

Active noisy oscillators

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Active noisy oscillators play a crucial role in many scientific fields including biology. Pronounced stochastic oscillations are seen, for instance, in sensory hair cells, excitable neurons, genetic expression levels, and the intracellular calcium concentration. In my presentation, I discuss problems related to the theoretical descriptions of such oscillators, the extraction of their phase dynamics, the calculation of their characteristics (frequency and quality factor), as well as effects that arise by coupling of such oscillators.