

Title: Joint Transmit-Receive Interference Cancellation for Relay Backhaul Link in Cellular Networks

Speaker:

Dr. Zhi CHEN

Associate Professor

National Key Lab of Science & Technology on Communications

University of Electronic Science & Technology of China

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Abstract:

Improving cell-edge throughput performances is a key issue for new generation cellular networks, and the throughput of cell-edge users is greatly limited by the presence of co-channel interference from other cells. We combine beam-forming and interference alignment, and design a joint transmitting and receiving interference coordination and cancellation scheme. Among this scheme, beam-forming is used to increasing SINR at desired receiver, interference alignment can reduce the resultant interference subspace among inter-cell, and there should be a trade-off. The challenges of interference alignment come from the partial and unreliable CSI, limited inter-cell cooperation. Therefore, distributed and iterative algorithm is put forward, the convergence of distributed iteration is also considered.

Biography of the speaker:

Dr. Zhi CHEN (陈智), currently works as associate professor in National Key Lab of Science and Technology on Communications, University of Electronic Science and Technology of China (UESTC). He received his B. Eng, M. Eng., and Ph.D. degree all from UESTC, in 1997, 2000, 2006, respectively. His current research interests include relay and cooperative communications, interference coordination and cancellation. Dr. Chen has served as a reviewer for various international journals and conferences, including IEEE Transactions on Vehicular Technology, Signal Processing, IET Signal Processing, ICCAS, etc.

Organizer: Dr. L.K. Yeung