2026 OFC Conference Postdeadline Session Guide

Disclaimer: this guide is limited to technical program with abstracts and author blocks as of 16 March 2026. For updated and complete information with special events, reference the online schedule or mobile app.

Thursday, 19 March

16:30 -- 18:30
Room 502A
Th4A • Postdeadline Session I
Presider: Takashi Matsui; NTT Corporation, Japan

Th4A.1 • 16:30 Postdeadline
4-ch × 400-Gbps PAM4 O-Band Membrane InGaAlAs EA-DFB Laser Array on a Si Photonics Platform, Takuma Aihara[2], Tatsurou Hiraki[2], Yoshiho Maeda[2], Takuro Fujii[2], Masashi Ota[2], Tomonari Sato[2], Shinji Matsuo[1]; *[1]Device Technology Labs, NTT, Inc., Japan; [2]Device Innovation Center, NTT, Inc., Japan.* We demonstrate a heterogeneously integrated 4-channel O-band membrane InGaAlAs EA-DFB laser array on Si, achieving 400- and 448-Gbps PAM4 per channel using 100-µm-long modulators at 0.5-V swing, resulting in a 3.2-Tbps/mm shoreline density.

Th4A.2 • 16:45 Postdeadline
C-Band 110-GHz-Bandwidth Thin-Film Lithium Tantalate Modulator Enabling 768 (536) Gbit/s Line (Net) Data Rates, Mengyue Xu[1], Yang Lan[1], Di Che[2], Jinze Shi[1], Di Liang[1]; *[1]Univ. of Michigan, USA; [2]Nokia Bell Labs, USA.* We demonstrate a C-band thin-film lithium tantalate (TFLT) Mach–Zehnder modulator with V_π of 1.35 V and >110 GHz electro-optic bandwidth, enabling record-high line (net) data rate of 768 (536) Gbit/s on the TFLT platform.

Th4A.3 • 17:00 Postdeadline
High Temperature >35GHz Bandwidth Oxide-Confined VCSELs for 200G-PAM4 Links, Yoshiaki Watanabe[1], Terukazu Naruse[1], Kota Tokuda[1], Takahiro Koyama[1], Masaki Shiozaki[1], Naoki Jogan[1], Toshiharu Kiuchi[1], Hidekazu Kawanishi[1], Osamu Maeda[1]; *[1]Sony Semiconductor Solutions Corporation, Japan.* We developed oxide-confined VCSELs with >35 GHz bandwidth at 25 °C to 80 °C for 200G-PAM4 links, achieving low noise, clear eye opening and over 10-year lifetimes, demonstrating state-of-the-art performance.

Th4A.4 • 17:15 Postdeadline
400G/Lane PAM4 Modulation Using Silicon Mach-Zehnder Modulators, Po Dong[1], Venkatesh Doddapaneni[1], Michael Kossey[1], Craig Schulz[1], Andrei Kaikkonen[1], Roberto Rodes[1], Dun Mao[1], Jaime Kwan[1], Taylor Fryett[1], Bo Feng[1], Argishti Melikyan[1], Chengpin Yu[1], Jack Xu[1]; *[1]Coherent Corp, USA.* Silicon Mach–Zehnder modulators (MZMs) are widely used for 100G/200G PAM4, but their scalability to IMDD 400G/lane is uncertain. We demonstrate a silicon MZM with a commercial SiGe driver enabling 400G/lane PAM4 transmission.

Th4A.5 • 17:30 Postdeadline
Fully Integrated 1064 nm Transmitters With Widely Tunable GaAs Lasers and > 100-GHz Thin-Film LiNbO3 Modulators, Boqiang Shen[1], Kewei Bian[2], Kaustubh Asawa[1], Igor Kudelin[1], Theodore Morin[1], Bowen Song[1], Yang Shen[1], Joel Guo[1], Jonathan Peters[1], Catherine Nguyen[1], Glenn Kim[1], Nathan Kim[1], Stephen Didde[3], Ryohei Omori[3], Daniel Lopez[3], Zeyu Zhang[1], Tin Komljenovic[1], Minh Tran[1], Yuan Yuan[2], Chong Zhang[1]; *[1]Nexus Photonics, USA; [2]Department of Electrical and Computer Engineering, Northeastern Univ., USA; [3]Keysight Technologies Inc, USA.* We demonstrate the first fully integrated 1064 nm GaAs-on-TFLN transmitter combining widely tunable GaAs lasers with >100 GHz thin-film lithium niobate modulators. The device achieves 100 Gb/s NRZ and 160 Gb/s PAM4 transmission.

Th4A.6 • 17:45 Postdeadline
TFLN-Based Wafer-Level Co-Packaged Optics Engine for Ultrahigh-Bandwidth Electro-Optical Modulation, Yinshan Huang[1], long Wang[1], Mingxuan li[1], Ding Yan[1], Shuai Yuan[1], Guiling Wu[1], Liang Zhou[1]; *[1]Shanghai Jiao Tong Univ., China.* We heterogeneously integrate the TFLN EOM chip and its driving EIC, yielding a TFLN-based CPO engine with bandwidth over 100 GHz. Utilizing this engine, a

time/frequency comparison with an unprecedented femtosecond-level precision is further demonstrated.

Th4A.7 • 18:00 Postdeadline
1.6T (8×200Gb/s) 2×FR4 Silicon Photonic IMDD Transceiver With Monolithically Integrated Ultra-Low Crosstalk and Wideband Multiplexer, Haijiang Yu[2,1], Xudong Gao[2], Ming Su[2], Jun Li[2], Jian Chen[2], Ruizhi Zhang[2], Peng Gao[2], Mengxue Tao[2], Yang Wu[2], QIn Li[2], Yuan Yao[2], Qiuhong Hu[2], Qijian Xu[2], Madhav Bhatta[1], Changfei Hu[2]; *[1]Genuine Optics, USA; [2]HGGenuine Optics Tech Co.,Ltd, China.* We demonstrate a monolithic 1.6T (8×200 Gb/s) silicon photonic transceiver using a compact Bragg-grating MUX, achieving 15× footprint reduction, lower crosstalk, and broader bandwidth. Validated in an OSFP module with 3nm DSP, it meets IEEE 802.3dj

Th4A.8 • 18:15 Postdeadline
Wavelength-on-Demand Multimode and Multicore Fiber Optical Parametric Oscillators, Kunhao Ji[1], Muhammad Imran Mustafa Abdul Khudus[1,2], Jayanta Sahu[1], Ian Davidson[1], Pooja U. Naik[1], Jack Haines[1], Lin Xu[1], Massimiliano Guasoni[1]; *[1]Univ. of Southampton, UK; [2]Universiti Malaya, Malaysia.* We demonstrate the first unseeded multimode/multicore parametric oscillator platform, with wavelength selection encoded in the pump spatial state. It generates wavelengths on-demand with up to 40% per-line pump conversion and detunings to ±45 THz.

16:30 -- 18:30
Room 502B
Th4B • Postdeadline Session II
Presider: Lidia Galdino; Corning Inc., UK

Th4B.1 • 16:30 Postdeadline
Aircraft to Geostationary Satellite Optical Links - First Results From the UltraAir Flight Test Campaign, Thomas Liebig[1], Sjoerd van Kuijk[1], Karen Saucke[2], Thomas Marynowski[2], Stephanie Straub[3], Erhard Elsaesser[3], Ricardo Barrios[3], Kevin Shortt[3]; *[1]TNO, Netherlands; [2]TESAT, Germany; [3]Airbus Defence and Space GmbH, Germany.* One of the biggest challenges in free space optical communication is connecting mobile and vibrating platforms over long distances. We developed an airborne laser communication terminal that successfully demonstrated reliable optical link acquisition, tracking and coherent communication between a jet aircraft and geostationary satellite.

Th4B.2 • 16:45 Postdeadline
Driver-Less 448 Gbps PAM4 and 1.2 Tbps 16-QAM IMDD/Coherent-Lite Transmission Using TFLN Optical DACs, Charles St-Arnault[1], Benton Qiu[1], Derek Kita[2], Kenton Anzai[3], Christopher R. Cole[2], Ross Dickson[3], Bruce Beggs[3], Naim Ben-Hamida[3], Christian Reimer[2], David V. Plant[1]; *[1]McGill Univ., Canada; [2]HyperLight Corporation, USA; [3]Ciena Corporation, USA.* We report the highest achieved driver-less optical DAC transmission for IM/DD and Coherent with 448 Gbps PAM4 at 2 km and 1.2 Tbps 16-QAM at 10 km driven directly from CMOS logic gates.

Th4B.3 • 17:00 Postdeadline
Barium Titanate Enabling Net 1.6T (4x448 Gbps PAM4) on a Silicon Photonics Platform, Benton Qiu[1], Charles St-Arnault[1], Jonathan Cauchon[2], Cyriel Minkenberg[3], Thomas Kornher[3], Charles Laperle[4], Wouter Diels[3], Stefan Abel[3], Naim Ben-Hamida[4], Bruce Beggs[4], Francois Pelletier[2], Lukas Czornomaz[3], Xiangfeng Chen[3], Felix Eltes[3], David V. Plant[1]; *[1]McGill Univ., Canada; [2]Ciena Corporation, Canada; [3]Lumiphase AG, Switzerland; [4]Ciena Corporation, Canada.* We present a thin-film barium titanate DR4 chip operating in the O-band monolithically integrated on a commercial silicon photonics platform enabling net 1.6T (4x448 Gbps PAM4) using a 3 nm CMOS SerDes

Th4B.4 • 17:15 Postdeadline
First Coherent DSP and Pluggable Transceiver Capable of Distance-Resolved, Longitudinal Power Monitoring, Takeo Sasai[1], Yukinobu Nakajima[1], Minami Takahashi[1], Runa Kaneko[1], Masanori

Nakamura[1], Asuka Matsushita[1], Fukutaro Hamaoka[1], Etsushi Yamazaki[1]; *[1]NTT, Japan.* We present the first realization of longitudinal power monitoring implemented fully on a real-time coherent DSP inside an OSFP, delivering up to 1005-km-range, 2.1-km-resolution monitoring from 800ZR+/400ZR+ traffic, with multi-vendor interoperability and negligible power overhead.

Th4B.5 • 17:30 Postdeadline
450 Tb/s GMI, 42.4 THz, OESCL-Band Transmission Over a Field-Deployed Fiber, Ruben S. Luis[1], Jiaqian Yang[2], Romulo Aparecido[2], Mindaugas Jarmolovicius[2], Eric Sillekens[2], Ronit S. Sohanpal[2], Zelin Gan[2], Aleksandr I. Donodin[3], Vitaly Mikhailov[4], Jiawei Luo[4], David DiGiovanni[4], Nicolas K. Fontaine[5], Lauren Dallachiesa[5], Mikael Mazur[5], Roland Ryf[5], Haoshuo Chen[5], David Neilson[5], Ian Phillips[3], Wladek Forysiak[6], Sergei K. Turitsyn[3], Daniele Orsuti[1], Hideaki Furukawa[1], Robert Killey[2], Polina Bayvel[2]; *[1]NICT, Japan; [2]Optical Networks Group, Univ. College London, UK; [3]Aston Univ., UK; [4]Lightera Laboratories, USA; [5]Nokia Bell Labs, USA; [6]Univ. of Bristol, UK.* We report the widest bandwidth SMF transmission, above 42.4 THz (1273 O/E/S/C/L-band channels) on a 39 km, field-deployed, metropolitan, ITU-T G.652-D link, to achieve a record SMF throughput >450 Tb/s (GMI)-418 Tb/s (decoded).

Th4B.6 • 17:45 Postdeadline
Multi-Vendor Interoperable 800G Optical Communications Over 1602-km Through 800G-OpenROADM, 800-ZR and 800GBASE-2xFR4 Fiber Links, Erwan Pincemin[1], Anna Gueutier[1], Olivier Renais[1], Fabrice Herviou[1], Yves Delisle[2], Martin Bluethner[2], Ian Riggs[3,4], Anuj Malik[3,4], Torben Nielsen[3,4], Tom Williams[3,4], Julia Larikova[5], Oriol Bertran Pardo[5], Rafal Kapuscinski[5], Adytia Kakkar[5], Mauro Zontini[6], Giorgio Mussi[6], Bachir Sleiman[7], Andrea Guglierame[7]; *[1]Orange Research, France; [2]Ciena Corporation, USA; [3]Acacia Communications Inc, USA; [4]Cisco Systems Inc, USA; [5]Nokia Solutions and Networks Oy, Finland; [6]Coherent Corp, USA; [7]EXFO Solutions, Canada.* For the first time, we report a multi-vendor interoperable optical transmission using 800G transceivers compliant with the 800G-OpenROADM, 800-ZR and 800GBASE specifications over SSMF line sections of 15x100-km, 100-km and 2-km, respectively. The OpenROADM-compliant probabilistic constellation shaping is used for the first time.

Th4B.7 • 18:00 Postdeadline
Sparsely Repeated 21.7 Tb/s Net-Rate Transoceanic Transmission With 266 km Ultra-Long Spans Enabled by Low IMI and Low Loss Hollow Core Fiber, Rajiv Boddeda[1], Carina Castineiras[1], Haik Mardoyan[1], Amirhossein Ghazisaeidi[1], Peng Li[2], Shuhai Li[2], Lei Zhang[2], Jie Luo[2], Jeremie Renaudier[1]; *[1]Nokia Bell Labs France, France; [2]State Key Laboratory of Optical Fiber and Cable Manufacture Technology, Yangtze Optical Fibre and Cable (YOFC), China.* We demonstrate 21.7-Tb/s net-rate transmission across 6660-km with 266-km ultra-long spans of HCF. By exploiting a newly designed GTA-ST-HCF, high-power booster, and adaptive channel rates, we realize WDM transoceanic transmission with fewer than 30 repeaters

Th4B.8 • 18:15 Postdeadline
First Dual-Band Hybrid Window Antiresonant HCF With 0.13 dB/km Loss at 1 μm and 0.11 dB/km at 1.55 μm, Ghafour Amouzad Mahdiraji[1], Seyed Mohammad Abokhamis Mousavi[1], Dong Wu[1], Thejus Varghese[1], Rosdi Hassan[1], Naveen K. Baddela[2], Zahra Kakaei[2], Abubakar Isa Adamu[1], Ziwei Zhai[1], Krystian Wisniowski[1], Shahab Bakhtiari Gorajoobi[1], Ali Shakiba[2], Mahmudur Rahman[2], Jaroslaw Rzegocki[2], Gianluca Guerra[2], Eric Rodrigue Numkam Fokoua[1], Yong Chen[1], Gregory Jasion[2], Francesco Poletti[2]; *[1]Microsoft Corporation, UK; [2]Univ. of Southampton, UK.* We report the first hollow-core DNANF fiber with ultra-low loss in two separate antiresonance windows. The fiber, featuring a novel hybrid-thickness geometry, measures 0.11dB/km at 1550nm and, simultaneously, a record-low loss of 0.13dB/km at 1015nm.

16:30 -- 18:30
Room 515A

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Th4C • Postdeadline Session III

Presider: Paola Parolari, Politecnico di Milano, Ital

Th4C.1 • 16:30 Postdeadline

Optics GPT: the First Vertically Pre-Trained Foundation Model for Optics and Optical Communications, Zekun Niu[1], Kaida Chen[1], Nianheng Jiang[1], Xin Qin[2], Xiaoli Huo[2], Hui Chen[3], Cheng Deng[1], Zhixue He[3], Junjie Li[2], Weisheng Hu[1], Lilin Yi[1]; *[1]Shanghai Jiao Tong Univ., China; [2]China Telecom Research Inst. Beijing, China; [3]Pengcheng Laboratory, China.* We present Optics GPT, the first vertically pre-trained foundation model for optics and optical communications. Through three-stage cognitive training, our 8B model outperforms GPT-4o and DeepSeek-R1 (671B) on specialized benchmarks, enabling DSP generation, accurate OSNR estimation, and autonomous fault repair with private on-premise deployment.

Th4C.2 • 16:45 Postdeadline

Experimental Demonstration of Closed-Loop Waveband Protection in S-C-L-Band IPoBDM Fiber Network Using Multi-Granular Optical Nodes and TeraFlowSDN Controllers, Robert Emmerich[1], Andrea Sgambelluri[2,3], Michael Enrico[4], Hussein Zaid[1], Waleed Akbar[5], Carsten Schmidt-Langhorst[1], Josep Maria Fàbrega[5], David Moor[6], Nikos Psaromanolakis[7], Georgios Katsikas[7], Diogo C. Vaz[8], Annina Moser[9], Daniel Rieben[6], Samuel Hess[6], Lluis Gifre Renom[5], Ricard Vilalta[5], Hugo Neto[8], Pedro Cabrita[8], Raul Muñoz[5], Nicola Sambo[2,3], Dan M. Marom[10], Francisco M. Rodrigues[8], Benedikt Baeuerle[9], Juerg Leuthold[6], Luca Poti[3], Ioannis Tomkos[11], Johannes Fischer[1], Colja Schubert[1], Ronald Freund[1,12]; *[1]Photonic Networks and Systems, Fraunhofer-Institut fur Nachrichtentechnik Heinrich-Hertz-Institut HHI, Germany; [2]Scuola Superiore Sant'Anna, Italy; [3]CNIT, Italy; [4]HUBER+SUHNER Polatis Ltd, UK; [5]Centre Tecnologic de Telecomunicacions de Catalunya, Spain; [6]Inst. of Electromagnetic Fields (IEF), ETH Zurich, Switzerland; [7]UBITECH, Greece; [8]PICadvanced, Portugal; [9]Polariton Technologies, Switzerland; [10]Inst. of Applied Physics, Hebrew Univ. of Jerusalem, Israel; [11]Department of Electrical and Computer Engineering, Univ. of Patras, Greece; [12]Technische Universitat Berlin, Germany.* This paper experimentally demonstrates multi-band IPoBDM networks based on TeraFlowSDN with service provisioning and autonomous self-healing wideband protection, utilizing wideband multi-granular optical nodes, spectral and polarization resolved optical performance monitoring, and a high-speed plasmonic transmitter.

Th4C.3 • 17:00 Postdeadline

Uncooled to-Can DFB Laser Enabling Extended Reach and Record Power Budget for Burst-Mode Upstream in 200-Gb/s VHSP SC-PON, Yuhao Fang[1], Weiqi Lu[1], Haojie Zhu[1], Puzhen Yuan[1], Dayu Shi[1], William Shieh[1,2]; *[1]Westlake Univ., China; [2]Westlake Inst. for Optoelectronics, China.* We demonstrate the first burst-mode SC-PON, employing uncooled DFB laser and SOA at each ONU. Eliminating the fast LO tracking at OLT, our system achieves 228 -Gb/s upstream transmission over 40.72 km SSMF, attaining a record 37-dB power budget.

Th4C.4 • 17:15 Postdeadline

World's First Field-Trial Demonstration of Bidirectional 200G TFDM Coherent PON Enabled by Real-Time FPGA-Based Reception, An Yan[1], Renle Zheng[1], Hao Xu[2], Penghao Luo[1], Zeyu Zhao[3], Minhu Shen[3], Shuhong He[1], Sizhe Xing[1], Yongzhu Hu[1], Xuyu Deng[1], Junhao Zhao[1], Boyu Dong[1], Yinjun Liu[1], Ouhan Huang[1], Dezhi Zhang[4], Luhua Zhang[2], Yingjun Zhou[2], Dong Guo[5], Ji Zhou[5], Nan Chi[1], Junwen Zhang[1]; *[1]Fudan Univ., China; [2]China Telecom Corporation Limited Shanghai Branch, China; [3]Information Office of Fudan Univ., China; [4]China Telecom Research Inst. Beijing, China; [5]Beijing Inst. of Technology, China.* We demonstrate the world's first field-trial of bidirectional 200G TFDM coherent PON enabled by real-time FPGA-based reception with two subcarriers, achieving −34-dBm downstream sensitivity and −31-dBm upstream sensitivity at 4.5-dB subcarriers power-difference with 21-dB dynamic range.

Th4C.5 • 17:30 Postdeadline

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First Field-Validated Orbital Angular Momentum-Based Submarine Communication, Yongguang Xiao[7], Yingyu Chen[7], Zhibing Liu[7], Junyi Liu[7], Yuetong Shi[7], Jinkai Zhou[1], Jinpei Li[7], Ruqi Chen[7], Hanyu Gao[7], Bofan Guo[2], Cheng Du[3], Weixiong Wei[3], Xiaozhen Xie[3], Yuelin Yan[4], Lei Shen[5], Shencheng Gao[1], Jiajing Tu[1], Zhengyong Liu[7], Jie Liu[7], Zhaohui Li[7], Chao Lu[6]; *[1]Jinan Univ., China; [2]IV-VI PIC Technology Company, China; [3]FiberHome Technologies Group, China; [4]China Mobile Communications Corporation, China; [5]Yangtze Optical Fibre and Cable Joint Stock Ltd Co, China; [6]The Hong Kong Polytechnic Univ., Hong Kong; [7]Sun Yat-Sen Univ., China.* We demonstrate a world-first field trial of end-to-end OAM-SDM submarine transmission with 2,232-channels in South China Sea via a hydrogen-loss-resistant and low-crosstalk OAM cable, a uniform-gain OAM amplifier with high-spatial-efficiency pumping, and integrated mode multiplexers.

Th4C.6 • 17:45 Postdeadline
Coherent Pluggable Optics Achieve Record 400Gb/s per Wavelength Over a 5,682 km Subsea Cable, Sumudu G. Edirisinghe[1], Ekaterina Golovchenko[1], Serge Serge Melle[1], Ales Kumpera[1], John van Weerdenburg[1], Pierre Mertz[1], Lee Dardis[1], Aditya Kakkar[1], Oriol Bertran Pardo[1], Julio Diniz[1], Eduardo Spotorno[1], Konstantin Gelov[1], Rafael Diaz Malaguilla[1], Manuel Morales[1]; *[1]Nokia, USA.* We demonstrated a record 400G capacity-reach over a 5,682 km subsea cable using pluggable coherent optics. These results validate significant power, space, and cost savings for operators scaling networks for AI and cloud infrastructure.

Th4C.7 • 18:00 Postdeadline
High-Resolution Trans-Oceanic Distributed Acoustic Sensing Enabled by a Bi-Directional Sensor Implementation, Mikael Mazur[1], Nicolas K. Fontaine[1], Roland Ryf[1], Martin Karrenbach[2], Kristopher McBrian[3], Keith McLaughlin[3], Brian Sperry[3], Anuar Butler[3], Valey Kamalov[4], Lauren Dallachiesa[1], Ells Burrows[1], David Winter[1], Haoshuo Chen[1], Jeewan Naik[5], Kishore Padmaraju[5], Ajay Mistry[5], David Neilson[1]; *[1]Nokia Bell Labs, USA; [2]Seismics Unusual LLC, USA; [3]Leidos Inc, USA; [4]Valey Kamalov LLC, USA; [5]Nokia Advanced Optics, USA.* We demonstrate continuous distributed acoustic sensing over a 4400km long undersea cable. Bi-directional operation improves the strain signal-to-noise rate by >20dB, enabling 88000 50-m-spaced measurement points at a nominal telecom launch power.

Th4C.8 • 18:15 Postdeadline
Carrier/Clock-Shared Comb-Based Superchannel With <1-ps Timing Error Enabling Baud-Rate Sampling Coherent Reception for Scale-Across AIDCs, Chenbo Zhang[1], Yixiao Zhu[2], Xiang Cai[1], Yi Zou[1], Weiwei Hu[1], Zhangyuan Chen[1], Weisheng Hu[2], Fan Zhang[1], Xiaopeng Xie[1]; *[1]Peking Univ., China; [2]Shanghai Jiao Tong Univ., China.* We demonstrate electro-optic comb-based 18λ×384Gb/s superchannel for AIDC distributed training. It achieves clock synchronization and <0.9-ps sampling instant jitter, enabling low-power baud-rate-sampling coherent-lite reception with negligible 0.12dB long-term SNR penalty over 1 hour.