Joint Statistics Seminar

The Hong Kong University of Science and Technology

Nonparametric Transition-Based Tests for Jump-Diffusions

by

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Date: March 6, 2009 (Friday)
Time: 2:30 p.m. – 3:30 p.m.
Venue: Room 3401 (Lift 17/18)

Abstract

We develop a specification test for the transition density of a discretely-sampled continuous-time jump-diffusion process, based on a comparison of a nonparametric estimate of the transition density or distribution function to their corresponding parametric counterparts assumed by the null hypothesis. As a special case, our method applies to pure diffusions. We provide a direct comparison of the two densities for an arbitrary specification of the null parametric model using three different discrepancy measures between the null and alternative transition density and distribution functions. We establish the asymptotic null distributions of proposed test statistics and compute their power functions. The finite sample properties are investigated via simulations and are compared with those of other tests.

❖ ***All interested are welcome!*** ❖

For details, please contact ISOM Department.