



Subjects-ROI Time Series:  
200x278 matrix/subj



Continuous variable  
VAR

### Functional Connectivity

Functional Connectivity  
corrcoef()

times\_series\_corr\_array  
278x278xSUBS mat

HEATMAP

Fischer r to z  
atanh()

functional\_connect\_array  
278x278xSUBS mat

Spread matrix

clean\_functional\_connectivity  
SUBSx38205 mat

### Correlation FC vs. VAR

Pearson Correlation  
corrcoef()

r\_VAR\_FC\_correl  
p\_VAR\_FC\_correl

Recreate matrix

p\_VAR\_FC\_square\_matrix  
r\_VAR\_FC\_square\_matrix  
278x278 mat

Threshold matrix ( $p < 0.05$ )

uncorr\_p\_VAR\_FC\_square\_matrix  
278x278 mat

Correct for multiple testing  
Bonferroni

Bonf\_corr\_p\_VAR\_FC\_square\_matrix  
Bonf\_corr\_binary\_matrix

HEATMAP

Display significant connections:  
AAL\_long\_label  
p\_VAR\_FC\_square\_matrix  
r\_VAR\_FC\_square\_matrix

Correct for multiple testing  
FDR - fdr\_bh()

h  
crit\_p  
adj\_p

Recreate matrix

h\_square\_matrix  
adj\_p\_square\_matrix

Threshold matrix ( $p < 0.05$ )

thresholded\_adj\_p\_square\_matrix

HEATMAP

Display significant connections:  
AAL\_long\_label  
adj\_p\_square\_matrix

### BPLS

Concatenate Variables

behavdata1

BPLS  
pls\_analysis()

res.perm\_result.sprob

Select only significant Latent Variables

Display Confidence interval Results:  
- res.boot\_result.ulcorr  
- res.boot\_result.llcorr

Search for significant LV correlations  
(dont include zero)

res.boot\_result.compare\_u

Recreate matrix

btr\_square\_matrix

Threshold matrix  
BS > 3

thr\_btr\_square\_matrix

HEATMAP  
(for each LV)

Display labels BS > 3:  
(for each LV)  
btr\_anat\_labels