

THE CHINESE UNIVERSITY OF HONG KONG

Institute of Network Coding and



Department of Information Engineering

Seminar

Transceivers Based on the Ideal of Network Coding

by

Dr. Wen CHEN Shanghai Jiao Tong University

Date: 4 September 2013 (Wednesday)

Time: 9:30 - 10:30 am

Venue: Room 833, Ho Sin Hang Engineering Building

The Chinese University of Hong Kong

Abstract

In this talks we will first present a transmission scheme based on Space-Time Analog Network Coding for the multiple access relay channel. Simulation shows that the space time analog network coding can provide performance gain for multiple access relay channel. Then we present a receiver design based on integer forcing scheme, where some integer coefficient combinations of the transmitted symbols are decoded in the receiver side using the slowest descend method, rather than the symbol itself. This will provide substantial gain in rate performance.

Biography

Wen Chen, a senior member of IEEE, IEICE Shanghai Section Chair, SEIEE Chair Professor of Shanghai Jiao Tong University. He is the director of Institute for Signal Processing and Systems. Dr. Chen was awarded the Ariyama Memorial Research Prize in 1997, the PIMS Post-Doctoral Fellowship in 2001. He received the honors of "New Century Excellent Scholar in China" in 2006 and "Pujiang Excellent Scholar in Shanghai" in 2007. He is elected to the vice general secretary of Shanghai Institute of Electronics in 2008. His interest covers wireless communications and signal processing, in this area he has published 48 papers in IEEE Journals, and more than 70 papers in IEEE conferences. He has won four NSFC projects and one National 973 projects.

** All ARE WELCOME **

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