Weekly Homework 4

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Brain Inspired Computing

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Exercise 4.1. Generation of Poisson spike trains

a) In the lecture we defined the rate of the stochastic process as the ratio of the number of spikes during a time intervall and this intervall $\nu = \frac{N_{\text{Spikes, T}}}{\Delta T}$. If $\langle T \rangle$ is the average ISI, then the number of spikes during a time T is $N_{\text{Spikes, T}} = \frac{\Delta T}{\langle T \rangle}$, resulting in

$$\nu = \frac{1}{\langle T \rangle}.$$

b) blabla

c)