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Minimum contrast estimate for the parameters of the stochastic Morris-Lecar model

In this talk, we propose to estimate the parameters of the stochastic Morris-Lecar model observed at discrete times. The stochastic Morris-Lecar model is an hypoelliptic stochastic differential model, which can be viewed as an integrated diffusion model using a simple transformation. Therefore, we extend the minimum contrast estimator proposed by Gloter (2006) to our case. We prove the consistency and the asymptotic normality of our estimate under some general assumptions.