THE CHINESE UNIVERSITY OF HONG KONG
Jointly Present Seminar
by Department of Computer Science and Engineering
and Department of Information Engineering

Privacy Notions for Data Publishing and Analysis

by

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Time : **11:00am – 12:00noon**
Venue : **Room 121, Ho Sin Hang Engineering Building**
The Chinese University of Hong Kong

Abstract
Data collected by organizations and agencies are a key resource in today's information age. The use of sophisticated data mining techniques makes it possible to extract relevant knowledge that can then be used for a variety of purposes, such as research, developing innovative technologies and services, intelligence and counterterrorism operations, and providing inputs to public policy making. However the disclosure of those data poses serious threats to individual privacy. In this talk, we will present the evolvement of privacy notions for data publishing and analysis, leading to our proposed membership privacy framework, which formalizes the intuition that privacy means that the adversary cannot significantly increasing its ability to conclude that an entity is in the input dataset. We show that several recently proposed privacy notions, including differential privacy, are instantiations of the membership privacy framework, and that the framework provides a principled approach to developing new privacy notions under which better utility can be achieved than what is possible under differential privacy.

Biography
Ninghui Li is a Professor of Computer Science at Purdue University. His research interests are in security and privacy. He has published over 100 referred papers in these areas.

Prof. Li is currently Vice Chair of ACM Special Interest Group on Security, Audit and Control (SIGSAC), and Program Chair of 2014 ACM Conference on Computer and Communications Security (CCS). He is on the editorial boards of IEEE Transactions on Dependable and Secure Computing (TDSC) and Journal of Computer Security, and on the steering committees of ACM Symposium on Information, Computer and Communications Security (ASIACCS) and ACM Symposium on Access Control Models and Technologies (SACMAT).

Prof. Li received a Bachelor's degree from the University of Science and Technology of China in 1993 and a Ph.D. in Computer Science from New York University in 2000. Before joining the faculty of Purdue in 2003, he was a Research Associate at Stanford University Computer Science Department for 3 years.

** ALL ARE WELCOME **

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