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

A Construction of Universal Secure Network Coding
by
Prof. Ryutaroh Matsumoto
Department of Communications and Integrated Systems
Tokyo Institute of Technology

Date   :   **22 September, 2010 (Wednesday)**
Time   :   **2:30 pm - 3:30 pm**
Venue :   **Room 833, Ho Sin Hang Engineering Building**
            The Chinese University of Hong Kong

Abstract

We construct a universal secure network coding. Our construction just modifies the transmission scheme at the source node and works with every linear coding at an intermediate node. We relax the security criterion such that the mutual information between the message and the eavesdropped signal is sufficiently small instead of strictly zero. Our construction allows the set of eavesdropped links to change at each time slot.

Biography

Ryutaroh Matsumoto was born in Nagoya, Japan, on November 29, 1973. He received the B.E. degree in computer science, the M.E. degree in information processing, and the Ph.D. degree in electrical and electronic engineering, all from Tokyo Institute of Technology, Japan, in 1996, 1998, 2001, respectively. He was an Assistant Professor from 2001 to 2004, and has been an Associate Professor since 2004 in the Department of Communications and Integrated Systems of Tokyo Institute of Technology. His research interest includes error-correcting codes, quantum information theory, and communication theory. Dr. Matsumoto received the Young Engineer Award from IEICE and the Ericsson Young Scientist Award from Ericsson Japan in 2001. He received the Best Paper Awards from IEICE in 2001 and 2008.

* ALL ARE WELCOME **

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