

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

# Subject 102

**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.

# Epoching information

- Event '7' (alpha power drop, car moves backward) is set as time = 0 ms, with epochs from [-300 1000] ms.
- Event '6' (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

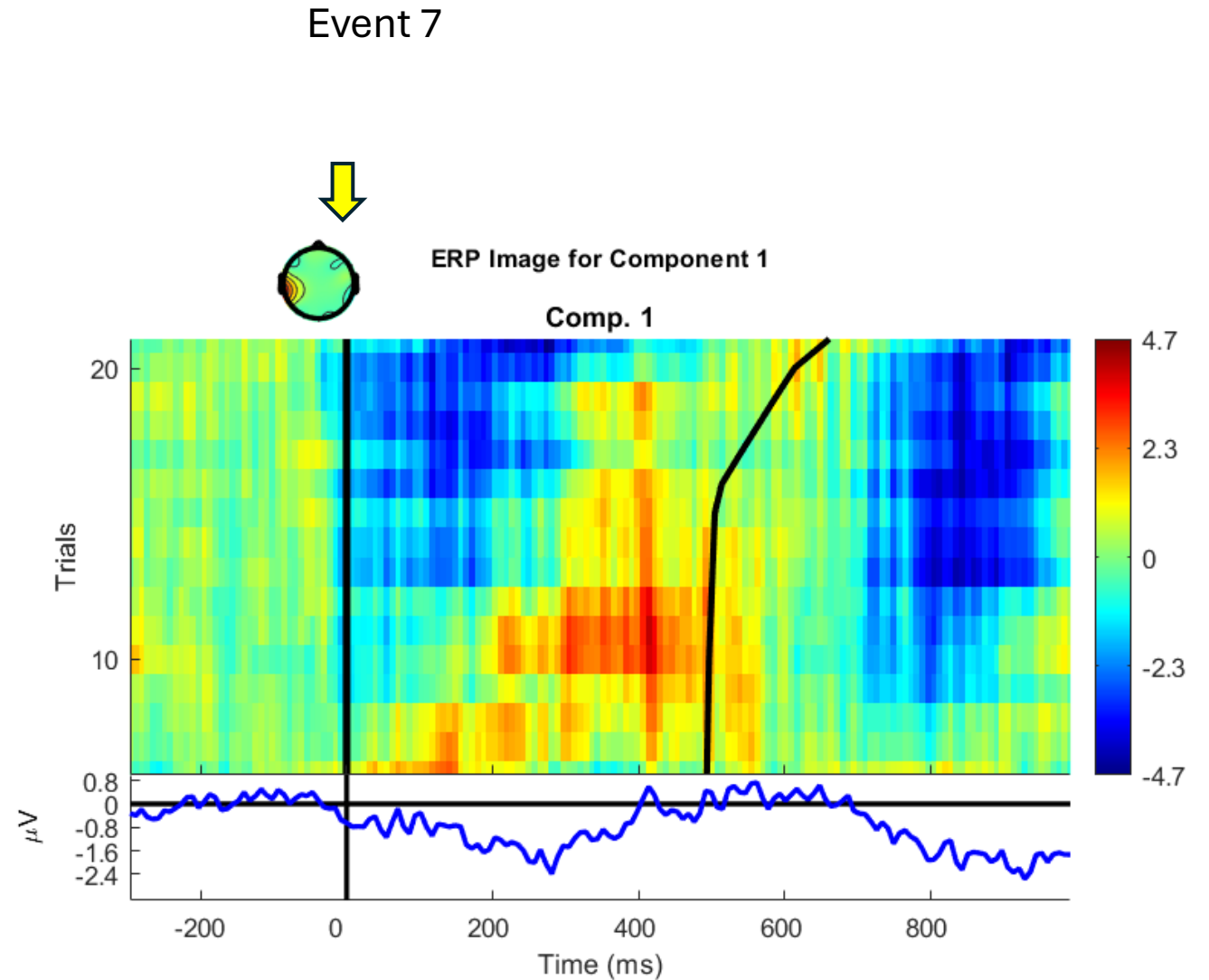
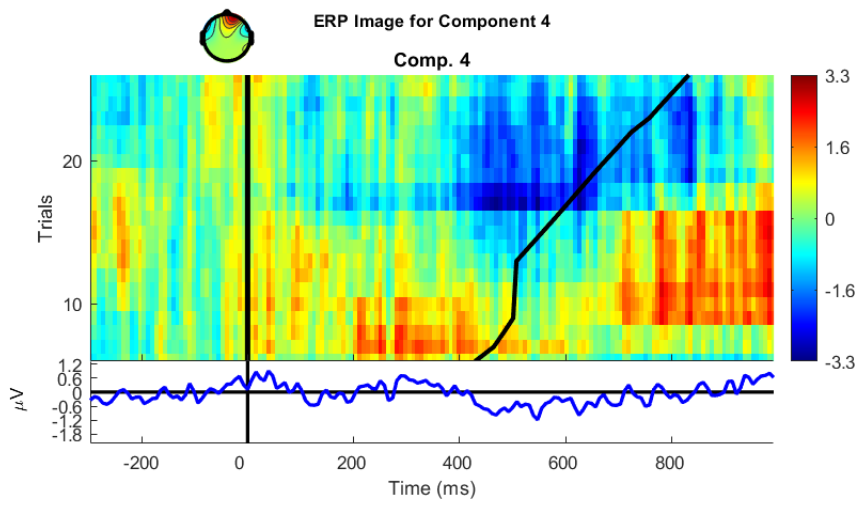
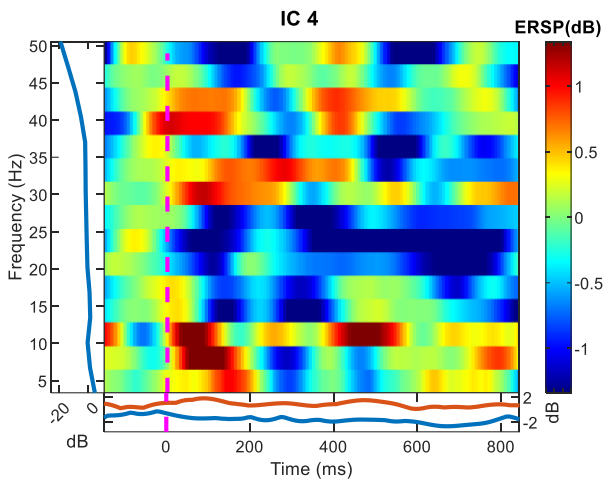
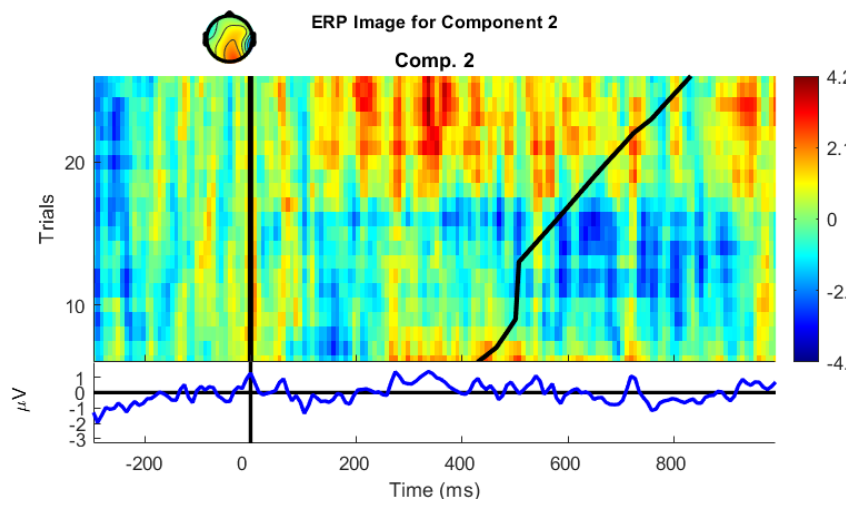
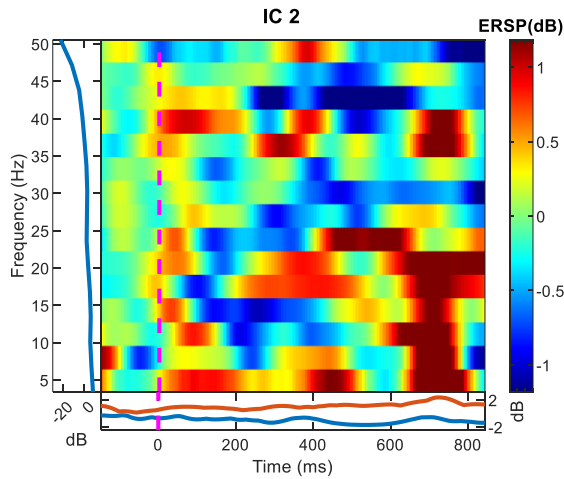


Figure 1. ERP of the 1<sup>st</sup> component for subject 104 training session 1. Event '7' is the stimulus onset when time = 0ms. Event '6' marks the car's forward movement with a black line, sorted by latency

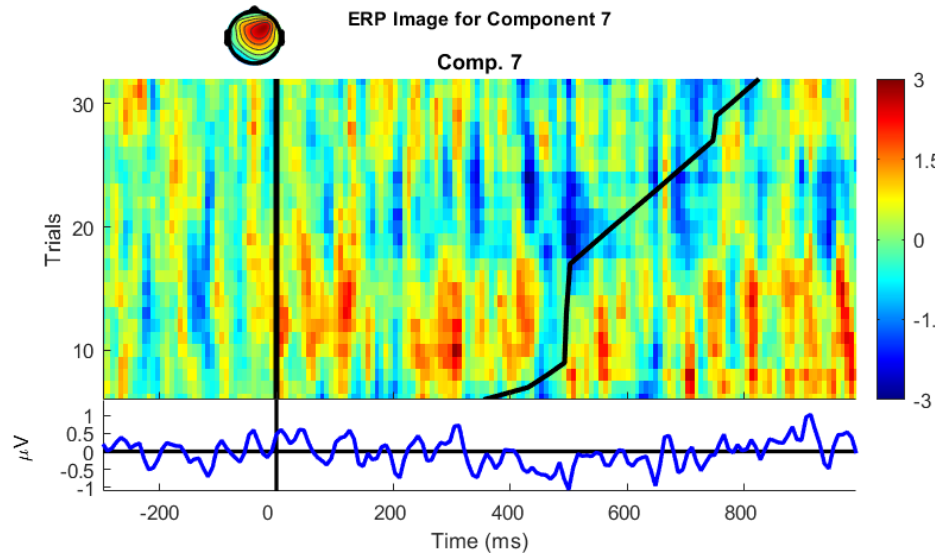
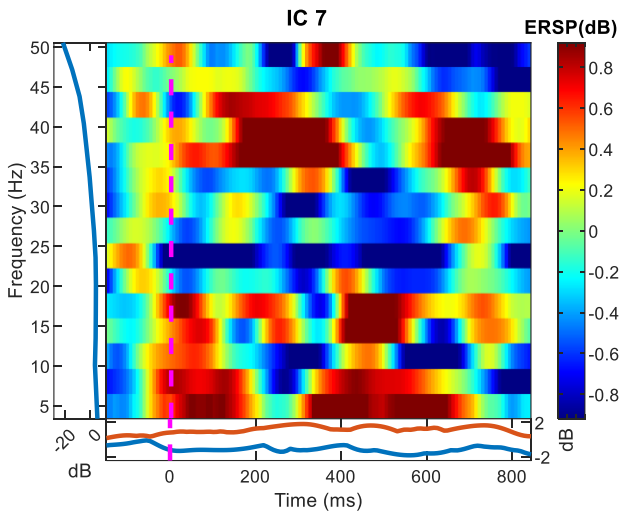
Frontal AF4		
Time(ms)	Alpha	
[-50, 100]	sync	
[390, 600]	sync	



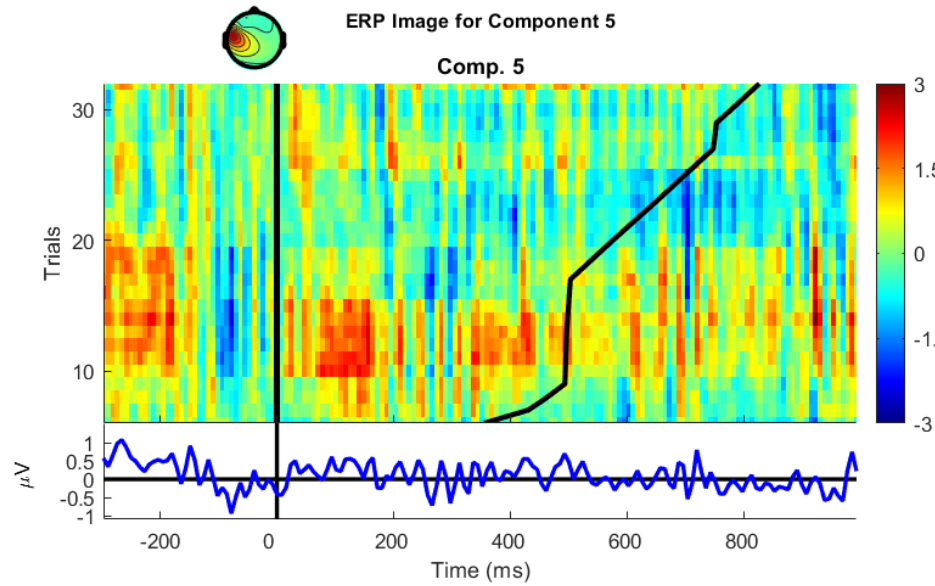
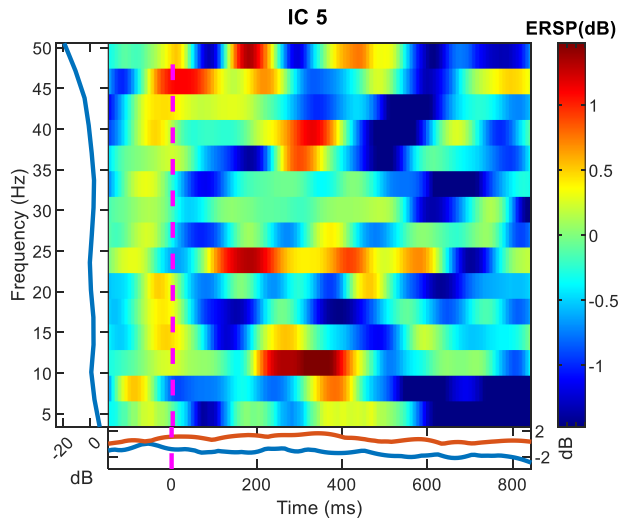
Occipital O2		
Time(ms)	Alpha	
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[350, 550]	sync	



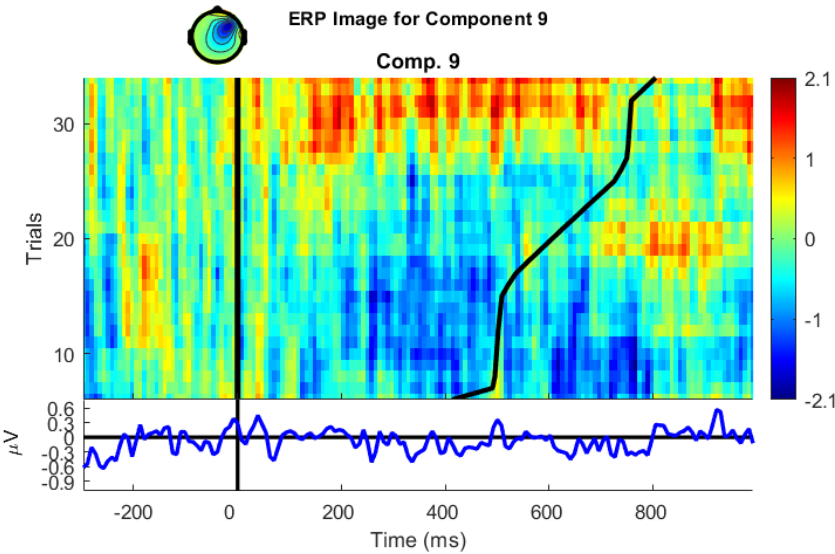
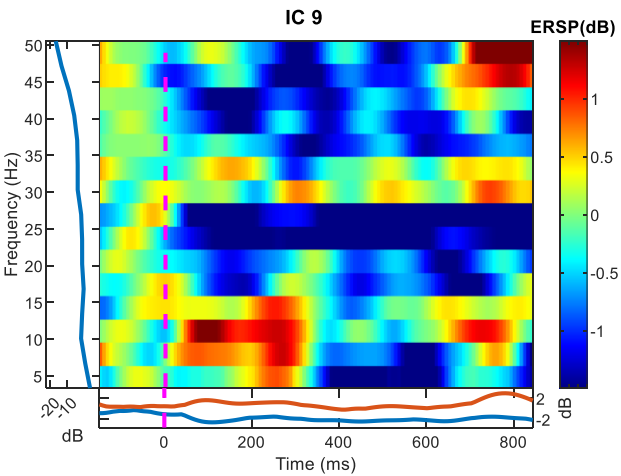
Frontal F4		
Time(ms)	Alpha	
[-50, 200]	sync	
[350, 550]	sync	



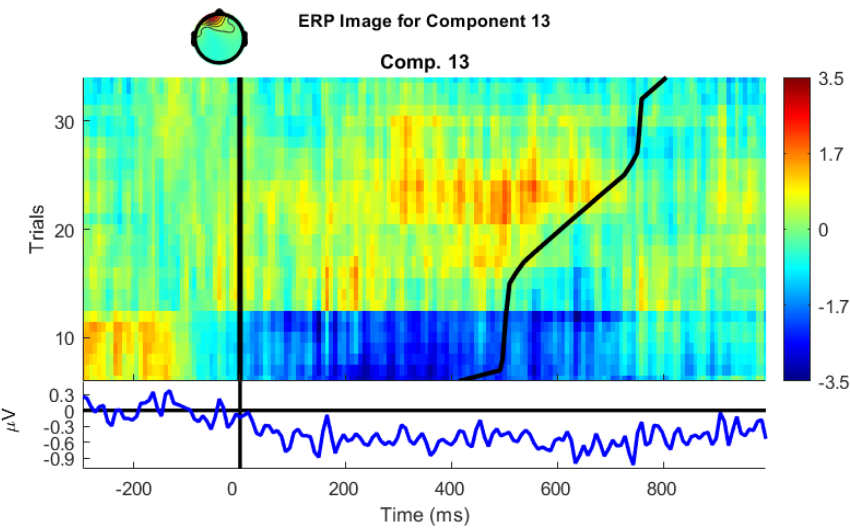
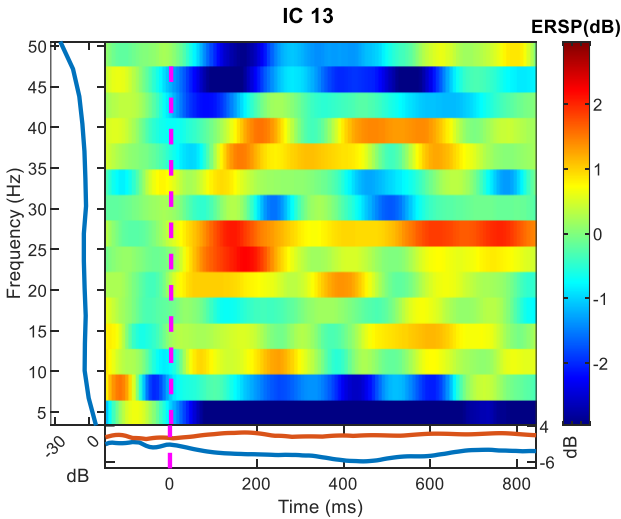
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[300, 550]	sync	



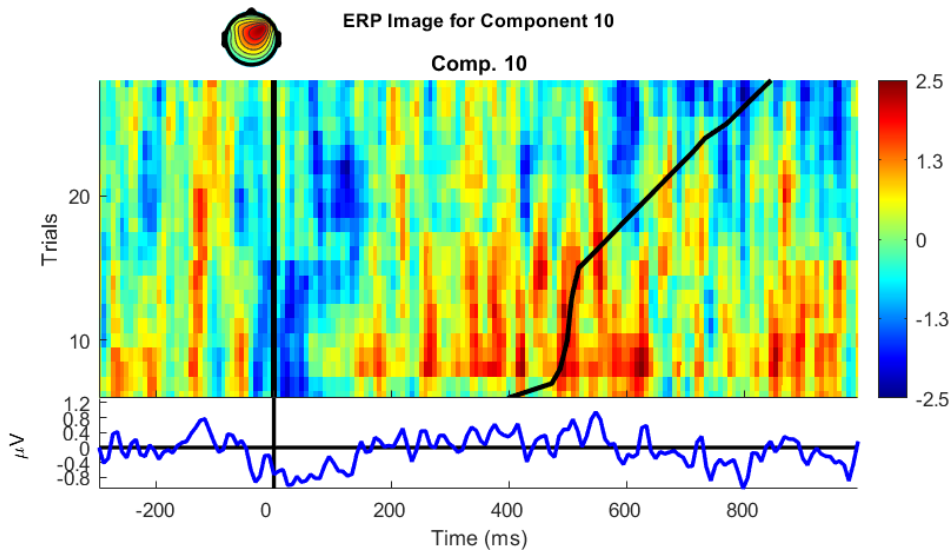
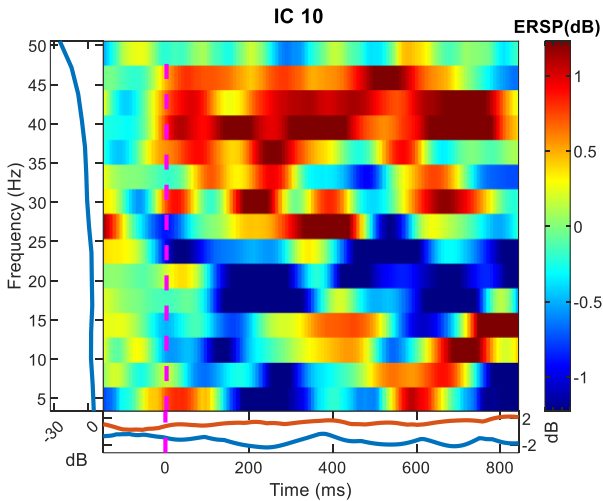
Frontal F4		
Time(ms)	Alpha	
[-50, 100]	sync	
[400, 550]	sync	



Frontal AF3		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



Frontal F4		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 550]	sync	

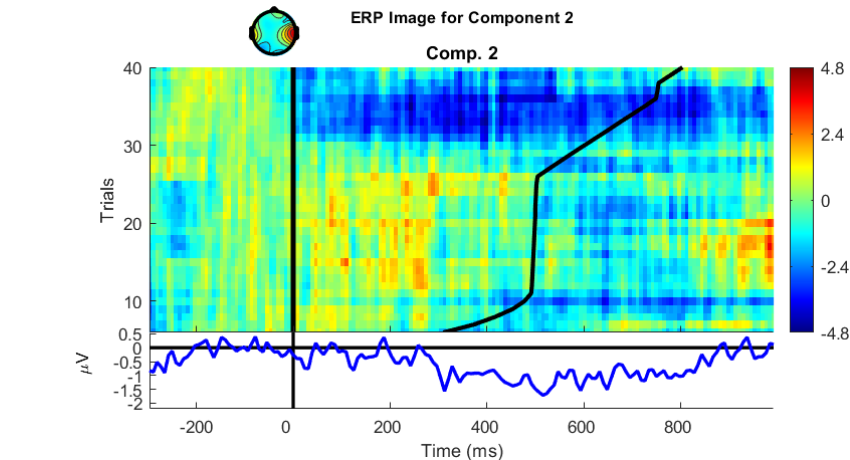
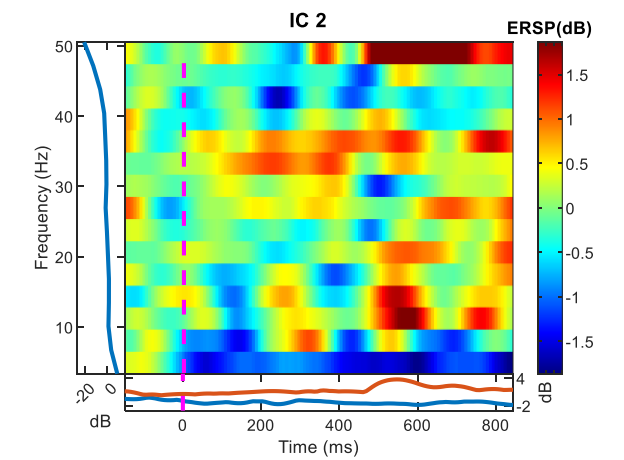
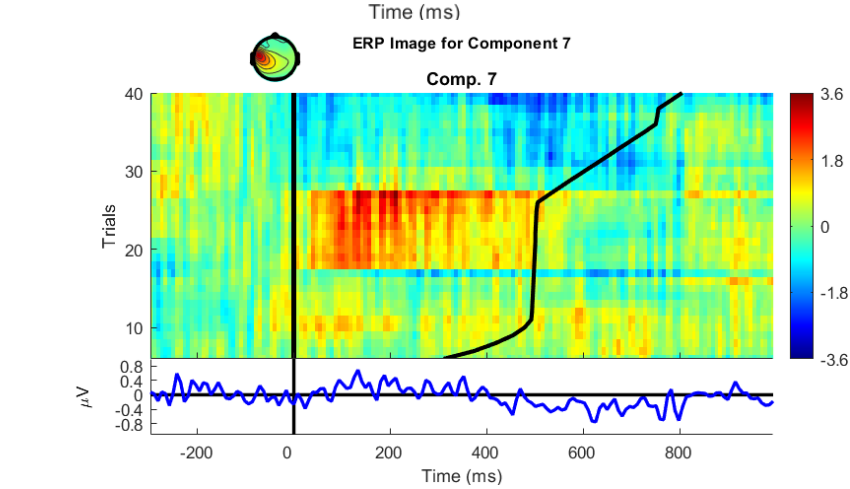
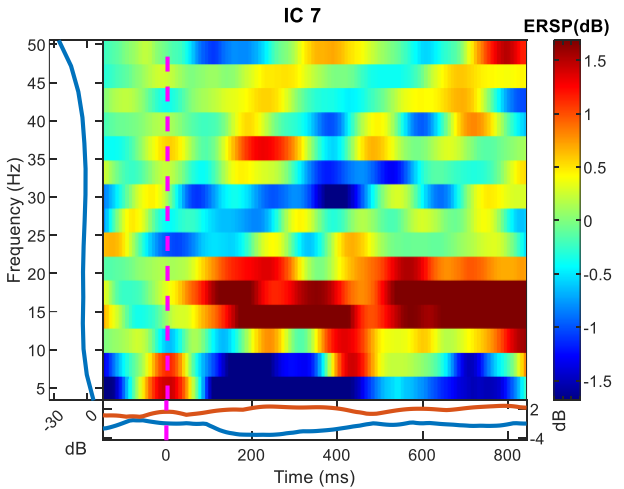
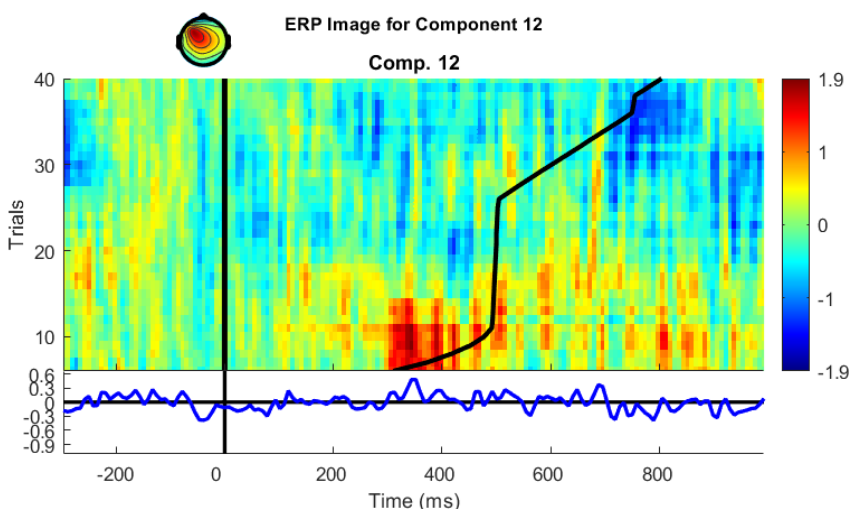
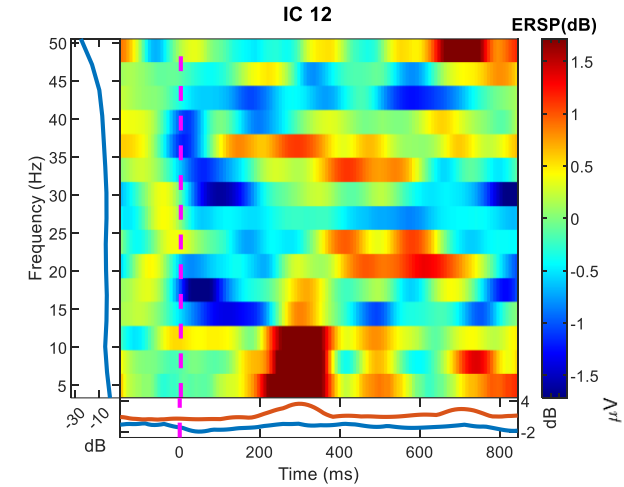


# 102\_10

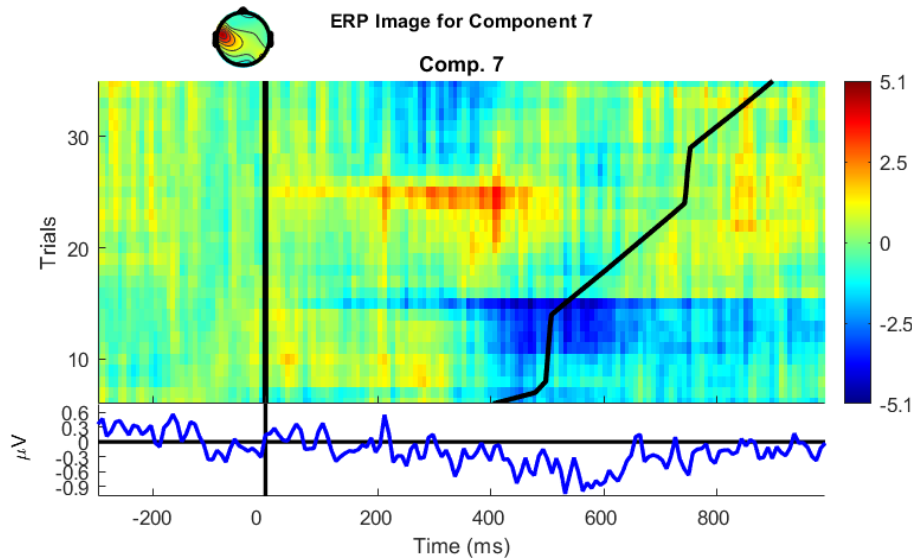
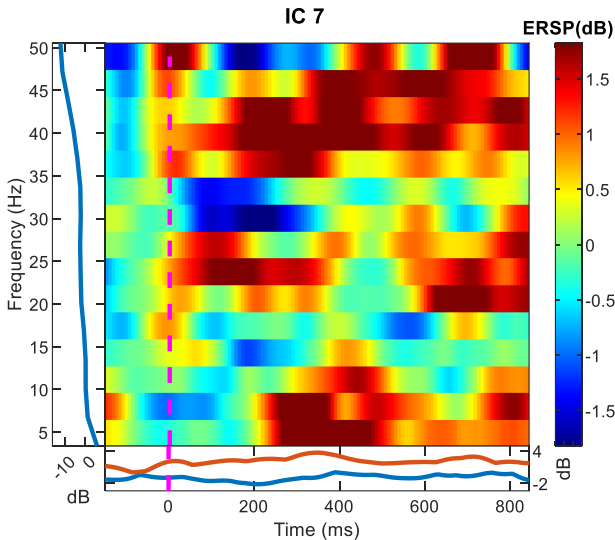
Frontal F3		
Time(ms)	Alpha	
[-50, 100]	desync	
[200, 450]	sync	

Frontal FC5		
Time(ms)	Alpha	
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[350, 550]	sync	

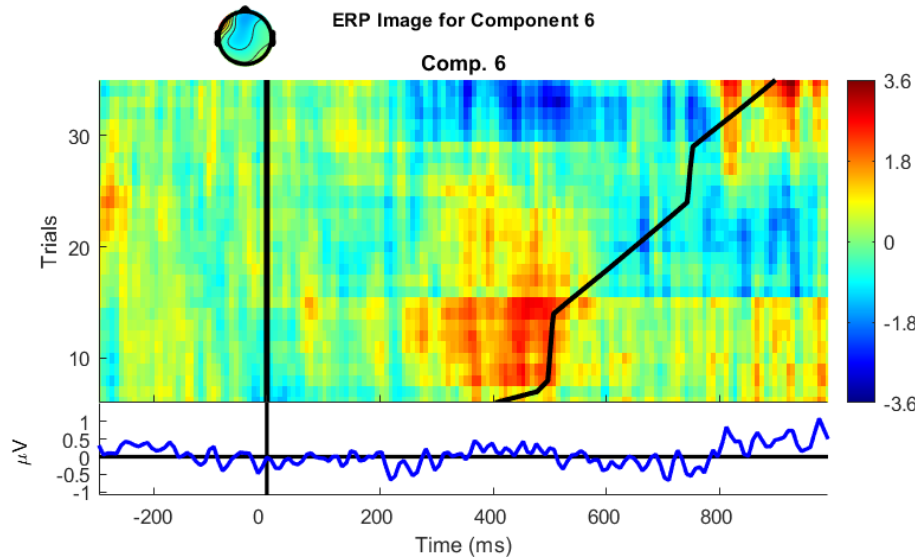
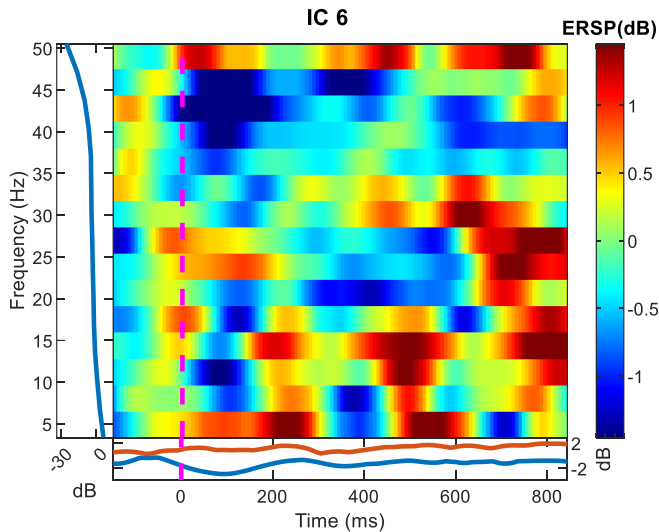
Frontal FC6		
Time(ms)	Alpha	
[-50, 100]	desync	
[420, 600]	sync	



Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 550]	sync	

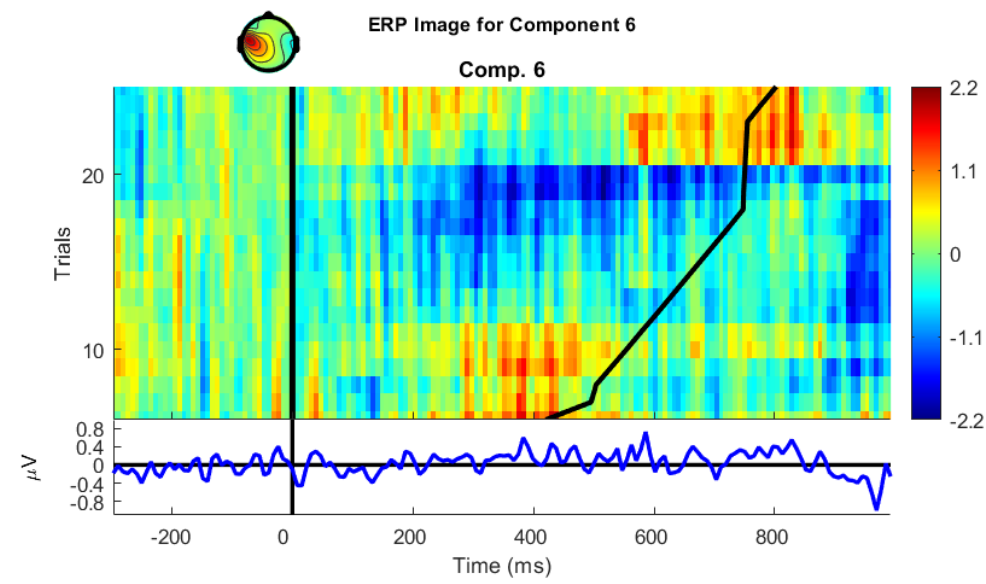
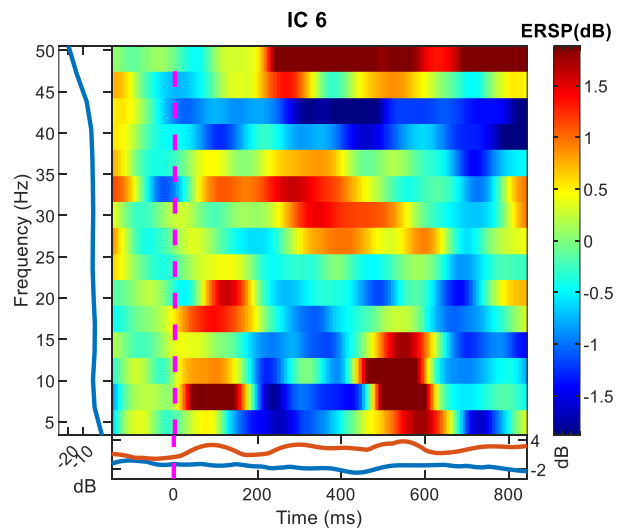


Frontal F7		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	

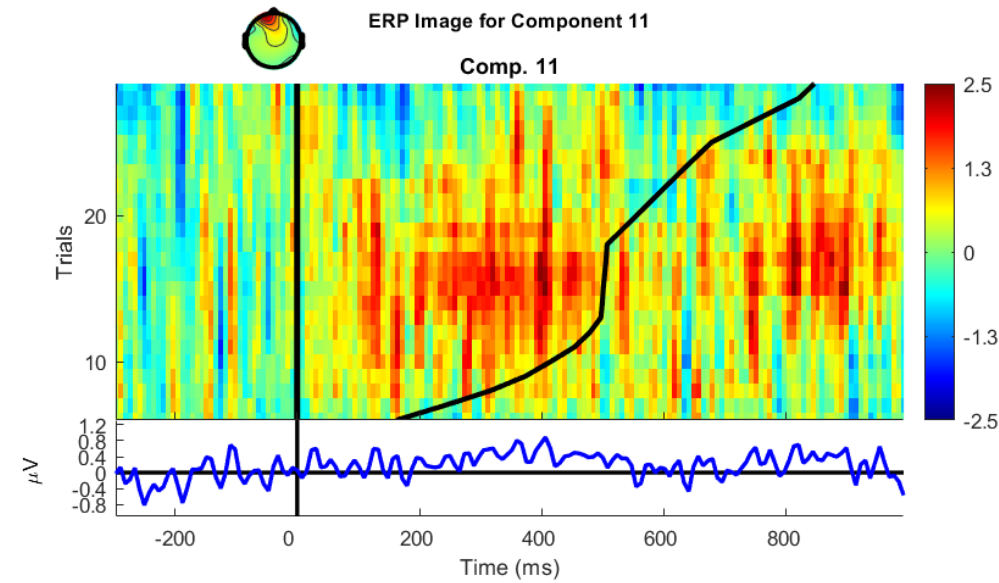
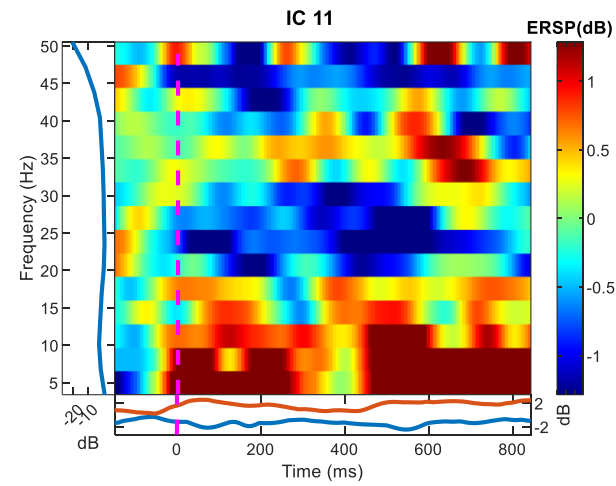




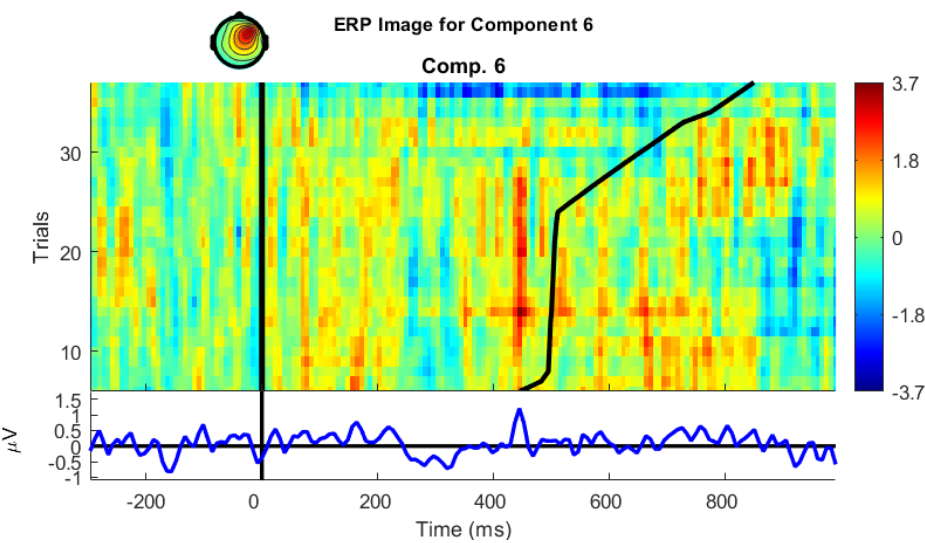
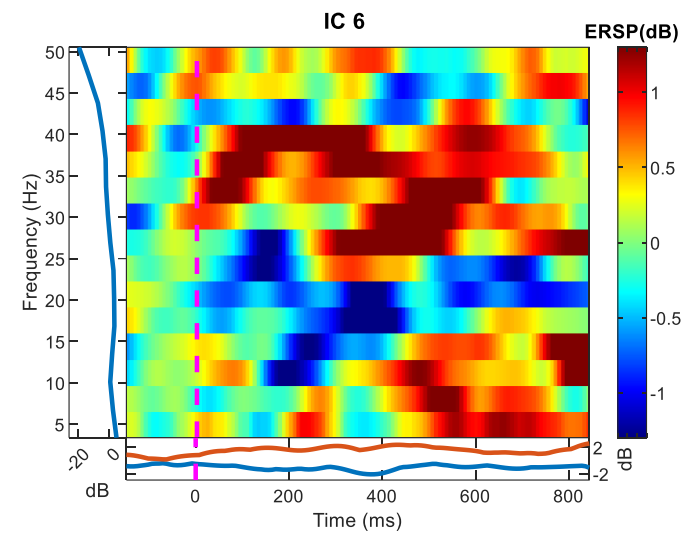
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



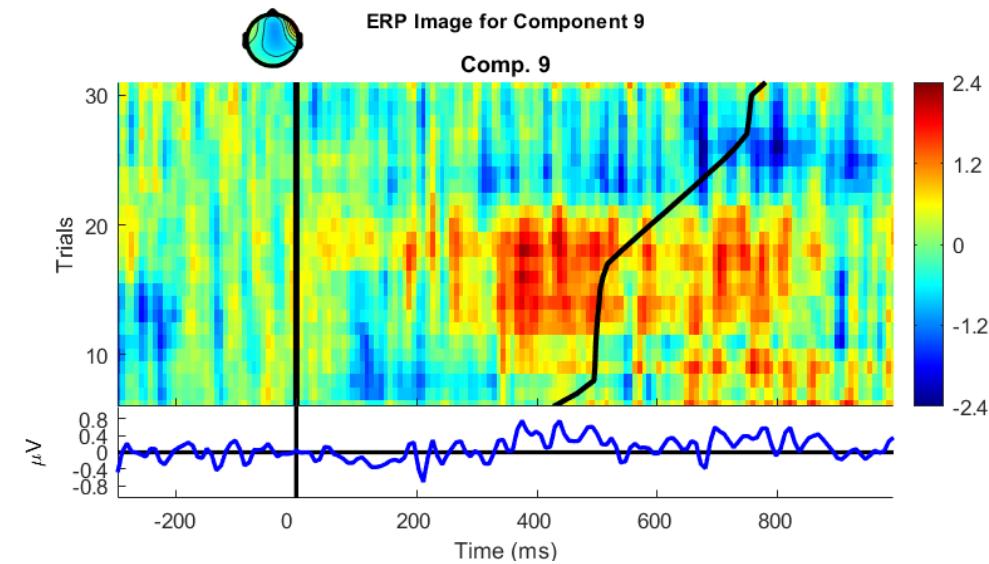
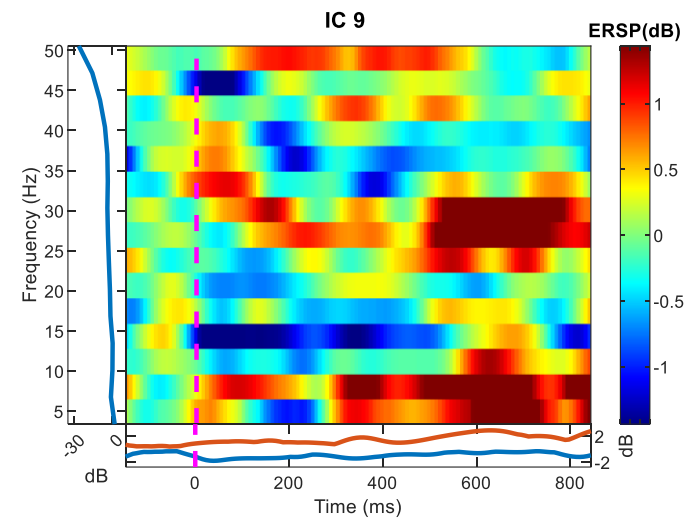
Frontal AF3		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



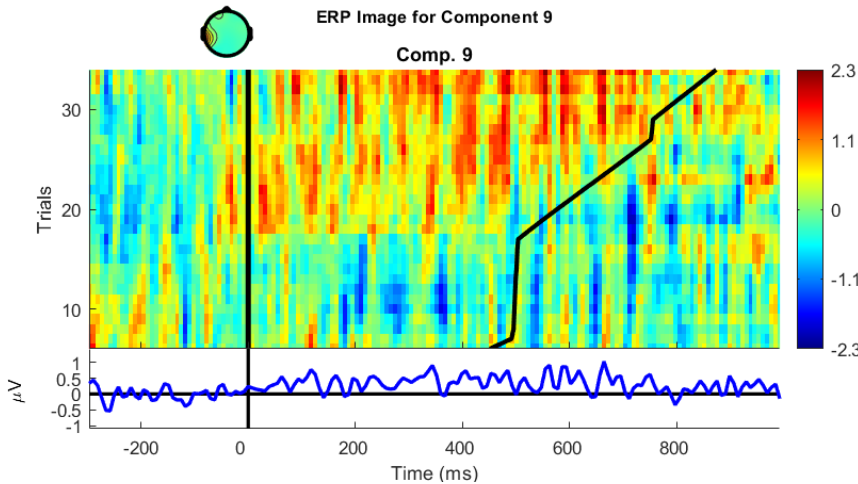
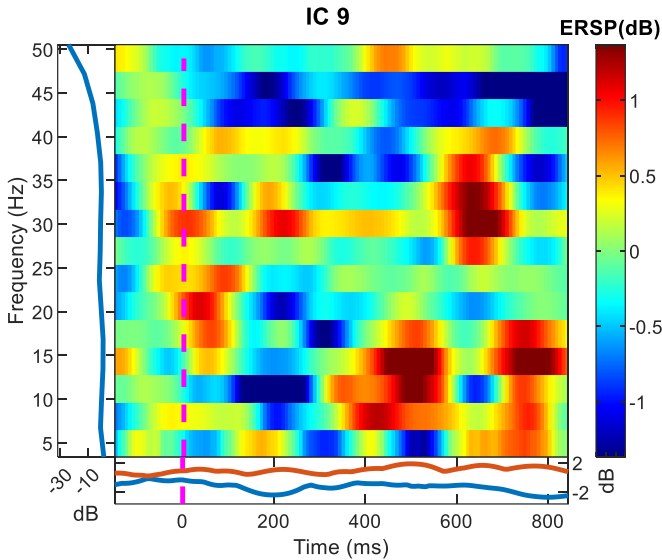
Frontal F4		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 550]	sync	



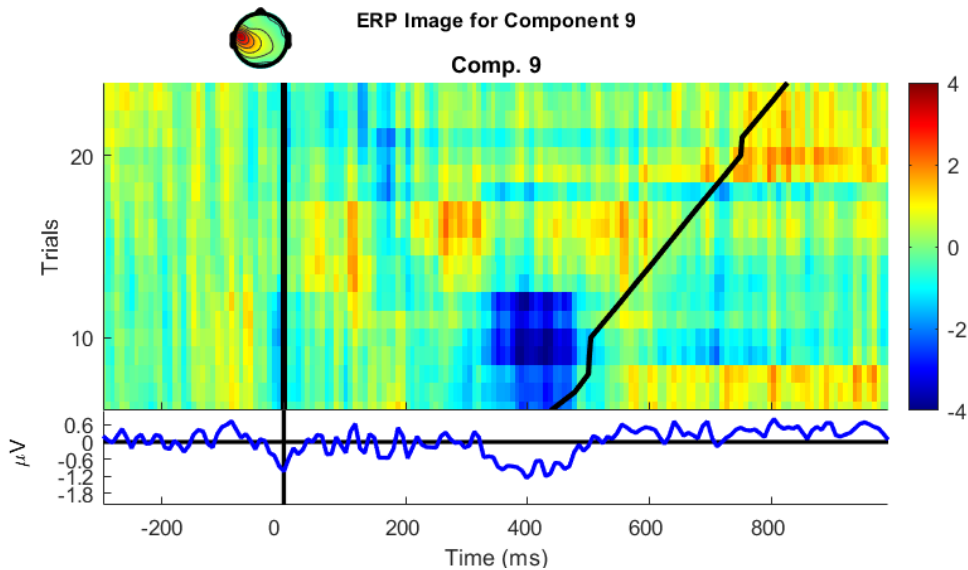
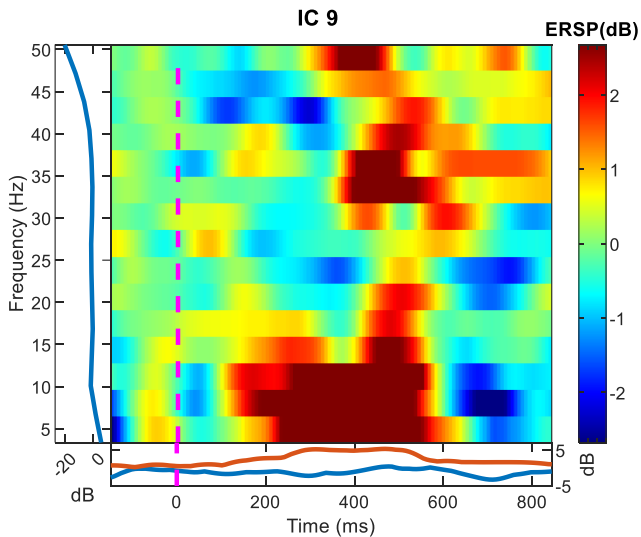
Frontal F8		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 550]	sync	



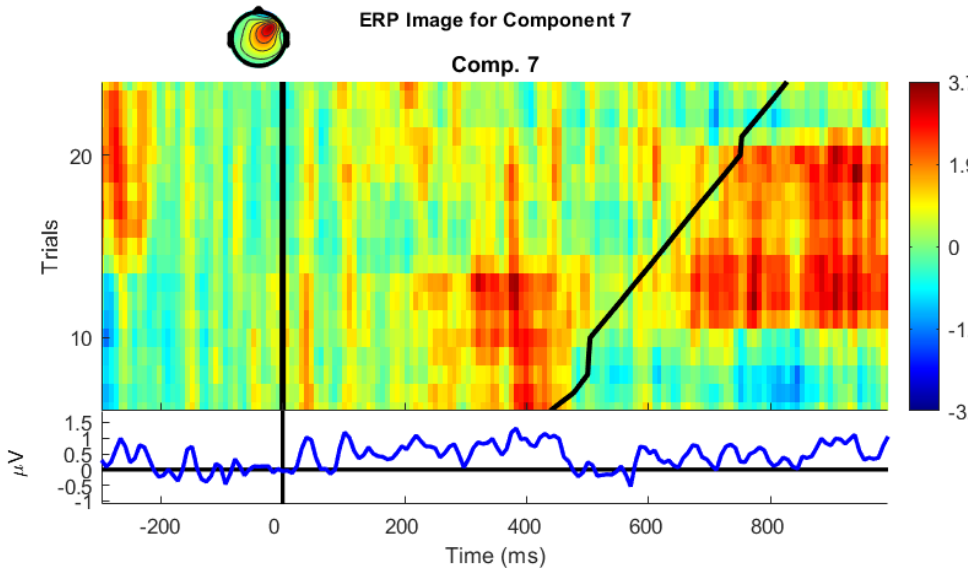
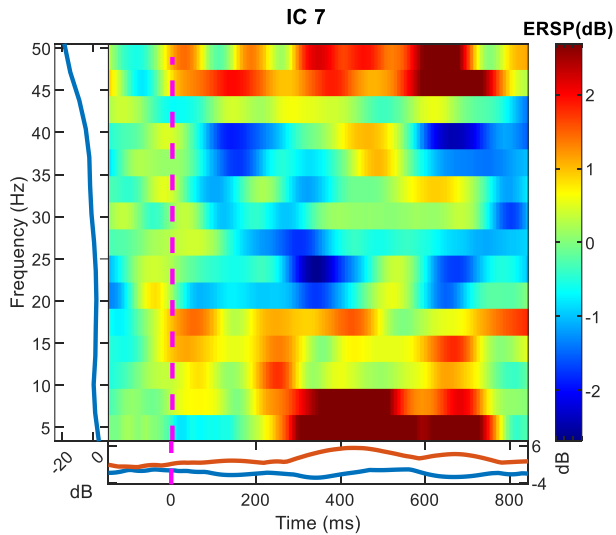
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 550]	sync	



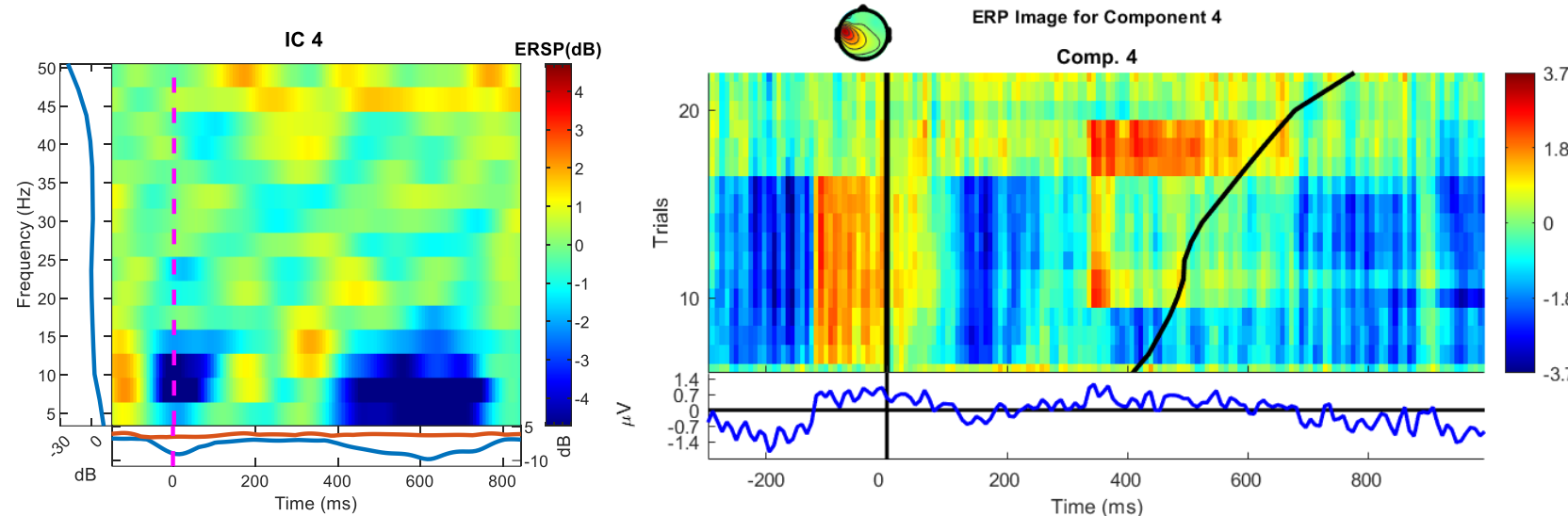
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[300, 500]	sync	



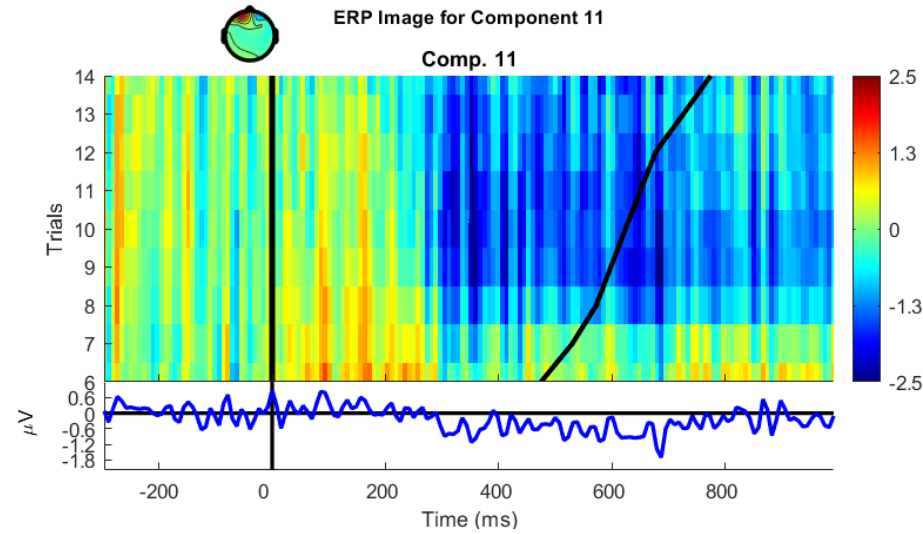
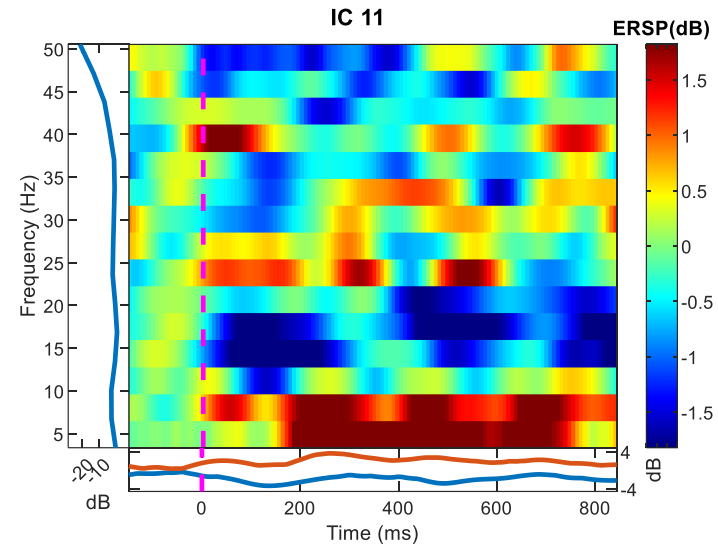
Frontal F4		
Time(ms)	Alpha	
[-50, 100]	desync	
[300, 500]	sync	



Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[250, 400]	sync	



Frontal AF3		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	





Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[410, 700]	sync	

