Exo 15.03.18

We have 16 signals > spatial filtering

First filtering done by the amplifier: referencing

—> take the reference electrode and each channel is referenced to this electrode

—> data we have are already referenced

Second filtering

Common averaging reference (CAR)

—> can be applied per time point, we just need a snapchat of all channels in a time point (time independent)

We take average of all electrodes and subtract the average of each electrode

Small or Large Laplacian

You take some electrode that are around the electrode of interest > 0.25 coefficient to the neighbor —> weighted average and subtract it from the center

—> small : if u want to highlight the activity of a specific…

—> depend on the population of electrodes

Have a look on the laplacian.mat file (square matrix 16x16)

Idea is to : use the matrix multiplication

CAR: remove common activity that is spread over the whole scalp.

—> histoire d'artefact

Topoplot : discarding the temporal info 🡪 only the spatial or spectral dimension

Function on toolbox eeglab 🡪 download it and add It on your project.

Accept 2 arguments : value you want to plot + the channel location (position of the channel given the …of the cap we were using) 🡪 location are in the common folder on moodle “Channel Location 16 10 20 ”

Documentations of the topoplot