

International Nano-Optoelectronics Workshop (i-NOW)

Beijing and Lanzhou, China

July 29 - August 11, 2007

CO-CHAIRS

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Japan

OBJECTIVES

Physics and devices based on nanoscale materials have become key research and development areas. This workshop will highlight the state-of-the-art in nanoscale semiconductor processing and synthesis, new physics on the tailorable optical and electrical properties, advanced characterization techniques, and novel devices with new functionalities.

Eminent scientists from China, France, Germany, Japan, Korea, Russia, Sweden and US will cover key areas of nanophotonics with tutorial-style lectures. Three international student/post-doc poster sessions will be held to provide exposure of work by young scientists. Ample time for interaction and in-depth discussions will be available through student poster presentations, two rump sessions, campus tours and various excursion trips, including a one-day trip to the Great Wall and a 2-day excursion to Dunhuang (on the Silk Road).

We expect exciting discussions, invigorating debates and interactive opportunities. We hope they will stimulate future collaborations and spark ideas for future breakthroughs. A special issue on IEEE Journal of Lightwave Technology is planned for June 2008 on selective subjects covered in the iNOW.

DURATION

6 pm July 29th to ~7 pm August 11th, 2007

DEADLINES

| | |
|---------|--|
| 6/1/07 | Registration on line |
| 6/1/07 | Abstract Submission |
| 6/15/07 | Registration fee wired to Tsinghua University |
| 9/1/07 | Manuscripts for <i>Journal of Lightwave Technology Special Issue</i> |

VENUE

| | |
|----------|-----------------------------|
| 7/29-8/2 | Tsinghua University |
| 8/2-8/6 | Peking University |
| 8/6-8/9 | Lanzhou Jiaotong University |

TECHNICAL TOPICS

- Photonic Crystal and Devices
- Nano-Opto Devices and Materials

- Including self-assembly of quantum dots, nanowire epitaxy, carbon nano-tubes, etc.
- Physics of Nano- Structures
 - Including transport, single-dot spectroscopy, near-field scanning optical microscopy, light-matter interaction, plasmonics and left-handed materials, etc.
- Advanced Technologies for Thin-Film Deposition and Processing
 - Including deposition technologies, e-beam lithography, stamping and imprint technologies
- Solar Cells
- LEDs and Lasers
 - Including amplifiers, detectors, integrated photonic circuits, etc.
- Vision and Applications

RUMP SESSIONS

Rump Session 1: Strategic Research and Engineering Innovation

Chair: Tingye Li, AT&T Labs (Retired), USA

Advances in telecommunication and information technologies are fueled by engineering innovations arising from strategic research. Strategic research may be defined as that mission-oriented research which pursues specific and realistic goals leading to practical applications. Prior to the telecom bubble of year 2000, much of the strategic research was conducted in the industry, while the academe pursued largely fundamental research leading to knowledge acquisition. Globalization and competition led to the dissolution of much of the fundamental and long-range strategic research in the industry, leaving the work to be carried out in the academe supported by government agencies. This rump session will examine the present global research environment in IT and telecom industries, addressing issues relating to industrial and societal needs, incremental and disruptive applications, funding processes and efficiencies, long-range strategic visions, and other matters of cogent interest.

Rump Session 2: Market and Doing Business in China

Chair: T. P. Lee, Bellcore (Retired), USA

With the dominance of manufactured consumer goods, China has now moved into high-tech areas including communications and information technology products. The rump session will invite several business executives to discuss the opportunities and challenges for developing such endeavors in China. Current status and future directions in IT technologies will be addressed and comparisons between the business models in the West and in China will be discussed.

EXCURSION TRIPS

1. Campus tours of Tsinghua University, Peking University, and Lanzhou Jiaotong University
2. Various evening shows and outings in Beijing and Lanzhou
3. A full-day tour to the Great Wall (scheduled on Thursday 8/2)
4. 2-day excursion to Dunhuang (on the Silk Road): Mogao Grottoes, Mingsha Sand Dunes and Crescent Moon Spring (departing 8/9 pm from Lanzhou and returning to Beijing by 7 pm 8/11)

The Mogao Grottoes, also named thousand Buddhas' Caves, are located 25 km southeast of Dunhuang County, at the edge of the Gobi desert in north-west China. The Mogao Grottoes

stands as one of the most extensive and exquisite collections of Buddhist paintings and sculptures in the world. Every surface of the walls and ceilings is covered with painted clay stucco, some 45,000 square meters in all. The Dunhuang caves remain one of the most perfectly preserved of the world's great religious sanctuaries.

SPONSORS

National Science Foundation
DARPA-funded Center for Optoelectronic Nanostructured Semiconductor Technologies
Berkeley Nanosciences and Nanoengineering Institute (BNNI)
Tsinghua University
Peking University
Lanzhou Jiaotong University
University of Tokyo
AIXTRON AG
Optical Society of America
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Corning Research China
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PROGRAM COMMITTEE

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Ming Wu, UC Berkeley
C. C. Yang, National Taiwan University
Peidong Yang, UC Berkeley
Jian-Ning Yu, Lanzhou Jiaotong University
Ziseng Zhao, Wuhan Research Institute of Post and Telecommunications
Bingkun Zhou, Tsinghua University

CONFIRMED INVITED SPEAKERS

Markus Amann, Technical University of München
Yasuhiko Arakawa, University Tokyo
Dieter Bimberg, Technical University of Berlin
Connie Chang-Hasnain, UC Berkeley
Shun-Lien Chuang, Univ. Illinois Urbana Champaign
Zhangyuan Chen, Peking University
Jen-Inn Chyi, National Central University
Dennis G. Deppe, University of Central Florida and CREOL
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Michael Heuken, AIXTRON AG
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Yi-Dong Huang, Tsinghua University
Shuichi Iwabuchi, Nara Women's University
Ivan Kaminow, UC Berkeley
Fumio Koyama, Tokyo Institute of Technology
Yong-Hee Lee, KAIST
Tingye Li, AT&T Labs (Retired)
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Peidong Yang, UC Berkeley
Fu-jia Zhang, Lanzhou University
Ziseng Zhao, Wuhan Research Institute of Post and Telecommunications
Wanhua Zheng, Semiconductor Institute
Bingkun Zhou, Tsinghua University
Ninghua Zhu, Semiconductor Institute

SPECIAL ISSUE OF JOURNAL OF LIGHTWAVE TECHNOLOGY

There will be a special issue of Journal of Lightwave Technology based on this workshop scheduled for June 2008. Attendees are encouraged to submit full manuscripts. The deadline for submission will be 9/1/07 and details to be announced.

TENTATIVE SCHEDULE

• Week 1

| Time | Sun, 7/29 | Mon, 7/30 | Tue, 7/31 | Wed, 8/01 | Thu, 8/02 | Fri, 8/03 | Sat, 8/04 | Sun, 8/05 | | | | | | |
|-----------------|--------------------------|---------------------|------------------------------|--|---------------------|---|----------------------------|---|-------|---------------------|--|--|--|--|
| 8:00 | | Breakfast | Breakfast | Breakfast | Tour; Great Wall | Breakfast | Breakfast | Breakfast | | | | | | |
| 8:30 | | Opening | Session 4 | Session 6 | | Session 8 | Session 10 | Session 12 | | | | | | |
| 9:00 | | Session 1 | | | | | | | Break | Break | | | | |
| 9:30 | | | | | | | | | | | | | | |
| 10:00 | | Break | Break | Break | | Break | Break | | | | | | | |
| 10:30 | | Break | Session 5 | Session 7 | | Session 9 | Session 11 | Session 13 | | | | | | |
| 11:00 | | | | | | | | | | | | | | |
| 11:30 | | Session 2 | Lunch | Lunch | | Lunch | Lunch | Lunch | | | | | | |
| 12:00 | | | | | | | | | | | | | | |
| 12:30 | | Lunch | Tour of Tsinghua Univ. | Rump Session 1: Strategic Research and Engineering Innovation | | Tour (Microsoft Research Asia) | Tour of Peking Univ. | Rump Session 2: Doing Busioness in China | | | | | | |
| 13:00 | | | | | | | | | | | | | | |
| 13:30 | | Session 3 | | | | | | | | | | | | |
| 14:00 | | | | | | | | | | | | | | |
| 14:30 | | | | | | | | | | | | | | |
| 15:00 | | | | | | | | | | | | | | |
| 15:30 | | Break | | | | | | | Break | Poster Session 2 | | | | |
| 16:00 | | Poster Session 1 | | | | | | Free time | | | | | | |
| 16:30 | | | | | | | | | | | | | | |
| 17:00 | | | | | | | | | | | | | | |
| 17:30 | | | | | | | | | | | | | | |
| 18:00- 21:30 | Reception and Regist. | Welcoming Dinner | Show 1 | Free time | | Show 2 | Free time | Award Banquet | | | | | | |

• Week 2

| Time | Mon, 8/06 | Tue, 8/07 | Wed, 8/08 | Thu, 8/09 | Fri, 8/10 | Sat, 8/11 |
|-----------------|------------------|-------------------------------------|------------|--------------------|-----------------------|----------------------|
| 8:00 | Breakfast | Breakfast | Breakfast | Breakfast | Tour | Tour |
| 8:30 | Session 14 | Opening Remarks | Session 4 | Session 7 | | |
| 9:00 | | Session 1 | | | | |
| 9:30 | | | | | | |
| 10:00 | Break | | Break | Break | | |
| 10:30 | Session 15 | Break | Session 5 | Session 8 | | |
| 11:00 | | Session 2 | | | | |
| 11:30 | | | | | | |
| 12:00 | Box Lunch | Lunch | Lunch | | | |
| 12:30 | Lunch | | | | | |
| 13:00 | | | | Bus to airport | | |
| 13:30 | | Session 6 | Conclusion | | | |
| 14:00 | Session 3 | | | | | |
| 14:30 | | | | | | |
| 15:00 | | Flight to Lan Zhou (15:05-17:05) | | Tour of Lanzhou | Flight to Dunhuang | Flight to Beijing |
| 15:30 | Break | | | | | |
| 16:00 | Poster Session 1 | | | | | |
| 16:30 | | | | | | |
| 17:00 | | | | | | |
| 17:30 | | | | | | |
| 18:00 | | Dinner | Dinner | Dinner | | |
| 18:30 | | | | | | |
| 19:00- 21:30 | Welcoming Dinner | | | | | |

BEST STUDENT POSTER AWARD

Best Student Posters will be selected among students presenting posters in Beijing. The submission and selection rules are outlined below. Students are encouraged to submit posters.

1. AWARDS

- First place: \$600, certificates for each co-author
- Second place: \$400, certificates for each co-author
- Third place: \$200, certificates for each co-author
- The cash award is meant to be shared among all co-authors of the posters except the professors.
- Awardees will be announced on 8/5 morning and presentation will be made at the Banquet on 8/5.

2. ABSTRACT

- Authors need to follow the format in the template (attached in Abstract and Biography Submission).
- Submission deadline: 5pm (Pacific Time), 6/1/07.

3. POSTER PRESENTATION

- All posters will be presented by students and post-docs.
- Poster should follow the format in the template (will be posted on line).
- Each poster will be allocated a 3-minute slot for oral introduction
- Poster viewing times are either in Session 1 (7/30) or 2 (8/1). The co-authors should take turns to host their poster.

4. SELECTION PROCESS

- Posters will be judged based on research quality and poster presentation.
- A 5-member external panel will be invited to evaluate the posters.
- Score will be collected before 8/4, and decision announced after on 8/5.

FEES

Before 6/1 After 6/1

Registration Fee

- including all technical sessions, breaks, campus tours, local excursion trips in Beijing and/or Lanzhou and one set of conference proceedings

| | | |
|---|-------|-------|
| Students or Post-docs: Full duration only | \$200 | \$240 |
| Regular: Full duration | \$400 | \$480 |
| Regular (Beijing Part) | \$300 | \$360 |
| (Lanzhou Part) | \$100 | \$120 |

Symposium Fee

- Registration fee (as described above)
- All meals, lodging, and local transportation in Beijing and Lanzhou.
- Lodging is a single room for regular attendees and shared double-room for students.
- Domestic air tickets for Beijing-Lanzhou-Dunhuang-Beijing

| | | |
|---|---------|---------|
| Students or Post-docs: Full duration only | \$1,350 | \$1,600 |
| Regular: Full duration | \$2,000 | \$2,400 |
| Regular (Beijing Only – excluding domestic air tickets) | \$1,100 | \$1,320 |
| (Lanzhou Only – including domestic air tickets) | \$1,200 | \$1,400 |

2-Day Dunhuang Excursion

- All meals, lodging and local transportation in Dunhuang; 8/11 night lodging in Beijing

| | | |
|-----------------------|-------|-------|
| Students or Post-docs | \$200 | \$250 |
| Regular | \$300 | \$350 |

Accompanying guests of invited speakers are welcome to join the trip. The accompanying guests, who share the same standard room with the speakers, will only need to pay for the meals, banquets and other expenses for Beijing and Dunhuang. For guests who need a separate room, please add the charge for an extra room. The costs are:

| Price per person in USD | Package includes | Sharing the same room w. speaker | | Extra room |
|-------------------------------|---|----------------------------------|------------------|------------|
| | | Adult | Child (under 18) | |
| Beijing (7/29-8/6) | all meals, banquets, and excursion and shows in Beijing | \$250 | \$150 | \$420 |
| Lanzhou + Dunhuang (8/6-8/11) | all meals, banquets, and excursion in Lanzhou; air fare to Lanzhou and Dunhuang, and 2-day Dunhuang excursion | \$950 | \$850 | \$400 |
| Total | | \$1,200 | \$1,000 | \$820 |

Refund and Cancellation Policy

All requests for refunds must be received in writing by June 29, 2007. A US \$100 service charge will be assessed for processing refunds. All registrations received after June 29, 2007, are NON-REFUNDABLE.