

**2007 International Workshop on Complex Systems and Networks**  
**19-21 July 2007, Guilin, China**

**July 19, 2007**

08:30 am Chairman's Welcome

08:45 am Host's Welcome

**Morning Session: Complexity in Biosystems**

09:00 am Metabolic networks: organization, biomass production, and other issues  
Leihan Tang, Hong Kong Baptist University, Hong Kong

10:00 am Flocking of multi-agents with virtual leaders  
Xiaofan Wang, Shanghai Jiaotong University, China

11:00 am Tea break

11:30 am Novel hypothesis on the self-regulation of genetic information: scenario  
from one-dimensional DNA code into spatio-temporal order  
Kenichi Yoshikawa, Kyoto University, Japan

12:30 pm Lunch (all participants)

**Afternoon Session: Synchronization in Complex Networks**

02:00 pm Synchrony and consensus in complex networks: an overview  
Chai Wah Wu, IBM T.J. Watson Research Center, USA

03:00 pm Synchronizability and controllability of complex networks  
Mario Di Bernardo, University of Naples, Italy

04:00 pm Tea break

04:30 pm Identification and monitoring of complex networks based on  
synchronization  
Wallace Tang, City University of Hong Kong, Hong Kong

05:30 pm Introduction to IEEE CAS Publications (Gianluca Setti)

06:00 pm Dinner (all participants)

07:30 pm Night Tour (all invited lecturers and full registrants)

**July 20, 2007**

**Morning Session: Applications in Communications**

09:00 am Chaos-based generation of optimal spreading sequences for  
DS-UWB sensor networks  
Gianluca Setti, University of Ferrara / University of Bologna, Italy

10:00 am Optimal networks, congestion and Braess' paradox  
David Arrowsmith, Queen Mary London, UK

11:00 am Tea break

11:30 am Mining network traffic data

Ljiljana Trajkovic, Simon Fraser University, Canada

12:30 pm Lunch (all participants)

**Afternoon Session: Nonlinear systems complexity and applications**

02:00 pm Fractal antenna technology

Maciej Ogorzalek, AGH University of Science & Technology, Poland

03:00 pm Partial synchronization in dynamic networks

David Hill, Australian National University, Australia

04:00 pm Tea break

04:30 pm Constructing error-correction codes from scale-free networks

Francis Lau, Hong Kong Polytechnic University, Hong Kong

05:30 pm Introduction to IWCSN'2008 (David Hill)

05:45 pm Close

07:00 pm Banquet (all participants)

**July 21, 2007**

Day Tour (all invited lecturers and full registrants)