



Best Student Paper Award

Mo1B-1

13:00-13:15

Highly Integrated Interrogator for Distributed Acoustic Sensing

Zhicheng Jin¹, Jiageng Chen¹, Zhengwen Li¹, Hanzhao Li², Keke Hu², Xuhui Yu², Zuyuan He¹

¹Shanghai Jiao Tong University, ²Ningbo AllianStream Photonics Technology Co., Ltd.

We demonstrate a near-complete integrated DAS interrogator based on hybrid InP–SOI integration, achieving 18.52 pε/√Hz strain resolution and ~8 m spatial resolution over a 5 km sensing fiber.

Mo2D-2

15:00-15:15

Record 221 Gb/s Dual Polarization THz Wireless Transmission Over 500 m Using PCS-64QAM at 300 GHz

In-Ho Baek¹, Oliver Stiewe¹, Robert Elschner¹, Markus Rösch², Axel Tessmann², Markus Nölle³, Lutz Molle³, Colja Schubert¹, Ronald Freund^{1,4}

¹Heinrich Hertz Institute (HHI), ²Fraunhofer-Institut für Angewandte Festkörperphysik, ³Hochschule für Technik und Wirtschaft Berlin, ⁴Technische Universität Berlin

We report a record dual-polarization (DP) terahertz (THz) wireless transmission, achieving a net data rate of 221.5 Gb/s over a 500-m distance at 300 GHz carrier frequency.

Mo2F-2

15:15-15:30

Above 67 GHz Electro-optic Phase Modulators on an InP Membrane Platform

Ali Kaan Sunnetcioglu, Duarte Fernandes da Silva, James Arthur Hillier, Floris Pronk, Yi Wang, Weiming Yao, Kevin Williams, Yuqing Jiao

Eindhoven University of Technology

A compact high-speed electro-optic phase modulator is fabricated on an InP membrane platform. Characterized device shows EO response of -1.26 dB at 67 GHz and $V_{\pi L}$ of 0.357 V.cm.

Tu4C-1

15:00-15:15

Frequency-Offset Tolerant Burst-Mode Receiver for 200G Coherent PON Supporting 27 dB Dynamic Range

Jad Sarkis^{1,2}, Robert Palmer¹, Giuseppe Talli¹, Maxim Kuschnerov¹, Valter Ferrero², Roberto Gaudino²

¹Huawei Heisenberg Research Center, ²Politecnico di Torino

We experimentally demonstrate a gross 256Gb/s DP-QPSK coherent burst-mode transmission in C-band over 40km for an extended PON uplink, using a commercial fixed-gain receiver supporting 27dB dynamic range and up to 12GHz frequency offset.



We3E-2

15:15-15:30

Integrated Programmable Microcomb Shaper for Optical Convolution Processing

Haoran Zhang¹, Xiaotian Zhu², Shifan Chen¹, Yifu Xu¹, Jiajia Wang¹, Zhihui Liu¹, Shuai Wang¹, Yunping Bai¹, Brent E. Little³, Roberto Morandotti⁴, David J. Moss⁵, Sai T. Chu², Xingyuan Xu¹

¹Beijing University of Posts and Telecommunications, ²City University of Hong Kong, ³QXP Technology Inc., ⁴INRS-Énergie, Matériaux et Télécommunications, ⁵Swinburne University of Technology

We present an integrated programmable microcomb shaper (PMS) based on a CMOS-compatible, high-index doped silica glass platform, capable of processing 100.3-GHz microcombs and demonstrated in optical convolution processing.

We3G-4

16:00-16:15

All-PM Fiber-Based FMCW-LiDAR to Measure Depolarization of the Target Surface

Jaehwan Yang, Seonghyeon Ahn, Seokju Byun, Jaeheung Kim, Chang-Seok Kim, Taejoong Eom

Pusan National University

We propose an all-PM fiber-based polarization-sensitive FMCW-LiDAR. By utilizing 3D Degree of Linear Polarization (DoLP) imaging, this system quantifies surface depolarization, enabling enhanced target recognition even when objects overlap at the same range.