THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

COLLOQUIUM

A Generalization of Menger's Theorem

Dr. Guangyue Han

The University of Hong Kong

Date: September 27, 2012 (Thursday)

Time: 4:30 – 5:30pm

Venue: Room 210, Run Run Shaw Bldg., HKU

Abstract

We propose a generalization of the classical Menger's theorem: For an acyclic directed graph with multiple sources and multiple sinks, we prove that one can choose the Menger's paths between the sources and the sinks such that the number of mergings between these paths is upper bounded by a constant depending only on the min-cuts between the sources and the sinks, regardless of the size and topology of the graph. We also give exact values of and bounds on the minimum number of mergings between these paths, and discuss how the minimum number depends on the min-cuts.

All are welcome