‘Central to successful control is the ability to suppress actions that are no longer relevant or required. ’

# Subject 112

**NF Task**: Users look at the car and imagine driving it forward to train alpha inhibition, aiming to enhance information suppression to reduce falling risk in the physical world.

We will look at alpha power progression

Event 7

# Epoching information

- Event '7' (alpha power drop, car moves backward) is set as time = 0 ms, with epochs from [-300 1000] ms.
- Event '6' (ERSP alpha power increase, car moves forward) is plotted as a black line to show its latency relative to '7' (fig 1).
- Corrects the baseline by subtracting the -290 to 0 ms mean

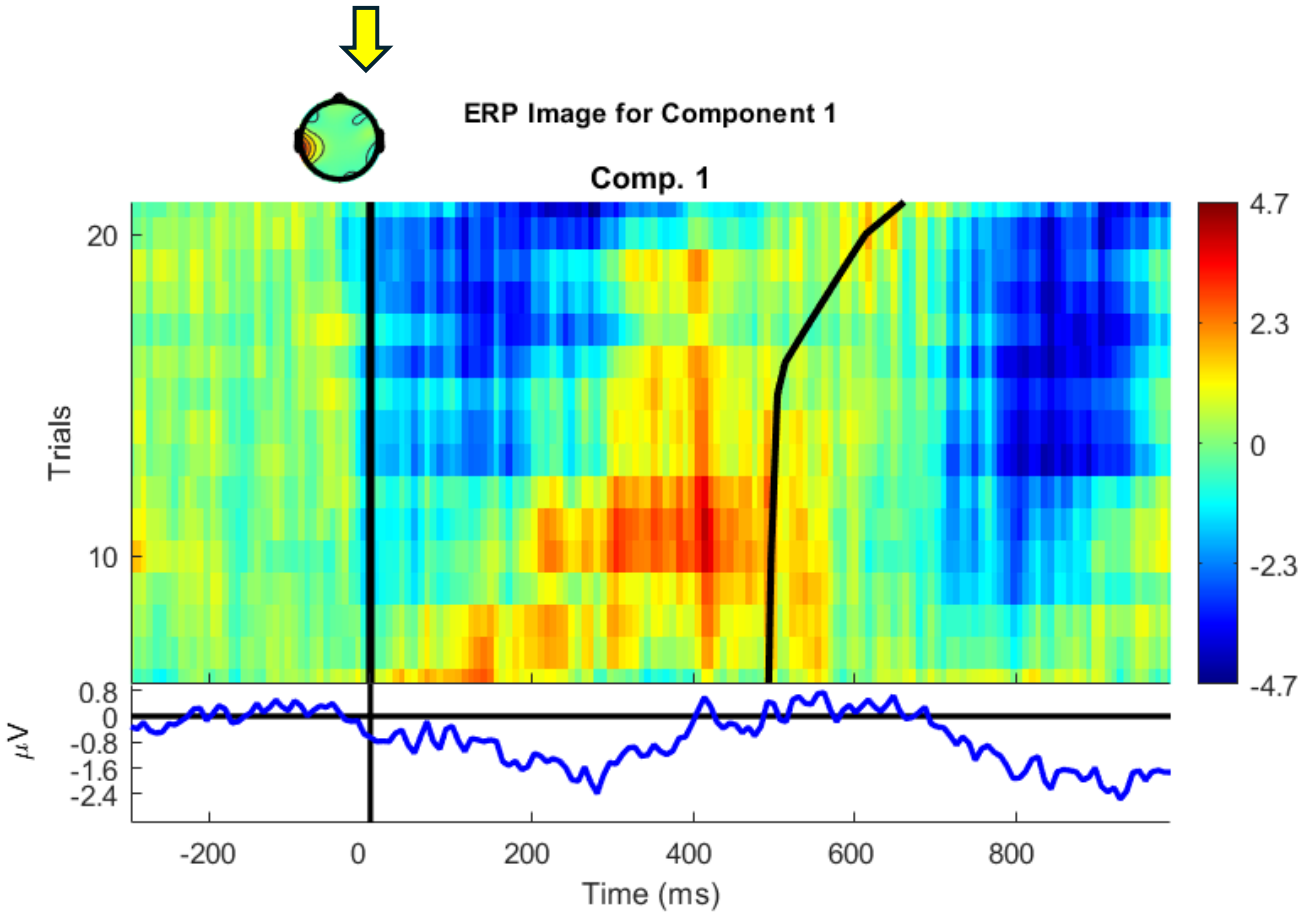
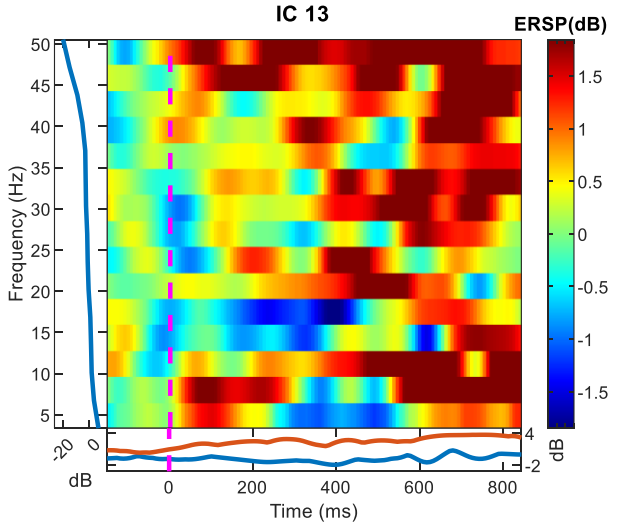
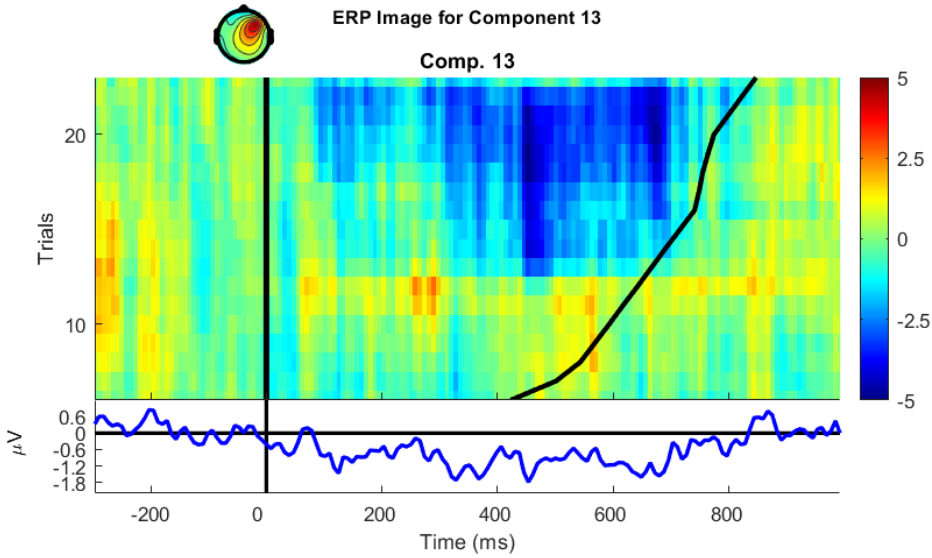



Figure 1. ERP of the 1st component for subject 104 training session 1. Event '7' is the stimulus onset when time = 0ms. Event '6' marks the car's forward movement with a black line, sorted by latency

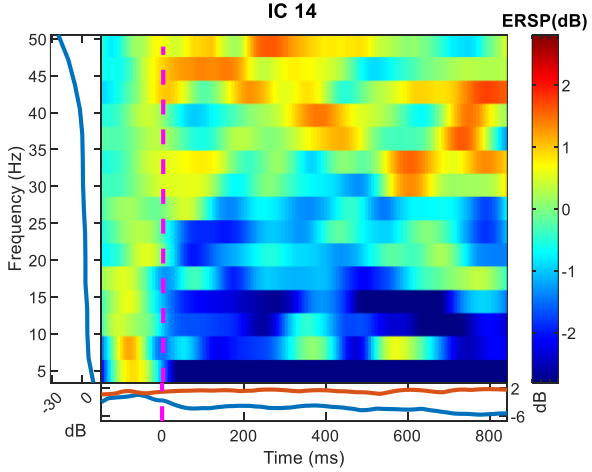
# 112_1

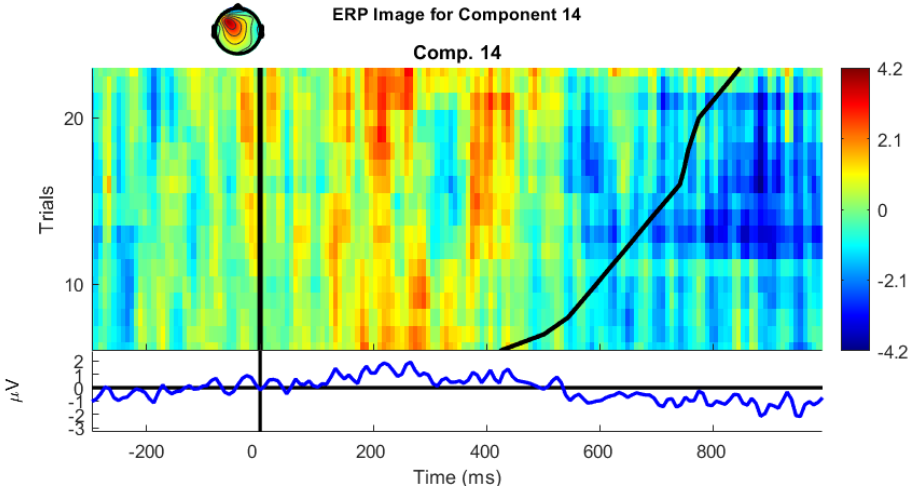
| Frontal F4 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |



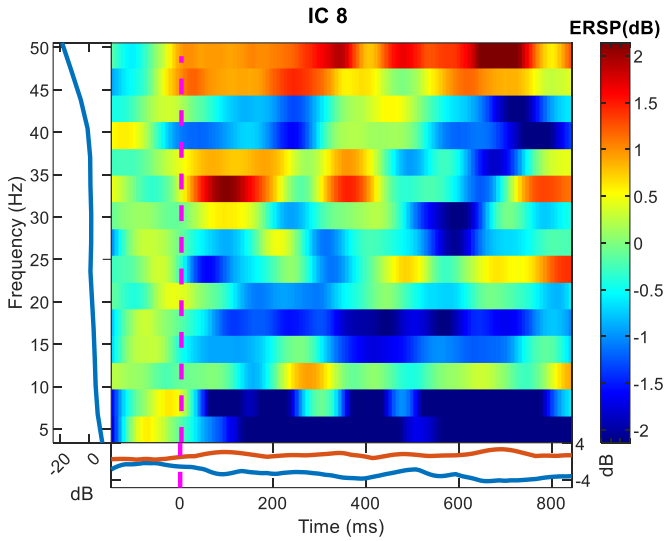

| Frontal F3 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

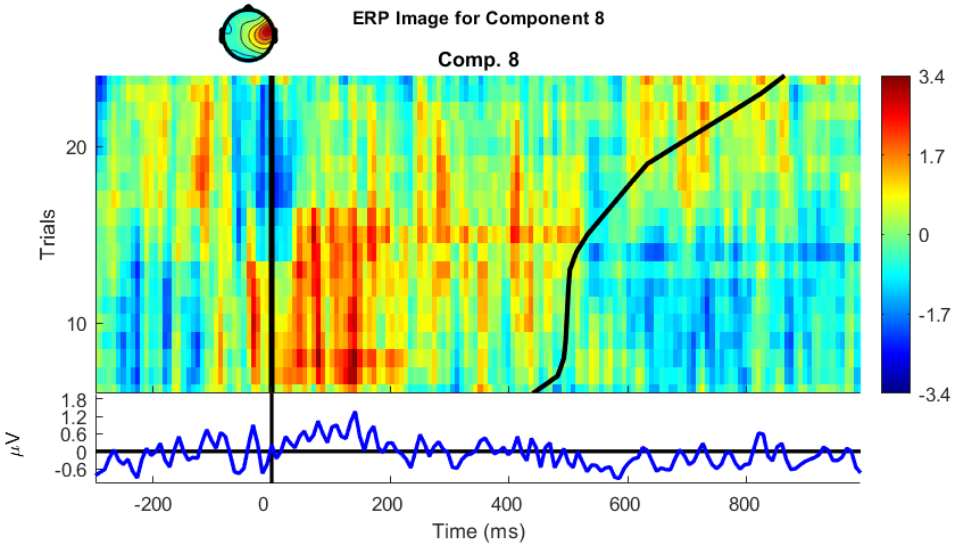


# 112_2

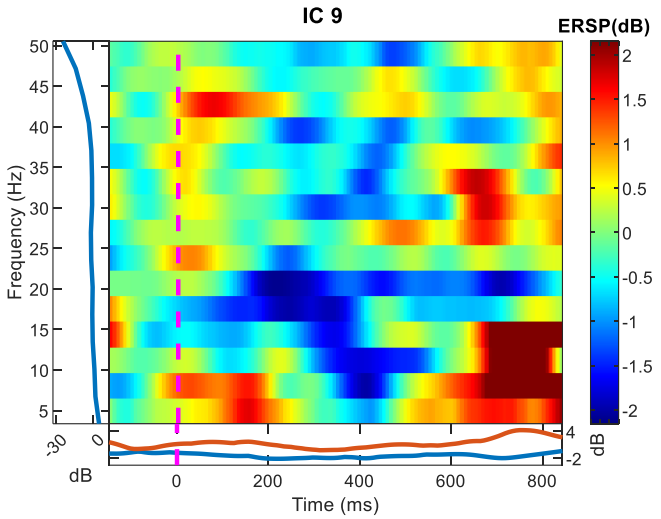
| Frontal FC6 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

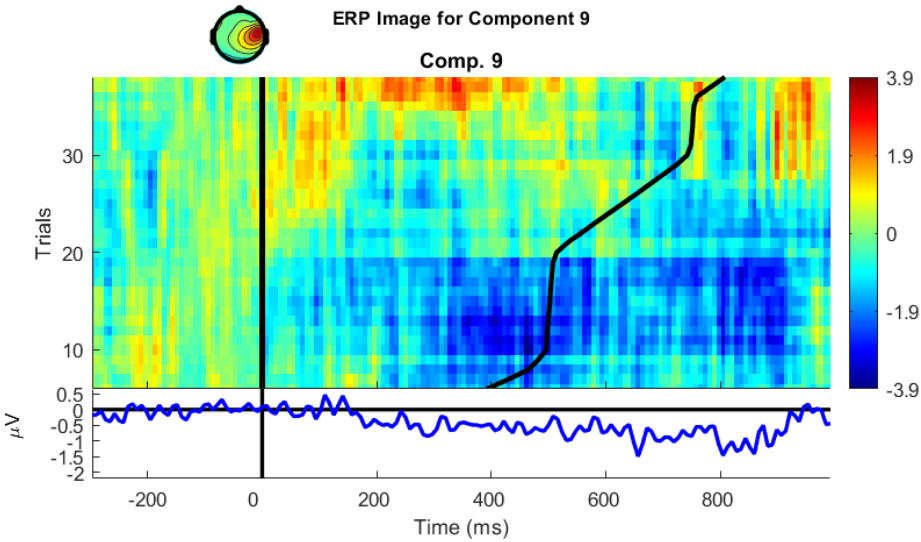


# 112_3

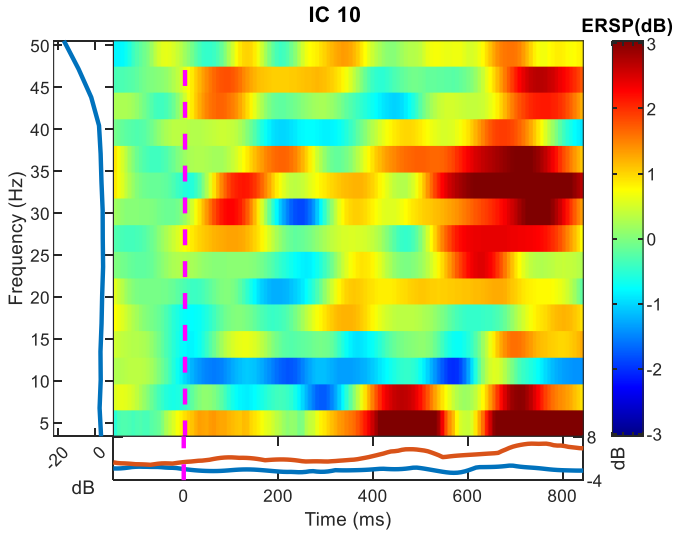
| Frontal FC6 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

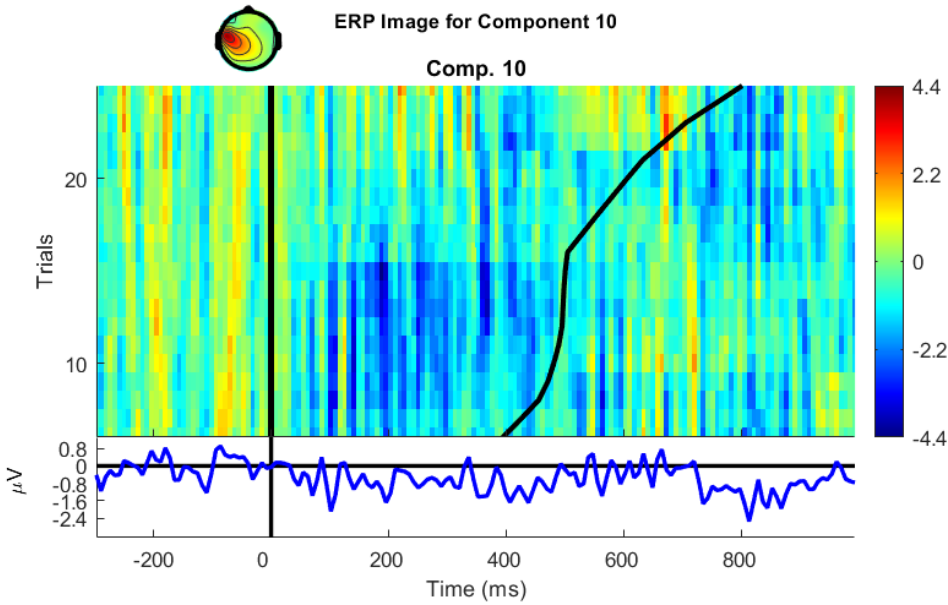


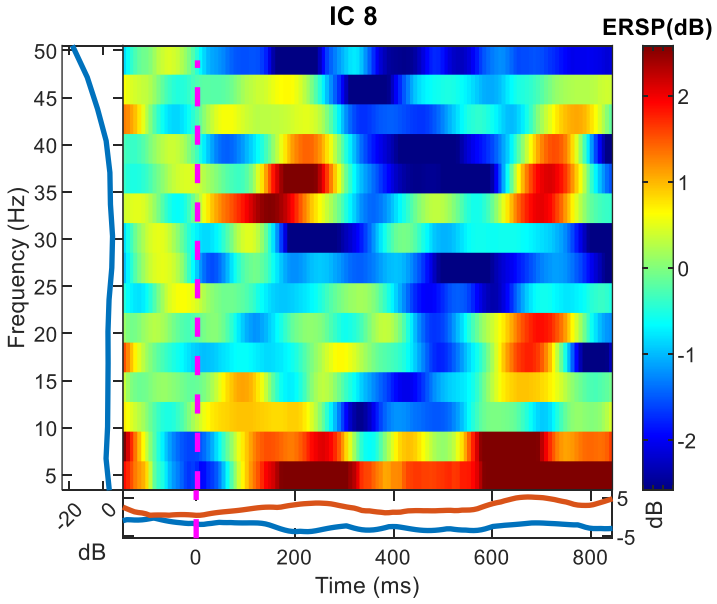
# 112_6

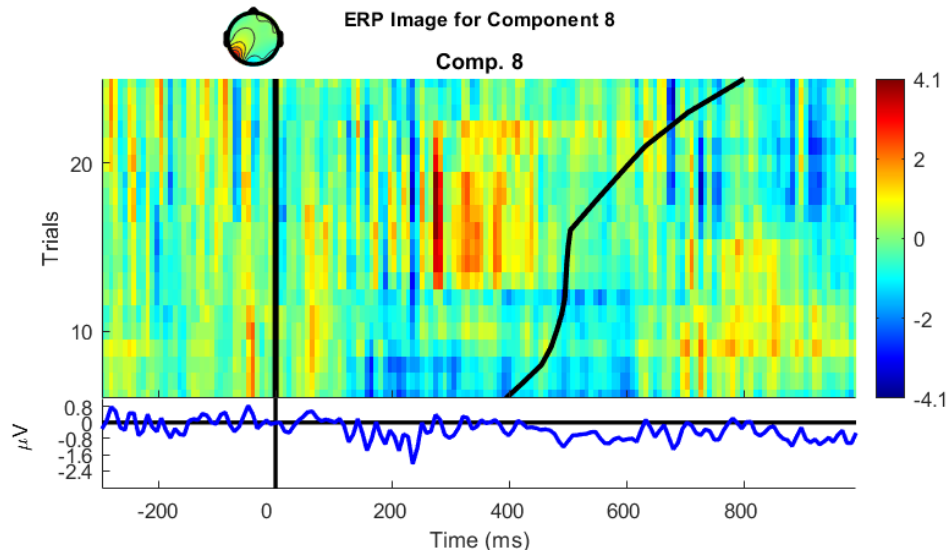
| Frontal FC5 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |



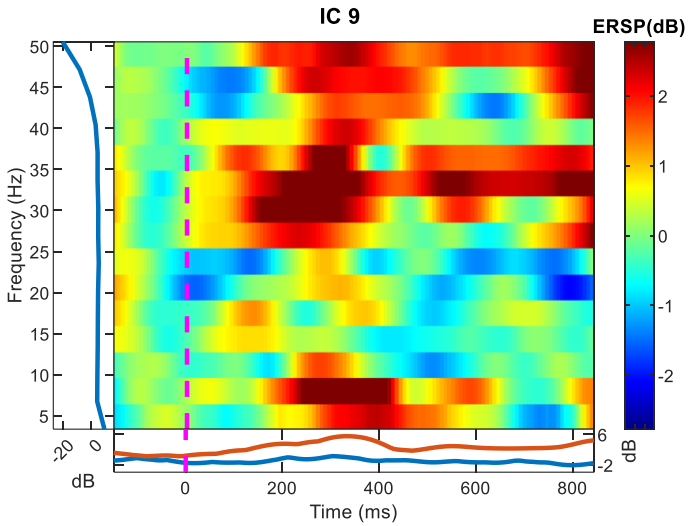

| Parietal P7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

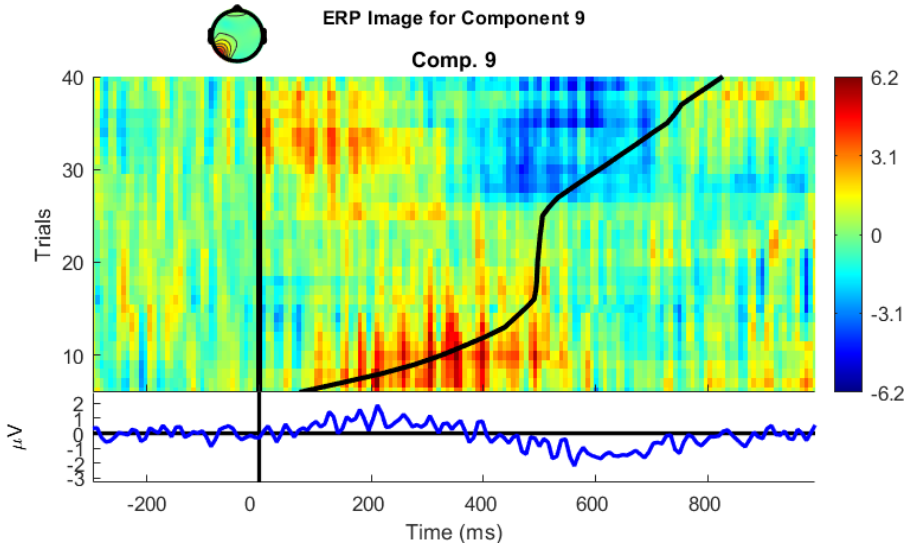


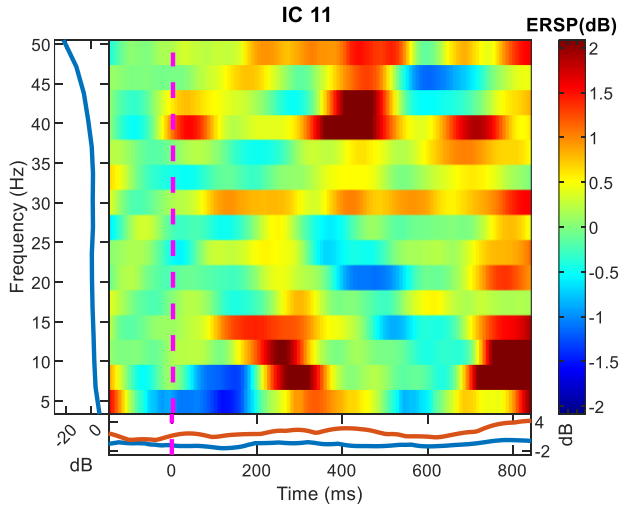
# 112_9

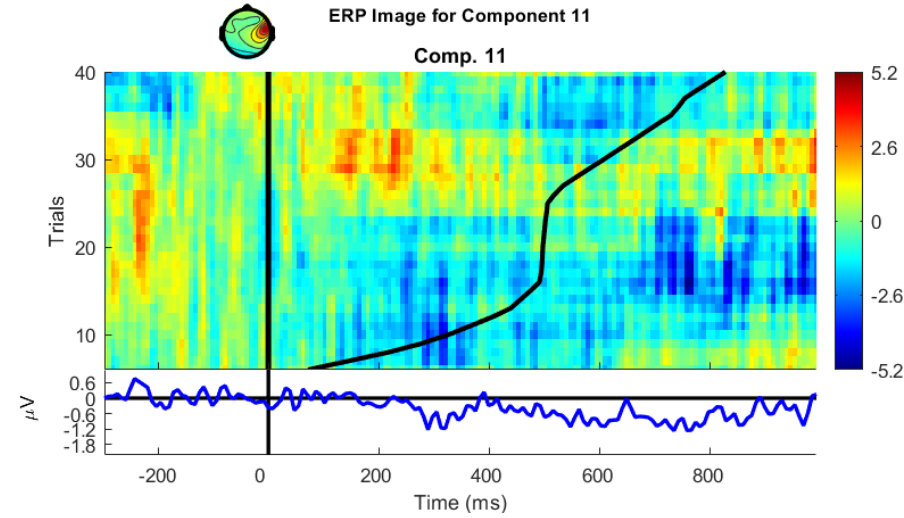
| Parietal P7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |



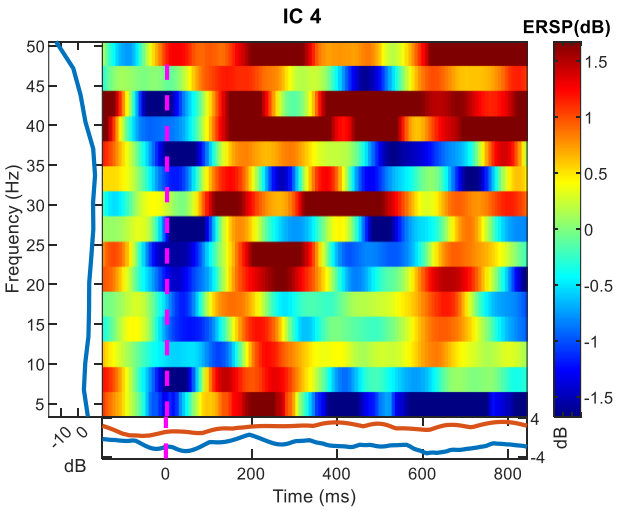

| Frontal FC6 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

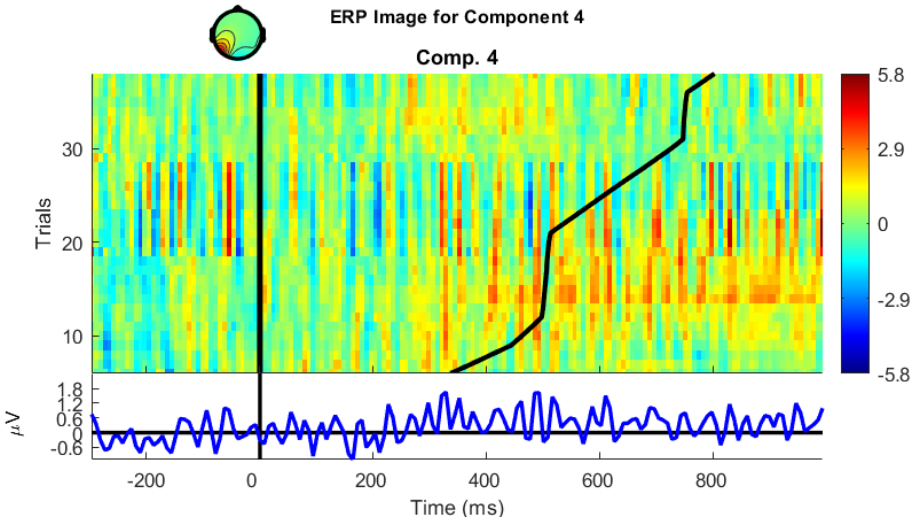


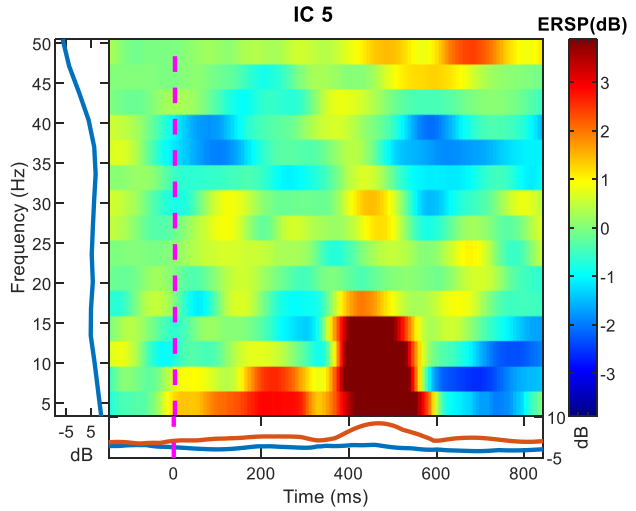
# 112_10

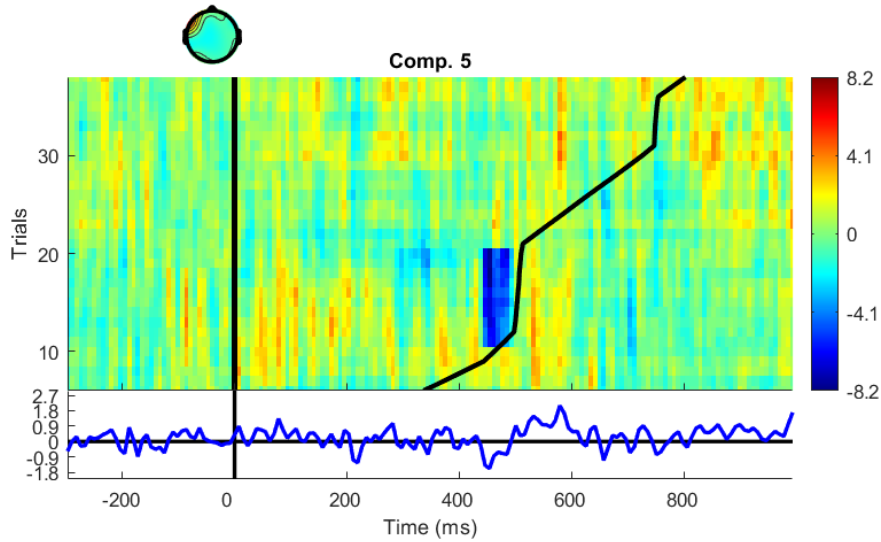
| Parietal P7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [150, 400] | sync | |



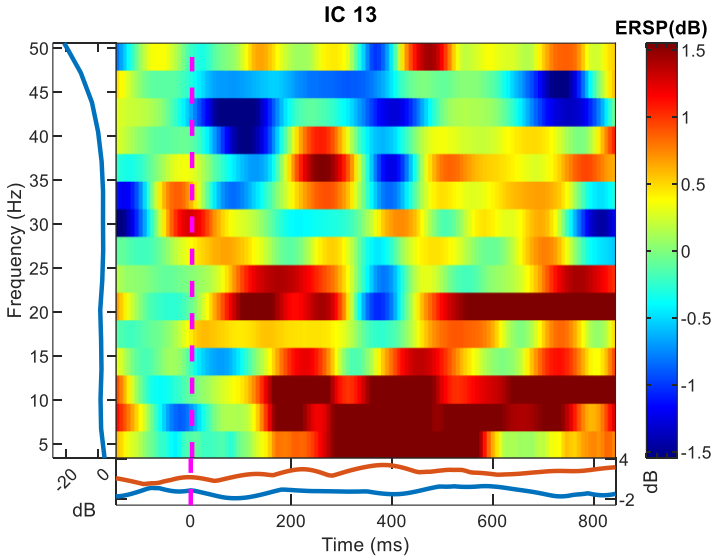

| Frontal F7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

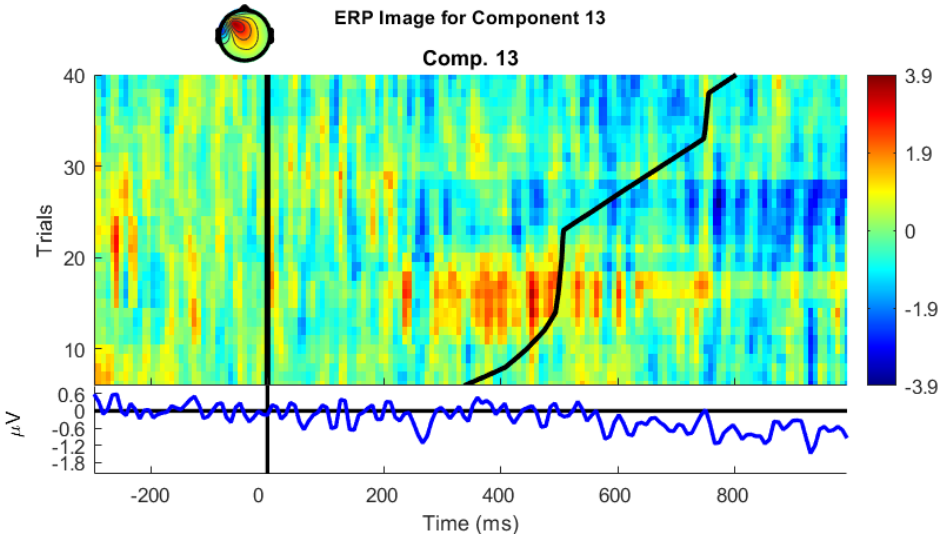


# 112_14

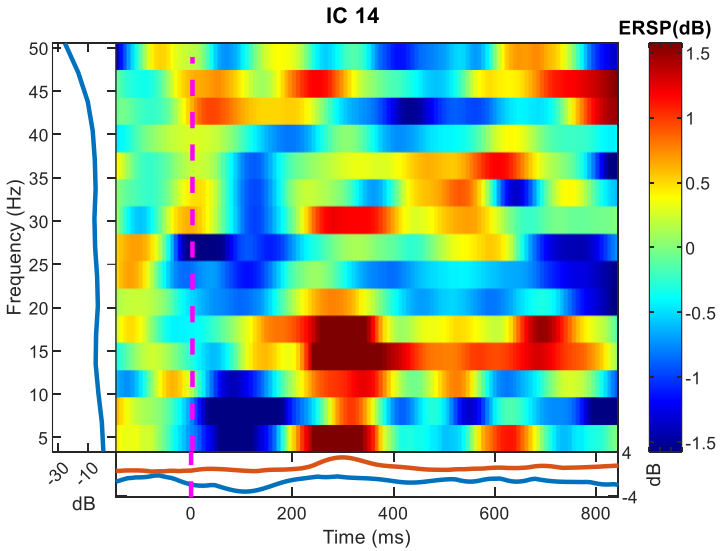
| Frontal F3 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

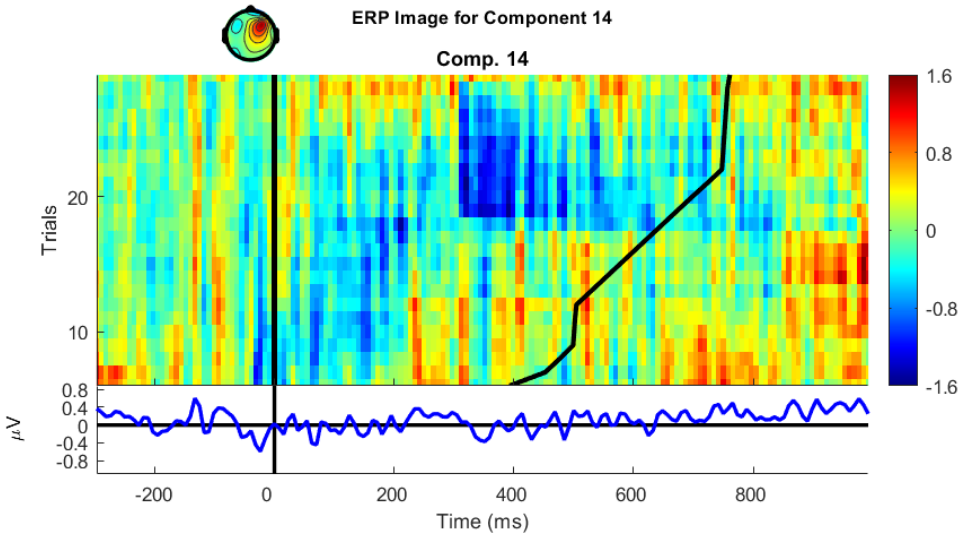


# 112_15

| Frontal F4 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [220, 400] | sync | |



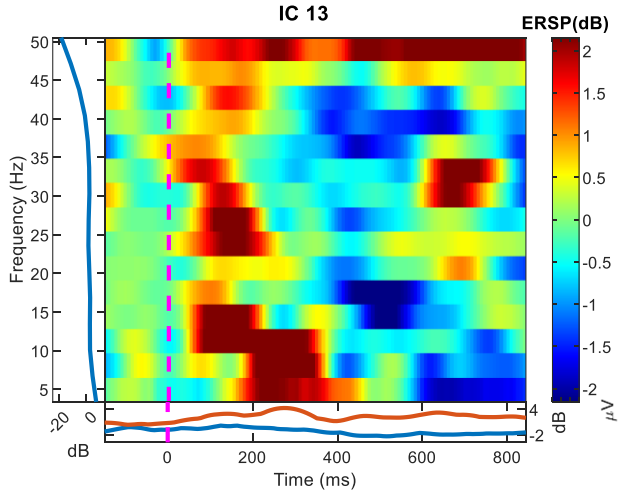



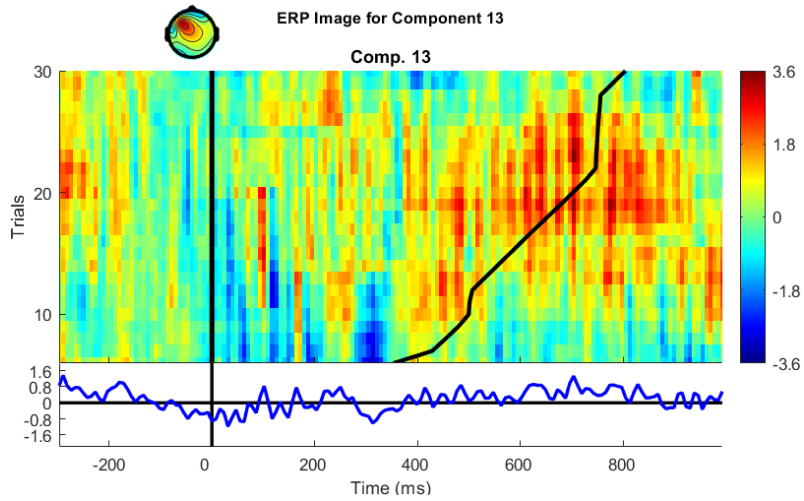
# 112_17

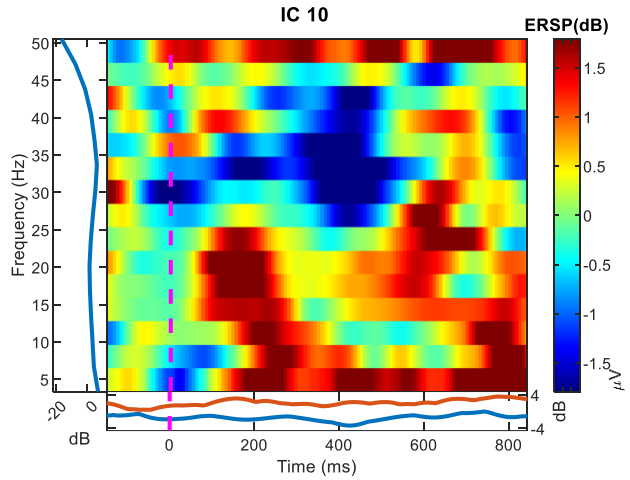
| Frontal F3 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [200, 400] | sync | |

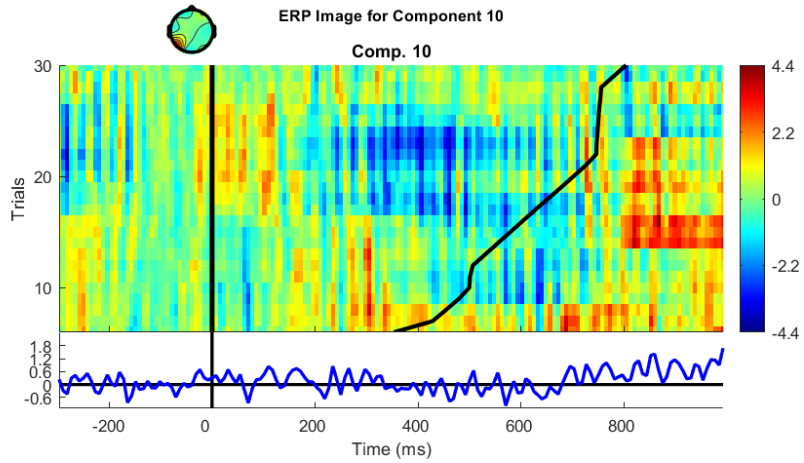
| Parietal P7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [150, 350] | sync | |

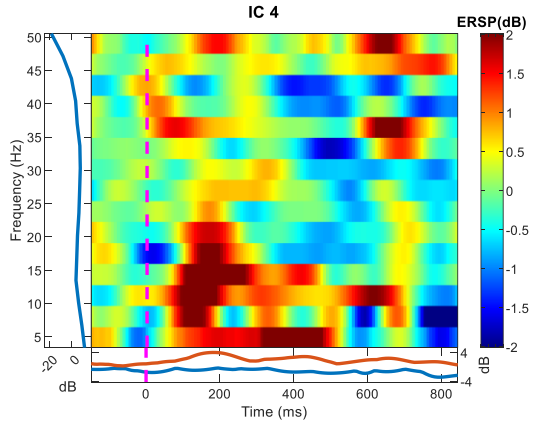
| Frontal F7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [150, 350] | sync | |

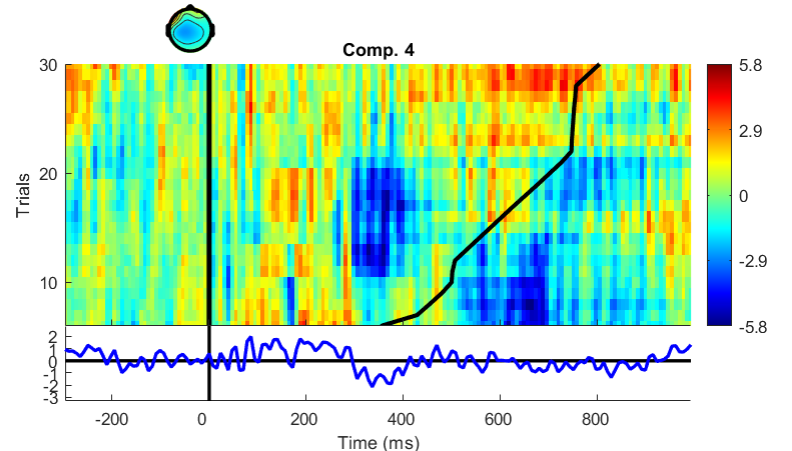


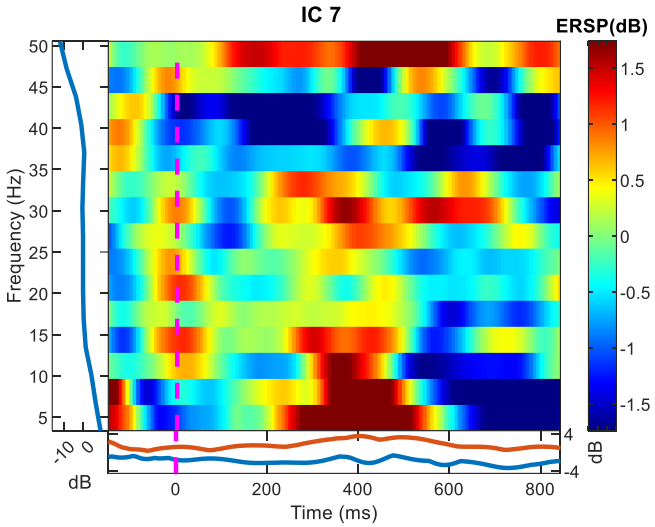



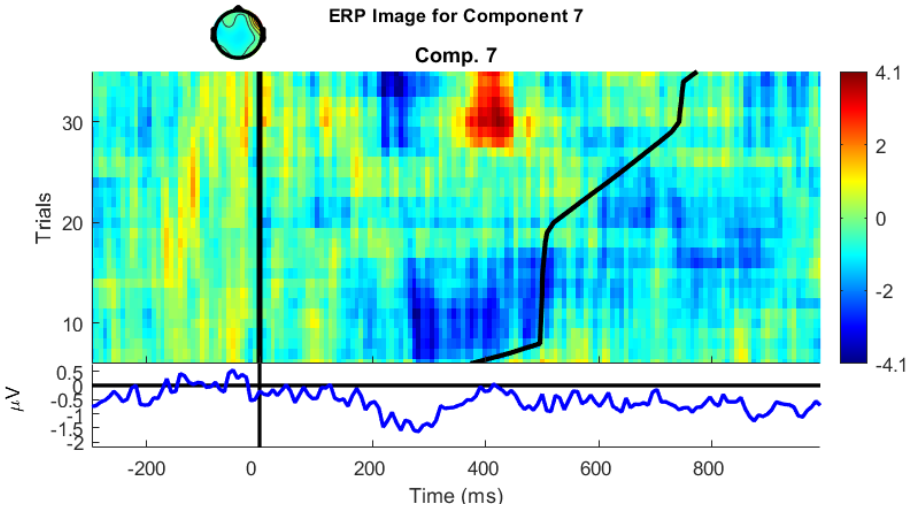



# 112_18

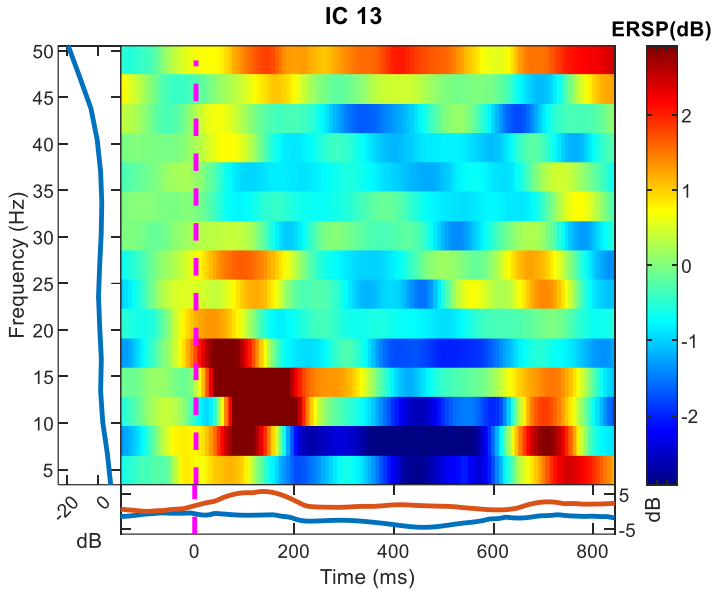
| Frontal F8 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [250, 400] | sync | |

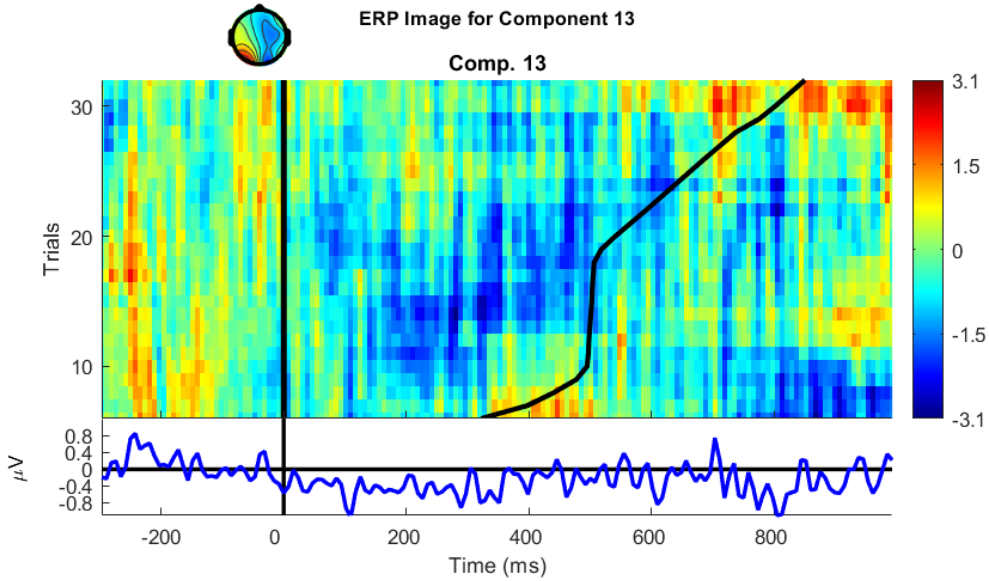


# 112_19

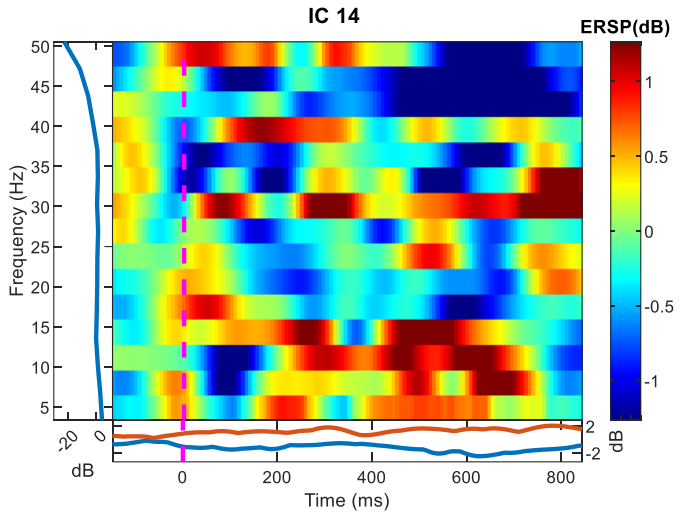
| Parietal P7 | | |
|---|---|---|
| Time(ms) | Alpha | |
| | | |
| [0, 200] | sync | |

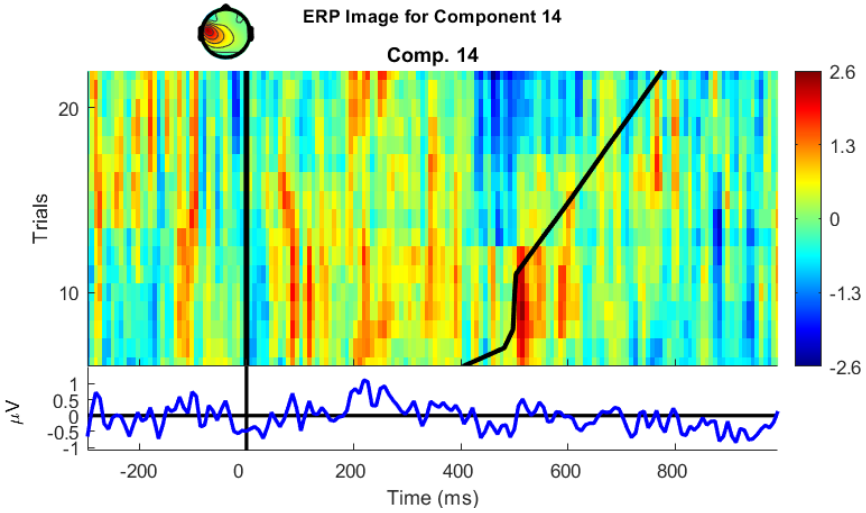


# 112_21

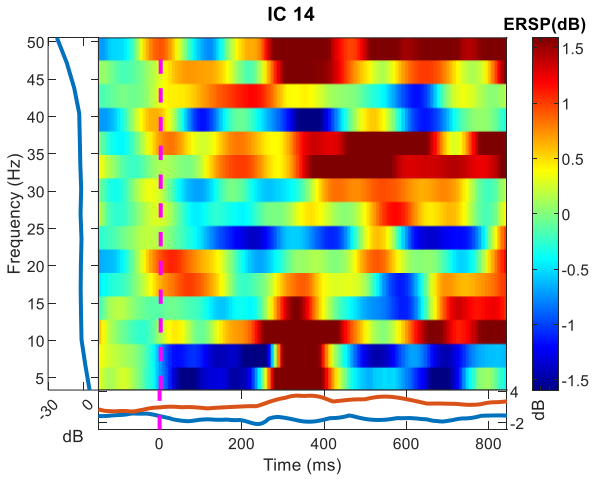
| Frontal FC5 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [250, 430] | sync | |

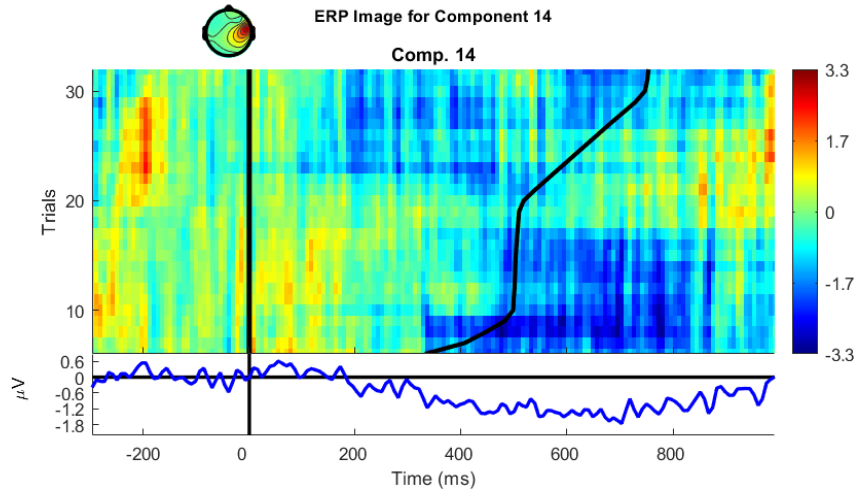


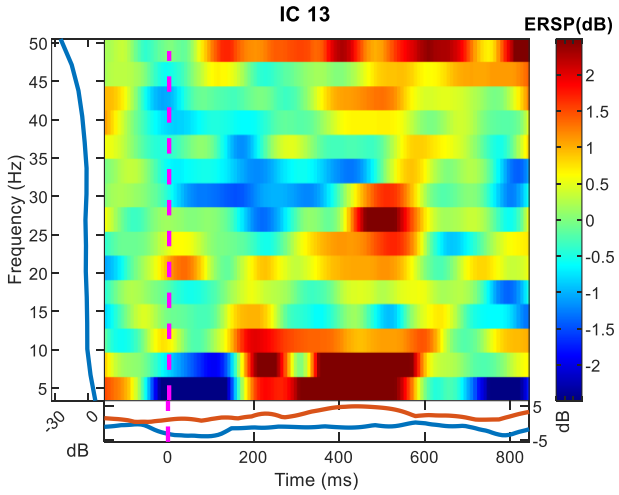
# 112_22

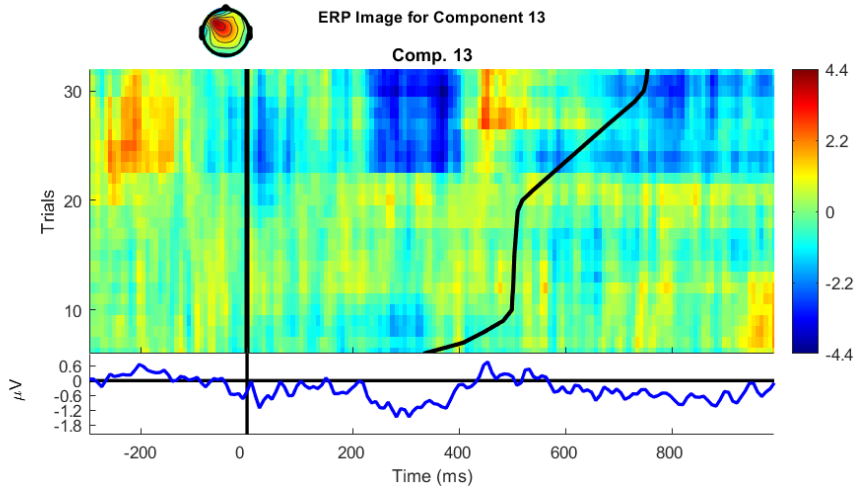
| Frontal FC6 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [230, 400] | sync | |




| Frontal F3 | | |
|---|---|---|
| Time(ms) | Alpha | |
| [0, 50] | desync | |
| [230, 400] | sync | |



===== All Regions Summary =====
Region: Left-Frontal
Components processed: 8
p-value (Early vs Middle): 0.040329 (increase)
p-value (Middle vs Later): 0.072256977 (decrease)
p-value (Early vs Later): 0.44564348 (increase)
---
Region: Right-Frontal
Components processed: 6
p-value (Early vs Middle): 0.45697 (increase)
p-value (Middle vs Later): 0.21221437 (decrease)
p-value (Early vs Later): 0.52707038 (increase)
---
Region: Left-Temporal
Components processed: 0
p-value (Early vs Middle): NA
p-value (Middle vs Later): NA
p-value (Early vs Later): NA
---
Region: Right-Temporal
Components processed: 0
p-value (Early vs Middle): NA
p-value (Middle vs Later): NA
p-value (Early vs Later): NA
Region: Left-Occipital
Components processed: 0
p-value (Early vs Middle): NA
p-value (Middle vs Later): NA
p-value (Early vs Later): NA
---
Region: Right-Occipital
Components processed: 0
p-value (Early vs Middle): NA
p-value (Middle vs Later): NA
p-value (Early vs Later): NA
---
Region: Left-Parietal
Components processed: 5
p-value (Early vs Middle): 0.33621 (increase)
p-value (Middle vs Later): 0.0008698293 (decrease)
p-value (Early vs Later): 0.18394669 (decrease)
---
Region: Right-Parietal
Components processed: 0
p-value (Early vs Middle): NA
p-value (Middle vs Later): NA
p-value (Early vs Later): NA
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