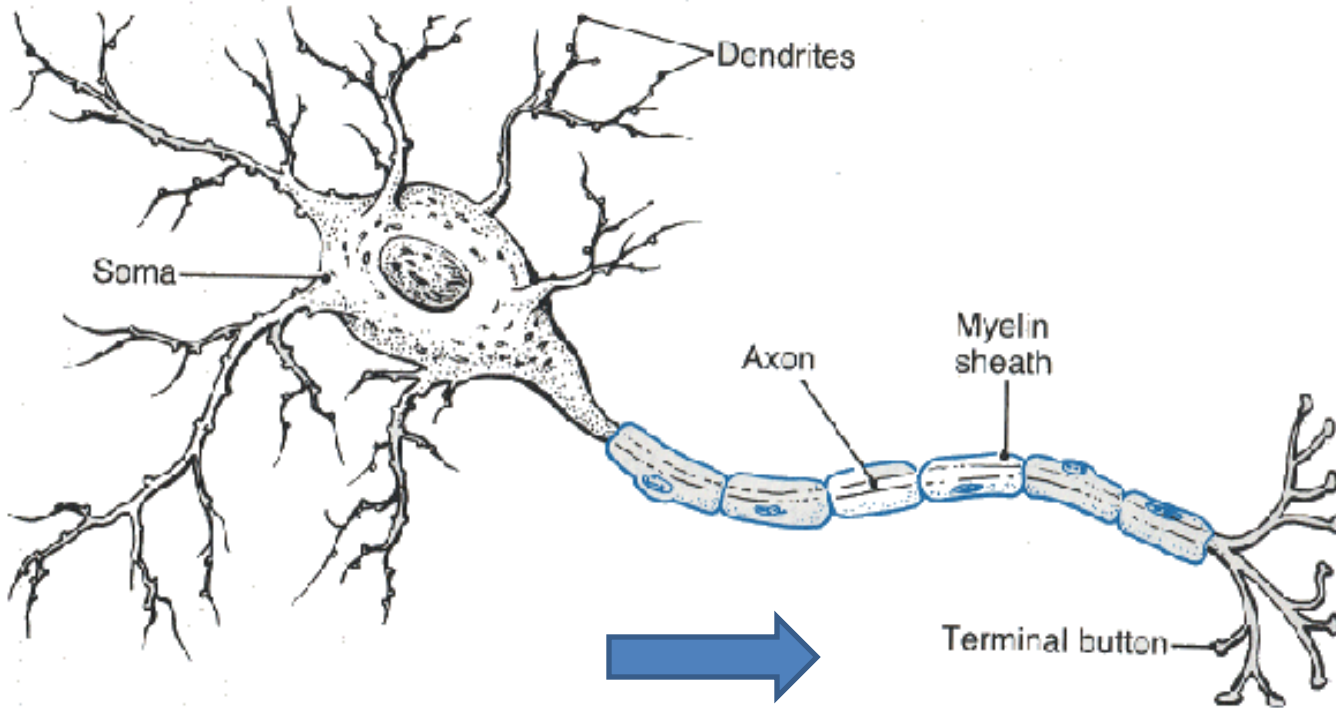


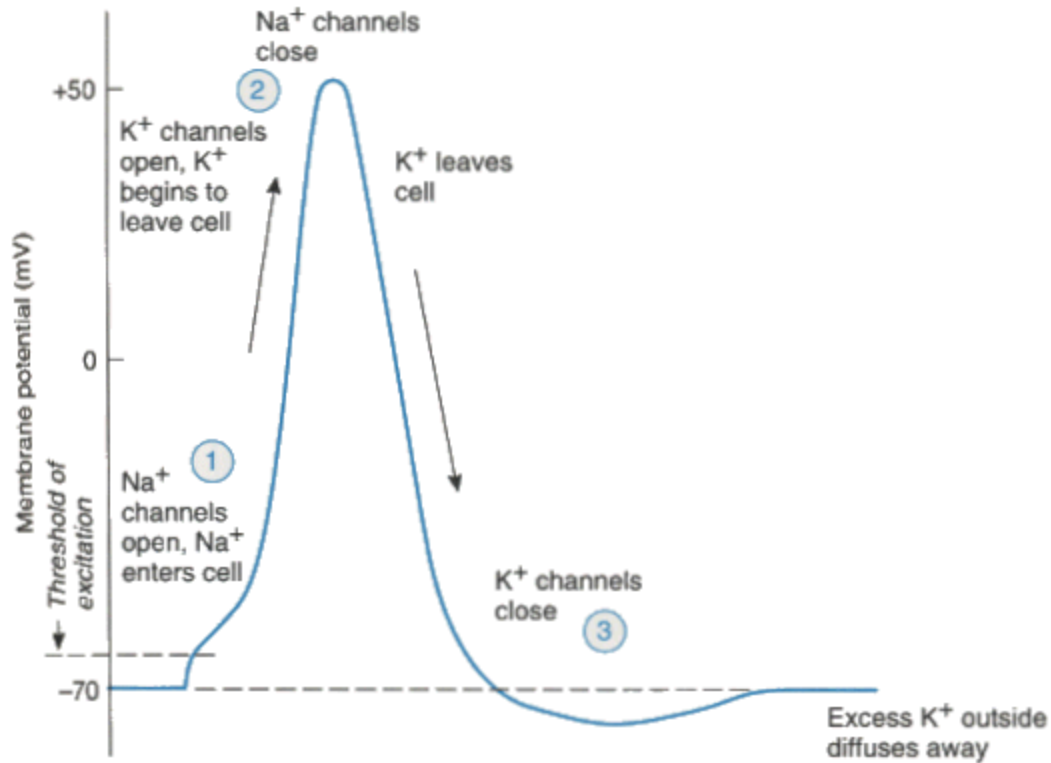
# Electroencephalography (EEG)

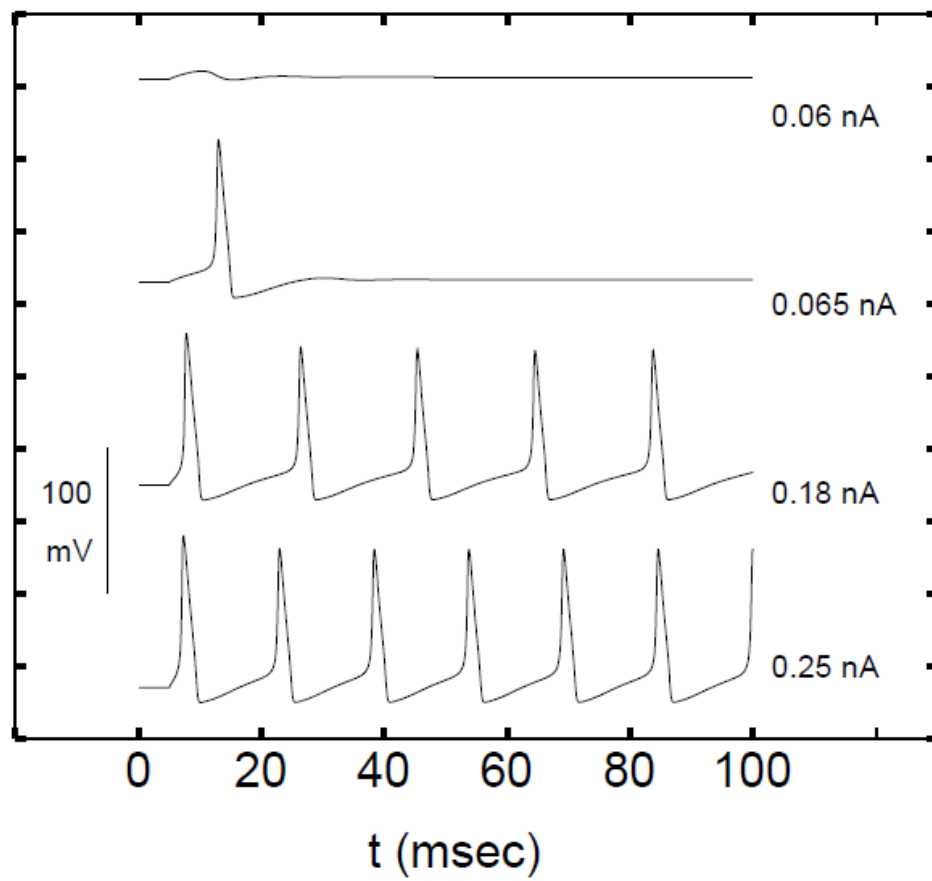
Amanda Spencer

# Neuron

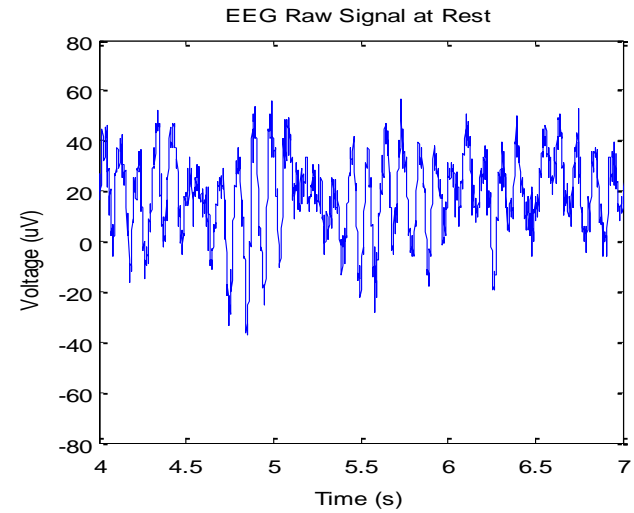
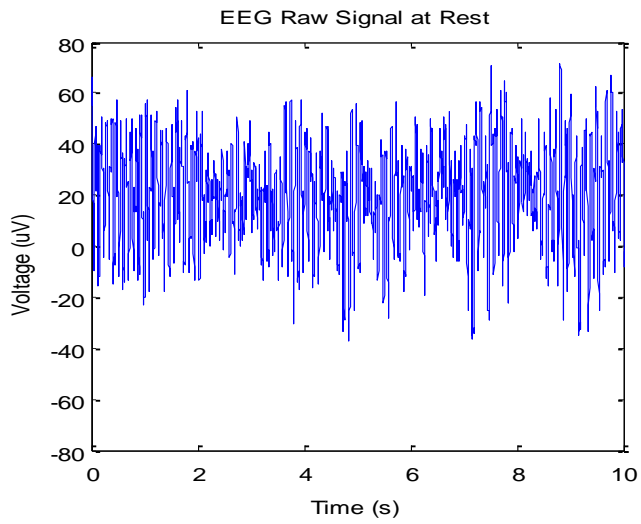


# Action Potential

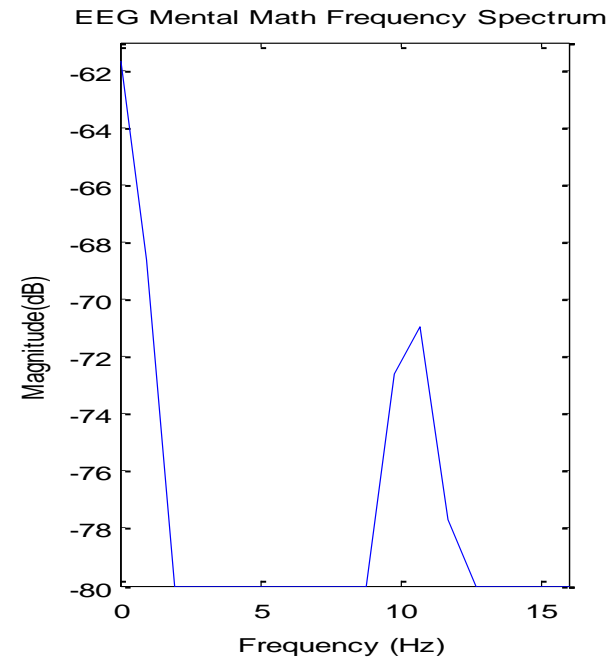
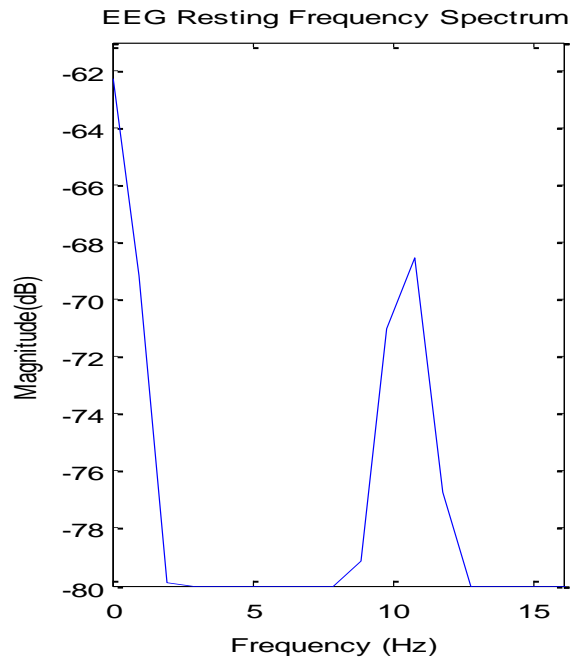




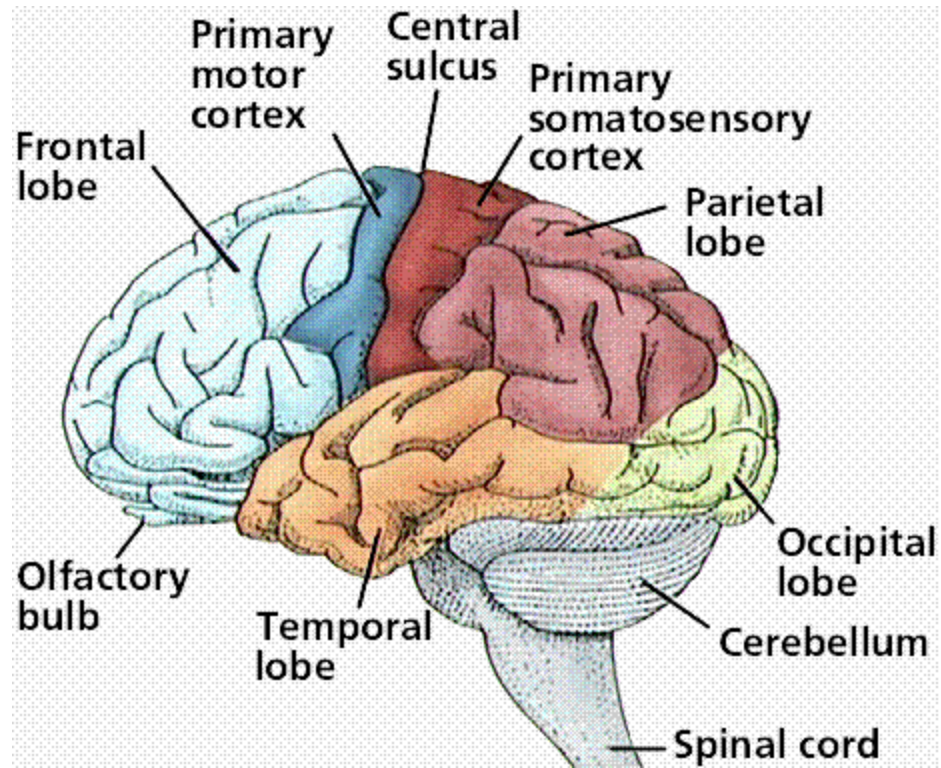
# Raw EEG



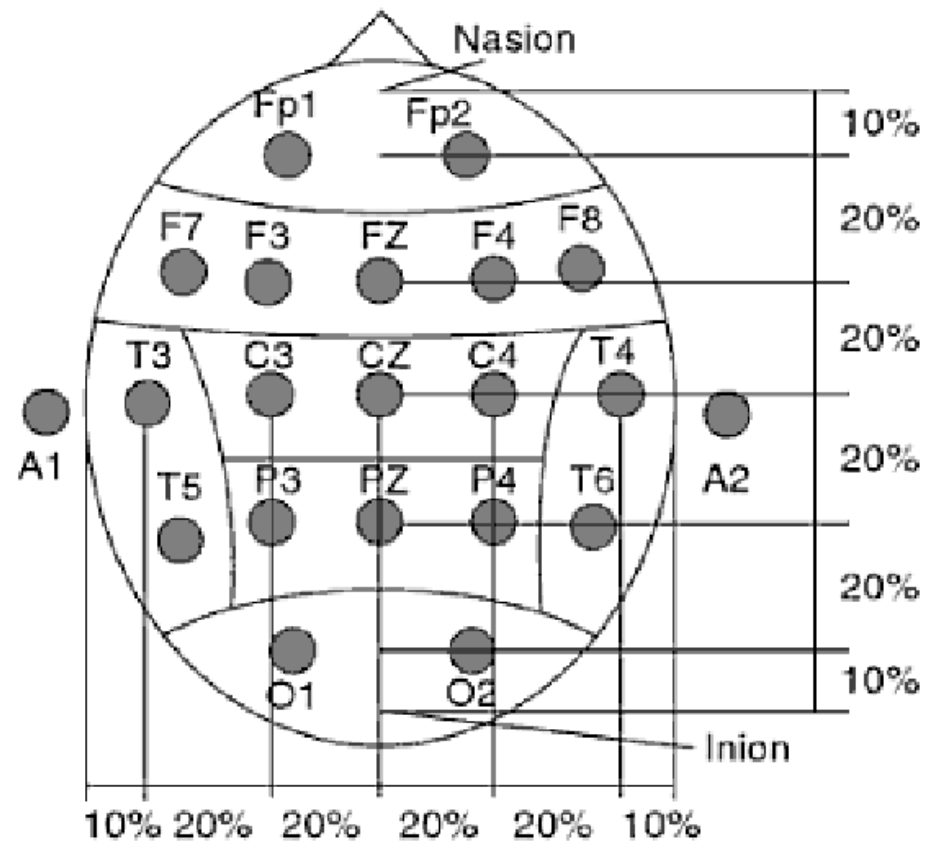
# Frequency Domain



# Areas of the Brain



# Electrode Placement

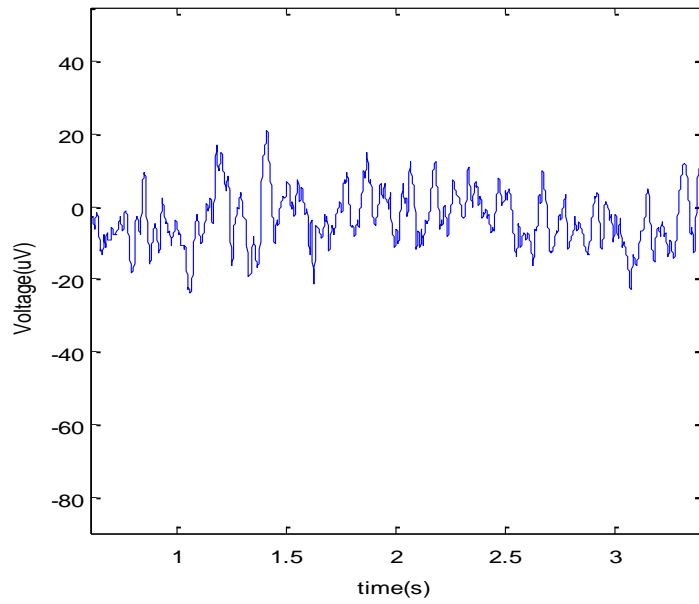




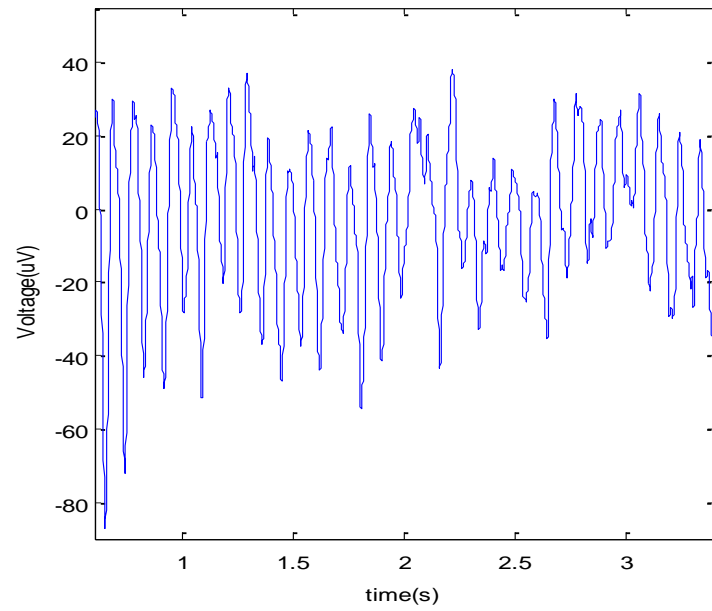
# Typical Waves

<b>Name</b>	<b>Frequencies</b>	<b>Principal characteristics</b>
<b>alpha</b>	8-12 Hz	seen when subject is relaxed with eyes are closed
<b>beta</b>	13+ Hz	seen in frontal during mostly during sleep
<b>theta</b>	4-7 Hz	seen during light sleep
<b>delta</b>	.5-3.5 Hz	seen during deep sleep
<b>mu</b>	7-11 Hz	occur unless inhibited by movement
<b>lambda</b>	Sharp Waves	sometimes occur in response to visual stimulation

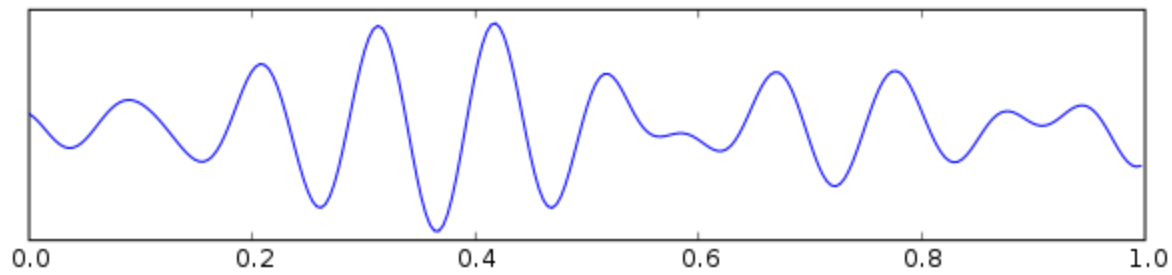
EEG Raw Data Eyes Open



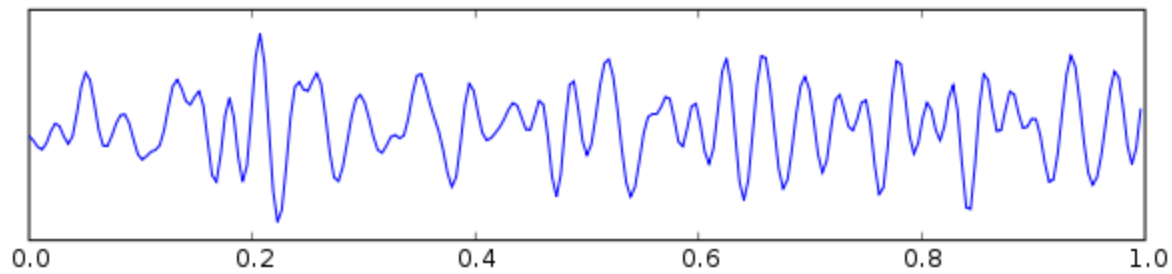
EEG Raw Data Eyes Closed



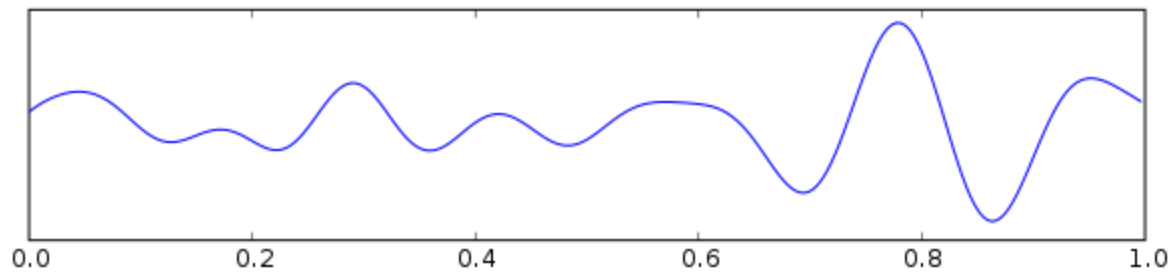
alpha



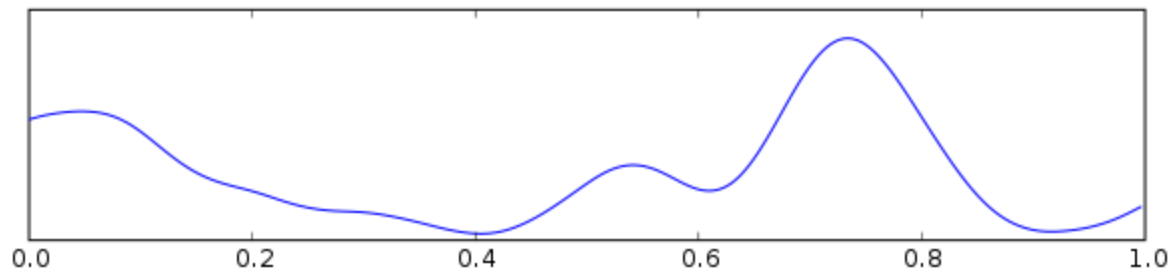
beta



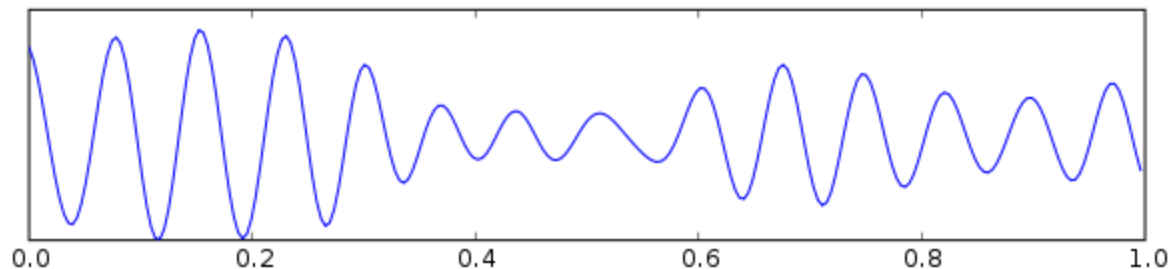
theta



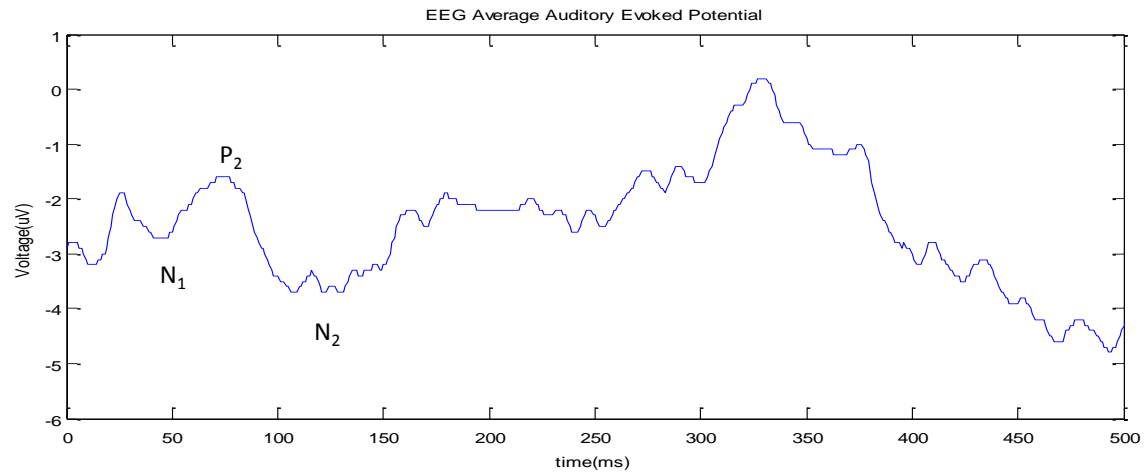
delta



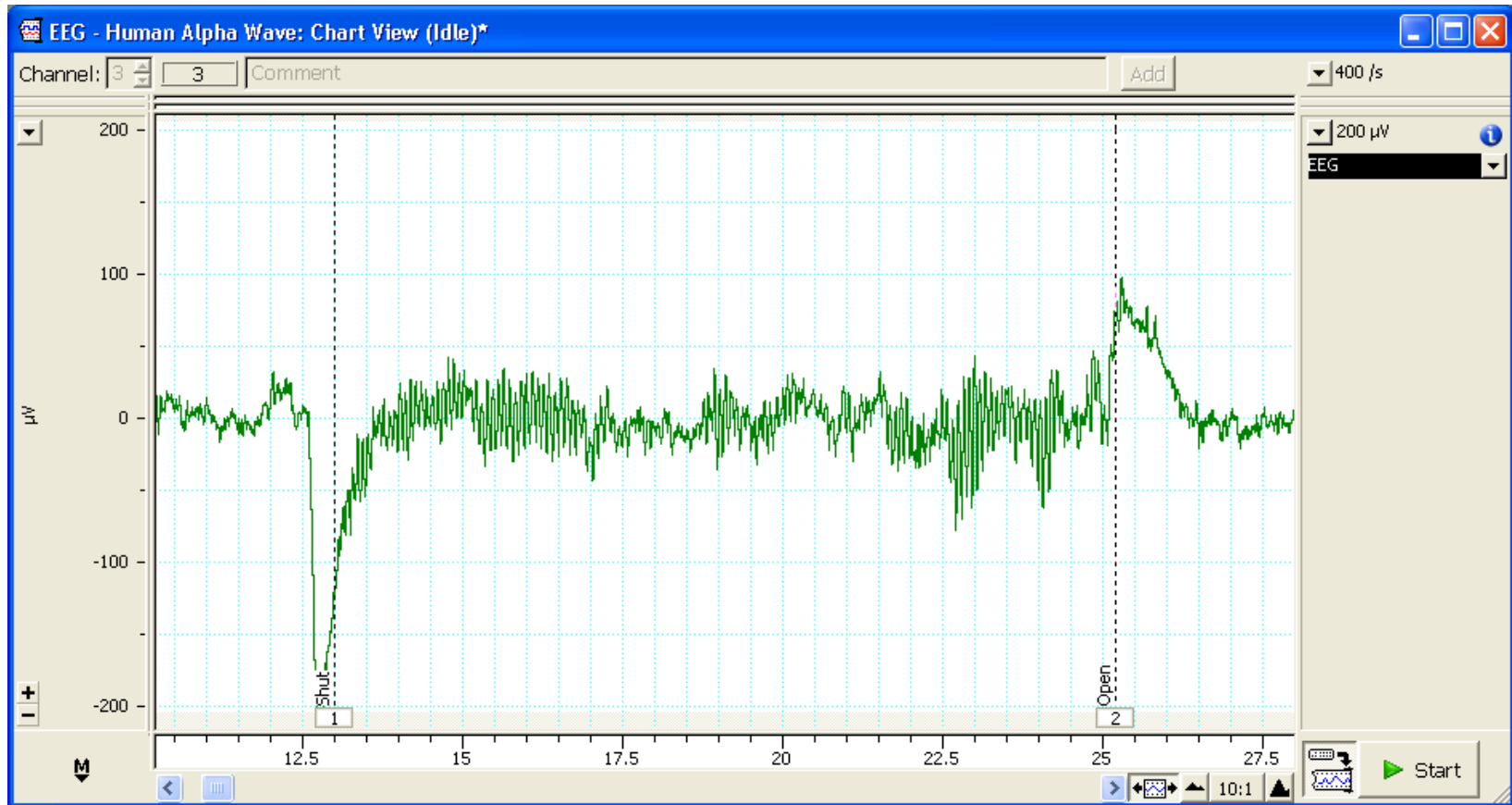
mu



# Evoked Potentials

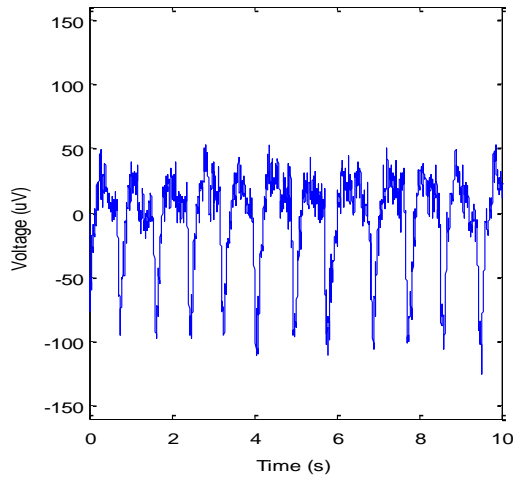


# Artifacts

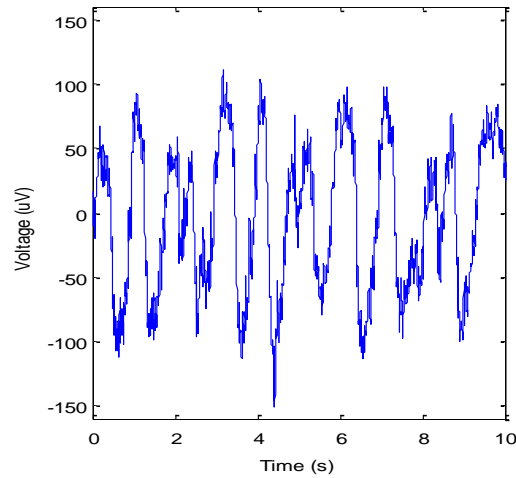


# Artifacts

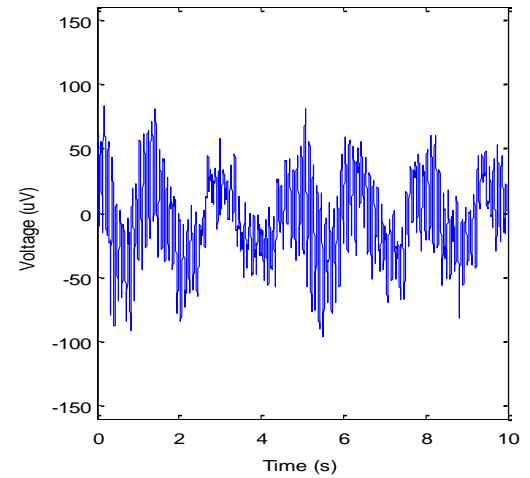
EEG Eye Blink Artifacts



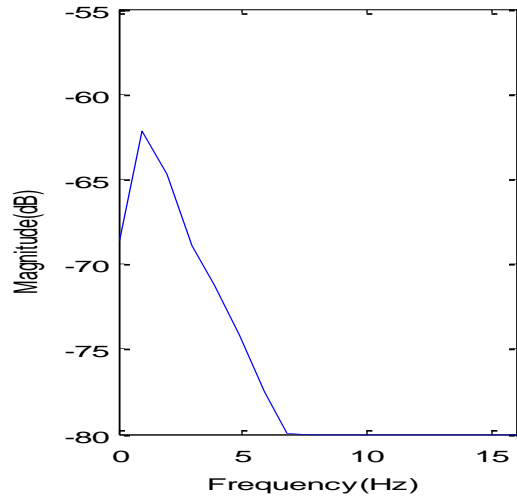
EEG Eye Movement Artifacts



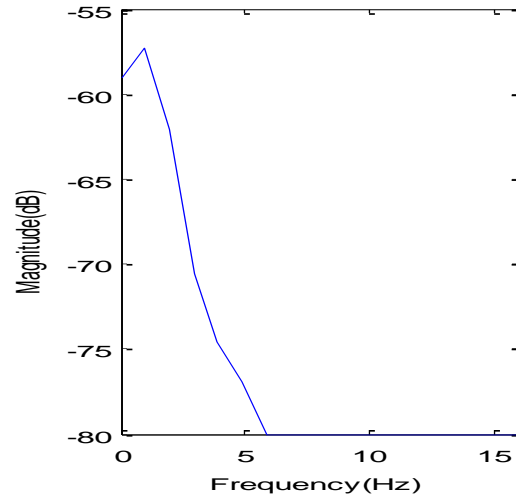
EEG Head Movement Artifacts



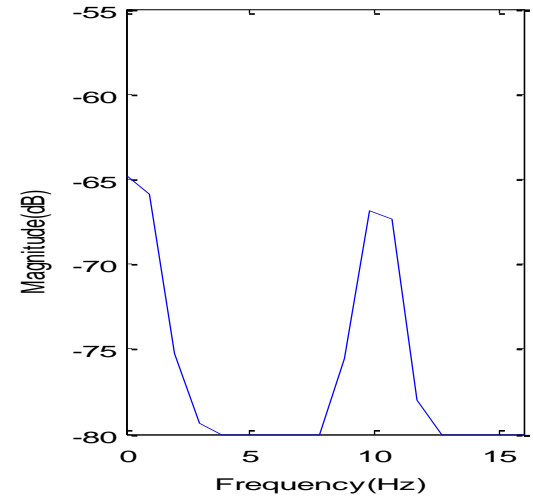
Spectra of Eye Blinks



Spectra of Eye Movements



Spectra of Head Movements



# Montages

- Reference (ear)
- Bipolar
- Common Average
- Laplacian
  - Small
  - Large

