

Workshop on Optics and New Materials II

April 30 – May 3, 2010, Hong Kong

Department of Physics and Institute of Theoretical Physics,
The Chinese University of Hong Kong

Program

Venue: Lecture Theatre L2, Science Centre, The Chinese University of Hong Kong

Date Time	May 1 (Saturday)	May 2 (Sunday)	May 3 (Monday)
08:00 – 08:30	Registration		
08:30 – 08:50	<i>Light breakfast</i>	<i>Light breakfast</i>	<i>Light breakfast</i>
08:50 – 09:00	Opening speech		
09:00 – 09:35	Chuang-Tian Chen	Jian-Bai Xia	Shi-Ning Zhu
09:35 – 10:00	Qi-Huang Gong	Hong-Qi Xu	Yong-Fa Kong
10:00 – 10:25	Hong Chen	Zhe-Shuai Lin	Zhi-Yi Wei
10:25 – 10:45	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>
10:45 – 11:10	Che Ting Chan	Ping-Heng Tan	Xi-Hua Yang
11:10 – 11:35	Xue-Hua Wang	Xiao-Dong Cui	Shi-Yao Zhu
11:35 – 12:00	Xiao-Han Liu	San-Huang Ke	Closing remarks
12:00 – 14:00	<i>Lunch</i>	<i>Lunch</i>	<i>Excursion/Discussion</i>
14:00 – 14:25	Qu-Quan Wang	Hai-Lin Wang	
14:25 – 14:50	Zhi-Yuan Li	Ke-Yu Xia	
14:50 – 15:15	Hong Wei	Hang Zheng	
15:15 – 15:45	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	
15:45 – 16:10	Poster Presentations	Xin-Hui Zhang	
16:10 – 16:35		Ren-Bao Liu	
16:35 – 17:00		Kai-You Wang	
18:30		<i>Banquet</i>	

May 1 (Saturday)

08:00 – 08:30 **Registration**

08:30 – 08:50 *Light Breakfast*

Session Chair: Ren-Bao Liu

08:50 – 09:00 **Opening speech**

09:00 – 09:35 **Chuang-Tian Chen:** Deep-ultraviolet harmonic generation and applications

09:35 – 10:00 **Qi-Huang Gong:** Composite materials for ultrafast and large third-order optical nonlinearity and photonic applications

10:00 – 10:25 **Hong Chen:** Light manipulation in periodical and disordered structures made of metamaterials

10:25 – 10:45 *Tea/Coffee*

Session Chair: Jian Zi

10:45 – 11:10 **Che Ting Chan:** A metamaterial slab as a lens, a cloak and something in between

11:10 – 11:35 **Xue-Hua Wang:** Coherent control of quantum superposition state in photonic crystals via Zeeman and Stark effect

11:35 – 12:00 **Xiao-Han Liu:** Amorphous photonic structures in nature

12:00 – 14:00 *Lunch*

Session Chair: Jian-Fang Wang

14:00 – 14:25 **Qu-Quan Wang:** Plasmon-enhanced radiative and nonradiative energy transfer between semiconductor quantum dots

14:25 – 14:50 **Zhi-Yuan Li:** Surface plasmon resonance in metal nanoparticles explored for novel applications

14:50 – 15:15 **Hong Wei:** Plasmonic properties of Au/Ag nanostructures - from localized plasmons to propagating plasmons

15:15 – 15:45 *Tea/Coffee*

15:45 – 17:00 **Poster Presentations**

May 2 (Sunday)

08:30 – 09:00 *Light Breakfast*

Session Chair: Hong Chen

09:00 – 09:35 **Jian-Bai Xia:** Electronic structure and transition property of II-type superlattice calculated with 8-band effective-mass theory

09:35 – 10:00 **Hong-Qi Xu:** Electronic, optical and mechanical properties of semiconductor nanowires and nanowire heterostructures

10:00 – 10:25 **Zhe-Shuai Lin:** Ab initio studies on nonlinear optical crystals

10:25 – 10:45 *Tea/Coffee*

Session Chair: Li-Gang Wang

10:45 – 11:10 **Ping-Heng Tan:** Exciton energy transfer in carbon nanotubes: a photoluminescence excitation study

11:10 – 11:35 **Xiao-Dong Cui:** Photocurrent generated by direct inter-band transitions in InGaAs/InAlAs two-dimensional electron gas

11:35 – 12:00 **San-Huang Ke:** Electron transport through molecular nanojunctions: quantum interference transistor and thermoelectric effect

12:00 – 14:00 *Lunch*

Session Chair: Shi-Yao Zhu

14:00 – 14:25 **Hai-Lin Wang:** Laser cooling of a silica optomechanical resonator

14:25 – 14:50 **Ke-Yu Xia:** Cooling of a nanomechanical resonator to its ground state

14:50 – 15:15 **Hang Zheng:** Spectral properties of localized exciton in deformable lattice

15:15 – 15:45 *Tea/Coffee*

Session Chair: Che Ting Chan

15:45 – 16:10 **Xin-Hui Zhang:** Ultrafast dynamic study of spin and magnetization reversal in dilute magnetic semiconductor (Ga, Mn)As

16:10 – 16:35 **Ren-Bao Liu:** Optical effects of pure spin currents

16:35 – 17:00 **Kai-You Wang:** Domain walls in GaMnAs with perpendicular anisotropy

18:30 *Banquet*

May 3 (Monday)

08:30 – 09:00 *Light Breakfast*

Session Chair: Zhu-An Xu

09:00 – 09:35 **Shi-Ning Zhu:** Micro/nanostructure: materials & devices

09:35 – 10:00 **Yong-Fa Kong:** Tetravalent ions doped lithium niobate crystals

10:00 – 10:25 **Zhi-Yi Wei:** New progresses and applications of ultrafast laser pulse

10:25 – 10:45 *Tea/Coffee*

Session Chair: Hai-Qing Lin

10:45 – 11:10 **Xi-Hua Yang:** Selective and efficient control of coherent population transfer with time-separated chirped pulses

11:10 – 11:35 **Shi-Yao Zhu:** Quantum interference due to energy shifts and its effect on the spontaneous emission

11:35 – 12:00 **Closing remarks**

Afternoon *Excursion/Discussion*