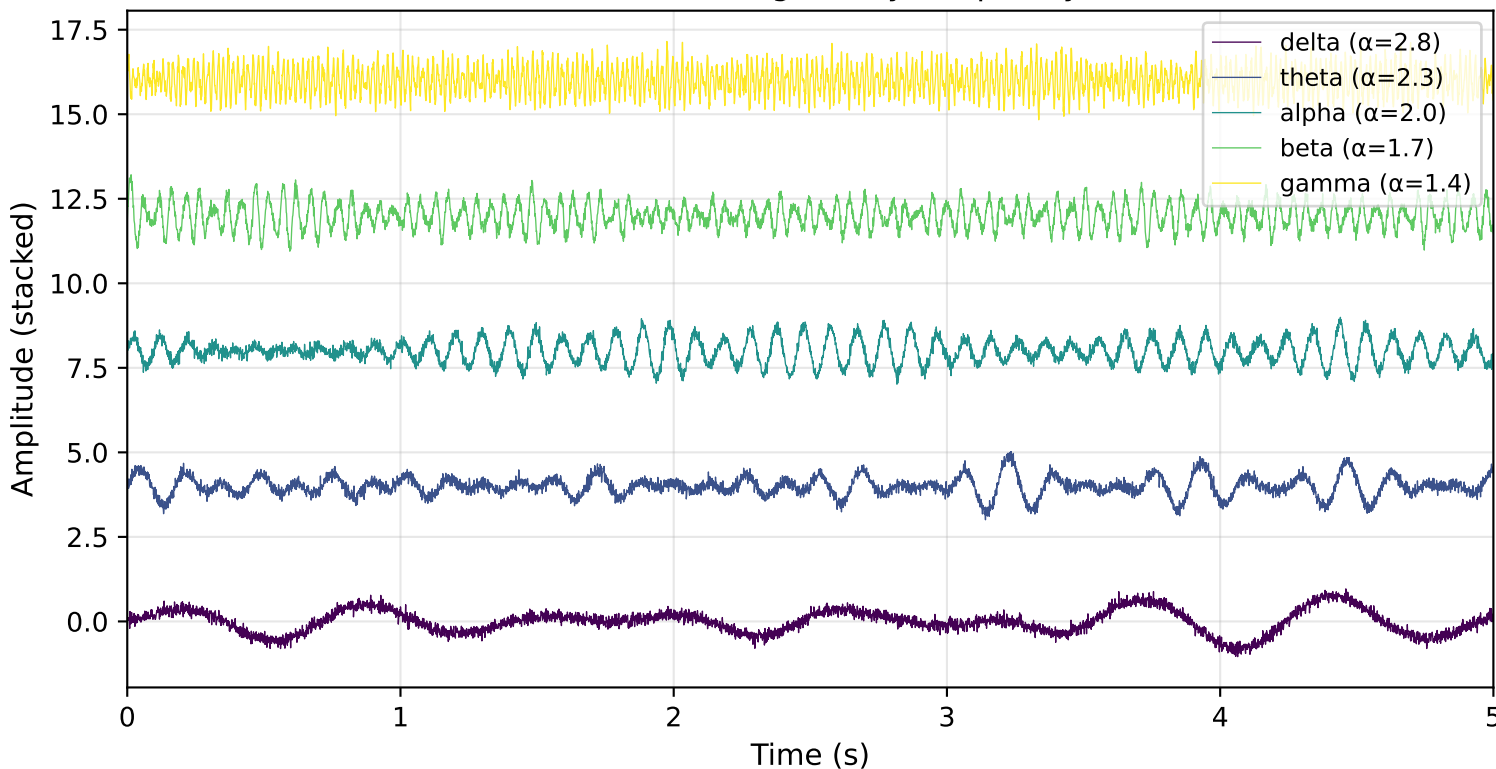
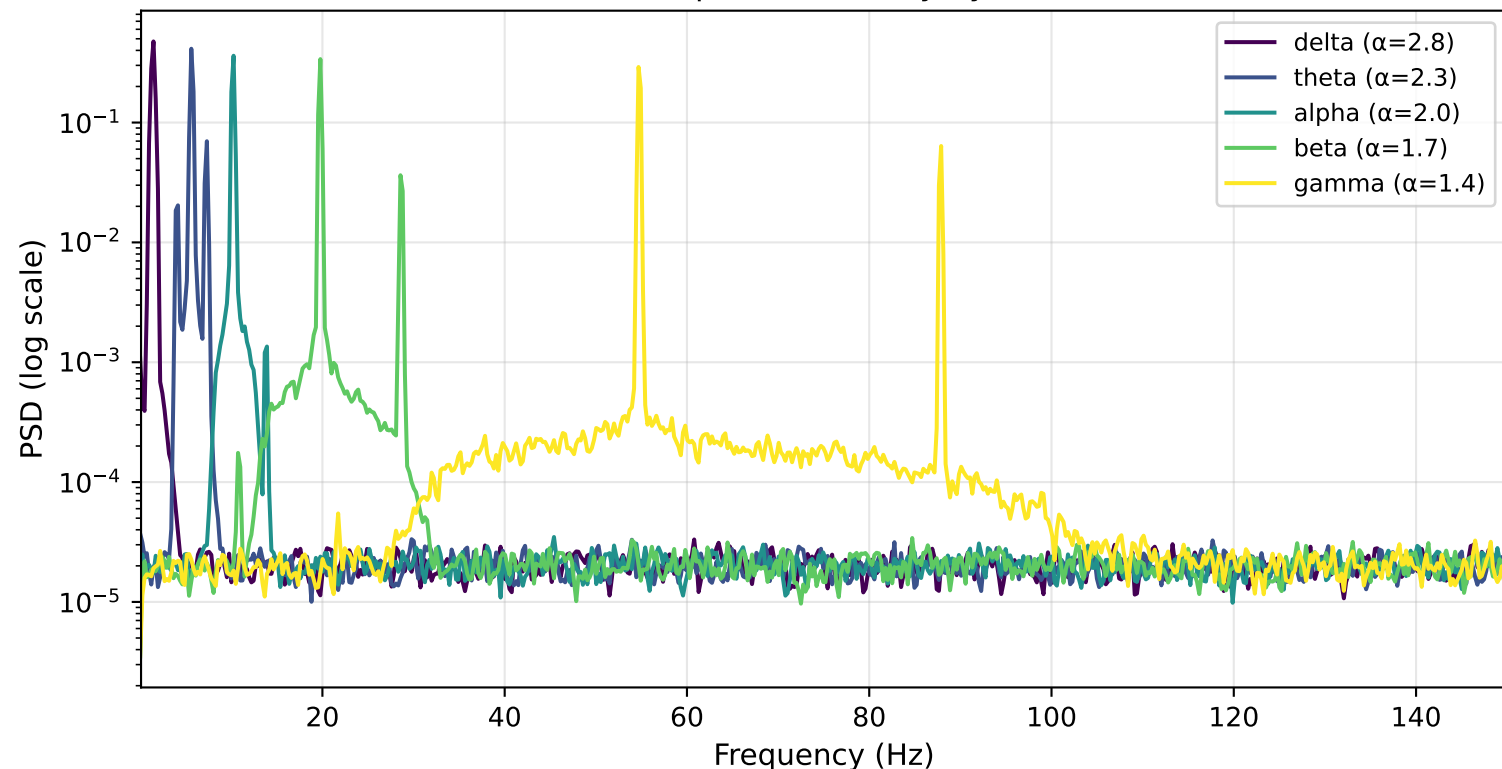
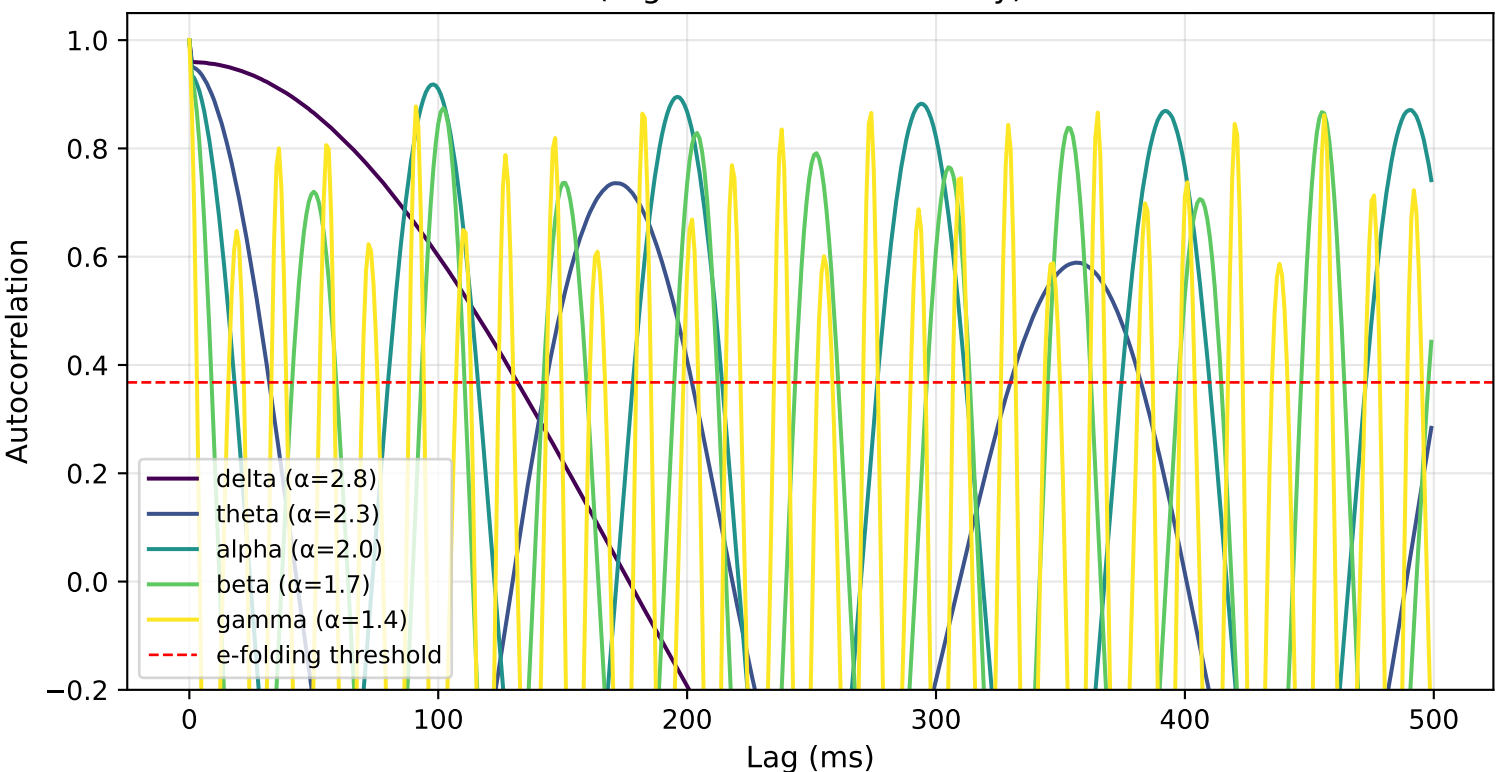
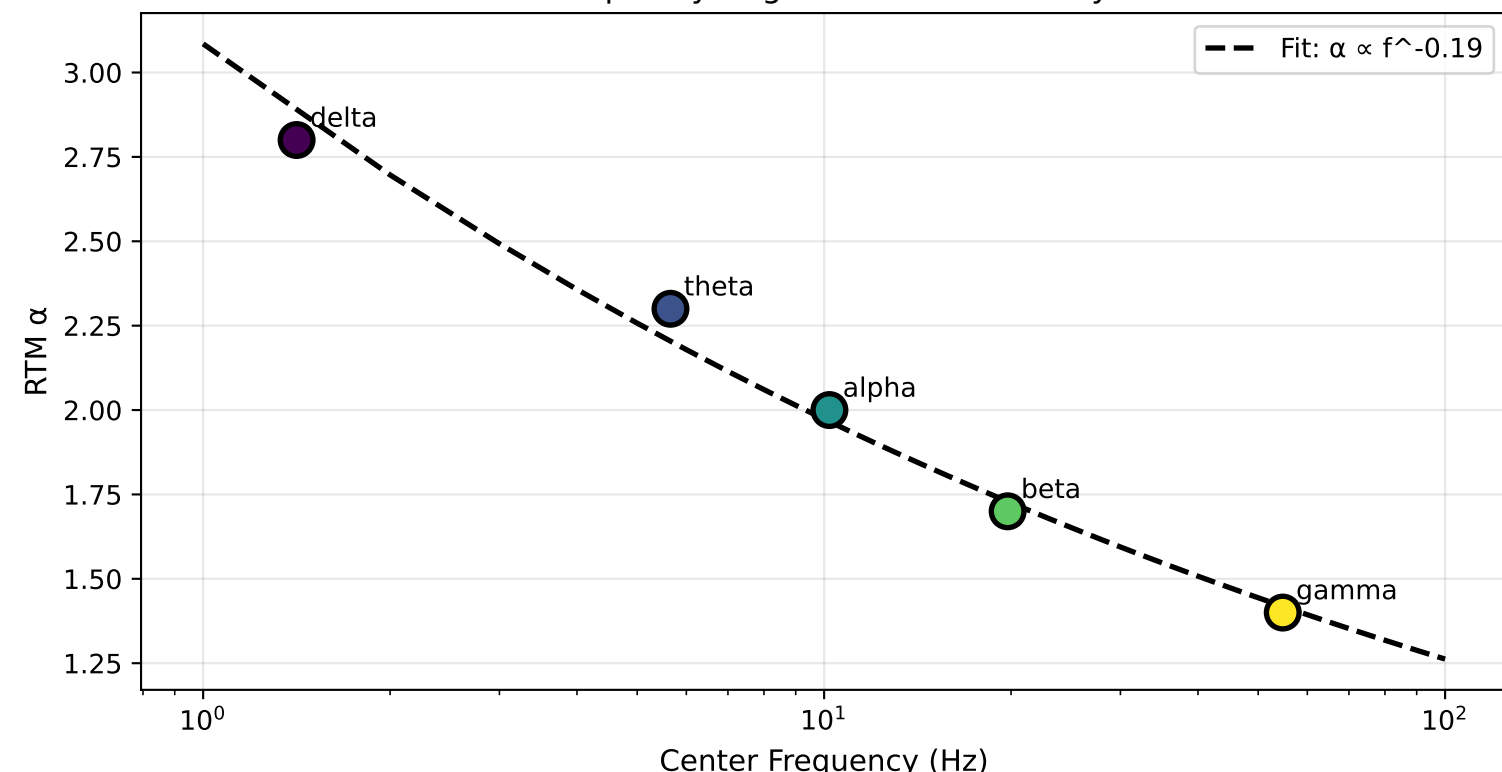


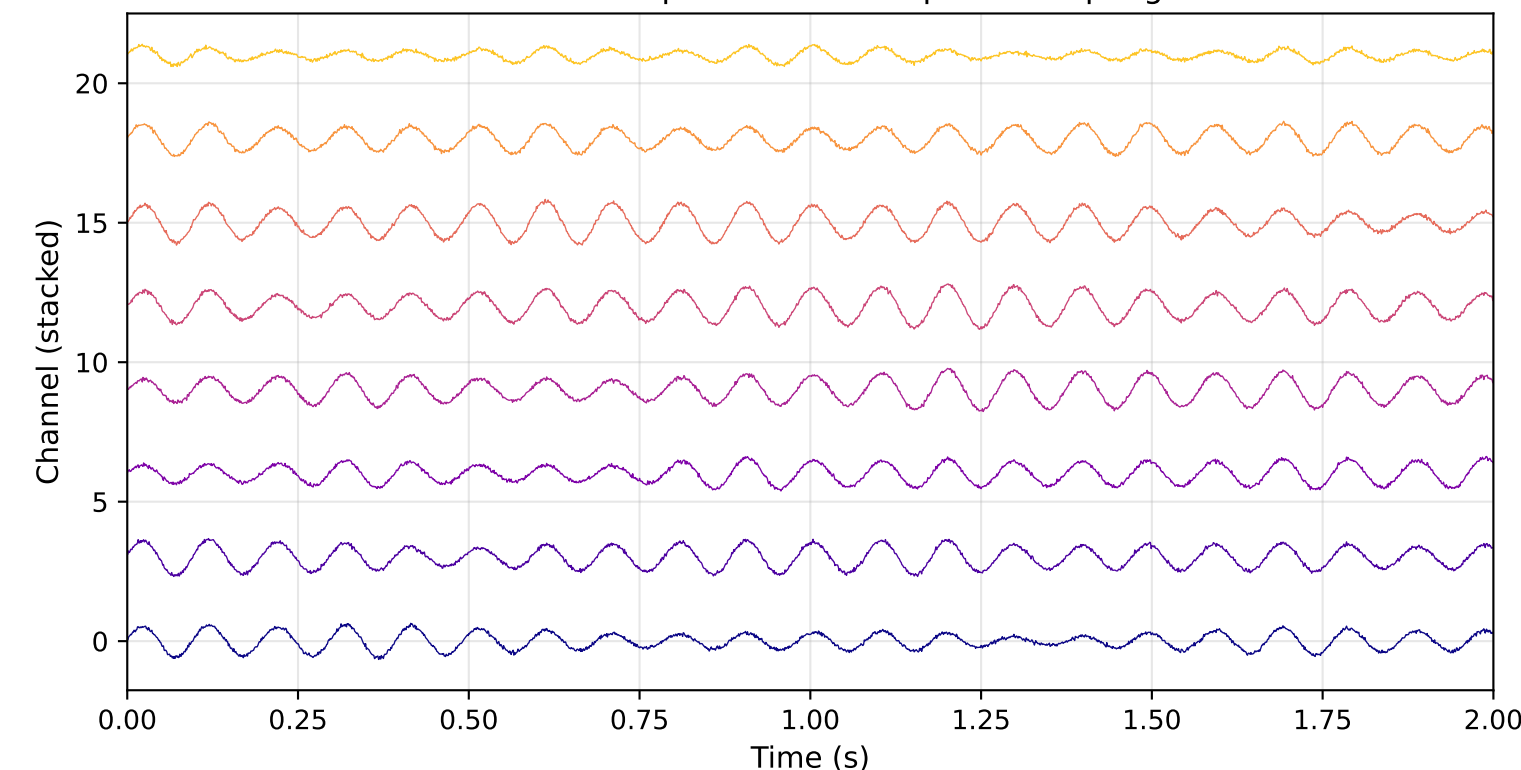
Generated Neural Signals by Frequency Band



Power Spectral Density by Band

Autocorrelation Decay
(Higher $\alpha \rightarrow$ Slower Decay) α vs. Frequency: Higher α for Slower Rhythms

8-Channel Alpha Band with Spatial Coupling



RTM-NEURO SIGNAL GENERATION SUMMARY

KEY RTM PREDICTION:

α increases as frequency decreases
(slower rhythms \rightarrow more persistent \rightarrow higher α)

BAND	α (TRUE)	τ e-fold (ms)	ROLE
DELTA	2.8	132	Integration
THETA	2.3	33	Memory
ALPHA	2.0	19	Idling
BETA	1.7	9	Motor
GAMMA	1.4	4	Binding

INTERPRETATION:

- Higher α bands (delta, theta) show slower ACF decay
- These bands mediate long-range cortical integration
- Lower α bands (gamma) have fast local dynamics
- RTM unifies this under $T \propto L^\alpha$ scaling law