SPM8 for Basic and Clinical Investigators

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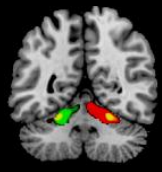

Spm8 for Basic and Clinical Investigators

Workshop Educational Objectives

- Understand the basic organization of the SPM GUI
- Understand the organization of the SPM "toolbox"
- Understand the basic fMRI data preprocessing steps
- Construct a preprocessing script including slice time correction, realignment, and spatial filtering steps
- Understand the origins of the artifacts most commonly encountered in fMRI datasets
- Be able to explore an fMRI dataset for artifacts and effect repairs as needed

-Understand the basic fMRI single subject experimental design types
- Be able to implement statistical analysis procedures for the basic single subject fMRI designs
- Understand the basic fMRI within-group experimental design types

-Understand the basic fMRI between-group experimental design types
- Be able to implement statistical analysis procedures for the basic within- and between-group fMRI designs
- Understand the process of incorporation of covariates in fMRI experimental designs

-Be able to utilize the RIC Talairach Daemon for region labeling
-Be able to utilize the AAL atlas for region labeling
- Be able to utilize the SPM Anatomy toolbox for region labeling
- Be able to utilize FreeSurfer for region labeling

-Be able to use dcm2nii for DICOM to Nifti file format conversion

- Be able to construct batch processing scripts for preprocessing and statistical modeling

-Be able to use FreeSurfer to visualize statistical maps on the cortical surface
- Be able to use MRIcron and xjview for data visualization, including volume rendering

Requests and comments during and after the workshop:

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