Probability Seminar

Statistical Inference for the Generalized Langevin Equation

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Time: 14:15 pm

ZOOM link

https://us02web.zoom.us/j/86343893713?pwd=QjE3SFhrUjVCY3FYL01UUHJEYWl0Zz09

Abstract. In this seminar, we will present the maximum likelihood estimator (MLE) for the drift parameter of the generalized Langevin equation driven by a Lévy process observed continuously in time.

Generally, the MLE has a non-explicit form and we present its consistency (Law of Large Numbers), asymptotic normality (Central Limit Theorem) and efficiency (minimum variance).

A discretization of the MLE is proposed and estimations from simulated paths were done for the generalized Ornstein-Uhlenbeck process of the fluctuating exponential type.