Conference Schedule

	November 24	November 25	November 26	November 27	Location
Registration	09:30-20:00	08:30-20:00	08:30-20:00		Lobby, F1
Opening & Plenary Session		08:30-12:00			Shuangxi Hall, F1
Technical Sessions		13:30-18:30	08:30-12:00 13:30-16:00		F1
Poster Session		12:30-13:30			Shuangxi Hall, F1
Outstanding Youth Paper Report	14:00-17:00				Wunv Hall I, F1
Meet PhotoniX's Editors	17:00-18:00				
Quantum and Optoelectronics Industry Forum	16:00-18:00				Wunv Hall II, F1
Quantum and Optoelectronics Industry Innovation Exhibition		08:30-18:30	08:30-18:30		Shuangxi Hall, F1
Academician & Expert Forum (in Chinese)		15:30-17:00			Zhejiang Normal University
Banquet		18:00-20:00			Wuzhou Hall, F1
Quantum Clash：Ping-Pong Tournament		20:00-22:00			Table Tennis Room at B1 Fitness Center
Plenary Talk&PhotoniX Prize Talk			16:00-17:00		Jinxing Hall, 8 building, F1
Closing Ceremony			17:00-17:30		
Science Popularization Forum on Quantum Photonics (in Chinese)				09:00-12:00	Jinhua Light Cultural Plaza Multifunction Theater

Detailed Schedule

Opening & Plenary Session	
	Shuangxi Hall, F1
November 25	
08:30-09:20	Opening Ceremony
09:20-09:50	Simon Groeblacher, Delft University of Technology, the Netherlands — Quantum experiments with mechanical and optical excitations ***Plenary***
09:50-10:20	Joerg Schmiedmayer, Vienna University of Technology, Austria — Superradiant hybrid quantum devices ***Plenary***
10:20-10:50	Xiaodong Xu, Washington University, USA — Observation of fractional quantum anomalous Hall effect ***Plenary***
10:50-11:20	Dapeng Yu, Institute For Quantum Science and Engineering — New progress in superconducting quantum computing ***Plenary***
11:20-11:50	Shaul Mukamel, University of California, Irvine, USA—Monitoring elementary femtosecond molecular events with quantum light, entangled photons, and X ray pulses ***Plenary***
11:50	Lunch

PhotoniX Prize Talk & Closing Ceremony	
	Jinxing Hall, 8 building, F1
November 26	
16:00-17:00	Plenary Talk&PhotoniX Prize Talk
17:00-17:30	Closing Ceremony

Conf.1 Quantum optics and precision measurement

T1. Quantum foundations & T2. Quantum optics & T3. Quantum precision measurement
& T12. Quantum optomechanics and quantum precision measurement

Wunv Hall I, F1

November 25	
Session1: Quantum foundations **Chair：Zeyu Ou, City University of Hong Kong**	
13:30-13:50	Giulio Chiribella, University of Hong Kong — Quantum metrology with indefinite order ***Invited***
13:50-14:10	Mohamed Bourennane, Stockholm University, Sweden—Entanglement Detection ***Invited***
14:10-14:30	Huangjun Zhu, Fudan University — Information theoretic significance of projective measurements ***Invited***
14:30-14:50	Sixia Yu, University of Science and Technology of China — Measurement uncertainty relationship for three observables ***Invited***
14:50-15:10	Xiwen Guan, Institute of Precision Measurement Science and Technology Innovation, CAS —Quantum transport of 1D Hubbard model ***Invited***
15:10-15:30	Zhengda Li, Southern University of Science and Technology — Testing Quantum Foundations Based on Optical Quantum Networks ***Invited***
15:30-15:50	Qi Zhao, University of Hong Kong — Robust self-testing of many body entanglement ***Invited***
15:50-16:00	Coffee break
Session2: Quantum optics I **Chair：Dawei Wang, Zhejiang University**	
16:00-16:20	Renbao Liu, Chinese University of Hong Kong—Quantum nonlinear spectroscopy via a quantum sensor ***Invited***
16:20-16:40	Mile Gu, Nanyang Technological University, Singapore — Dimensional Reduction in a Quantum World ***Invited***
16:40-17:00	Hui Jing, Hunan Normal University—Nonreciprocal Quantum Optics ***Invited***
17:00-17:20	Liang Jin, Nankai University—High-order spectral singularity in open systems ***Invited***
17:20-17:40	Xiaosong Ma, Nanjing University—Integrated quantum photonics for quantum network ***Invited***
17:40-18:00	Xianhe Zhao, University of Science and Technology of China—Quantum simulation based on random circuit sampling ***Invited***
18:00-18:20	Zhongxia Shang, University of Science and Technology of China — A polynomial-time quantum algorithm for solving the ground states of a class of hard Hamiltonians ***Invited***

18:20-18:30	Zhenfang Fan, National University of Defense Technology--Realization of Ring Laser Based on 543nm and 730nm Wavelengths *(T-QPX2023-02-003)*
18:30	Dinner

November 26

Session3: Quantum optics II
Chair：Renbao Liu, Chinese University of Hong Kong

08:30-08:50	Zeyu Ou, City University of Hong Kong—Unbalanced interferometers beyond coherence time *Invited*
08:50-09:10	Jayne Thompson, Agency for Science, Technology and Research, Singapore — Using quantum agents to reduce the resource cost of executing adaptive tasks *Invited*
09:10-09:30	Jinhui Wu, Northeast Normal University—Enhanced biphoton generation on resonance via atomic dark state *Invited*
09:30-09:50	Zhedong Zhang, City University of Hong Kong — Monitoring electronic coherences of molecules by quantum-light spectroscopy *Invited*
09:50-10:00	Luojia Wang, Shanghai Jiao Tong University--Subradiant two-band Bloch oscillations in atomic arrays *(QPX2023-02-009)*
10:00-10:10	Fengxiao Sun, Peking University--Generation of cat states via quantum entanglement and ultrafast optics *(QPX2023-02-003)*
10:10-10:20	Lingzhen Guo, Tianjin University--China Arbitrary Phase-space Hamiltonian Engineering for Bosonic Codes *(QPX2023-02-011)*
10:20-10:30	Coffee break

Session4: Quantum optomechanics and quantum precision measurement
Chair：Jin Chang, Delft University of Technology,the Netherlands

10:30-10:50	Jieqiao Liao, Hunan Normal University—Dark-mode engineering in cavity optomechanical systems with multiple mechanical modes *Invited*
10:50-11:10	Haitan Xu, Nanjing University—Exceptional point, precision measurement and control in optomechanics *Invited*
11:10-11:30	Sungkun Hong, University of Stuttgart, Germany—Integrated quantum levitodynamics: from fundamental research to new quantum technology *Invited*
11:30-11:40	Chaoyang Tai, Menlo Systems—Frequency-Comb-Enabled Quantum 2.0 Applications
11:40-11:50	Xian-Li Yin, Hunan Normal University--All-optical quantum simulation of ultrastrong optomechanics *(QPX2023-12-004)*
12:00	Lunch

Session5: Quantum precision measurement
Chair：Xiaodong He, Innovation Academy for Precision Measurement Science and Technology, CAS

13:30-13:50	Weiping Zhang, Shanghai Jiao Tong University—Quantum Metrology with Atom-photon Interface *Invited*

13:50-14:10	Xinhua Peng, University of Science and Technology of China—Spin-based weak magnetic field precision measurement and its Applications ***Invited***
14:10-14:30	Kelin Gao, Institute of Precision Measurement Science and Technology Innovation, CAS—The precision spectroscopy study with Ca+ ion ***Invited***
14:30-14:50	Tian Xia, University of Science and Technology of China—CP symmetry test via atomic EDM measurement ***Invited***
14:50-15:10	Junhong An, Lanzhou University—Floquet engineering to overcome no-go theorem of noisy quantum metrology ***Invited***
15:10-15:30	Juergen Stuhler, TOPTICA Photonics AG, Germany—TOPTICA Photonics–From Lasers for Quantum Technologies to Optical Clocks ***Invited***
15:30-15:50	Konstantin E. Dorfman, Hainan University—Quantum light spectroscopy and sensing ***Invited***
15:50-16:00	Coffee break

Conf.2 Quantum simulation and computation

T4. Quantum simulation & T5. Quantum computation and algorithms & T6. Quantum error correction and fault tolerance & T7. Ultracold atoms and molecules

Wunv Hall II, F1

November 25	
Session1: Quantum error correction and fault tolerance **Chair：Luyan Sun, Tsinghua University**	
13:30-13:50	Mazyar Mirrahimi, National Institute for Research in Digital Science and Technology (INRIA) , France——Repetition cat qubits *Invited*
13:50-14:10	Ying Li, China Academy of Engineering Physics——Quantum error correction and error mitigation *Invited*
14:10-14:30	Xiaolong Su, Shanxi University——Continuous-variable quantum computation and quantum error correction *Invited*
14:30-14:50	Ye Wang, Hefei National Laboratory —— Quantum error correction on a trapped-ion quantum computer *Invited*
14:50-15:10	Yuan Xu, Southern University of Science and Technology——Beating the break-even point with a discrete-variable-encoded logical qubit *Invited*
15:10-15:30	Xiaobo Zhu, University of Science and Technology of China——Superconducting quantum computing error correction *Invited*
15:30-15:40	Xiaozhou Pan, National University of Singapore--Protecting the Quantum Interference of Cat States by Phase-Space Compression *(T-QPX2023-06-001)*
15:40-15:50	Weiting Wang, Tsinghua University--Protecting quantum entanglement between logical qubits via quantum error correction *(QPX2023-06-002)*
15:50-16:00	Coffee break
Session2: Quantum simulation **Chair：Xiaopeng Li, Fudan University**	
16:00-16:20	Gyu-Boong Jo, The Hong Kong University of Science and Technology (HKUST)——Quantum simulation with neutral atoms: from non-Hermitian matter to 2D dipolar superfluids *Invited*
16:20-16:40	Wei Zhang, Renmin University of China —— Quantum simulation of non-Hermitian Hamiltonian in trapped ion *Invited*
16:40-17:00	Xiaopeng Li, Fudan University——Computation with Atomic Quantum Simulations *Invited*
17:00-17:20	Zhifang Xu, Southern University of Science and Technology —— Unconventional Superfluidity in Optical Lattices *Invited*
17:20-17:40	Jiehang Zhang, Shanghai Institute for Advanced Studies of University of Science & Technology of China——Quantum information with a high-connectivity processor *Invited*
17:40-17:50	Chang-Rui Yi, HeFei National laboratory--Observation of quantized Chern-Simons invariant in quantum gases *(T-QPX2023-04-001)*

17:50-18:00	Wei Xia, Fudan University--Configured quantum reservoir computing for multi-task machine learning *(QPX2023-04-002)*
18:00	Dinner

November 26

Session3: Quantum computation and algorithms
Chair：Haohua Wang, Zhejiang University

08:30-08:50	Peter Coveney, University College London, UK—Seeking quantum advantage in molecular electronic structure calculations *Invited*
08:50-09:10	Nana Liu, Shanghai Jiao Tong University — Analog quantum simulation of partial differential equations *Invited*
09:10-09:30	XiaoYuan, Peking University—Variational quantum simulation algorithms *Invited*
09:30-09:50	Xin Wang, City University of Hong Kong — Application of optimal control in quantum parameter estimation and quantum hypothesis testing *Invited*
09:50-10:10	Yukai Wu, Tsinghua University—Progress on ion trap quantum computing and simulation *Invited*
10:10-10:30	Kai Xu, Institute of Physics, CAS—Quantum simulation based on hamiltonian engineering in superconducting circuits *Invited*
10:30-10:50	Youpeng Zhong, Southern University of Science and Technology — Distributed quantum computing with superconducting qubits *Invited*
10:50-11:00	Coffee break

Session4: Ultracold atoms and moleculesI
Chair：Chaohong Li, Shenzhen University

11:00-11:20	Wenlan Chen, Tsinghua University — Observation of universal dissipative dynamics in strongly correlated quantum gas *Invited*
11:20-11:40	Ippei Danshita, Kindai University, Japan—Dynamics of correlation spreading in cold-atom systems *Invited*
11:40-12:00	Xiongjun Liu, Peking University—Quantum critical states in optical Raman lattices *Invited*
12:00-12:20	Fei Zhou, Innovation Academy of Precision Measurement Science and Technology, CAS—Experimental exploration of thermodynamic problems in quantum information processing *Invited*
12:20	Lunch

Session5: Ultracold atoms and moleculesII
Chair：Xiaoji Zhou, Peking University

13:30-13:50	Xinyu Luo, Max-Planck-Institute for Quantum Optics, Germany — Creation of ultracold tetratomic molecules from a Fermi gas of microwave-shielded polar molecules *Invited*
13:50-14:10	Yanting Cheng, University of Science and Technology Beijing — Quantum Many-Body Physics with Rydberg Atom Arrays *Invited*

14:10-14:30	Dajun Wang, Chinese University of Hong Kong — Quantum control and interaction of ultracold polar molecules ***Invited***
14:30-14:50	Bo Yan, Zhejiang University — Quantum simulation in momentum lattice with ultracold atoms ***Invited***
14:50-15:10	Chao Gao, Zhejiang Normal University—Twistronics with cold atoms ***Invited***
15:10-15:30	Tianwei Zhou, University of Florence, Italy — Strongly Interacting Lattice Fermions: Hall Physics in Synthetic Quantum Systems ***Invited***
15:30-15:40	Xiaohui Shi，Shanghai Precilasers Technology Co., Ltd.——New generation low noise high power single frequency fiber laser system
15:40-15:50	Yuxin Chao, Tsinghua University--Pound-Drever-Hall Feedforward: High-frequency-laser-phase-noise Suppression for Quantum Computation with Rydberg Atoms *(QPX2023-07-008)*
15:50-16:00	Coffee break

Conf.3 Wide-area Quantum communications and integrated quantum photonics

T8. Quantum communications & T9. Quantum experiments in space &
T10. Integrated quantum photonics & T11.Quantum detections and applications

Dongyang Hall, F1

November 25	
Session1: Quantum communications **Chair: Qiang Zhang, University of Science and Technology of China**	
13:30-13:50	Yongmin Li, Shanxi University—The scheme implification and networking of continuous variable quantum key distribution ***Invited***
13:50-14:10	Bing Qi, New York University Shanghai — Towards the integration of quantum key distribution in classical optical networks ***Invited***
14:10-14:30	Hou IAN, University of Macau—Quantum information using linear optics ***Invited***
14:30-14:50	Zongquan Zhou, University of Science and Technology of China — Long-lived quantum memories and quantum networks ***Invited***
14:50-15:10	Tao Wang, Shanghai Jiao Tong University—Continuous-variable quantum access network ***Invited***
15:10-15:30	Jiupeng Chen, Jinan Institute of Quantum Technology — Long-distance optical fiber twin-field quantum key distribution ***Invited***
15:30-15:40	Georg Engelhardt, Southern University of Science and Technology--Unified Light-Matter Floquet Theory and its Application to Quantum Communication *(QPX2023-08-001)*
15:40-15:50	Lang Li, Shanghai Jiao Tong University--Continuous Variable Measurement Device Independent Quantum Key Distribution with Flawed On-Chip Light Sources *(QPX2023-08-006)*
15:50-16:00	Coffee break
Session2: Quantum experiments in space **Chair: Rong Shu, Shanghai Institute of Technical Physics, CAS**	
16:00-16:20	Shougang Zhang National Time Service Center, CAS — High-precision time-frequency experimental system in the China Space Station ***Invited***
16:20-16:40	Shengkai Liao, Satellite based quantum key distribution network — Satellite based quantum key distribution network ***Invited***
16:40-17:00	Tang Li, Shanghai Institute of Optics and Fine Mechanics, CAS—Experimental Progress of Cold Atom Physics Rack (CAPR) in Chinese Space Station ***Invited***
17:00-17:20	Wenjuan Wang, Shanghai Institute of Technical Physics, CAS—InP-Based Single Photon Avalanche Diode and Its Applications in Space Quantum Experiments ***Invited***
17:20-17:40	Qi Shen, University of Science and Technology of ChinaHigh precision time and frequency transfer over long-distance free-space link ***Invited***
17:40-17:50	Chen Xi, Innovation Academy for Precision Measurement Science and Technology, CAS--Progress of space cold atom interferometer in the China Space Station

	(T-QPX2023-09-001)
17:50-18:00	Xialin Liu, Shanghai Institute of Technical Physics, CAS--Velocity-correlated single-photon ranging over thousands of kilometers for non-cooperative space targets *(QPX2023-09-001)*
18:00-18:10	Xue Shen, Shanghai Institute of Technical Physics, CAS--Spaceborne Photon Counting Lidar for Oceanic Detection: Airborne Lidar Validation Experiment *(QPX2023-09-002)*
18:10	Dinner

November 26

Session3: Integrated quantum photonicsI
Chair: Jianwei Wang, Peking University

08:30-08:50	Yunhong Ding, Technical University of Denmark, Denmark — Integrated quantum photonics on silicon, lithium niobate and future hybrid platform *Invited*
08:50-09:10	Feng Liu, Zhejiang University—Quantum devices based on III-V quantum dots *Invited*
09:10-09:30	Mingyang Zheng, Jinan Institute of Quantum Technology—Quantum frequency conversion and single-photon detector with LNOI chip *Invited*
09:30-09:50	Xiaoshun Jiang, Nanjing University — Brillouin-Kerr soliton and optomechanical optical microcombs in chip-based microresonators *Invited*
09:50-10:00	Mujie Rao, Sun Yat-Sen University--Single photon emitter deterministically coupled to a topological corner state *(QPX2023-10-008)*
10:00-10:10	Coffee break

Session4: Integrated quantum photonicsII
Chair: Yunhong Ding, Technical University of Denmark, Denmark

10:10-10:30	Qiang Zhou, University of Electronic Science and Technology of China — Integrated multimode photonic quantum memory at telecom band *Invited*
10:30-10:50	Xianmin Jin, Shanghai Jiao Tong University *Invited*
10:50-11:00	Bin Niu, Nanjing Electronic Devices Institute--Entangled Photon Pair Source with Efficient Modal Phase Matching on AlGaAs Platform: A Solution to Fully Connected Quantum Internet *(QPX2023-10-003)*
11:00-11:10	Mingsheng Tian, Peking University — Nonreciprocal amplification transition in the topological photonic network *(QPX2023-10-005)*
11:10-11:20	Yuan Liu, Tsinghua University — Enhanced single emitter-cavity coupling by waveguide-assisted energy quantum transfer *(QPX2023-10-010)*
12:00	Lunch

Session5: Quantum detections and applications
Chair: Kemi Xu, Beijing Institute of Technology

13:30-13:50	Chunming Yin, University of Science and Technology of China—Single erbium ions in silicon nanodevices for quantum applications *Invited*
13:50-14:10	Manjin Zhong, Southern University of Science and Technology — Development of a persistent quantum memory *Invited*
14:10-14:30	Jin Chang, Delft University of Technology, the Netherlands—Research progress of SNSPD and emerging quantum optics applications in the future *Invited*
14:30-14:50	Rugang Geng, University Of New South Wales, Australia — Sub-micron spin-based magnetic field imaging with an organic light-emitting diode *Invited*
14:50-15:10	Qi Zhang, Nanjing University — Coherent strong coupling: from light-matter to matter-matter *Invited*
15:10-15:30	Lai Zhou, Beijing Academy of Quantum Information Sciences—High speed single photon detector and the application in quantum network *Invited*
15:30-15:40	ZHANG Bo, Beijing Institute of Technology--Enhanced Quantum Sensing with Solid-state Masers in Ambient Condition *(T-QPX2023-11-003)*
15:40-15:50	Yu-Hui Chen, Beijing Institute of Technology--Realization of an inherent time crystal in a dissipative many-body system *(QPX2023-11-001)*
15:50-16:00	Coffee break

Conf.4 Optical engineering and the interdisciplinarity

T13. Micro/nano-photonics & T14. Optoelectronic integration & T15. Terahertz quantum detection & T16. Biophotonics & T17. AI in optics and photonics

Jinxing Hall, 8 building, F1

November 25	
Session1: Micro/nano-photonics **Chair：Qing Dai, The National Center for Nanoscience and Technology**	
13:30-13:50	Lei Zhou, Fudan University——Meta-couplers for linking propagating waves and surface waves *Invited*
13:50-14:10	Zhanghai Chen, Xiamen University——Manipulation of Van der Waals Exciton Polaritons *Invited*
14:10-14:30	Yang Zhang, University of Science and Technology of China — Probing magneticl light-molecule interaction in a plasmonic picocavity *Invited*
14:30-14:50	Huanjun Chen, Sun Yat-sen University——Polaritonic 2D crystals and their applications in THz and mid-infrared regions *Invited*
14:50-15:10	Ye Tian, Shanghai Institute of Optics and Fine Mechanics, CAS——Surface plasma polariton amplification and electron acceleration under intense field *Invited*
15:10-15:20	Shaojie Ma, Fudan University, Higher dimensional topology with metamaterials (*QPX2023-13-002*)
15:20-15:30	Shu Chen, University of Shanghai for Science and Technology, Real-space observation of ultra-confined THz polaritons via near-field nanoscopy (*QPX2023-13-001*)
15:30-15:40	Deng Pan, East China Normal University, Driving thermal vacuum photons by time-modulated media (*QPX2023-13-003*)
15:40-15:50	Xiangdong Guo, National Center for Nanoscience and Technology, Ultra-confined mid-infrared phonon polaritons (*QPX2023-13-004*)
15:50-16:00	Coffee break
Session2: Optoelectronic integration **Chair：Qidai Chen, Jilin University**	
16:00-16:20	Martin Booth, University of Oxford——Photonic devices for quantum technology enabled through adaptive laser fabrication *Invited*
16:20-16:40	Xuewen Chen, Huazhong University of Science and Technology——Subnanometer matter's farfield optical fingerprints and their application *Invited*
16:40-17:00	Ziyang Zhang, Westlake University — Function Programmable Waveguide Engine and Integration Technology *Invited*
17:00-17:20	Jintian Lin, Shanghai Institute of Optics and Fine Mechanics, CAS——Kerr soliton comb generation in a normal dispersion lithium niobate microdisk by mode trimming *Invited*
17:20-17:40	Honghua Fang, Tsinghua University — Deterministic Creation of Color Centers in Nanostructures via Direct Laser Writing with High Spatial Precision *Invited*

Session3: Biophotonics Chair：Peng Xi, Peking University	
17:40-18:00	Jiawei Sun, Shanghai Artificial Intelligence Laboratory — Smart Multi-core Fiber Endoscopy for Optical Manipulation and 3D Imaging *Invited*
18:00-18:20	Peng Xi, Peking University—Super-resolution: an adventure on a new dimension *Invited*
18:20-18:40	Wei Zheng, Shenzhen Institute of Advanced Technology, CAS — Development and application of novel two-photon microscopy *Invited*
18:40	Dinner

November 26

Session4: AI in optics and photonicsI Chair：Jianji Dong, Huazhong University of Science and Technology	
08:30-08:50	Juergen Czarske, TU Dresden, Germany — Computational Fiber-optical Communication and Sensing exploiting AI *Invited*
08:50-09:10	Liangcai Cao, Tsinghua University—Intelligent Photonics *Invited*
09:10-09:30	Chaoran Huang, Chinese University of Hong Kong — Towards reliable photonic neural networks through hardware-software co-optimization *Invited*
09:30-09:50	Liyang Shao, Southern University of Science and Technology—Intelligent Integrated Fiber Optic Communication and Sensing *Invited*
09:50-10:00	Ziyu Cao, Huazhong University of Science and Technology--A Complex-valued Matrix-vector Multiplication System for Large-scale Optical FFT *(QPX2023-17-004)*
10:00-10:10	Yibo Dong, University of Shanghai for Science and Technology--Integrated diffractive neural network for optical inference *(QPX2023-17-005)*
10:10-10:20	Coffee break
Session5: AI in optics and photonicsII Chair：Juergen Czarske, TU Dresden, Germany&Liangcai Cao, Tsinghua University	
10:20-10:40	Xingjun Wang, Peking University — Harnessing microcomb-based parallel chaos for random number generation and optical decision making *Invited*
10:40-11:00	Gu Xuemei, Max Planck Institute, Germany—Graph-Theoretical Approaches for AI-Driven Discovery in Quantum Optics *Invited*
11:00-11:20	Qiming Zhang, University of Shanghai for Science and Technology — Artificial neural networks enabled by nanophotonics *Invited*
11:20-11:40	Qian Zhang, Dresden University of Technology, Germany — Intelligent Integrated Fiber Optic Communication and Sensing *Invited*
11:40-11:50	Bowen Bai, Peking University--Advancements in Training Strategies for Optical Neural Networks *(QPX2023-17-006)*
11:50-12:00	Fang Li, Beijing University of Civil Engineering and Architecture--Abstract-Precision Measurement for displacement Based on the Fusion of Orbital Angular Momentum and Intensity of Vortex Beams *(QPX2023-17-002)*

12:00	Lunch

Session6: Terahertz quantum detection
Chair：Yiming Zhu, University of Shanghai for Science and Technology

13:30-13:50	Linjie Zhang, Shanxi University—Electric fields sensing based on Rydberg atoms *Invited*
13:50-14:10	Qianchun Weng, Institute of Physical and Chemical Research (RIKEN), Japan—Terahertz quantum sensing and ultrasensitive super-resolution imaging *Invited*
14:10-14:30	Guilan Li, Beijing Institute of Radio Measurement — Quantum Measurement of Electromagnetic Fields *Invited*
14:30-14:50	Yan Peng, University of Shanghai for Science and Technology—Terahertz Rydberg fine detection study *Invited*
14:50-15:10	Lei Hou, Xi 'an University of Technology—Investigation on Detecting Terahertz Waves by Electro-induced Rydberg Atoms *Invited*
15:10-15:30	Wei Huang ,South China Normal University—Terahertz technology based on Rydberg atoms *Invited*
15:30-15:40	Coffee break

Quantum and Optoelectronics Industry Forum

Wunv Hall II, F1

November24	
Chair：Liyang Shao, Southern University of Science and Technology	
16:00-16:15	Xin Li , University of Science and Technology of China — AI-Enhanced Quantum Chemistry Computations and Their Applications in Industry *Invited*
16:15-16:30	Hongsong Shi, China Information Security Assessment Center — Towards the progress of ISO/IEC standardization on QKD security evaluation *Invited*
16:30-16:45	Min Yu, USTC Holdings Company Limited — Industrialization of quantum technology *Invited*
16:45-17:00	Lei Zhang, Shanghai Precilasers — New industrial standard laser systems for emerging quantum technologies *Invited*
17:00-17:15	Xuliang Zhang, Hangzhou Biaozhang Electronic Technology Co., Ltd. — The Development and local Industrialization of Quantum Computing Control Devices
17:15-18:00	Roundtable discussion

Outstanding Youth Paper Report & Meet PhotoniX's Editors

November24	
Chair：Jianzhen Zhang, Vice President, Zhejiang Normal University	
13:30-14:00	Zhejiang Normal University Information Talk
14:00-14:05	Hongzhen Chen, The Chinese University of Hong Kong — Incompatibility measures in multi-parameter quantum estimation under hierarchical quantum measurements *(QPX2023-01-002)*
14:05-14:10	Shuheng Liu, Peking University — Characterizing entanglement dimensionality from the covariance matrix *(QPX2023-01-005)*
14:10-14:15	Xiao-yu Chen, Hangzhou City University — Gaussian entanglement witness and refined Werner-Wolf criterion for continuous variables *(QPX2023-02-002)*
14:15-14:20	Yi Li, Peking University — Randomness Certification from Multipartite Quantum Steering for Arbitrary Dimensional Systems *(QPX2023-02-005)*
14:20-14:25	Bei Liu, Shandong University--Submillimeter-resolution 2D atom magnetometer arrays using a counter-propagating optical-sideband pumping *(QPX2023-03-001)*
14:25-14:30	Jin-Lu Wen, University of Science and Technology of China--Post-selection effect in precision spectroscopy of atomic helium *(QPX2023-03-005)*
14:30-14:35	Xi Li, University of Science and Technology of China—The single-particle spectral function and pseudogap in unitary Fermi gas *(QPX2023-04-003)*
14:35-14:40	Wen Ning, Fuzhou university — Revealing inherent quantum interference and entanglement of a Dirac particle *(QPX2023-04-010)*
14:40-14:45	Ri-Hua Zheng, FuZhou University—Observation of a Superradiant Phase Transition with Emergent Cat States *(QPX2023-04-011)*
14:45-14:50	Xiao-Ming Zhang, Peking University — Unbiased Random Circuit Compiler for Time-Dependent Hamiltonian Simulation *(QPX2023-05-002)*
14:50-14:55	Jiaxuan Zhang, University of Science and Technology of China — Facilitating Practical Fault-tolerant Quantum Computing Based on Color Codes *(QPX2023-06-004)*
14:55-15:05	Coffee break
15:05-15:10	Xiu-Hao Deng, Southern University of Science and Technology—A geometric perspective of quantum noise and dynamical error correction *(QPX2023-06-005)*
15:10-15:15	Zhen-Xia Niu, Zhejiang Normal University — Dynamical phase transitions in a spinor Bose-Einstein condensate via quantum and semiclassical analyses *(QPX2023-07-002)*
15:15-15:20	Xianqi Tong, Beijing Normal University — First-order Localization and Structural Phase Transition in the Haldane Model with Non-Hermitian Quasicrystal Boundary *(QPX2023-07-003)*
15:20-15:25	Jiajie Guo, Peking University — Detecting Bell Correlations in Multipartite Non-Gaussian

	Spin States *(QPX2023-07-004)*
15:25-15:30	Yizhi Huang, Tsinghua University — Mode-Pairing Quantum Key Distribution *(QPX2023-08-004)*
15:30-15:35	Kejin Wei, Guangxi University — Resource-efficient quantum key distribution with integrated silicon photonics *(QPX2023-08-008)*
15:35-15:40	Lijiong shen, National University of Singapore—A Practical Countermeasure against the Detector-Blinding Attack in Quantum Communication through Detector Self-testing *(QPX2023-08-010)*
15:40-15:45	Hao Tang, Shanghai Jiao Tong University—Generating Haar-Uniform Randomness Using Stochastic Quantum Walks on a Photonic Chip *(QPX2023-10-002)*
15:45-15:50	Jiawei Yang, Sun Yat-Sen University—Tunable quantum dots in monolithic Fabry-Perot microcavities for high-performance single-photon sources *(QPX2023-10-009)*
15:50-15:55	Fanglin Bao, Purdue University — Photon discerner: adaptive quantum optical sensing near the shot noise limit *(QPX2023-11-002)*
15:55-16:00	Yanxiang Zhang, Harbin Institute of Technology — Detection of instantaneous angular velocity based upon photonic orbital angular momentum and wavelet transform *(QPX2023-11-005)*
16:00-16:05	Yu-Hong Liu, Hunan Normal University—Ultrafast Enhanced Optomechanical Cooling and Entanglement via Quantum Learning Control *(QPX2023-12-003)*
16:05-16:15	Coffee break
Chair：Liangcai Cao, Tsinghua University	
16:15-18:00	Meet PhotoniX's Editors