

WORKSHOP
Mathematical Neuroscience
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Effects of additive noise in neural populations

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Abstract

The mathematical description of neural activity by neural population has been shown to model successfully macroscopic phenomena as visual hallucinations, encephalographic data or Local Field potentials. To model these latter phenomena, the consideration of noise is inevitable. The presented work shows analytical and numerical results on dynamic instabilities and the power spectrum of extended neural populations in the presence of additive noise.