



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

**Review of recent work plus an open lecture on
“Linear network coding over a network with cycles”**

by

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Date : 29 August, 2012 (Wed.)
Time : 11:30am-12:30pm
Venue : Room 833 Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

Part I of this seminar is a presentation for performance review. My “extension of service” at CU started on 1/8/2009. I shall go through what has been done since that day and what is planned for the future. This will cover my teaching, research output, research grant, service, and publicity work for CU. Collaborators in the Department, Faculty, Hong Kong, and overseas will be pointed out. New areas of research, teaching philosophy, and development of new courses will be mentioned.

Part II, if time allows, is an open lecture on a recent research topic: “Linear network coding over a network with cycles”. The fundamental theorem of linear network coding is for acyclic networks only, but engineering applications all ignore the acyclic restriction. This lecture is about the theoretical justification of “making 10-pound applications out of a 5-pound theorem.” In the process, the concept of decoding delay in the presence of cycles will be clarified. As the talk is intended for an engineering audience, the abstraction of commutative algebra will mostly be rendered in intuitive examples and metaphors.

**** ALL ARE WELCOME ****

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