



Technical Co-sponsor: IEEE Hong Kong Section  
Robotics and Automation/Control Systems Joint Chapter

Jointly present

SEMINAR SERIES ON

**CHAOS, CONTROL AND COMPLEX NETWORKS**

**Fridays, 13 Jan – 19 May 2010, 4:30 pm – 5:30 pm**

Room **B6605**, City University of Hong Kong

Or Room **CD634**, Hong Kong Polytechnic University

(All presentations will be in **English**)

THE CENTRE FOR CHAOS AND COMPLEX NETWORKS at the City University of Hong Kong and the Department of Electronic and Information Engineering at the Hong Kong Polytechnic University continue their joint seminar series in this semester, to present tutorial overviews and original research work in the general areas of chaos and bifurcation, systems control, and their engineering applications. A list of tentative topics and schedule is as follows.

- 13 Jan Prof. Frank Lewis, University of Texas at Arlington, USA  
(Wed 11:00am) *Online learning design of optimal control systems* (Venue: B6619, CityU, Chair: R. Chen)
- 15 Jan Prof. Xinghuo Yu, RMIT University, Melbourne, Australia  
*Symbolic dynamics approach for discrete-time nonlinear systems and control* (Venue: G6302, CityU, Chair: R. Chen)
- 21 Jan Prof. Janet Wang, University of Arizona, USA  
(Thursday 4:30pm) *A self-calibrating design methodology for power efficient multi-core system* (Venue: G6302, CityU, Chair: W. Tang)
- 22 Jan Dr Philip Yam, Dept. of Applied Mathematics, Hong Kong Polytechnic University  
*Behavioral optimal insurance: its resolution of a socioeconomic enigma* (Venue: CD634, PolyU, Chair: M. Tse)
- 29 Jan Mr Wenwu Yu, City University of Hong Kong  
*Consensus in networked multi-agent systems* (Venue: B6605, CityU, Chair: W. Tang)
- 5 Feb Dr Adela Lau, School of Nursing, Hong Kong Polytechnic University  
*Ontology-enabled database management systems* (Venue: CD634, PolyU, Chair: M. Tse)
- 12 Feb **Chinese New Year Eve**
- 19 Feb Prof. Xinchu Fu, Shanghai University, Shanghai  
*Propagation dynamics on complex networks* (Venue: CD634, PolyU, Chair: M. Small)
- 22 Feb Prof. Jonathan Manton, University of Melbourne, Australia  
(Monday 4:30pm) *Reverse-engineering the Brain - an international grand challenge* (Venue: G6302, CityU, Chair: S. Chan)
- 26 Feb Prof. Clement Lam, Concordia University, Canada  
*Solving problems in discrete mathematics with computers* (Venue: B6605, CityU, Chair: T. Chow)
- 5 Mar Mr Yao Chen, Chinese Academy of Sciences, Beijing  
*Estimate the convergence speed of discrete-time multi-agent systems* (Venue: CD634, PolyU, Chair: F. Lau)
- 12 Mar Dr Xiaojuan Sun, Tsinghua University, Beijing  
*Synchronization and coherent resonance in neuronal networks* (Venue: B6605, CityU, Chair: K.W. Chung)
- 15 Mar Prof. Cetin Kaya Koc, Istanbul Sehir University, Turkey  
(Monday 4:30pm) *A brief history of cryptographic hardware design* (Venue: G6302, CityU, Chair: R. Chen)

- 17 Mar Prof. Tetsuro Endo, Meiji University, Japan  
(Wednesday 11:00am) *Transition from the standing pulse wave to the propagating pulse wave in a ring of coupled bistable oscillators* (Venue: CD634, PolyU, Chair: M. Tse)
- 19 Mar Mr Xiaofan Liu, Hong Kong Polytechnic University  
*TBD* (Venue: CD634, PolyU, Chair: M. Tse)
- 22 Mar Prof. Guoxiang Gu, University of Louisiana State University, USA  
*Networked feedback stabilization* (Venue: G6302, CityU, Chair: )
- 26 Mar Prof. Xinchu Fu, Shanghai University, Shanghai  
*Periodicity and complexity of some dynamical systems with discontinuities* (Venue: G6302, CityU, Chair: K.W. Wong)
- 29 Mar Prof. Izhak Rubin, University of California, Los Angeles (UCLA), USA  
(Monday 4:30pm) *Networking Across Mobile Wireless Networks* (Venue: G6302, CityU, Chair: M. Zukerman)
- 2 Apr **Good Friday**
- 9 Apr Prof. Keith Chan, Department of Computing, Hong Kong Polytechnic University  
*Discovering interesting structural patterns in complex biological networks* (Venue: CD634, PolyU, Chair: M. Tse)
- 13 Apr Prof. Kung Yao, University of California, Los Angeles, USA  
(Tuesday 4:30pm) *Super efficient Monte Carlo simulation methodology based on novel use of correlated chaotic sequences* (Venue: CD634, PolyU, Chair: F. Lau)
- 16 Apr Dr Joshua Lee, Department of Electronic Engineering, City University of Hong Kong  
*MEMS resonators: Tiny devices with big opportunities* (Venue: G5317, CityU, Chair: T. Ko)
- 23 Apr Prof. Jie Chen, City University of Hong Kong  
*When will zeros of time-delay systems cross imaginary axis?* (Venue: CD634, PolyU, Chair: M. Small)
- 30 Apr Dr Lam Yeung, City University of Hong Kong  
*Gradient approximation based system identification algorithms* (Venue: B6605, CityU, Chair: A. Leung)
- 7 May Mr Wilson Thong, Department of Electronic Engineering, City University of Hong Kong  
*Complex congestion behavior in deflection routing* (Venue: CD634, PolyU, Chair: F. Lau)
- 13 May Prof. Milivoj R. Belic, Texas A&M University at Qatar  
(Thursday 2:30pm) *Dancing light: Counterpropagating beams in photorefractive and photonic crystals* (Venue: B6605, CityU, Chair: N. Chan)
- 14 May Ms Ruoxi Xiang, Hong Kong Polytechnic University  
*Complex network properties from time series* (Venue: B6605, CityU, Chair: W. Tang)
- 19 May Prof. Gennady A. Leonov, St Petersburg State University, Russia  
(Wednesday 4:30pm) *Strange attractors and classical stability theory* (Venue: B6605, CityU, Chair: Ron Chen)