# THE CHINESE UNIVERSITY OF HONG KONG
## Institute of Network Coding
## and
## Department of Information Engineering
*Seminar*

**INC**

# A Graph Theoretical Approach to Network Encoding Complexity

**by**

## Prof. Guangyue Han
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Date   :   **21 February 2012 (Tuesday)**
Time   :   **2:30 - 3:30 pm**
Venue   :   **Room 833, Ho Sin Hang Engineering Building**
           **The Chinese University of Hong Kong**

*Abstract*

For an acyclic directed network with multiple pairs of sources and sinks and a group of edge-disjoint paths connecting each pair of source and sink, it is known that the number of mergings among different groups of edge-disjoint paths is closely related to network encoding complexity. Using this connection, we derive exact values of and bounds on two functions relevant to encoding complexity for such networks.

*Biography*

Guangyue Han received the B.S. and M.S. degree in mathematics from Peking University, China, and the Ph.D. degree in mathematics from University of Notre Dame, U.S.A. in 1997, 2000 and 2004, respectively. After three years with the department of mathematics at University of British Columbia, Canada, he joined the department of mathematics at University of Hong Kong, China in 2007. His main research areas are analysis and combinatorics, with an emphasis on their applications to coding and information theory.

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

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