HBN – warmup project (SAB2)

Week 3 (April 21 – 28)

① "A resource ....." → To understand preprocessing on HBN

https://www.notion.so/A-resource-for-assessing-information-processing-in-the-developing-brain-using-EEG-and-eye-tracking-e49bbbcbb26645f88ca7a2f92ea7882c

② update the EEG channel coordinates
③ Sanity check plots (notebook time)

optional workload :

① physics of EEG Book (1st chap.) => ~35 %

② Overview of Brain Science : (Chapter 1)

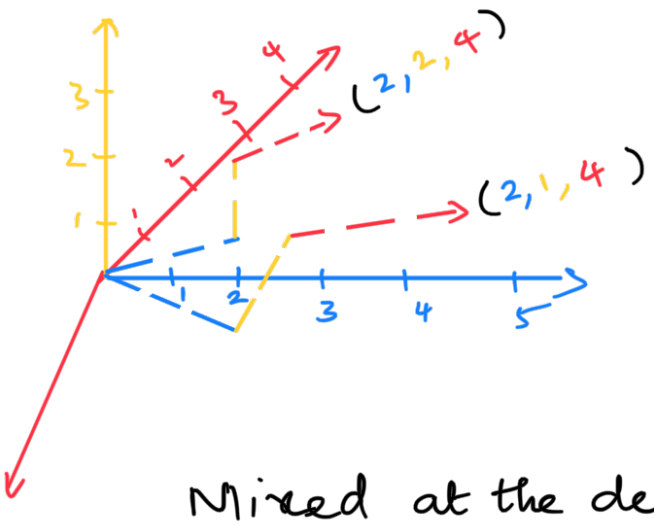
https://www.notion.so/Brain-Science-0b16095d6d4441e49023992a75a6f70c?v=e34352f891e74a2a8f12d737935e3a5e

③ Source Reconstruction (Journal Pre-print)

To-Do for next week:
① Signal source Separation
②

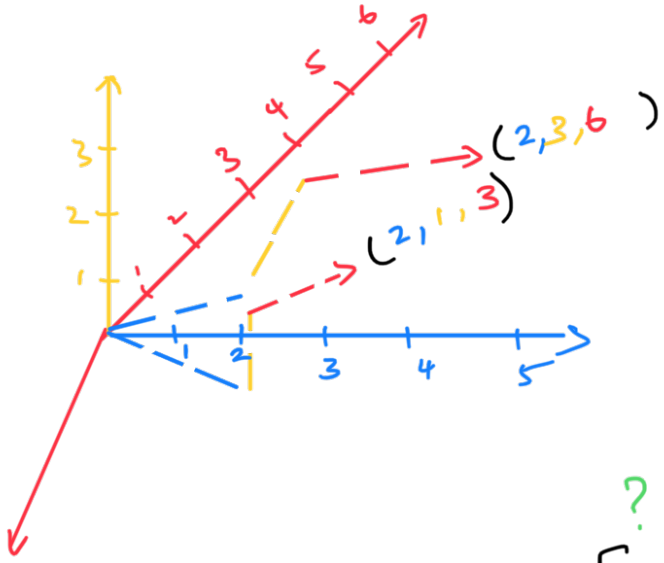
Optional workload:
① Brain science (Chapter 2)
② Physics of EEG book (Chapter 1)

Source



$$\begin{bmatrix} 2 & 2 \\ 2 & 1 \\ 4 & 4 \end{bmatrix}$$

Mixed at the destination



$$\begin{bmatrix} 2 & 2 \\ 1 & 3 \\ 3 & 6 \end{bmatrix}$$

$$\text{Source} \times \begin{bmatrix} \text{unknown} \\ \text{Matrix of Interest : D} \end{bmatrix} = \text{mixed}$$

???

How do I transform so that I get back the original matrix.

Questions:

1. Artefacts
2. Source Signal reconstruction