

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

Decrease alpha
is prominent

Subject 105

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' (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

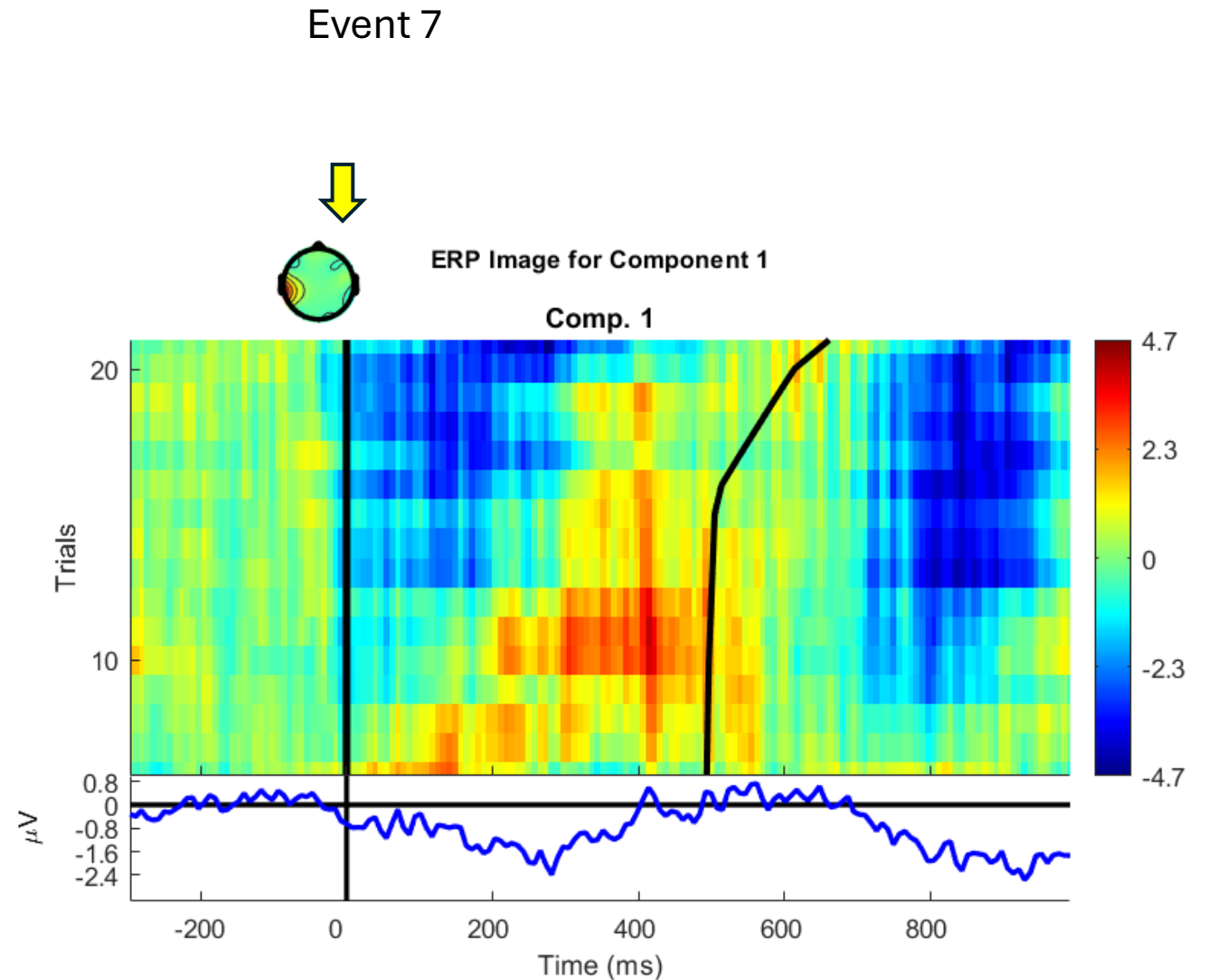
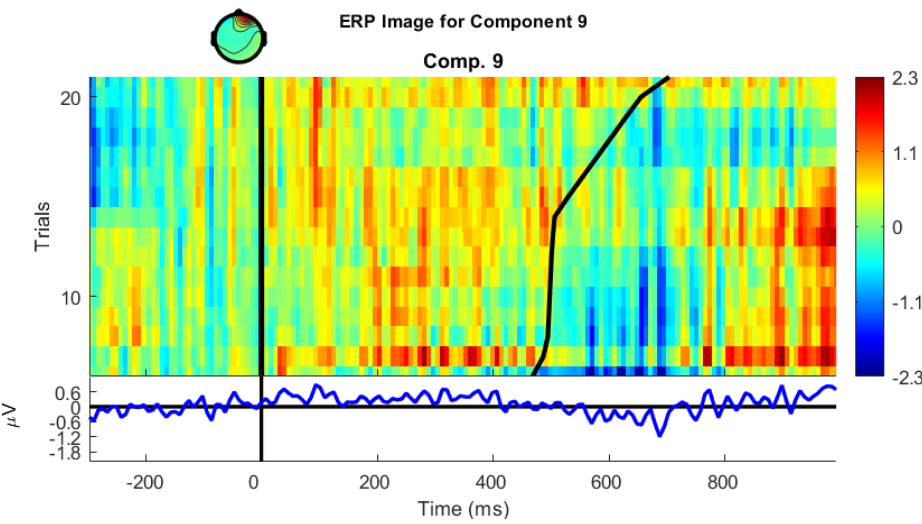
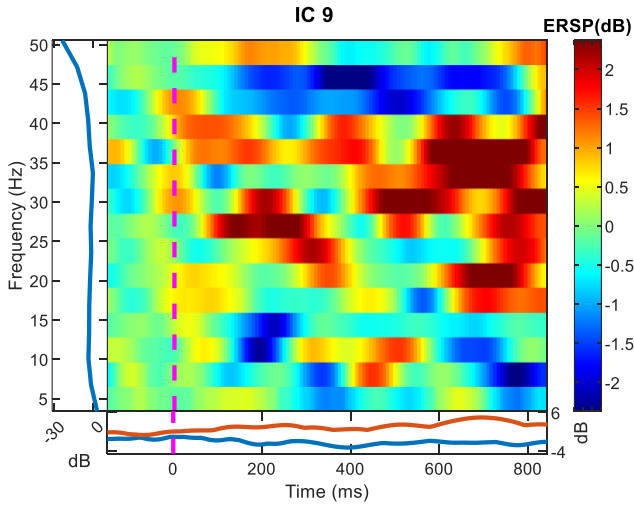
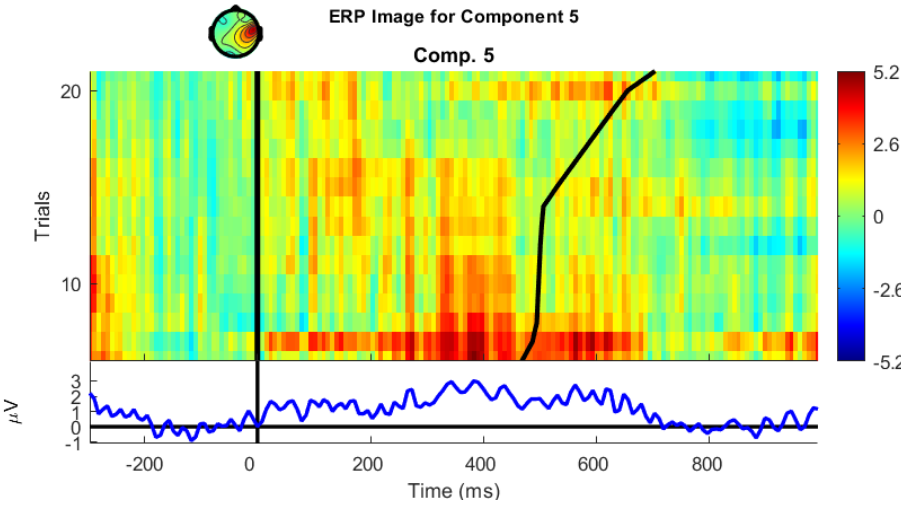
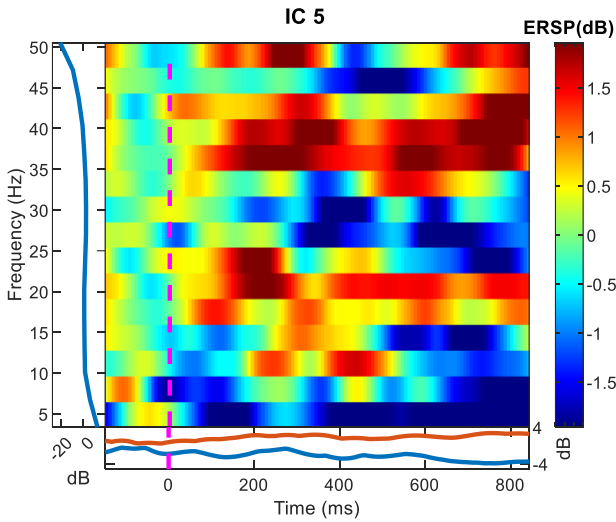


Figure 1. ERP of the 1st component for subject 104 training session 1. Event '7' is the stimulus onset when time = 0ms. Event '6' marks the car's forward movement with a black line, sorted by latency

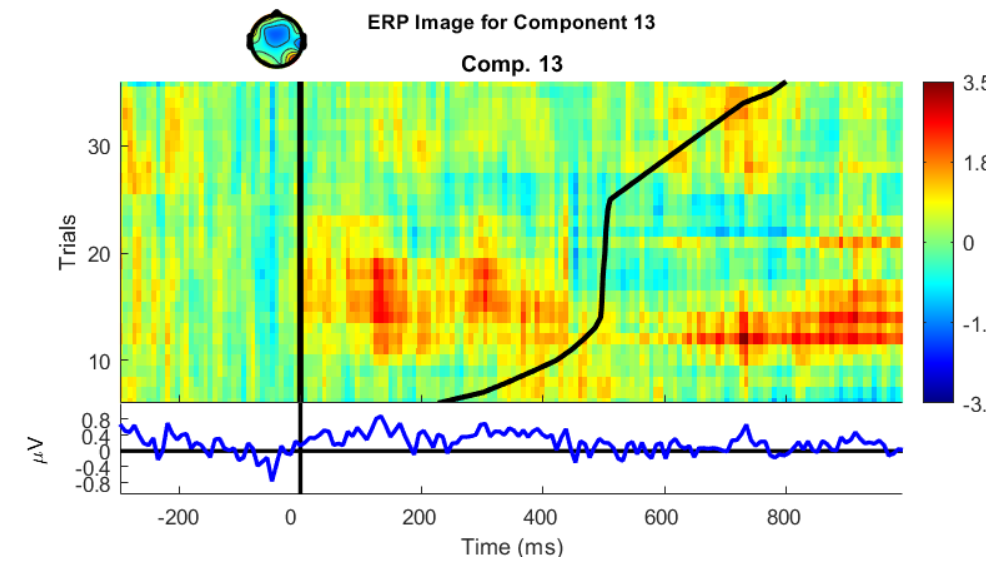
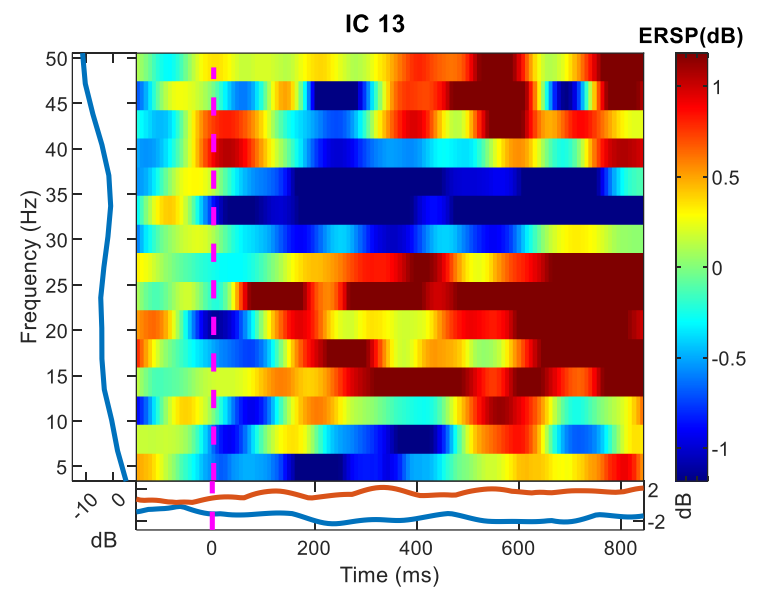
Frontal AF4		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



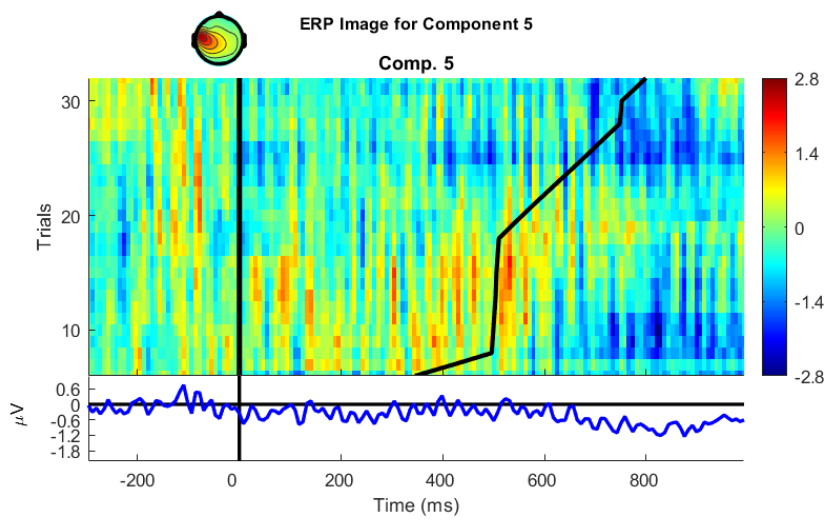
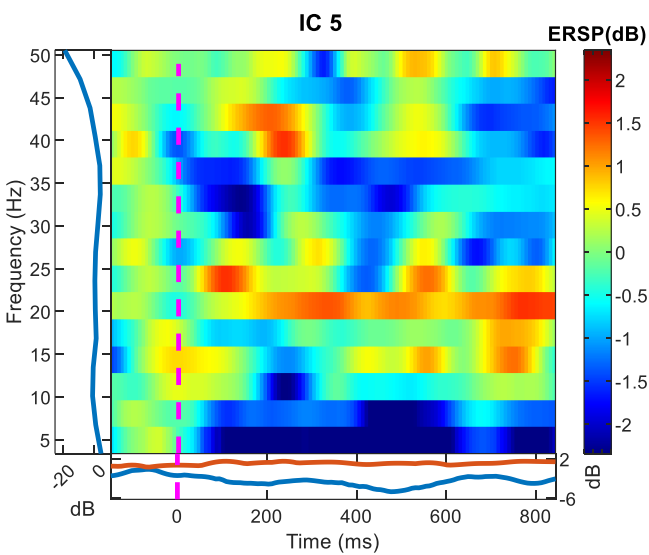
Frontal FC6		
Time(ms)	Alpha	
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[400, 600]	sync	



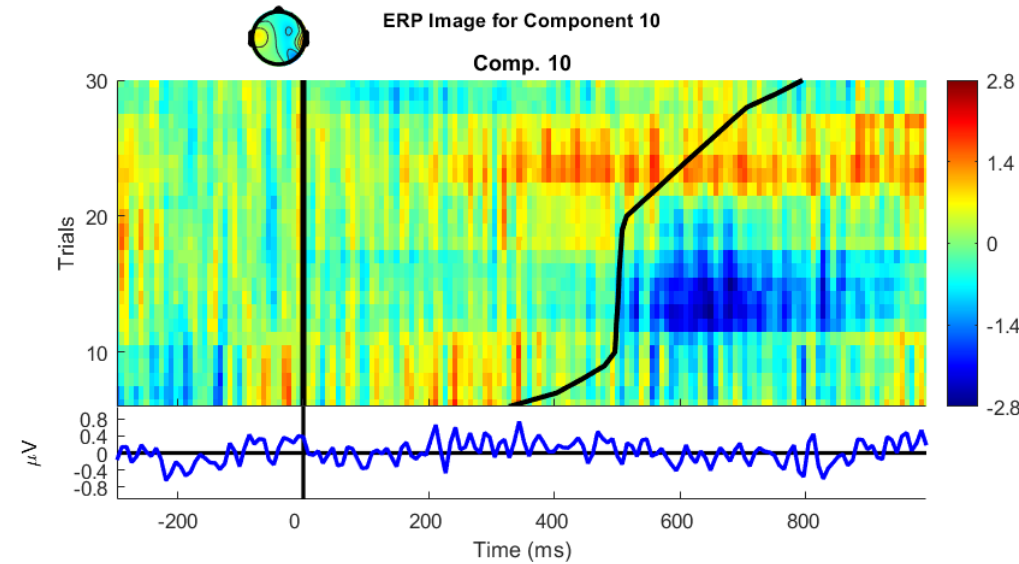
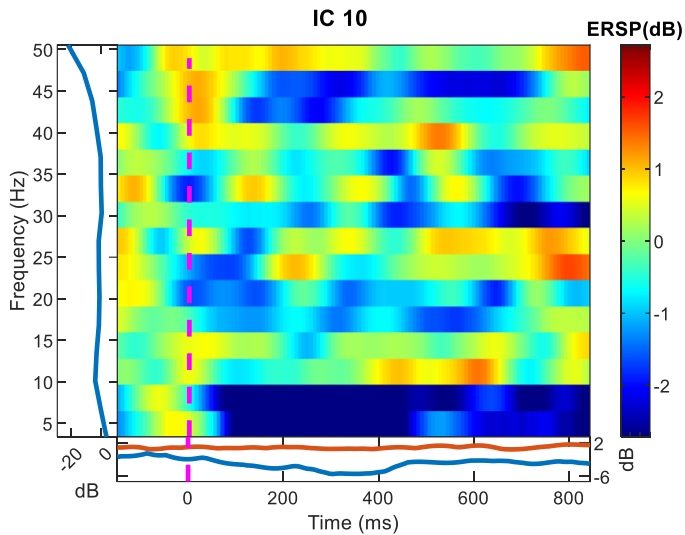
Frontal AF4		
Time(ms)	Alpha	
[-50, 100]	desync	
[250, 500]	sync	



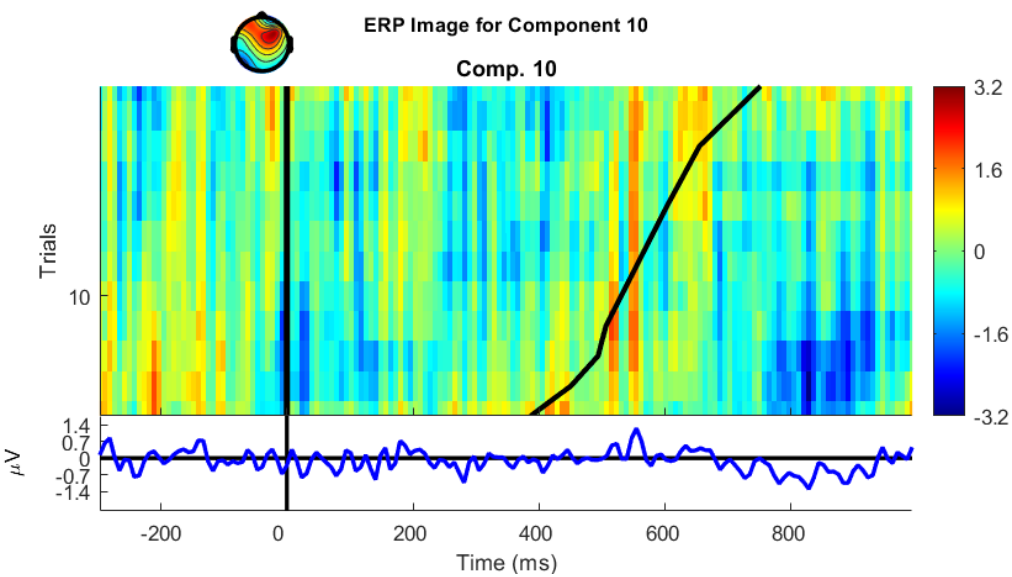
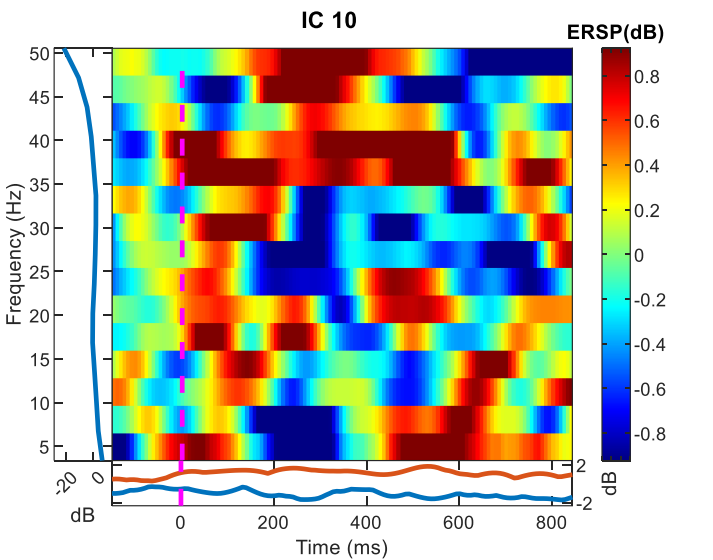
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	sync	
[350, 600]	sync	



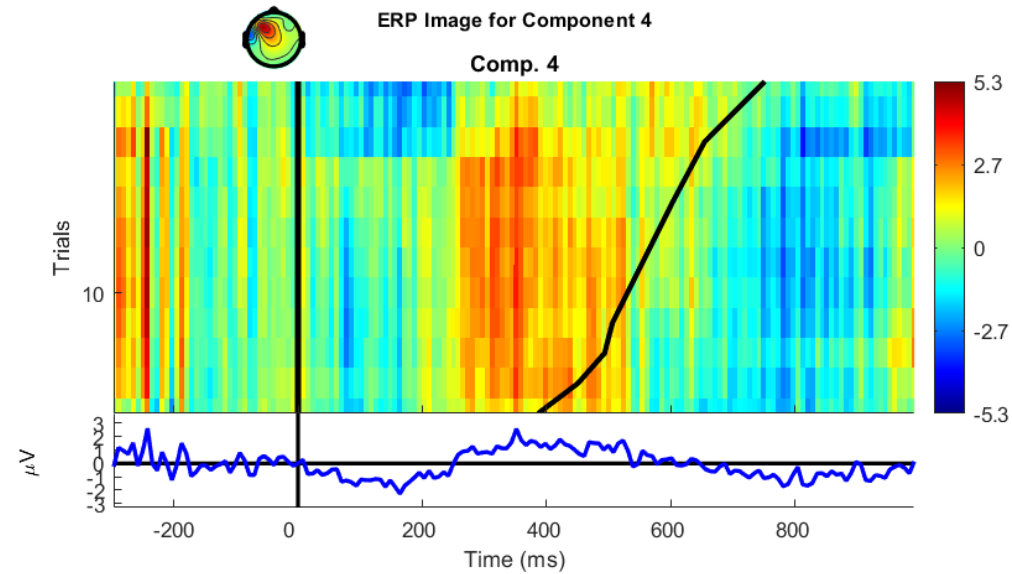
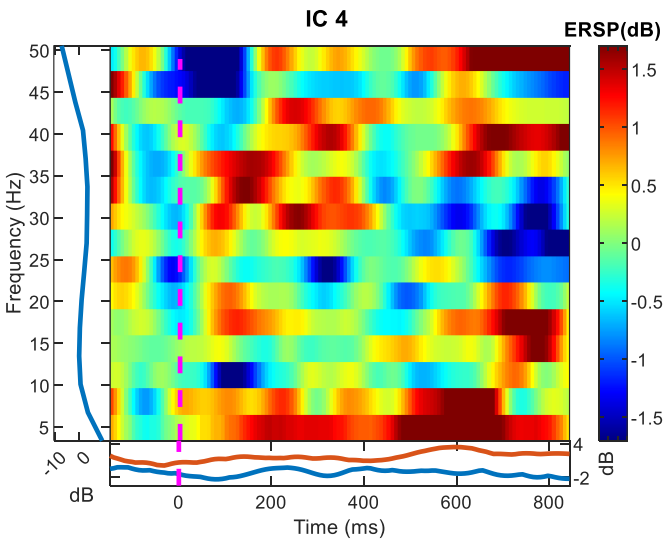
Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 650]	sync	



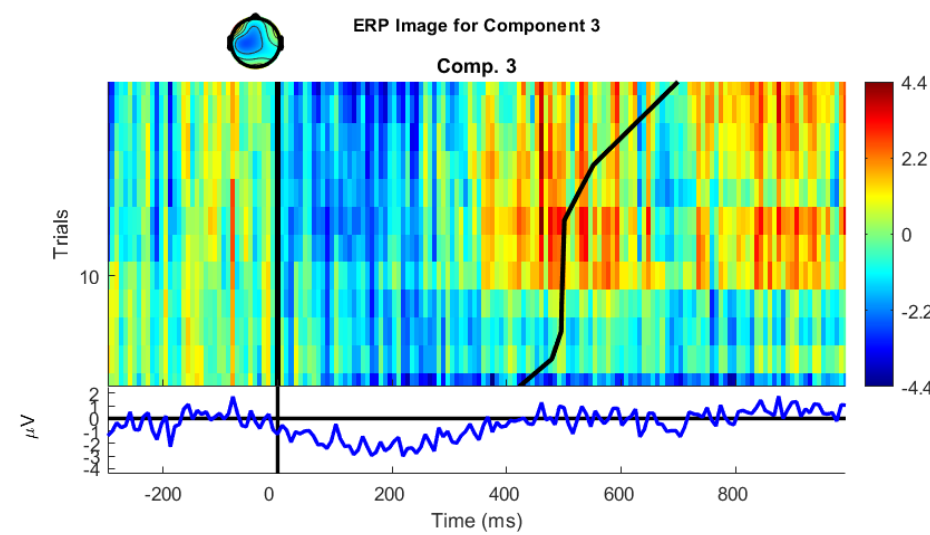
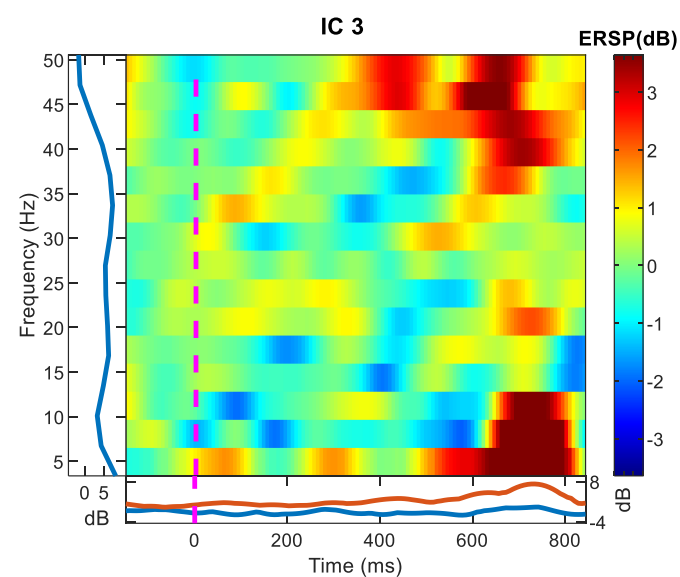
Frontal F4		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



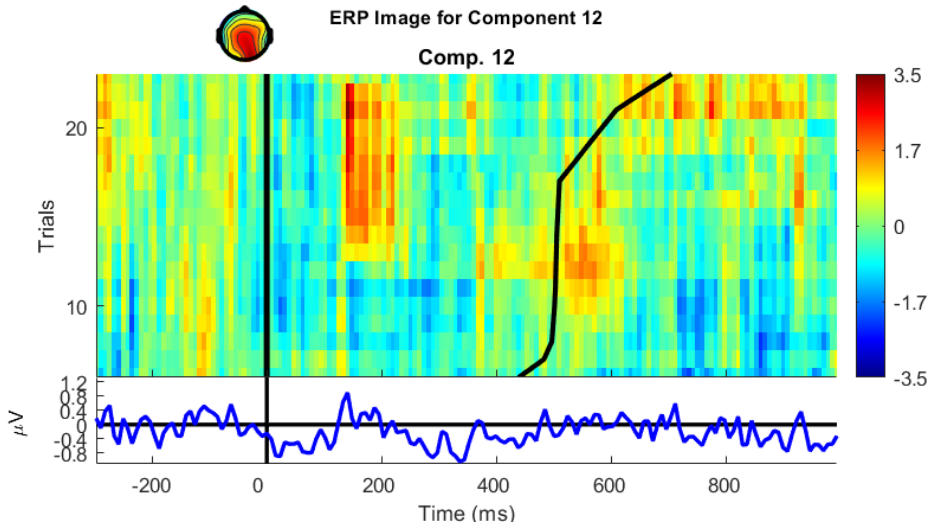
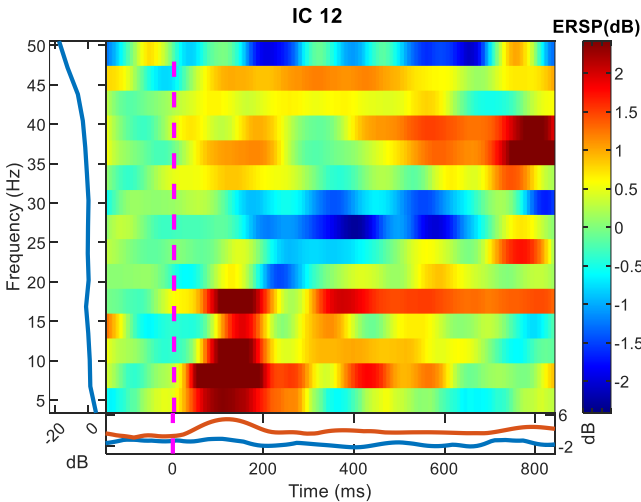
Frontal F3		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 500]	sync	



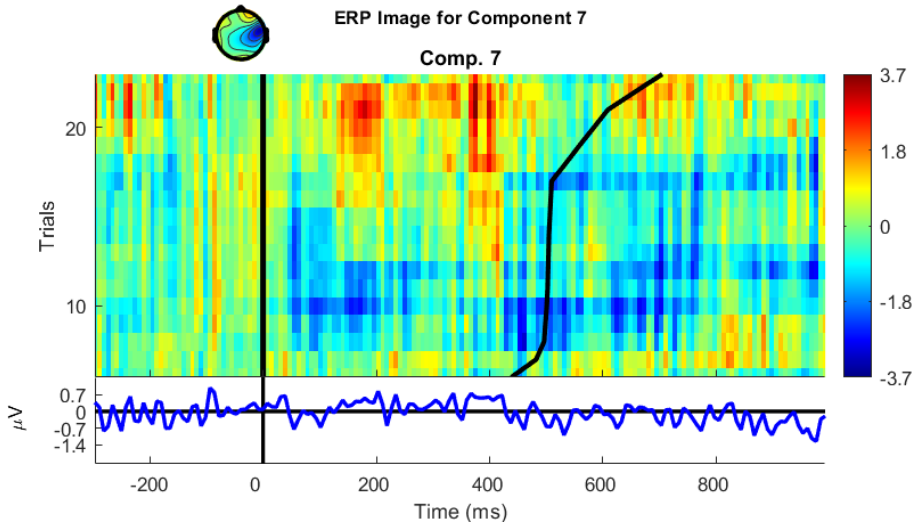
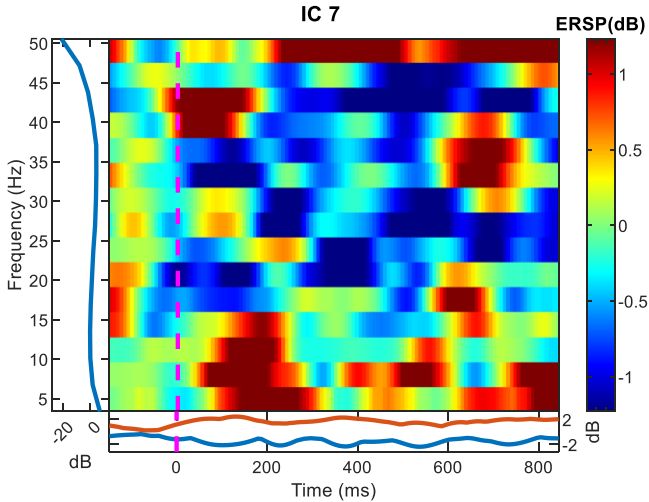
Frontal F7		
Time(ms)	Alpha	
[-50, 100]	desync	
[350, 600]	sync	



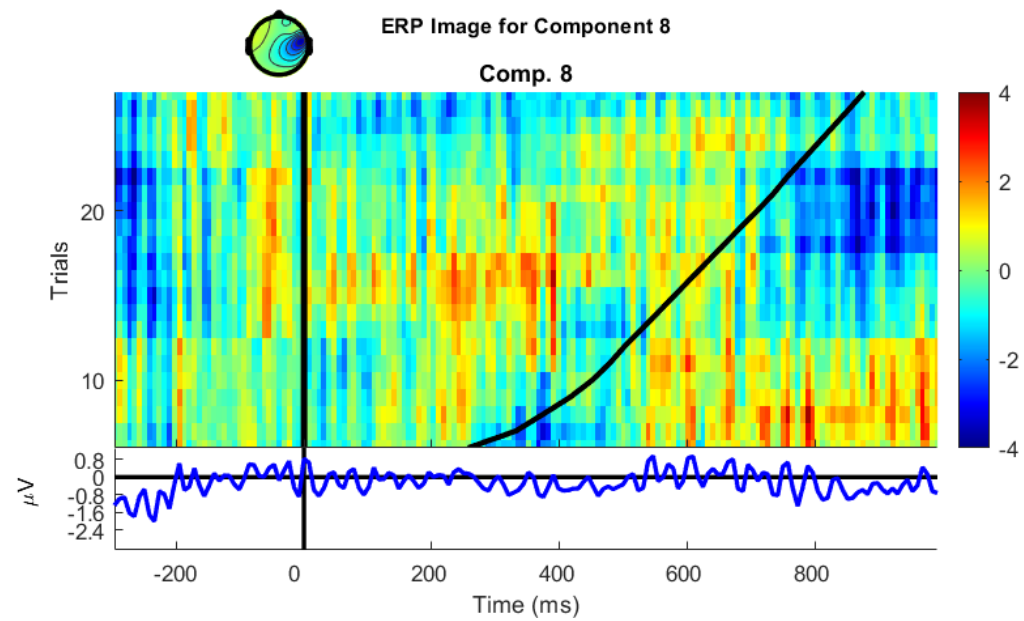
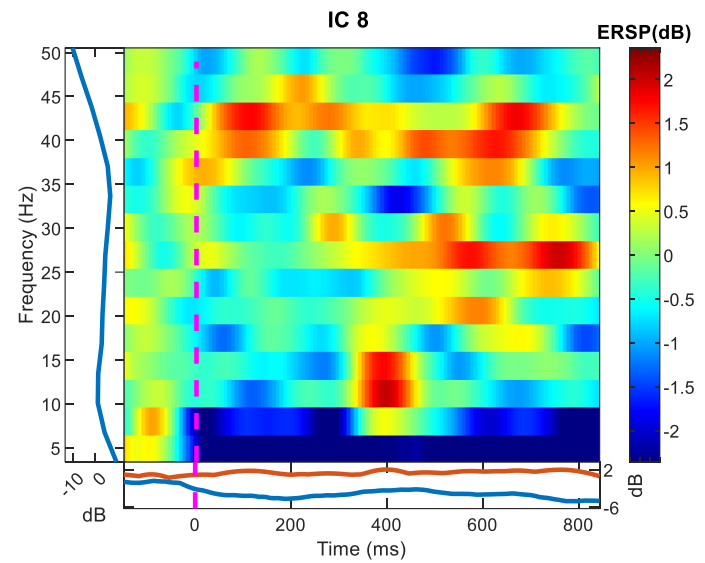
Occipital O2		
Time(ms)	Alpha	
[0, 200]	sync	
[250, 500]	sync	



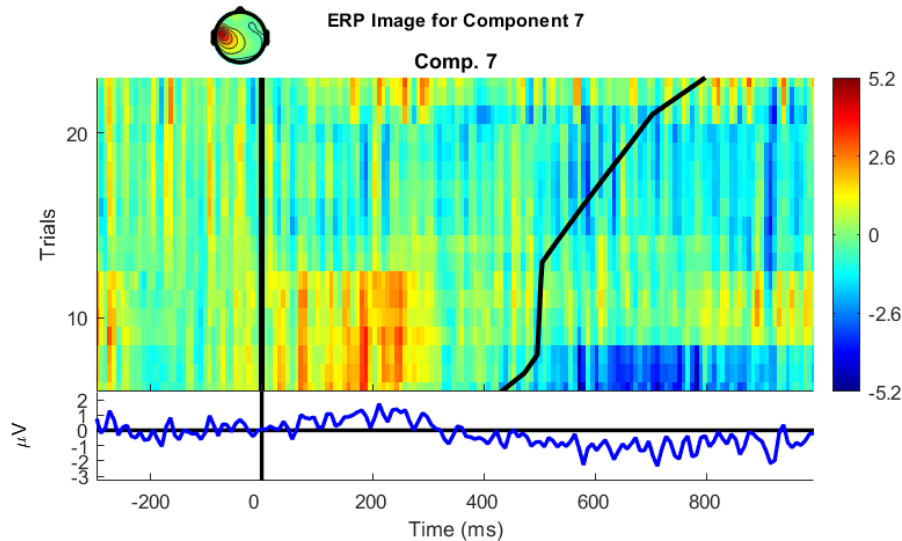
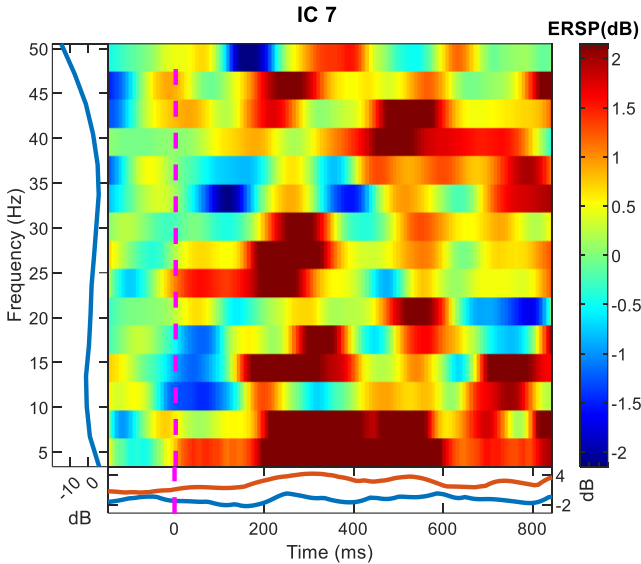
Frontal FC6		
Time(ms)	Alpha	
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[150, 350]	sync	



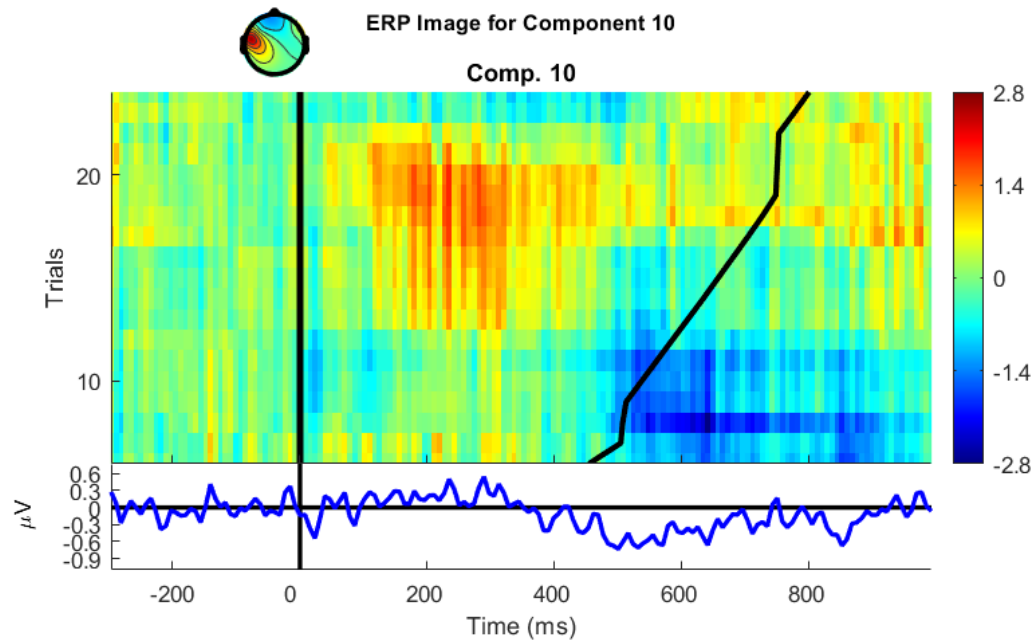
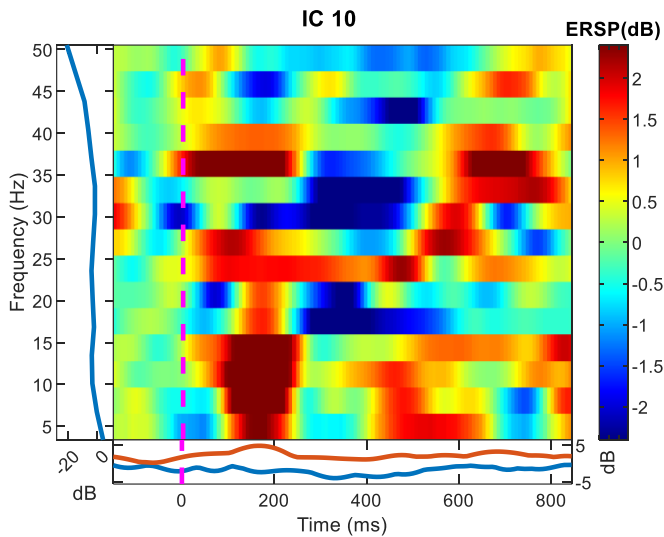
Frontal FC6		
Time(ms)	Alpha	
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[300, 500]	sync	



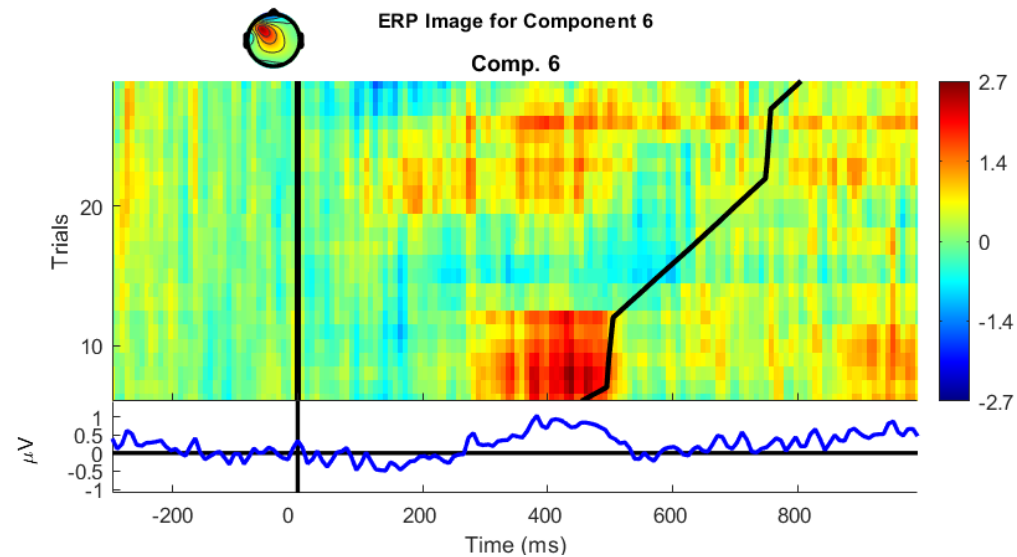
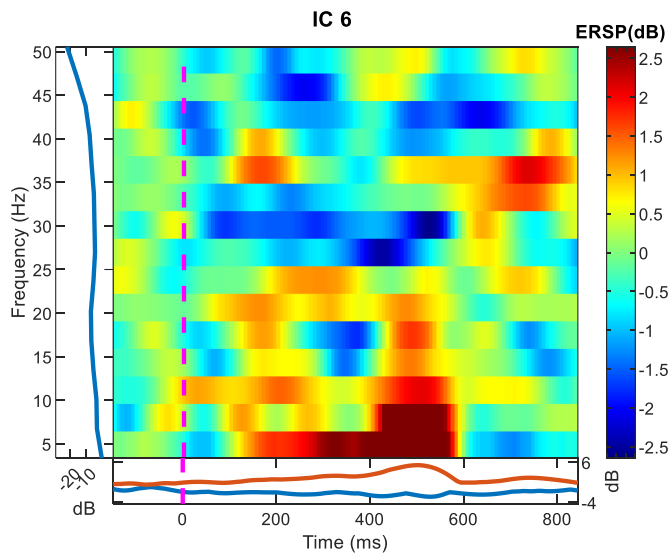
Frontal FC5		
Time(ms)	Alpha	
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[200, 500]	sync	



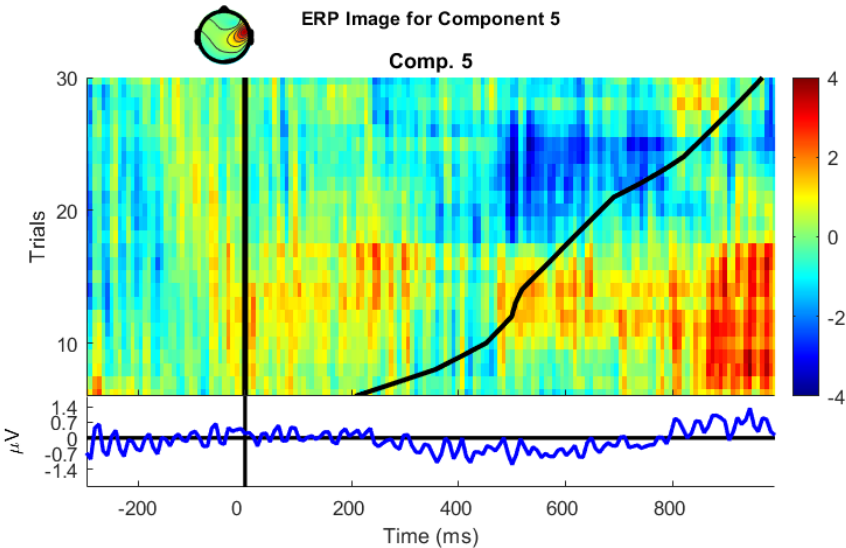
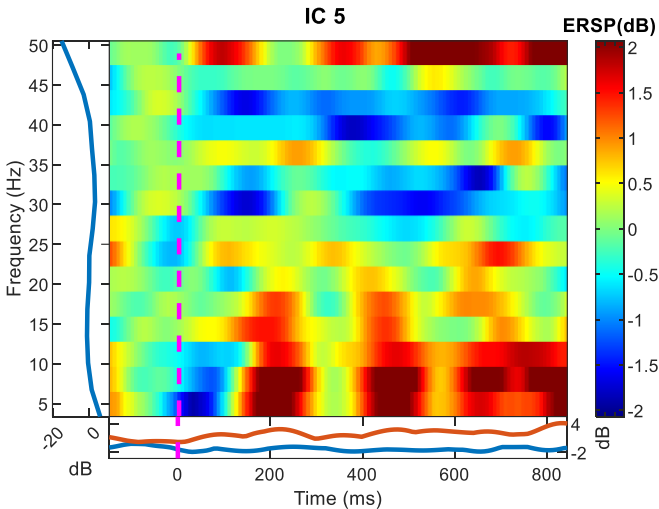
Frontal FC5		
Time(ms)	Alpha	
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[100,220]	sync	



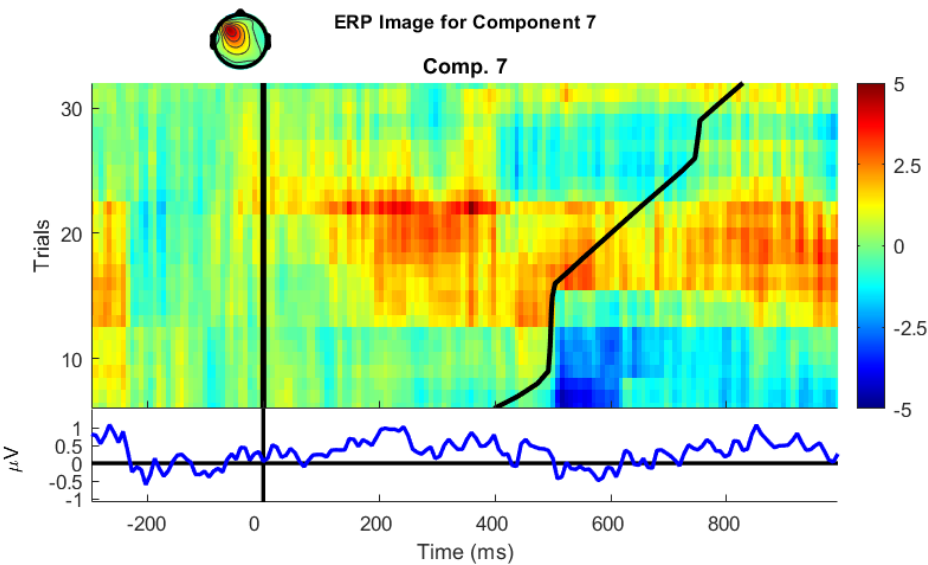
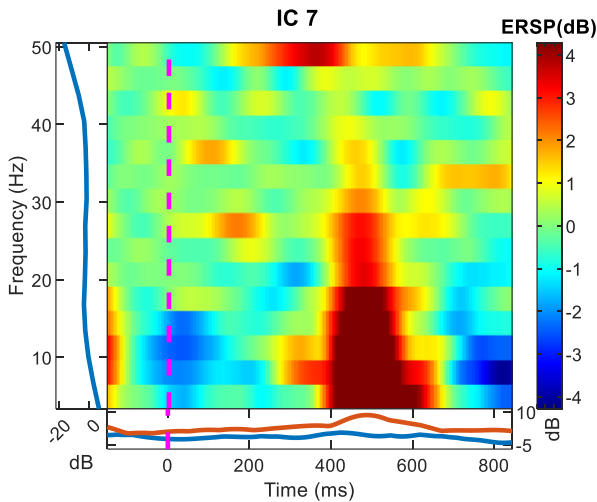
Frontal F3		
Time(ms)	Alpha	
[-50, 100]	desync	
[400, 600]	sync	



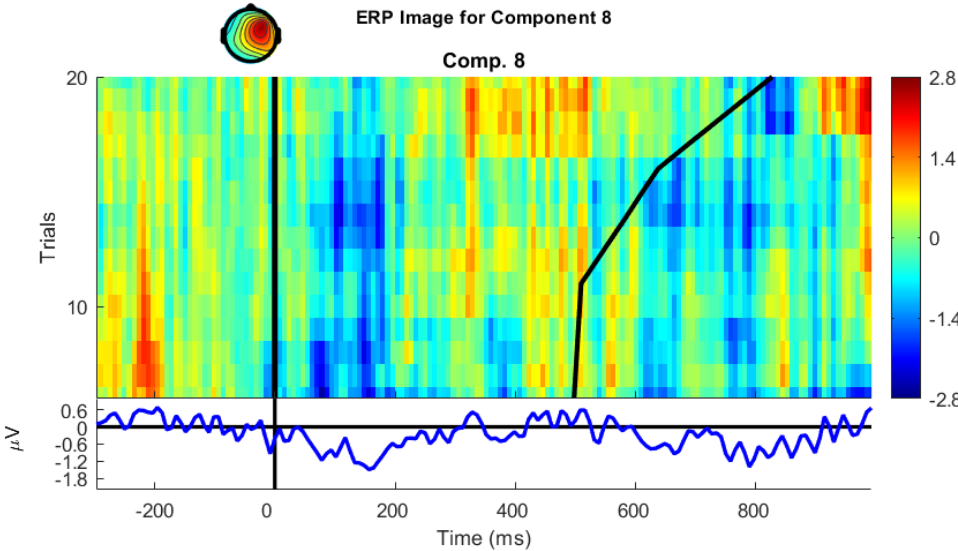
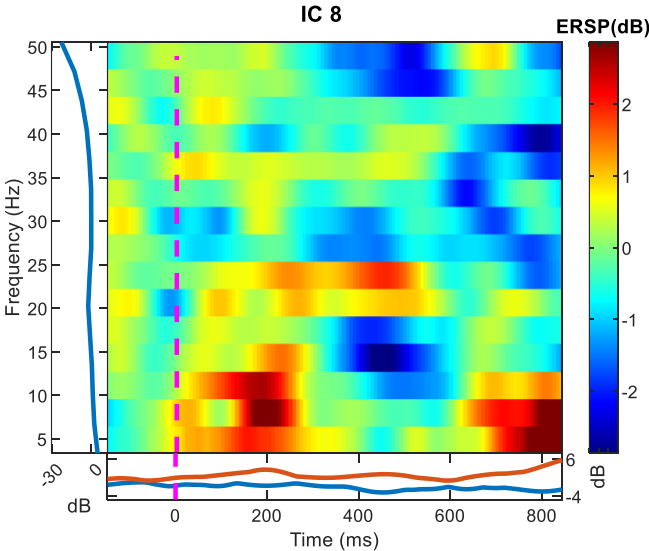
Frontal AF4		
Time(ms)	Alpha	
[-50, 100]	desync	
[150, 300]	sync	



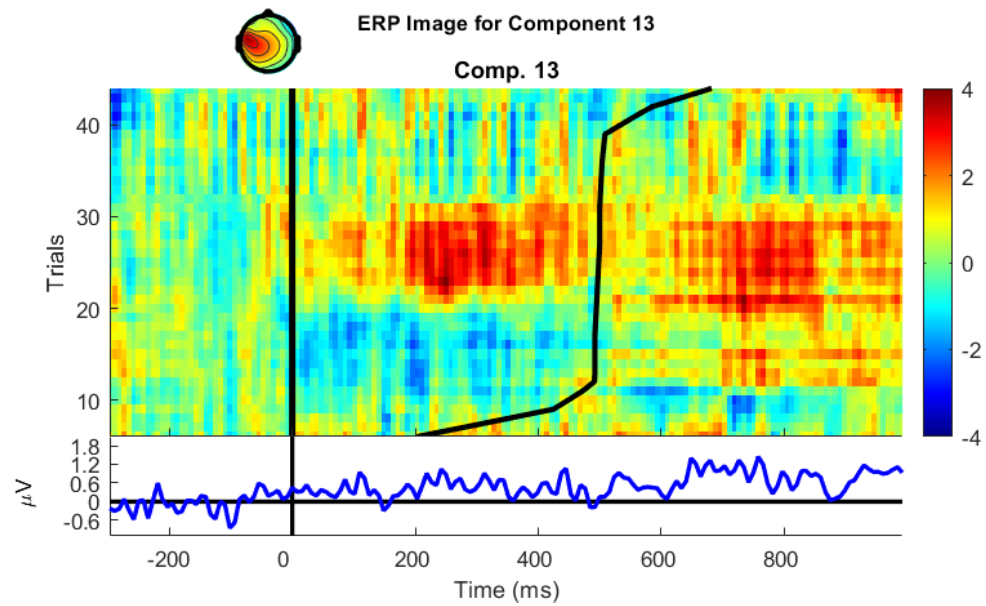
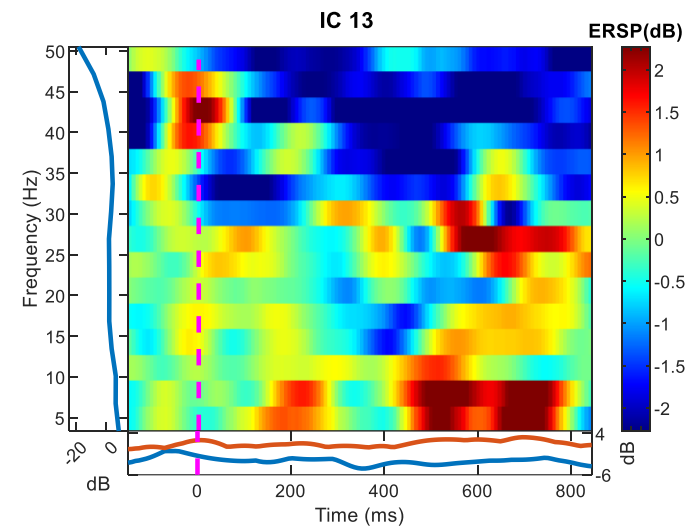
Frontal F3		
Time(ms)	Alpha	
[-50, 100]	desync	
[250, 450]	sync	



Frontal F4		
Time(ms)	Alpha	
[-50, 100]	desync	
[150, 400]	sync	



Frontal FC5		
Time(ms)	Alpha	
[-50, 100]	desync	
[150, 300]	sync	



===== All Regions Summary =====

Region: Left-Frontal

Components processed: 9

p-value (Early vs Middle): 0.00011726 (decrease)

p-value (Middle vs Later): 0.30997914 (decrease)

p-value (Early vs Later): 2.4627686e-06 (decrease)

Region: Right-Frontal

Components processed: 8

p-value (Early vs Middle): 0.42838 (decrease)

p-value (Middle vs Later): 0.27468174 (decrease)

p-value (Early vs Later): 0.041785561 (decrease)

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: NA

p-value (Early vs Middle): NA

p-value (Middle vs Later): NA

p-value (Early vs Later): NA

Region: Left-Parietal

Components processed: 0

p-value (Early vs Middle): NA

p-value (Middle vs Later): NA

p-value (Early vs Later): NA

Region: Right-Parietal

Components processed: 0

p-value (Early vs Middle): NA

p-value (Middle vs Later): NA

p-value (Early vs Later): NA