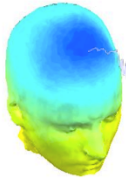
STUDY plot menu



Task 1

Plot cluster summaries

Task 2

Plot individual ICs

Task 3

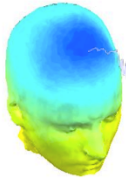
Plot using statistical thresholds

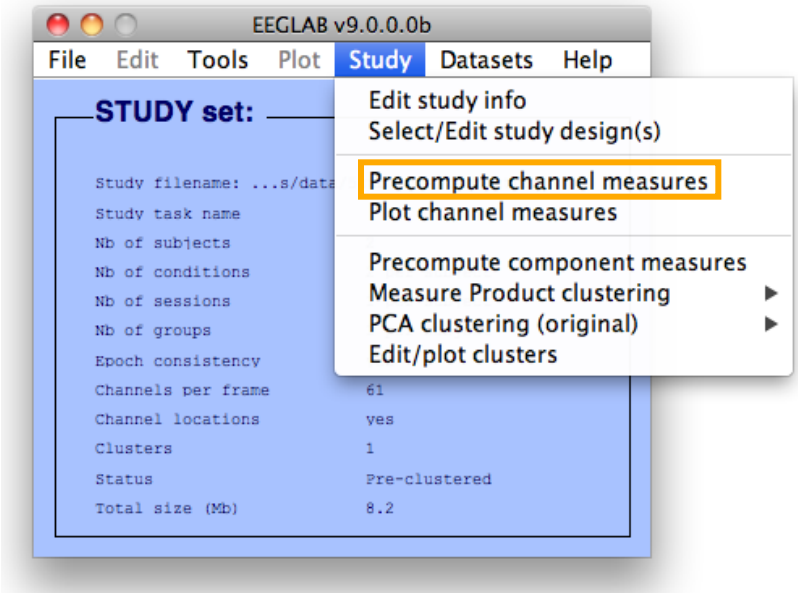
Task 3

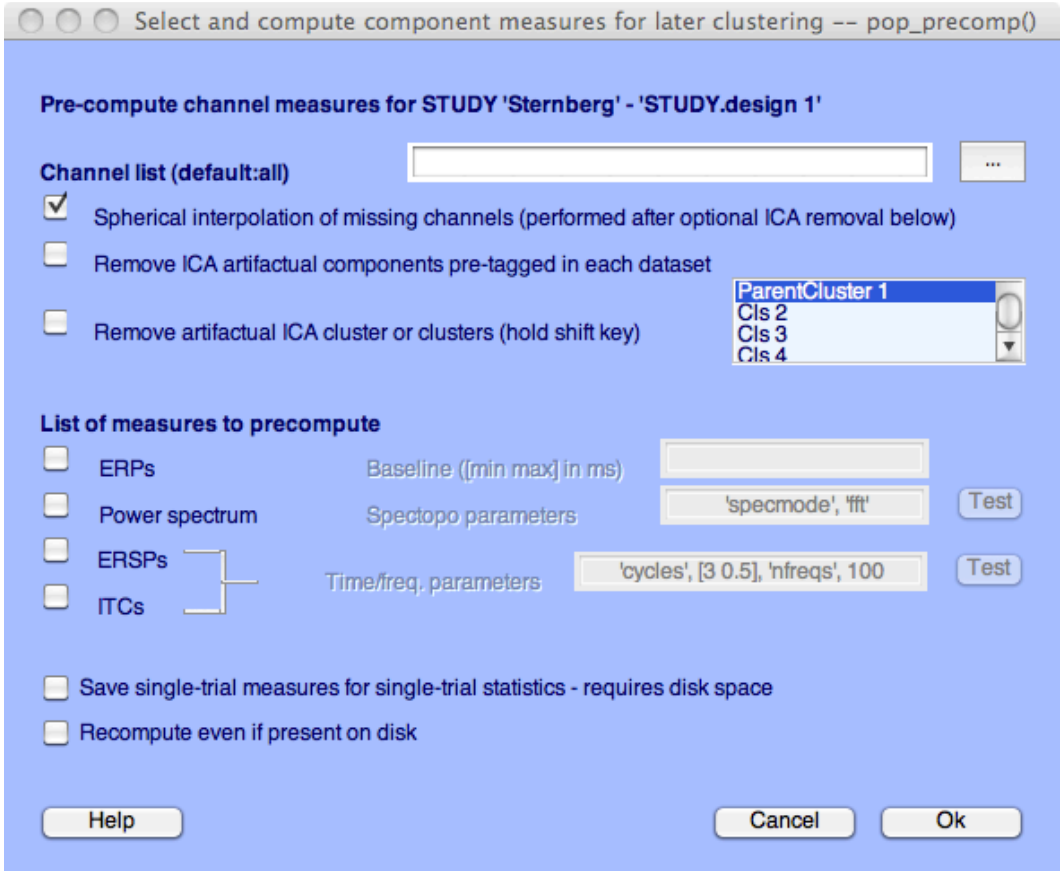
Eliminate/reassign ICs

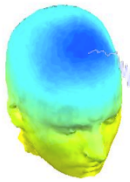
Exercise...

Precompute data measures

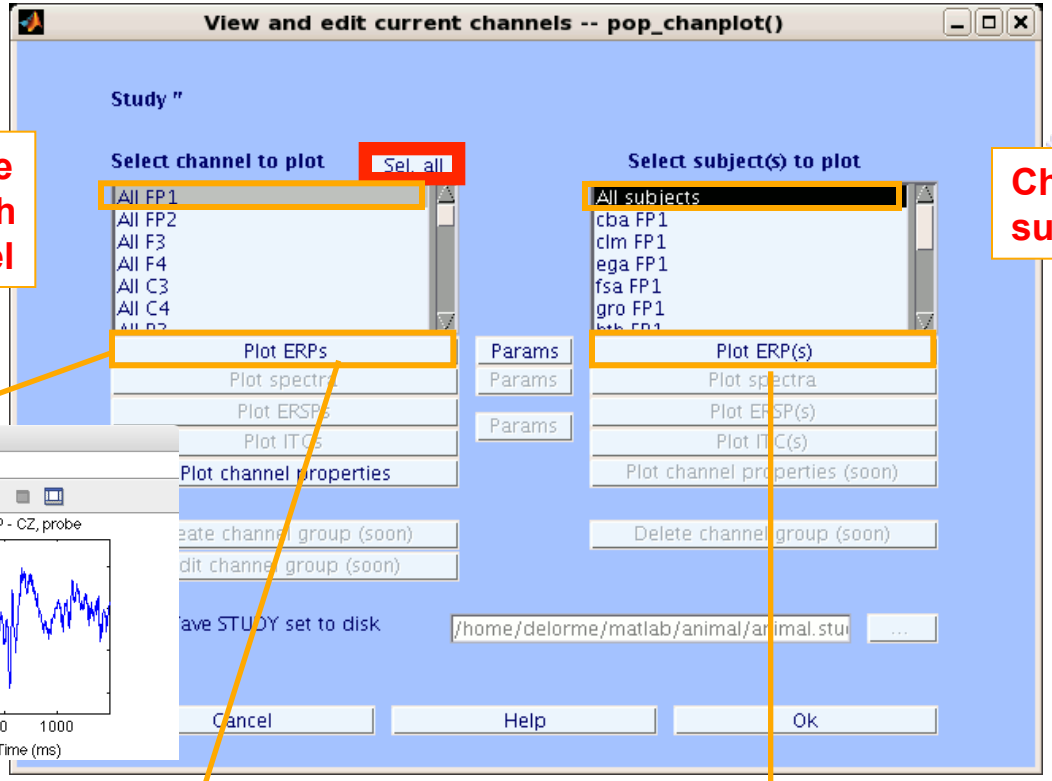




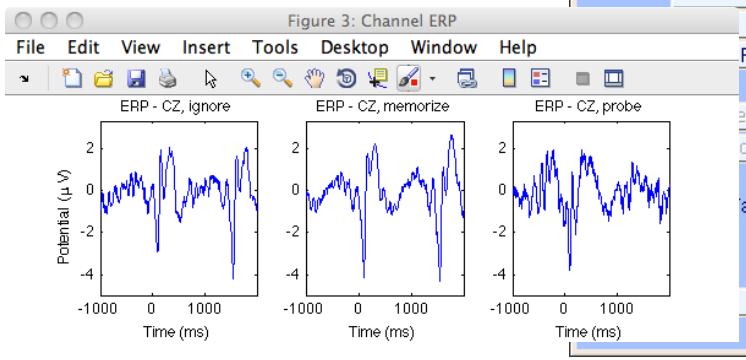


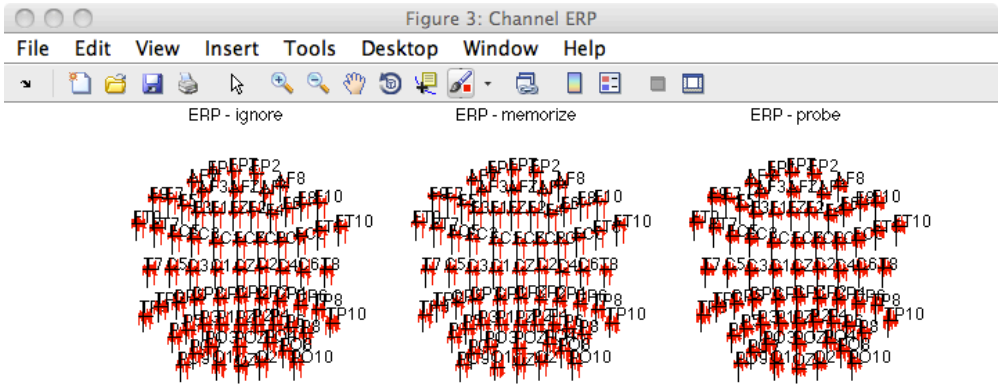


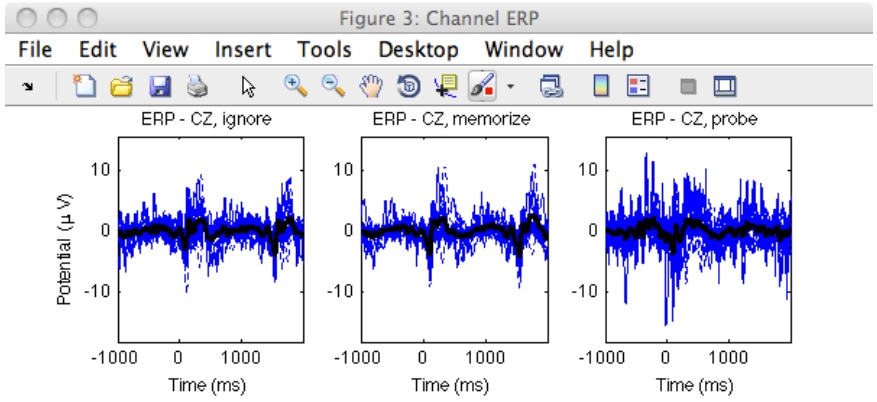
Choose which channel

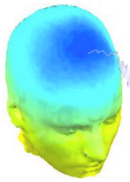


Choose which subject

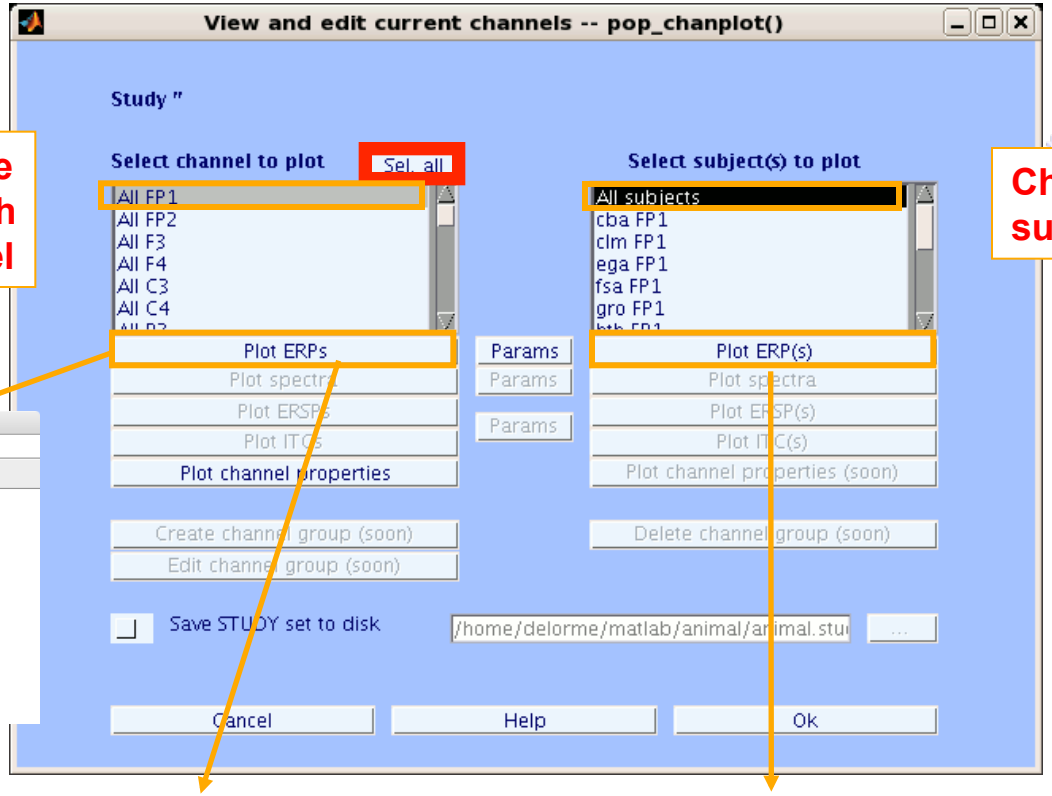




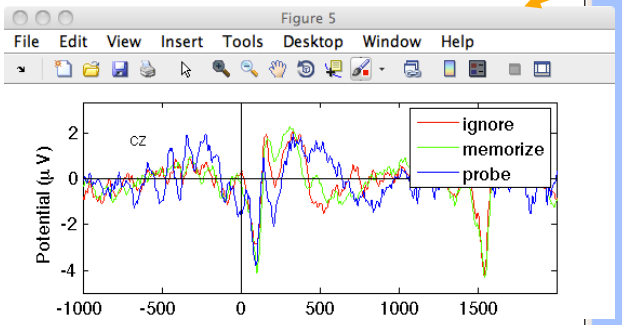


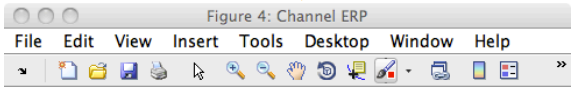


Choose which channel

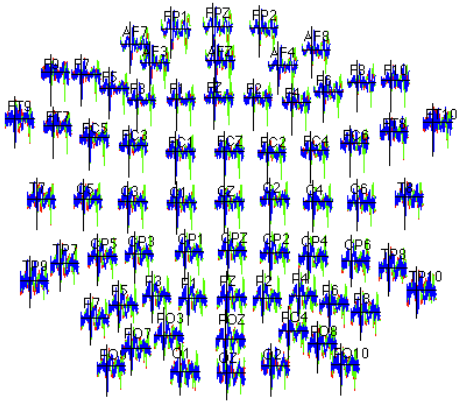


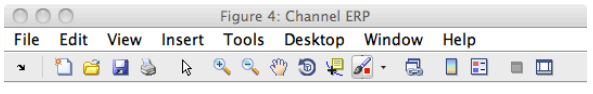
Choose which subject



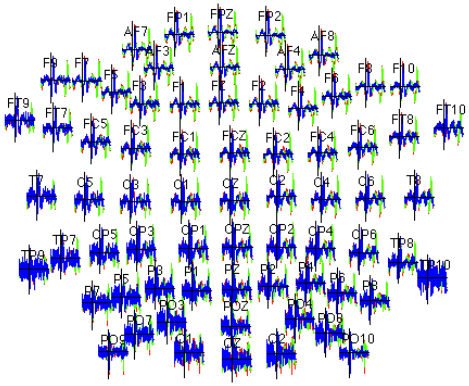


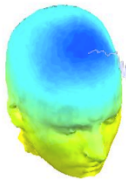
ERP

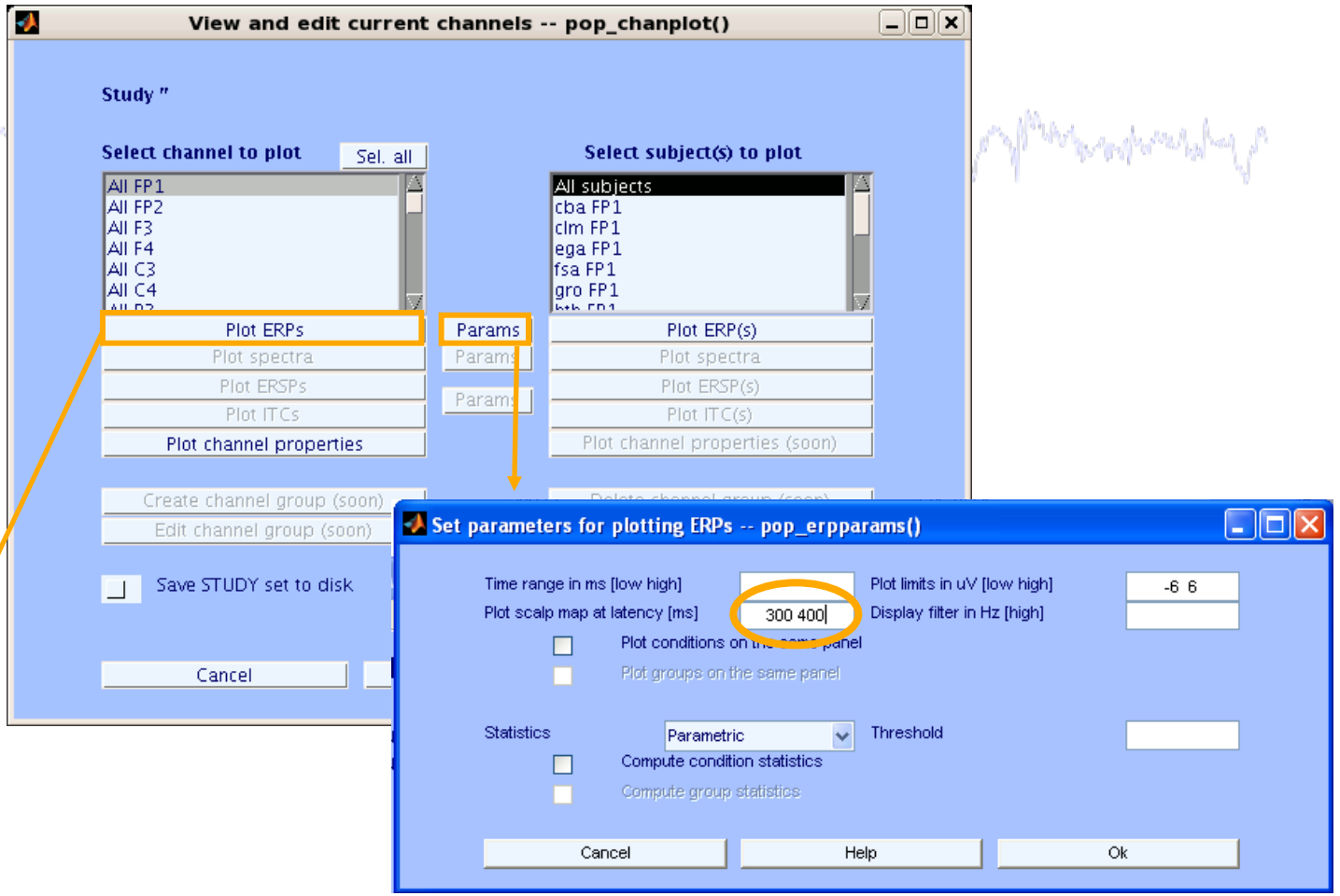




S03 ERP






View and edit current channels -- pop_chanplot()
Study ''
Select channel to plot
Sel. all
All FP1
All FP2
All F3
All F4
All C3
All C4
Select subject(s) to plot
All subjects
cba FP1
clm FP1
ega FP1
fsa FP1
gro FP1
Plot ERPs
Params
Plot ERP(s)
Plot spectra
Plot ERSPs
Plot ERSP(s)
Plot ITCs
Plot ITC(s)
Plot channel properties
Plot channel properties (soon)
Create channel group (soon)
Edit channel group (soon)
Save STUDY set to disk
Cancel
Set parameters for plotting ERPs -- pop_erppparams()
Time range in ms [low high]
Plot limits in uV [low high]
-6 6
Plot scalp map at latency [ms]
300 400
Display filter in Hz [high]
Plot conditions on the same panel
Plot groups on the same panel
Statistics
Parametric
Threshold
Compute condition statistics
Compute group statistics
Cancel
Help
Ok

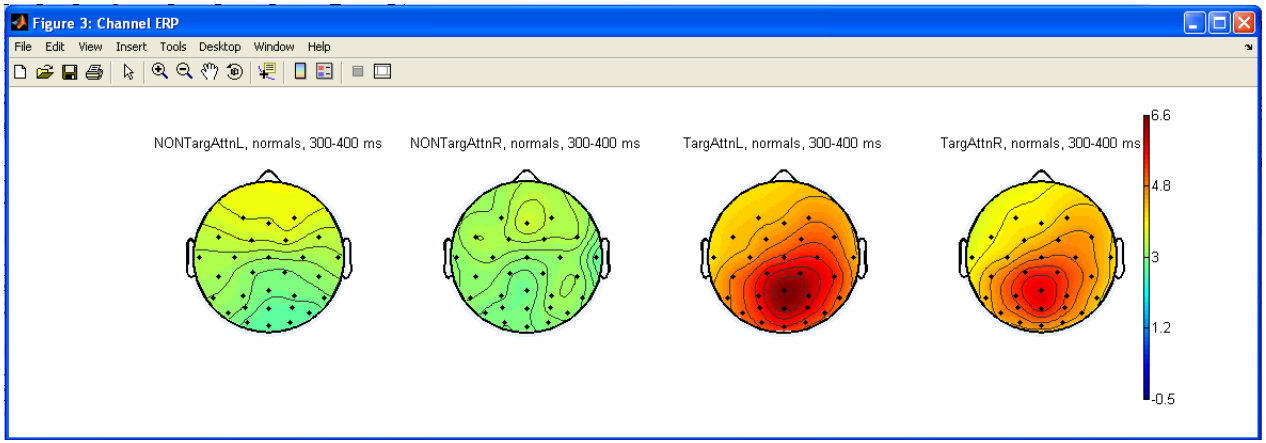
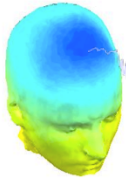
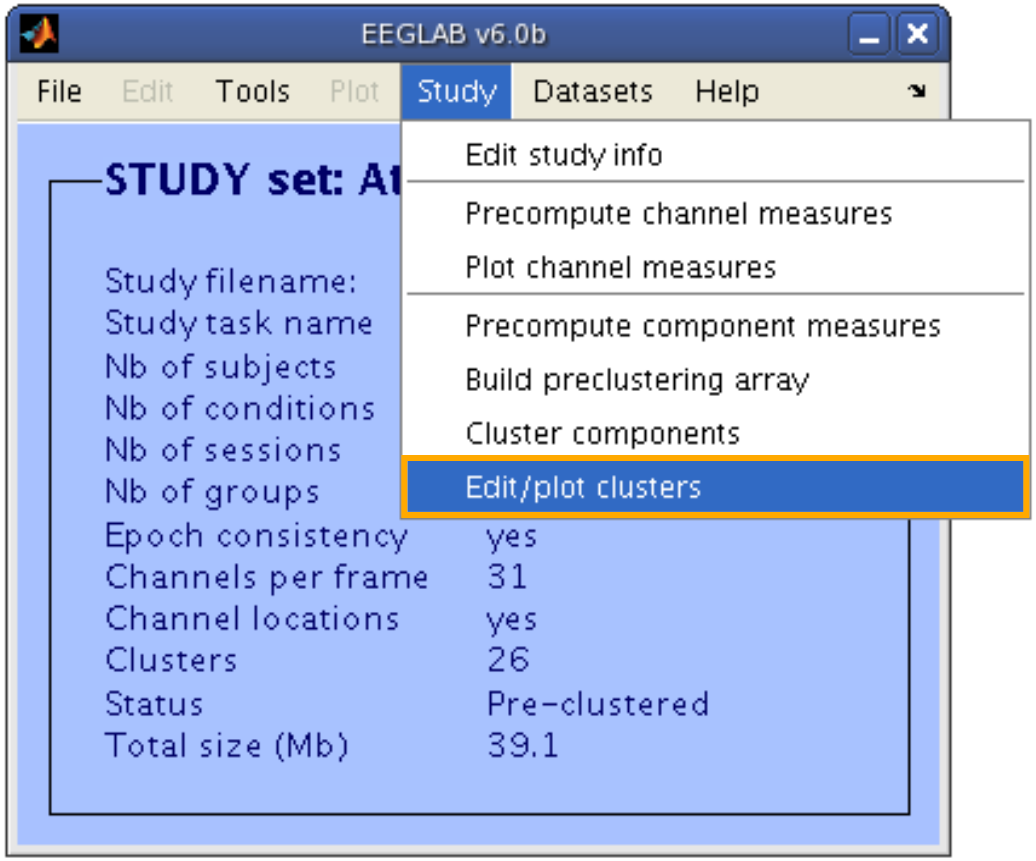


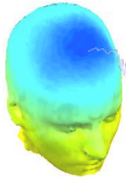
Figure 3: Channel ERP
File Edit View Insert Tools Desktop Window Help
NONTargAttnL, normals, 300-400 ms
NONTargAttnR, normals, 300-400 ms
TargAttnL, normals, 300-400 ms
TargAttnR, normals, 300-400 ms
6.6
4.8
3
1.2
-0.5

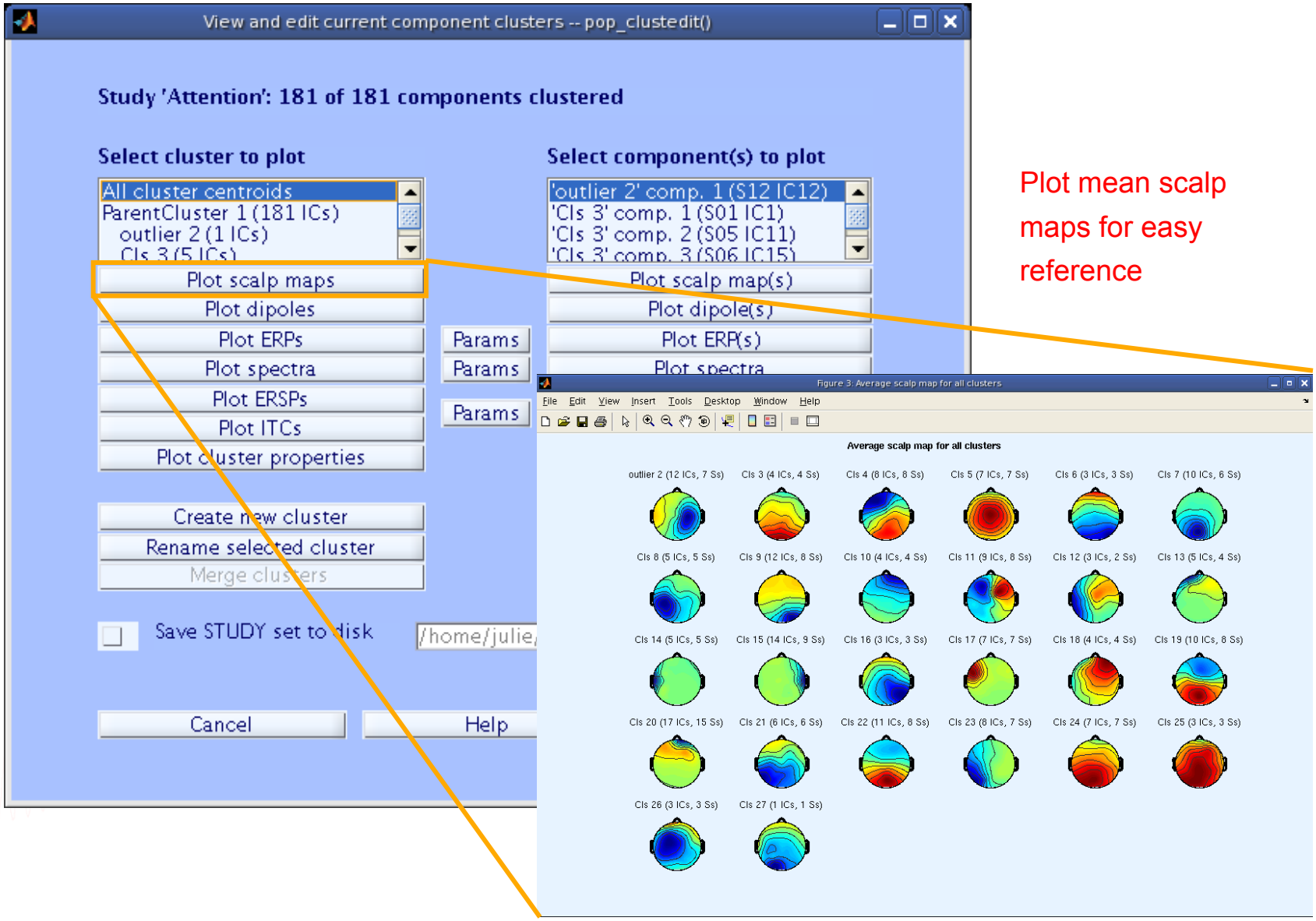
View and edit clusters





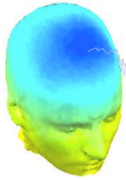
Plot cluster data





Plot mean scalp maps for easy reference

Plot cluster data



Choose which cluster

Choose which components

View and edit current component clusters -- pop_clustedit()

Study 'Attention': 181 of 181 components clustered

Select cluster to plot

Cls 6 (3 ICs)
Cls 7 (10 ICs)
Cls 8 (5 ICs)
Cls 9 (12 ICs)

Select component(s) to plot

All components
S01 IC6
S05 IC9
S06 IC12

Plot scalp maps
Plot dipoles
Plot ERPs
Plot spectra
Plot ERSPs
Plot ITCs
Plot cluster properties

Params
Params
Params

Plot scalp map(s)

Create new cluster
Rename selected cluster
Merge clusters

Save STUDY set to disk

/home/julie/WorkshopSD2

Cancel
Help

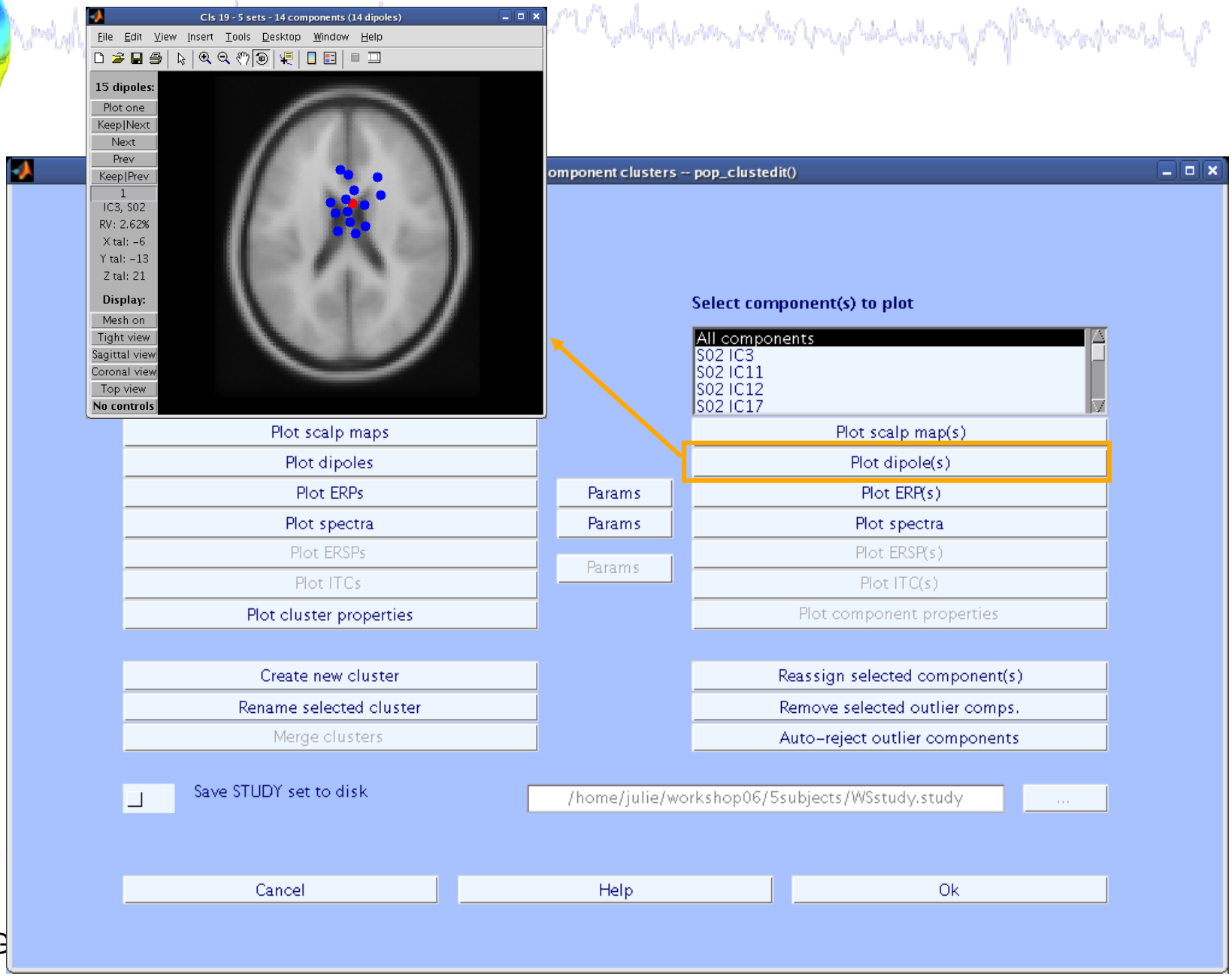
Figure 4

File Edit View Insert Tools Desktop Window Help

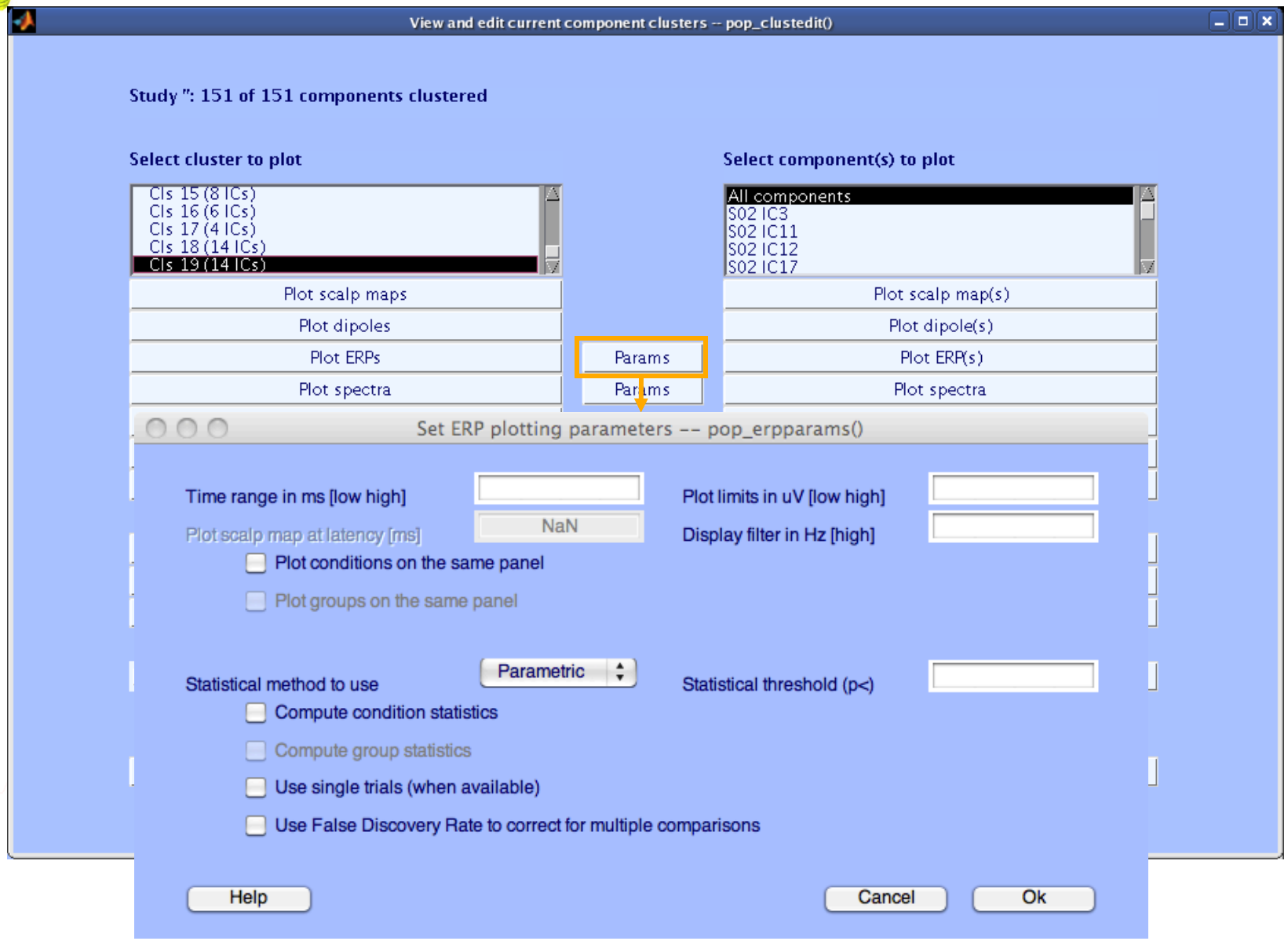
Cls 21 (7 ICs, 7 Ss)

ic4/S01
ic11/S02
ic1/S06
ic1/S08
ic2/S10
ic6/S12
ic3/S15

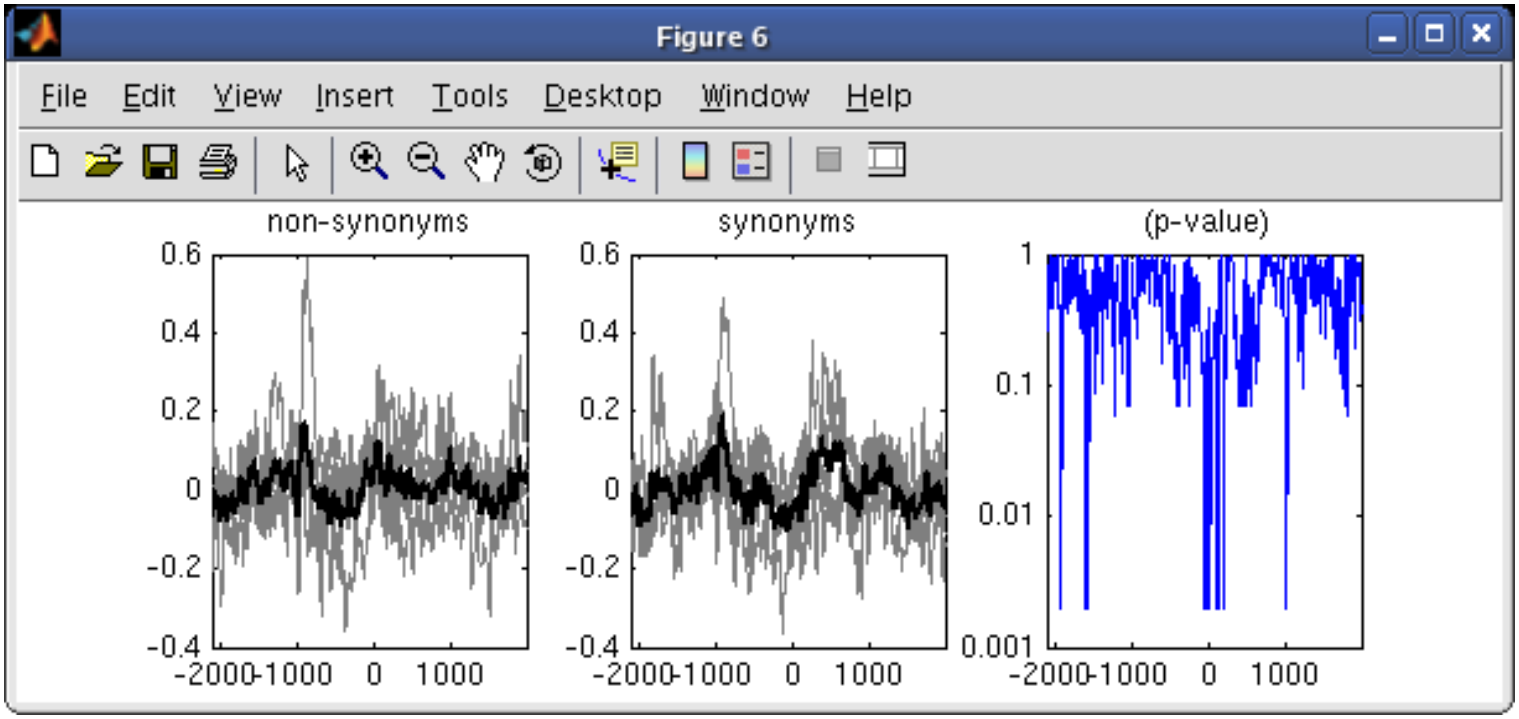
Plot cluster data



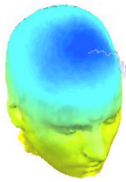
Plot cluster data

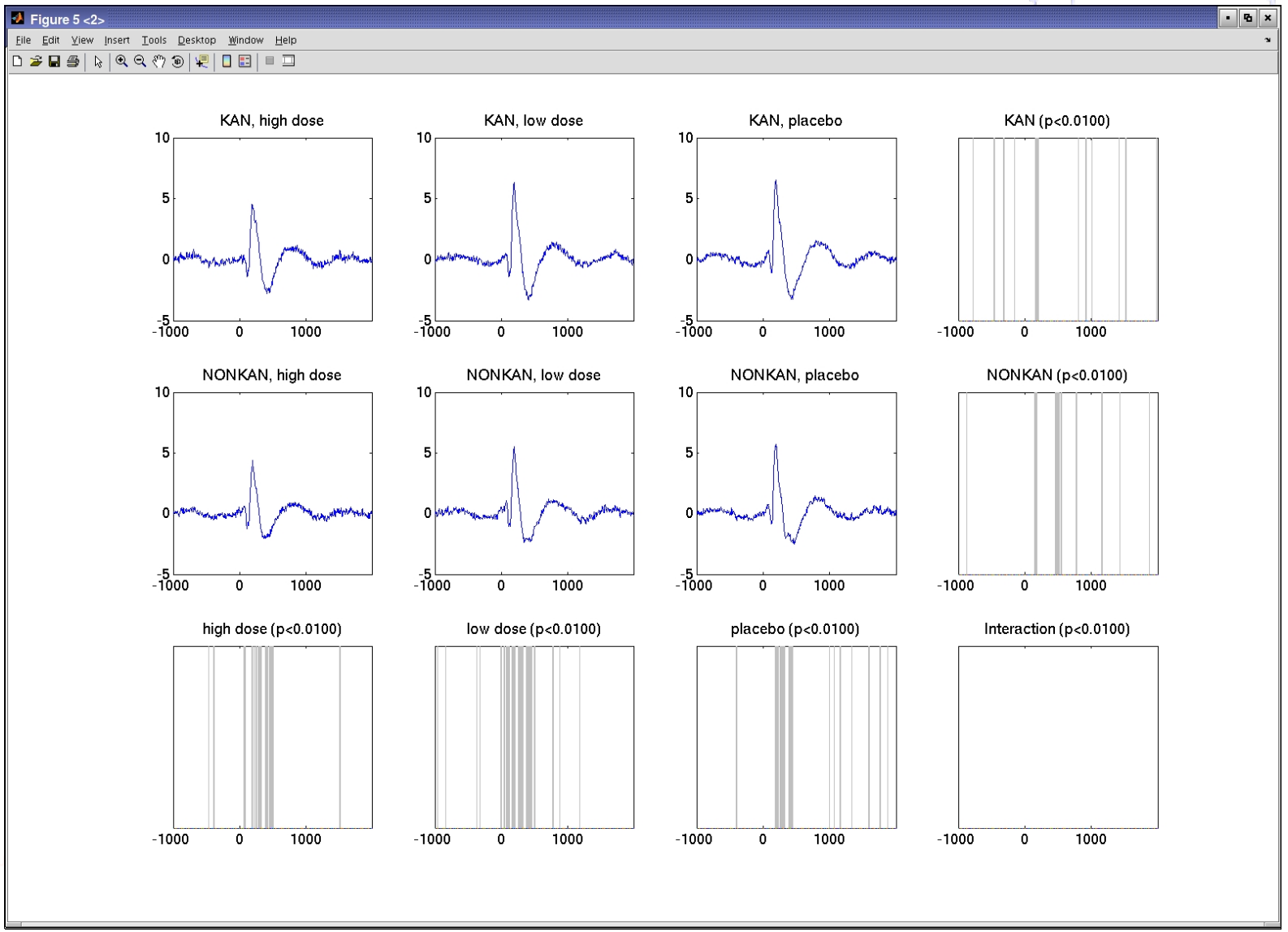


Plot cluster ERP

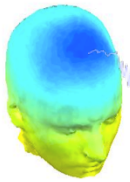


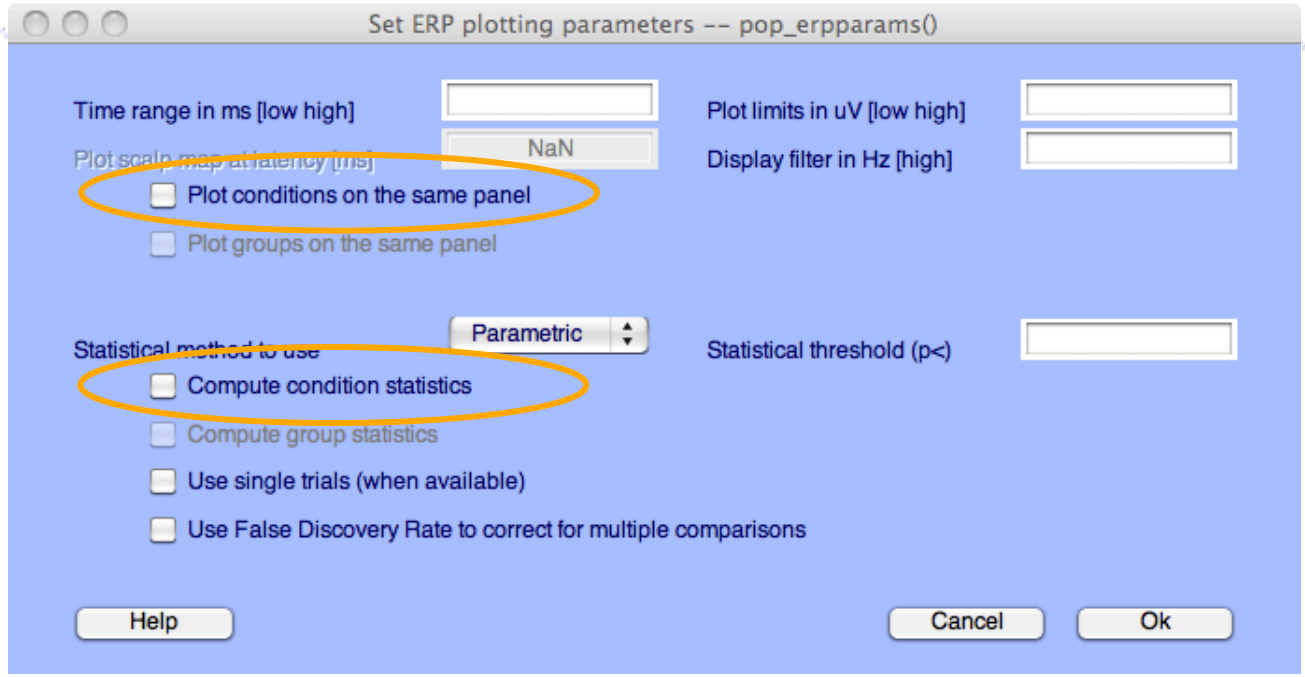
STUDY ERPs with p-value

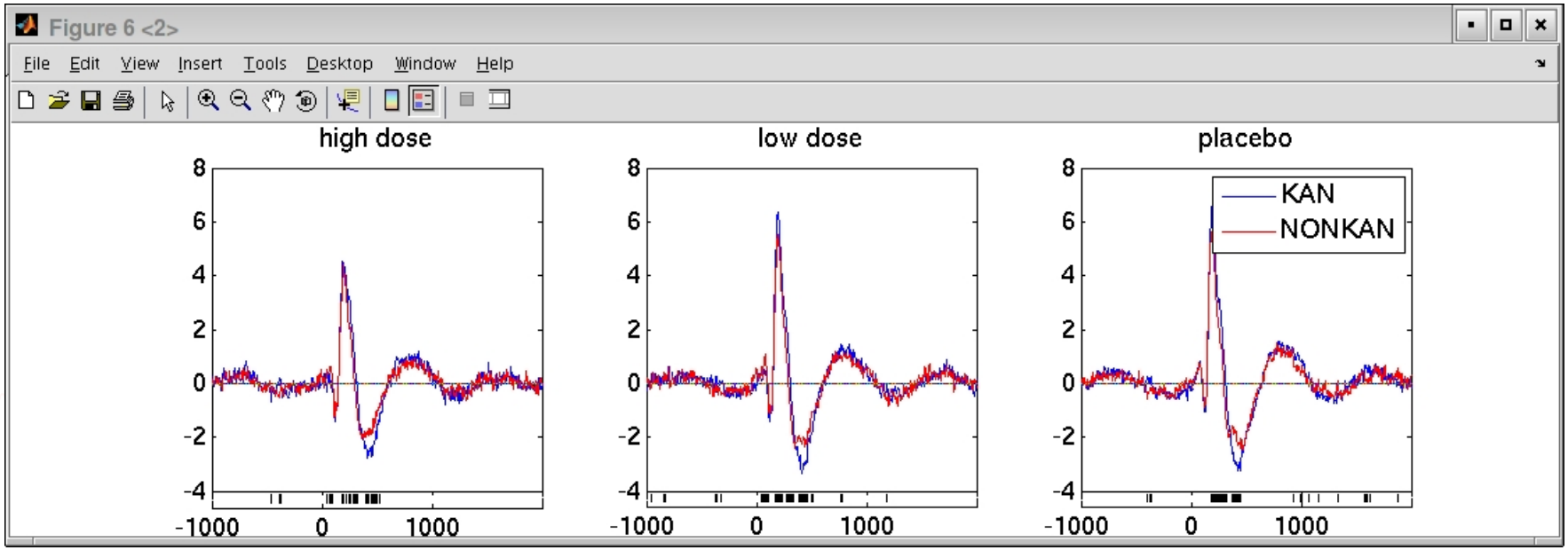




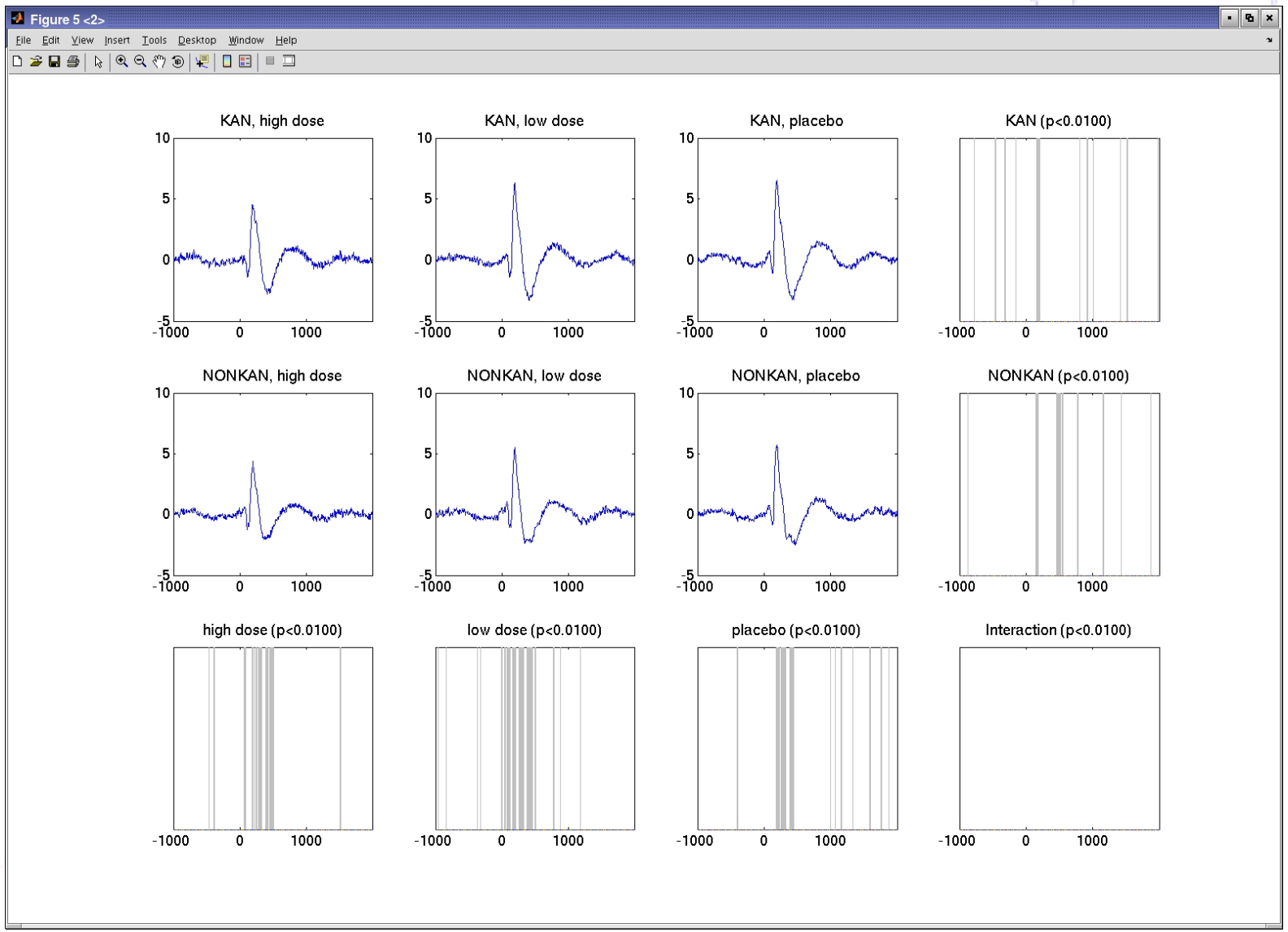
Other plotting options…



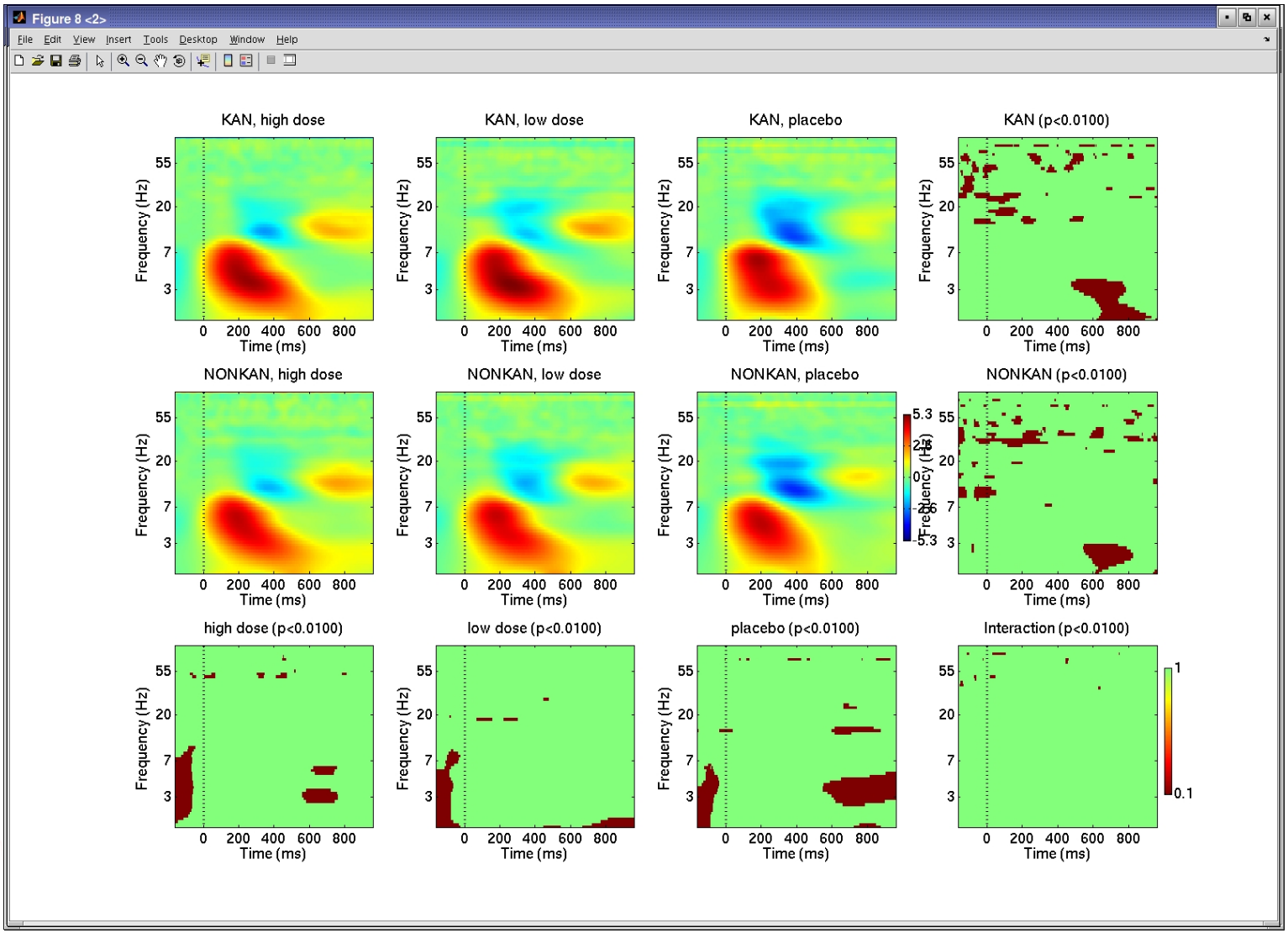




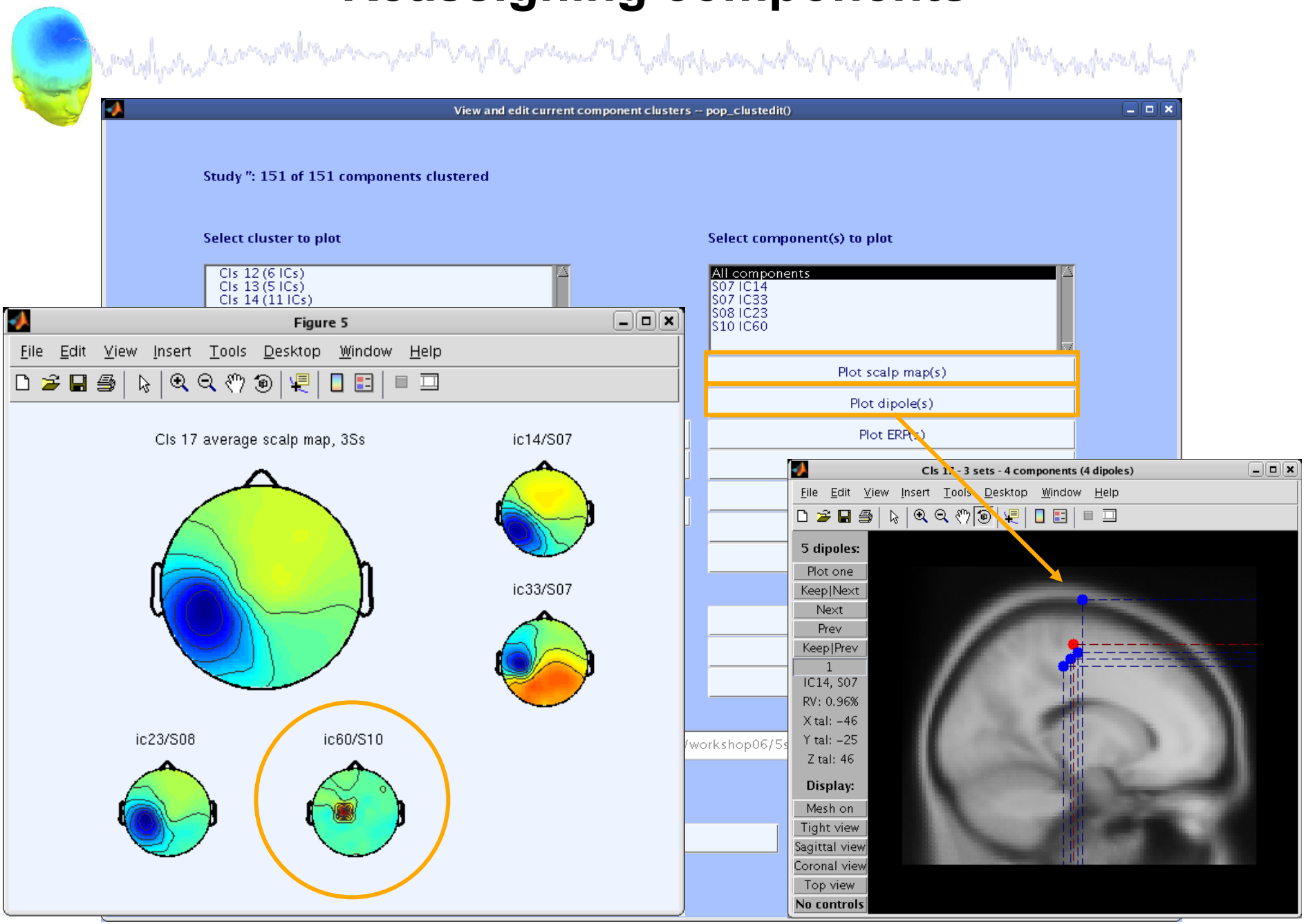
STUDY ERPs with threshold



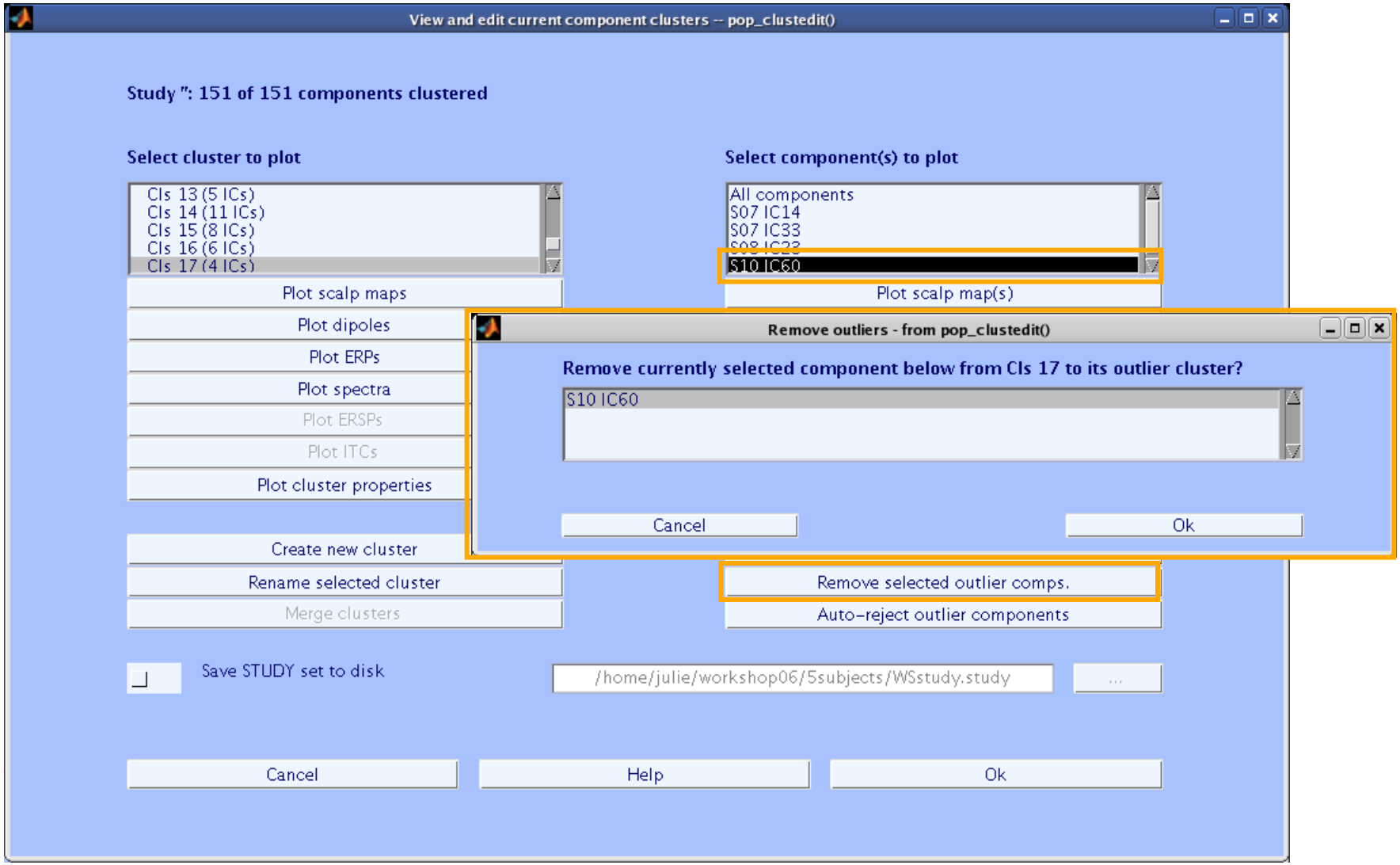
STUDY ERSPs with statistics



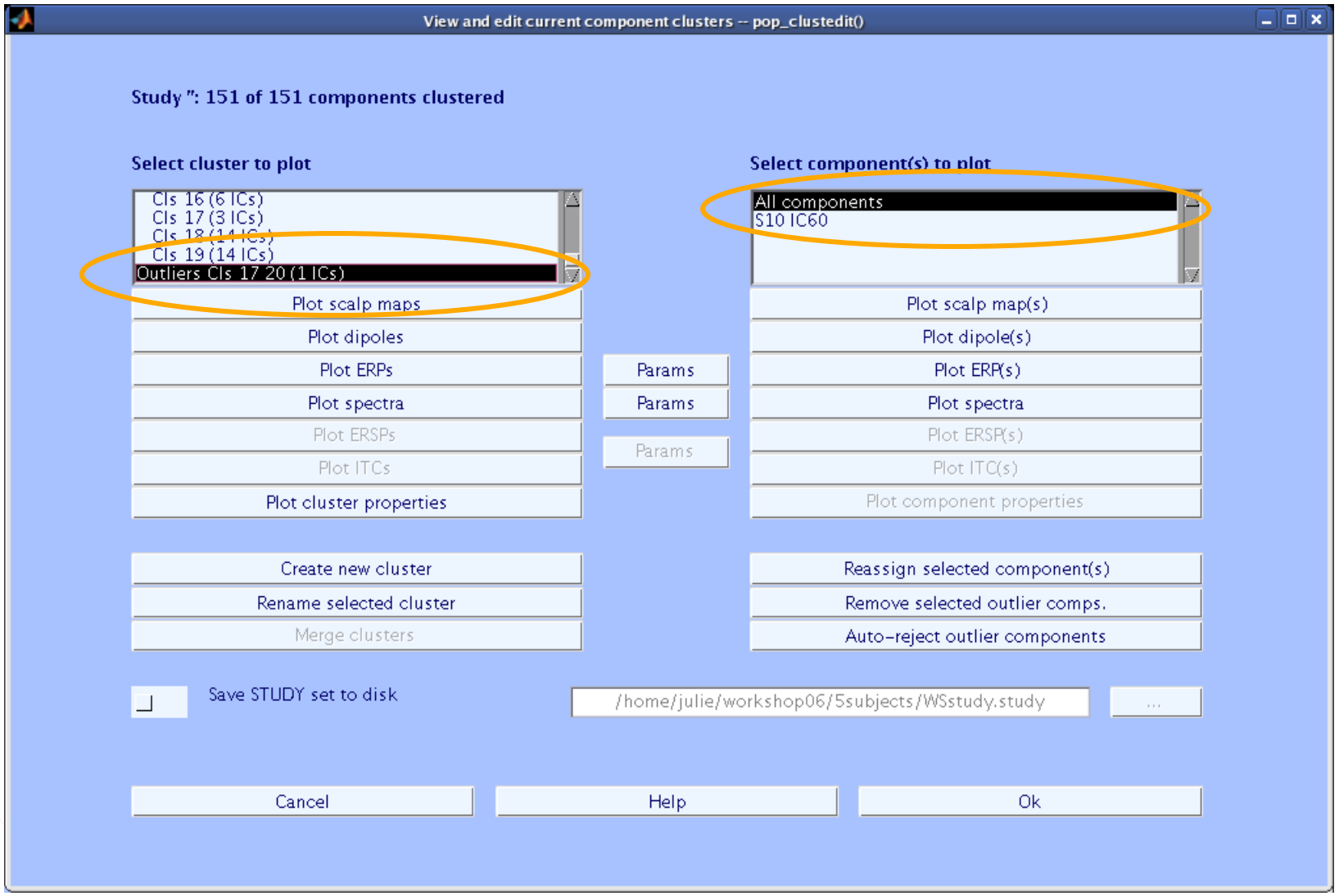
Reassigning components



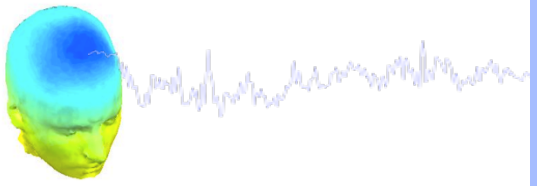
Reassigning components



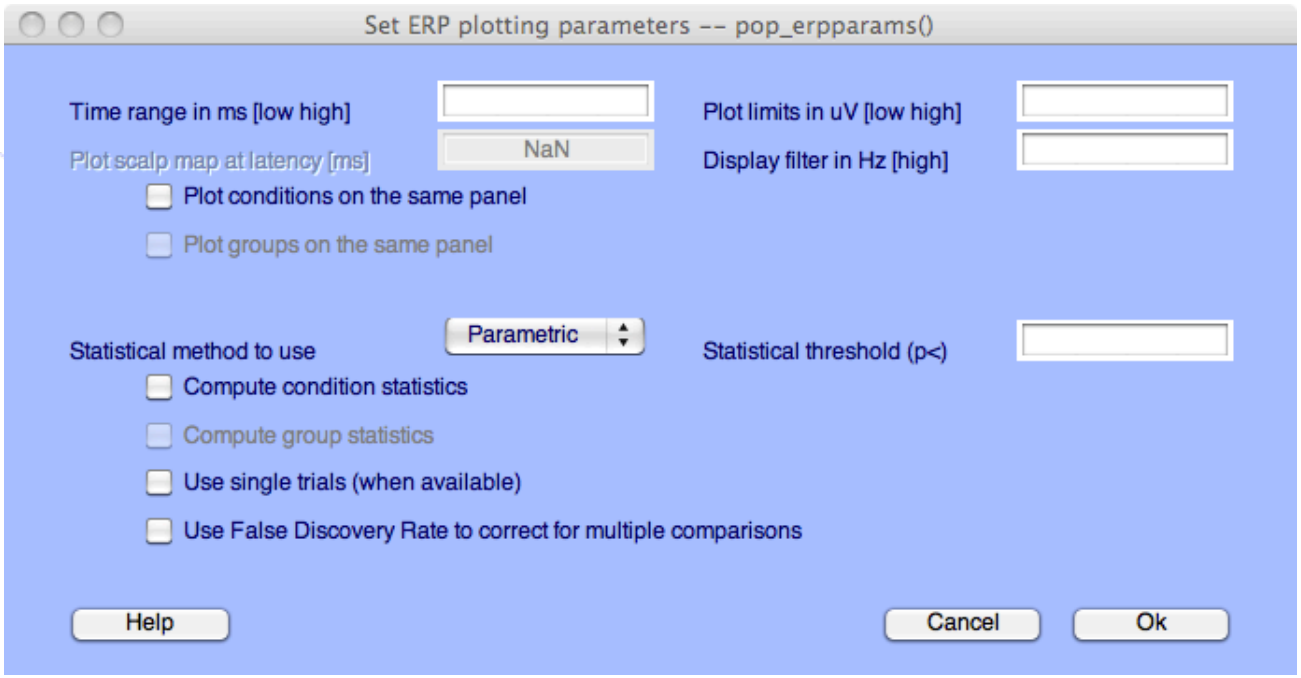
Outlier cluster reassignment



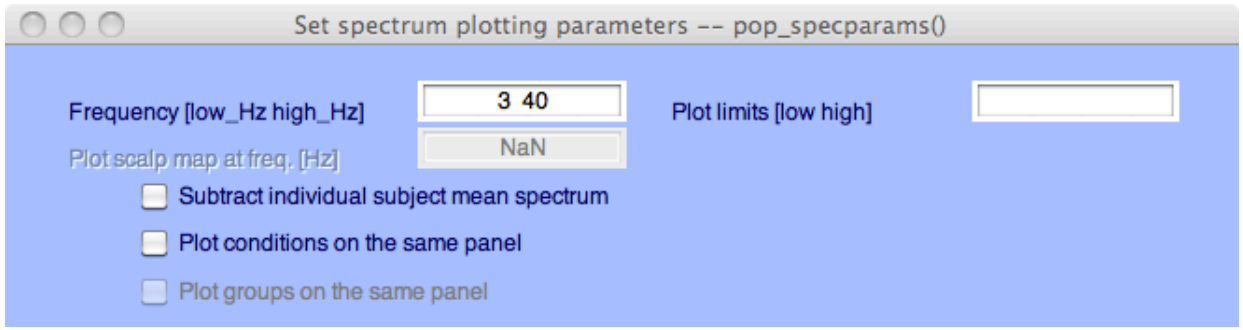
Parameters



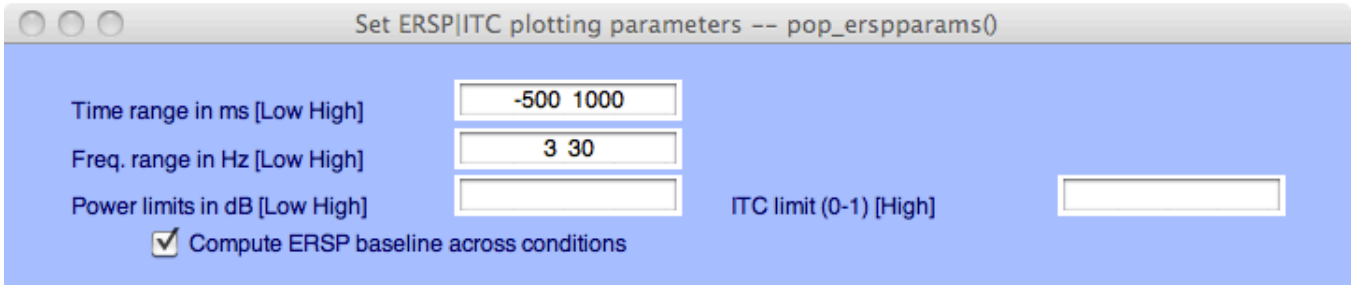
ERP

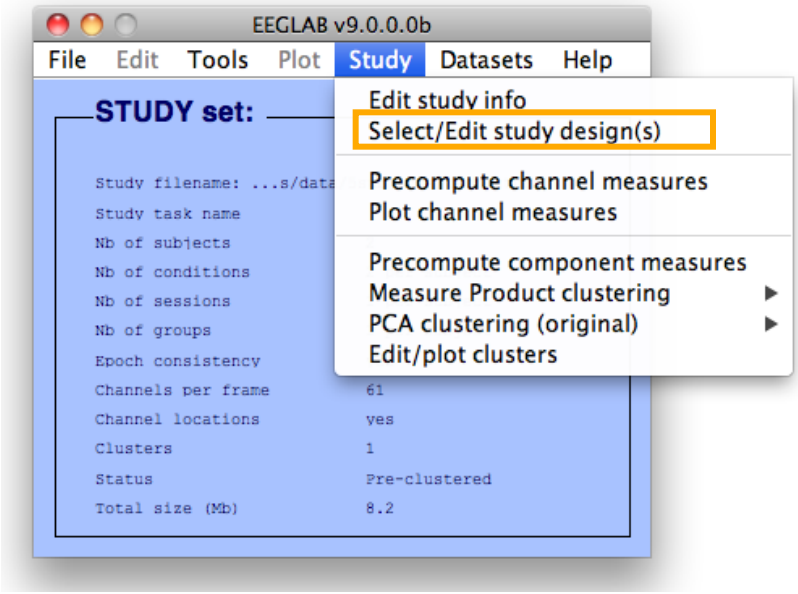


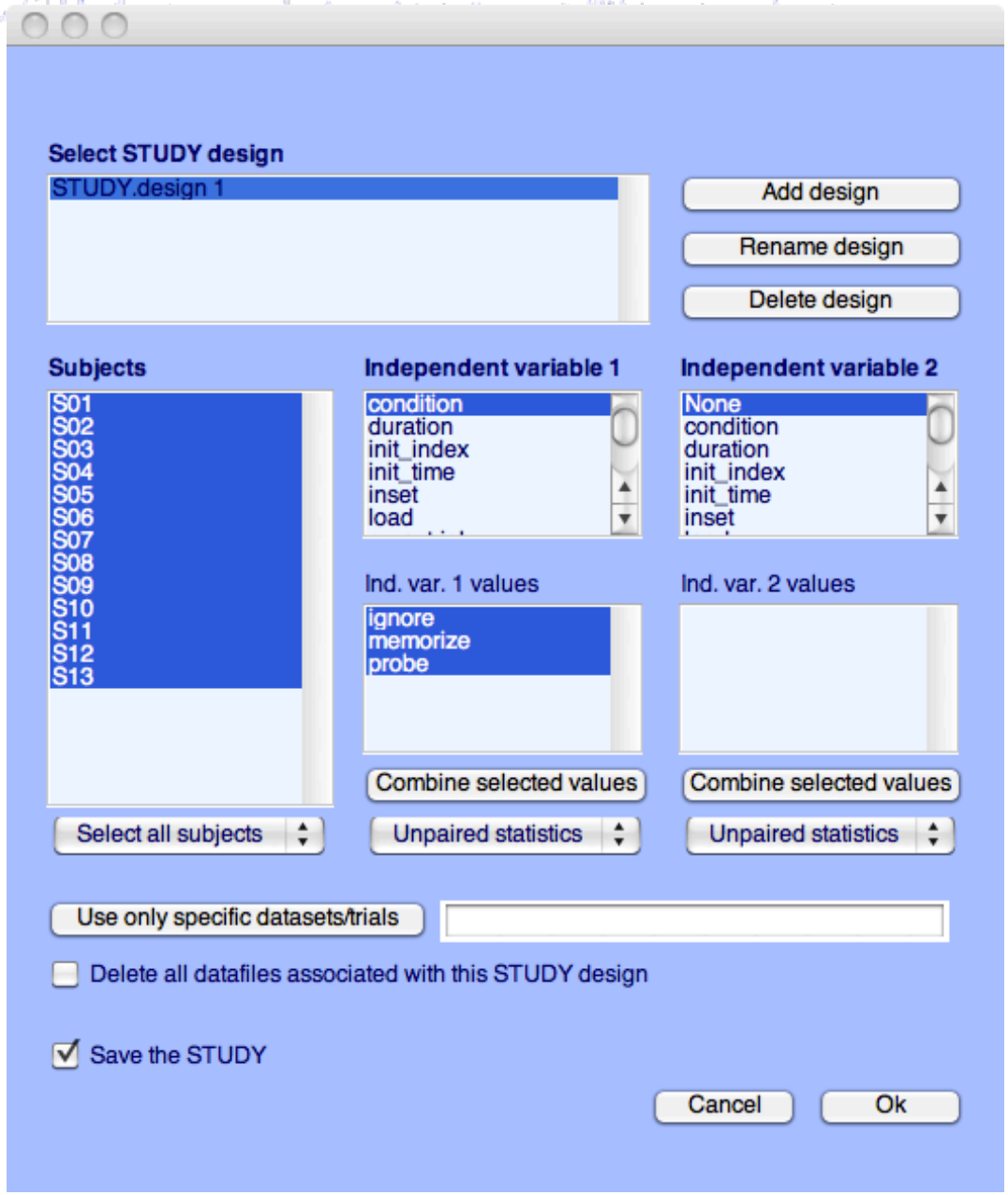
Spectrum



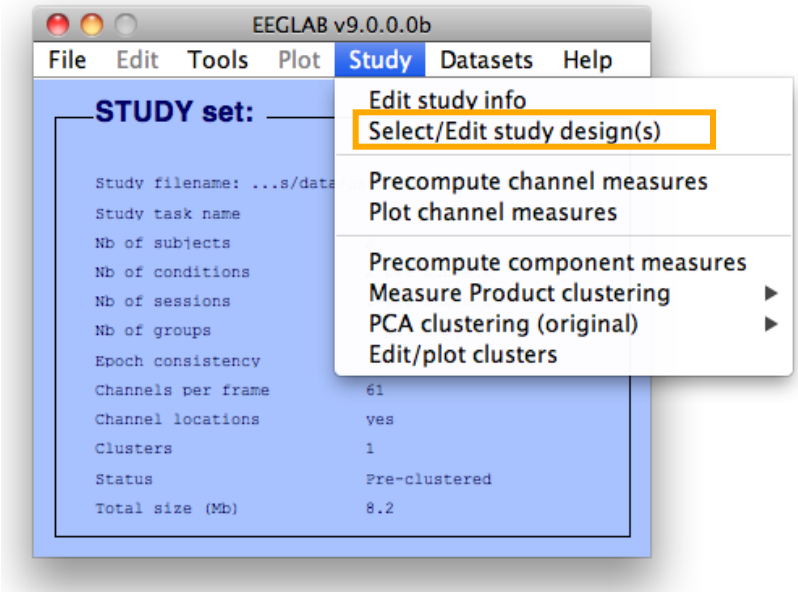
ERSP/ITC

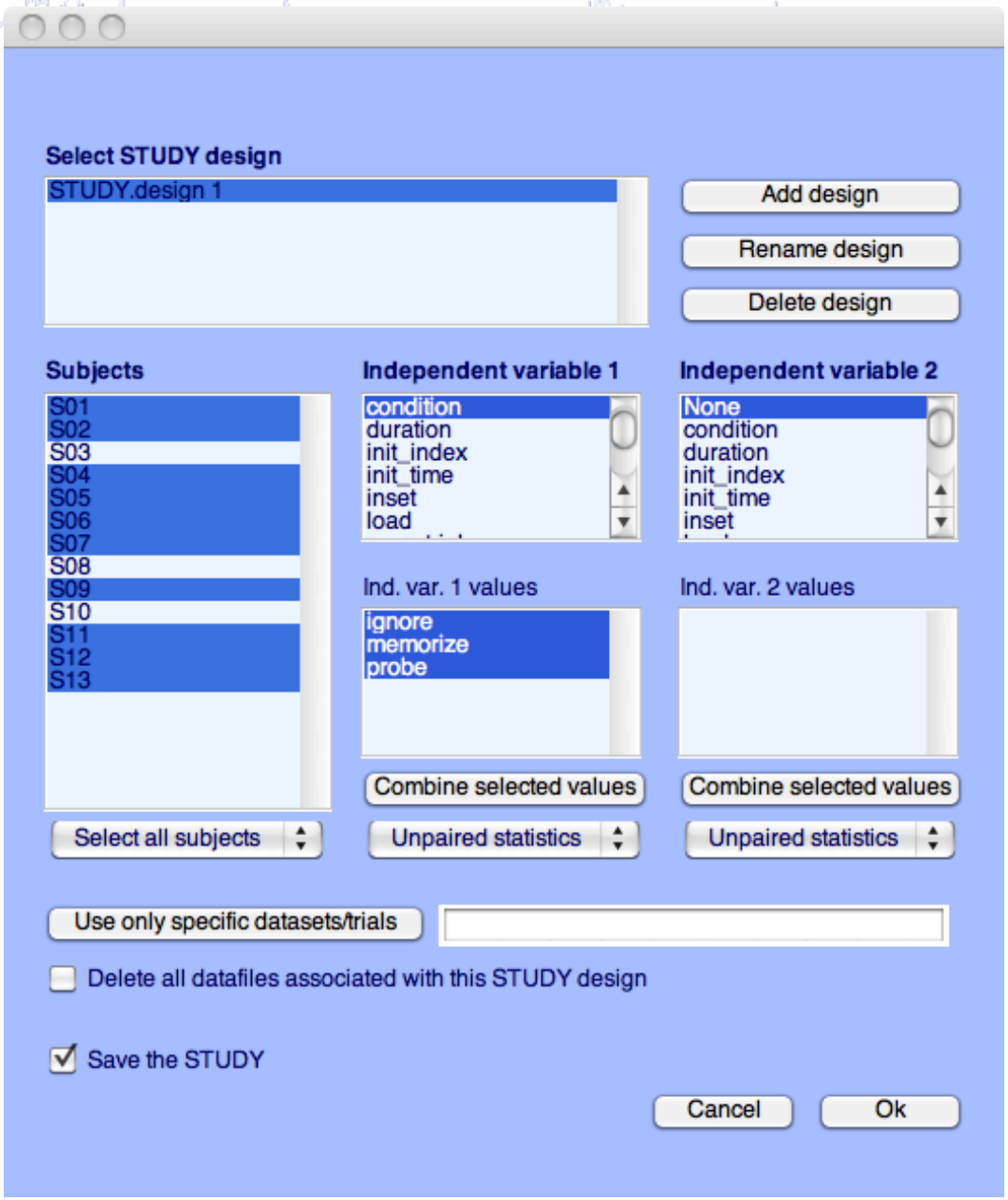


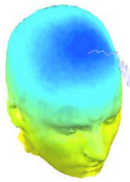

EEGLAB v9.0.0.0b
File Edit Tools Plot Study Datasets Help
STUDY set:
Study filename: ...s/data
Study task name
Nb of subjects
Nb of conditions
Nb of sessions
Nb of groups
Epoch consistency
Channels per frame 61
Channel locations yes
Clusters 1
Status Pre-clustered
Total size (Mb) 8.2
Edit study info
Select/Edit study design(s)
Precompute channel measures
Plot channel measures
Precompute component measures
Measure Product clustering
PCA clustering (original)
Edit/plot clusters


Select STUDY design
STUDY.design 1
Add design
Rename design
Delete design
Subjects
S01 S02 S03 S04 S05 S06 S07 S08 S09 S10 S11 S12 S13
Independent variable 1
condition duration init_index init_time inset load
Independent variable 2
None condition duration init_index init_time inset
Ind. var. 1 values
ignore memorize probe
Ind. var. 2 values
Combine selected values
Combine selected values
Select all subjects
Unpaired statistics
Unpaired statistics
Use only specific datasets/trials
Delete all datafiles associated with this STUDY design
Save the STUDY
Cancel
Ok

Select subjects







Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light
audio - light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

control
nondual

Combine selected values

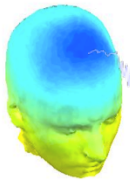
Unpaired statistics

Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok



Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light
audio - light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

Combine selected values

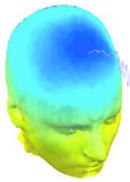
Unpaired statistics

Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok



Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light
audio - light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

Combine selected values

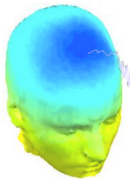
Unpaired statistics

Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok



Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

Combine selected values

Unpaired statistics

Use only specific datasets/trials

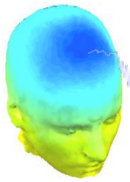
'stimulusType',{'audio'}

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel

Ok



Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light
audio - light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

1
2

Combine selected values

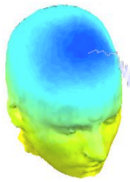
Unpaired statistics

Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok



Edit STUDY design -- pop_studydesign()

Select STUDY design

Audio versus light all subjects
All stimulus type - non dual subjects only
Blank versus other stimulus type - non dual subjects only
Audio preceeded by different stimulus types
Audio versus ligh accross sessions - non dual subjects only
Audio versus light accross presentation - non dual subjects only

Add design
Rename design
Delete design

Subjects

c1
c2
c3
c4
c5
c6
c7
c8
nd1
nd2
nd3
nd4
nd5
nd6
nd7
nd8

Select all subjects

Independent variable 1

None
group
stimulusType
presentation
session
prevevent

Ind. var. 1 values

audio
blank
both
light
audio - light

Combine selected values

Unpaired statistics

Independent variable 2

None
group
stimulusType
presentation
session
prevevent

Ind. var. 2 values

evoked
spontaneous

Combine selected values

Unpaired statistics

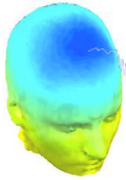
Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok

Exercises



Suggestion for exercises:

Load stern.study in STUDY folder

From the GUI, compute ERP for data channels. Plot grand average ERP for all channels. Experiment with statistics.

Then move to the plotting cluster function. Plot ERSP for frontal midline theta cluster (cluster 19) and remove outliers by hand.

Build a STUDY design to compare letter with high memory load versus letter with low memory load. Recompute spectrum for components and compare the two conditions for the frontal midline cluster (cluster 19).