



DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

40<sup>th</sup> Anniversary Seminar Series

**Professor Chung-Ming KUAN**

*Distinguished Research Fellow  
Institute of Economics, Academia Sinica  
Taiwan*

will give a talk

entitled

**CONSISTENT PARAMETER ESTIMATION FOR  
CONDITIONAL MOMENT RESTRICTIONS**

Abstract

In estimating conditional moment restrictions, a well known difficulty is that the estimator based on a set of implied unconditional moments may lose its consistency when the parameters of interest are not globally identified. In this talk, we consider a continuum of unconditional moments that are equivalent to the postulated conditional moments and can identify the parameters of interest. We propose to project these unconditional moments along the exponential Fourier series and construct an objective function based on the resulting Fourier coefficients. A novel feature of our method is that the full continuum of unconditional moments is incorporated into each Fourier coefficient. We show that, when the number of Fourier coefficients in the objective function grows at a proper rate, the proposed estimator is consistent and asymptotically normally distributed. Our simulations confirm that the proposed estimator compares favorably with that of Dominguez and Lobato (2004, *Econometrica*) in terms of bias, standard error and mean squared error. For models with exogenous regressors, the proposed estimator may also outperform the nonlinear least squares estimator when there are multiple local minima.

on

**Tuesday, December 11, 2007**

**3:00 p.m. – 4:00 p.m.**

at

**Room 524, Meng Wah Complex  
(behind the Chong Yuet Ming Amenities Centre)**

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