

Adaptive Bayes type estimation of ergodic diffusion processes based on sampled data

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(joint work with N. Yoshida)

Abstract

We consider the adaptive Bayes type estimators of both drift and diffusion coefficient parameters of ergodic diffusion process based on discrete observations. Using the Ibragimov-Has'minskii-Kutoyants program together with the polynomial type large deviation inequality for the statistical random field obtained by Yoshida (2005, to appear in AISM), we show asymptotic properties of the adaptive Bayes type estimators including convergence of moments.