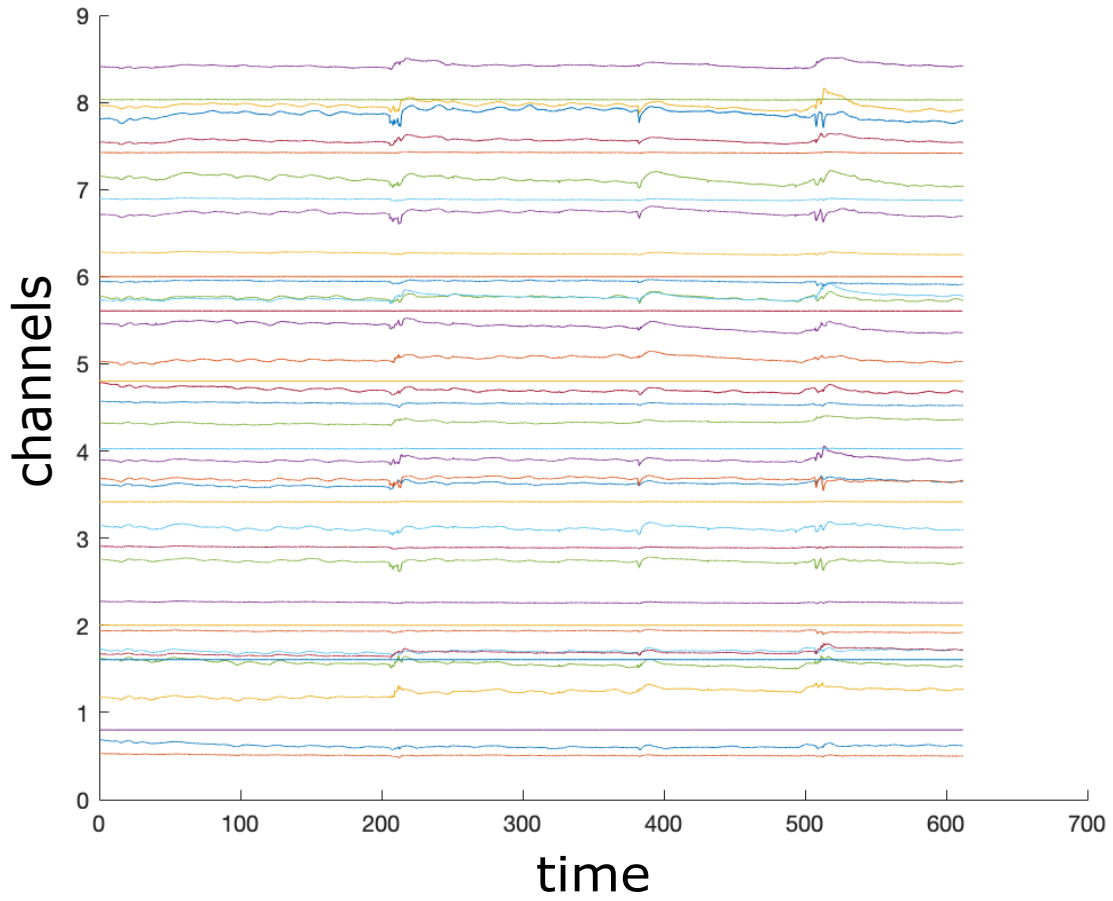
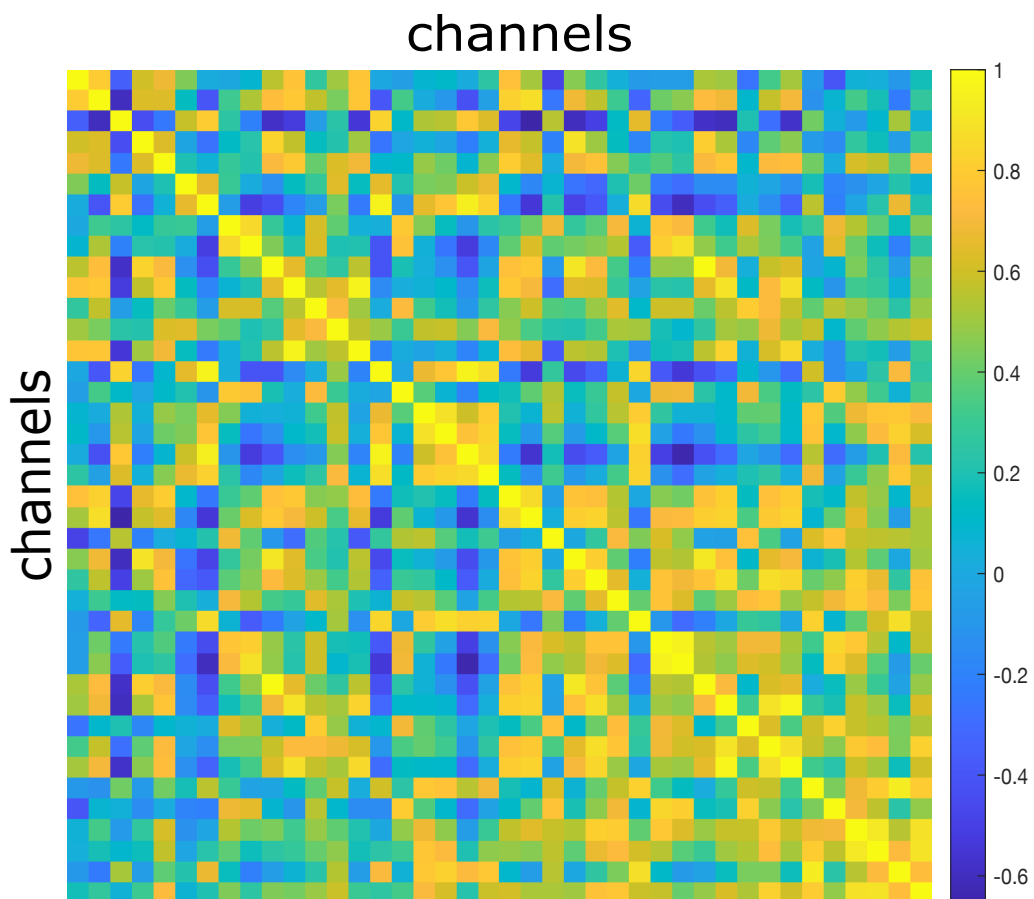


Appendix 1. An overview of an example dataset at every processing stage. This figure includes a representative dataset from one participant. Each plot in the “Time Courses” panel represents the time series at that stage of preprocessing. Note that before HbO and HbR calculations, each channel’s data is comprised of 2 wavelengths (760 and 850 nm) that are plotted separately. After HbO and HbR concentrations are calculated, each channel’s data is comprised of HbO and HbR concentrations that are also plotted separately. Once HbO and HbR signals are combined to calculate HbT, each channel is reduced to a single trace. Under the “Correlations Plots” panel, we have calculated a correlation matrix at every stage (separately for each segment when more than one segment is present) to explore how the relationship between channels changes at every stage of preprocessing.

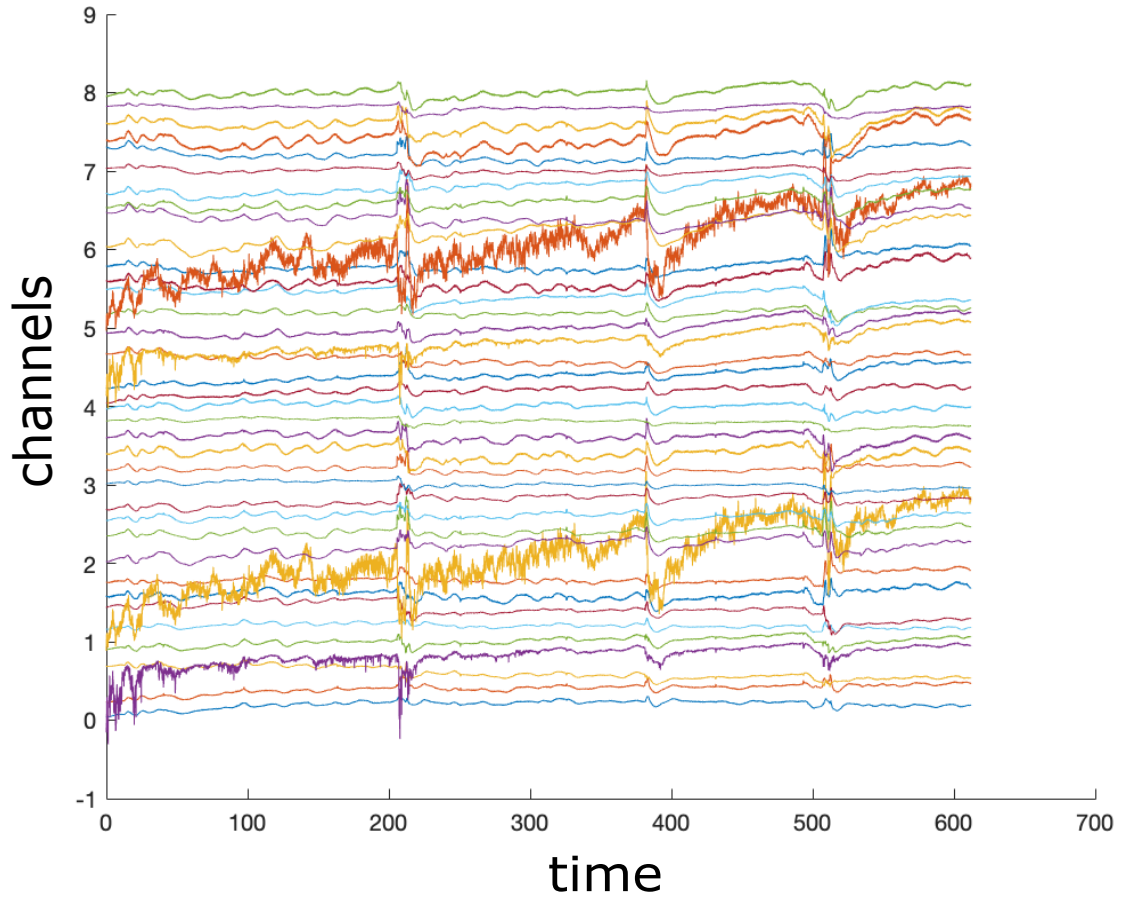
Raw



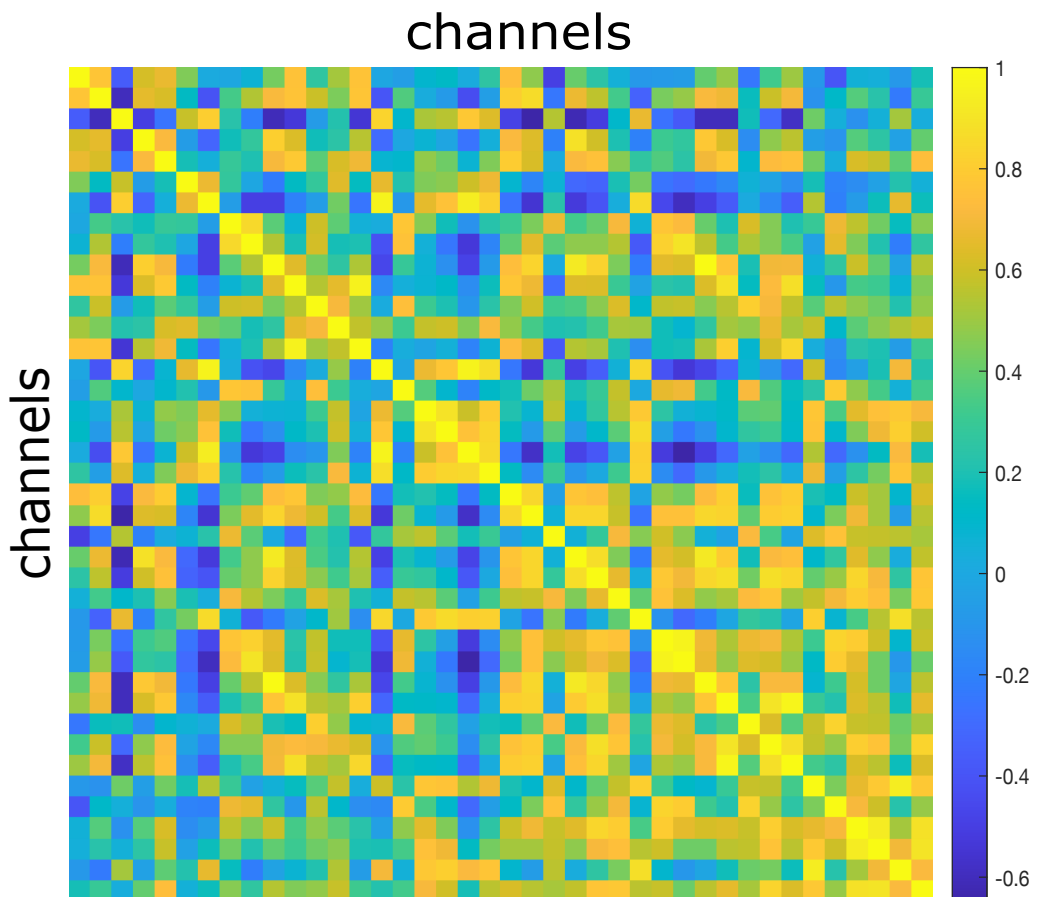
Correlation Plots



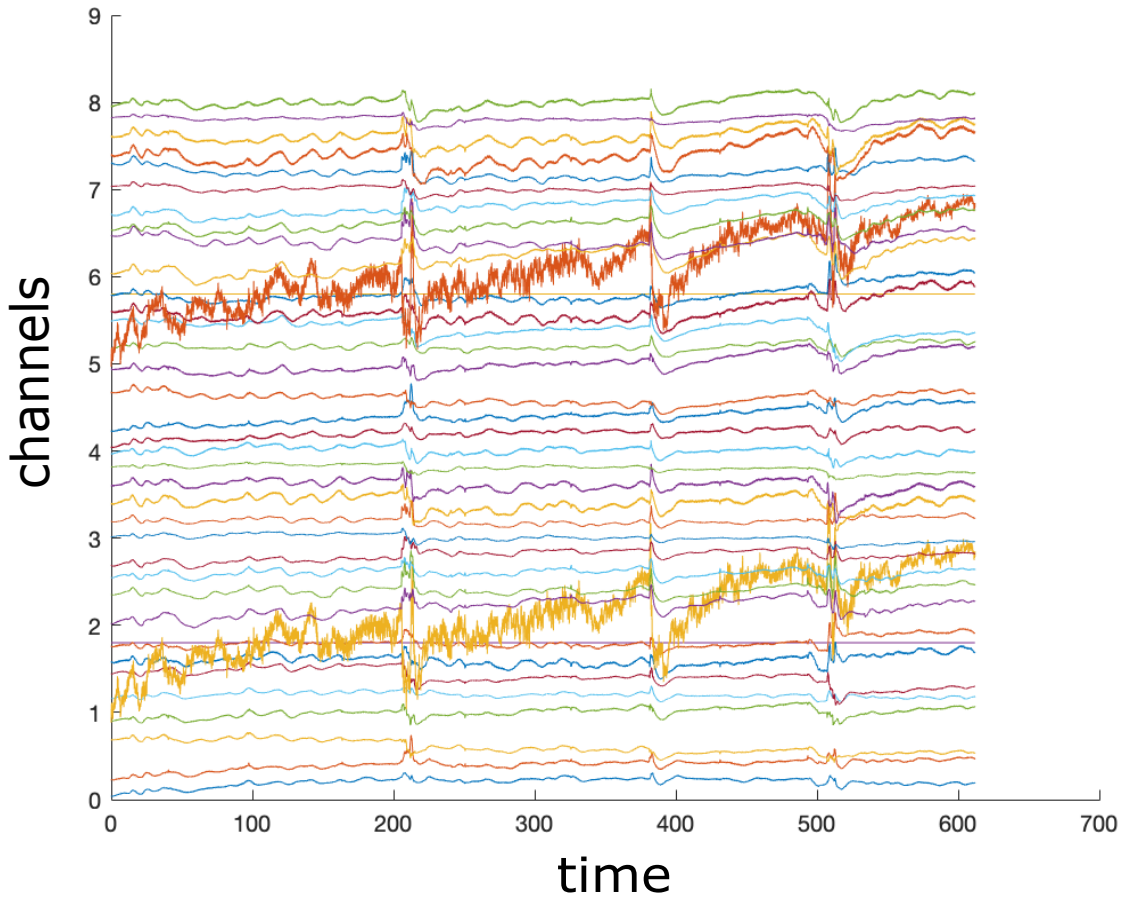
Optical Density



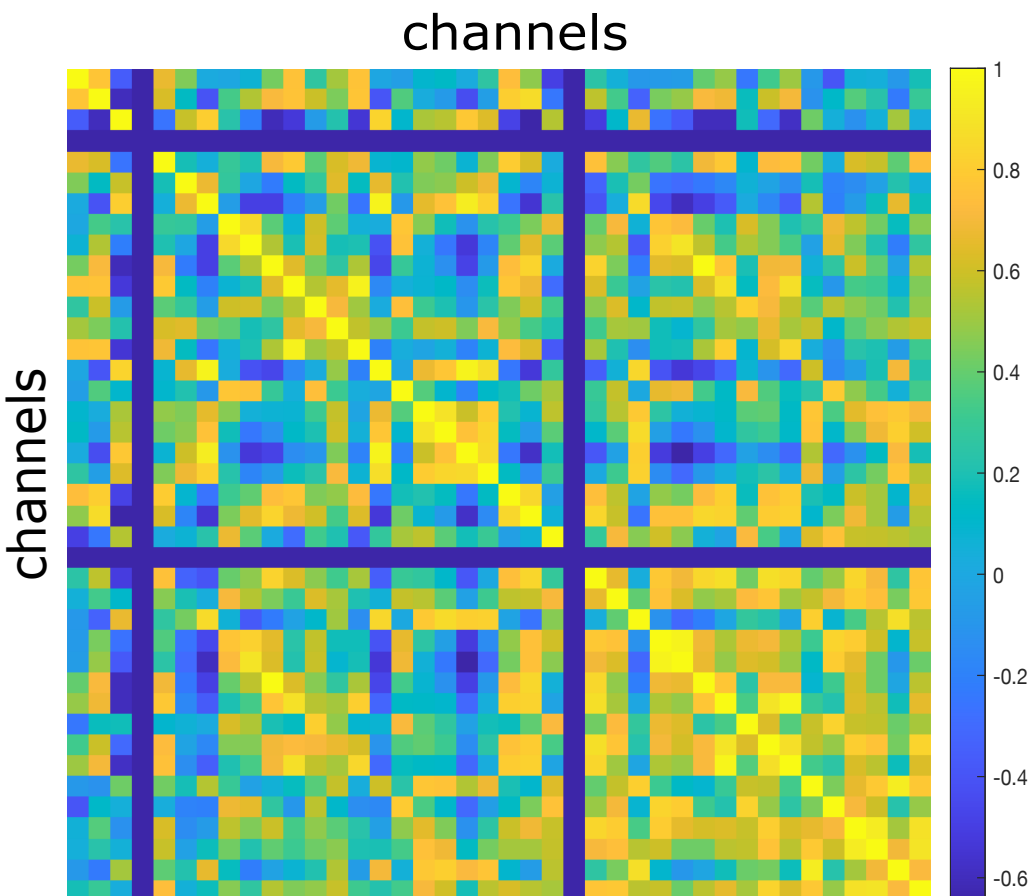
Correlation Plots



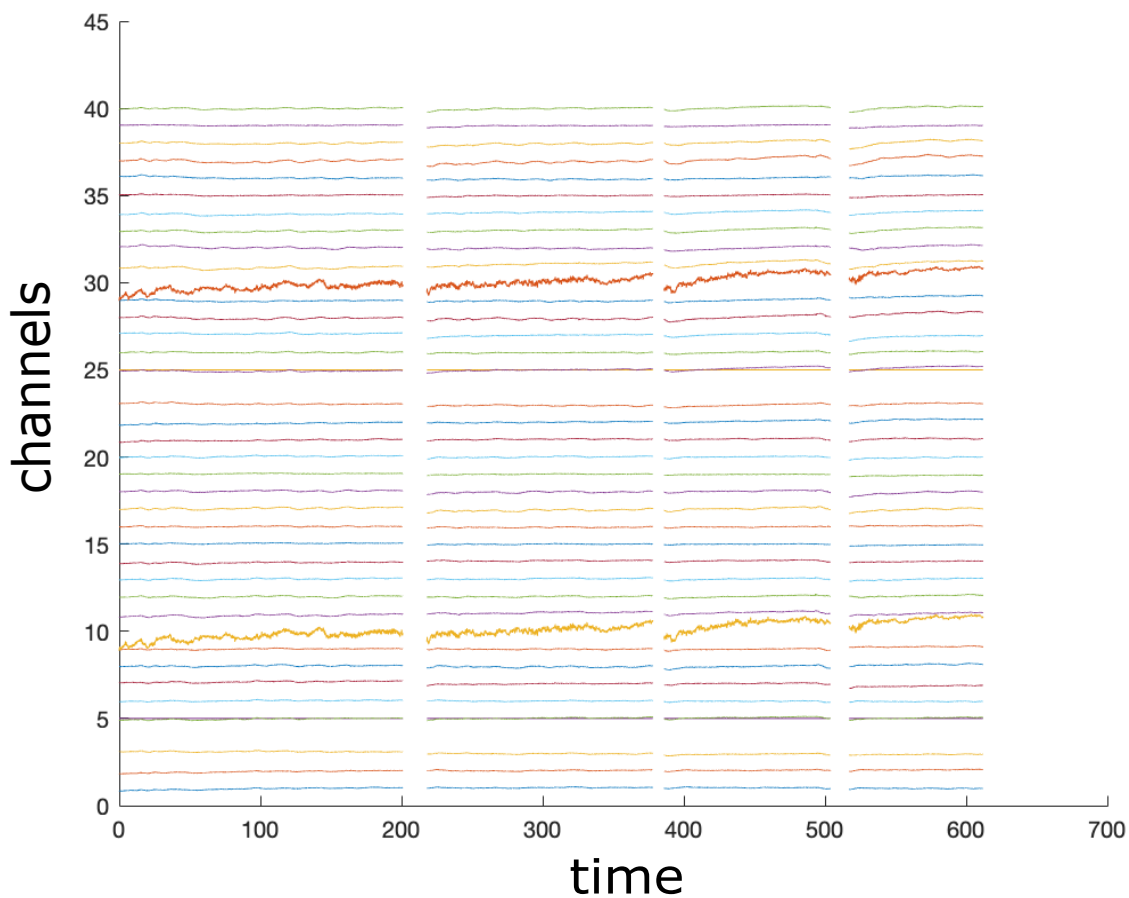
Remove Channels Without Cardiac



Correlation Plots

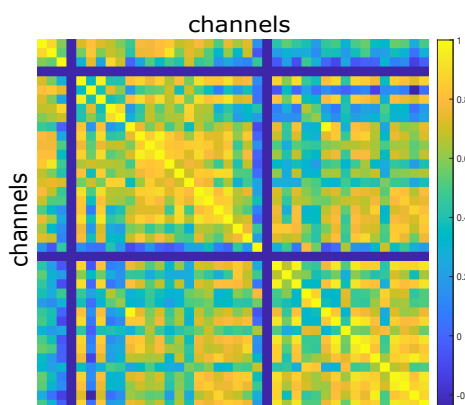


Segmentation

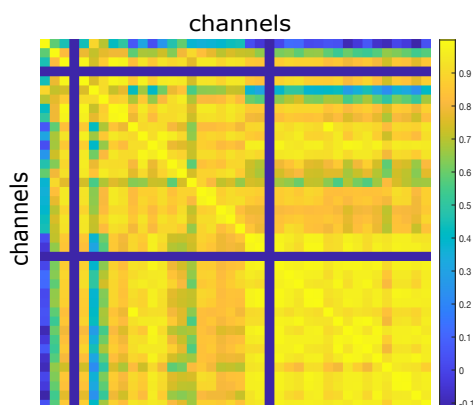


Correlation Plots

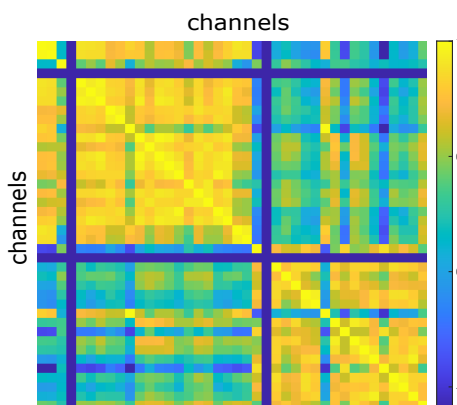
Segment 1



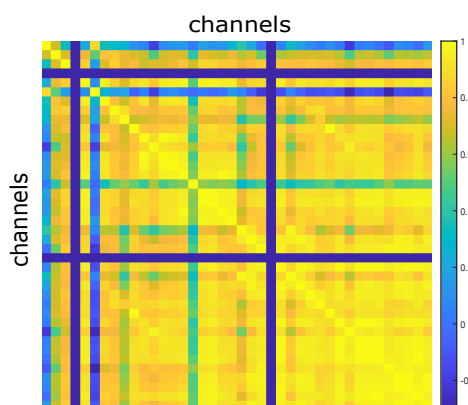
Segment 3



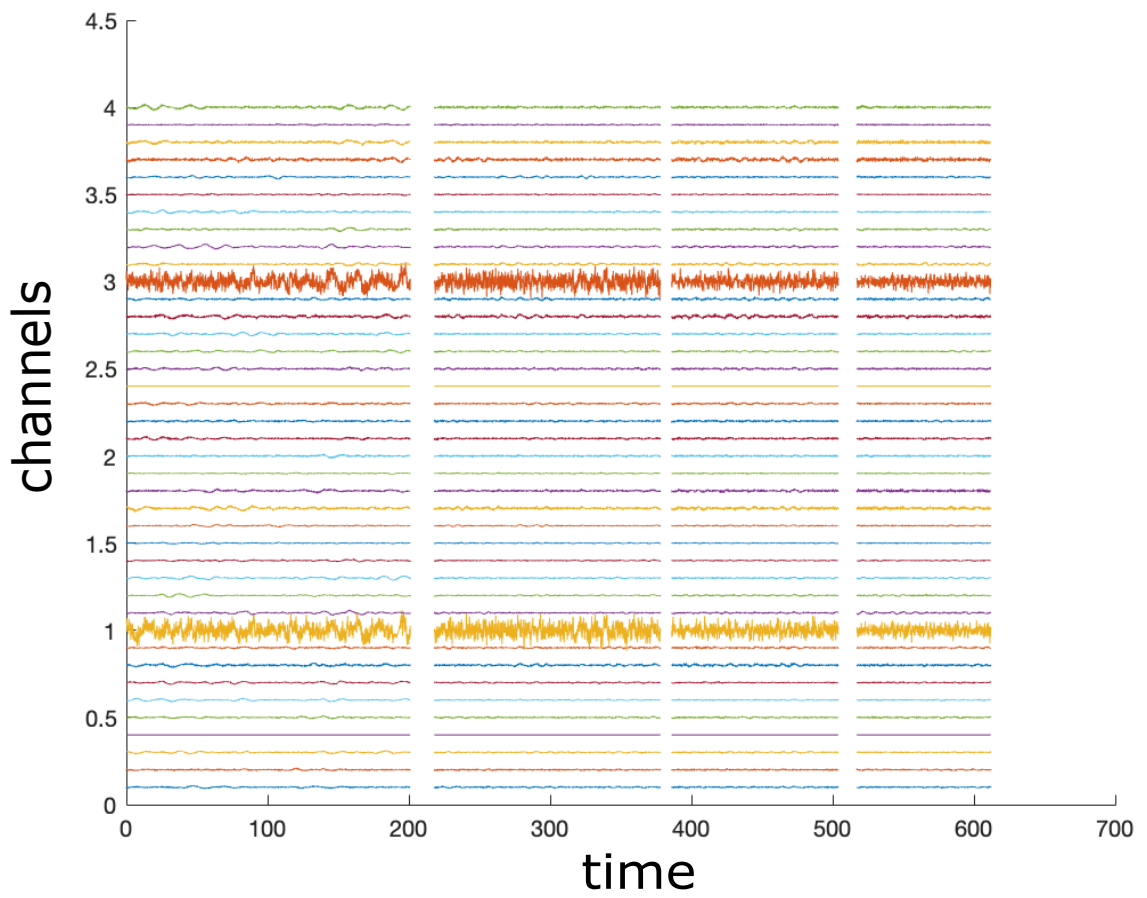
Segment 2



Segment 4

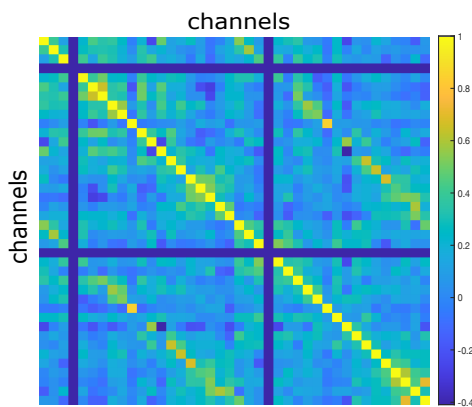


Wavelet Filter

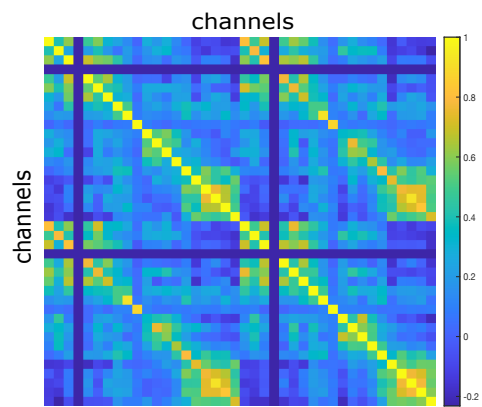


Correlation Plots

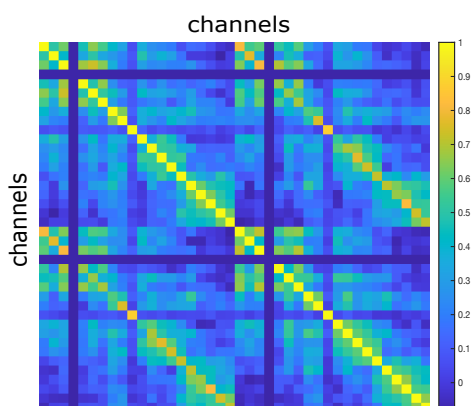
Segment 1



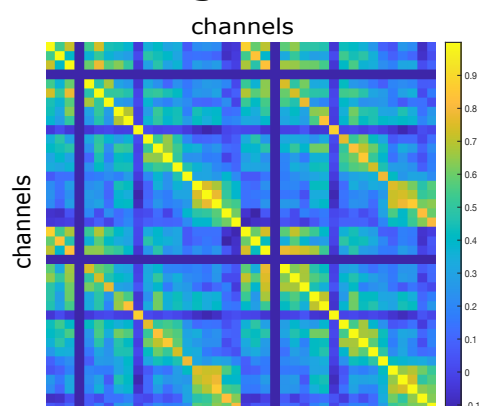
Segment 3



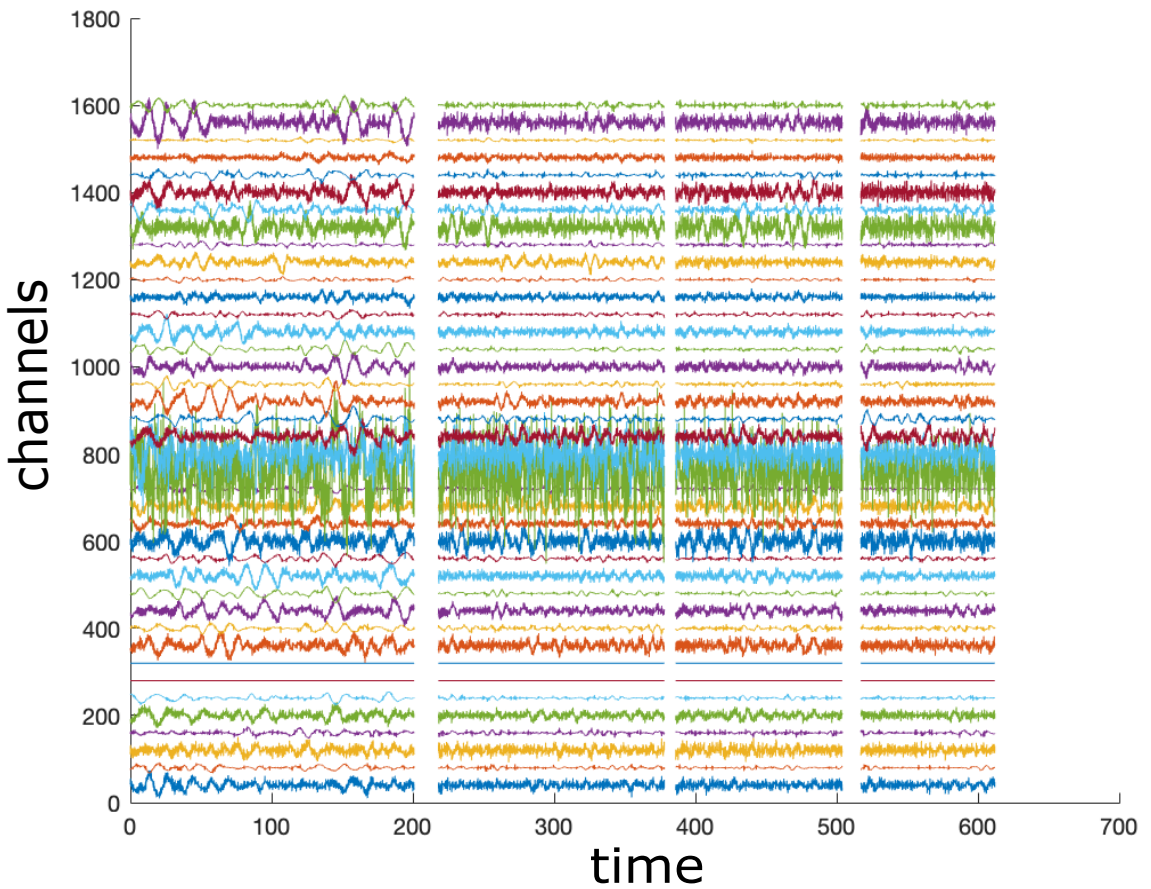
Segment 2



Segment 4

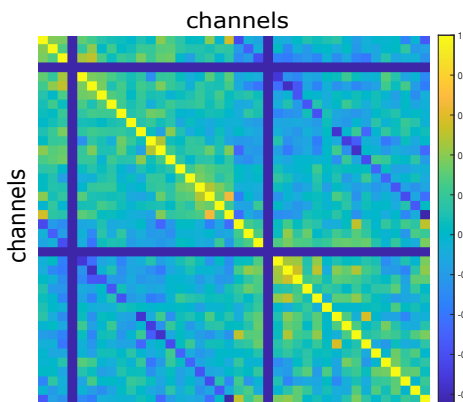


HbO and HbR

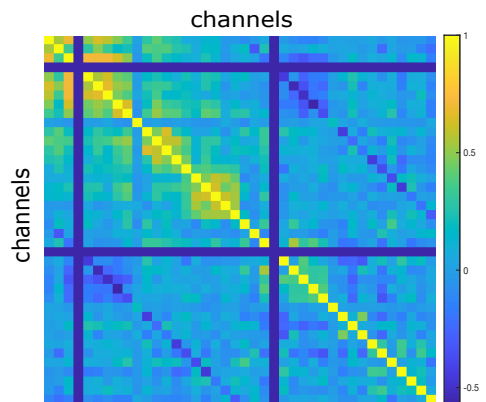


Correlation Plots

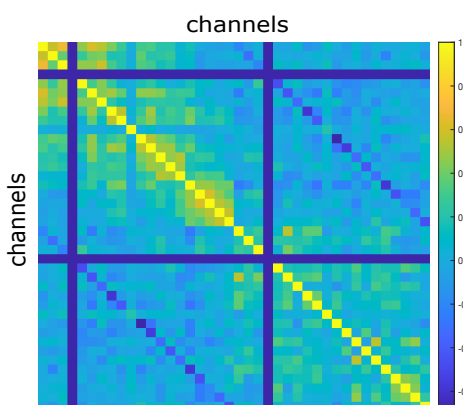
Segment 1



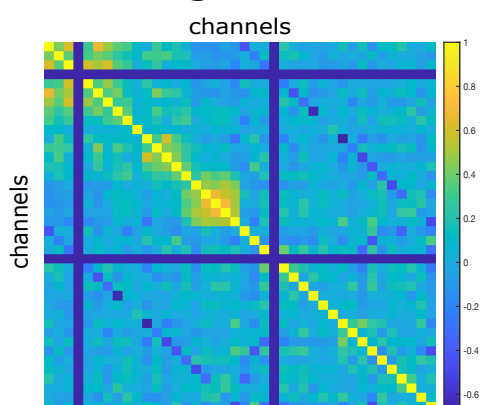
Segment 3



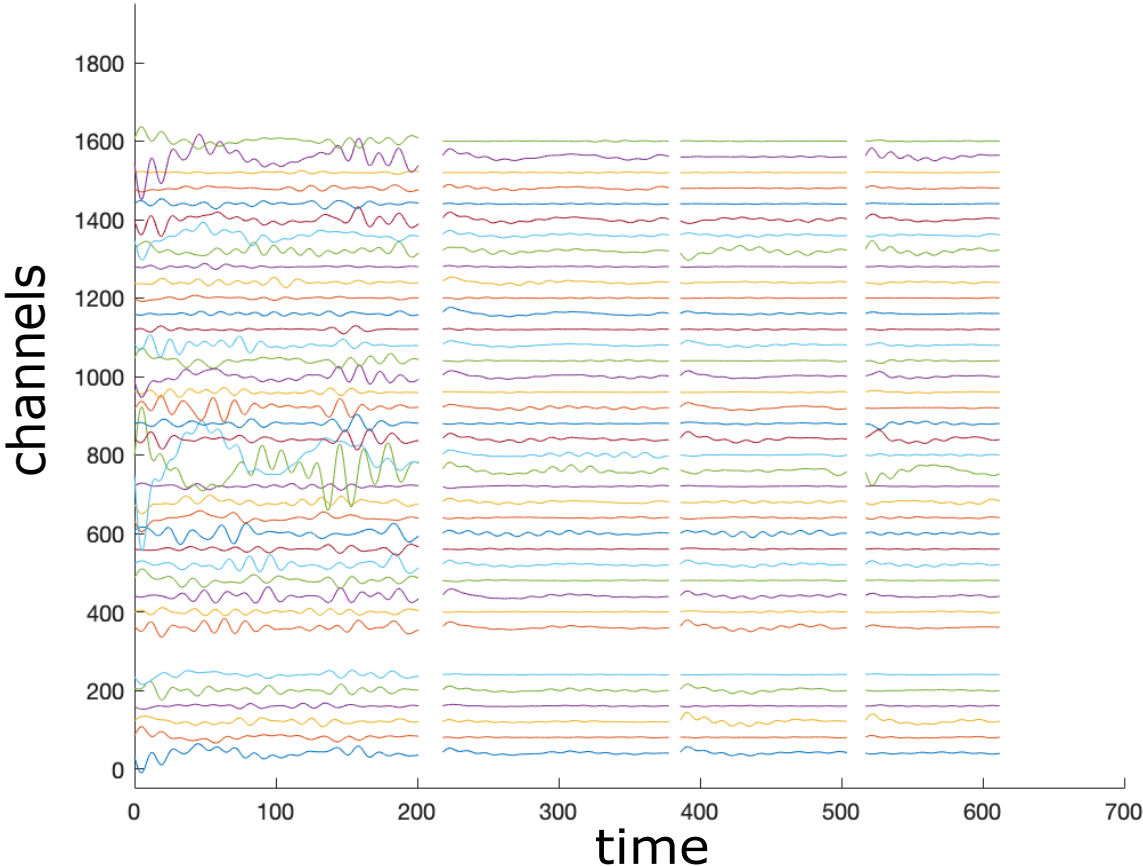
Segment 2



Segment 4

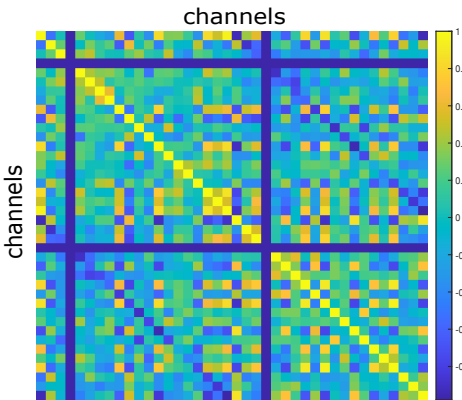


Bandpass Filter

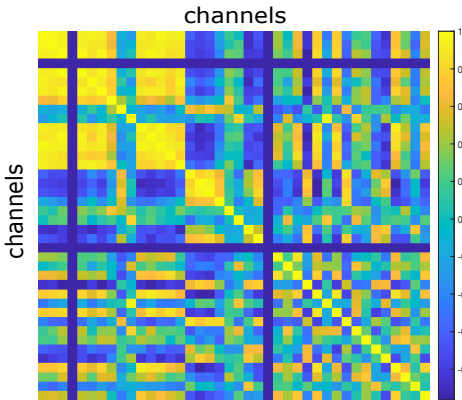


Correlation Plots

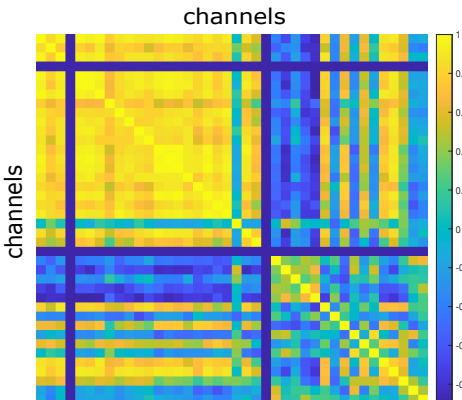
Segment 1



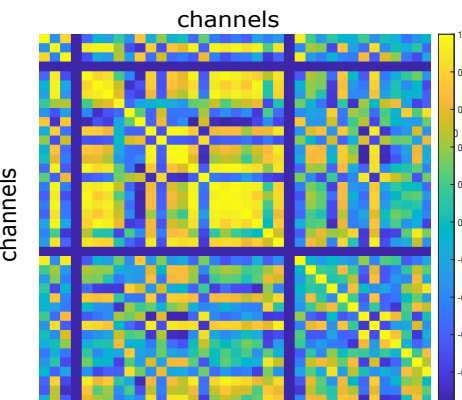
Segment 3



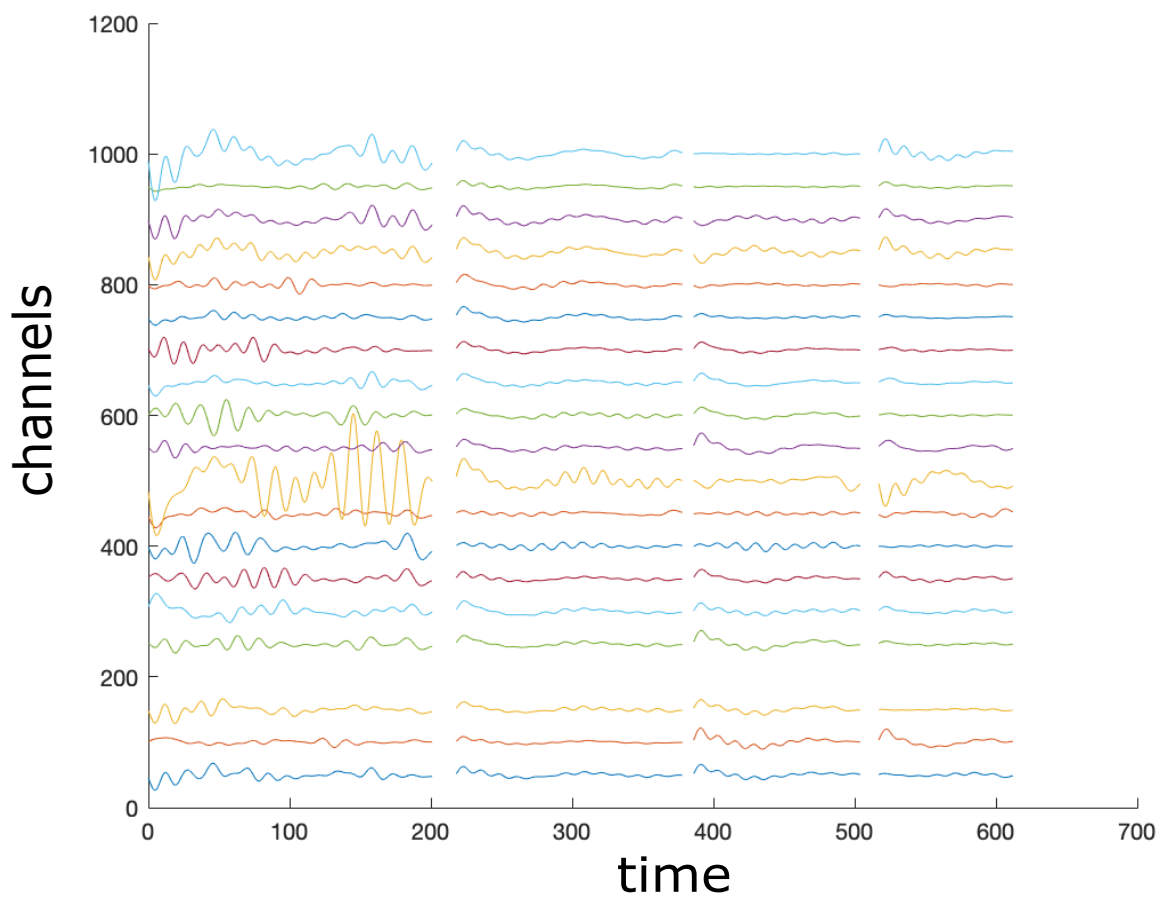
Segment 2



Segment 4

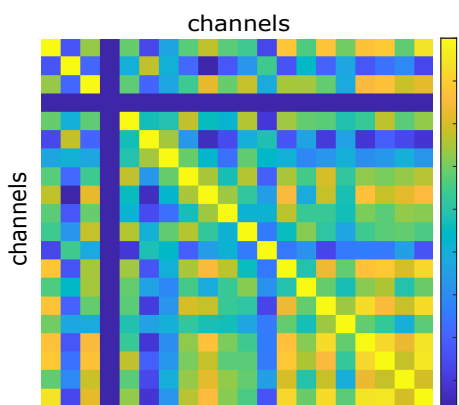


HbT

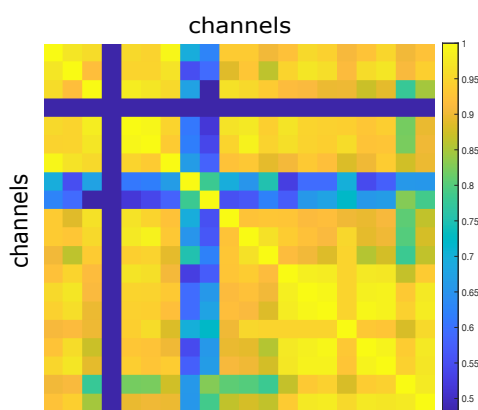


Correlation Plots

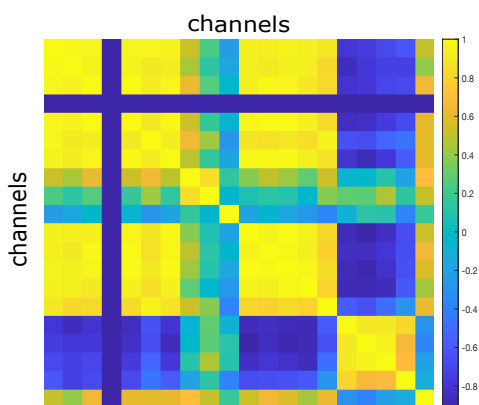
Segment 1



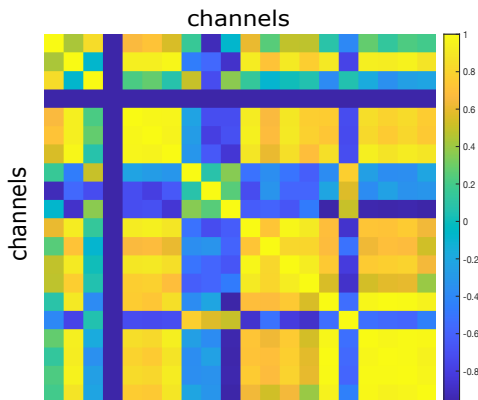
Segment 2



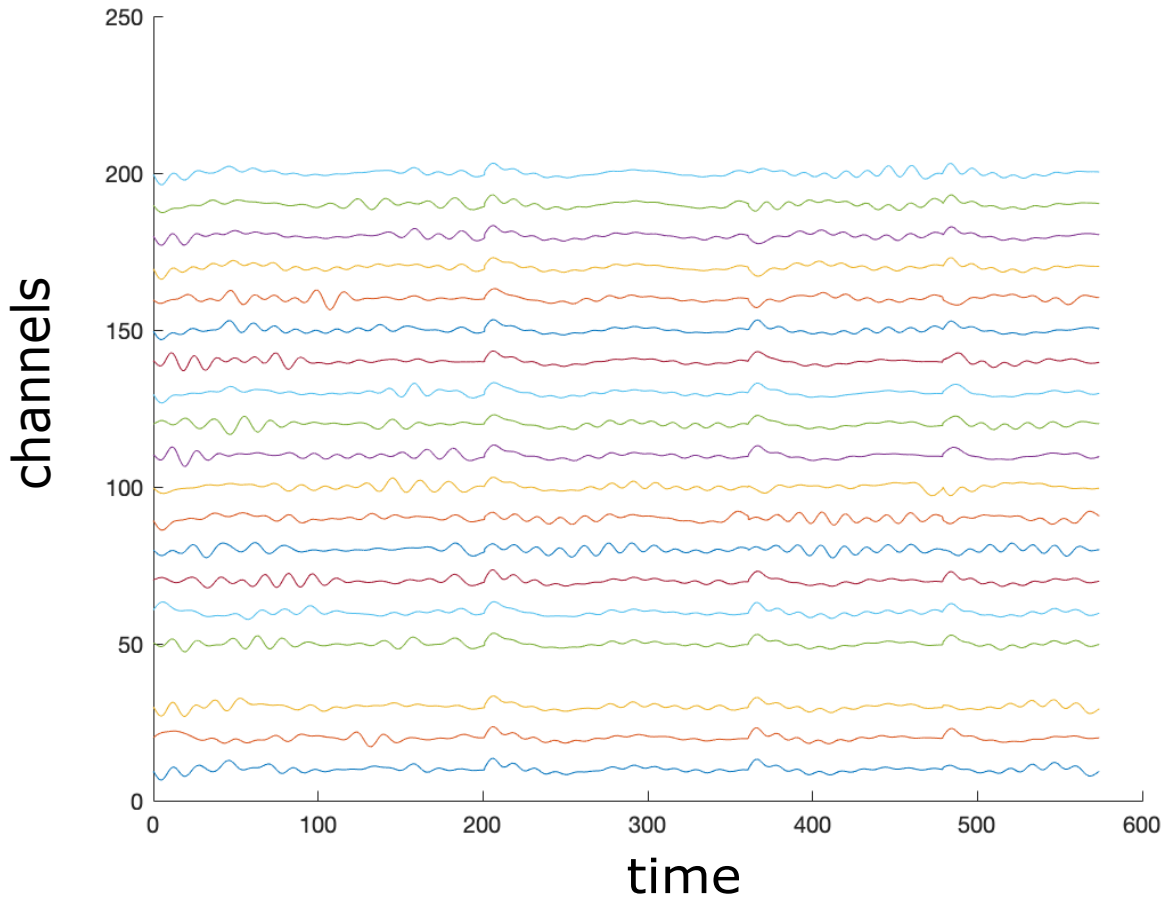
Segment 3



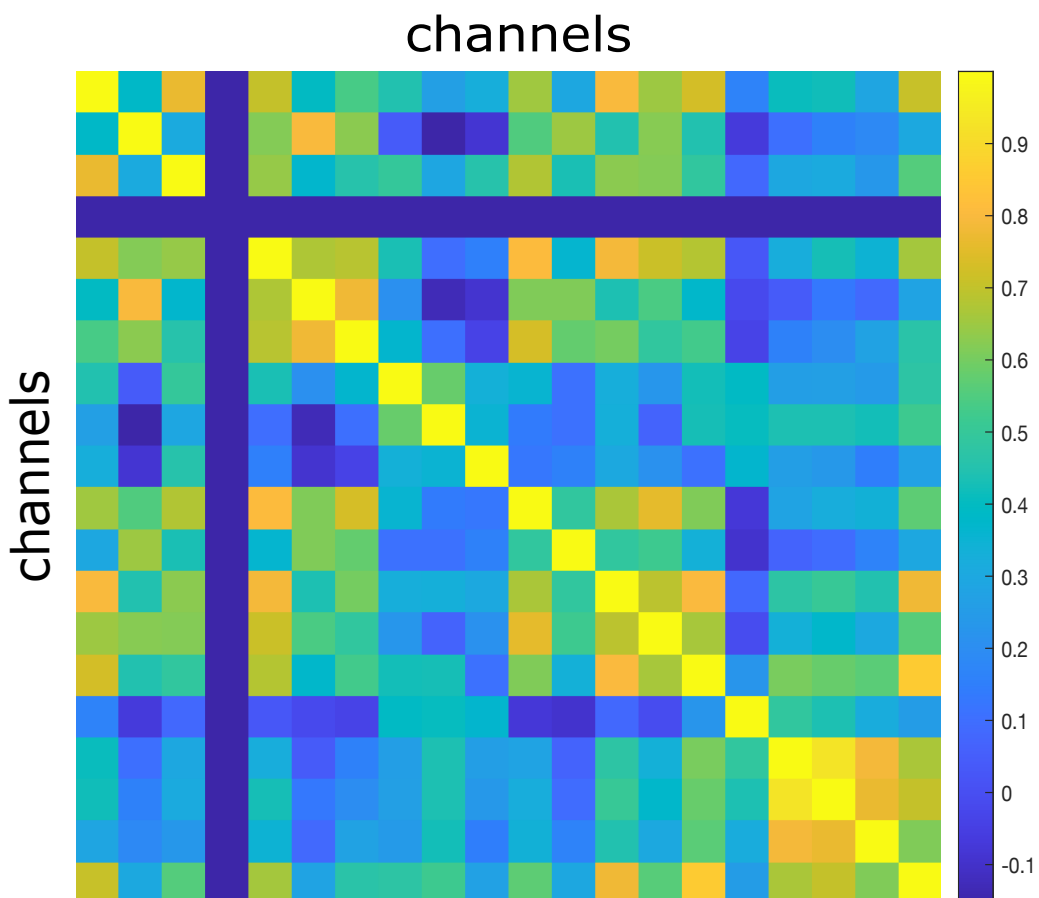
Segment 4



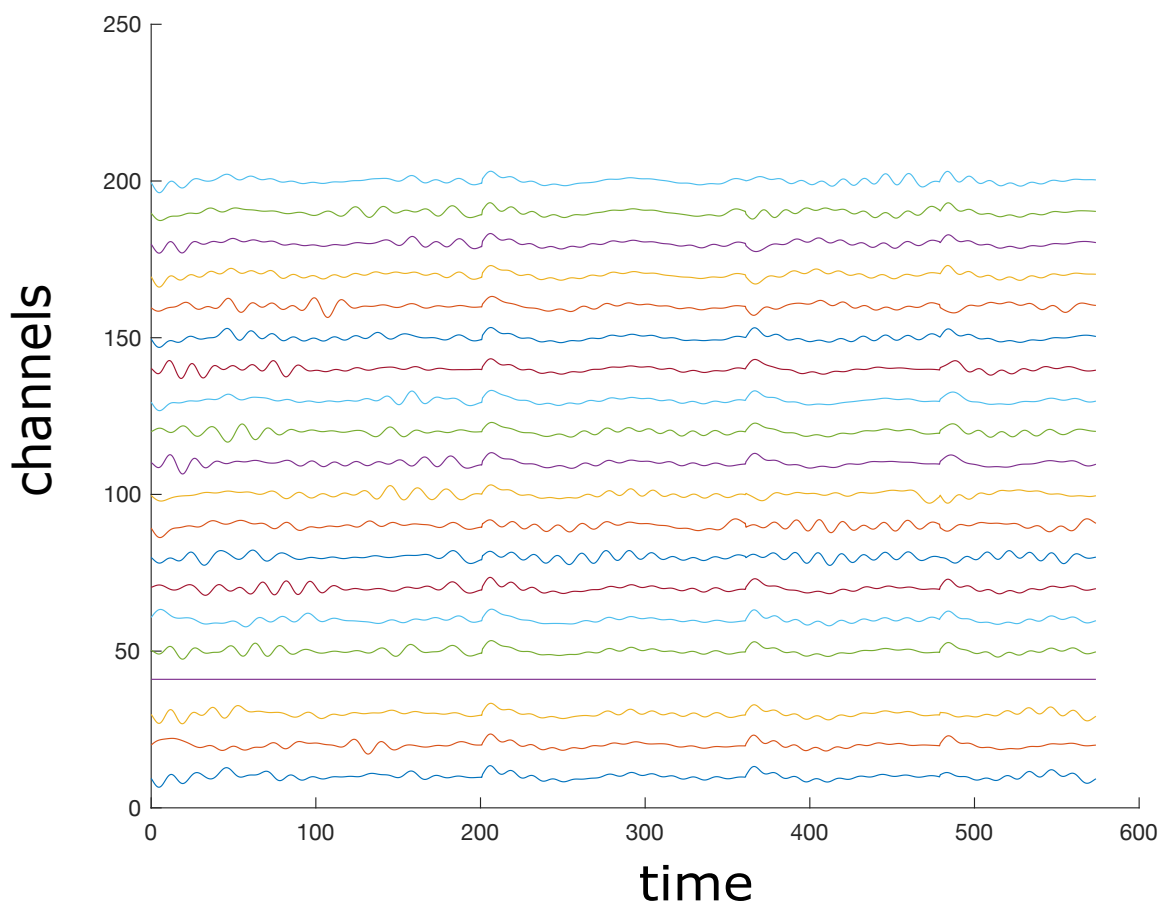
Merge Segments



Correlation Plots



Resample



Correlation Plots

