Dartmouth Brain Imaging Center (DBIC)

QA Report 32 CH

08212023

Measurements

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean signal (mean)</td>
<td>1456.7</td>
</tr>
<tr>
<td>Signal to Noise Ratio (SNR)</td>
<td>241.2</td>
</tr>
<tr>
<td>Signal to Fluctuation Ratio (SFNR)</td>
<td>252.2</td>
</tr>
<tr>
<td>Percent Fluctuation</td>
<td>0.06</td>
</tr>
<tr>
<td>Drift</td>
<td>0.36</td>
</tr>
<tr>
<td>Radius of Decorrelation (RDC)</td>
<td>6.6</td>
</tr>
<tr>
<td>Mean Ghost Percentage</td>
<td>2.188</td>
</tr>
<tr>
<td>Standard Deviation (std)</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Signal

```
result.xml [percent fluct (trend removed), drift, driftfit] = [0.06, 0.36, 0.]
```
Frequence Spectrum

[mean, SNR, SFNR] = [1456.7 241.2 252.2]

Radius of Decorrelation

rdc = 6.6 pixels
Smoothness - X

Smoothness (FWHM) in mm - X: [min mean max] = [2.086 2.156 2.236]

Smoothness - Y

Smoothness (FWHM) in mm - Y: [min mean max] = [2.380 2.442 2.494]
Smoothness - Z

Smoothness (FWHM) in mm - Z: [min mean max] = [1.432 2.021 2.333]

Center of Mass - X

Center of Mass in mm - X: [max displacement drift] = [0.037 0.027]
Center of Mass - Y

Center of Mass in mm - Y: [maxdisplacement drift] = [0.016 -0.006]

Center of Mass - Z

Center of Mass in mm - Z: [maxdisplacement drift] = [0.037 0.032]
Ghost

Mean of ghost voxels as % of non-ghost [masked] mean
(ghostmean, brightghostmean) = (2.188, 6.098)
(lower is better)

Odd-Even Difference Image
SFNR Image