

Parallel Session: Semiconductor and Applied Physics

SAP	Oct 20	Oct 21	Oct 22	Oct 23	Oct 24
Chair	Plenary Session				No SAP
09:00-09:25					
09:25-09:40					
09:40-9:55					
09:55-10:20					
10:20-10:50					
Break					
Chair	Plenary Session	Kaili Jiang	No SAP	Zhiwen Shi	Plenary Session
10:50-11:15		Feng Miao		Zhiqin Chu	
11:15-11:30		Ning Kang		Sheng Wang	
11:30-11:45		Xiaoxiang Xi		Jing Liang	
11:45-12:10		Peng Gao		Liang Qiao	
12:10-14:00		Lunch			
13:00-14:00	Poster				Departure
Chair	No SAP	Zengfeng Di	Xiaoxia Yang	Qing Shen	
14:00-14:25		Peng Zhou	Junwei Luo	Xiaodan Zhang	
14:25-14:50		Lixing You	Dawei Di	Yong Zhou	
14:50-15:05		Jiangtao Wang	Haiding Sun	Zhilong Zhang	
15:05-15:30		Yuan Liu	Lei Shi	Jin Chang	
15:30-16:00		Break			
Chair	No SAP	Pingheng Tan	Kaihui Liu	Jin Chang	
16:00-16:25		Wang Yao	Wei Yang	Wanli Ma	
16:25-16:50		Hai-Zhou Lu	Zhiwen Shi	Jianjun Tian	
16:50-17:05		Miao-Ling Lin	Sihan Zhao	Guohua Wu	
17:05-17:20		Xiaoxia Yang	Can Liu	Yaohong Zhang	
17:20-17:35		Songtai Lv	Li Wang	Yuxin Yang	

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Date: October 21

chair	Kaili Jiang	
10:50-11:15	Feng Miao Nanjing Univ.	2D Materials for Future Computing
11:15-11:30	Ning Kang Peking Univ.	Correlated state in carbon nanotube arrays
11:30-11:45	Xiaoxiang Xi Nanjing Univ.	Gate tuning of coupled electronic and structural phase transition in atomically thin Ta ₂ NiSe ₅
11:45-12:10	Peng Gao Peking Univ.	Visualization of heat transport at sub-nm scale
chair	Zengfeng Di	
14:00-14:25	Peng Zhou Fudan Univ.	2D Semiconductors for IC Manufacturing
14:25-14:50	Lixing You Shanghai Institute of Microsystem and Information Technology CAS	Superconducting strip photon detectors and application
14:50-15:05	Jiangtao Wang Peking Univ.	Electrostatic repulsion enabled advanced transfer for integration of van der Waals materials
15:05-15:30	Yuan Liu Hunan Univ.	High density 3D integration of 2D transistors via van der Waals lamination
15:30-16:00	Break	
chair	Pingheng Tan	
16:00-16:25	Wang Yao Univ. of Hong Kong	Hybrid moire excitons in twisted bilayer TMDs
16:25-16:50	Hai-Zhou Lu Southern University of Science and Technology	Nonlinear transport theory at the order of quantum metric
16:50-17:05	Miao-Ling Lin Institute of Semiconductors, CAS	Raman scattering in a phonon-optical cavity
17:05-17:20	Xiaoxia Yang National Center for Nanoscience and Technology	Infrared Polaritons in Low-dimensional Nanomaterials
17:20-17:35	Songtai Lv East China Normal Univ.	Many-body computing on Field Programmable Gate Arrays

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Date: October 22

chair	Xiaoxia Yang	
14:00-14:25	Junwei Luo Institute of Semiconductors, CAS	Physics of ultimate Si transistors
14:25-14:50	Dawei Di Zhejiang Univ.	Perovskite LEDs and Lasers
14:50-15:05	Haiding Sun Univ. of Science and Technology of China	GaN-based Integrated Optoelectronic Devices and Systems
15:05-15:30	Lei Shi Fudan Univ.	Vectorial lasing based on quasi-bound-states-in-continuum of photonic crystal slabs
15:30-16:00	Break	
chair	Kaihui Liu	
16:00-16:25	Wei Yang Institute of Physics, CAS	Multiband superconductivity in a moire flatband
16:25-16:50	Zhiwen Shi Shanghai Jiao Tong Univ.	Low-dimensional Carbon Materials for High-performance Nanoelectronics
16:50-17:05	Sihan Zhao Zhejiang Univ.	Strongly Hybridized Phonons in One-Dimensional van der Waals Crystals
17:05-17:20	Can Liu Renmin Univ.	Interfacial Engineering for Two-dimensional Material Growth
17:20-17:35	Li Wang Institute of Physics, CAS	Precise Growth and Property Regulation of Two-Dimensional Boron Nitride Crystals

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Date: October 23

chair	Zhiwen Shi	
10:50-11:15	Zhiqin Chu Univ. of Hong Kong	Fabrication, Properties, and Applications of Versatile Diamond Membranes
11:15-11:30	Sheng Wang Wuhan Univ.	Probing microscopic structure-property-performance relationships of semiconductors by multimodal microscopy
11:30-11:45	Jing Liang Shenzhen International Quantum Academy	Non-volatile Tuning of 2D Excitons in 3R-MoS ₂ Through Sliding Ferroelectricity
11:45-12:10	Liang Qiao Univ. of Electronic Science and Technology of China	Exotic electronic states in nickelate-based superconducting thin films
chair	Qing Shen	
14:00-14:25	Xiaodan Zhang NanKai Univ.	Inorganic Perovskite/Silicon Tandem Solar Cells
14:25-14:50	Yong Zhou Nanjing Univ.	Artificial Photosynthesis: Photoconversion of CO ₂ into Renewable Hydrocarbon Fuels
14:50-15:05	Zhilong Zhang South China Univ. of Technology	Exciton Delocalization in Quantum Dots and The Implications
15:05-15:30	Jin Chang Nanjing Tech Univ.	Crystallization Regulation and Defect Suppression for Efficient Tin-based Perovskite LEDs
15:30-16:00	Break	
chair	Jin Chang	
16:00-16:25	Wanli Ma Soochow Univ.	Quantum Dot Solar Cells
16:25-16:50	Jianjun Tian Univ. of Science and Technology Beijing	Efficient cadmium-free quantum dot light-emitting diodes
16:50-17:05	Guohua Wu Harbin Engineering Univ.	Design, Synthesis, and Application Research of Opto-Electro-Magnetic Functional Materials
17:05-17:20	Yaohong Zhang Northwest Univ.	Research on semiconductor quantum dots for stealth camouflage applications
17:20-17:35	Yuxin Yang Eastern Institute of Technology	Overcoming asymmetric carriers injection in III-nitride LEDs through defect engineering