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## WANG'S MODEL OF DECISION-MAKING WITH ALPHA WAVE ACTIVITY

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### ABSTRACT

Wang's decision-making model reproduces neuronal dynamics in a two-choice task driven by noisy inputs. It bridges single-neuron computational models and population-level dynamics while remaining biophysically grounded. The visual choice task described by the model is one in which alpha oscillations - a multifunctional pattern of brain activity - appear to play a significant role. I will briefly present the model, its biological basis, and its main features, and then review mechanisms of alpha oscillations and their proposed roles in visual perception. Next, I will outline strategies for incorporating alpha activity into this framework. I will focus on presenting preliminary results from one such implementation, discuss its advantages and limitations, and indicate directions for ongoing work.