The Hong Kong Polytechnic University
Department of Applied Mathematics

Seminar
On

Varying-Coefficient Single-Index Model

by

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Abstract

In this paper, the varying-coefficient single-index model (VCSIM) is proposed. It can be seen as a generalization of the semivarying-coefficient model by entering its constant coefficient part into a nonparametric component, or a generalization of the partially linear single-index model by replacing the constant coefficients of its linear part with varying coefficients. Based on the local linear method, average method and backfitting technique, the estimates of the unknown parameters and the unknown functions of the VCSIM are obtained and their asymptotic distributions are derived. Both simulated and real data examples are given to illustrate the model and the proposed estimation methodology.

Date : **22 March, 2007 (Thursday)**

Time : **4:30 – 5:30 p.m.**

Venue : **Departmental Conference Room HJ610**
The Hong Kong Polytechnic University

* * * ALL ARE WELCOME * * *