

## THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

## Reconsidering Network Traffic Modeling by

Professor Victor O.K. Li
Department of Electrical and Electronic Engineering
The University of Hong Kong

Date : 4 February, 2013 (Monday)

Time : 2:00 - 3:00p.m.

Venue : Room 1009, William M.W. Mong Engineering Building

The Chinese University of Hong Kong

## Abstract

We question current techniques of network traffic modeling. Measure-theoretic probability is the foundation of current traffic models. However, due to a fundamental flaw of measure-theoretic probability, current traffic models cannot properly characterize the growth trend of network traffic. By demonstrating the inconsistency of measure-theoretic probability implied by unbounded random variables, we justify the above claim with a rigorous analysis, and discuss the implications of our analysis to traffic modeling and some other related issues, such as performance evaluation of traffic control.

## **Biography**

Victor O.K. Li was born and raised in Hong Kong, China. He received SB, SM, EE and ScD degrees in Electrical Engineering and Computer Science from MIT in 1977, 1979, 1980, and 1981, respectively. He is Head of Electrical & Electronic Engineering, and Chair Professor of Information Engineering at The University of Hong Kong (HKU). He served as Managing Director of Versitech Ltd., the technology transfer and commercial arm of HKU, and is now on the boards of Sunevision Holdings Ltd. and China.com Ltd. Previously, he was Professor of Electrical Engineering at the University of Southern California (USC), Los Angeles, California, USA, and Director of the USC Communication Sciences Institute. Sought by government, industry, and academic organizations, he has lectured and consulted extensively around the world. He has received numerous awards, including the PRC Ministry of Education Changjiang Chair Professorship at Tsinghua University, the UK Royal Academy of Engineering Senior Visiting Fellowship in Communications, the Croucher Foundation Senior Research Fellowship, and the Bronze Bauhinia Star, Government of the Hong Kong Special Administrative Region, China. He is a Registered Professional Engineer and a Fellow of the IEEE, the IAE, and the HKIE.

\*\* ALL ARE WELCOME \*\*

Host: Professor Soung C. Liew (Tel: 3943-8352, Email: scliew@ie.cuhk.edu.hk) Enquiries: Information Engineering Dept., CUHK (Tel.: 3943-8385)