



**The Hong Kong Polytechnic University
Department of Applied Mathematics**

Colloquium

On

Finding Economic Equilibria in a Stochastic Environment

by

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Abstract

The existence, stability and, eventually, devising procedures to find equilibria in a stochastic environment have been at the forefront of market economic theory dating all the way back to Adam Smith (1776), Léon Walras (1877), Arrow & Debreu (1954) with Roy Radner (1972) introducing the GEI-model (General Equilibrium with Incomplete markets) or in other words: the "equilibrium model in a stochastic environment". Finding an equilibrium, fever for a deterministic problem has always been challenging and there has been a continuous evolution of the suggested procedures that, with some delay, are related to advances in solution procedures for optimization problems. But this hasn't always been easy going. When the environment is stochastic, the problem becomes truly challenging. So far, the literature only reports attempts at solving tiny-GEI models, sometimes correctly. This lecture will describe one potential approach at solving reasonable sized problems (a significant number of goods and agents and an affluent stochastic environment) and will report on its numerical implementation.

Date : 7 December, 2012 (Friday)

Time : 3:00 p.m. – 4:00 p.m.

Venue : HJ610, The Hong Kong Polytechnic University

*** * * ALL ARE WELCOME * * ***