

Joint Statistics Seminar

The Hong Kong University of Science and Technology

Rank-based Brownian Models and the Distribution of Market Weights

by

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Date: December 1, 2010 (Wednesday)

Time: 4:00 p.m. – 5:00 p.m.

Venue: Room 3315 (near Lift 17/18)

Abstract

Consider a sequence of particles on the line whose movement at each point in time is determined by the order in which the particles are arranged at that time. Various subclasses of such models have recently gained prominence in spin-glass theory, propagation of chaos, queuing systems, and financial modeling. The final application is due to Fernholz, Karatzas and others where they are interested in explaining an empirically observed phenomenon of power law decay of the so-called market weights. We will go over various aspects of these models. In particular, we will show how the power law arises and how one can use measure concentration to prove the relative stability of the index of the power law over decades.

❖ **All interested are welcome!** ❖

For details, please contact ISOM Department.