# THE CHINESE UNIVERSITY OF HONG KONG

## Department of Statistics

will present a seminar entitled

### Modelling Multivariate Volatilities by Common Factors: An Innovation Expansion Approach

by

#### Professor Qi-Wei Yao London School of Economics

on

Monday, 3 July 2006 2:30pm – 3:30pm

in

Lady Shaw Building C3 The Chinese University of Hong Kong

### Abstract:

We propose to model multivariate volatilities by common factors. Those unobservable common factors are identified via expanding the innovation space step by step; therefore solving a high-dimensional optimisation problem by many lowdimensional sub-problems. The asymptotic theory of the estimation method has been established. Numerical examples illustrate the proposed methodology.

# All are Welcome