness - X

Smoothness(FWHM) in mm - X: [min mean max] = [2.046 2.142 2.244]



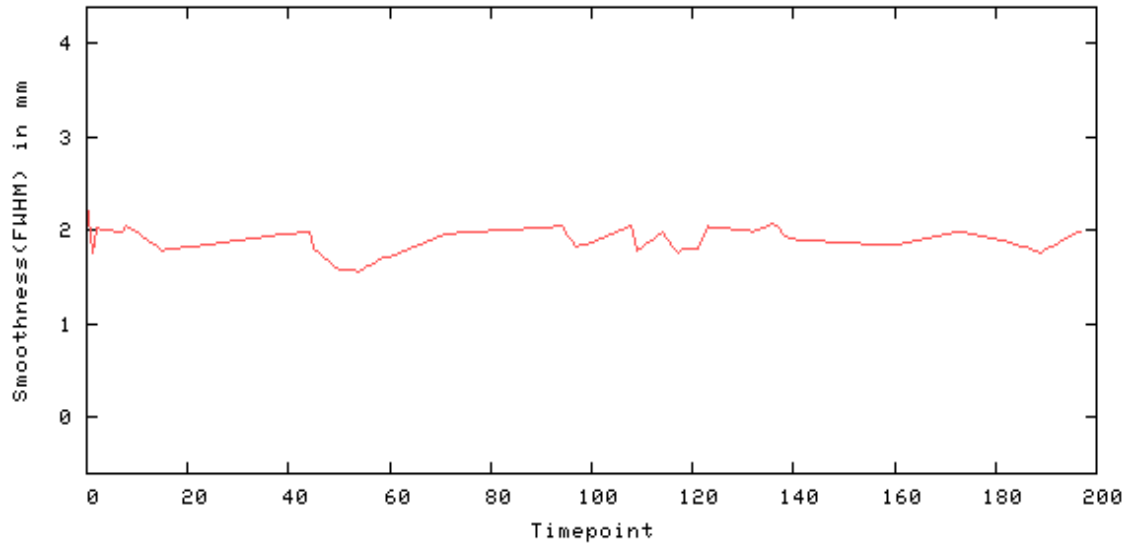
## Smoothness - Y

Smoothness(FWHM) in mm - Y: [min mean max] = [2.372 2.426 2.509]



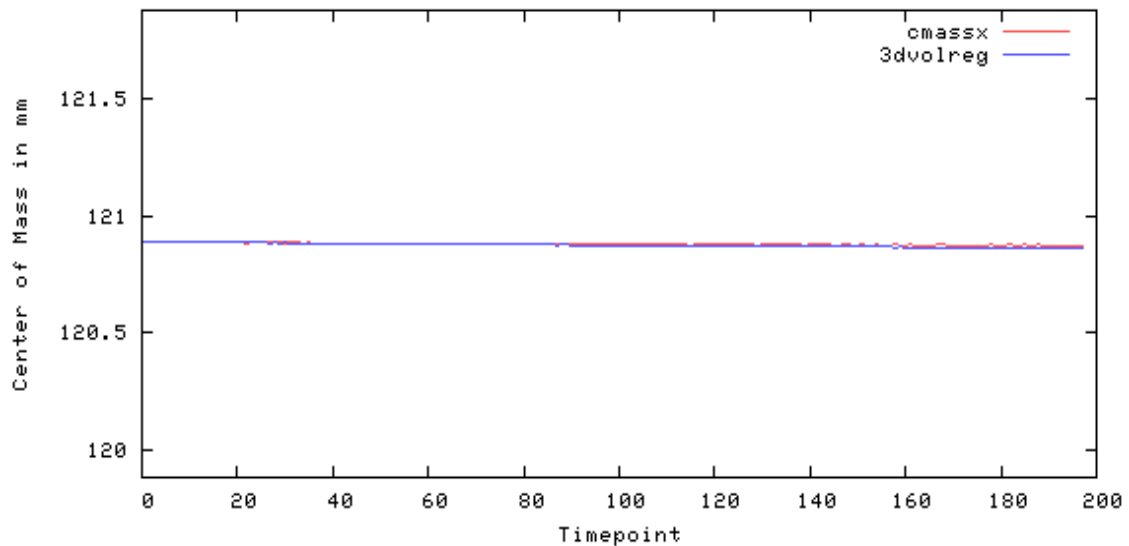
## Smoothness - Z

Smoothness(FWHM) in mm - Z: [min mean max] = [1.564 1.891 2.308]

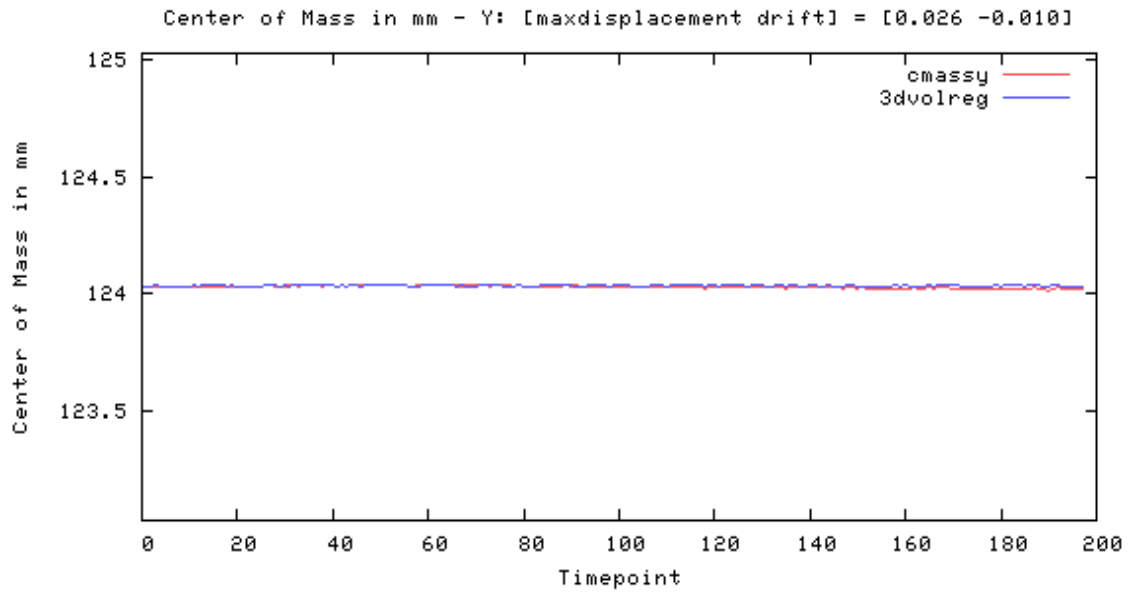


## Center of Mass - X

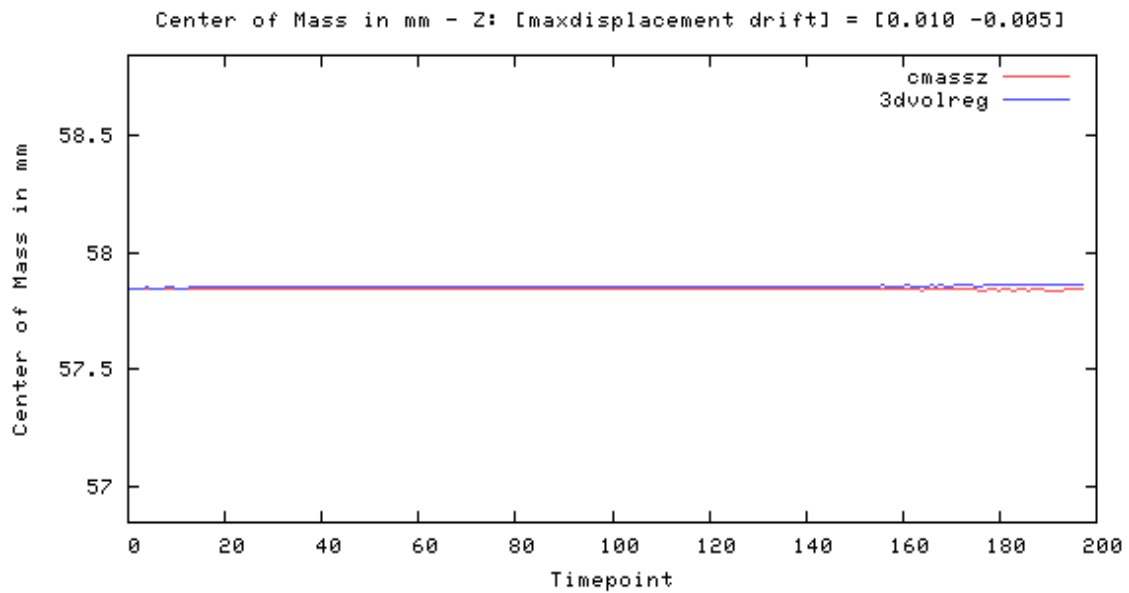
Center of Mass in mm - X: [maxdisplacement drift] = [0.020 -0.016]



## Center of Mass - Y

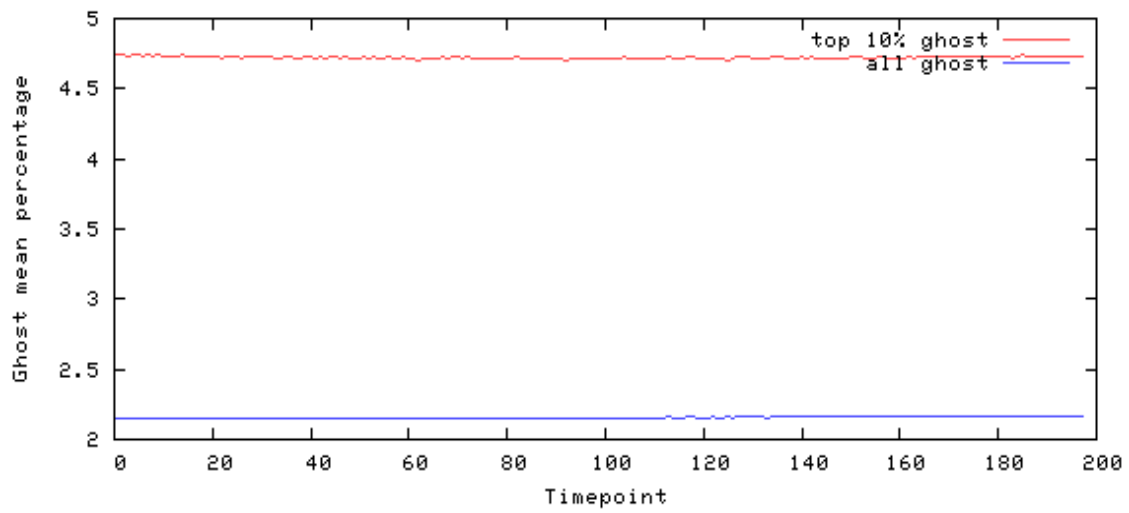


## Center of Mass - Z

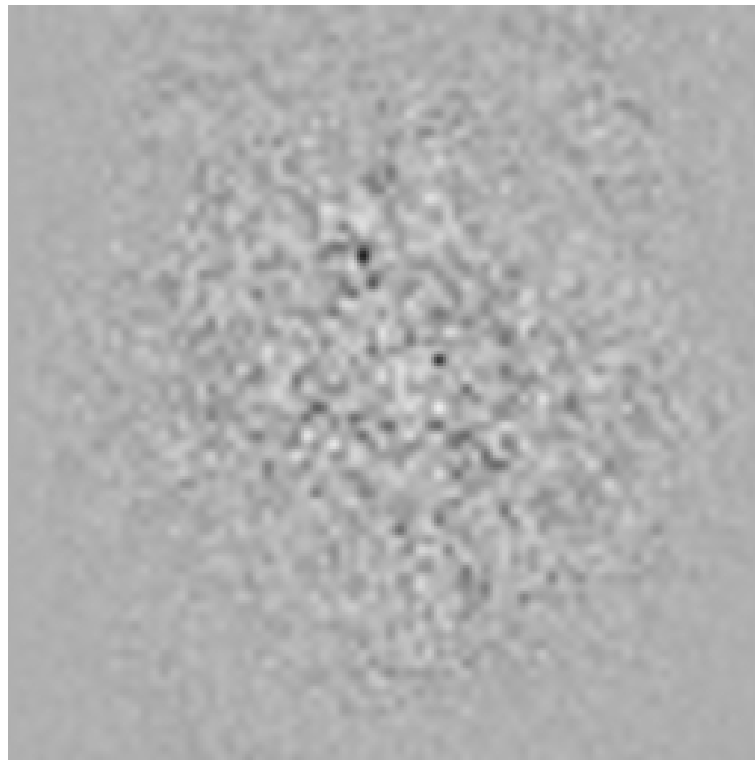


# Ghost

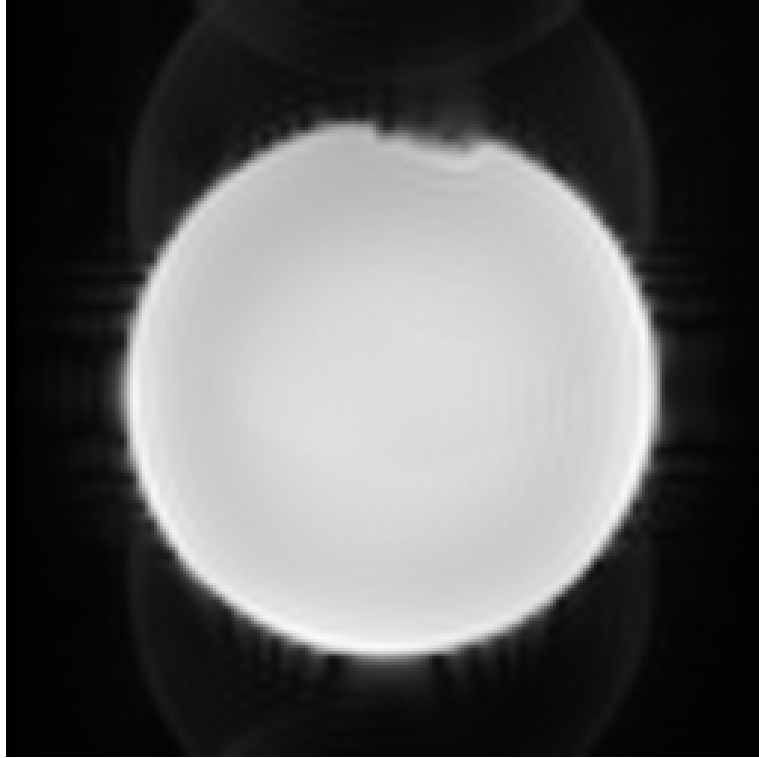
Mean of ghost voxels as % of non-ghost [masked] mean  
(ghostmean, brightghostmean) = (2.156, 4.723)  
(lower is better)



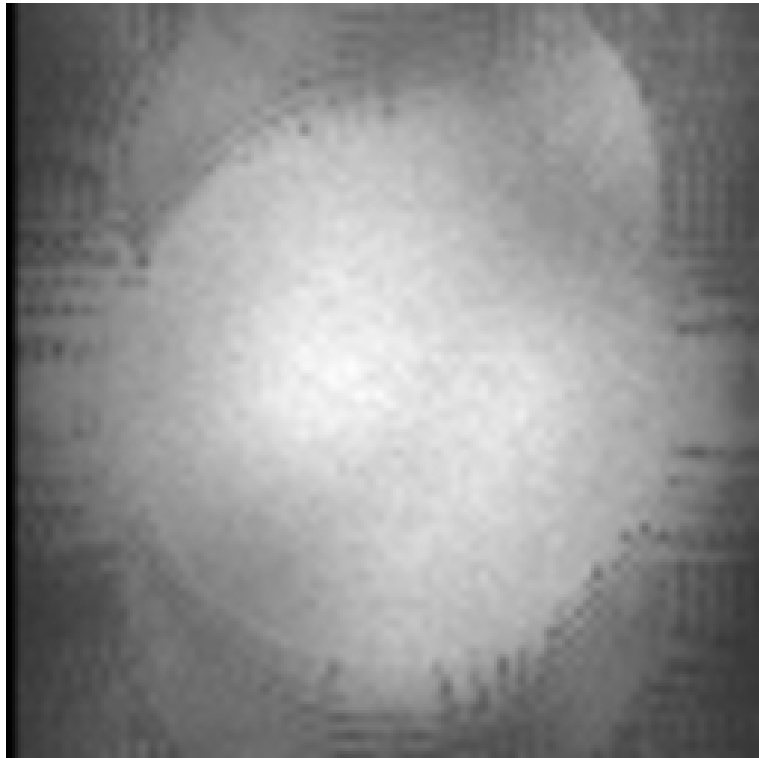
## Odd-Even Difference Image



Mean Image



Standard Deviation Image



SFNR Image

