



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



On the Sum Rate of Multiple Description Coding with Symmetric Distortion Constraints

by

Dr. Lin SONG

Postdoctoral Fellow, Institute of Network Coding
The Chinese University of Hong Kong

Date : 11 September 2013 (Wednesday)
Time : 2:30 - 3:30 pm
Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

In this talk, we consider the multiple description coding with symmetric distortion constraints. A single-letter lower bound on the minimum sum rate is presented. For the binary uniform source with the erasure distortion measure or the Hamming distortion measure, this lower bound can be evaluated with the aid of certain minimax theorems. A similar minimax theorem is established in the quadratic Gaussian setting, which is further leveraged to analyze the special case where the minimum sum rate subject to two levels of distortion constraints (with the second level imposed on the complete set of descriptions) is attained; in particular, we determine the minimum achievable distortions at the intermediate levels.

Biography

Lin Song is currently a postdoctoral fellow in the Institute of Network Coding. She received the B.Sc. and M.S. degree from Harbin Institute of Technology, China, in 2006 and 2008 respectively, and the Ph.D. degree in Electrical and Computer Engineering from McMaster University, Canada, in 2012. Her research interests include network, information and coding theory.

**** All ARE WELCOME ****