

T4: Free-Space Transmission and Communication Systems	
Location: Multi-function Hall C, 1F	
November 2, 2026	
Presider: Xiong Deng, Southwestern Jiao Tong University, China Session: Free-space Integrated Sensing and Communications	
13:30-14:30	THz photonics-enabled ultrafast communication and high-resolution sensing (Tutorial) Xianbin Yu Zhejiang University, China
14:30-15:00	Optical Wireless Technology: Integrated Sensing and Communication, Photonic Integration, and Over-the-Air Computation (Invited) Ke Wang Royal Melbourne Institute of Technology, Australia
15:00-15:15	Bidirectional Transmission for MLS-Assisted RO-ISAC Based on Code Division Duplexing (Oral) Chen Chen Chongqing University, China
15:15-15:30	LACO-OFDM for Optical ISAC (Oral) Benben Li Northwestern Polytechnical University, China
15:30-16:00	Coffee Break
Presider: Oskars Ozolins, Riga Technical University, Latvia Session: Optical Wireless Receivers, Visible Light Communications and Positioning	
16:00-16:30	Recent Advances in Fluorescent Antennas for Optical Wireless Communications (Invited) Cuiwei He Japan Advanced Institute of Science and Technology, Japan
16:30-16:45	Correlation-Assisted Adaptive Poisson Evidence Detection for Low-Light Photon-Counting Optical Communications under Time-Varying Backgrounds (Oral) Linyu Zhang Xi'an University of Posts & Telecommunications, China
16:45-17:00	A Real-Time QPSK-OFDM Visible Light Communication System with Automatic Gain Control and NLOS Channel Characterization (Oral) Shaojun Shi Beijing Institute of Technology, China
17:00-17:15	Real-Time Smartphone-Based Mobile Optical Wireless Reception With XOR Recovery (Oral) Shaoxi Ji Beijing Institute of Technology, China
17:15-17:30	Robust RSS-Based Visible Light Positioning with Dual-Ended Tilt Compensation (Oral) Ping Fu Southwest Jiaotong University, China

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November 3, 2026	
Presider: Ming Che, Kyushu University, Japan Session: Beam Steering and Alignment for Mobile Optical Links	

08:30-09:00	Beam-steered Optical Wireless Communications under Line-of-Sight and Non-Line-of-Sight links (Invited) Xuebing Zhang Zhejiang University, China
09:00-09:30	The Minimalist FSO: Rethinking System Architecture via Positioning-Assisted Alignment (Invited) Bingcheng Zhu Southeast University, China
09:30-09:45	Gaussian-Approximated Free-Space-to-Fiber Coupling Based on Trilateration Positioning (Oral) Qirui Xu Huazhong University of Science and Technology, China
09:45-10:00	Laser Link Acquisition and Tracking for High-Dynamic Tethered Aerostat Free-Space Optical Communications (Oral) Xuan Wang Xi'an Institute of Optics and Precision Mechanics, CAS, China
10:00-10:30	Coffee Break
Presider: Jian Zhao, South China University of Technology, China Session: Advanced Signal Processing for Optical Transmission	
10:30-11:00	Exploration of intelligent all-optical information processing technologies for laser communication (Invited) Tianlun Li Northwestern Polytechnical University, China
11:00-11:15	Trellis Shaping for Nonlinearity Mitigation in Coherent Ground-to-Satellite Optical Links with High-Power Optical Amplifiers (Oral) Yaning Sun Beijing University of Posts and Telecommunications, China
11:15-11:30	Coherent Receiver Utilizing Real-Time OPLL with Doppler Shift Resistance for Low-power Consumption Inter-satellite Laser Communication (Oral) Zhen Luo Huazhong University of Science and Technology, China
11:30-11:45	On Modeling and Experimental Assessment of Hybrid Fiber/FSO Links Under Varying Atmospheric Turbulence Conditions (Oral) Hangqian Li Beijing Jiaotong University, China
11:45-12:00	FSOC Link Quality Assessment Model and Its Application under Complex Atmospheric Conditions (Oral) Junpeng Zhang Changchun university of science and technology, China
Presider: Huibin Zhou, Huazhong University of Science and Technology, China Session: Structured Light and Turbulence-Resilient Optical Communications	
13:30-14:30	TBD (Tutorial) Martin Lavery University of Glasgow, United Kingdom
14:30-14:45	Propagation of Quadratic-Phase-Modulated Power-Exponent-Vortex Beams in Free Space Optical Links (Oral) Yunjie Hu Southwest Jiaotong University, China
14:45-15:00	Phase-Optimized Structured Beams for Enhanced Turbulence Robustness in Underwater Wireless Optical Communications (Oral) Bing Han Huazhong University of Science and Technology, China

15:00-15:15	Spatiotemporal State Modeling of Degraded Optical Spots in Long-Distance Free-Space Laser Communication (Oral) Zengxin Liu Xi'an University of Architecture and Technology, China
15:15-15:30	Semantic Domain Impairment Compensation for Free-Space Optical Communications (Oral) Yueqiu Mu China Telecom Research Institute State Key Laboratory of Optical Fiber and Cable Manufacture
15:30-17:30	Coffee Break & Poster Session

T4: Free-Space Transmission and Communication Systems	
Location: Multi-function Hall C, 1F	
November 4, 2026	
Presider: Haifeng Yao, Beijing Institute of Technology, China Session: Mid-Infrared Free-Space Optical Communications	
08:30-09:00	Advances in Mid-Infrared Free-Space Optical Communications (Invited) Huibin Zhou Huazhong University of Science and Technology, China
09:00-09:30	Unipolar quantum optoelectronics for mid-IR FSO (Invited) Fabrice Monasterio Laboratoire de Physique de l'École Normale Supérieure, France
09:30-10:00	TBD (Invited) Darja Cirjulina Riga Technical University, Latvia
10:00-10:15	Machine Learning-aided Maximum Likelihood Sequence Estimation for Mid-Wave Infrared FSO Transmission Systems (Oral) Magnus Fischer Kiel University, Germany
10:15-10:30	Coffee Break
Presider: Chen Chen, Chongqing University, China Session: Satellite Optical Links: Standards, Turbulence and Adaptive Scheduling	
10:30-11:00	Recent progress of FSOC standards (Invited) Buzheng Wei China Unicom, China
11:00-11:15	Atmospheric Optical Turbulence Variability Revealed by Multi-site Fried Parameter Observations (Oral) Qingfang Jiang Nanjing University, China
11:15-11:30	Revisiting Optical-Turbulence Profiles in LEO Satellite-to-Ground Optical Links: Effects of Profile Simplification on Link Reliability (Oral) Xinyan Xie Fudan University, China
11:30-11:45	Slant-Path Fried-Parameter Forecasting for Predictive Scheduling of LEO Satellite-to-Ground Optical Links (Oral) Qingfang Jiang Nanjing University, China
11:45-12:00	Training Objective, Not Architecture: Threshold-Near Weighting for MCS-Adaptive FSO Turbulence Link Adaptation (Oral) Rongmuhe Su School of Electronic Engineering, Beijing University of Posts and Telecommunications, China