

## The Hong Kong Polytechnic University Department of Applied Mathematics

Seminar On

## On the underlying paths and local convergence behavior of an interior point algorithm for semidefinite linear complementarity problems

by

## Dr. Chee Khian Sim Business School National University of Singapore

## Abstract

In this talk, a new way to define the underlying paths in the feasible interior region of a Semidefinte Linear Complementarity Problem (SDLCP) is introduced. We give a motivation to define paths in this way, that is related directly to how iterates are generated by an interior point algorithm. Properties of these paths, in particular, their analyticity behavior near a solution of a SDLCP, will be the main focus of this talk. Understanding the asymptotic analyticity behavior of these paths is useful in the study of local convergence behavior of iterates generated by interior point algorithms.

Date : 12 September, 2008 (Friday)

Time : 3:00 – 4:00 p.m.

Venue : Departmental Conference Room HJ610 The Hong Kong Polytechnic University