International Symposium on Physics and Device Applications of Two-dimensional Materials

Tentative Program

2015

Nanjing University
July 12-15

AGENDA

DAY 1
Monday, July 13

OPENING CEREMONY

Venue: 1st floor, Zhixing Hall

A.M.

8:45-9:00 Opening Ceremony

9:00-9:35 **Kang L. Wang** *UCLA, USA*
Topological Insulator and other 2D materials

9:35-10:10 **Hongjun Gao** *Chinese Academy of Sciences, China*
Construction of 2D Atomic Crystals on Transition Metal Surfaces: Graphene, Silicene, Germanene, and Hafnene

10:10-10:30 **Photo shooting and coffee break**

10:30-11:05 **Philip Wong** *Stanford University, USA*
Making Electrical Contacts to Large-Area, CVD Grown 2D Layered Materials

11:05-11:40 **Xiaodong Xu** *University of Washington, USA*
Excitons in 2D Semiconducting Heterostructures

11:40-12:15 **Lianmao Peng** *Peking Univeresity, China*
Graphene based high performance Hall elements and integrated circuits

Session 1

Venue: 1st floor, Zhixing Hall

P.M.

14:00-14:35 **Manish Chhowalla** *Rutgers University, USA*
Phase Engineered Transition Metal Dichalcogenides as Electrodes for Energy and Electronics

14:35-15:10 **Dapeng Yu** *Peking University, China*
Magnetotransport and Photoelectric Properties of Graphene Vertical Structures

15:10-15:45 **Peide Ye** *Purdue University, USA*
From Black Phosphorus to Phosphorene

15:45-16:20 **Tianling Ren** *Tsinghua University, China*

15:20-16:55 **Xinran Wang** *Nanjing University, China*
Electron transport and device physics in monolayer MoS_2

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16:55-18:00 **Poster Session**

18:00-20:00 **Banquet**

Session 2

Venue: 2nd floor, Zhixing Hall

P.M. 14:00-14:35 **Andrea Ferrari** *University of Cambridge, UK*

14:35-15:10 **Feng Wang** *UC Berkeley, USA*

15:10-15:45 **Wang Yao** *The University of Hong Kong, HK, China*
Novel exciton systems in transition metal dichalcogenides monolayers and heterobilayers

15:45-16:20 **Ting Yu** *Nanyang Technological University, Singapore*
Tuning Electronic and Valley Structures of Two-dimensional Semiconductors by Applying Electrical and Magnetic potentials

15:20-16:55 **Anlian Pan** *Hunan University, China*
Bandgap Engineering on Low Dimensional Semiconductors: from 1D to 2D Structures

16:55-18:00 **Poster Session**

18:00-20:00 **Banquet**

DAY 2
Tuesday, July 14

Session 1

Venue: 1st floor, Zhixing Hall

A.M. 8:35-9:05 **Xiangfeng Duan** *UCLA, USA*
Two-Dimensional Materials, Heterostructures, and Devices

9:05-9:40 **Wanlin Guo** *Nanjing University of Aeronautics and Astronautics, China*
Mechanical-electric-magnetic coupling and energy conversion in two-dimensional materials

9:40-10:15 **Doron Naveh** *Bar Ilan University, Israel*
Spin pumping and mode locked lasers from topological insulators

	10:15-10:30	**Coffee break**
	10:30-11:05	**Zhihong Chen** *Purdue University, USA* Graphene Based All Spin Logic
	11:05-11:40	**Kazuhito Tsukagoshi** *NIMS, Japan* Atomically thin semiconducting channels for future nano-electronics
	11:40-12:15	**Zhun-Yong Ong** *Institute of High Performance Computing, Singapore* Theoretical analysis of electron mobility in single-layer MoS_2 field-effect transistors
P.M.	14:00-14:35	**Jian-Bin Xu** *Chinese University of Hong Kong, HK, China* Investigation on Graphene-like Materials and their Related Devices
	14:35-15:10	**Han Wang** *University of Southern California, USA* Synthesis and Applications of Novel Two-Dimensional Nanomaterials
	15:10-15:45	**Yang Chai** *Hong Kong Polytechnic University, HK, China* Spin pumping and mode locked lasers from topological insulators
	15:45-16:05	**Coffee break**
	16:05-16:40	**Ning Wang** *Hong Kong University of Science and Technology, HK, China* Probing the Electronic States and Impurity Effects in Graphene and MoS_2 through Quantum Capacitance Measurement
	16:40-17:15	**Yuanbo Zhang** *Fudan University, China*
	17:15-17:50	**Lin He** *Beijing Normal University, China* Gauge fields and non-Abelian gauge fields in graphene
	17:50-18:25	**Faxian Xiu** *Fudan University, China* Spin-valve Effect in NiFe/MoS_2/NiFe Junctions

Session 2

Venue: 2nd floor, Zhixing Hall

A.M.	8:35-9:05	**Jun Lou** *Rice University, USA*
	9:05-9:40	**Hua Zhang** *Nanyang Technological University, Singapore* Synthesis and Applications of Novel Two-Dimensional Nanomaterials

	9:40-10:15	**Hongtao Yuan** *Stanford University, USA* Layered Chalcogenides: from Electronic Structure Evolution to Spin-Coupled Valley Current
	10:15-10:30	**Coffee break**
	10:30-11:05	**Yunqi Liu** *Institute of Chemistry, Chinese Academy of Sciences, China* Synthesis of graphene directly on dielectric substrates
	11:05-11:40	**Zheng Liu** *Nanyang Technological University, Singapore* Development of Some Novel Two-dimensional Crystals and their Heterostructures
	11:40-12:15	**Guihua Yu** *University of Texas, Austin, USA*
P.M.	14:00-14:35	**Qihua Xiong** *Nanyang Technological University, Singapore* Charge-Induced Second-Harmonic Generation in Bilayer WSe_2
	14:35-15:10	**Linyou Cao** *North Carolina State University, USA* Engineering Light-Matter Interactions at Two-dimensional TMDC Materials
	15:10-15:45	**Zheyu Fang** *Peking University, China* Plasmonic Hot Electrons doping of 2D Materials
	15:45-16:05	**Coffee break**
	16:05-16:40	**Xiaobo Yin** *University of Colorado, USA* Nonlinear Spectroscopy of Symmetry Breaking 2D Semiconductor Atomic Monolayer
	16:40-17:15	**Pingheng Tan** *State Key Laboratory of Superlattices and Microstructures,Institute of Semiconductors, Chinese Academy of Sciences, China* Interface coupling in twisted multilayer graphenes probed by Raman spectroscopy
	17:15-17:50	**Yuerui Lu** *Australian National University, Australia*
	17:50-18:25	**Zhenhua Ni** *Southeast University, China* Modulation of the properties of two dimensional materials through defect engineering

DAY 3
Wednesday, July 15

Session 1

Venue: 1st floor, Zhixing Hall

A.M.

8:30-9:05 **Chongwu Zhou** *University of Southern California, USA*
TBD

9:05-9:40 **Kaihui Liu** *Peking University, China*
Optical Spectroscopy of Individual Carbon Nanotubes with Defined Atomic Structure

9:40-10:15 **Kaili Jiang** *Tsinghua University, China*
High throughput imaging techniques for carbon nanotubes

10:15-10:30 **Coffee break**

10:30-11:05 **Ke-qin Zhang** *Soochoow University, Chian*
Static electric force driven self-assembly of hollow graphene spheres

11:05-11:40 **Fengqiu Wang** *Nanjing University, China*
High-performance photodetectors based on planar SWNT/graphene hybrid film

11:40-12:15 **Zhipei Sun** *Aalto University, Finland*
Ultrafast photonics based on two-dimensional layered materials

Session 2

Venue: 2nd floor, Zhixing Hall

A.M.

8:30-9:05 **Fengnian Xia** *Yale University, USA*
Graphene and Beyond for Nanophotonics

9:05-9:40 **Zongfu Yu** *University of Wisconsin, USA*
Engineering the flow of light in ultra-thin materials for efficient and multispectral photodetectors

9:40-10:15 **Yumeng You** *Southeast University, China*

10:15-10:30 Coffee break

10:30-11:05 **Qiong Ma** *MIT, USA*
Hot Carriers and Photoresponse in Graphene-based Optoelectronic Devices

11:05-11:40 **Peng Zhou** *Fudan University, China*
Nonvolatile Memory Based on Few-Layer Materials

11:40-12:15 **Jun He** *National Center for Nanoscience and Technology, China*

PRACTICAL INFORMATION

Accommodation

Jingli Hotel (晶丽酒店)

Address No.7, West Beijing Road, Gu Lou (南京市鼓楼区北京西路 7 号)

Tel (025)83714270

(025)80848000

Transport

1. From Nanjing Lukou International Airport 55 minutes by taxi (around 130RMB)
2. From Nanjing Railway Station 15 minutes by taxi (around 17 RMB)
3. From Nanjing South Railway Station 30 minutes by taxi (around 25 RMB)

Conference Venue

Zhixing Hall, Nanjing University (Gulou Campus) 南京大学(鼓楼校区)知行楼

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CICAM
COLLABORATIVE INNOVATION CENTER OF ADVANCED MICROSTRUCTURES

The Collaborative Innovation Center of Advanced Microstructures (CICAM), a close alliance made up of the national laboratories and centers from Nanjing Univ., Fudan Univ., Shanghai Jiao Tong Univ., Zhejiang Univ., Univ. of Science and Technology of China, and the Hefei Institutes of Physical Science, plus the Huawei Technologies, an advanced industry symbol of China, was formally authenticated by the Ministry of Education and the Ministry of Finance of China in 2014 under the 2011 Plan Initiatives. This alliance, led by Nanjing Univ.,is committed to undertaking advanced R&D activities in broad areas of Science and Technology of Microstructures at the crossover of condensed matter physics, materials sciences, information sciences, and energy technologies, focusing on cutting-edge and emergent sciences and technologies of artificial bandgap matters, correlated electron systems, and small quantum systems, among others in the inter-disciplines, while substantial efforts will be devoted to transfer of research findings into relevant applications.

Under the comprehensive supports of the national administrations and R&D funding agencies, the major strategies developed in the CICAM include recruiting high-level and aggressive younger talents, establishing and promoting advanced research infrastructures and capabilities, and spinning-off innovative technologies for next-generations of quantum devices and integrated systems. One of the CICAM's missions is to establish itself as a leading institution of international reputations in the field of advanced microstructures where research findings and inventions catalyze Chinese industry and meet their core technology needs. The center is also committed to training researchers and drawing prominent scientists from across the country to feed Chinese dreams that rejuvenate the country through science and technology.