

**THE CHINESE UNIVERSITY OF HONG KONG**

Department of Information Engineering

*Joint Seminar with**Hong Kong Applied Science and Technology Research Institute***Resource allocation with interference coordination for
LTE-A systems**

by

Dr. Gang Feng

Professor

National Laboratory of Communications**University of Electronic Science and Technology of China****Date : 24 August, 2010 (Tue.)****Time : 11:00am-12:00noon****Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong***Abstract*

Deployment of Relay Nodes (RNs) in cellular OFDMA systems provides an effective solution to increase high data rate coverage and improve cell throughput. However, a challenging issue is that additional interferences caused by RNs may substantially compromise the performance gain if no measure is taken. In this talk, we present an Integrated Interference Coordination Scheme (IICS) for cellular OFDMA systems. IICS consists of three phases, each performing a resource allocation algorithm, to mitigate interferences and thus enhance system throughput. We conduct intensive simulation experiments based on the model with realistic broadband channel propagation conditions. Numerical results demonstrate that our proposed IICS can effectively improve system throughput compared with the resource allocation schemes without adequate interference coordination.

Biography

Dr. Gang Feng (冯钢) received his BEng. and MEng degrees in Electronic Engineering from the University of Electronic Science and Technology of China, in 1986 and 1989, respectively, and the Ph.D. degrees in Information Engineering from The Chinese University of Hong Kong in 1998. He joined the School of Electric and Electronic Engineering, Nanyang Technological University in December 2000 as an assistant professor and was promoted as an associate professor in October 2005. Before that, he worked for one year in the Department of Electronic Engineering, City University of Hong Kong as a senior research assistant. He is now a professor with the National Laboratory of Communications, University of Electronic Science and Technology of China.

Dr. Feng has more than fifteen years research experience and has published widely in computer networking and wireless networking research. Dr. Feng has served as a TPC/PC member for numerous international conferences, including Globecom, ICC etc. His current research interests include resource allocation in LTE-systems, network coding in sensor networks and ad-hoc networks, DTN, etc. Dr. Feng is a senior member of IEEE.

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