Dartmouth Brain Imaging Center (DBIC)

QA Report 32 CH

04-18-2022

Measurements

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean signal (mean)</td>
<td>1502.7</td>
</tr>
<tr>
<td>Signal to Noise Ratio (SNR)</td>
<td>228.1</td>
</tr>
<tr>
<td>Signal to Fluctuation Ratio (SFNR)</td>
<td>221.6</td>
</tr>
<tr>
<td>Percent Fluctuation</td>
<td>0.06</td>
</tr>
<tr>
<td>Drift</td>
<td>0.44</td>
</tr>
<tr>
<td>Radius of Decorrelation (RDC)</td>
<td>8.1</td>
</tr>
<tr>
<td>Mean Ghost Percentage</td>
<td>2.336</td>
</tr>
<tr>
<td>Standard Deviation (std)</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Signal

`result.xml [percent fluct (trend removed), drift, driftfit] = [0.06, 0.44, 0.1]`
Frequence Spectrum

$[\text{mean, SNR, SFNR}] = [1502.7, 228.1, 221.6]$
Smoothness -X

Smoothness (FWHM) in mm - X: [min mean max] = [2.083 2.191 2.296]

Smoothness -Y

Smoothness (FWHM) in mm - Y: [min mean max] = [2.377 2.444 2.506]
Smoothness -Z

Smoothness (FWHM) in mm - Z: [min mean max] = [1.629 1.953 2.132]

Center of Mass -X

Center of Mass in mm - X: [max displacement drift] = [0.138 -0.137]
Center of Mass -Y

Center of Mass in mm - Y: [max displacement drift] = [0.024 0.013]

Center of Mass -Z

Center of Mass in mm - Z: [max displacement drift] = [0.033 0.025]
Ghost

Mean of ghost voxels as % of non-ghost [masked] mean
(ghostmean, brightghostmean) = (2.336, 6.514)
(lower is better)

Odd-Even Difference Image