

Goodness of fit test for diffusions by different sample schemes

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(joint work with Y. Nishiyama and H. Masuda)

Abstract

We consider nonparametric goodness of fit test problem for the drift coefficient of a one-dimensional ergodic diffusions. We present results based on three different sample scheme: continuous time observation, discrete time observation and tick time sample. We study the limit distribution of the proposed test statistics based on different sample schemes and we prove that it is the supremum of the standard Brownian motion in the three considered cases. We also show that the tests are consistent under any fixed alternatives.