Analysis of the Approximate Maximum Likelihood Estimators of Diffusion Parameters by Simulations

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Observations of diffusion paths are usually discrete. Except in few cases the exact maximum likelihood estimation (MLE) of diffusion parameters is not possible. Hence some other methods of estimations have to be applied. We analyzed the rate of the convergence to the normality of some of the approximate maximum likelihood estimators by using computer simulations. Diffusion models we used are growth models such as diffusion Gompertz, logistic and von Bertalanffy models.