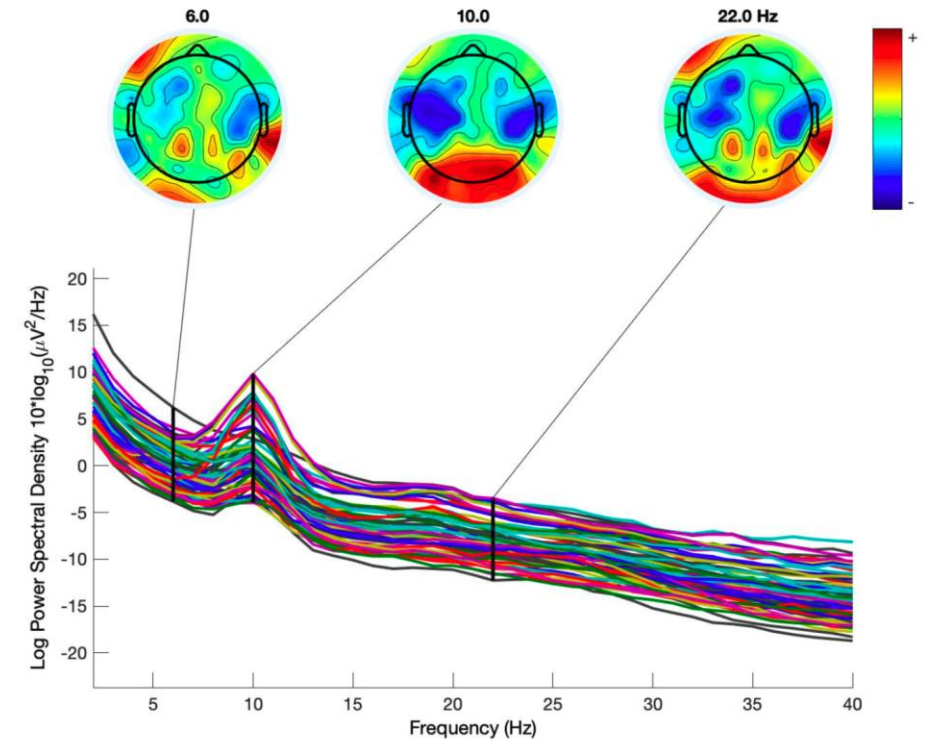
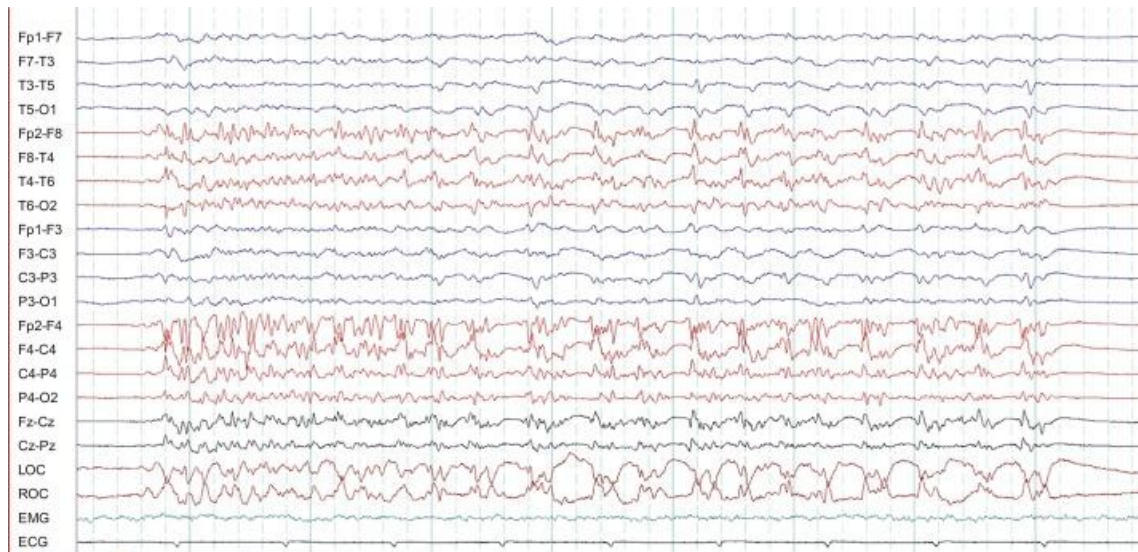


EEGLAB and ERPLAB

Interdisciplinary Schools
Signal Processing Department
Parisa Khoorahe

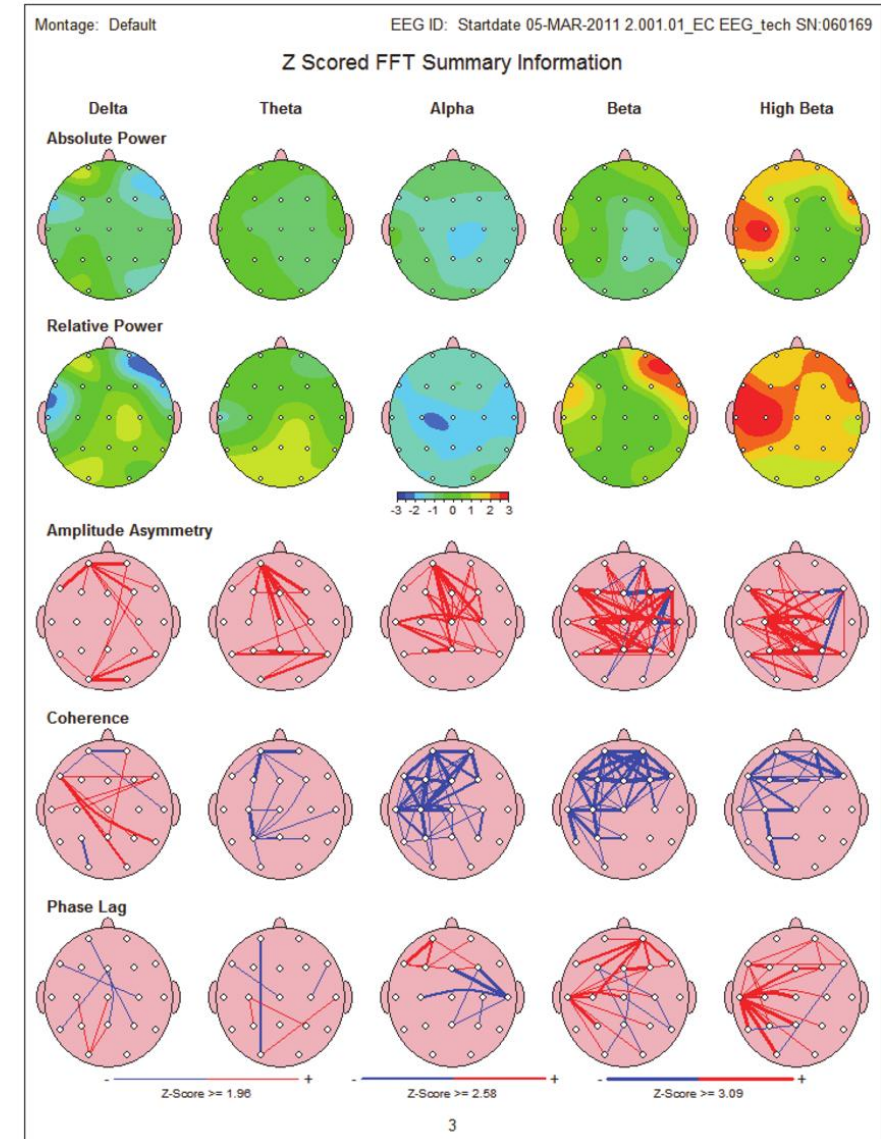
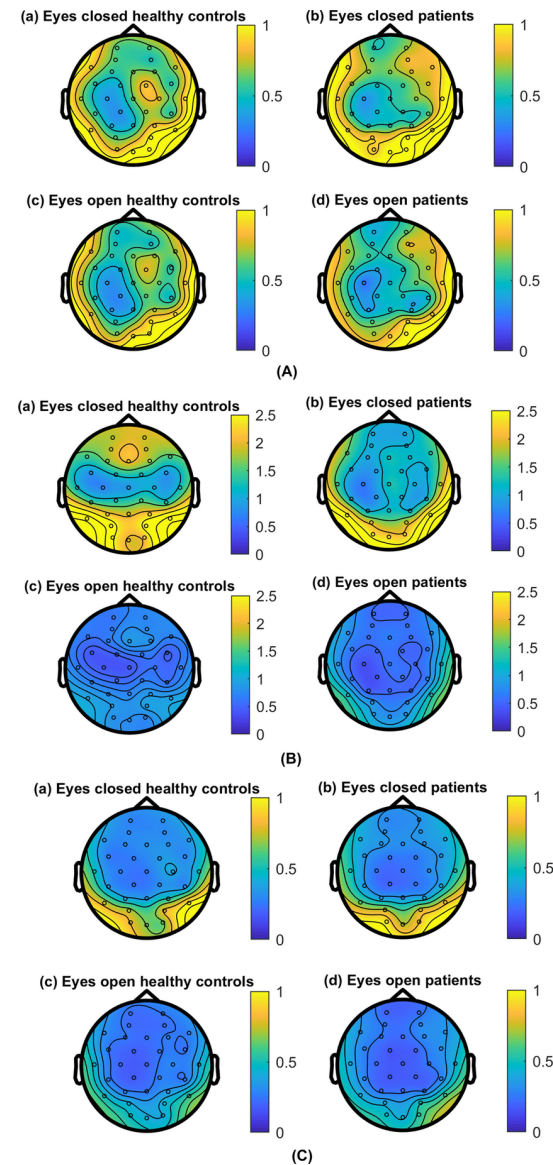
ERP

Rest-state EEG

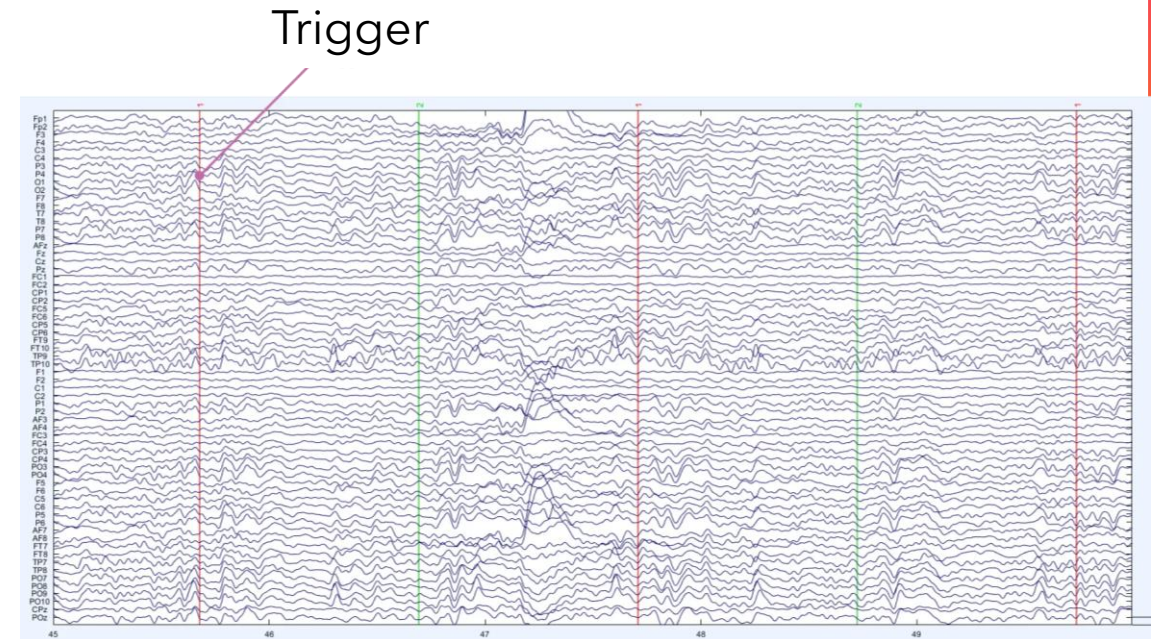
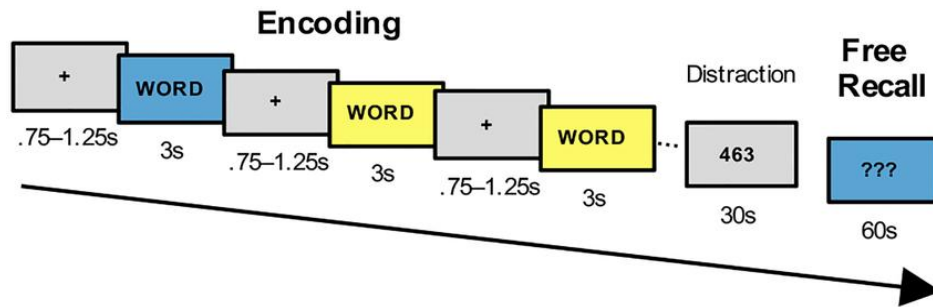


ERP

- Frequency analysis
- Spectral power
- Clinical biomarkers
- Functional connectivity



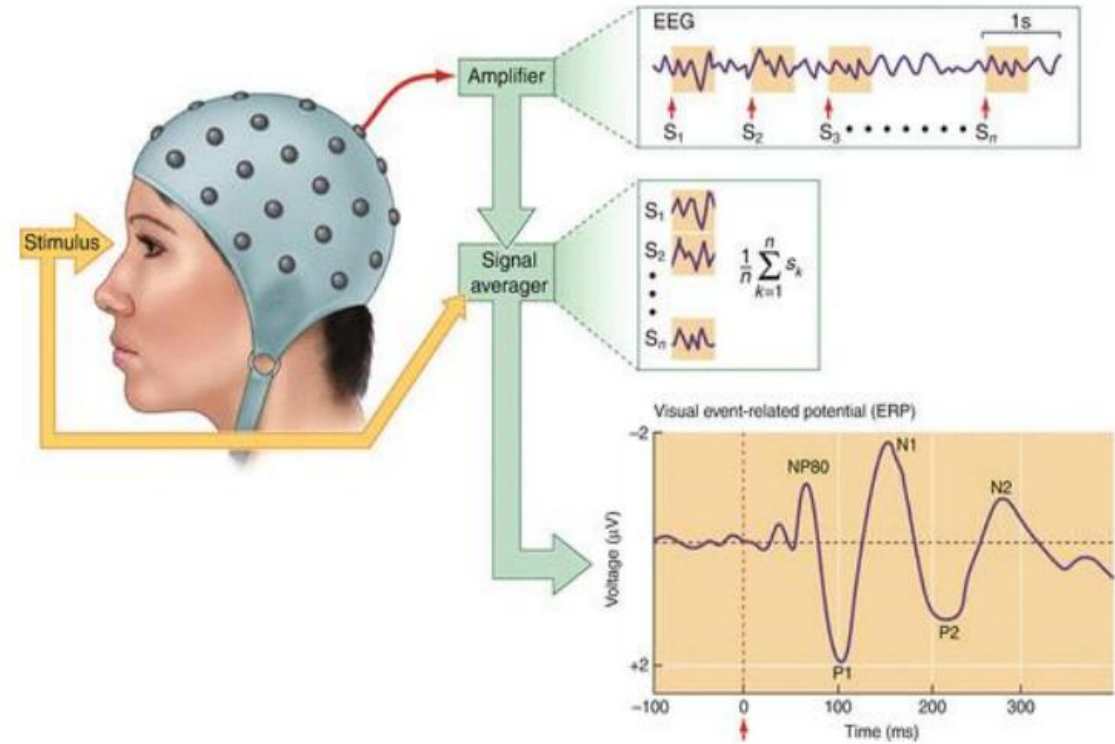
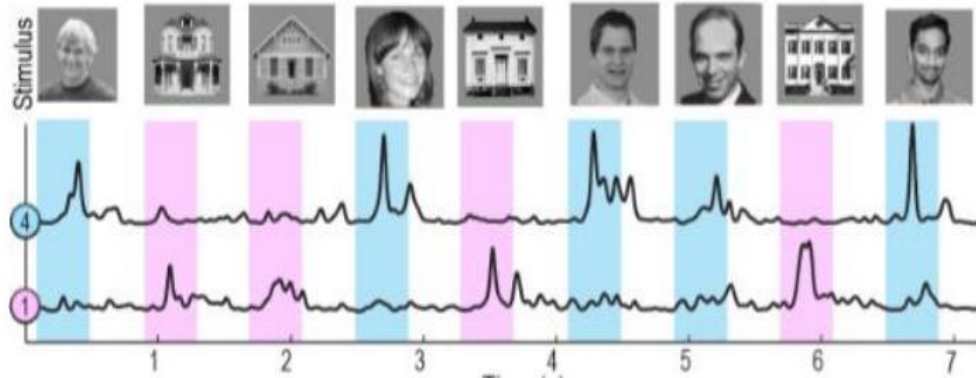
ERP



- Task
- Trial
- Block
- Event
- Epoch (Segment)
- Trigger (Event marker, Event code)

ERP

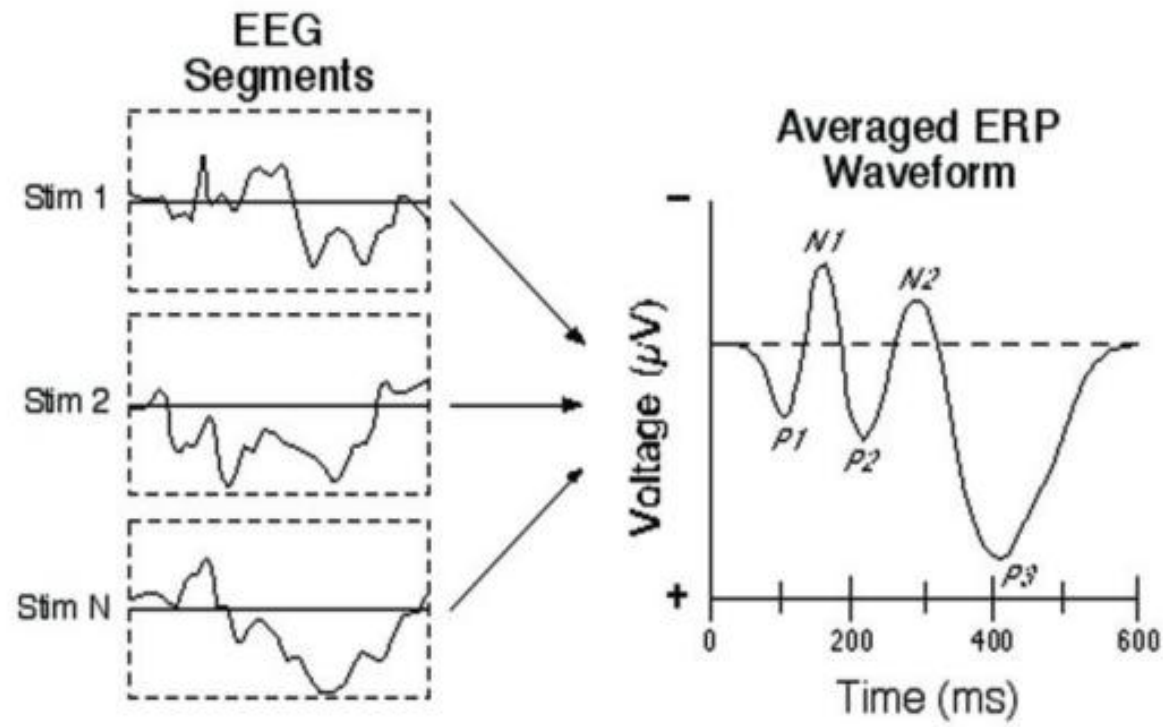
Faces/Houses



ERP

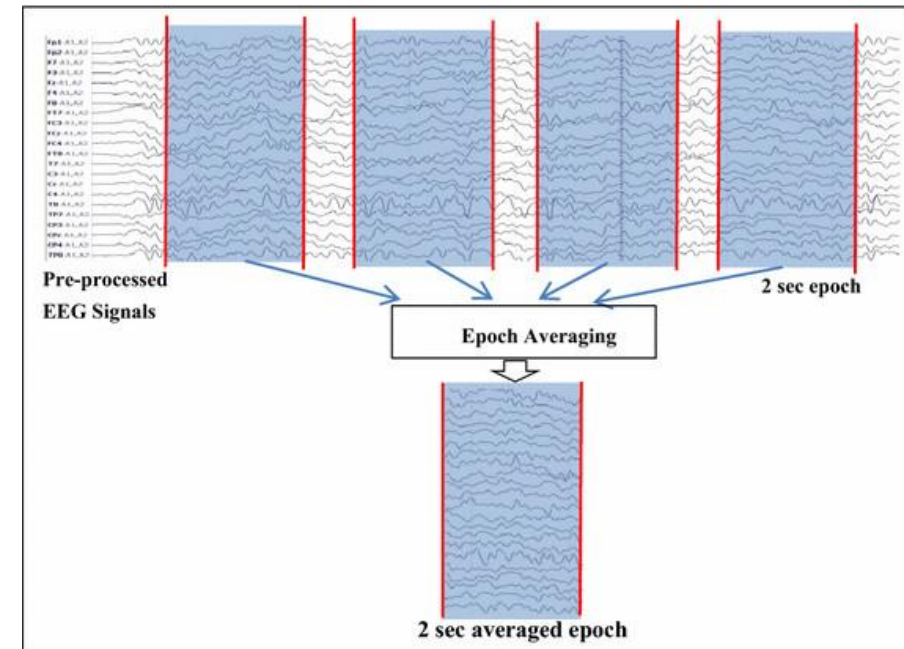
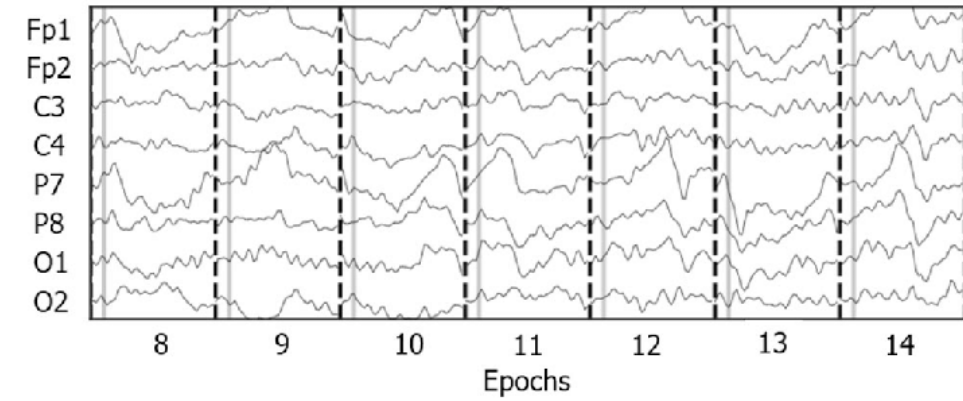
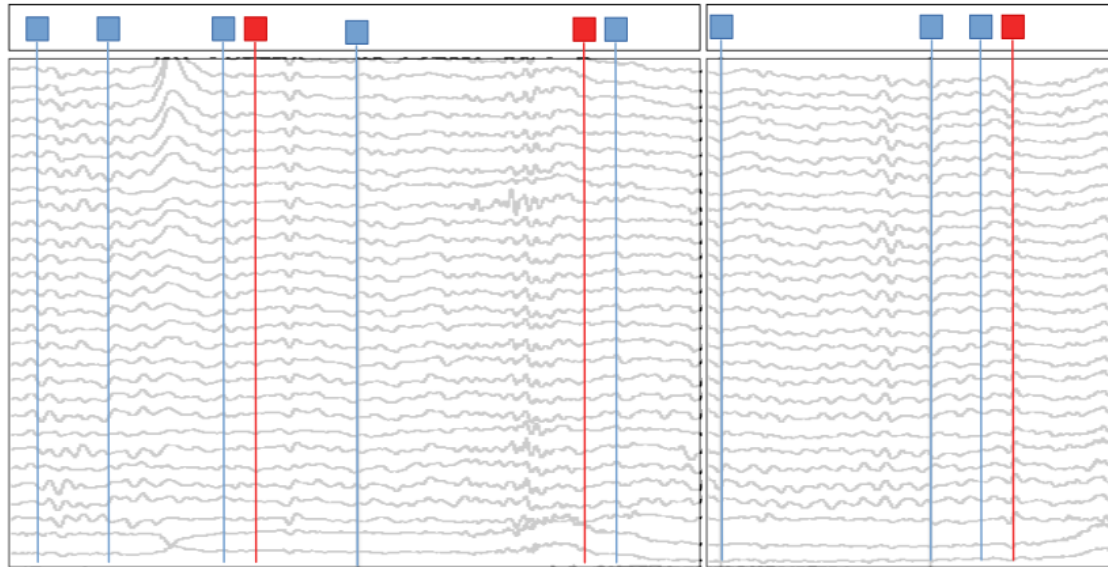
Event-related potentials:

Isolate neural responses linked to particular cognitive processes



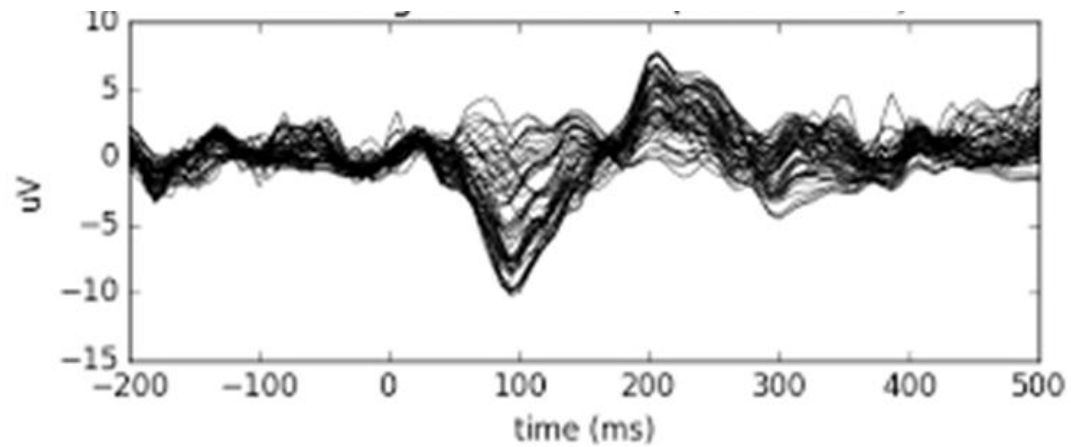
ERP

Task-based EEG

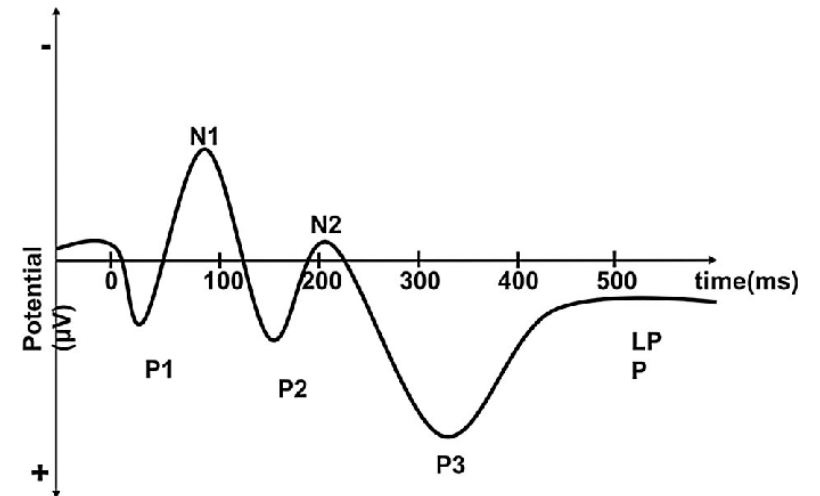


ERP

ERPs



Averaged ERP waveforms

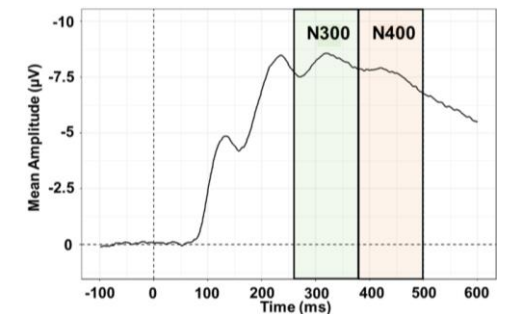
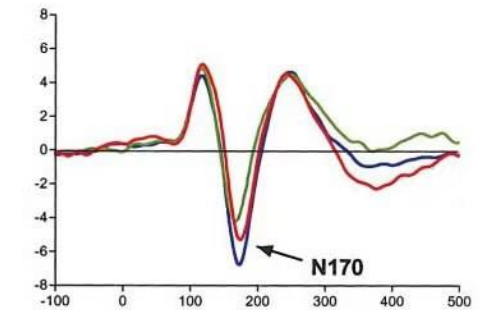
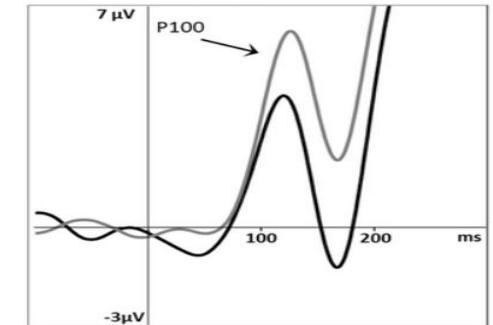
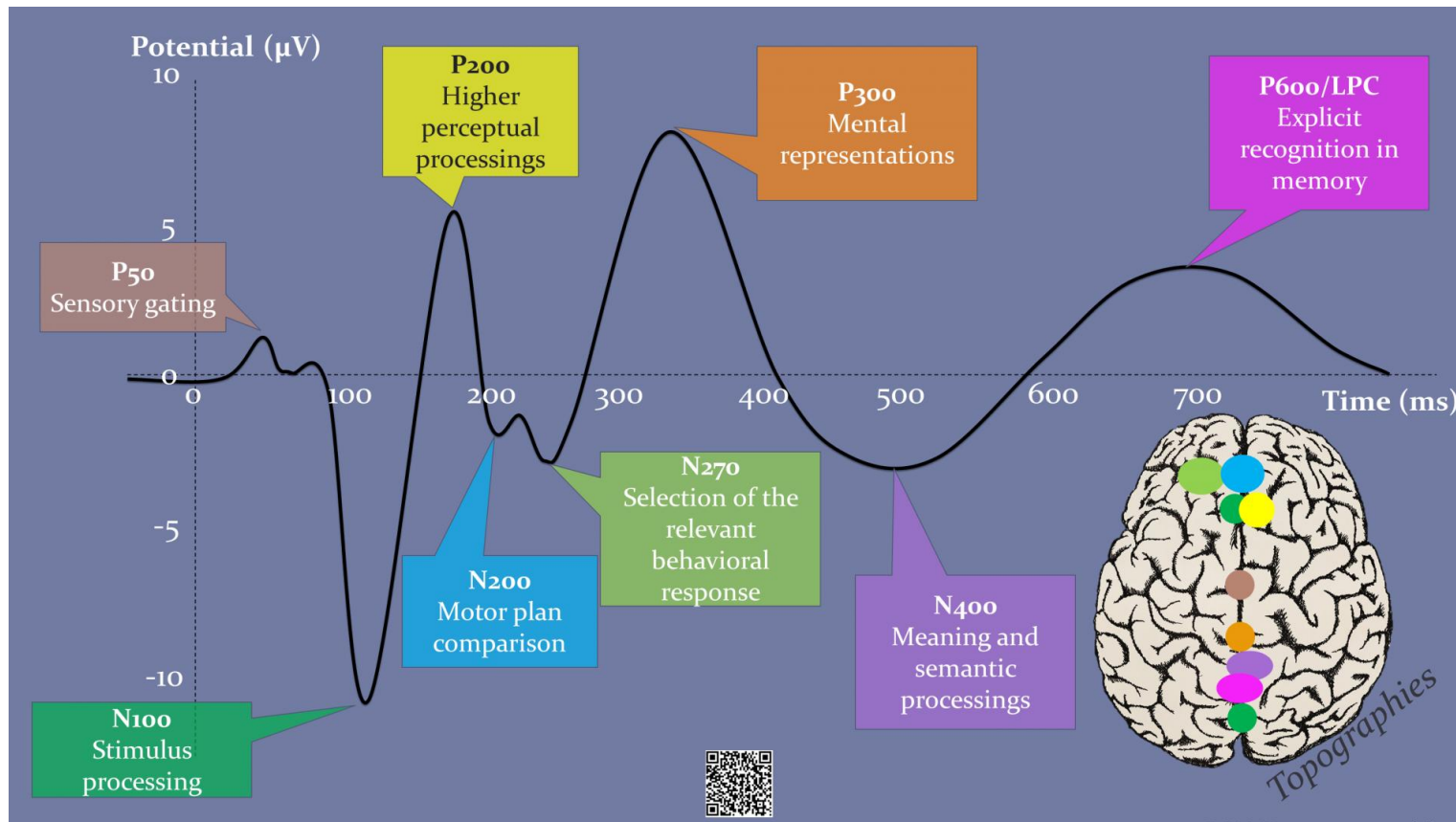


Components:

- Polarity
- Latency
- Location

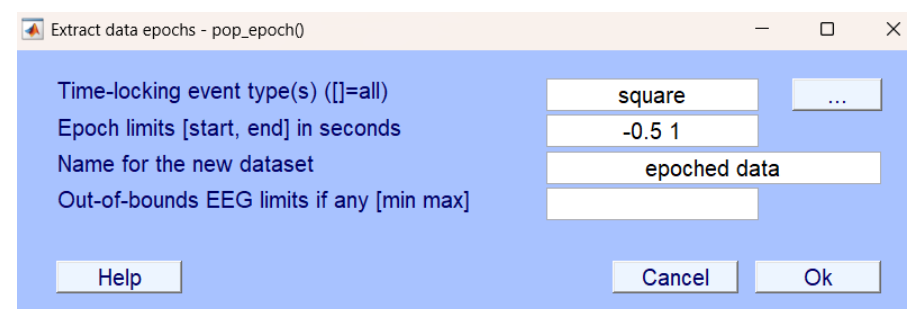
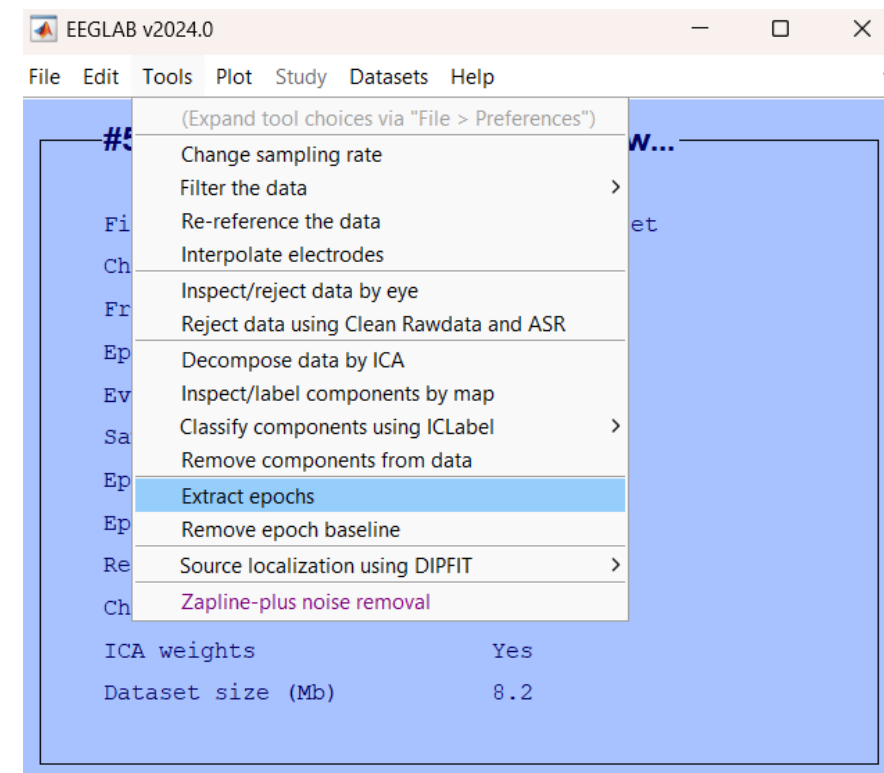
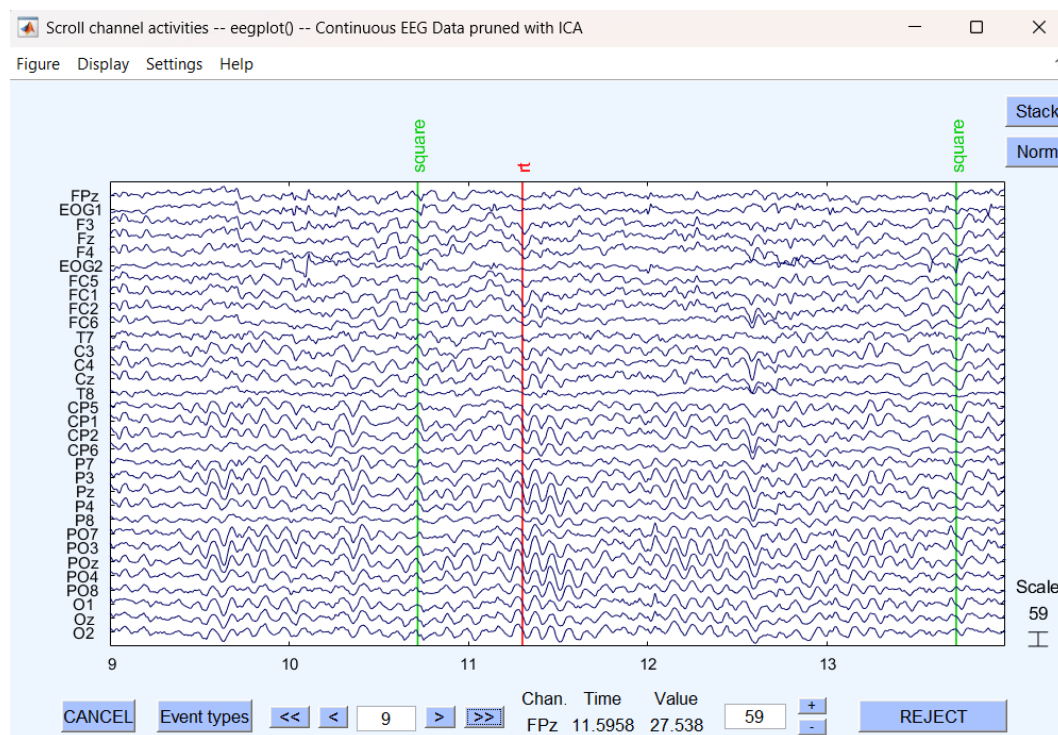
ERP

ERP Components



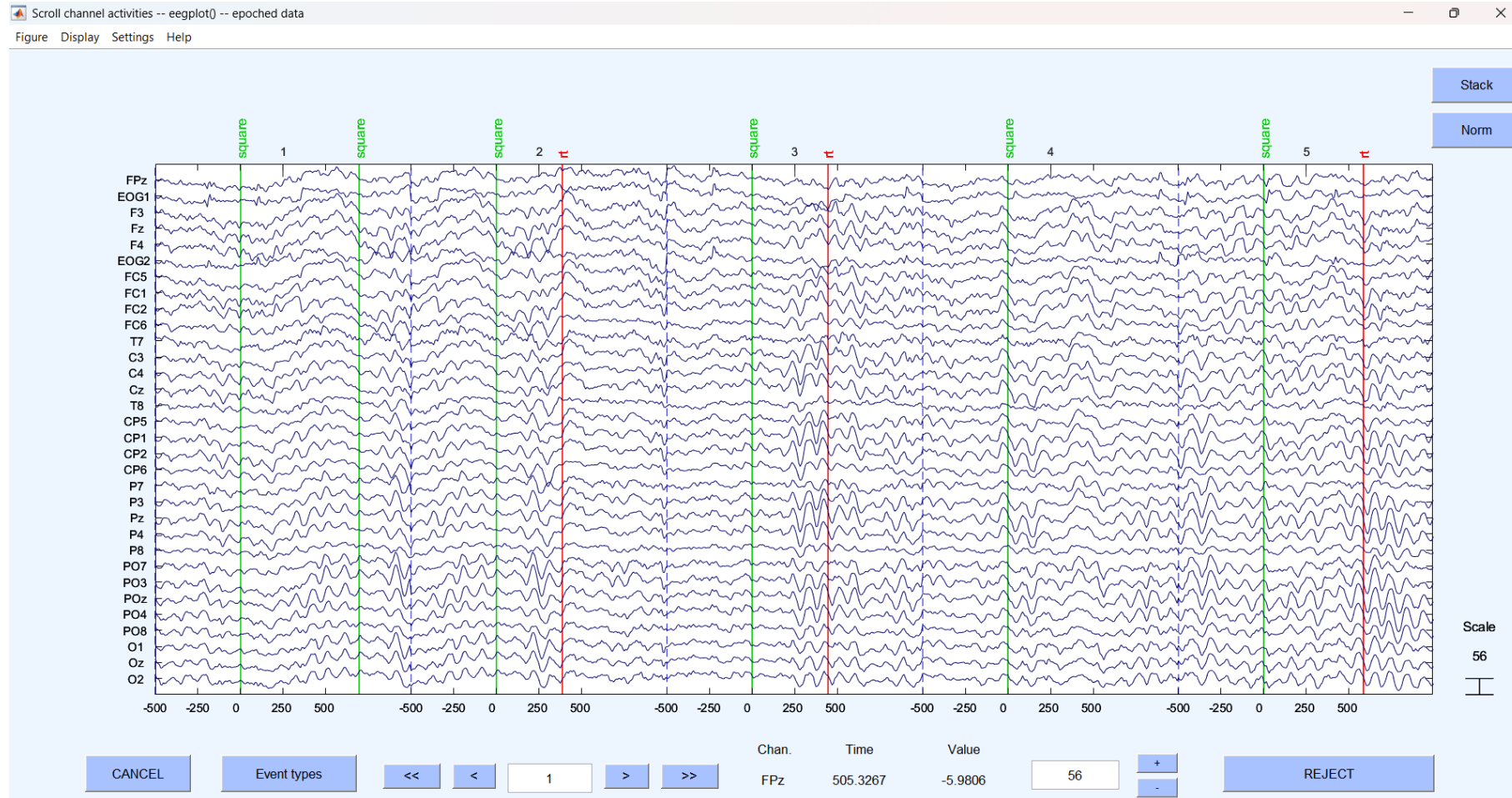
ERP

Extract epochs



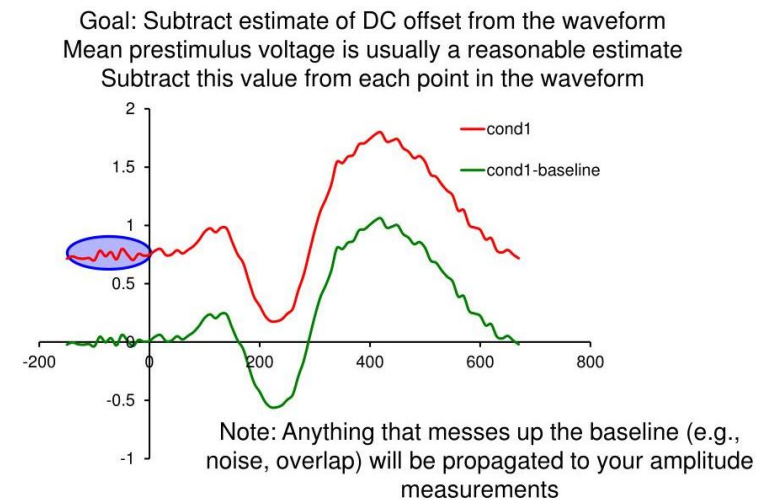
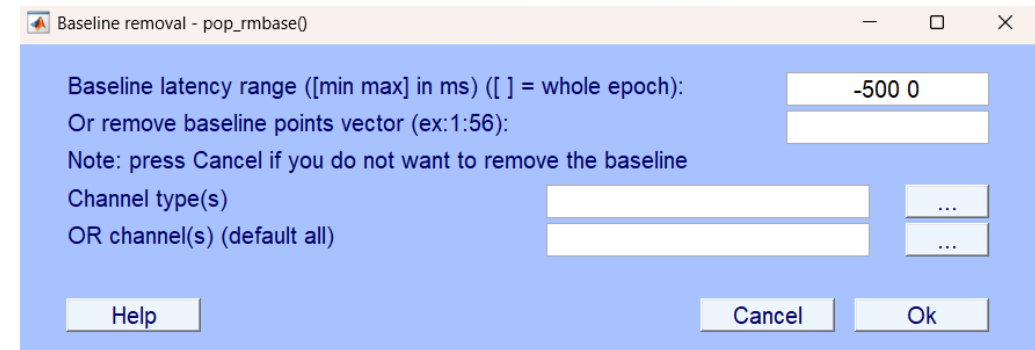
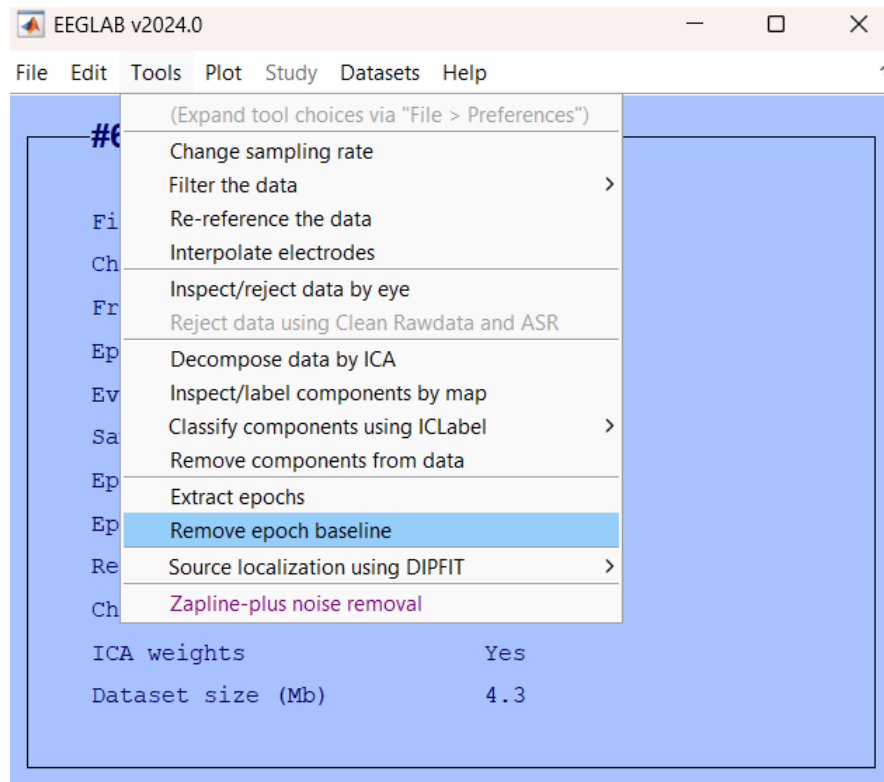
ERP

Extract epochs



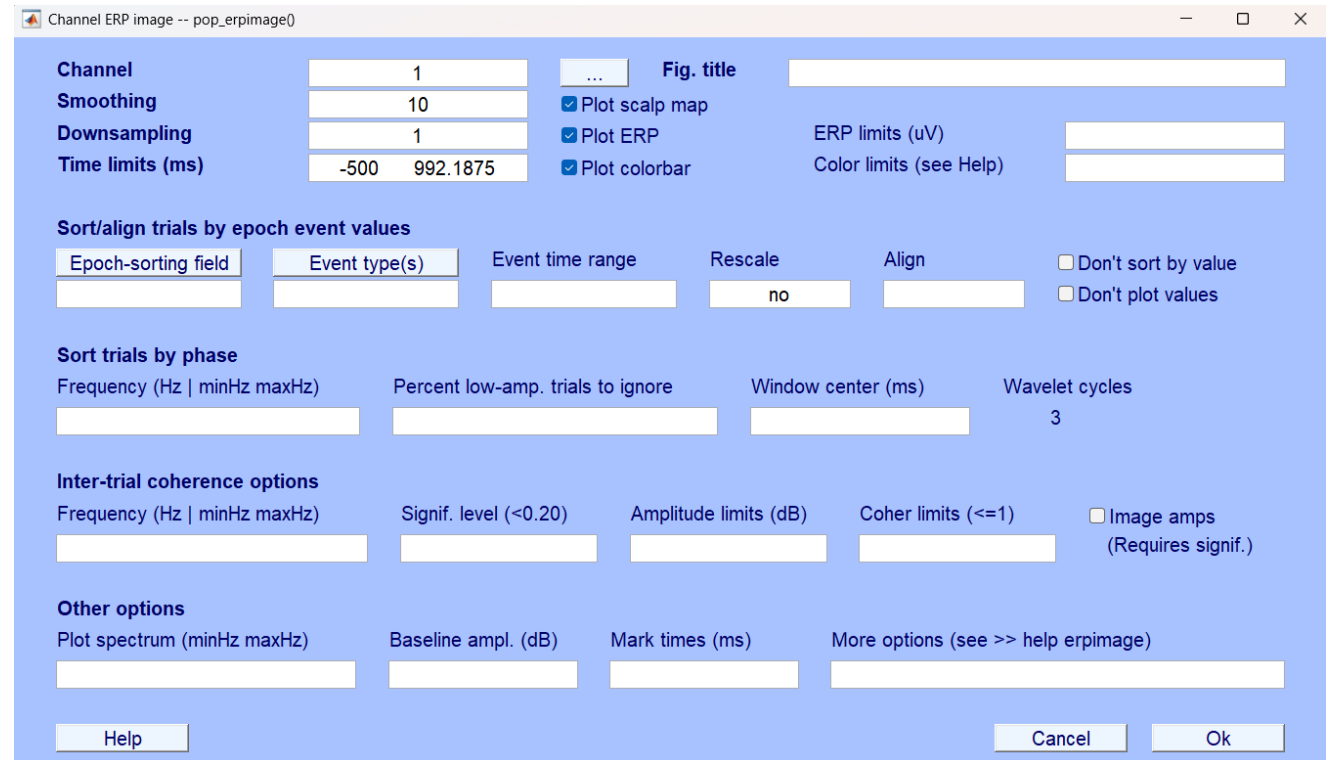
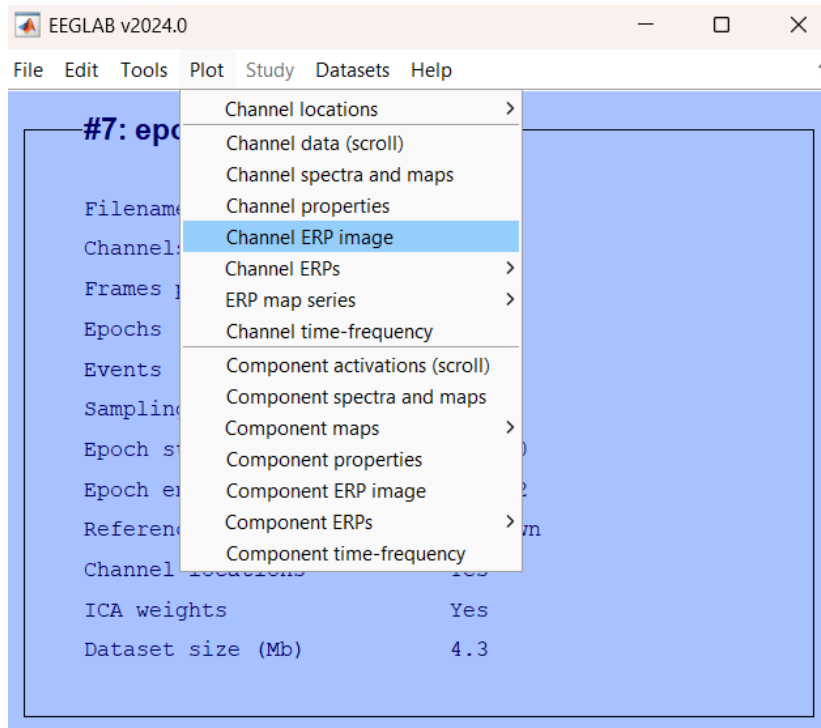
ERP

Remove epoch baseline



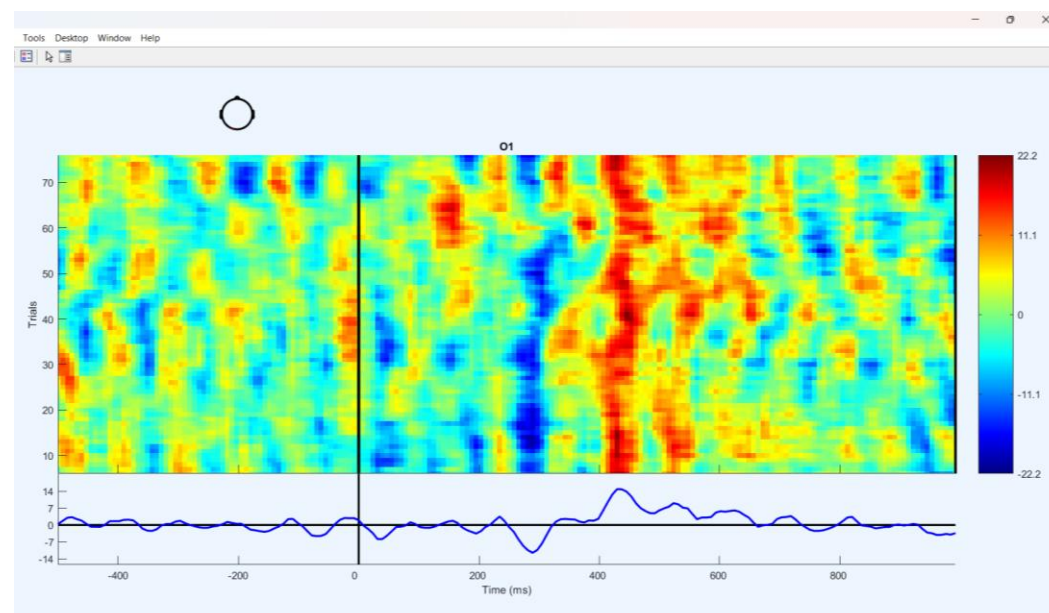
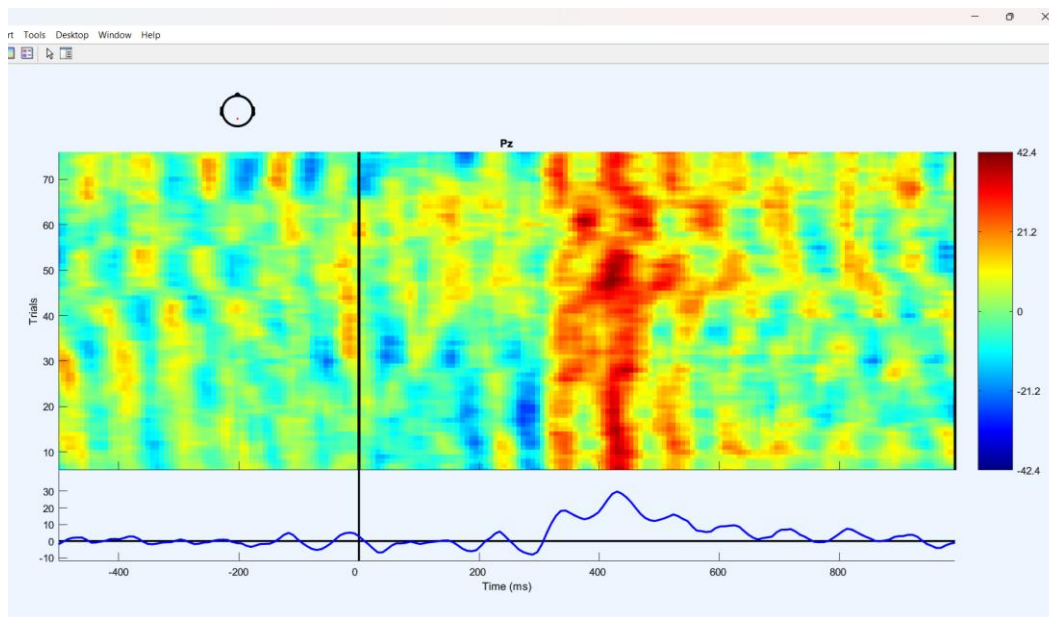
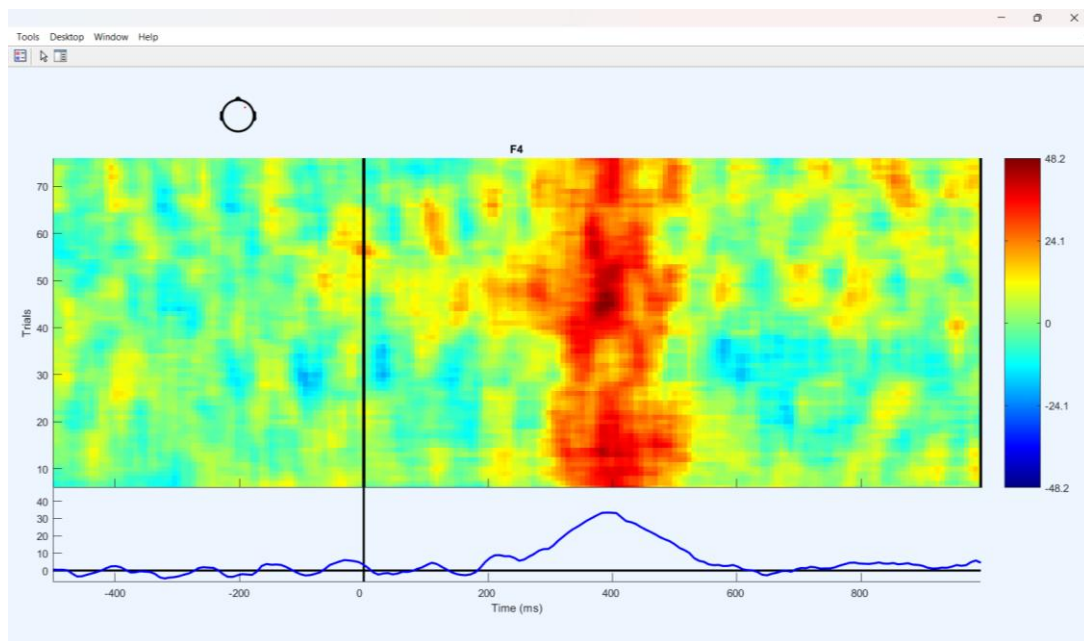
ERP

Channel ERP image



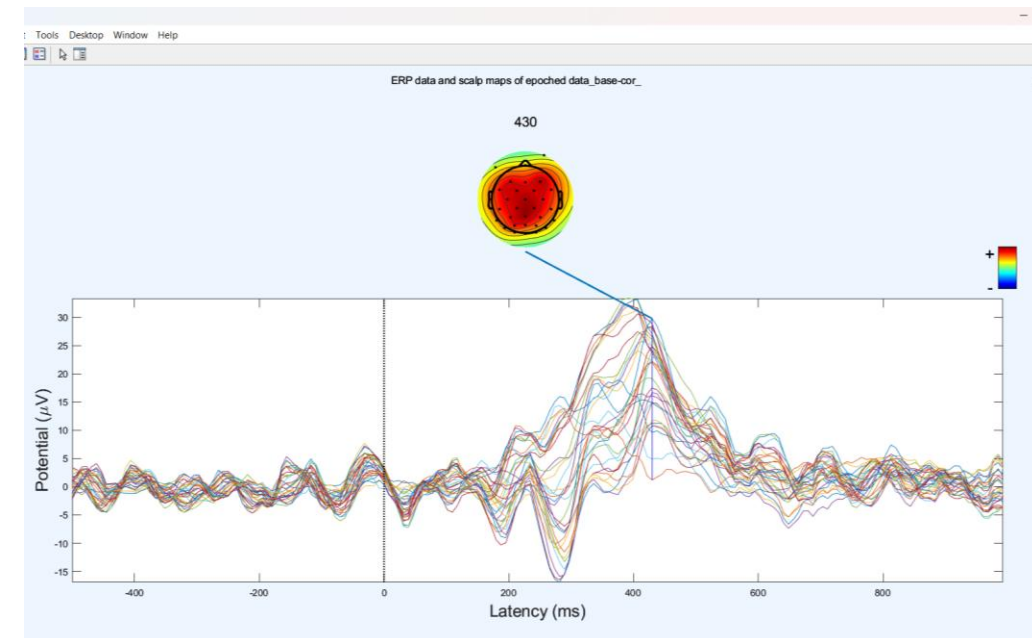
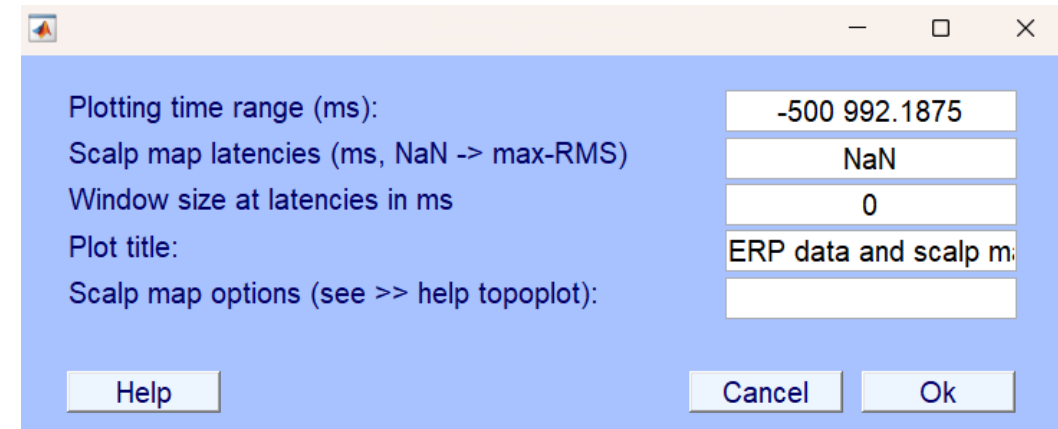
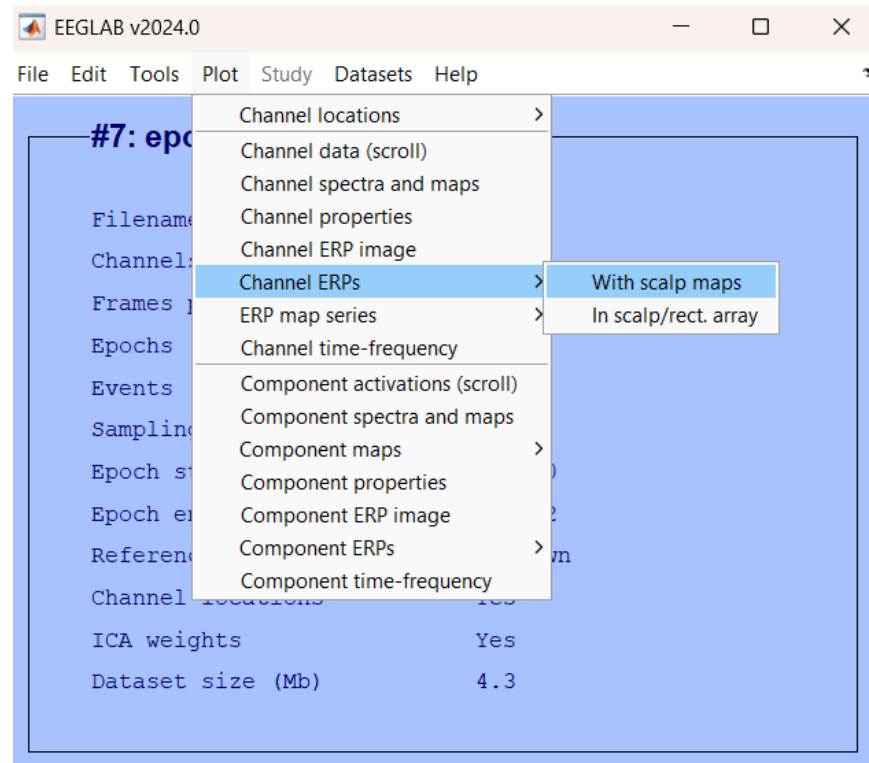
ERP

Channel ERP image



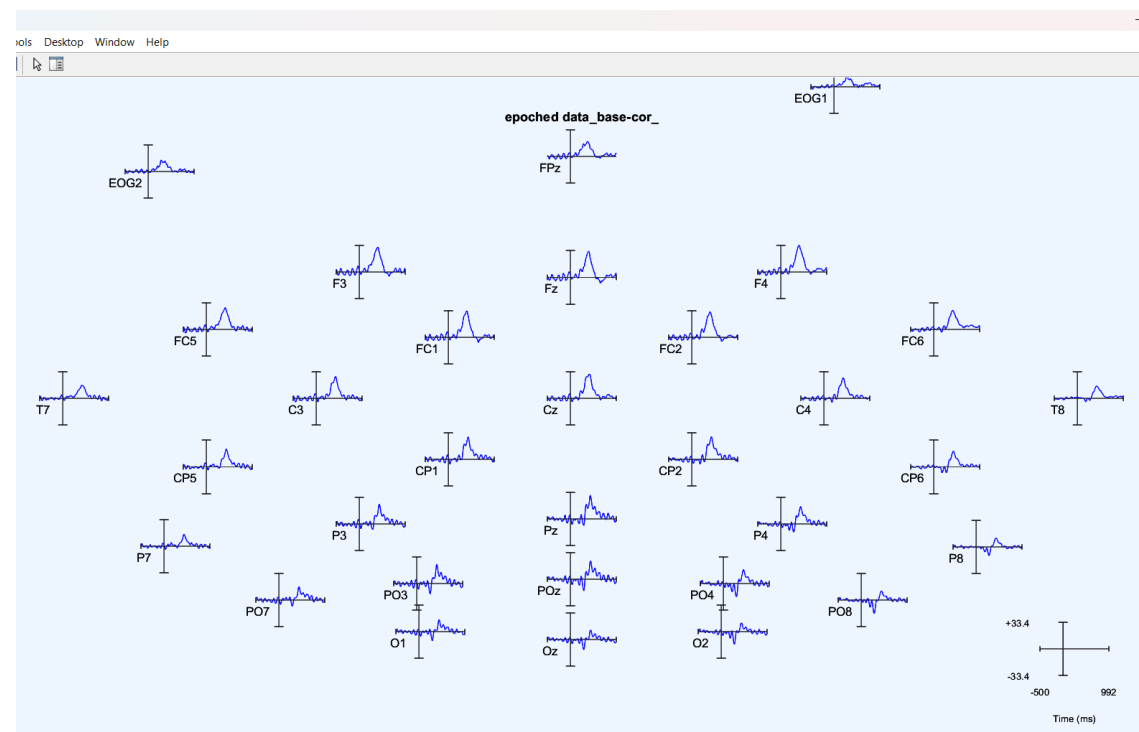
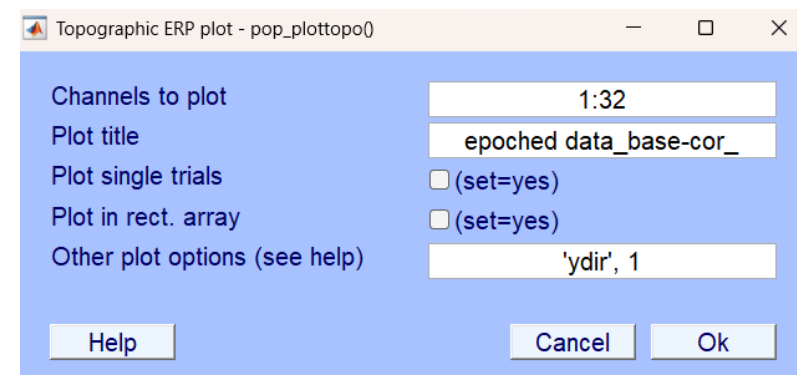
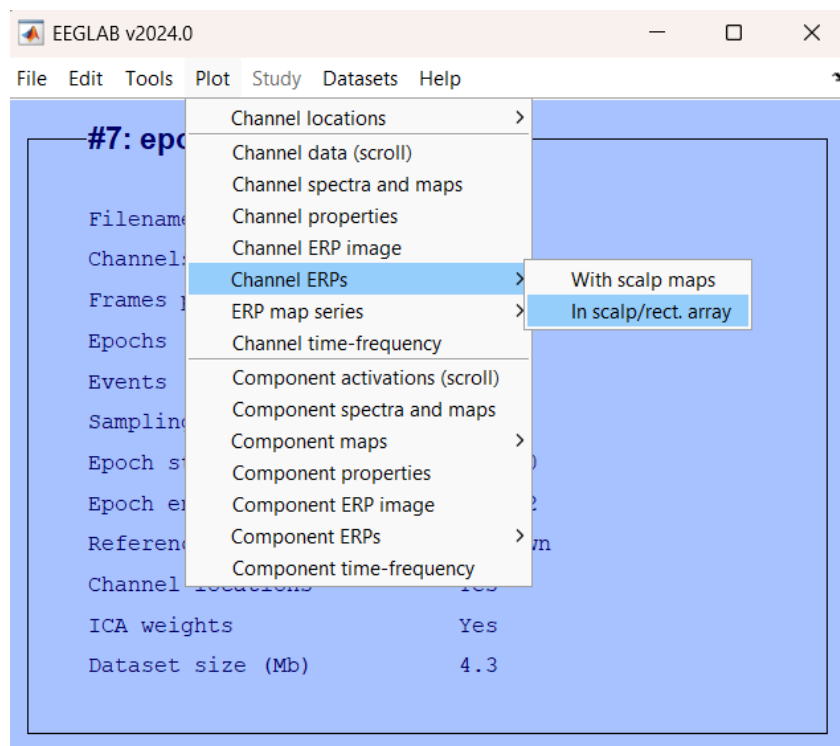
ERP

Channel ERPs



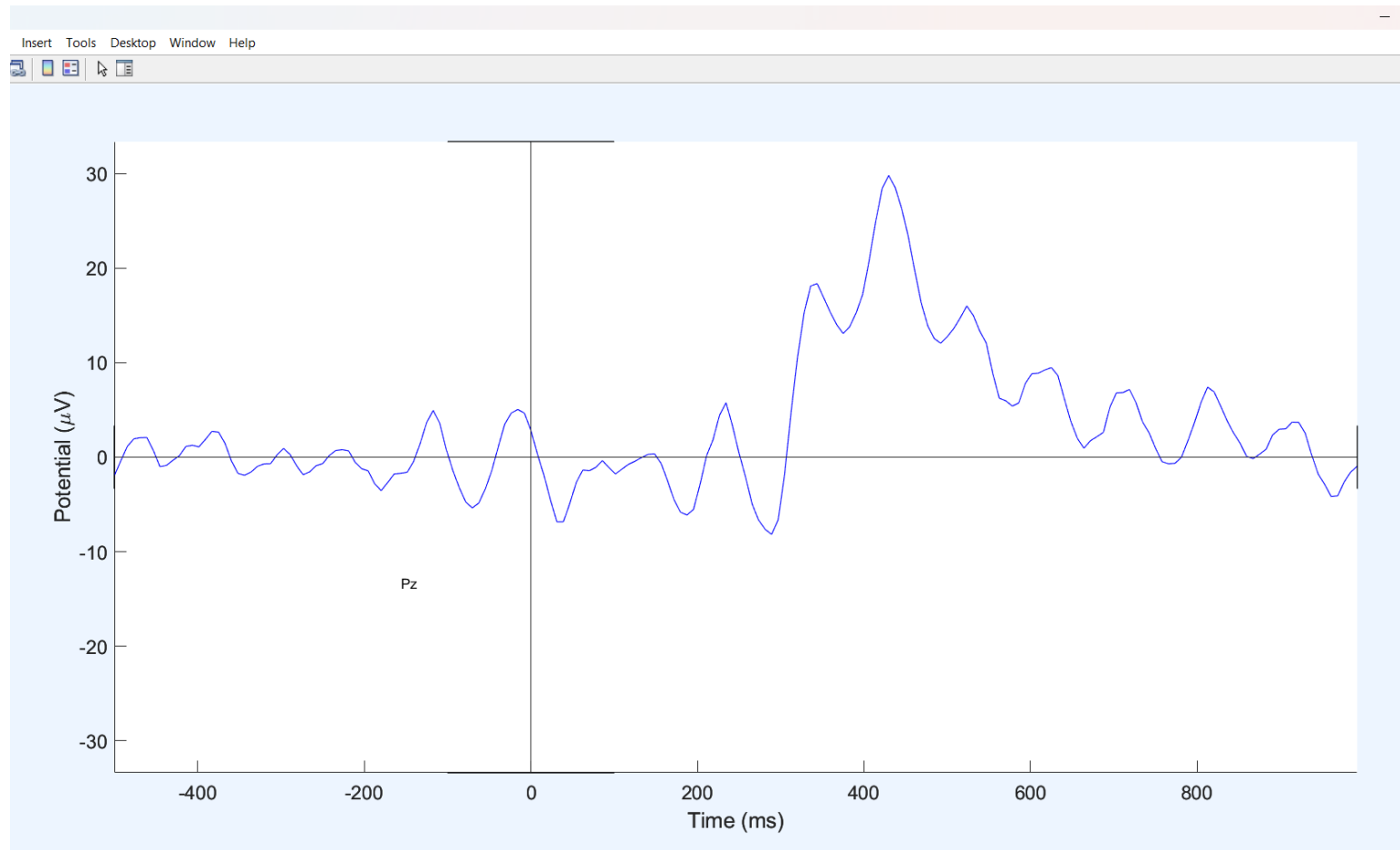
ERP

Channel ERPs



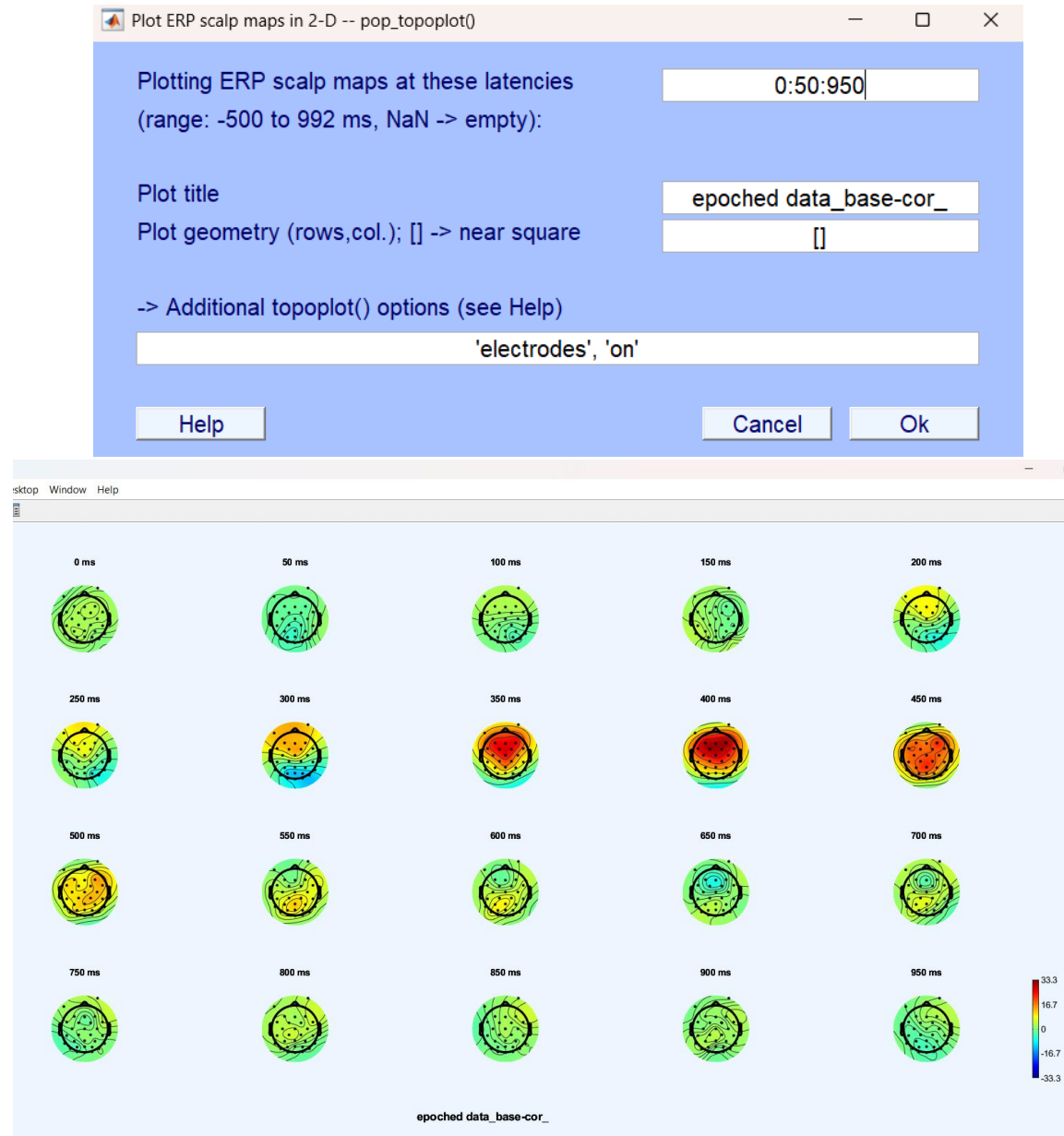
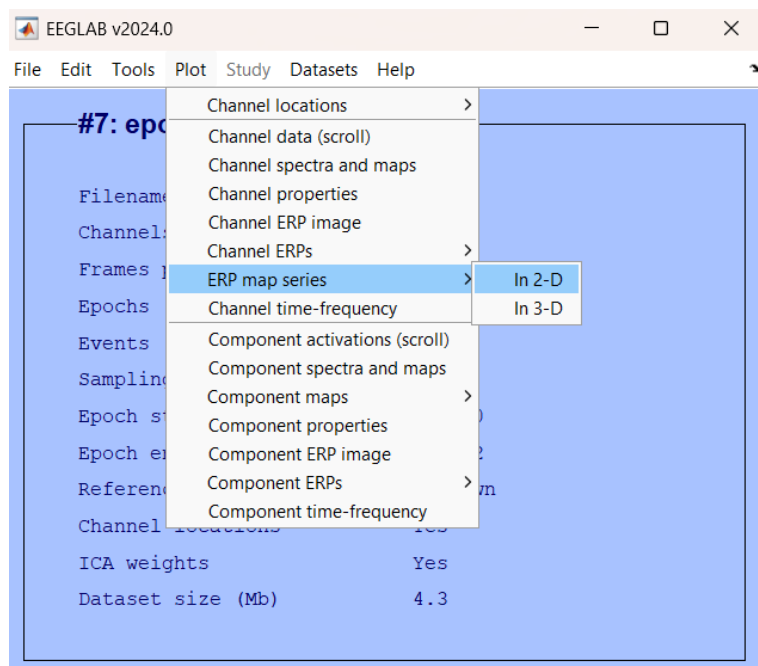
ERP

Channel ERPs



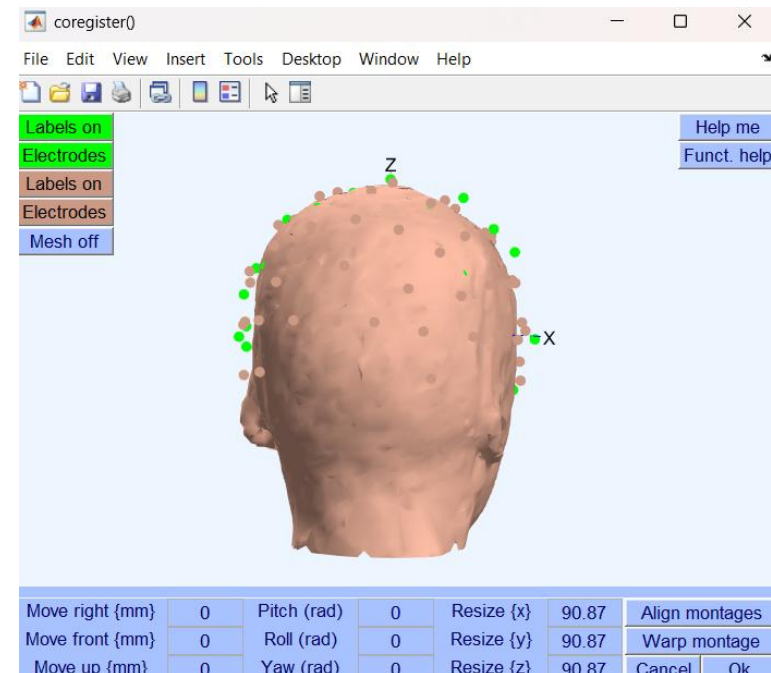
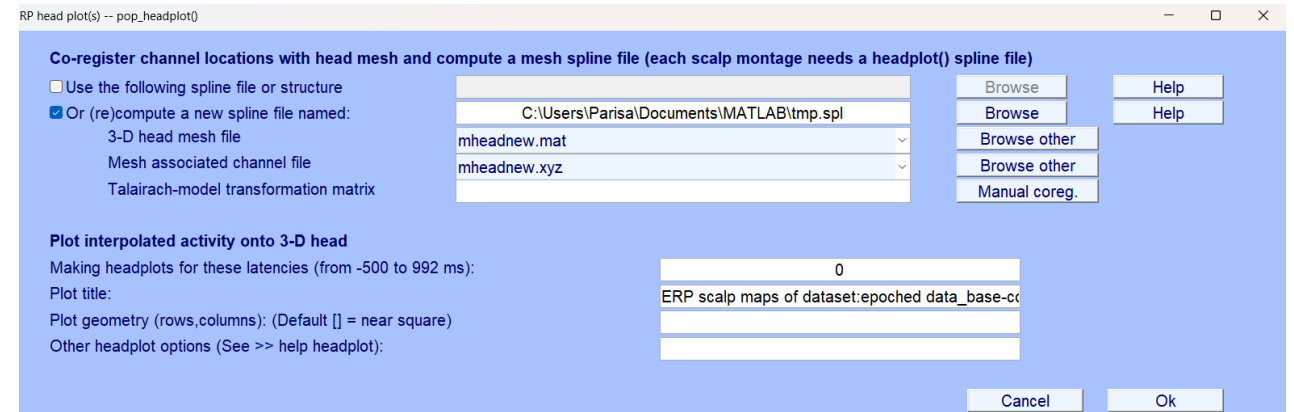
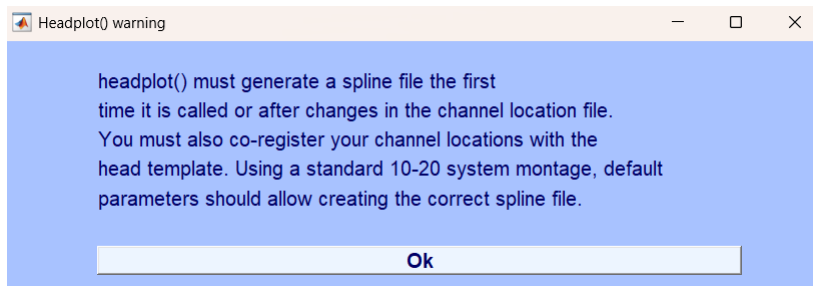
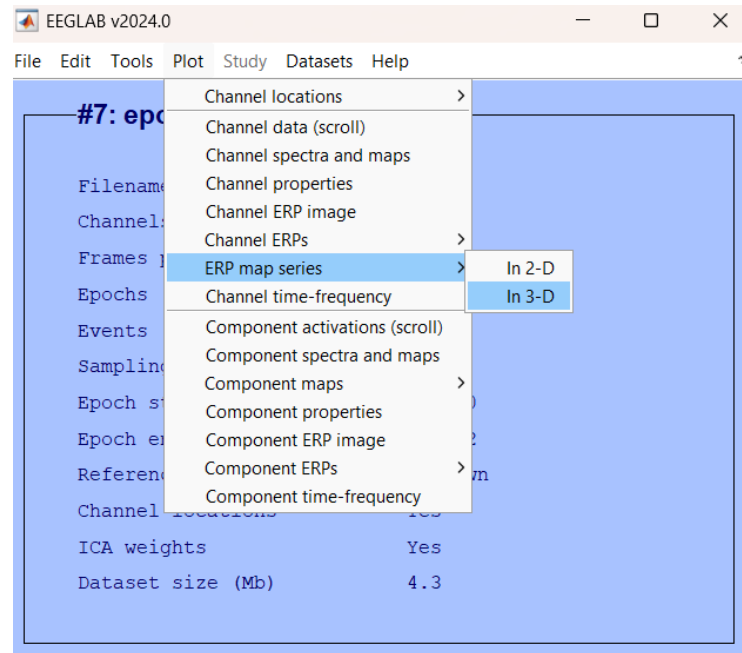
ERP

ERP series

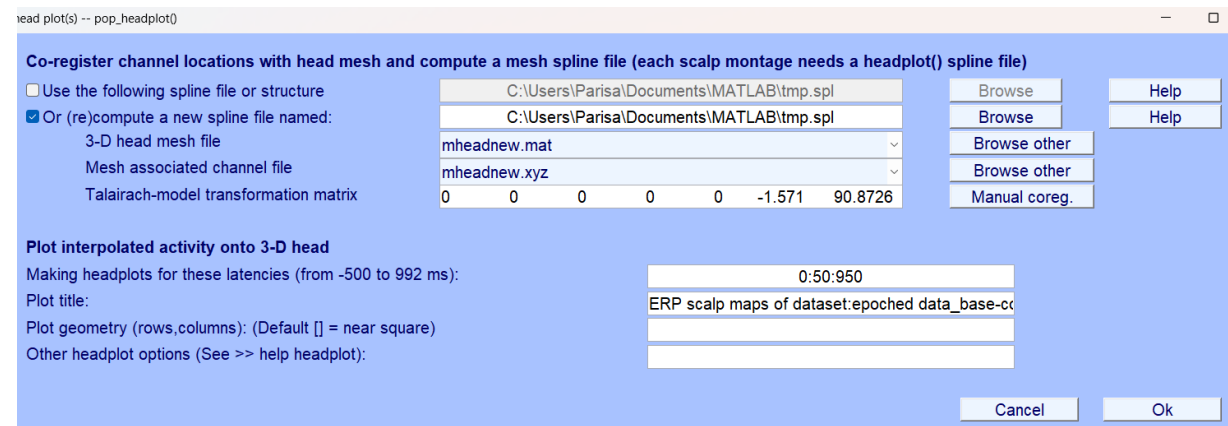
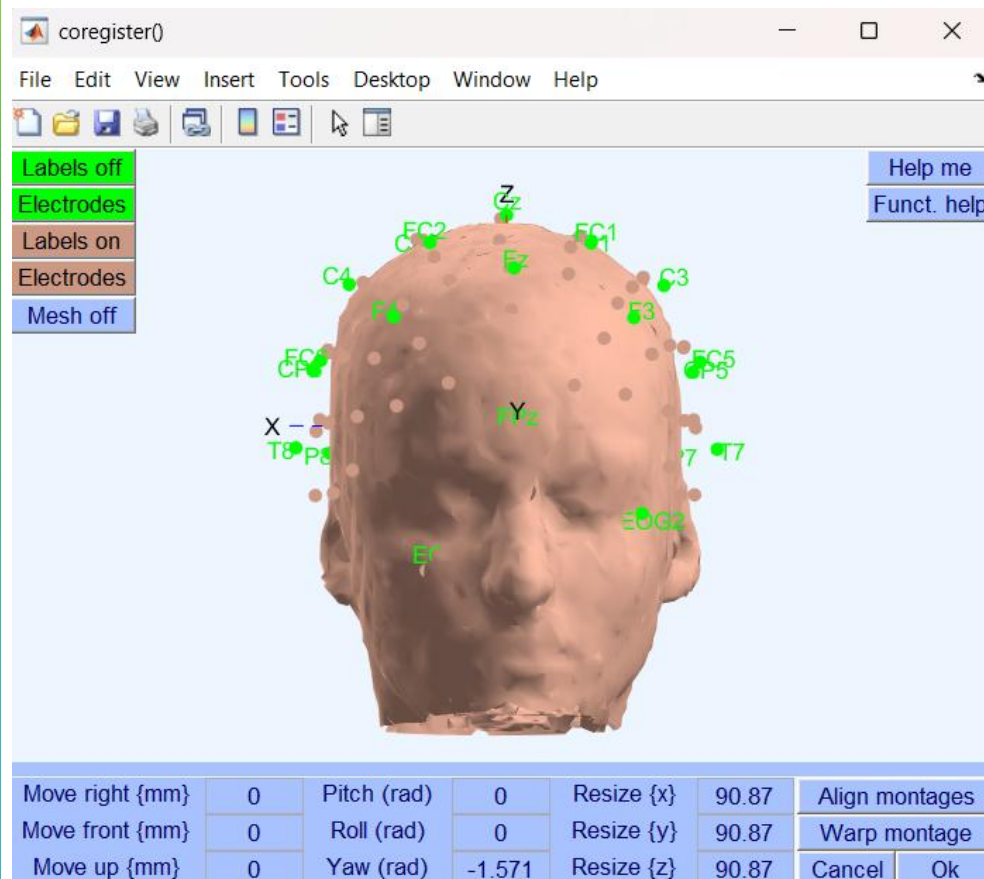


ERP

ERP series



ERP series



ERP

ERP series

