Dartmouth Brain Imaging Center (DBIC)

QA Report 32 CH

11212022

Measurements

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean signal (mean)</td>
<td>1674.0</td>
</tr>
<tr>
<td>Signal to Noise Ratio (SNR)</td>
<td>248.9</td>
</tr>
<tr>
<td>Signal to Fluctuation Ratio (SFNR)</td>
<td>256.8</td>
</tr>
<tr>
<td>Percent Fluctuation</td>
<td>0.05</td>
</tr>
<tr>
<td>Drift</td>
<td>0.34</td>
</tr>
<tr>
<td>Radius of Decorrelation (RDC)</td>
<td>8.0</td>
</tr>
<tr>
<td>Mean Ghost Percentage</td>
<td>1.969</td>
</tr>
<tr>
<td>Standard Deviation (std)</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Signal

result.xml [percent fluct (trend removed), drift, driftfit] = [0.05, 0.34, 0.].

![Signal graph](image.png)
Frequency Spectrum

[mean, SNR, SFNR] = [1674.0 248.9 256.8]

 RADUIS of Decorrelation

$rdc = 9.0$ pixels
Smoothness -X

Smoothness (FWHM) in mm - X: [min mean max] = [2.181 2.199 2.426]

Smoothness -Y

Smoothness (FWHM) in mm - Y: [min mean max] = [2.390 2.469 2.595]
Smoothness -Z

Smoothness (FWHM) in mm - Z: [min mean max] = [1.496 2.028 2.487]

Center of Mass -X

Center of Mass in mm - X: [max displacement drift] = [0.014 0.008]
Center of Mass -Y

Center of Mass in mm - Y: [max displacement drift] = [0.058 0.051]

Center of Mass -Z

Center of Mass in mm - Z: [max displacement drift] = [0.012 -0.065]
Ghost

Mean of ghost voxels as % of non-ghost [masked] mean
\((\text{ghostmean, brightghostmean}) = (1.969, 5.012)\)
\((\text{lower is better})\)

Odd-Even Difference Image