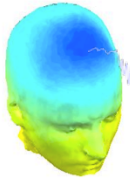
STUDY design and plotting overview



STEP 1

Build a STUDY

STEP 2

Build design(s)

STEP 3

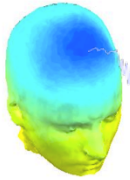
Precompute the data

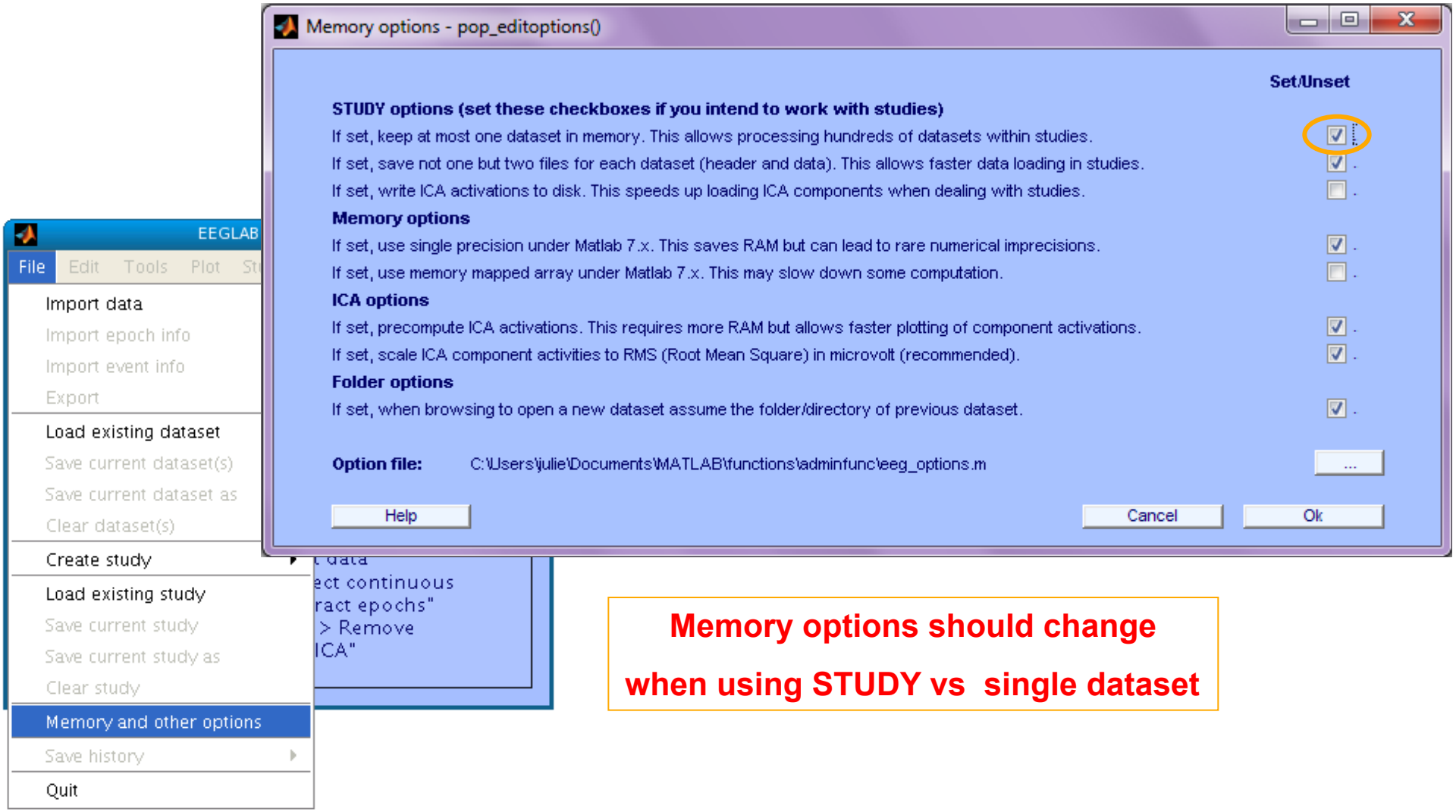
STEP 4

Plot the data

Exercise...

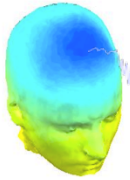
Memory options

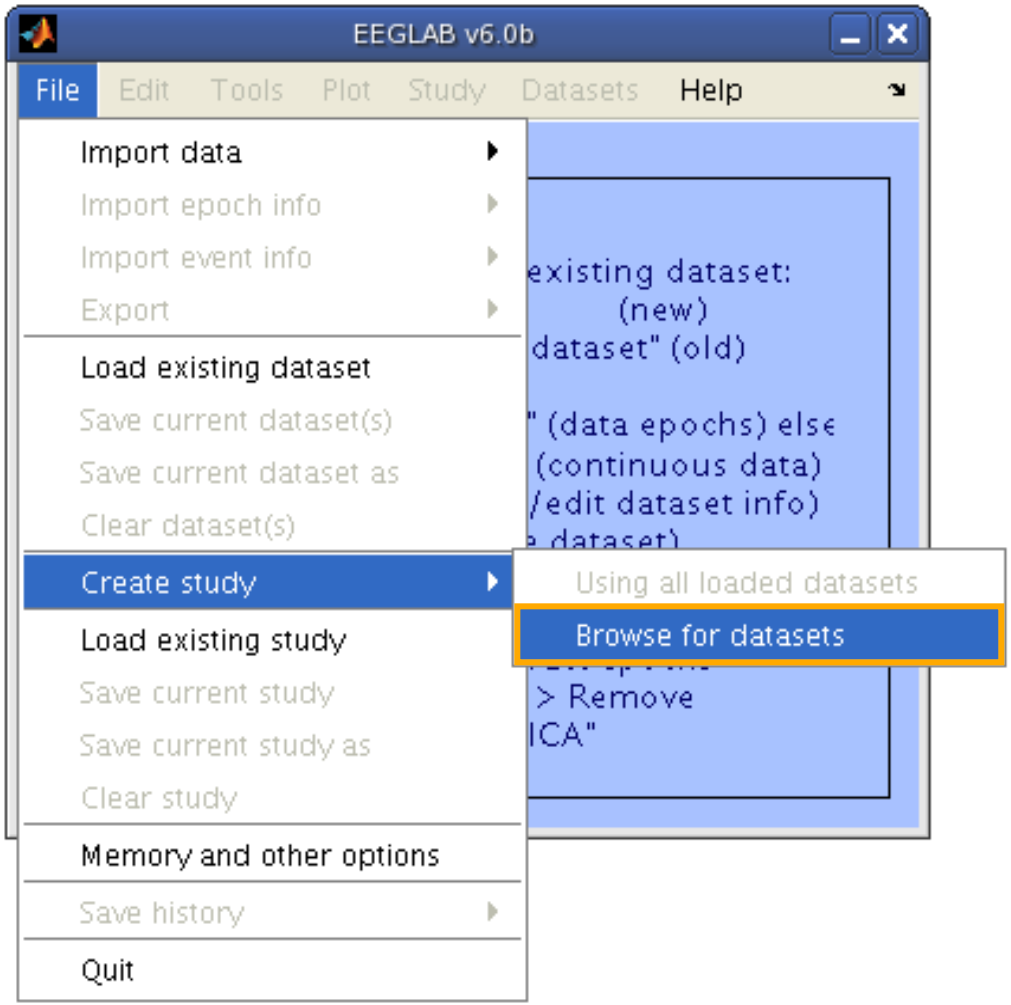




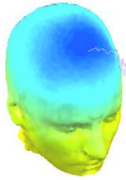
Memory options should change when using STUDY vs single dataset

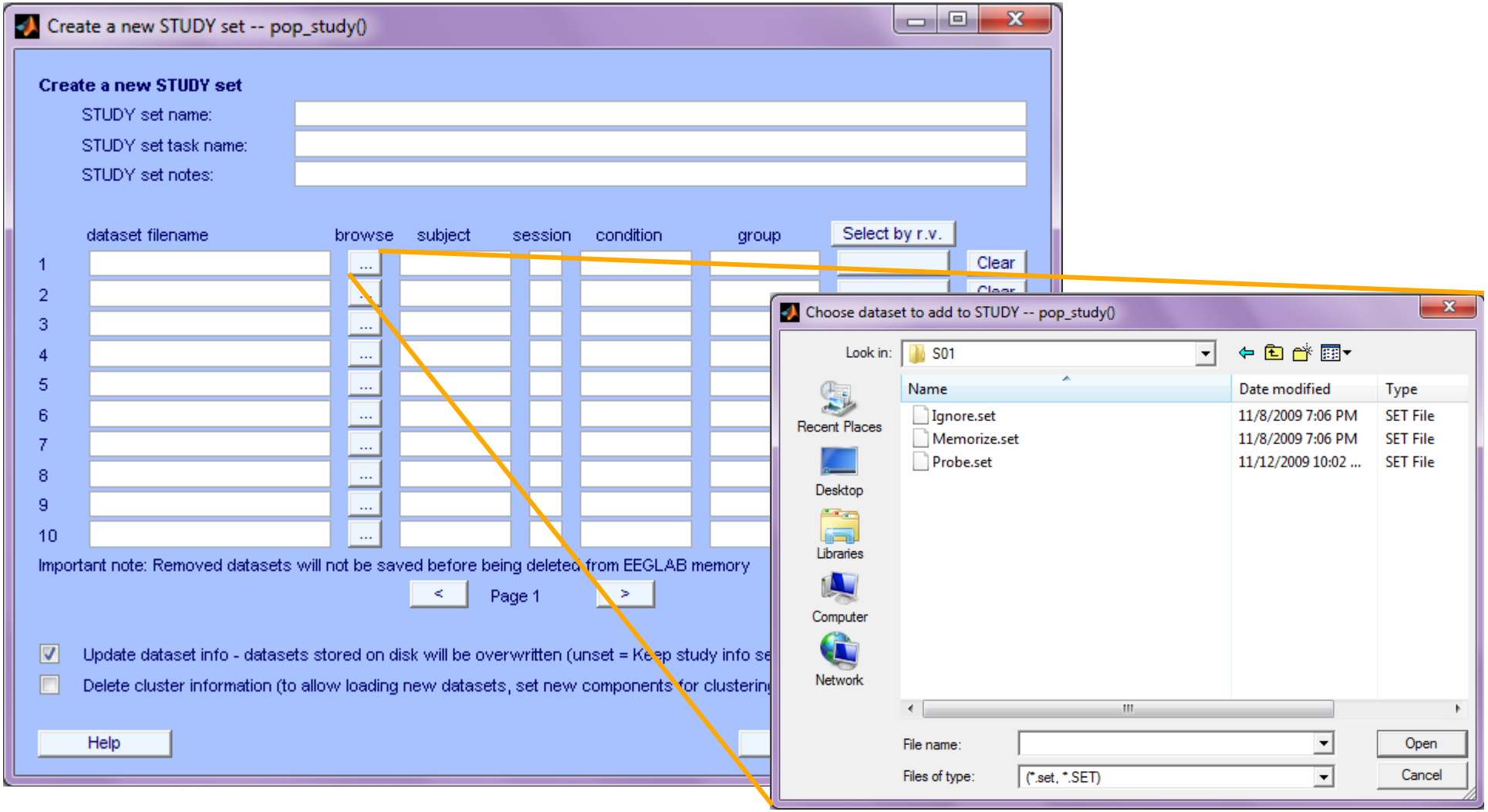
Build a STUDY



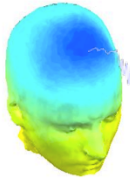


Build a STUDY, cont'd





Edit dataset info



Create a new STUDY set -- pop_study()

Edit STUDY set information - remember to save changes

STUDY set name: Sternberg

STUDY set task name: Sternberg

STUDY set notes:

	dataset filename	browse	subject	session	condition	group	Select by r.v.	
1	/Volumes/donnees/data/STUD	...	S01		memorize		All comp.	Clear
2	/Volumes/donnees/data/STUD	...	S01		ignore		All comp.	Clear
3	/Volumes/donnees/data/STUD	...	S01		probe		All comp.	Clear
4	/Volumes/donnees/data/STUD	...	S02		memorize		All comp.	Clear
5	/Volumes/donnees/data/STUD	...	S02		ignore		All comp.	Clear
6	/Volumes/donnees/data/STUD	...	S02		probe		All comp.	Clear
7	/Volumes/donnees/data/STUD	...	S03		memorize		All comp.	Clear
8	/Volumes/donnees/data/STUD	...	S03		ignore		All comp.	Clear
9	/Volumes/donnees/data/STUD	...	S03		probe		All comp.	Clear
10	/Volumes/donnees/data/STUD	...	S04		memorize		All comp.	Clear

Important note: Removed datasets will not be saved before being deleted from EEGLAB memory

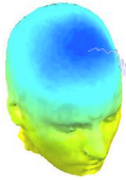
< Page 1 >

☐ Dataset info (condition, group, ...) differs from study info. [set] = Overwrite dataset info.

☑ Delete cluster information (to allow loading new datasets, set new components for clustering, etc.)

Help Cancel Ok

Experimental design



1x2 unpaired

Patients	Controls
Group A	Group B

2x2 unpaired

	Patients	Controls
Old	Group A	Group B
Young	Group C	Group D

1x2 paired

Stim A	Stim B

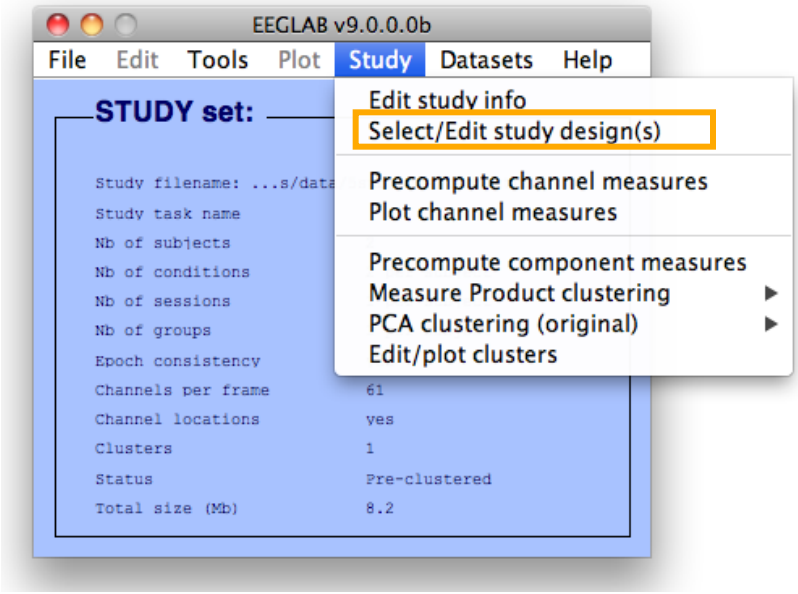
2x2 paired

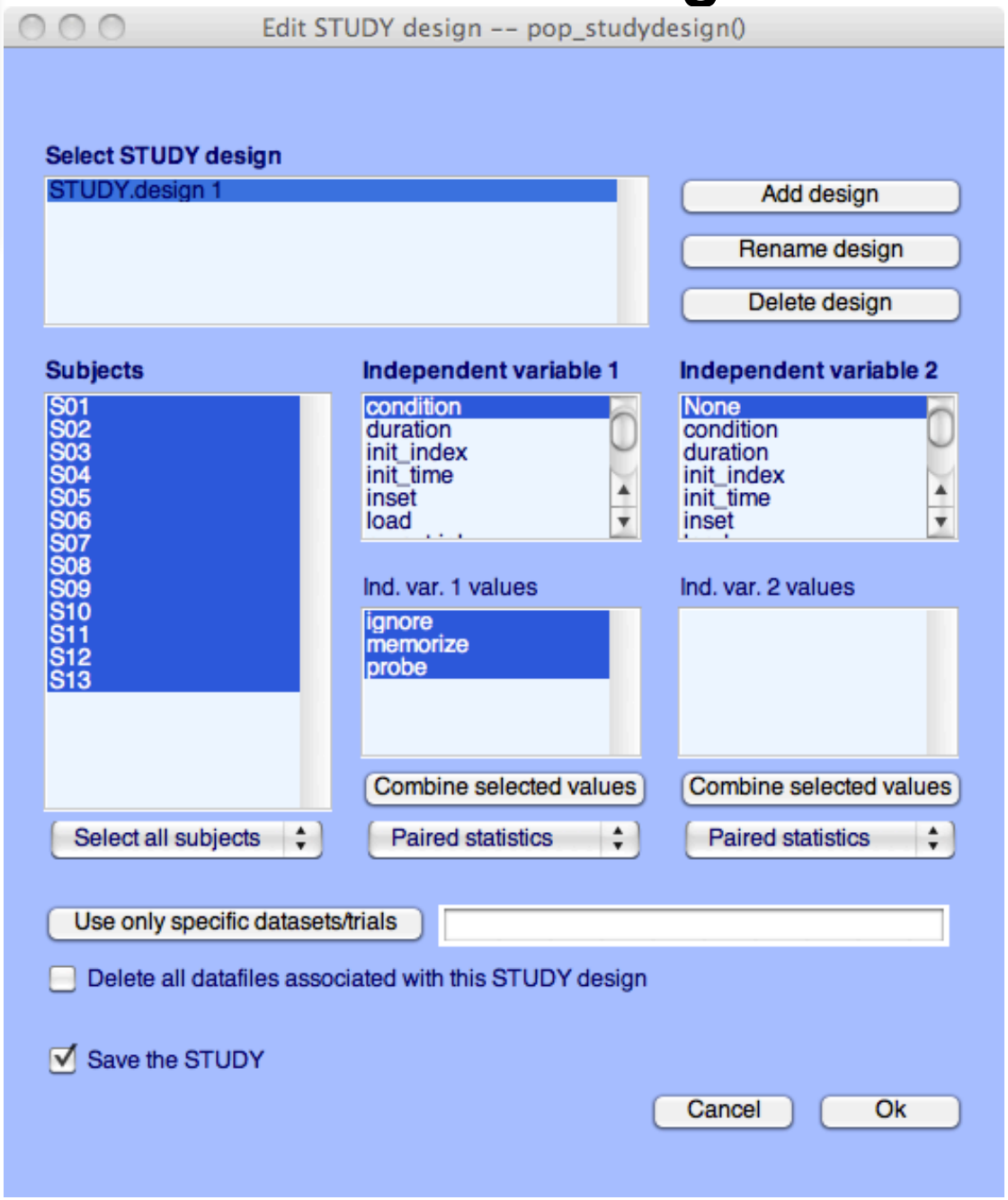
	Stim A	Stim B
Drug A		
Drug B		

2x2 paired & unpaired

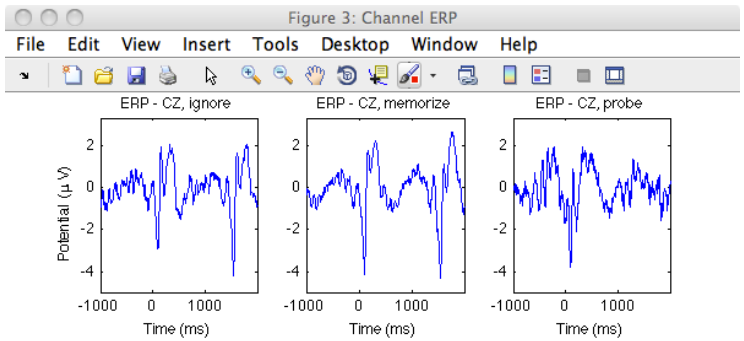
	Patients	Controls
Drug A		
Drug B		

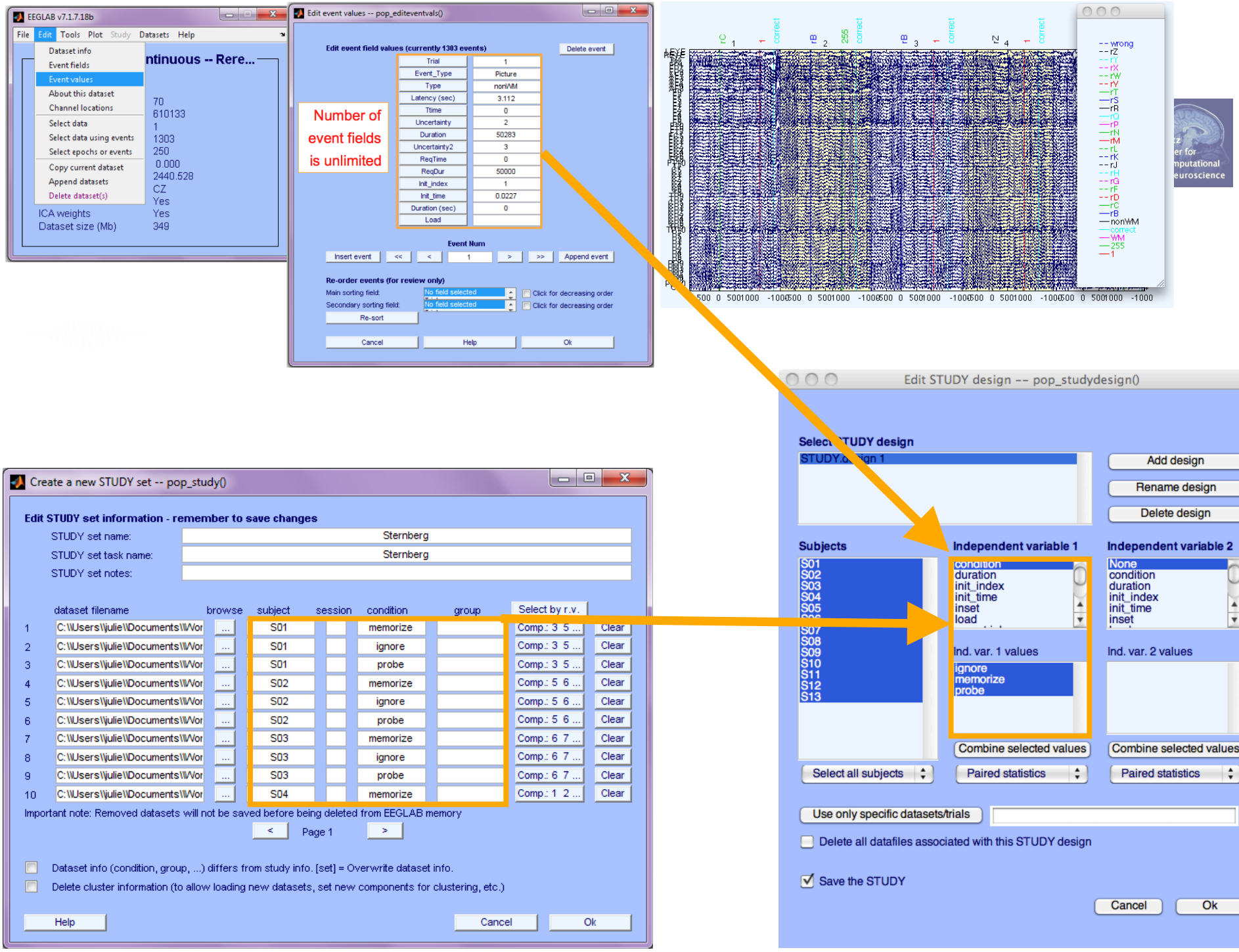
Create design



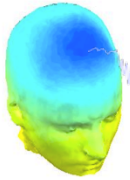


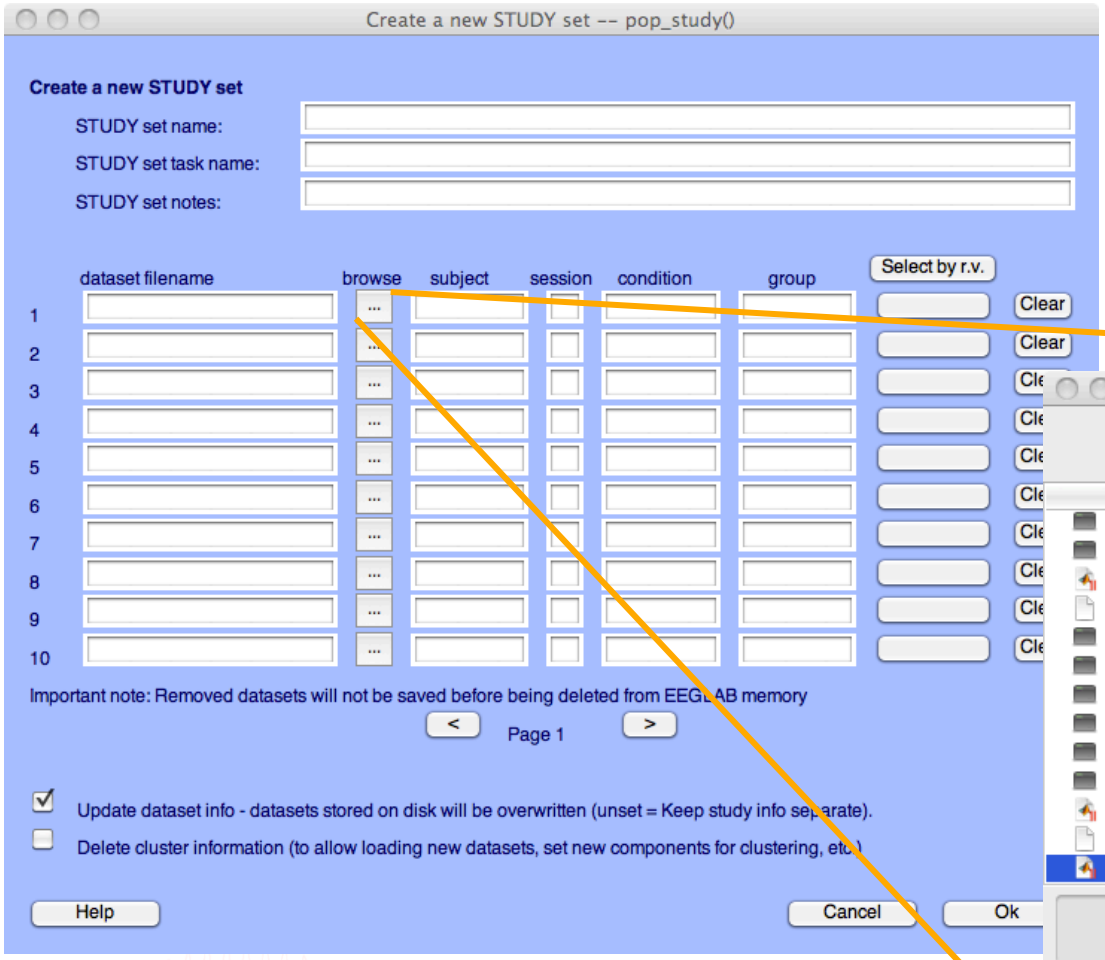
1x3 design

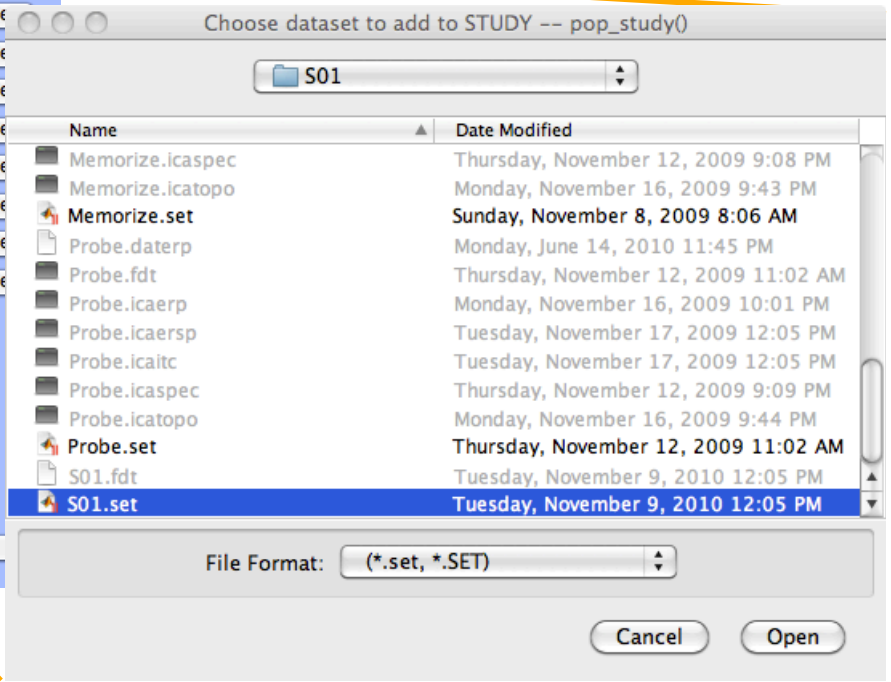



EEGLAB v7.1.7.18b
File Edit Tools Plot Study Datasets Help
Dataset info
Event fields
Event values
About this dataset
Channel locations
Select data
Select data using events
Select epochs or events
Copy current dataset
Append datasets
Delete dataset(s)
ntinuous -- Rere...
70
610133
1
1303
250
0.000
2440.528
CZ
Yes
Yes
349
ICA weights
Dataset size (Mb)
Edit event values -- pop_editeventvals()
Edit event field values (currently 1303 events)
Delete event
Trial 1
Event_Type Picture
Type nonWM
Latency (sec) 3.112
Ttime 0
Uncertainty 2
Duration 50283
Uncertainty2 3
ReqTime 0
ReqDur 50000
Init_index 1
Init_time 0.0227
Duration (sec) 0
Load
Number of event fields is unlimited
Event Num
Insert event
Append event
Re-order events (for review only)
Main sorting field:
Secondary sorting field:
No field selected
Click for decreasing order
Re-sort
Cancel
Help
Ok
wrong
correct
WM
255
nonWM
Edit STUDY design -- pop_studydesign()
Select STUDY design
Add design
Rename design
Delete design
Subjects
Independent variable 1
Independent variable 2
condition
duration
init_index
init_time
inset
load
None
Ind. var. 1 values
Ind. var. 2 values
ignore
memorize
probe
Combine selected values
Paired statistics
Select all subjects
Use only specific datasets/trials
Delete all datafiles associated with this STUDY design
Save the STUDY
Cancel
Ok
Create a new STUDY set -- pop_study()
Edit STUDY set information - remember to save changes
STUDY set name: Sternberg
STUDY set task name: Sternberg
STUDY set notes:
dataset filename
browse
subject
session
condition
group
Select by r.v.
Clear
Important note: Removed datasets will not be saved before being deleted from EEGLAB memory
Page 1
Dataset info (condition, group, ...) differs from study info. [set] = Overwrite dataset info.
Delete cluster information (to allow loading new datasets, set new components for clustering, etc.)
Help
Cancel
Ok

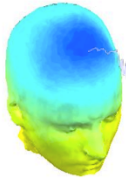
Build a STUDY, alternative method

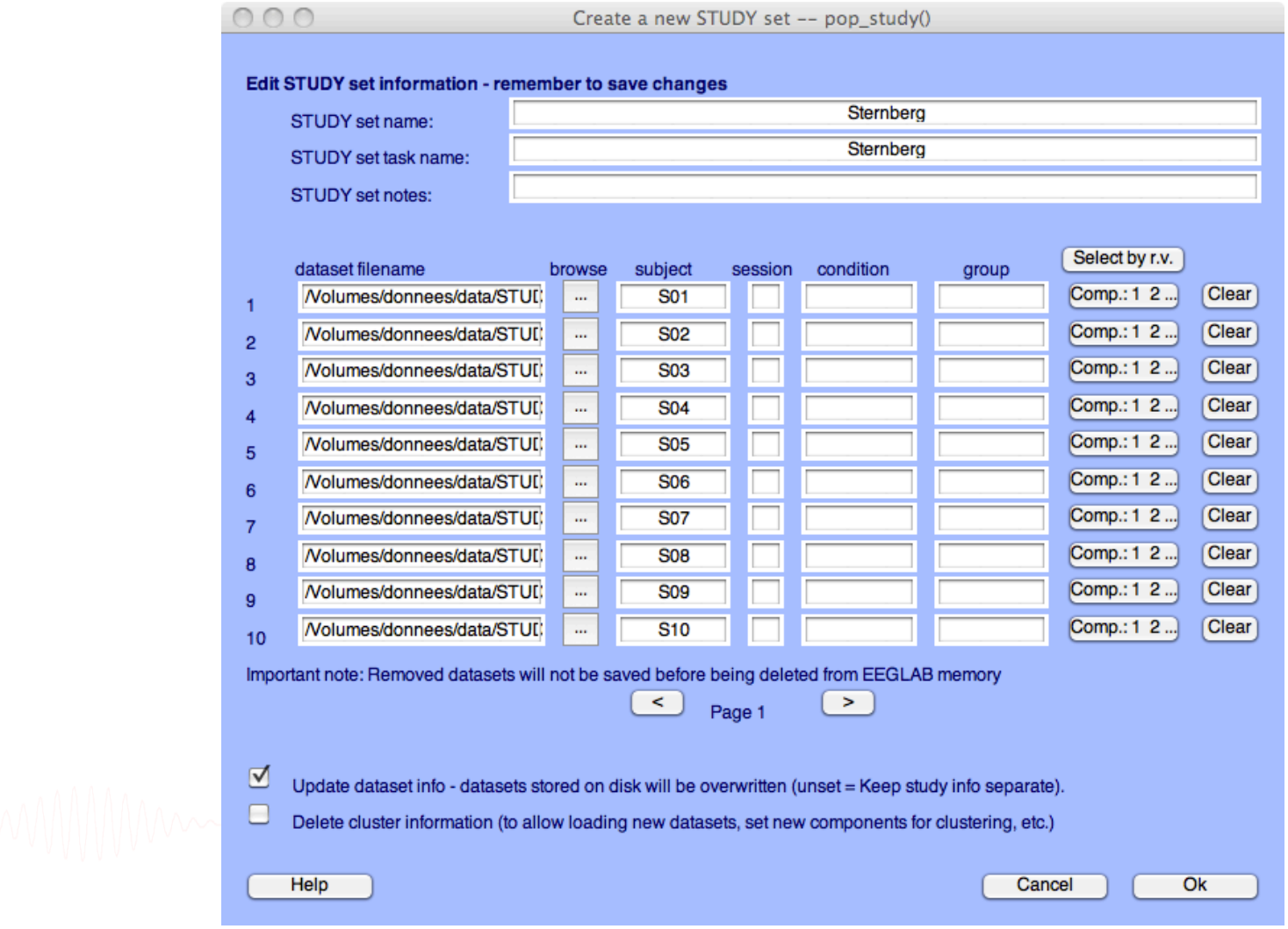


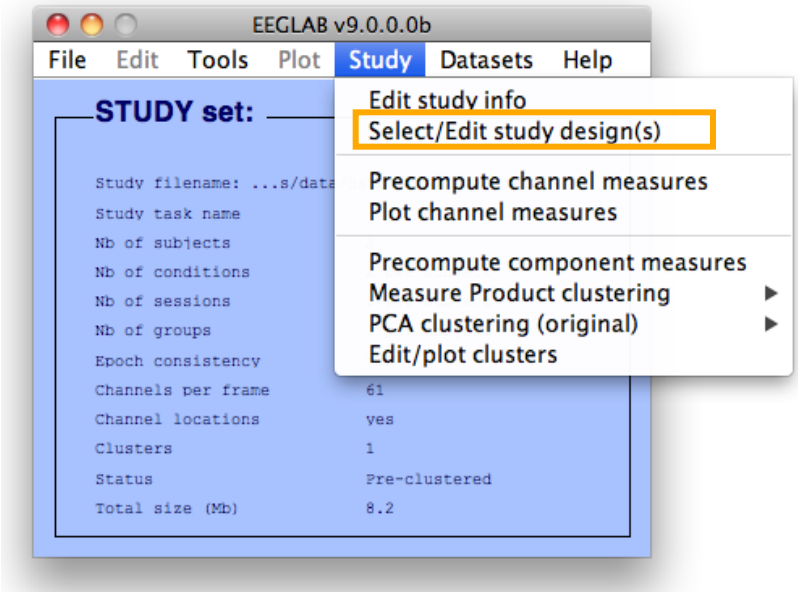




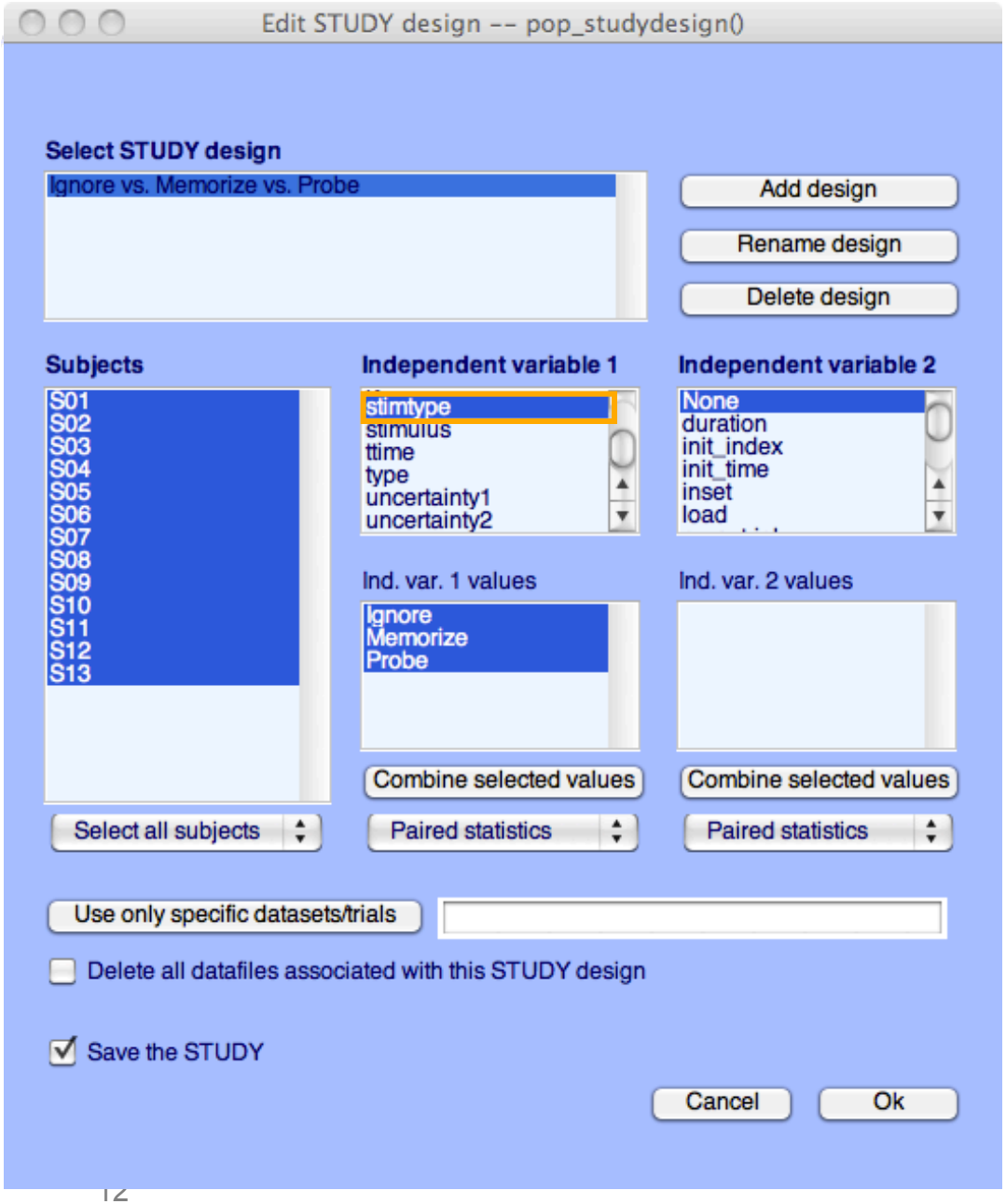
Edit dataset info



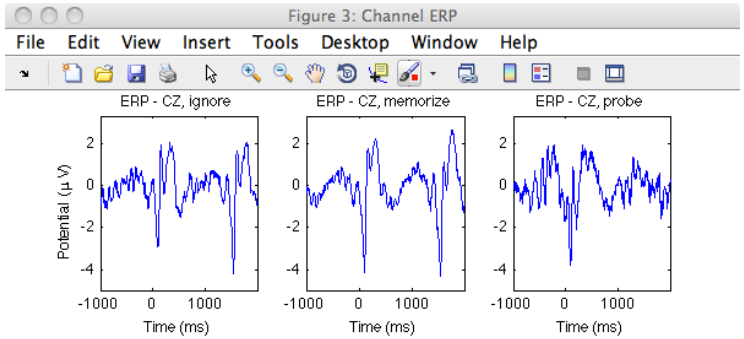


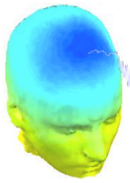


Create design



1x3 design





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

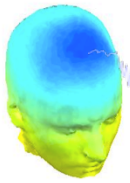
Unpaired statistics

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

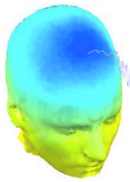
Unpaired statistics

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

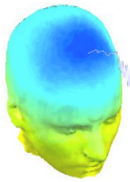
Unpaired statistics

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

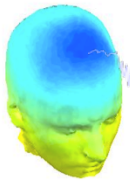
'stimulusType',{'audio'}

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

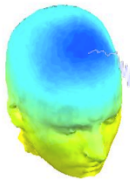
Unpaired statistics

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

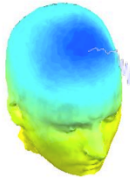
Use only specific datasets/trials

Delete all datafiles associated with this STUDY design

Save the STUDY

Cancel
Ok

STUDY design and plotting overview



STEP 1

Build a STUDY

STEP 2

Build design(s)

STEP 3

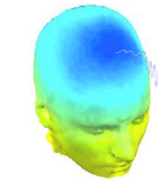
Precompute the data

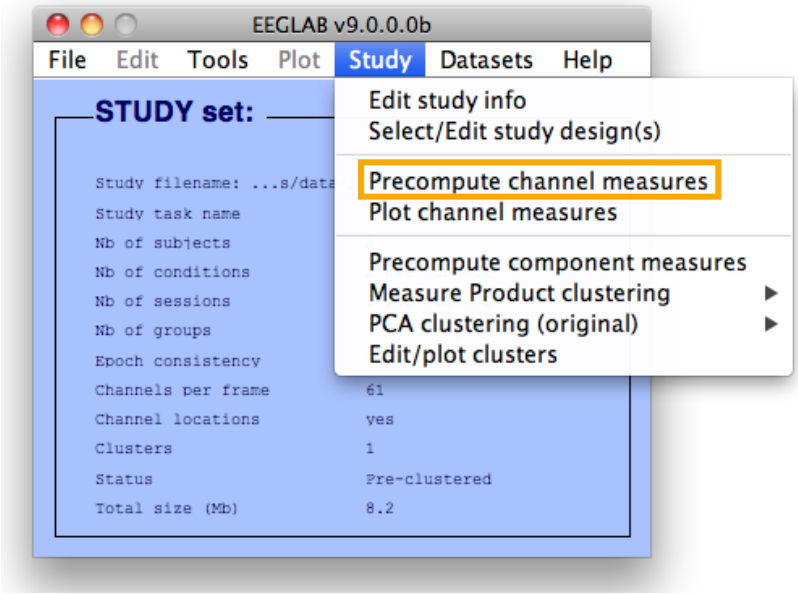
STEP 4

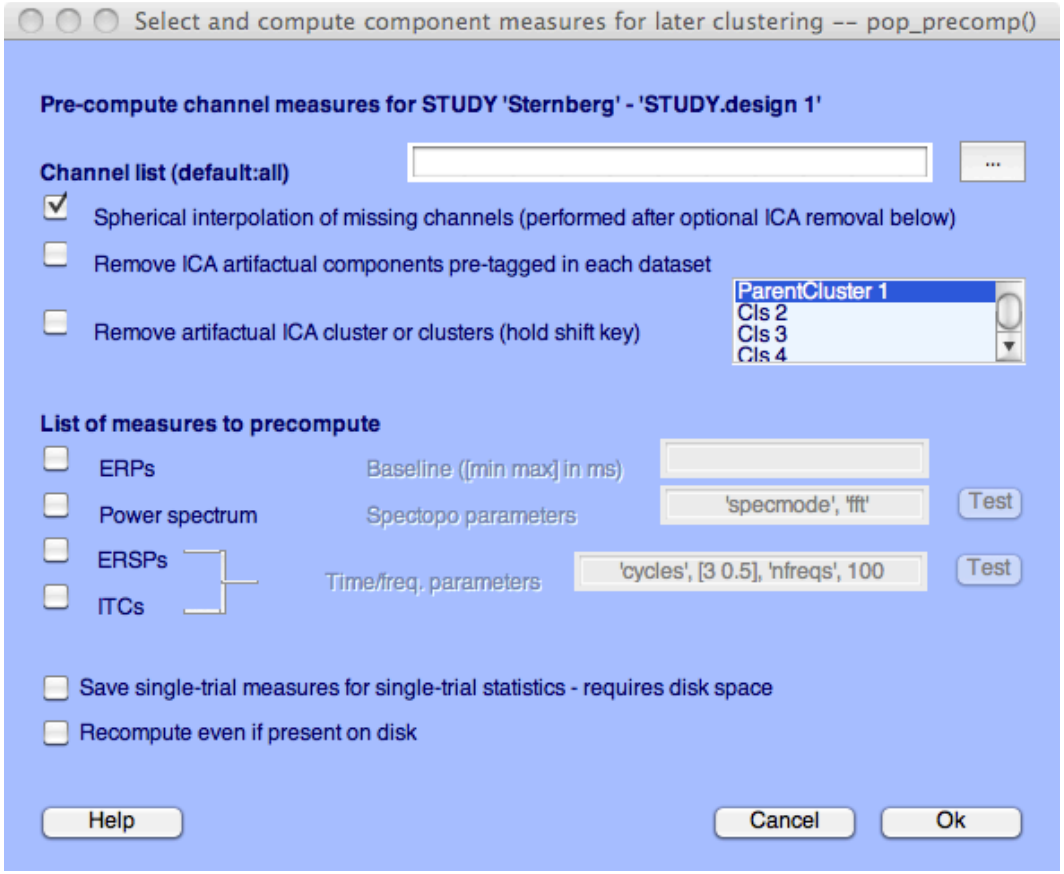
Plot the data

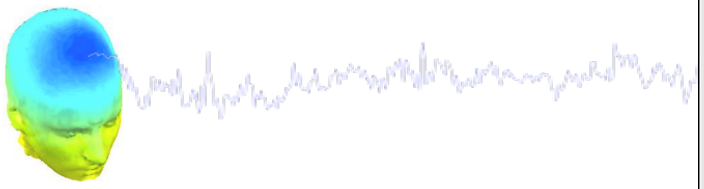
Exercise...

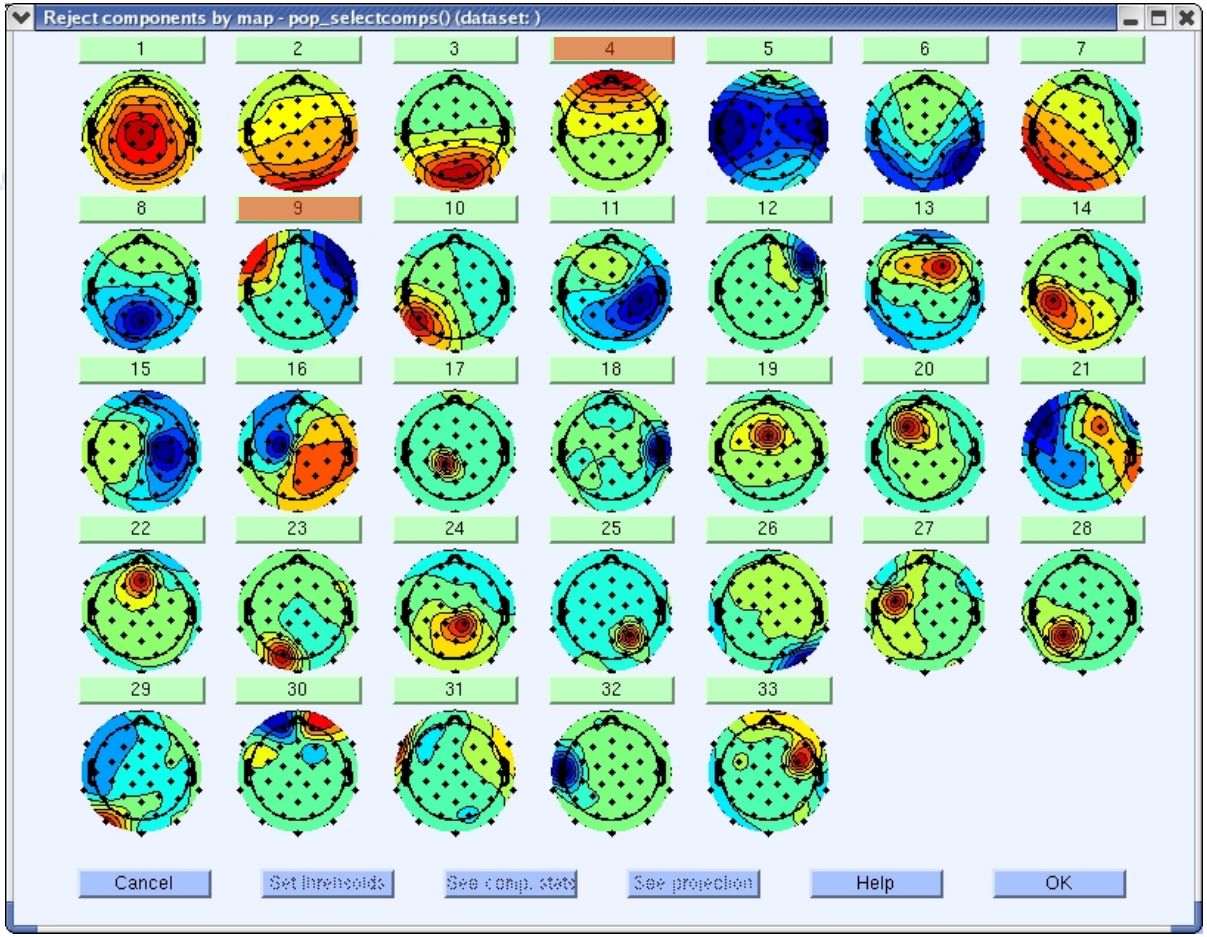
Precompute data measures

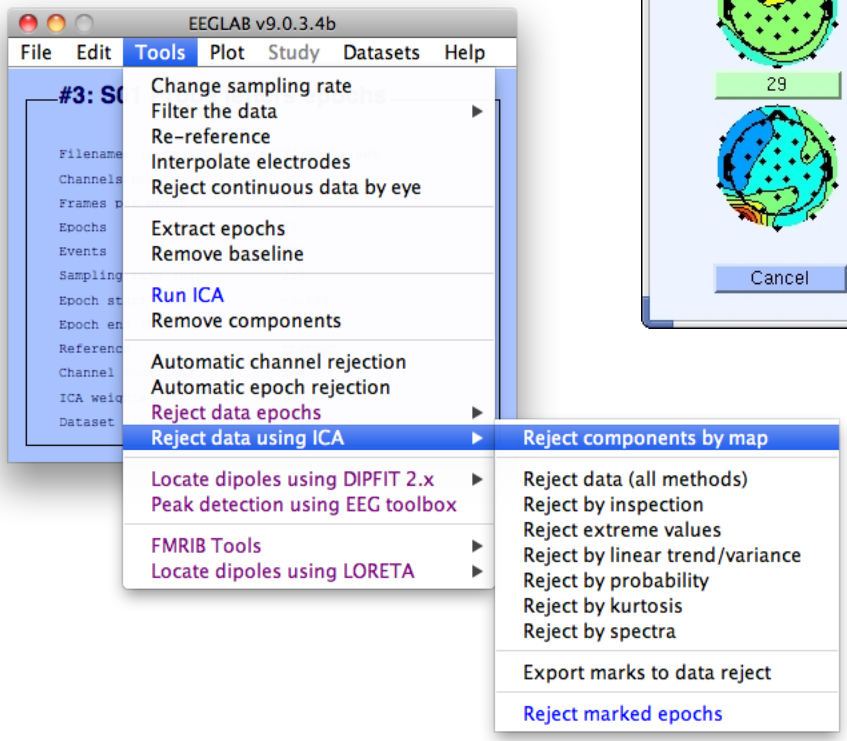


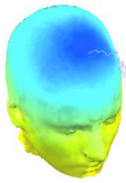




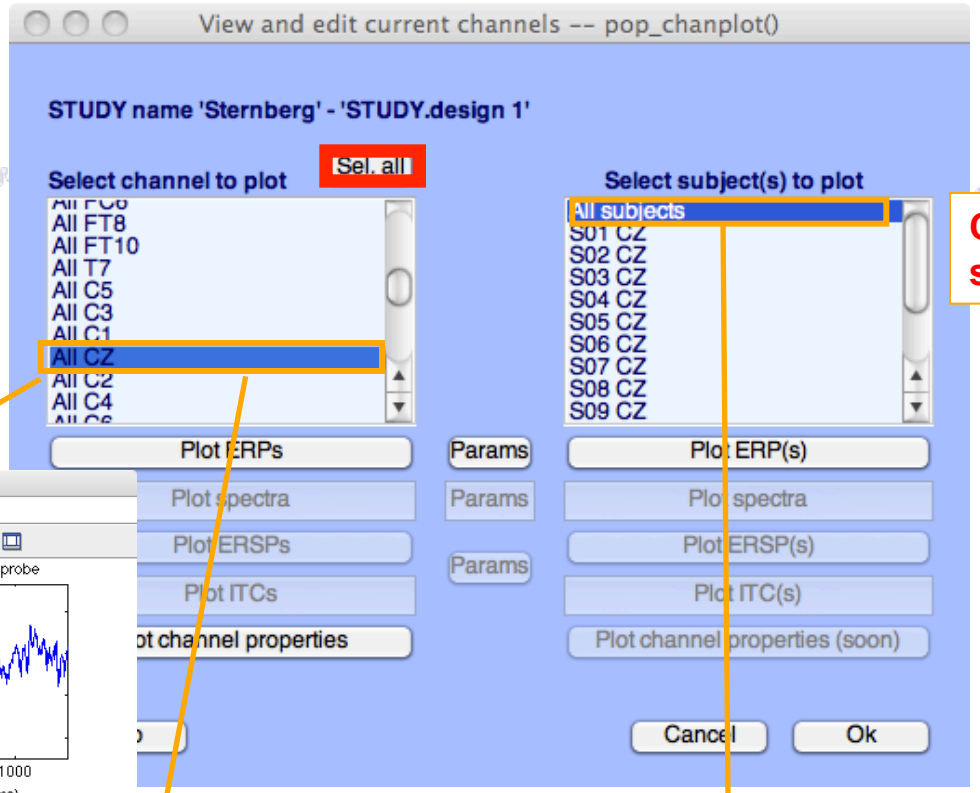



Reject components by map - pop_selectcomps() (dataset:)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
Cancel
Set thresholds
See comp. stats
See projection
Help
OK

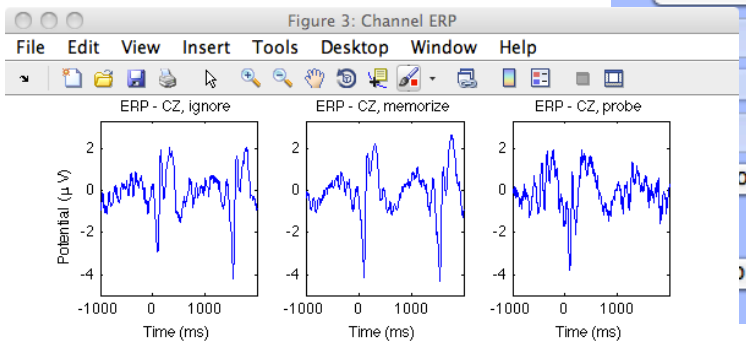

EEGLAB v9.0.3.4b
File
Edit
Tools
Plot
Study
Datasets
Help
Change sampling rate
Filter the data
Re-reference
Interpolate electrodes
Reject continuous data by eye
Extract epochs
Remove baseline
Run ICA
Remove components
Automatic channel rejection
Automatic epoch rejection
Reject data epochs
Reject data using ICA
Locate dipoles using DIPFIT 2.x
Peak detection using EEG toolbox
FMRIB Tools
Locate dipoles using LORETA
Reject components by map
Reject data (all methods)
Reject by inspection
Reject extreme values
Reject by linear trend/variance
Reject by probability
Reject by kurtosis
Reject by spectra
Export marks to data reject
Reject marked epochs

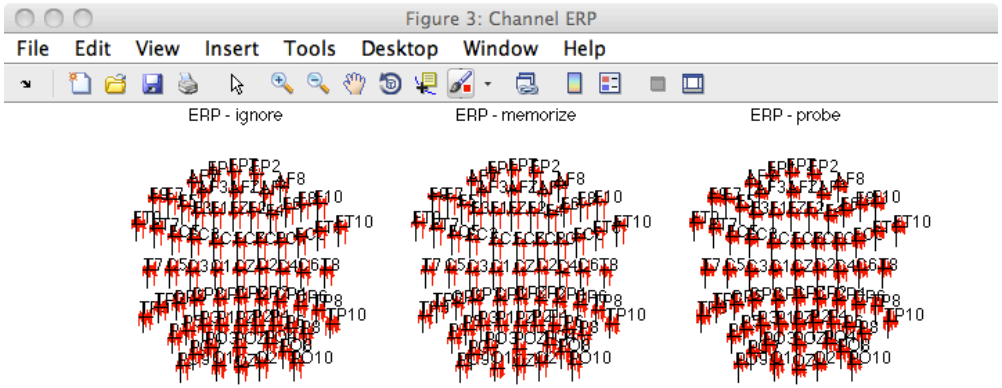


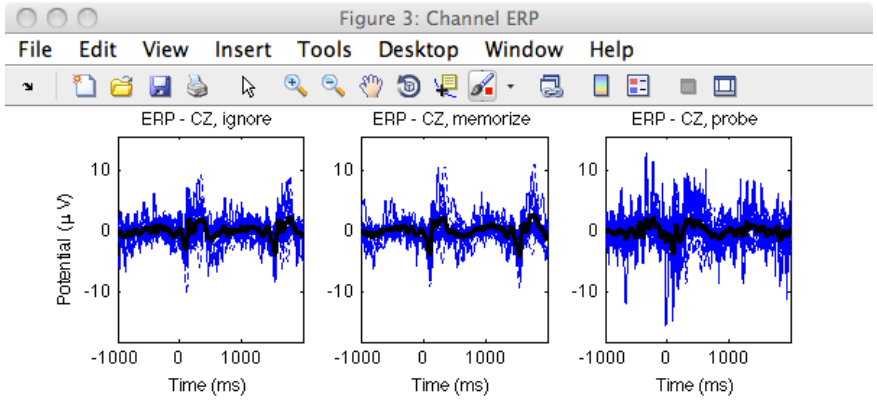
Choose which channel

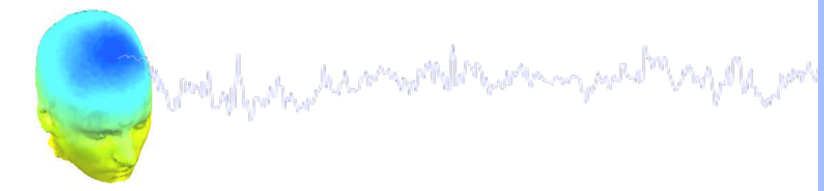


Choose which subject









Set ERP plotting parameters -- pop_erpparams()

Time range in ms [low high]

Plot limits in uV [low high]

Plot scalp map at latency [ms]

Display filter in Hz [high]

Plot first variable on the same panel

Plot second variable on the same panel

Statistical method to use

Parametric

Statistical threshold (p<)

Compute first variable statistics

Compute second variable statistics

Use single trials (when available)

Use False Discovery Rate to correct for multiple comparisons

Help

Cancel

Ok

View and edit

STUDY name 'Sternberg' - 'S

Select channel to plot

All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
All C4

S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ

Plot ERPs | Params | Plot ERP(s)

Plot spectra | Params | Plot spectra

Plot ERSPs | Params | Plot ERSP(s)

Plot ITCs | Plot ITC(s)

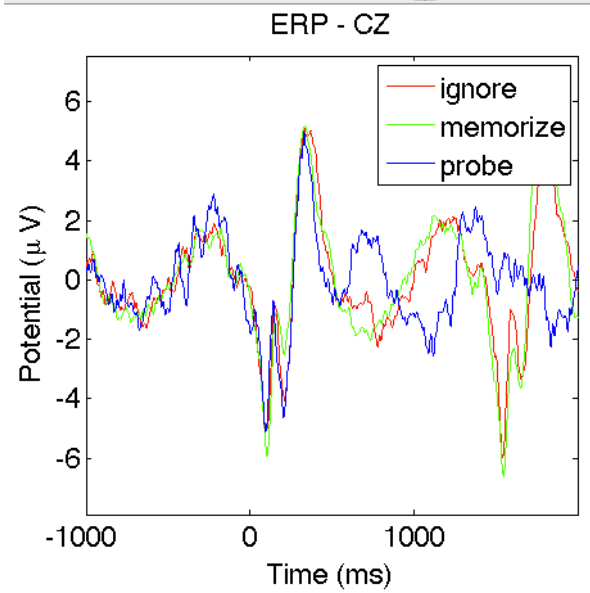
annel properties | Plot channel properties (soon)

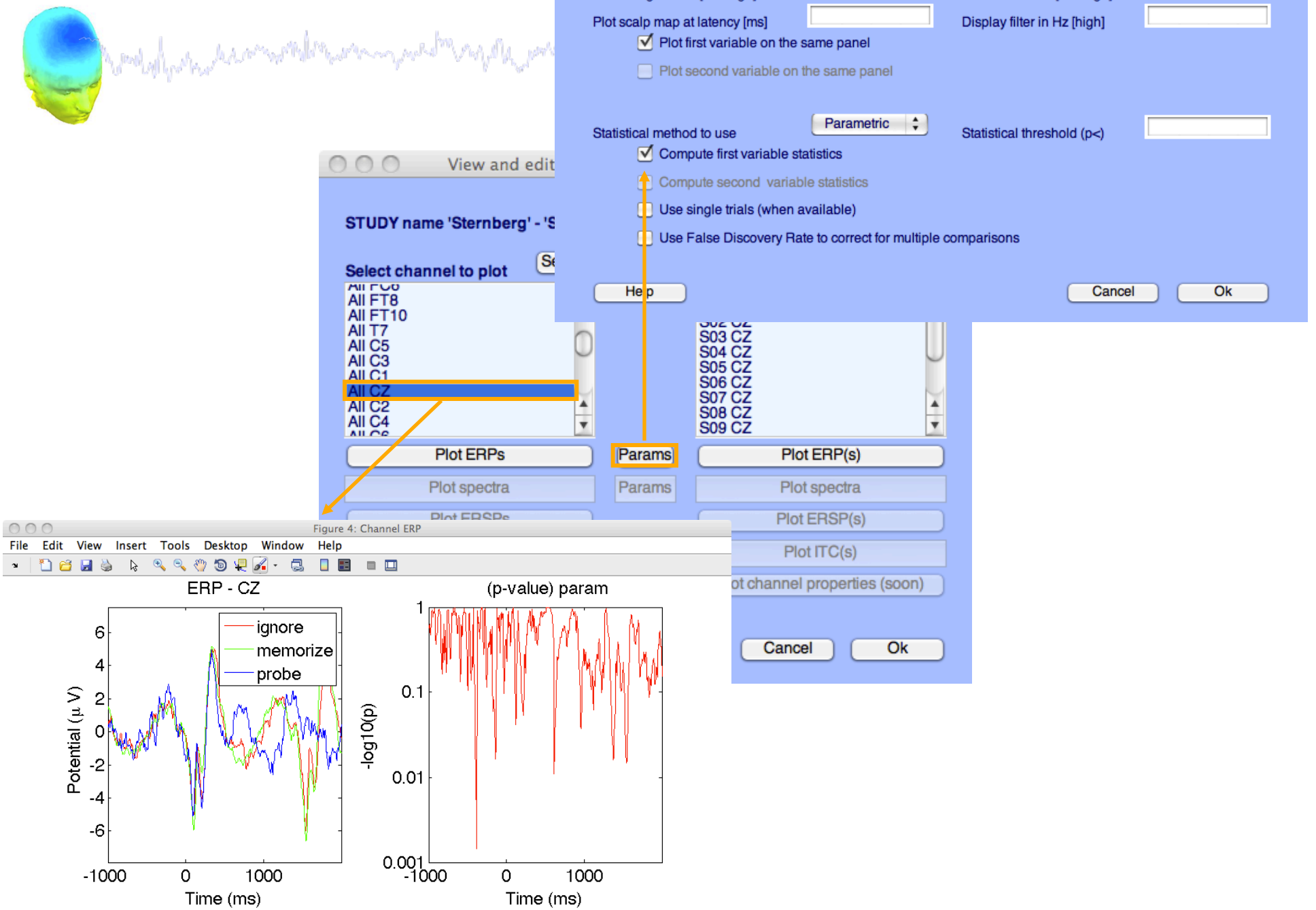
Cancel

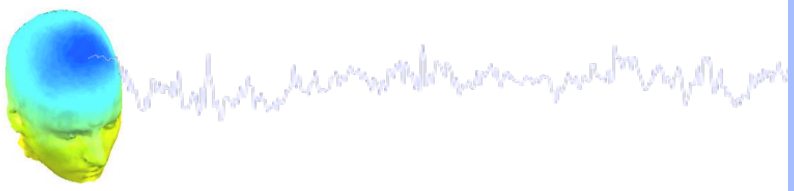
Ok

Figure 4: Channel ERP

File Edit View Insert Tools Desktop Window Help




Set ERP plotting parameters -- pop_erpparams()
Time range in ms [low high]
Plot limits in uV [low high]
Plot scalp map at latency [ms]
Display filter in Hz [high]
Plot first variable on the same panel
Plot second variable on the same panel
Statistical method to use
Parametric
Statistical threshold (p<)
Compute first variable statistics
Compute second variable statistics
Use single trials (when available)
Use False Discovery Rate to correct for multiple comparisons
Help
Cancel
Ok
View and edit
STUDY name 'Sternberg' - 'S
Select channel to plot
All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
All C4
S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ
Plot ERPs
Params
Plot ERP(s)
Plot spectra
Params
Plot spectra
Plot ERSP(s)
Plot ITC(s)
ot channel properties (soon)
Cancel
Ok
Figure 4: Channel ERP
File Edit View Insert Tools Desktop Window Help
ERP - CZ
(p-value) param
ignore
memorize
probe
Potential (μ V)
-log10(p)
Time (ms)
Time (ms)



Set ERP plotting parameters -- pop_erpparams()

Time range in ms [low high]

Plot limits in uV [low high]

Plot scalp map at latency [ms]

Display filter in Hz [high]

Plot first variable on the same panel

Plot second variable on the same panel

Statistical method to use

Parametric

Statistical threshold (p<)

0.05

Compute first variable statistics

Compute second variable statistics

Use single trials (when available)

Use False Discovery Rate to correct for multiple comparisons

Help

Cancel

Ok

View and edit

STUDY name 'Sternberg' - 'S

Select channel to plot

All FT8

All FT10

All T7

All C5

All C3

All C1

All CZ

All C2

All C4

S03 CZ

S04 CZ

S05 CZ

S06 CZ

S08 CZ

S09 CZ

Params

Plot ERP(s)

Plot spectra

Plot ERSP(s)

Plot ITC(s)

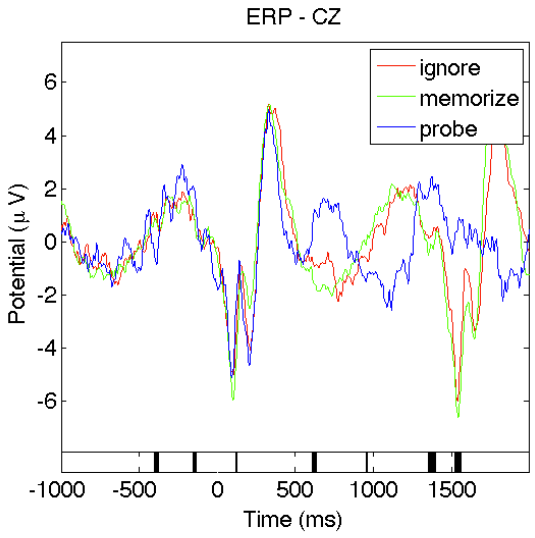
Plot channel properties (soon)

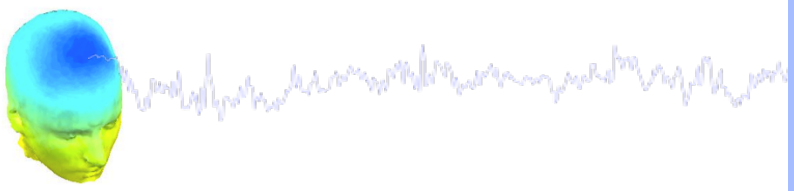
Cancel

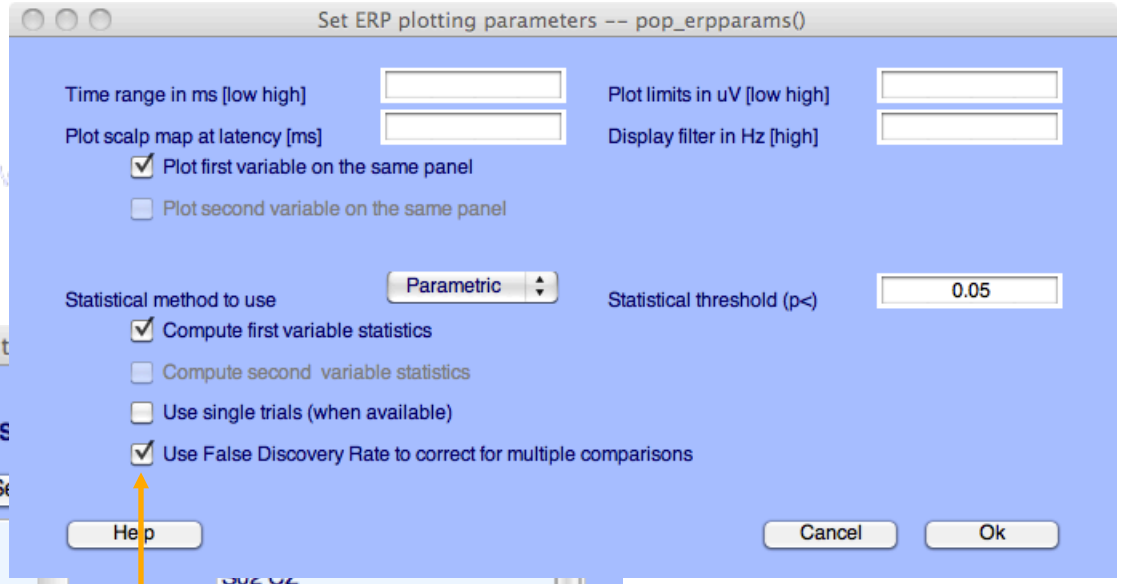
Ok

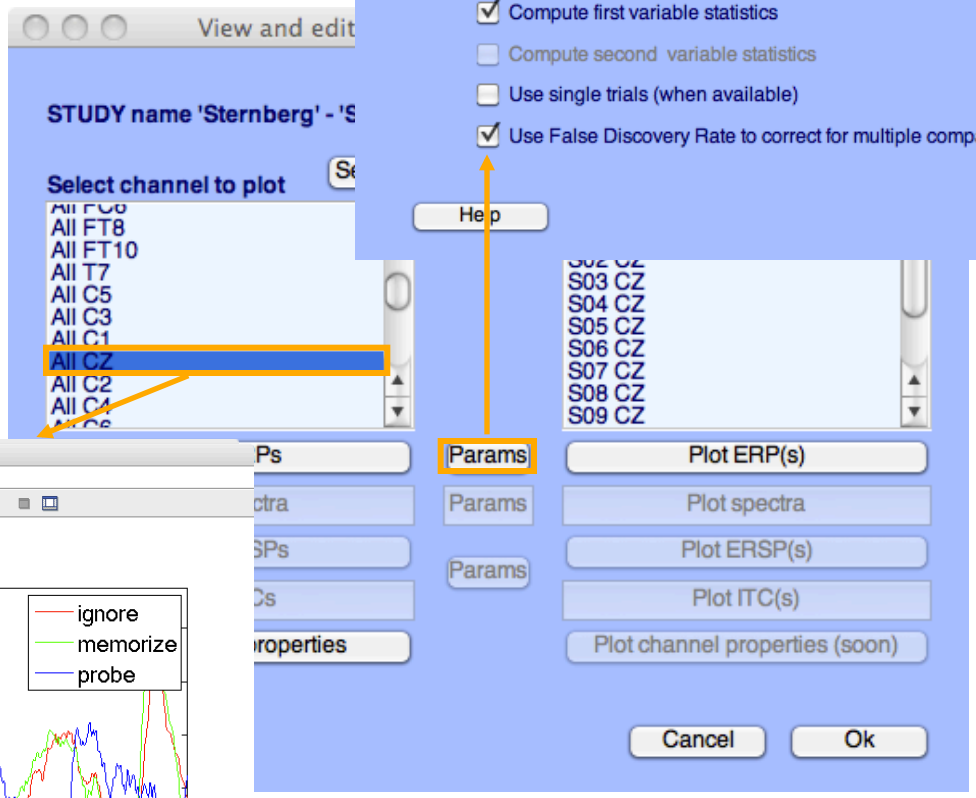
Figure 4: Channel ERP

File Edit View Insert Tools Desktop Window Help






Set ERP plotting parameters -- pop_erpparams()
Time range in ms [low high]
Plot limits in uV [low high]
Plot scalp map at latency [ms]
Display filter in Hz [high]
Plot first variable on the same panel
Plot second variable on the same panel
Statistical method to use
Parametric
Statistical threshold (p<)
0.05
Compute first variable statistics
Compute second variable statistics
Use single trials (when available)
Use False Discovery Rate to correct for multiple comparisons
Help
Cancel
Ok


View and edit
STUDY name 'Sternberg' - 'S
Select channel to plot
All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ
Params
Plot ERP(s)
Plot spectra
Plot ERSP(s)
Plot ITC(s)
Plot channel properties (soon)
Cancel
Ok

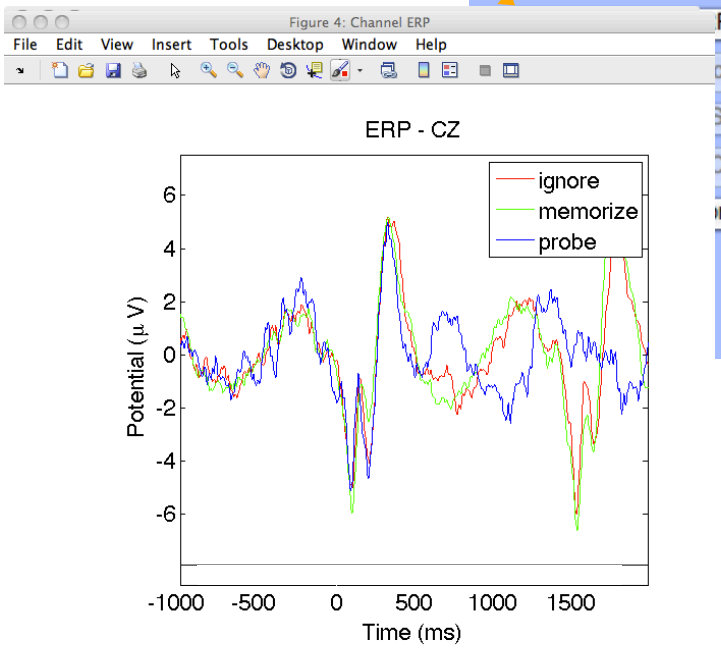
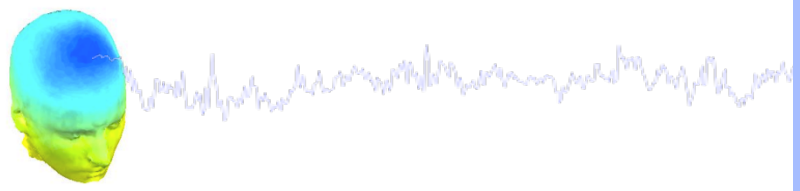


Figure 4: Channel ERP
File Edit View Insert Tools Desktop Window Help
ERP - CZ
ignore
memorize
probe
Potential (μ V)
6
4
2
0
-2
-4
-6
-1000 -500 0 500 1000 1500
Time (ms)



Set ERP plotting parameters -- pop_erpparams()

Time range in ms [low high]

Plot limits in uV [low high]

Plot scalp map at latency [ms] 200 300

Display filter in Hz [high]

Plot first variable on the same panel

Plot second variable on the same panel

Statistical method to use Parametric

Statistical threshold (p<)

Compute first variable statistics

Compute second variable statistics

Use single trials (when available)

Use False Discovery Rate to correct for multiple comparisons

Help Cancel Ok

View and edit

STUDY name 'Sternberg' - 'S

Select channel to plot

All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
All C4

S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ

Plot ERPs | Params | Plot ERP(s)

Plot spectra | Params | Plot spectra

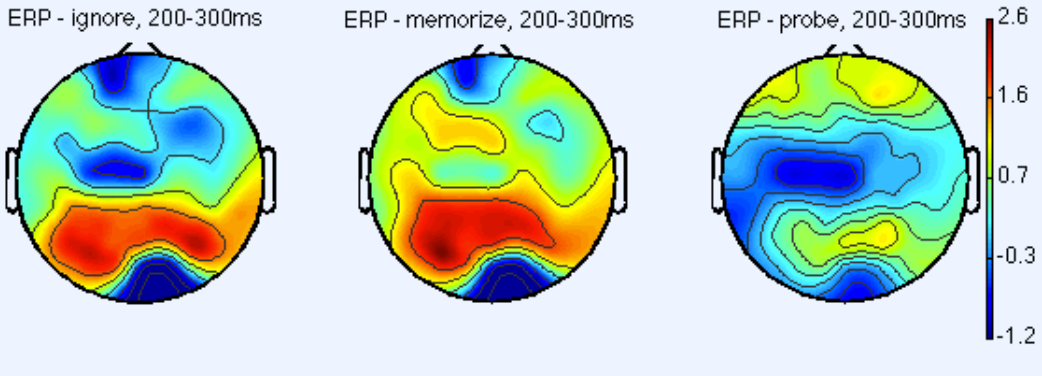
Plot ERSPs | Params | Plot ERSP(s)

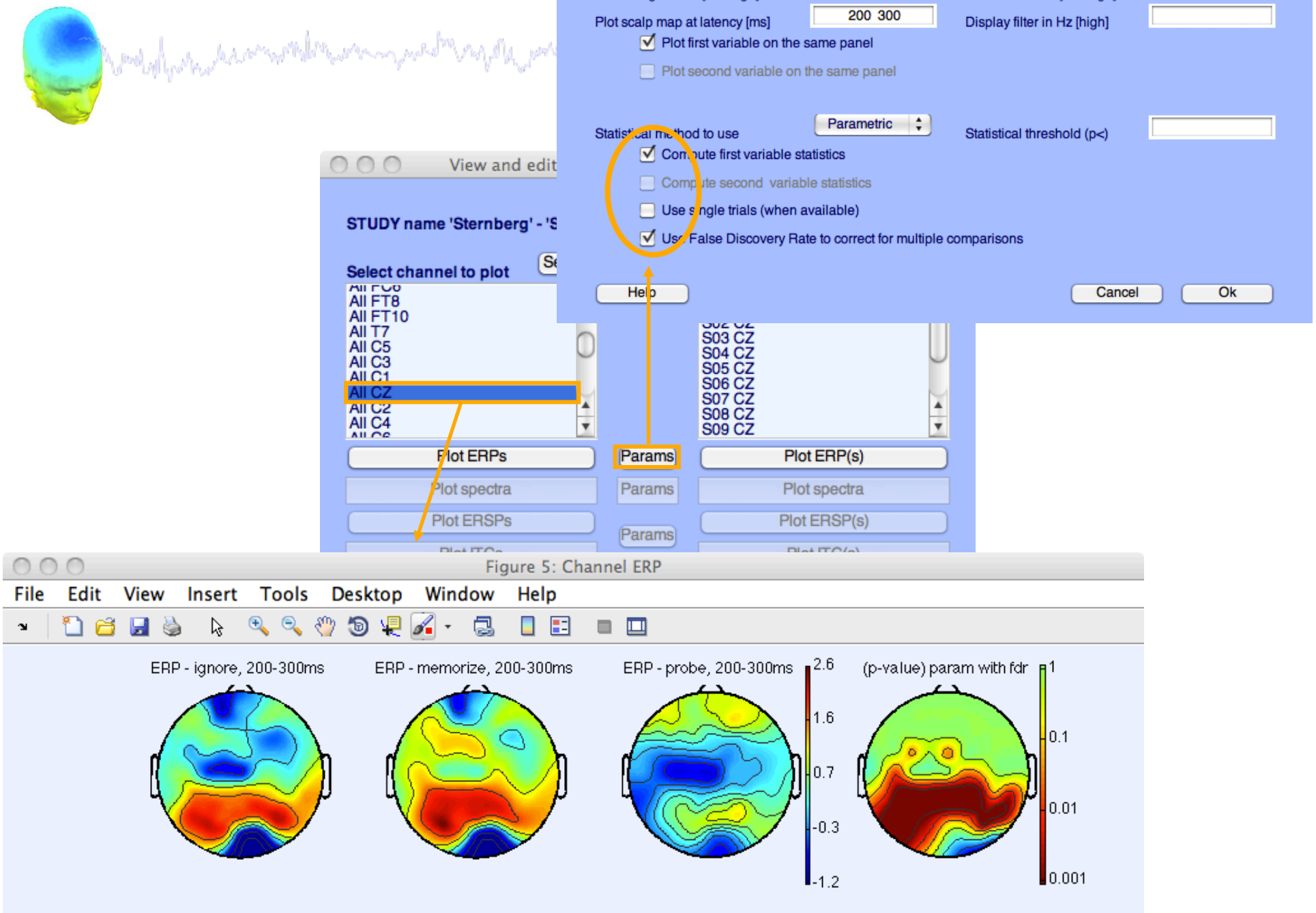
ies (soon)

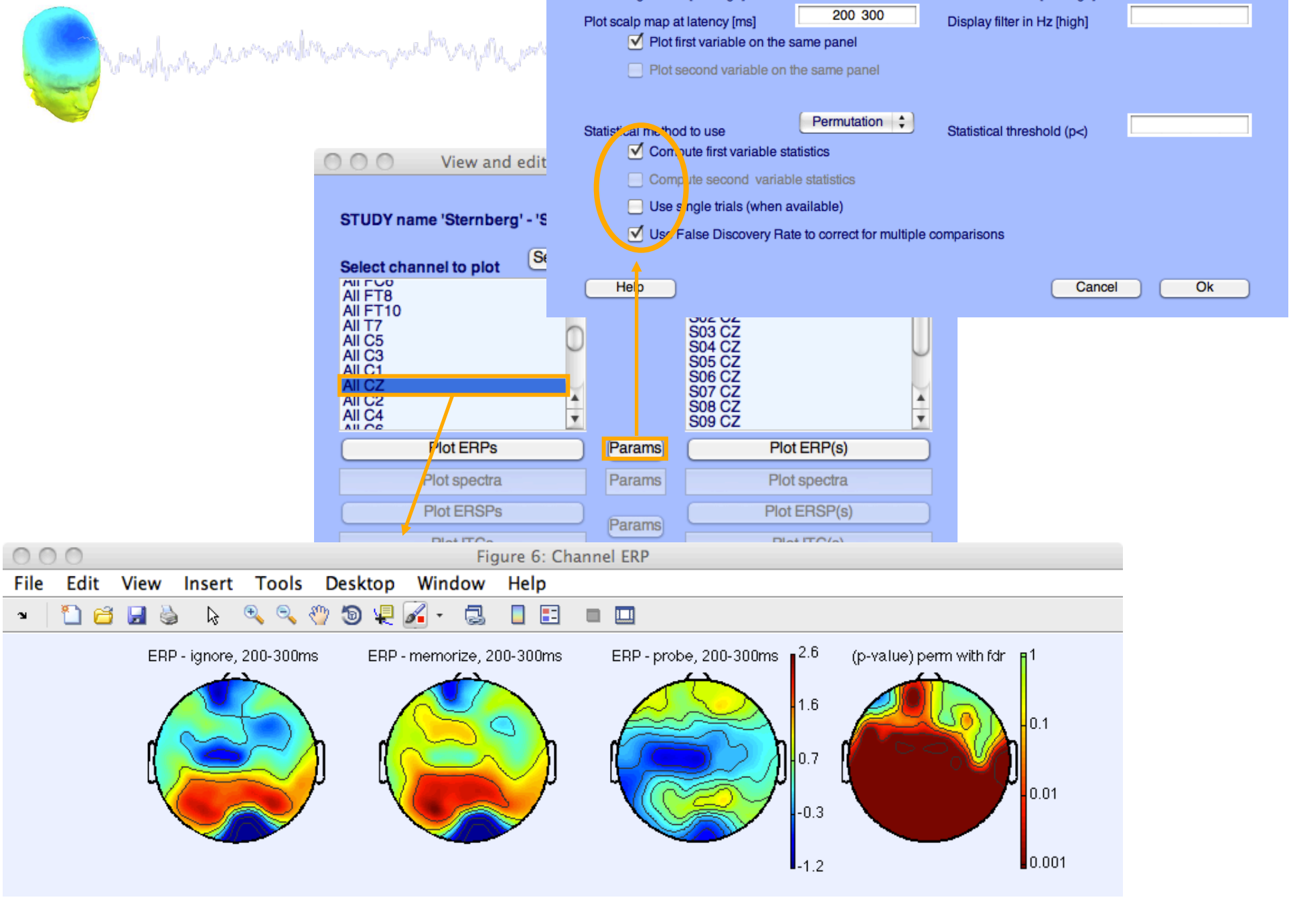
Ok

Figure 4: Channel ERP

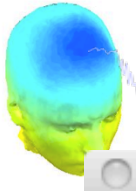
File Edit View Insert Tools Desktop Window Help

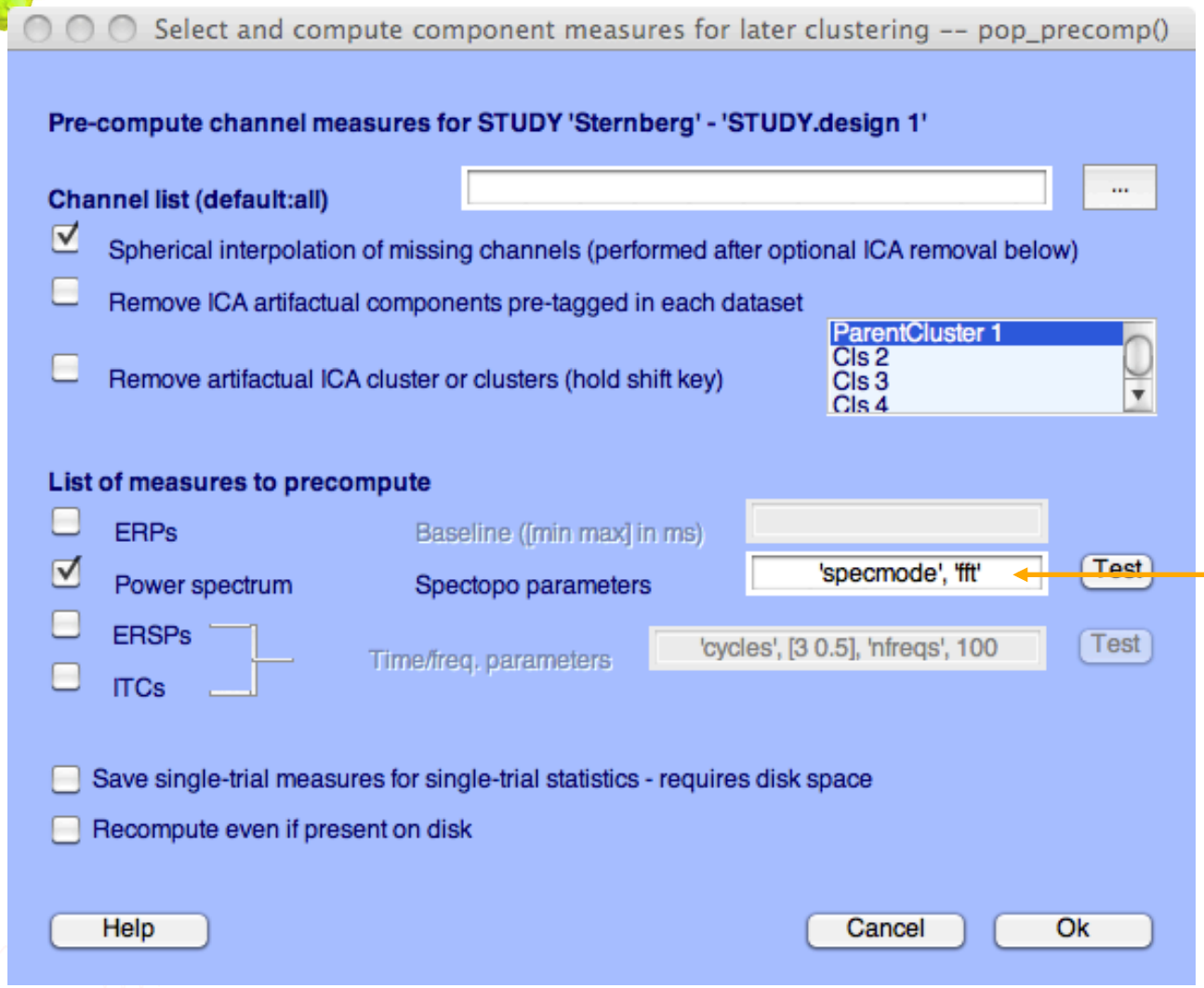



Set ERP plotting parameters -- pop_erpparams()
Time range in ms [low high]
Plot limits in uV [low high]
Plot scalp map at latency [ms]
200 300
Display filter in Hz [high]
Plot first variable on the same panel
Plot second variable on the same panel
Parametric
Statistical threshold (p<)
Compute first variable statistics
Compute second variable statistics
Use single trials (when available)
Use False Discovery Rate to correct for multiple comparisons
Help
Cancel
Ok
View and edit
STUDY name 'Sternberg' - 'S
Select channel to plot
All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
All C4
S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ
Plot ERPs
Params
Plot ERP(s)
Plot spectra
Params
Plot spectra
Plot ERSPs
Plot ERSP(s)
Params
Figure 5: Channel ERP
File Edit View Insert Tools Desktop Window Help
ERP - ignore, 200-300ms
ERP - memorize, 200-300ms
ERP - probe, 200-300ms
2.6
1.6
0.7
-0.3
-1.2
(p-value) param with fdr
1
0.1
0.01
0.001

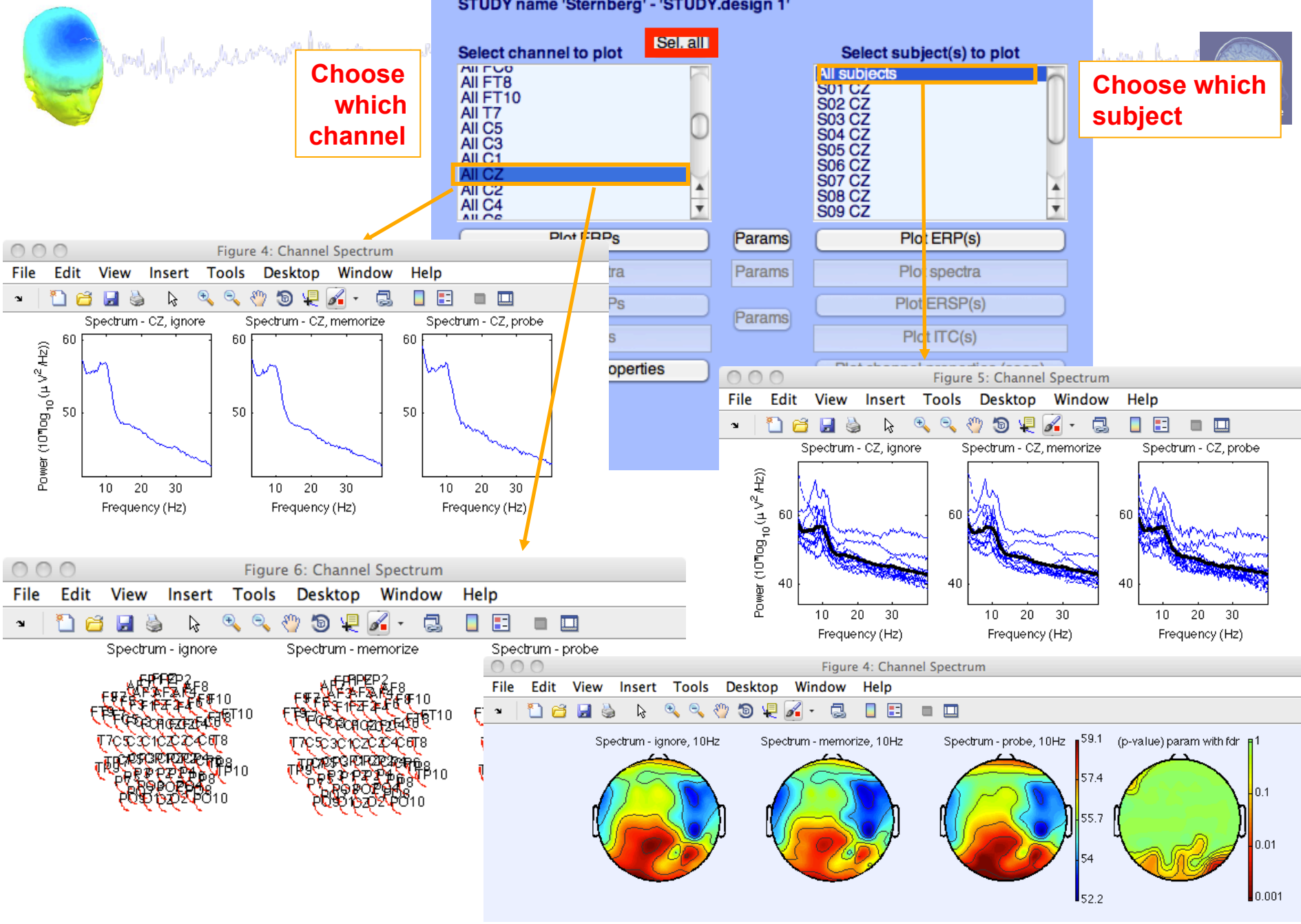

Set ERP plotting parameters -- pop_erpparams()
Time range in ms [low high]
Plot limits in uV [low high]
Plot scalp map at latency [ms]
200 300
Display filter in Hz [high]
Plot first variable on the same panel
Plot second variable on the same panel
Permutation
Statistical threshold (p<)
Compute first variable statistics
Compute second variable statistics
Use single trials (when available)
Use False Discovery Rate to correct for multiple comparisons
Help
Cancel
Ok
View and edit
STUDY name 'Sternberg' - 'S
Select channel to plot
All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C2
All C4
S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ
Plot ERPs
Params
Plot ERP(s)
Plot spectra
Params
Plot spectra
Plot ERSPs
Plot ERSP(s)
Params
Figure 6: Channel ERP
File Edit View Insert Tools Desktop Window Help
ERP - ignore, 200-300ms
ERP - memorize, 200-300ms
ERP - probe, 200-300ms
2.6
1.6
0.7
-0.3
-1.2
(p-value) perm with fdr
1
0.1
0.01
0.001

Computing Spectrum

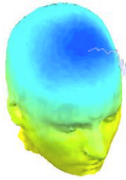




Use ‘timerange’ option to select time range, see “help std_spec”


View and edit current channels -- pop_chanplot()
STUDY name 'Sternberg' - 'STUDY.design 1'
Select channel to plot
Sel. all
All FT8
All FT10
All T7
All C5
All C3
All C1
All CZ
All C4
Select subject(s) to plot
All subjects
S01 CZ
S02 CZ
S03 CZ
S04 CZ
S05 CZ
S06 CZ
S07 CZ
S08 CZ
S09 CZ
Choose which channel
Choose which subject
Params
Plot ERP(s)
Plot spectra
Plot ERSP(s)
Plot ITC(s)
Figure 4: Channel Spectrum
File Edit View Insert Tools Desktop Window Help
Spectrum - CZ, ignore
Spectrum - CZ, memorize
Spectrum - CZ, probe
Power (10*log10 (μ V2/Hz))
Frequency (Hz)
Figure 5: Channel Spectrum
Figure 6: Channel Spectrum
Spectrum - ignore
Spectrum - memorize
Spectrum - probe
Figure 4: Channel Spectrum
Spectrum - ignore, 10Hz
Spectrum - memorize, 10Hz
Spectrum - probe, 10Hz
(p-value) param with fdr

Computing ERSP



'cycles', [3 0.8], 'nfreqs', 50, 'ntimesout', 100

Select and compute component measures for later clustering -- pop_precomp()

Pre-compute channel measures for STUDY 'Sternberg' - 'Design 2'

Channel list (default:all) ...

- [x] Spherical interpolation of missing channels (performed after optional ICA removal below)
- [ ] Remove ICA artifactual components pre-tagged in each dataset
- [ ] Remove artifactual ICA cluster or clusters (hold shift key)

ParentCluster 1
Cls 2
Cls 3
Cls 4

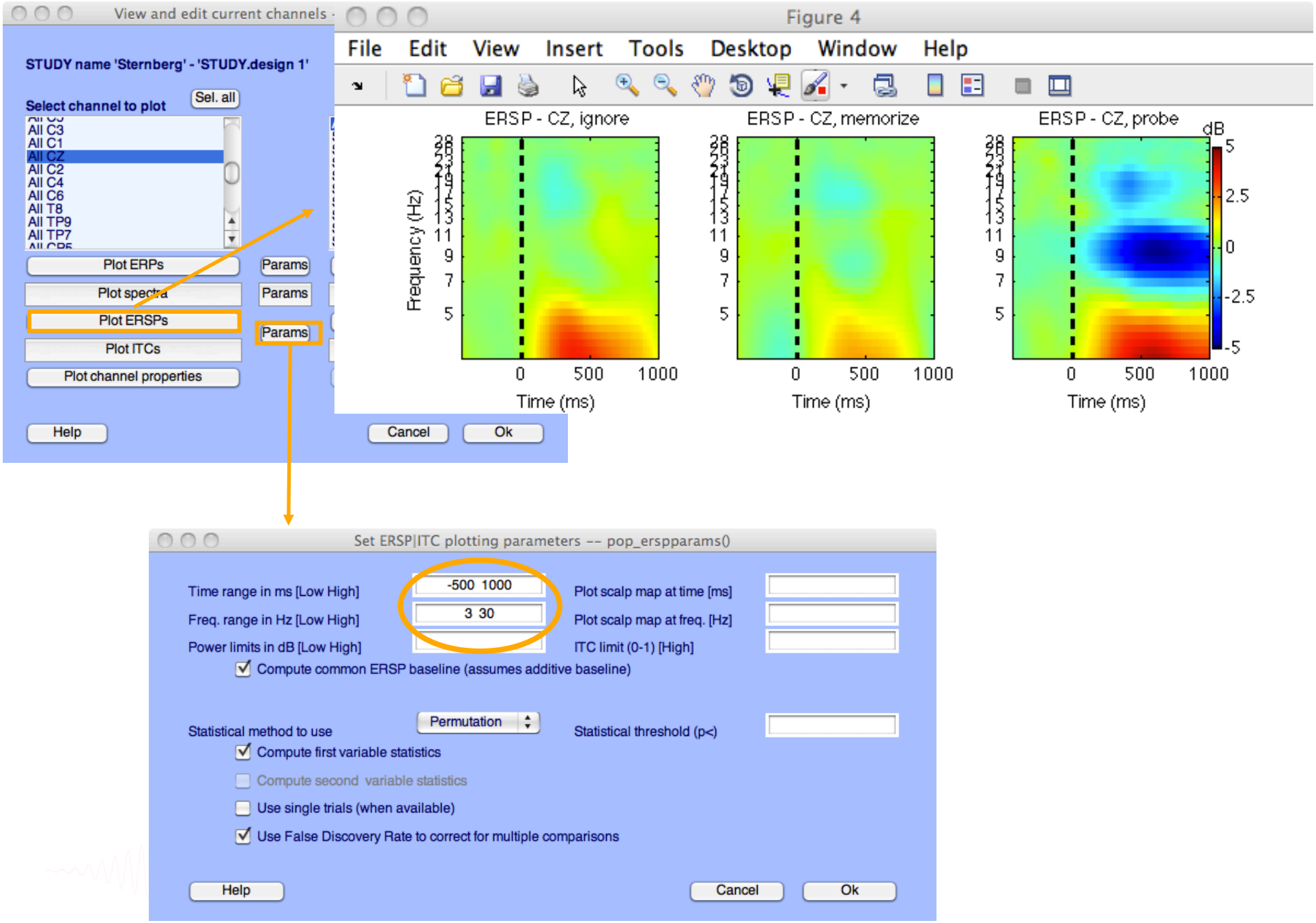
List of measures to precompute

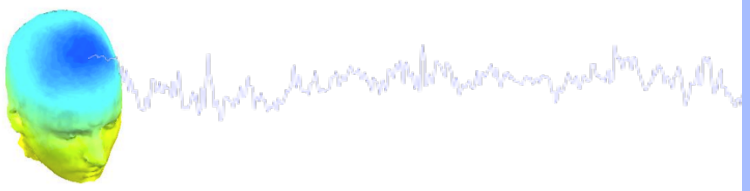
- [ ] ERPs — Baseline ([min max] in ms)
- [ ] Power spectrum — Spectopo parameters — 'specmode', 'fft' — Test
- [x] ERSPs
- [ ] ITCs

Time/freq. parameters: [3 0.8], 'nfreqs', 50, 'ntimesout', 100 — Test

- [ ] Save single-trial measures for single-trial statistics - requires disk space
- [ ] Recompute even if present on disk

Help | Cancel | Ok


View and edit current channels
STUDY name 'Sternberg' - 'STUDY.design 1'
Select channel to plot
Sel. all
All C3
All C1
All CZ
All C2
All C4
All C6
All T8
All TP9
All TP7
Plot ERPs
Params
Plot spectra
Params
Plot ERSPs
Params
Plot ITCs
Plot channel properties
Help
Cancel
Ok
Figure 4
File Edit View Insert Tools Desktop Window Help
ERSP - CZ, ignore
ERSP - CZ, memorize
ERSP - CZ, probe
Frequency (Hz)
Time (ms)
dB
Set ERSP|ITC plotting parameters -- pop_erspparams()
Time range in ms [Low High]
-500 1000
Freq. range in Hz [Low High]
3 30
Power limits in dB [Low High]
Plot scalp map at time [ms]
Plot scalp map at freq. [Hz]
ITC limit (0-1) [High]
Compute common ERSP baseline (assumes additive baseline)
Statistical method to use
Permutation
Statistical threshold (p<)
Compute first variable statistics
Compute second variable statistics
Use single trials (when available)
Use False Discovery Rate to correct for multiple comparisons
Help
Cancel
Ok



Set ERSP|ITC plotting parameters -- pop_erspparams()

Time range in ms [Low High] -500 1000
Freq. range in Hz [Low High] 3 30
Power limits in dB [Low High]
Plot scalp map at time [ms] 500 900
Plot scalp map at freq. [Hz] 8 12
ITC limit (0-1) [High]
Compute common ERSP baseline (assumes additive baseline)
Statistical method to use Permutation
Statistical threshold (p<)
Compute first variable statistics
variable statistics
when available)
ery Rate to correct for multiple comparisons
Cancel Ok

Figure 4

File Edit View Insert Tools Desktop Window Help

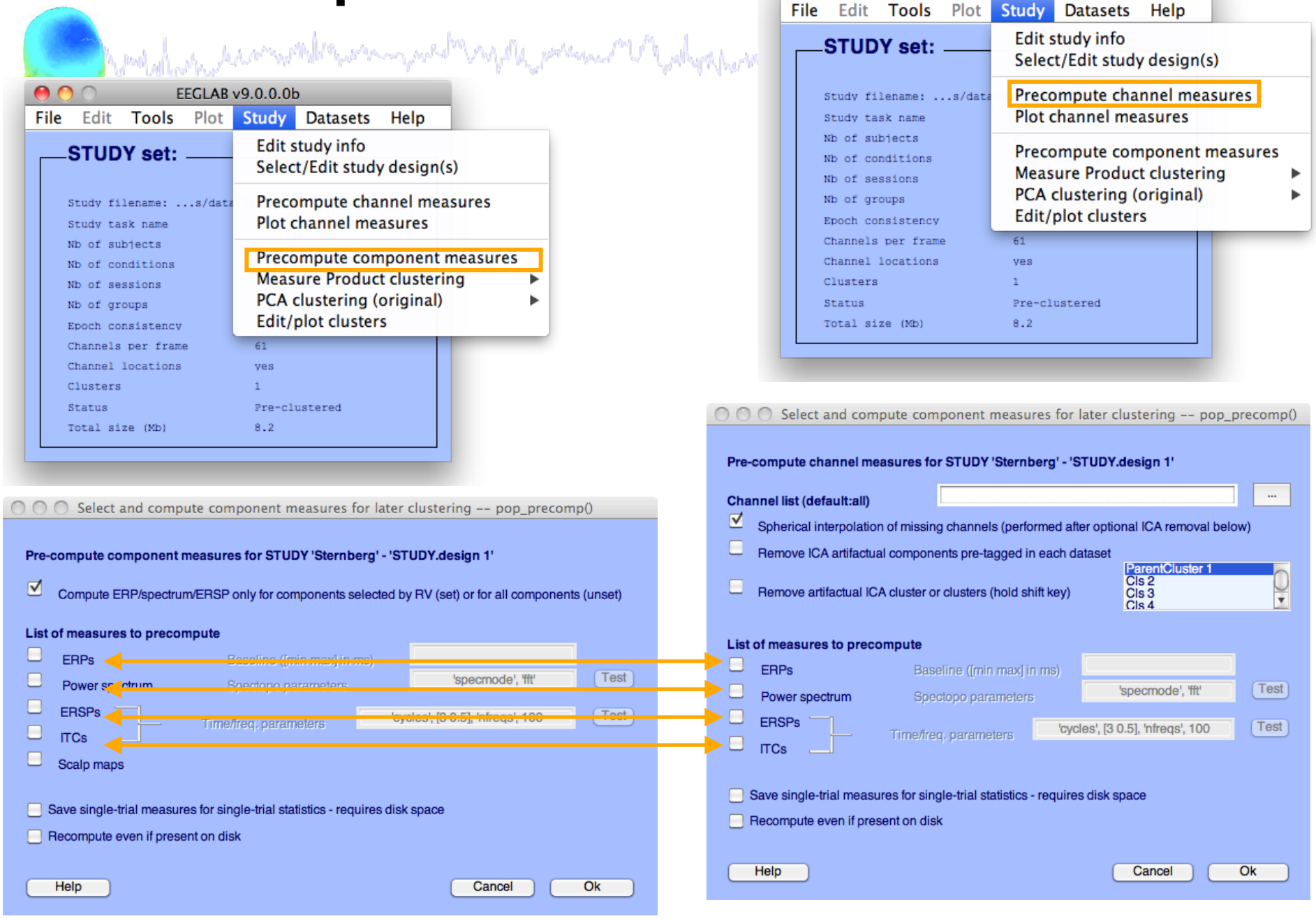
ERSP - CZ, ignore
ERSP - CZ, memorize
ERSP - CZ, probe
Frequency (Hz)
Time (ms)
dB

Figure 7

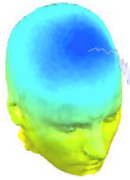
File Edit View Insert Tools Desktop Window Help

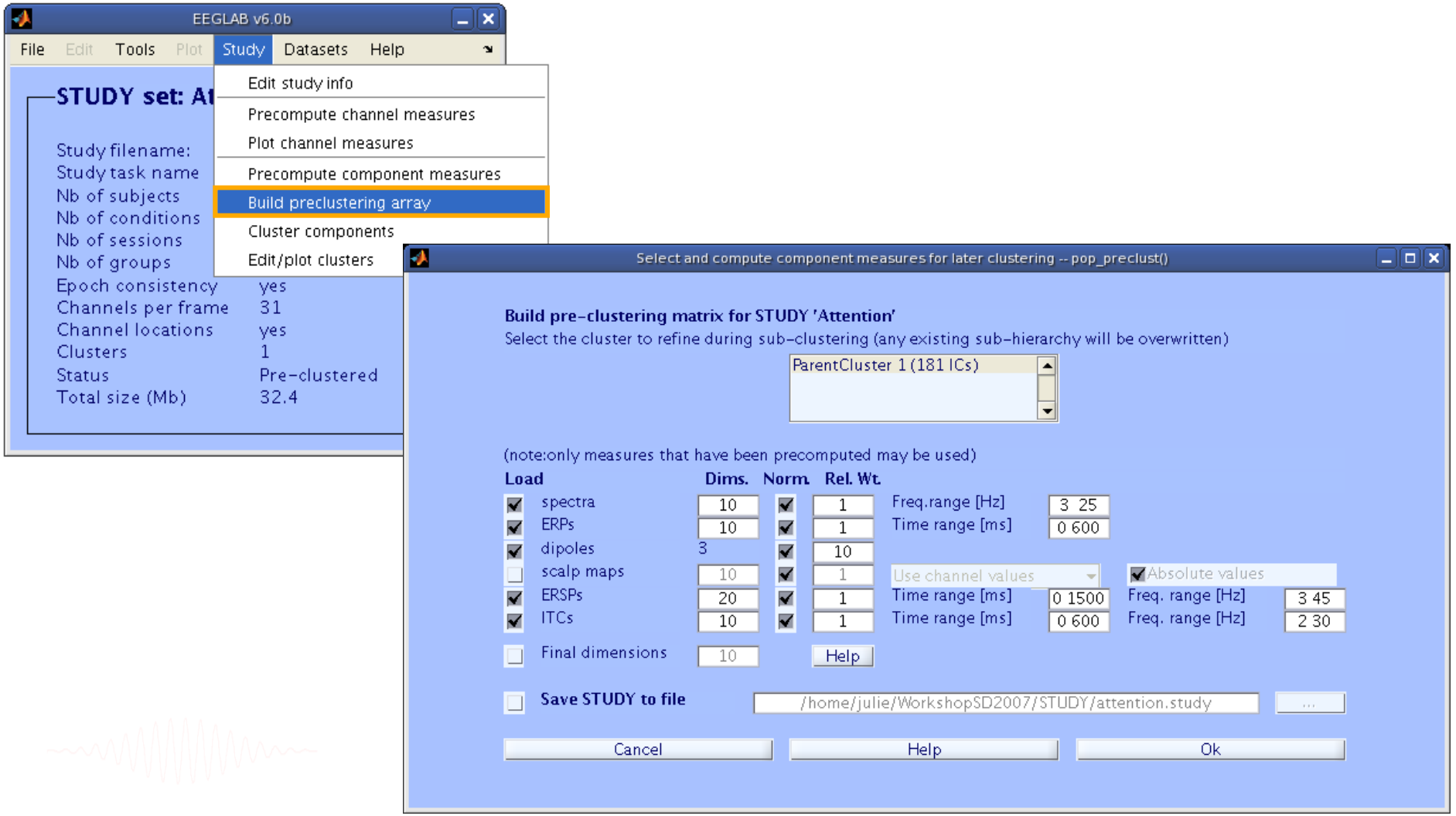
ERSP - ignore, 500-900ms & 8-12Hz
ERSP - memorize, 500-900ms & 8-12Hz
ERSP - probe, 500-900ms & 8-12Hz
(p-value) perm with fdr

2. Pre-compute measures

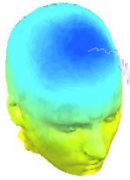


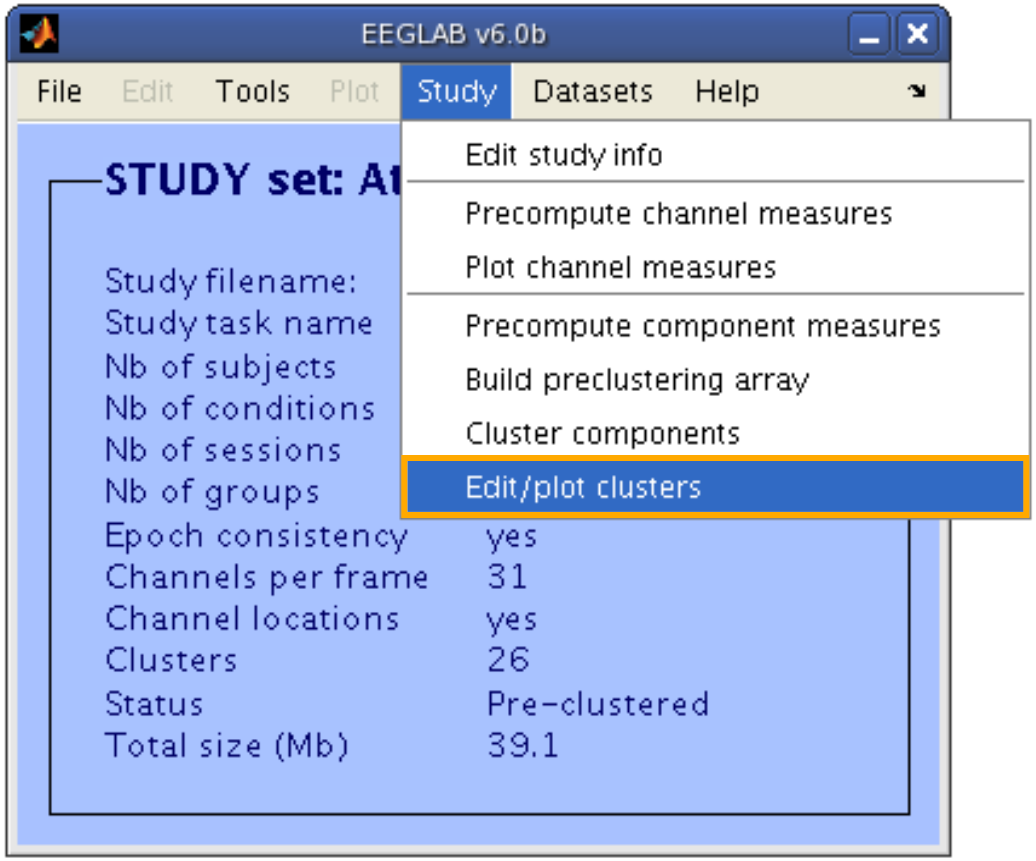
3. Cluster components



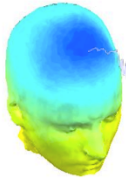


View and edit clusters





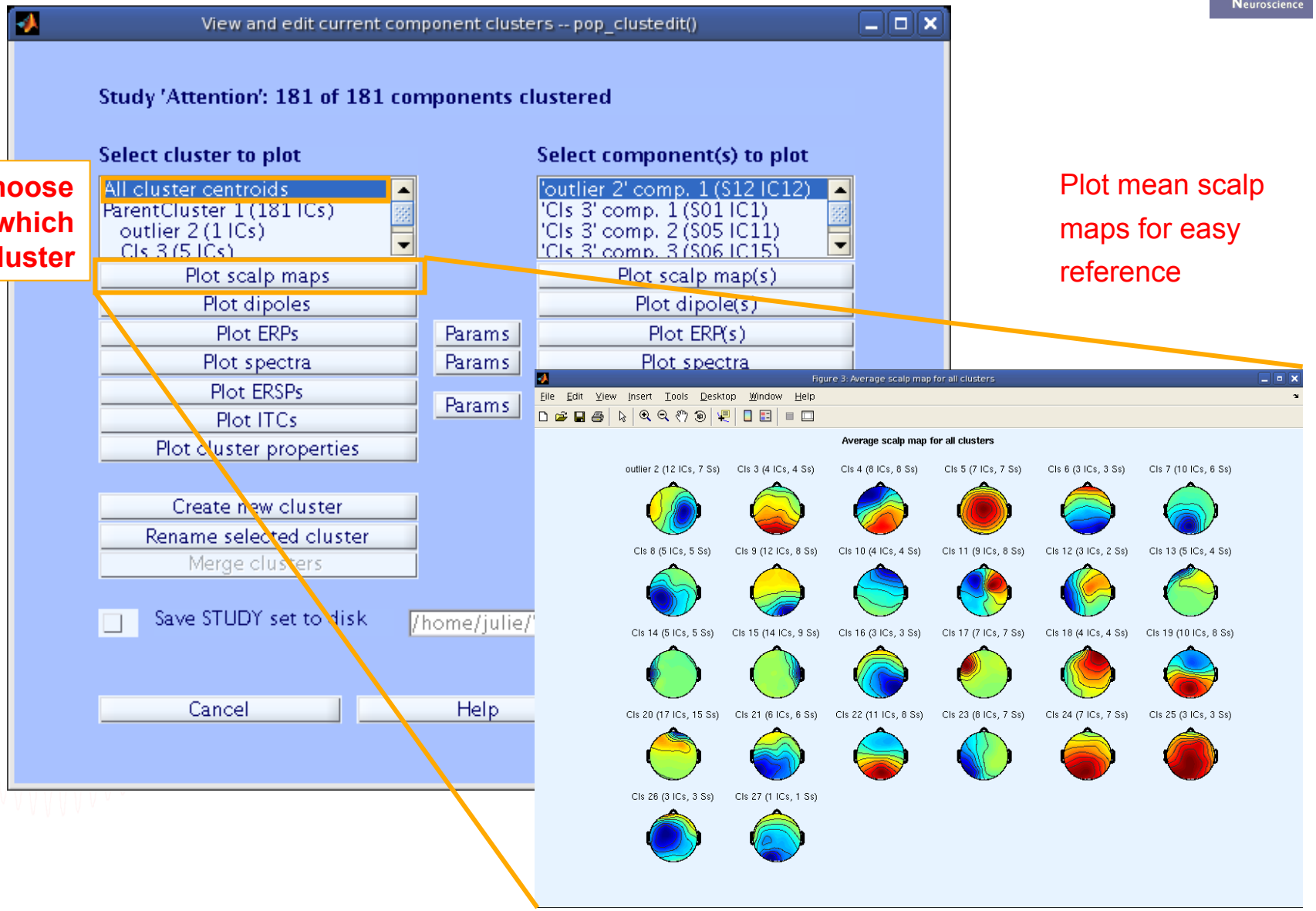
Plot cluster data



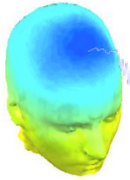
Swartz Center for Computational Neuroscience

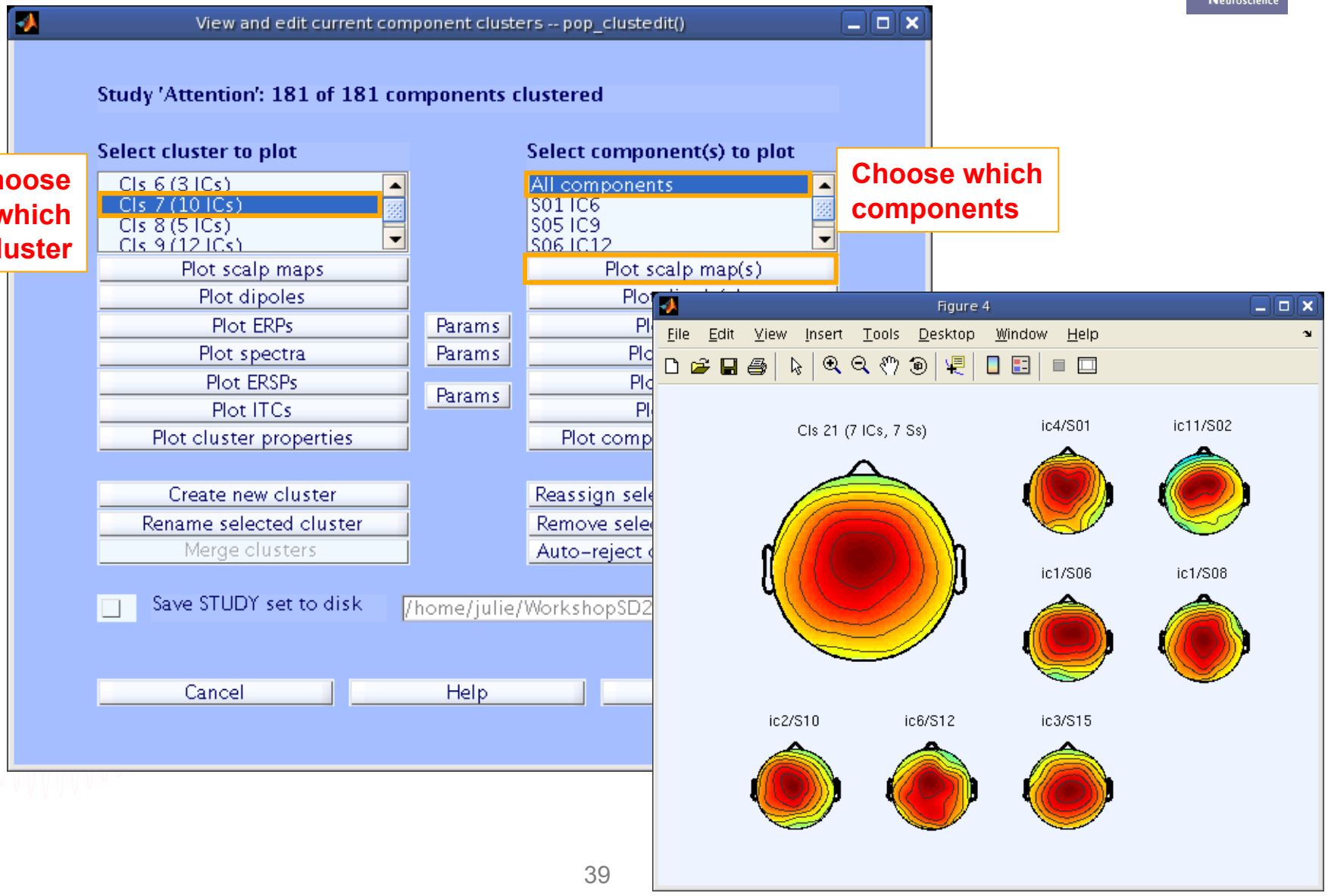
Choose which cluster

Plot mean scalp maps for easy reference

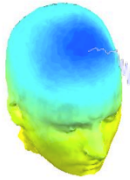


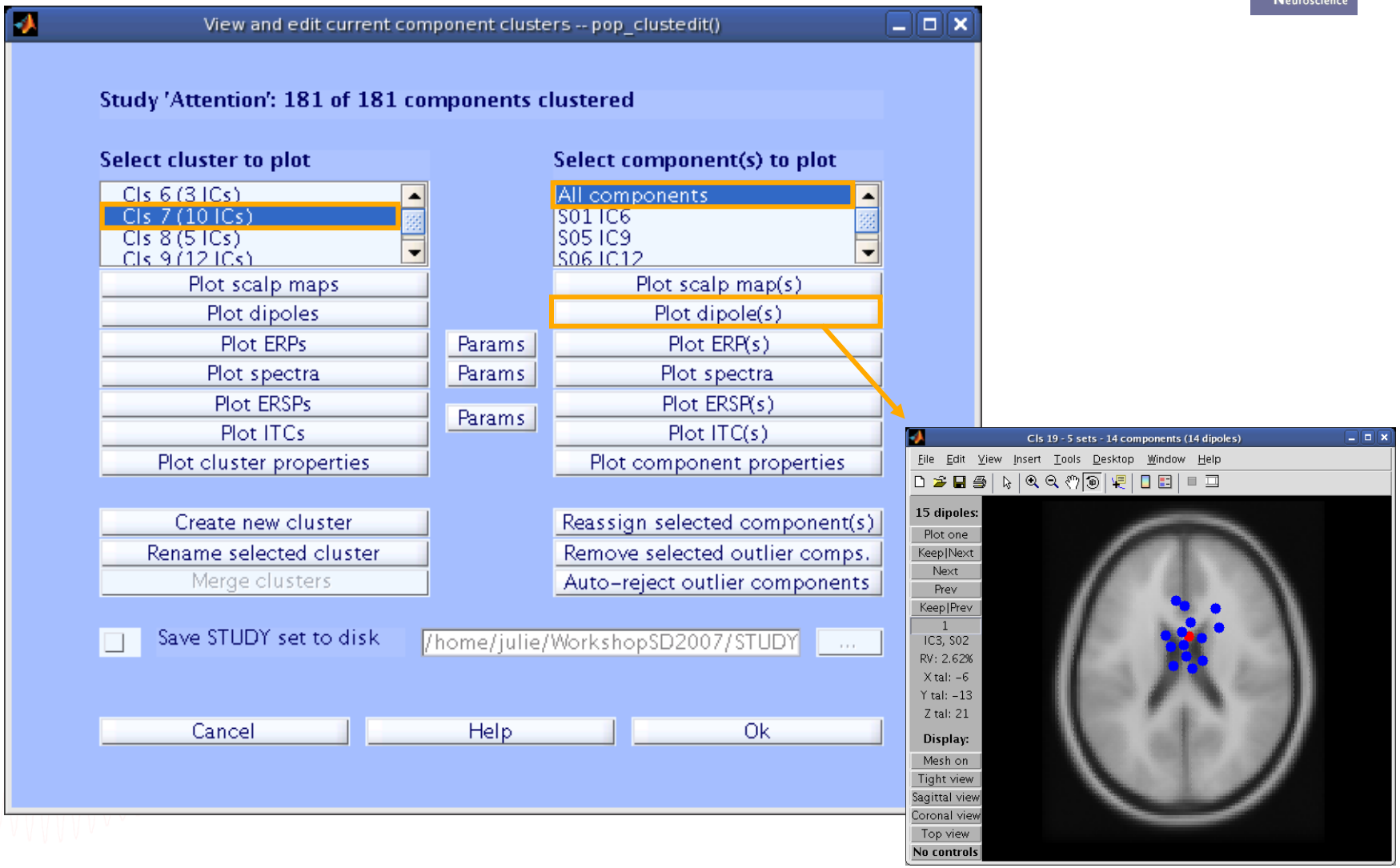
Plot cluster data



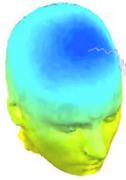


Plot cluster data





Exercises



Suggestion for exercises:

Load stern.study in STUDY folder

From the GUI, plot grand average ERP for all channels. Experiment with statistics.

Build a STUDY design to compare Ignore letter grouped with Memorize letter with Probe letters. Recompute spectrum and plot spectrum for electrode Fz using statistics. Do the same for the frontal midline component cluster (cluster 19).