

THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

Contract Theory for Wireless Networks

by

Dr. Yanru Zhang Wireless Networking, Signal Processing and Security Lab University of Houston U.S.A.

Date	:	9 December, 2016 (Friday)
Time	:	11:30am - 12:30pm
Venue	:	Room 833, Ho Sin Hang Engineering Building
		The Chinese University of Hong Kong

<u>Abstract</u>

Contract theory has recently drawn the world's attention, as the Nobel Prize of economics science has successively awarded 3 scientists for their great contributions in this field. Contract theory is mainly aiming at using well-designed contracts to provide incentives for the contracting parties to exploit the prospective gains from cooperation with asymmetric information. In the past decades, it has been widely and successfully used in industries, from banking to agriculture. While in wireless networks areas, where the contract theory can be applied are still under-explored. This talk will closely show how to combine contract theoretical approaches with wireless networks designs to solve problems such as resource allocation and incentive mechanism design. We will be able to see the great potential of utilizing the ideas, methods, and models of contract theory to solve various problems in network economics.

<u>Biography</u>

Yanru Zhang (S'13-M'16) received the B.S. degree in electronic engineering from University of Electronic Science and Technology of China (UESTC) in 2012, and the Ph.D. degree from the Department of Electrical and Computer Engineering, University of Houston (UH) in 2016. She is now working as the research associate at the Wireless Networking, Signal Processing and Security Lab, UH. Her current research involves the contract theory and matching theory in network economics, Internet and applications, wireless communications and networking.

** ALL ARE WELCOME **

Host: Professor Xiaoou Tang (Tel: 3943-8379, Email: xtang@ie.cuhk.edu.hk) Enquiries: Information Engineering Dept., CUHK (Tel.: 3943-8385)