Table S1.

Frequency	Region	Comparison	(t)	Significance (p)
α	r-LOC	Flanker vs. control	-3.89	<.001*
		Simon vs. control	-0.09	.926
		MS vs. control	-2.98	.007*
		Flanker vs. Simon	-3.68	.001*
		MS vs. Flanker	-0.23	.820
		MS vs. Simon	-2.63	.015*
	r-Cerebellum	Flanker vs. control	-4.16	<.001*
		Simon vs. control	-1.25	.223
		MS vs. control	-3.30	.003*
		Flanker vs. Simon	-2.49	.021#
		MS vs. Flanker	-0.62	.539
		MS vs. Simon	-2.62	.016#
γ	r-LOC	Flanker vs. control	-0.13	.897
		Simon vs. control	2.88	.009*
		MS vs. control	2.86	.009*
		Flanker vs. Simon	-3.33	.003*
		MS vs. Flanker	2.81	.010*
		MS vs. Simon	0.21	.834

LOC: lateral occipital cortex. *p <.05 after multiple comparisons correction (using the Holm-Bonferonni method, per model), #p <.10 after multiple comparisons correction.
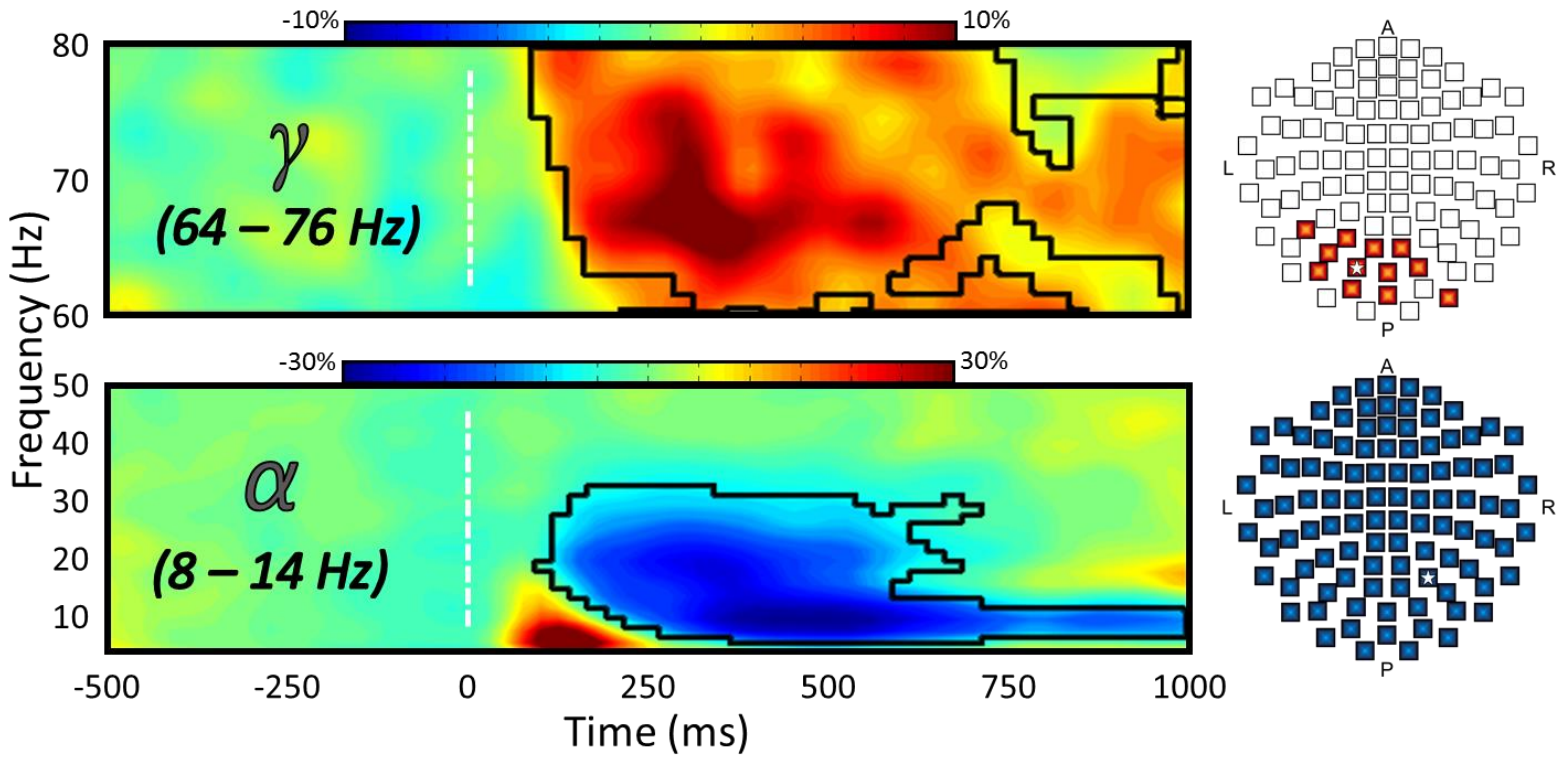
Figure S1. Cluster-based permutation testing results at the sensor-level. Black outlines on the representative time-frequency spectrograms (left) represent the temporal and spectral extent of the significant cluster, over the region where the response was strongest. Colored boxes to the right represent the spatial locations of sensors where these clusters were significant, with the representative sensor from the left indicated by a star.
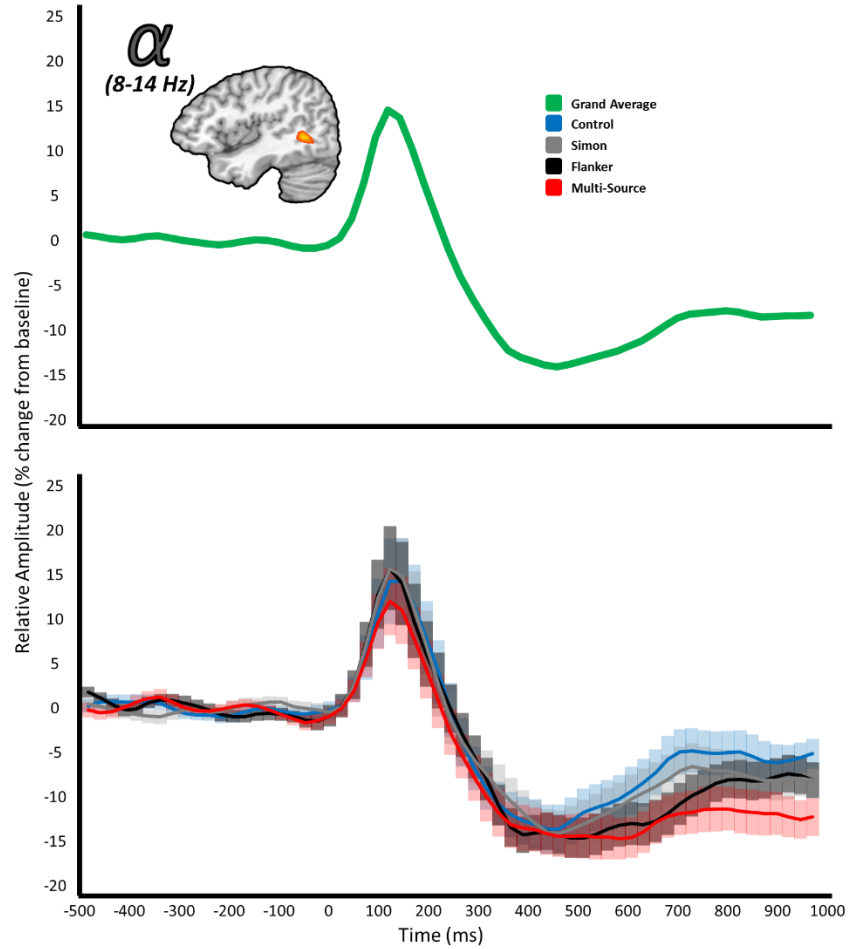
Figure S2. Peak voxel time series for the effect of interference condition on right lateral occipital alpha responses. Time series data are displayed for the right occipital peak identified in the whole-brain RM-ANOVA of the alpha response, with time (in ms) denoted on the x-axis and relative amplitude (in % from baseline) on the y-axis. Standard error of the mean for each trace is shown using shaded areas.
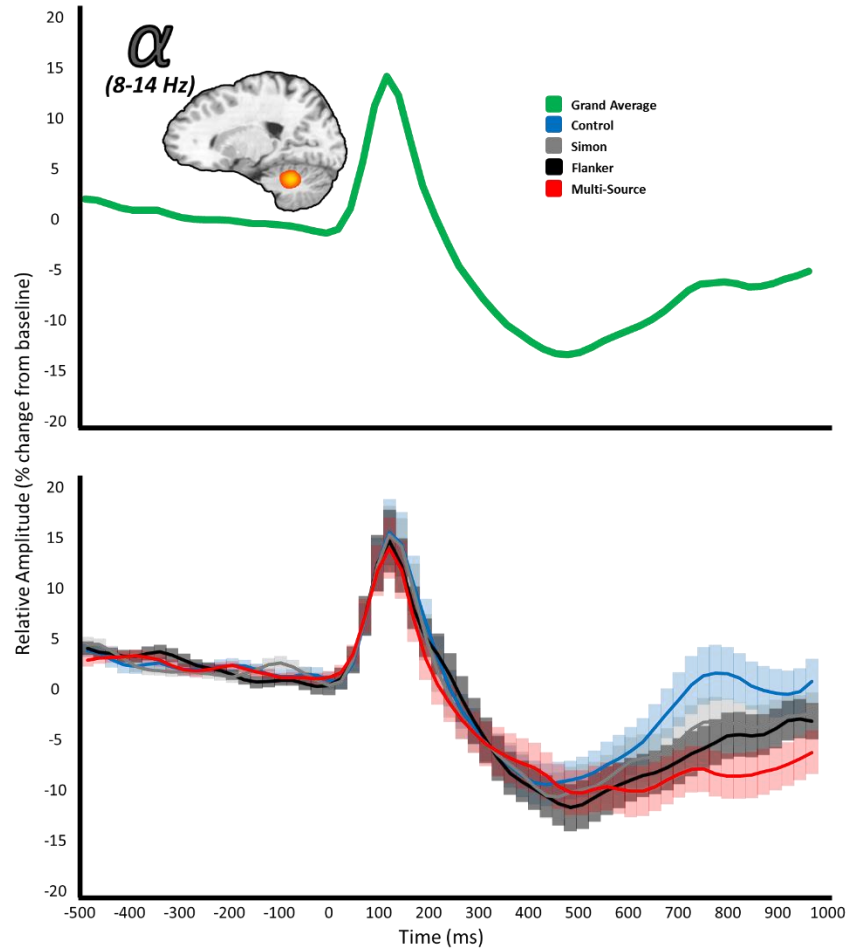
Figure S3. Peak voxel time series for the effect of interference condition on right cerebellar alpha responses. Time series data are displayed for the right cerebellar peak identified in the whole-brain RM-ANOVA of the alpha response, with time (in ms) denoted on the x-axis and relative amplitude (in % from baseline) on the y-axis. Standard error of the mean for each trace is shown using shaded areas.
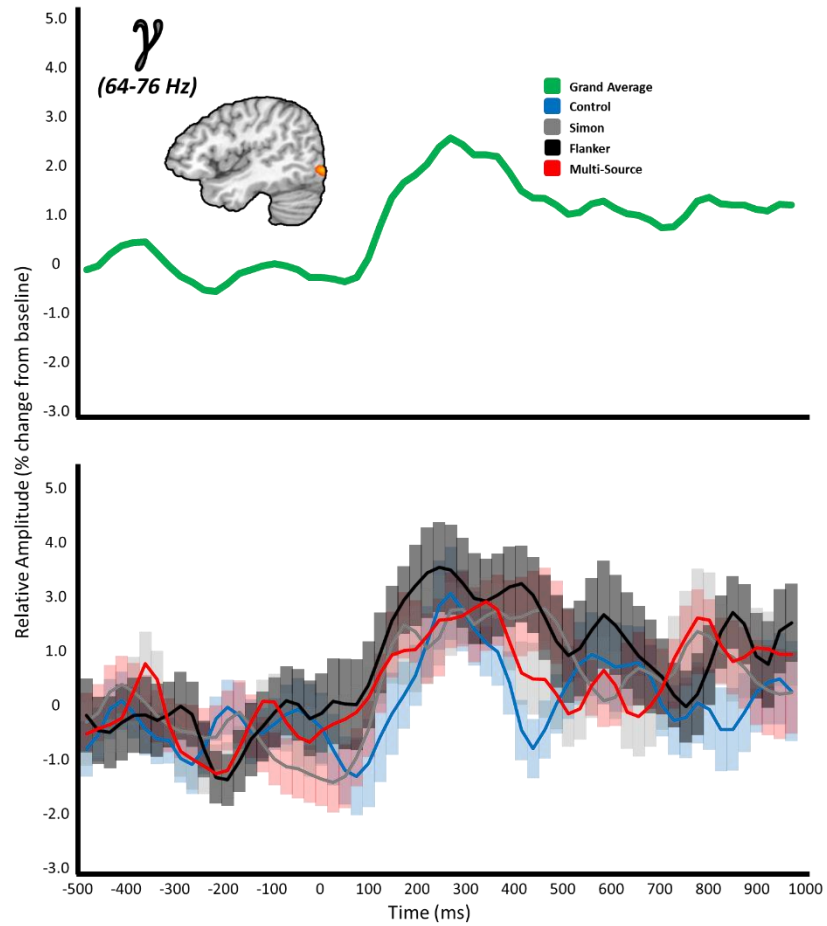
Figure S4. Peak voxel time series for the effect of interference condition on right lateral occipital gamma responses. Time series data are displayed for the right occipital peak identified in the whole-brain RM-ANOVA of the gamma response, with time (in ms) denoted on the x-axis and relative amplitude (in % from baseline) on the y-axis. Standard error of the mean for each trace is shown using shaded areas.