

Materials List for:

# Application of Granger Causality Analysis of the Directed Functional Connection in Alzheimer's Disease and Mild Cognitive Impairment

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URL: <https://www.jove.com/video/56015>

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## Materials

Name	Company	Catalog Number	Comments
116 patients	Zhejiang Provincial People's hospital	-	This study was approved by the ethics committee of Zhejiang Provincial People's hospital. Every enrolled subject signed a written informed consent form.
Siemens Trio 3.0 T MRI scanner	Siemens, Erlangen, Germany	20571	Equipped with AudioComfort that reduces acoustic noise up to 90%; Provides high performance at a low noise level; Ultra light-weight coil; Unique MRI sequence design; Supports up to 400 pounds without restrictions.
RESTplus	Hangzhou Normal University, Hangzhou, Zhejiang, China	20160122	RESTplus evolved from REST (Resting-State fMRI Data Analysis Toolkit), a convenient toolkit to calculate Functional Connectivity (FC), Regional Homogeneity (ReHo), Amplitude of Low-Frequency Fluctuation (ALFF), Fractional ALFF (fALFF), Granger causality, degree centrality, voxel-mirrored homotopic connectivity (VMHC) and perform statistical analysis.
DPARSF	Hangzhou Normal University, Hangzhou, Zhejiang, China	130615	Data Processing Assistant for Resting-State fMRI (DPARSF) is a convenient plug-in software within DPABI, which is based on SPM. You just need to arrange your DICOM files, and click a few buttons to set parameters, DPARSF will then give all the preprocessed data, functional connectivity, ReHo, ALFF/fALFF, degree centrality, voxel-mirrored homotopic connectivity (VMHC) results.
SPSS	SPSS Inc., Chicago, IL, USA	-	SPSS offers detailed analysis options to look deeper into your data and spot trends that you might not have noticed.