Development of a GUI based Automated Quality Control Assessment for fMRI data pre-processing

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Pre-Processing

Following is a generic outline of the steps taken to pre-process the data:

1. **Realignment**
   - Six rigid body transformations (Friston et al., 1995).

2. **Coregistration**
   - Functional to T1
   - Functional to MNI Space

3. **Segmentation**
   - 5 Tissue Classes

4. **Deformation**
   - 5 PC (CSF + WM) + 24 Motion Parameters

5. **Nuisance Regression**

6. **Filter and Smooth**
   - Bandpass filter: 0.01 - 0.1 Hz
   - Smoothing: 8 mm FWHM

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Pre-Processed fMRI Time Series

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Raw fMRI Time Series
Check Reg
Struc and Func
Check Seg
Structural Images (T1w)
Check Norm
Struc and Func
Questions ?