

## Program Schedule

OECC Program  
July 04 - 07, 2021

All time displayed are in HKT time zone

The Program Report was last updated May 08, 2021 at 01:43 AM EDT. To view the most recent meeting schedule online, visit <https://oecc2021.abstractcentral.com/planner.jsp>



Sunday, July 04, 2021

Time	Session or Event Info
11:00 AM-12:30 PM, Poster Room, <b>Poster Session</b> , Poster	
11:00 AM-12:30 PM	<b>Flexible Organic Photodetector for Real-time Underwater Optical Wireless Video Transmission</b> <a href="#">Z. Wang</a> ; Z. Lou; X. Xu; Z. Wei; G. Wei; H. Fu
11:00 AM-12:30 PM	<b>Design and Implementation of Open Optical Satellite Network Emulation Platform (OOSN-EP) Based on Distributed Multi-Node System</b> <a href="#">J. Li</a> ; N. Hua; C. Zhao; K. Zhu; Y. Li; X. Zheng
11:00 AM-12:30 PM	<b>Polarization Power Correlation Function-Based Nonlinearity Monitoring in PM-16QAM Coherent Optical Fiber Transmission Systems</b> <a href="#">F. Wu</a> ; P. He; A. Yang; P. Guo; Q. Li; Y. Qiao; X. Xin
11:00 AM-12:30 PM	<b>Comparison of CPR Methods in Probabilistically-shaped Coherent Systems with MB/QMB Distributions</b> <a href="#">P. Ning</a> ; Z. Fan; L. Chen; J. Zhao
11:00 AM-12:30 PM	<b>Achieving Global Optical Spectral Perception via Unified Information Model and Adaptive Perceptual Information Calibration</b> <a href="#">K. Zhu</a> ; N. Hua; C. Zhao; Y. Li; J. Li; Y. Li; X. Zheng; B. Zhou
11:00 AM-12:30 PM	<b>Deep Reinforcement Learning Enabled Energy-Efficient Task Pre-Migration in Internet of Vehicles</b> <a href="#">Z. Zhang</a> ; M. Zhang; L. Guan; Z. Xiao; Z. Zhang; L. Li; D. Wang
11:00 AM-12:30 PM	<b>Efficient Responsibility Traceability Strategy with Blockchain in Open-RAN</b> <a href="#">S. Dong</a> ; H. Yang; L. Jiao; C. Li; Q. Yao; B. Bao; J. Zhang
11:00 AM-12:30 PM	<b>Orchestrating Circuit/Packet Switching for Fault-Tolerance in Hybrid Optical/Electrical Switched Data Center Networks</b> <a href="#">Q. Hu</a> ; W. Wang; T. Liu; Y. Li; Y. Zhao; J. Zhang
11:00 AM-12:30 PM	<b>Numerical Comparison of Transmission Characteristics between C-band and O-band in WDM-based Analog Radio over Fiber Link</b> <a href="#">K. Suzuoki</a> ; D. Hisano; S. Ishimura; R. Inohara; T. Tsuritani; A. Maruta
11:00 AM-12:30 PM	<b>Comparison of DDLMS and CMMA in 60GBaud PDM-PAM-4 PON Utilizing Heterodyne Coherent Detection</b> <a href="#">D. Lai</a> ; F. Li
11:00 AM-12:30 PM	<b>Reinforced Resource Allocation based on n-Dimensional Matrix Diagram for Multi-Modal Optical Networks</b> <a href="#">Z. Zhao</a> ; Y. Zhao; Y. Li; S. Rahman; D. Han; J. Zhang
11:00 AM-12:30 PM	<b>Security Enhancement of One-Dimensional Chaotic Encryption in the Physical Layer of OFDM-PON</b> <a href="#">H. Zhu</a> ; M. Gao; Y. Sha; Z. Li; Q. Luo; G. Shen

11:00 AM-12:30 PM	<b>Automatic Modulation-Format Selection with White box Transponders: Design and Field Trial</b> K. Anazawa; S. Kuwabara; <u>T. Sasai</u> ; T. Mano; T. Inoue; T. Inui; H. Nishizawa
11:00 AM-12:30 PM	<b>DEDIP: Dual-Engine-Driven Intent Parse Framework in Intent-Based Optical Network</b> <u>w. chao</u> ; H. Yang; Q. Yao; Z. Sun; B. Bao; C. Li; J. Zhang
11:00 AM-12:30 PM	<b>Deep Reinforcement Learning Based Virtual Network Embedding for 6G Satellite Networks</b> <u>R. Zhu</u> ; G. Li; P. Wang; J. Yuan
11:00 AM-12:30 PM	<b>Reinforcement Learning Enabled Energy-Efficient vBBU Pre-Migration in Cloud-Fog based Elastic Optical Networks</b> <u>L. Guan</u>
11:00 AM-12:30 PM	<b>Cluster Mobile Fronthaul over WDM-PON with Remote Port Irrelevance Based on Cyclic-AWG and Coarse Filters</b> <u>Z. Cheng</u> ; Z. Guo; Y. Zhu; W. Hu
11:00 AM-12:30 PM	<b>Receiver Skew Compensation and Estimation Based on Widely Linear Equalizer</b> <u>L. Junpeng</u> ; W. Weiming
11:00 AM-12:30 PM	<b>Inter-channel Nonlinear Crosstalk Mitigation Based on Neural Network</b> <u>T. Xu</u> ; X. Huang; T. Jin; S. Hu; J. Zhang; B. Xu; X. Yi; K. Qiu
11:00 AM-12:30 PM	<b>The Amplitude and Phase Frequency Response of the Short Reach Transmissions for DML, EAM, and MZM</b> <u>B. Xu</u> ; J. Sun; W. Sun; N. Zhu
11:00 AM-12:30 PM	<b>Modulation Format Identification Using Kmeans Clustering and Cluster Validity Index</b> <u>Z. Yue</u> ; W. Zhang; J. Ye; Y. Wang; X. Zhang
11:00 AM-12:30 PM	<b>Overfitting in Four-Layer-DNN-Based Nonlinear Equalizer for Optical Communication Systems</b> <u>J. Nakamura</u> ; K. Ikuta; M. Nakamura
11:00 AM-12:30 PM	<b>Performance Analysis of m-PSK/QAM Based on LDPC Code in Maritime Atmospheric Turbulence Channel</b> <u>Z. Yi</u> ; F. Wang; Z. Yang; S. Lin; S. Wang
11:00 AM-12:30 PM	<b>Modeling of PMD for wideband fiber channel and its influence on optical fiber communication system</b> <u>L. Liu</u> ; N. Cui; X. Zhang; B. Zhang
11:00 AM-12:30 PM	<b>Photonics-aided PAM-4 Wireless Transmission at 100 GHz based on Phase Insensitive Heterodyne Coherent Detection</b> <u>W. Xu</u> ; J. Zhang; M. Zhu; J. Wang; Q. Zhou; X. Liu; Q. Li; W. Tong; B. Hua; Y. Cai; M. Lei; Y. Zou; A. Li
11:00 AM-12:30 PM	<b>Modulation Format Recognition based on Transfer Learning for Visible Light Communication Systems</b> <u>Z. Zhao</u> ; Z. Wei; Z. Wang; Y. Zhang; M. Li; F.N. Khan; H. Fu
11:00 AM-12:30 PM	<b>Combination of Multi-impairments Compensation and Decoding for LDPC-coded CO-OFDM via Deep Learning</b> <u>Y. Han</u> ; Y. Chen; J. Fu; Y. Huang; J. Li; Y. Deng; K. Li; S. Lin; J. Yu

11:00 AM-12:30 PM	<b>A Complex-valued Neural Network for Fiber Nonlinearity Mitigation</b> <u>P. He</u> ; A. Yang; P. Guo; Y. Qiao; X. Xin
11:00 AM-12:30 PM	<b>Ultrafast Beam Steering User Localization in Optical Wireless Communication</b> <u>Y. Yue</u> ; C. Wang
11:00 AM-12:30 PM	<b>Smartphone-Screen-Based, Low-Luminance Uplink Optical Camera Communication by Blue-Color Adaptive Thresholding</b> <u>A. Kawade</u> ; W. Chujo; K. Kobayashi
11:00 AM-12:30 PM	<b>An InGaN-based Quantum Dot Blue Micro-LED for High-speed Two-user QAM-NOMA Visible Light Communication</b> <u>L. Zhang</u> ; Z. Wei; Z. Wang; L. Wang; C. Chen; M. Wu; Y. Dong; L. Wang; H. Fu
11:00 AM-12:30 PM	<b>Optimal Network Synchronization Algorithm for Stable Radio Frequency Dissemination in Distributed Application</b> <u>J. Zhu</u> ; B. Guo; J. Liang; X. Zhong; S. Huang
11:00 AM-12:30 PM	<b>Experimental Demonstration of Optical Twin-SSB Detection Scheme Using an Electric Butterfly Operation</b> R. Nakagawa; Y. Kurokawa; <u>K. Tsumura</u> ; M. Nakamura
11:00 AM-12:30 PM	<b>A Concentrating Photovoltaic Array Based on Transmitting Energy Fiber with Thermoelectric Generator Hybrid Power-over-Fiber System</b> <u>Y.M. Li</u> ; Z. Xiao; Z. Zhang; L. Li
11:00 AM-12:30 PM	<b>Challenge towards Ultimate Large MFD keeping G.657 A2 Macro Bending Loss Performances</b> <u>K. Mukasa</u>
11:00 AM-12:30 PM	<b>Single-Photon Spin-Orbit Entangled States in Optical Fibers</b> <u>L. Yang</u> ; Z. Yang; H. Xu
11:00 AM-12:30 PM	<b>Helical-structure sampled Bragg grating fabricated by femtosecond laser</b> <u>X. Wang</u> ; y. wei; m. zhuang; z. wu; q. li; z. wang; j. pu
11:00 AM-12:30 PM	<b>A Waveband Routing Method in Optical Networks Based on the Deep Reinforcement Learning</b> <u>Y. Liu</u> ; B. Chen; G. Su; M. Dai; X. Lin
11:00 AM-12:30 PM	<b>Chaotic Time-Delay Signature Suppression by Distributed Feedback from weak FBG arrays</b> <u>K. Wang</u> ; Z. Li; X. Fu
11:00 AM-12:30 PM	<b>Design of a Novel Bow-Tie Polarization Ring-Core Few-Mode Fiber for MIMO-Free MDM System</b> <u>T. Yang</u> ; H. Zhang; L. Xi; J. Yang; Z. Chen; X. Wang; X. Zhang
11:00 AM-12:30 PM	<b>A 1.3-GHz harmonically mode-locked fiber laser using a <math>V_2AIC</math> saturable absorber</b> <u>J. Lee</u> ; S. Kwon; J. Lee
11:00 AM-12:30 PM	<b>Analysis of Laser-induced Damage Threshold of Silica Optical Fiber Based on Finite Element Method</b> <u>Y. Zhu</u> ; Y. Hu; B. Jia; Y. Gao; P. Lu

11:00 AM-12:30 PM	<b>Low Phase Noise X-Band Frequency Synthesizer Based on a Phase-Locked Brillouin Optoelectronic Oscillator</b> <u>H. Peng</u> ; P. Lei; X. Xie; Z. Chen
11:00 AM-12:30 PM	<b>A Design for Ultra Wideband Vertical Microstrip–Microstrip Transition</b> S. Sun; <u>Y. Chen</u> ; J. Fu; Y. Han; Y. Huang; S. Lin; L. Yang; H. Zhu; X. Zhao; J. Yu
11:00 AM-12:30 PM	<b>A novel method for analyzing cavity mode of Extended-DBR lasers with micro-ring structure</b> <u>C. Xu</u> ; J. Wang; W. Sun; Y. Chen; W. Chen; M. Li; N. Zhu
11:00 AM-12:30 PM	<b>Numerical Demonstration of Tunable Multi-channel Notch Filter Based on SFG in a PPLN Waveguide</b> <u>Z. Hu</u> ; S. Chen; Y. Sun; K. Chen
11:00 AM-12:30 PM	<b>On-Chip Slot-Assisted Acousto-Optic Modulators Using X-Cut Thin-Film Lithium Niobate</b> <u>Y. Xu</u> ; Y. Yang; D. Huang; F. Li; Y. Dong; B. Zhang; Y. Ni
11:00 AM-12:30 PM	<b>Low phase noise wideband LFM signal generation by injection-locking an optoelectronic oscillator</b> <u>M. Liu</u> ; S. Liu; N. Zhu; H. Liu; Z. Pan; C. Ma; C. Yu; S. Pan
11:00 AM-12:30 PM	<b>Phase-preserving amplitude regeneration of optical 16QAM signals using a Mach-Zehnder interferometer on chip</b> <u>B. Guo</u> ; B. Wu; F. Wen; K. Qiu
11:00 AM-12:30 PM	<b>A Low Insertion Loss Arrayed Waveguide Grating with Transversal Transitional Waveguides</b> J. Fu; <u>Y. Chen</u> ; S. Sun; Y. Han; Y. Huang; S. Lin; L. Yang; H. Zhu; X. Zhao; J. Yu
11:00 AM-12:30 PM	<b>Silicon-Based Mode-Order Converters Using Etching Slots on the Circular Waveguide</b> Y. Qi; <u>Y. Xu</u> ; D. Huang; Y. Dong; B. Zhang; Y. Ni
11:00 AM-12:30 PM	<b>Loss-induced high-speed silicon microheater</b> <u>Y. Wei</u> ; J. Cheng; H. Zhou; D. Huang; F. Li; P. Wai; J. Dong; X. Zhang
11:00 AM-12:30 PM	<b>Cost evaluation of ROADM architectures in Spaced Division Multiplexed Elastic Optical Network</b> <u>Z. Wang</u> ; S. Yin; S. Ding; L. Liu; S. Huang
11:00 AM-12:30 PM	<b>Comparative Studies of Atmospheric Turbulence Effects on Orbital Angular Momentum Beams</b> <u>Y. Murakami</u> ; H. Kishikawa; N. Goto
11:00 AM-12:30 PM	<b>A Metasurface Doublet for Compactly and Widely Zooming Imaging</b> <u>x. feng</u> ; <u>y. wei</u> ; <u>y. wang</u> ; <u>z. yang</u> ; <u>j. xia</u>
11:00 AM-12:30 PM	<b>Low crosstalk multi-mode crossing structure for multimode bound states in the continuum photonic circuits</b> <u>Y. Qin</u> ; Y. Wang; y. wan; H.K. Tsang; J. Wang

11:00 AM-12:30 PM	<b>High Resolution On-chip Spectrometer Based On Si<sub>3</sub>N<sub>4</sub> Microring Array</b> <a href="#">k.x. kang</a> ; <a href="#">j. li</a> ; <a href="#">s. yang</a> ; <a href="#">h. chen</a> ; <a href="#">m. chen</a>
11:00 AM-12:30 PM	<b>Selective Regrown Core-shell Nanowires Using Self-catalytic VLS Mode</b> <a href="#">K. Kuwahara</a> ; <a href="#">R. Ishihara</a> ; <a href="#">Y. Katori</a> ; <a href="#">K. Shimomur</a>
11:00 AM-12:30 PM	<b>Self-locked optical parametric oscillation in a highly doped silica glass slot ring resonator</b> <a href="#">G. Li</a> ; <a href="#">Y. Li</a> ; <a href="#">Q. Li</a> ; <a href="#">S. Wang</a> ; <a href="#">X. Zhu</a> ; <a href="#">R. Davidson</a> ; <a href="#">B. Little</a> ; <a href="#">S. Chu</a>
11:00 AM-12:30 PM	<b>A compact nanobeam microcavity spectrometer assisted by computational reconstruction</b> <a href="#">j. zhang</a> ; <a href="#">Z. Cheng</a> ; <a href="#">Y. Zhao</a> ; <a href="#">H. Zhou</a> ; <a href="#">D. Gao</a> ; <a href="#">J. Dong</a> ; <a href="#">X. Zhang</a>
11:00 AM-12:30 PM	<b>Programmable Multifunctional Plasmonic Waveguide System Using Coding Metamaterials</b> <a href="#">y. dan</a> ; <a href="#">T. Zhang</a> ; <a href="#">J. Dai</a> ; <a href="#">K. Xu</a>
11:00 AM-12:30 PM	<b>Exceptional points and non-chiral mode conversion of hybrid-modes in a manifold coupled planar waveguide</b> <a href="#">A. Paul</a> ; <a href="#">A. Laha</a> ; <a href="#">s. dey</a> ; <a href="#">S. Ghosh</a>
11:00 AM-12:30 PM	<b>Cascaded Higher-order Soliton Compression in Silicon Nanophotonic Wire Waveguide at 2.8 <math>\mu\text{m}</math></b> <a href="#">J. Huang</a> ; <a href="#">F. Ye</a> ; <a href="#">Q. Li</a>
11:00 AM-12:30 PM	<b>Dual-layer polarization beam splitting grating coupler with low polarization dependent loss</b> <a href="#">Y. Han</a> ; <a href="#">Y. Hu</a> ; <a href="#">L. Cheng</a> ; <a href="#">C. Zhao</a> ; <a href="#">Q. Li</a> ; <a href="#">H. Fu</a>
11:00 AM-12:30 PM	<b>Coherent and Octave-Spanning Supercontinuum Generations in a Polarization-Insensitive Reverse-Ridge AlGaAs Waveguide</b> <a href="#">L. Zhang</a> ; <a href="#">J. Yuan</a> ; <a href="#">K. Wang</a> ; <a href="#">X. Zhou</a> ; <a href="#">B. Yan</a> ; <a href="#">Q. Wu</a> ; <a href="#">X. Sang</a> ; <a href="#">K. Long</a> ; <a href="#">C. Yu</a>
11:00 AM-12:30 PM	<b>Performance Enhancement of Heterojunction Silicon Solar Cells Based on LDS Effect of Various Concentrations of Eu-Doped Phosphors</b> <a href="#">Y.T. TSAI</a> ; <a href="#">W. Ho</a> ; <a href="#">J. Liu</a> ; <a href="#">J. Zhuang</a> ; <a href="#">J. Ting</a> ; <a href="#">B. Ke</a>
11:00 AM-12:30 PM	<b>Enhancing performance of planar thin-film silicon solar cell using TiO<sub>2</sub> ARC and luminescent down-shifting layers.</b> <a href="#">W. Chiu</a> ; <a href="#">W. Ho</a> ; <a href="#">J. Liu</a> ; <a href="#">J. Zhuang</a> ; <a href="#">B. Ke</a> ; <a href="#">Y. Chien</a>
11:00 AM-12:30 PM	<b>On-chip Subwavelength Tilt Fork Grating for Vortex Beam Generation and Manipulation</b> <a href="#">S. Zheng</a> ; <a href="#">Z. Zhao</a> ; <a href="#">W. Zhang</a>
11:00 AM-12:30 PM	<b>A thin-film optical filter with in-cavity strongly-coupled silver nanoparticles</b> <a href="#">Y. Zhang</a> ; <a href="#">H. Wu</a> ; <a href="#">A. Zhang</a>
11:00 AM-12:30 PM	<b>Inverse design of an ultra-compact 3 dB splitter for four modes with dual polarizations</b> <a href="#">H. Jin</a> ; <a href="#">Z. Zhong</a> ; <a href="#">Y. Liu</a> ; <a href="#">K. Xu</a>
11:00 AM-12:30 PM	<b>A LiDAR range image noise suppression method based on local clustering</b> <a href="#">Y. Zuo</a> ; <a href="#">C. Miao</a>

11:00 AM-12:30 PM	<b>A Novel D-type Stamp-like Photonic Quasicrystal Fiber Terahertz Refractive Index Sensor</b> <u>A. M S</u>
11:00 AM-12:30 PM	<b>A Novel High-sensitivity Accelerometer Based on Dual FBGs</b> <u>Y. Wei;</u> Y. DAI
11:00 AM-12:30 PM	<b>Non-invasive heart rate variability measurement during sleep based on fiber optic sensor</b> <u>W. Lyu;</u> S. Chen; F. Tan; C. Yu
11:00 AM-12:30 PM	<b>Vehicle recognition based on improved PPF algorithm</b> <u>Y. Zuo</u>
11:00 AM-12:30 PM	<b>Fiber Fluid-pressure Sensor with Extended Air Cavity</b> <u>P. Zhang;</u> C. Wang
11:00 AM-12:30 PM	<b>On-chip high-sensitivity ultrasound detector based on the high-Q bound states in the continuum in chalcogenide glass photonic crystal slab</b> <u>Y. Feng;</u> L. Wan; T. Feng; Y. Zhu; J. Pan; Q. Li; Z. Chen; Z. Li
11:00 AM-12:30 PM	<b>Performance Characterization of High-Speed InAlAs Avalanche Photodiode with Double Passivation</b> <u>M. Wu;</u> W. Ho; J. Liu; C. Yu; Y. Li
11:00 AM-12:30 PM	<b>Temperature Measurement Range Changeability of Ethernet-based Optical Fiber Sensing System Using an Optical Attenuator</b> <u>A. Imada;</u> N. Kanzaki; O. Koyama; Y. Suzuki; Y. Nagatani; K. Ikeda; M. Yamada
11:00 AM-12:30 PM	<b>Sensitivity Enhanced Distributed Brillouin Curvature Sensor based on Erbium-Doped Few-Mode Fiber</b> <u>P. Xu;</u> Y. Dong; x. dong; j. yang; y. qin
11:00 AM-12:30 PM	<b>A high resolution disordered dispersion imaging spectrometer</b> <u>X. Zhao;</u> Y. Kuang; J. Peng; W. Huang; H. Ho; M. Yi; T. Yang
11:00 AM-12:30 PM	<b>Beat-to-Beat Heart Rate Estimation from MZI-BCG Signal Based on Hierarchical Clustering</b> <u>H. Zeng;</u> w. xu; B. Dong; C. Yu; W. Zhao; Y. Wang; W. Sun
11:00 AM-12:30 PM	<b>Continuous Blood Pressure Monitoring Based on Wearable Optical Fiber Interferometry Wristband</b> <u>X. Chen;</u> W. Xu; B. Dong; C. Yu; W. Zhao; Y. Wang; W. Sun
11:00 AM-12:30 PM	<b>Unobtrusive Sleep-Wake Discrimination Based on Arched Carbon Fiber Structure Aided Highly Sensitive Under Mattress MZI-BCG Sensor and SVM</b> <u>W. Xu;</u> S. Han; W. Sun; B. Dong; C. Yu; W. Zhao; Y. Wang
11:00 AM-12:30 PM	<b>Non-invasive Highly Sensitive Under Mattress Vital Signs Monitoring Based on Fiber Sagnac Loop</b> <u>H. Zeng;</u> w. xu; B. Dong; C. Yu; W. Zhao; Y. Wang; W. Sun

2:00 PM-3:30 PM, Room 4, S3D. Artificial Intelligences and Novel Methods in Optics and Photonics, Oral, OECC 4: Optical Active Devices and Modules, Presider: Chao Mei, University of Science & Technology Beijing

2:00-2:30 PM	<b>S3D.1. Photonic Artificial Intelligence Using Complex Photonics: Reservoir Computing and Decision Making</b> <u>A. Uchida</u>
2:30-3:00 PM	<b>S3D.2. A complete, parallel and autonomous photonic neural network in a semiconductor VCSEL laser</b> X. Porte; A. Skalli; N. Haghighi; S. Reitzenstein; J. Lott; <u>D. Brunner</u>
3:00-3:15 PM	<b>S3D.3. A Hybrid CNN-LSTM Approach for Laser Remaining Useful Life Prediction</b> <u>K. Abdelli</u> ; H. Griebner; S. Pachnicke
3:15-3:30 PM	<b>S3D.4. Frequency Chirp Measurement Method Using a Probe Light and Bandpass Filter</b> <u>R. Katori</u> ; W. Rui; M. Matsuura
2:00 PM-3:30 PM, Room 1, <b>S3A. DSP in Direct Detection</b> , Oral, <b>OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Ji Zhou, Jinan University	
2:00-2:30 PM	<b>S3A.1. Low-Complexity Nonlinear Electrical Equalization for Directly Modulated Laser-based Transmission Systems</b> Y. Yu; <u>H. Kim</u>
2:30-2:45 PM	<b>S3A.2. Comparison of Dispersion Pre-compensation Based Double Sideband and KK Receiver Based Single Sideband Signal</b> <u>q. wu</u> ; Y. Zhu; W. Hu
2:45-3:00 PM	<b>S3A.3. Handling Multilayer Neural Network Nonlinear Equalizer Complexity and overfitting Challenges Using L1-Regularization for 112Gbps Optical Interconnects</b> <u>g. yadav</u> ; C. Chen; K. Feng; J. Chen; Y. Chen
3:00-3:15 PM	<b>S3A.4. Pilot Symbol-Free Iterative Optical Field Reconstruction for Power Fading Mitigation in Short-Reach IM-DD Links</b> <u>Y. Zhu</u> ; L. Zhang; X. Fang; F. Zhang; W. Hu
3:15-3:30 PM	<b>S3A.5. Reservoir Computing based Signal Recovery for 56 Gb/s PAM4 System</b> <u>x. yu</u> ; F. Zhang
2:00 PM-3:30 PM, Room 3, <b>S3C. Fiber Fabrication and Materials</b> , Oral, <b>OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Lei Wei, Nanyang Technological University	
2:00-3:00 PM	<b>S3C.1. Silica Optical Fibres based on 3D Printing Technologies</b> <u>G. Peng</u>
3:00-3:30 PM	<b>S3C.2. Advanced Soft Optical and Electronic Fiber Devices</b> <u>F. Sorin</u>
2:00 PM-3:30 PM, Room 6, <b>S3F. SDM Related Fibers</b> , Oral, <b>OECC 6: Space-Division Multiplexing and Related Devices</b> , Presider: Chen Zhu, Amazon	
2:00-2:30 PM	<b>S3F.1. SDM Fibers: From Technology to Product</b> <u>L. Xiong</u>
2:30-2:45 PM	<b>S3F.2. Polarization-maintaining fiber with elliptical core supporting 18 modes for mode division multiplexing</b> <u>T. Yang</u> ; H. Zhang; L. Xi; J. Yang; Z. Chen; X. Wang; X. Zhang



2:45-3:00 PM	<b>S3F.3. Polarization-Maintaining Fiber Long-Period Grating Based Broadband LP<sub>01</sub>-LP<sub>11b</sub> Mode Converter</b> Y. Liu; <u>C. Jiang</u> ; Y. Wan; C. Mou
3:00-3:30 PM	<b>S3F.4. Space Division Multiplexing Fiber Design Based on Orbital Angular Momentum Modes</b> <u>J. Tu</u>
2:00 PM-3:30 PM, Room 5, <b>S3E. Silicon Photonic Waveguides and Devices</b> , Oral, <b>OECC 5: Optical Passive Devices and Modules</b> , Presider: Liang Wang, Huazhong University of Sci. & Tech.	
2:00-3:00 PM	<b>S3E.1. Multimode Silicon Photonics Device</b> <u>D. Dai</u> ; w. zhao; D. Liu
3:00-3:30 PM	<b>S3E.2. CMOS-compatible Low-loss and Large-bandwidth fiber-to-chip edge couplers for a silicon photonics platform</b> <u>X. Guo</u> ; A. He; Y. Su
2:00 PM-3:30 PM, Room 2, <b>S3B. Visible Light Communications</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Alan Pak Tao Lau, Hong Kong Polytechnic University	
2:00-3:00 PM	<b>S3B.1. Underwater Wireless Optical Communication</b> <u>B.S. Ooi</u>
3:00-3:15 PM	<b>S3B.2. Two-Way White-Lighting and WDM VLC-UWOC Integrated Systems</b> <u>P. Chang</u> ; C. Liu; Y. Ling; T. Ko; Y. Chen; C. Li; H. Lu
3:15-3:30 PM	<b>S3B.3. Asynchronous Visible Light Positioning Based on Orthogonal Pseudo-Random Codes</b> <u>Z. Liu</u> ; X. You; Z. Wei; Z. Wang; M. Li; J. Chen; H. Fu; C. Yu
4:00 PM-6:00 PM, Room 3, <b>S4C. Fiber Techniques and Devices</b> , Oral, <b>OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Zhengyong Liu, Sun-yat sen University	
4:00-4:30 PM	<b>S4C.1. Hollow Core Electromodulated Optical Waveguides</b> <u>P. Sazio</u> ; A. Lewis; F. De Lucia; W. Belardi; C. Huang; J. Hayes; F. Poletti; D. Hewak
4:30-5:00 PM	<b>S4C.2. New Developments in Gas-Filled Hollow-Fibre Nonlinear Optics</b> <u>C. Brahms</u> ; <u>F. Belli</u> ; T. Grigorova; A. Lekosiotis; M. Sabbah; J.C. Travers
5:00-5:15 PM	<b>S4C.3. Optical Characterization of Installed Step-Index Profile Standard Cladding Multi-Core Fiber with Multiconnection</b> <u>D. Soma</u> ; S. Beppu; H. Takahashi; Y. Miyagawa; N. Yoshikane; T. Tsuritani
5:15-5:30 PM	<b>S4C.4. Multi-fiber connection technique employing solid refractive index matching material</b> <u>Y. Abe</u> ; R. Koyama; K. Katayama
5:30-5:45 PM	<b>S4C.5. Mach-Zehnder Interferometer and Bragg Grating combined Fiber Device by Femtosecond Laser Inscription</b> <u>W. Yang</u> ; <u>T. Wu</u> ; z. wu; Y. Huang; L. Wu; j. pu

5:45-6:00 PM	<b>S4C.6. An Ultra-Short and Broadband Dual-Core Photonic Crystal Fiber Polarization Beam Splitter with a Gold Film Based on the Surface Plasmon Resonance Effect</b> <u>Y. Qu</u> ; J. Yuan; S. Qiu; X. Zhou; B. Yan; Q. Wu; K. Wang; X. Sang; K. Long; C. Yu
4:00 PM-6:00 PM, Room 2, <b>S4B. Free-Space Optical Communications, Oral, OECC 2: Transmission Systems and Technologies</b> , Presider: Xiaodi You, Soochow University	
4:00-4:30 PM	<b>S4B.1. Optimizing Future Power Constrained Submarine Networks</b> <u>J. Antona</u>
4:30-4:45 PM	<b>S4B.2. Generative Adversarial Network-based Channel Modeling for Free-Space Optical Communication</b> <u>W. Chen</u> ; D. Wang; D. Wang; Y. Song; J. Li; M. Zhang
4:45-5:00 PM	<b>S4B.3. Quality generation of 30 GHz MMW beat-tone utilizing extended L-band InAs/InP quantum-dash laser source exploiting self-injection locking scheme is reported along with the successful transmission of 2 Gbps QPSK signal over a hybrid 20km-fiber-5m-FSO-2m-wireless channel</b> <u>Q. Tareq</u> ; M.M. Khan
5:00-5:15 PM	<b>S4B.4. A Bidirectional 256-Gb/s PAM4 Fiber-FSO Converged System</b> <u>Y. Chen</u> ; Y. Ling; T. Ko; P. Chang; C. Liu; C. Li; H. Lu
5:15-5:30 PM	<b>S4B.5. Joint Scrambler and Filter for Outdoor 70 m Duplex Visible Light Communication System Providing Robustness to Solar Irradiance</b> <u>W. Xu</u> ; M. Zhang; D. Han; Q. chen
5:30-5:45 PM	<b>S4B.6. Channel Modeling for Ground-to-UAV Free-Space Optical Communication Systems</b> <u>W. Guo</u>
5:45-6:00 PM	<b>S4B.7. Variable Focus Lens-Based Optical Beam Steering and Adaptive Beam Control Techniques for Free-Space Optical Communications</b> <u>V.V. Mai</u> ; H. Kim
4:00 PM-6:00 PM, Room 5, <b>S4E. Novel Fiber Devices and Gratings, Oral, OECC 5: Optical Passive Devices and Modules</b> , Presider: Chao Wang, University of Kent at Canterbury	
4:00-4:30 PM	<b>S4E.1. Highly Sensitivity Gas Detection with Optical Fibers</b> <u>j. wei</u>
4:30-5:00 PM	<b>S4E.2. Polarization-maintaining Fiber Long-period Gratings</b> <u>Y. Liu</u>
5:00-5:15 PM	<b>S4E.3. Hollow-Core Fiber Connector</b> <u>R. Nagase</u> ; H. Kamitsuna; R. Sasaki; T. Maejima
5:15-5:30 PM	<b>S4E.4. Mode Converters of High Order Core Mode Coupling Based on Long-Period Fiber Gratings</b> <u>Y. Ma</u> ; C. Jiang; X. Zhao; Z. Liu; Y. Liu
5:30-5:45 PM	<b>S4E.5. Simultaneous Generation of Two LFM Signals Using an Integrated Chirped Grating-assisted Contra-directional Coupler in a Sagnac Dual-loop</b> <u>D. Wang</u>

5:45-6:00 PM	<b>S4E.6. Long-Period-Grating Filters Based on Coupling to Leaky Modes in Lithium-Niobate-on-Insulator Waveguides</b> <u>W. Jin</u> ; K.S. Chiang
4:00 PM-6:00 PM, Room 6, <b>S4F. Optical Fiber Sensing Technology</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Chester Shu, Chinese University of Hong Kong, Hong Kong	
4:00-5:00 PM	<b>S4F.1. Fiber-optic Distributed Acoustic Sensors (DAS): A Review</b> <u>Z. He</u>
5:00-5:15 PM	<b>S4F.2. Anti-phase Dual Wavelength Phase Demodulation for Extrinsic Fabry-Perot Interferometric Sensors</b> <u>W. Zhang</u> ; P. Lu; Z. Qu; D. Liu
5:15-5:30 PM	<b>S4F.3. Two-end-access BOCDR for systematic error compensation</b> <u>G. Zhu</u> ; K. Noda; H. Lee; K. Nakamura; Y. Mizuno
5:30-5:45 PM	<b>S4F.4. Self-synchronized ultrafast temporal-spectral characterization system for revealing soliton dynamics</b> <u>Y. Cao</u> ; L. Gao; L. Dang; J. Huang; Q. Wu; L. Huang; T. Zhu; Y. Luo
4:00 PM-6:00 PM, Room 1, <b>S4A. Optical Networks I</b> , Oral, <b>OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Jiajia Chen, Chalmers Tekniska Högskola	
4:00-5:00 PM	<b>S4A.1. Photonics in Intra-Datacenter Networks: Architecture and Future Developments</b> <u>L. Wosinska</u> ; J. Chen
5:00-5:15 PM	<b>S4A.2. Experimental Assessment of Fast and Reconfigurable Optical Wireless Data Center Networks</b> <u>s. Zhang</u> ; X. Xue; B. Pan; F. Yan; X. Guo; E. Tangdiongga; N. Calabretta
5:15-5:30 PM	<b>S4A.3. Evaluation of a 1x8 Photonic Integrated WDM Wavelength Selective Switch for Optical Data Center Networks</b> <u>K. Prifti</u> ; N. Tessema; B. Shi; A. Rasoulzadehzali; S. Kleijn; L. Augusting; R. Stabile; N. Calabretta
5:30-5:45 PM	<b>S4A.4. GAIA: A Contention-free Optical Data Center Network Based on Arrayed Waveguide Grating Router.</b> <u>J. Che</u> ; Z. Liu; S. Wu
5:45-6:00 PM	<b>S4A.5. QoS-based Flow Classification and Forwarding in Hybrid Electrical/Optical Switched Data Center Networks</b> <u>J. Zhang</u> ; W. Wang; Y. Shen; Y. Li; Y. Zhao; J. Zhang
4:00 PM-6:00 PM, Room 4, <b>S4D. Photonic Integrated Devices and Applications</b> , Oral, <b>OECC 4: Optical Active Devices and Modules</b> , Presider: Qiang Wu, Northumbria University	
4:00-5:00 PM	<b>S4D.1. Photonic Integrated Modules for Microwave Systems</b> <u>A. Bogoni</u>
5:00-5:30 PM	<b>S4D.2. Metasurface on Silicon Photonics for Beam Steering and Focusing</b> P. Hsieh; Y. Zhao; C. Hsu; M. Shin; C. Phare; S. Miller; E. Shim; M. Lipson; <u>Y. Chang</u>

5:30-6:00 PM	<b>S4D.3. Silicon Photonics WDM (De)Multiplexers</b> <u>Y. Hung</u> ; T. Yen; C. Chou; T. Wang; Z. Song; Y. Wang; C. Chen
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Monday, July 05, 2021

Time	Session or Event Info
2:00 PM-3:30 PM, Room 2, <b>M3B. High Bandwidth Transmission</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Jian Zhao, South China University of Technology	
2:00-3:00 PM	<b>M3B.1. Terabit Transmission Systems</b> <u>F. Buchali</u>
3:00-3:30 PM	<b>M3B.2. Extending the Bandwidth of Optical Transmission Systems</b> <u>R. Killey</u>
2:00 PM-3:30 PM, Room 3, <b>M3C. Microwave Photonics Based Devices and Sensing</b> , Oral, <b>OECC 5: Optical Passive Devices and Modules</b> , Presider: Xiaoke Yi, University of Sydney	
2:00-3:00 PM	<b>M3C.1. Integrated Microwave Photonics for Photonic Signal Processing and Sensing</b> <u>R.A. Minasian</u>
3:00-3:30 PM	<b>M3C.2. Microwave Photonics for Remote Sensing</b> <u>A. Bogoni</u>
2:00 PM-3:30 PM, Room 5, <b>M3E. Novel Optical Measurement Technology</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Tao Zhu, Chongqing University	
2:00-2:30 PM	<b>M3E.1. Ultraspectral Imaging Based on Micro-spectrometers</b> <u>Y. Huang</u>
2:30-2:45 PM	<b>M3E.2. Precise Terahertz frequency measurement based on an optoelectronic terahertz comb</b> <u>Z. Lu</u> ; S. Wang; H. Zhang; z. Yang; L. Zhang; X. Yu
2:45-3:00 PM	<b>M3E.3. A microwave photonic phase detector based on a dual-polarization dual-drive Mach-Zehnder modulator</b> <u>K. Shao</u> ; S. Liu; P. Gao; Y. Zhang; S. Pan; J. Fu; X. Zhang; T. Liu
3:00-3:15 PM	<b>M3E.4. A terahertz photonic imaging radar system based on inverse synthetic aperture technique</b> <u>S. Wang</u> ; Z. Lu; H. Zhang; L. Zhang; M. Qiao; N. Idrees; M. Saqlain; S. Zheng; X. Jin; X. Zhang; X. Yu
3:15-3:30 PM	<b>M3E.5. Silicon-based integration of optical pulse waveform analyzer</b> <u>M. Makino</u> ; T. Kurahashi; V. Shukla; R. Kamikawa; Y. Kaihori; Y. Yamasaki; T. Konishi
2:00 PM-3:30 PM, Room 4, <b>M3D. Photonic Crystals and Metasurfaces</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Jianji Dong, Huazhong University of Science and Technology	

2:00-2:30 PM	<b>M3D.1. Photonic Integration Based on Si Photonics and Photonic Crystals</b> <u>T. Baba</u>
2:30-2:45 PM	<b>M3D.2. Observation of optomechanics in a nanoscale photonic crystal cavity</b> <u>J. Xia</u> ; F.Q. Qiao; G. Zhou
2:45-3:00 PM	<b>M3D.3. Metasurface doublet-based flat retroreflector for wireless optical communication</b> <u>H. Li</u> ; W. Lee; C. Zhou; D. Choi; S. Lee
3:00-3:15 PM	<b>M3D.4. Four-modes waveguide crossing utilizing phase-gradient slot array</b> <u>X. Guo</u> ; Y. Liu; K. Xu
3:15-3:30 PM	<b>M3D.5. Dual-polarization and six-mode waveguide crossing based on dielectric metasurface</b> <u>Z. Zhang</u> ; Y. Liu; K. Xu
2:00 PM-3:30 PM, Room 6, M3F. <b>SDM Transmissions, Oral, OECC 6: Space-Division Multiplexing and Related Devices</b> , Presider: Lin Zhang, Tianjin University	
2:00-2:30 PM	<b>M3F.1. Realtime IM/DD MDM Transmission Over Multiple-ring-core FMF for Short-reach Application</b> <u>J. Li</u> ; Y. Gao; D. Ge; L. Shen; Y. He; Z. Chen; G. Li
2:30-2:45 PM	<b>M3F.2. 25Gb/s Mode Division Multiplexing VCSEL Transmission over Two Modes Using Standard Single-Mode Fiber at 850 nm</b> <u>K. Li</u> ; X. Chen; J. Ko; J. Hurley; J. Stone; K. Park; B. Kim; M. Li
2:45-3:00 PM	<b>M3F.3. 400G LR4 and 100G CWDM Transmission Over 1x4 Linear Array Multicore Fiber with 125-mm Cladding</b> <u>K. Li</u> ; X. Chen; K. Bennett; D. Butler; S. Johnson; H. Dong; M. Li
3:00-3:15 PM	<b>M3F.4. 85.2-Tbit/s Coupled 4-Core Fiber Transmission over 3,120 km Using PS-16QAM Signals</b> <u>S. Beppu</u> ; D. Soma; H. Takahashi; N. Yoshikane; I. Morita; T. Tsuritani
3:15-3:30 PM	<b>M3F.5. Noise Compensation for a Nonlinear Six-mode Fiber Channel through Self-Recycling Training Equalizer</b> <u>T. Zhao</u> ; F. Wen; F. Li; B. Wu; F. Fan; K. Qiu
2:00 PM-3:30 PM, Room 1, M3A. <b>Short Reach Transmission, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Xiaodan Pang, Kungliga Tekniska Hogskolan Kista	
2:00-2:30 PM	<b>M3A.1. Self-homodyne coherent detection for short-reach optical interconnection</b> <u>M. Tang</u>
2:30-2:45 PM	<b>M3A.2. Local oscillator-less QPSK signal detection using direct detection and fractional Fourier transform</b> <u>R. Kamikawa</u> ; Y. Yamasaki; T. Konishi
2:45-3:00 PM	<b>M3A.3. Beyond 100Gb/s Nyquist 128/256/512-QAM Subcarrier Modulation Direct Detection Transmission Using O-Band DML with Digital Nonlinearity Mitigation</b> <u>Y. Zhu</u> ; <u>Z. Guo</u> ; q. wu; W. Hu

3:00-3:15 PM	<b>M3A.4. C-Band 100Gbit/s Non-Orthogonal Discrete Multitone over Dispersion-Uncompensated Links</b> <u>C. Xiong</u> ; J. Zhou; W. Liang; H. Wang; C. Yu; W. Liu; H. Huang; Z. Li
3:15-3:30 PM	<b>M3A.5. Optimum Symbol Distribution of Probabilistically Shaped PAM Signals in Amplifier-less IM-DD Systems</b> <u>D. Kim</u> ; H. Kim
4:00 PM-6:00 PM, Room 5, <b>M4E. Fiber Optic Sensing for New Applications</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Ming Tang, Huazhong Univ of Science and Technology	
4:00-4:30 PM	<b>M4E.1. Fiber Optic Sensing and Biosensing: New Challenges and Perspectives</b> <u>F. Chiavaioli</u> ; A. Giannetti; F. Baldini
4:30-4:45 PM	<b>M4E.2. Temperature-Insensitive Glucose sensor with Fiber Ring Laser inserted by 45° Tilted Fiber Bragg Grating</b> <u>Y. Liu</u> ; W. Lin; L. Shao; P. Shum; M. Niu
4:45-5:00 PM	<b>M4E.3. Ppb-level ethane detection with hollow-core fiber photothermal spectroscopy</b> <u>F. chen</u> ; S. Jiang; W. Jin; S. Gao; H. Ho
5:00-5:30 PM	<b>M4E.4. Optical Fiber Sensors Embedded in Soft Structures: From Industrial Applications to Biomechanics</b> <u>A. Leal Junior</u>
5:30-5:45 PM	<b>M4E.5. Twist Sensor Based on Long-Period Grating Mach-Zehnder Interferometer Inscribed in Double Cladding Fiber</b> D. Liao; C. Jiang; <u>Y. Liu</u>
5:45-6:00 PM	<b>M4E.6. Digital in-line holographic flow cytometry using a linear array sensor for characterization of <i>Haematococcus pluvialis</i> in microchannel</b> Z. Chen; X. Zheng; <u>X. Duan</u> ; S. Jiang; C. Song
4:00 PM-6:00 PM, Room 2, <b>M4B. Machine Learning in Optical Systems and Networks</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Danshi Wang, Beijing Univ of Posts & Telecom	
4:00-4:30 PM	<b>M4B.1. Post Moore Design of Optical AI Cloud Networks</b> <u>M. Kuschnerov</u>
4:30-4:45 PM	<b>M4B.2. Machine Learning Based LFM Signal Recovery For Fiber-Connected Radar Networks</b> <u>Y. Zhou</u> ; F. Zhang; G. Sun; S. Pan
4:45-5:00 PM	<b>M4B.3. Deep Reinforcement Learning-based Spectrum Assignment with Multi-metric Reward Function and Assignable Boundary Slot Mask</b> <u>M. Shimoda</u> ; T. Tanaka
5:00-5:15 PM	<b>M4B.4. Machine Learning assisted Linewidth Tolerant Carrier Recovery Scheme for PNOB Limited Optical Transmission System</b> <u>j. li</u> ; y. yang; q. xiang; y. yao
5:15-5:30 PM	<b>M4B.5. Four-level Flicker-mitigation Coding Scheme in the Non-line-of-sight Optical Camera Communication System</b> <u>L. Liu</u> ; L. Chen

5:30-5:45 PM	<b>M4B.6. Real Time Optical Label System for Coherent Optical Wavelength Division Multiplexing Networks</b> <u>X. zhang</u> ; C. Yang; M. Luo; L. Meng; F. Jiang; Z. He
5:45-6:00 PM	<b>M4B.7. Flexible-rate Photonic-aided Wireless Transmission System at 101-GHz Based on Multi-Band CAP-PAM Modulation</b> <u>Q. Li</u> ; J. Zhang; M. Zhu; Q. Zhou; W. Xu; Y. Zou; J. Wang; X. Liu; B. Hua; M. Lei; Y. Cai; A. Li; W. Tong
4:00 PM-6:00 PM, Room 4, <b>M4D. Metasurfaces</b> , Oral, OECC 7: Nanophotonics and Integrated Devices, Presider: You-Chia Chang, National Chiao Tung University	
4:00-4:30 PM	<b>M4D.1. Integrated Mid-Infrared Photonics Toward Chip-Scale Sensing Systems</b> <u>C. Lee</u> ; Y. Ma; B. Dong
4:30-4:45 PM	<b>M4D.2. Mid-infrared Graphene Plasmon Metasurface for Optical Phased Array</b> <u>H. Zeng</u> ; X. Yi; C. Qiu
4:45-5:00 PM	<b>M4D.3. Single-Mode Fiber Metalenses based on Dielectric Nanopillars</b> <u>Q. JIAQI</u> ; Q. zhao; C. Yu
5:00-5:15 PM	<b>M4D.4. Mode tailoring in metasurface and achromatic application</b> <u>k. xi</u> ; I. Ma; S. Zhuang; Q. Cheng
5:15-5:30 PM	<b>M4D.5. Ultra-compact Waveguide-Integrated Demultiplexers based on Digital metamaterials</b> <u>y. wang</u> ; S. Zhang; Z. Xu; W. Li; J. Xu; B. Hu; R. Ma; H. Ye
5:30-5:45 PM	<b>M4D.6. Toroidal dipole resonances of dielectric symmetry-breaking metasurfaces</b> <u>Y. Chen</u> ; Y. Wang
5:45-6:00 PM	<b>M4D.7. Bifunctional Fiber Meta-Tip for Polarization-Selective Optical Interconnect</b> <u>C. Zhou</u> ; W. Lee; S. Gao; H. Li; C. Park; D. Choi; S. Lee
4:00 PM-6:00 PM, Room 3, <b>M4C. Novel Fibers for Communication</b> , Oral, OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices, Presider: Qiancheng zhao, The Hong Kong Polytechnic University	
4:00-4:30 PM	<b>M4C.1. Draw-tower Grating Fibers and its Applications</b> <u>M. Yang</u>
4:30-4:45 PM	<b>M4C.2. Low-Loss Large-MFD Fibers with G.657.A2 Compliant Macro Bending Performance</b> <u>S. Takeuchi</u> ; K. Aiso; H. Otani; K. Mukasa; Y. Arashitani
4:45-5:00 PM	<b>M4C.3. Extending L-band to 1625nm with Er/P/Ce Co-doped Silicate Fiber</b> Y. lou; Y. Chen; Z. Gu; q. qiu; c. shi; I. he; <u>Y. Chu</u> ; y. Xing; j. Peng; h. li; n. dai; j. li
5:00-5:15 PM	<b>M4C.4. Design of compact multi-ring-core few-mode fiber for dense space-division multiplexing in C+L band</b> <u>Z. Wang</u> ; J. Tu; Z. Li; C. Yu; C. Lu

5:15-5:30 PM	<b>M4C.5. Granulated Silica Segmented Cladding Fiber for Optical Communication</b> <u>M. Pournoury</u> ; Y. Lee; D. Kim; K. Oh
5:30-5:45 PM	<b>M4C.6. Inversely designed four mode fiber with equalized zero dispersion for short reach MDM optical communication</b> <u>X. Chen</u> ; J. Du; B. Ye; Z. He; K. Xu; Z. He
5:45-6:00 PM	<b>M4C.7. Low-DMD Ladder Fiber with Dual-Step Trench-Assisted Structure</b> <u>H. Sun</u> ; Z. Yang; X. Wang; Y. Liu; H. Yu; C. Peng; L. Zhang
4:00 PM-6:00 PM, Room 1, M4A. <b>Optical Network Technology, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Xuezhi Hong, South China Normal University	
4:00-4:15 PM	<b>M4A.1. Accurate Prediction via Artificial Neural Network of OSNR Penalty Induced by Non-uniform WSS Filtering.</b> <u>A. Minakhmetov</u> ; T. Zami; B. Iavigne; A. Ghazisaeidi
4:15-4:30 PM	<b>M4A.2. The impact of parameter uncertainty on QoT estimation using GN-based analytical model</b> <u>z. jing</u> ; L. Jianing; L. Chao; C. Yu
4:30-4:45 PM	<b>M4A.3. Data Analytics and Unsupervised Learning Enabled Proactive Maintenance for Optical Transceivers in Hyperscale Data Centers</b> <u>C. Wang</u> ; L. Wang; Z. Wang; Q. Chen; P. Wang; R. Lu; C. Xie
4:45-5:00 PM	<b>M4A.4. End-to-End Management of All Optical Disaggregated Network and Applications with Cloud Native Environment for the Smart World Network Infrastructure</b> <u>Y. Hirota</u> ; S. Nakamura; K. Shiimoto; H. Sugiyama; N. Yoshikane; S. Okamoto; M. Murakami; T. Hirayama; S. Yamanoi
5:00-5:15 PM	<b>M4A.5. Impairment-Aware Integrated VONE Scheme Based on Routing, Bit Loading, and Spectrum Allocation in EONs</b> <u>X. Ren</u> ; M. Zhu; J. Gu; T. Shen; C. Shi
5:15-5:30 PM	<b>M4A.6. Kalman Filter-based Heavy Hadoop Job Detection Method for Energy Efficient Hybrid Electro-Optical Intra-Data Center Networks</b> <u>M. Murakami</u> ; N. Dubrana; Y. Uematsu; S. Okamoto; N. Yamanaka
5:30-5:45 PM	<b>M4A.7. High-power-budget End-to-end Optical Connection with AMCC Superposition of SOA-integrated EA-DFB Transmitter in All-Photonics Network</b> <u>Y. Tanaka</u> ; T. Kanai; K. Hara; M. Chen; K. Honda; T. Shindo; Y. Senoo; S. Kaneko; H. Nakamura; J. Kani; K. Sano; T. Yoshida
5:45-6:00 PM	<b>M4A.8. Deep-reinforced impairment-aware dynamic resource allocation in nonlinear elastic optical networks</b> <u>C. Shi</u> ; M. Zhu; J. Gu; T. Shen; X. Ren
4:00 PM-6:00 PM, Room 6, M4F. <b>SDM Systems, Oral, OECC 6: Space-Division Multiplexing and Related Devices</b> , Presider: Ke Xu, Harbin Institute of Technology	



4:00-5:00 PM	<b>M4F.1. Inter-Core Skew and Skew Management for Multicore Fiber Transmission Systems</b> <u>R.S. Luis</u> ; B.J. Puttnam; G. Rademacher; A. Marotta; C. Antonelli; F. Graziosi; A. Mecozzi; T. Hayashi; T. Nakanishi; S. Shinada; Y. Awaji; H. Furukawa; N. Wada
5:00-5:30 PM	<b>M4F.2. Overview of the Progress in Space-division Multiplexing Technology</b> <u>Q. Guo</u>
5:30-5:45PM	<b>M4F.3. Assessing Capacity of FIFO-less Multicore Fiber Transmission in Submarine Cable Systems</b> <u>Y. Wakayama</u> ; D. Elson; H. Takahashi; N. Yoshikane; T. Tsuritani
5:45-6:00 PM	<b>M4F.4. Crosstalk Monitoring and Outage Prediction in Multi-core Fibers Based on Multi-task Deep neural network</b> <u>m. zhang</u> ; K. Li; C. Zhao; Y. Chen; M. Tang

Tuesday, July 06, 2021

Time	Session or Event Info
8:30 AM-10:00 AM, Room 4, T1D. <b>Advanced Light Sources and Detectors, Oral, OECC 4: Optical Active Devices and Modules</b> , Presider: Jianxiang Wen, Shanghai University	
8:30-9:00 AM	<b>Room Temperature Current Modulation of Plasmonic Nanolasers</b> <u>T. Lu</u>
9:00-9:15 AM	<b>Low-phase-noise 25-GHz O-band regenerative mode locked laser</b> <u>H. Qi</u> ; D. Lu; H. Wang; H. Song; R. Zhang; L. Zhao
9:15-9:30 AM	<b><i>MQW laser with surface electrodes on directly bonded InP/SiO<sub>2</sub>/Si substrates</i></b> <u>X. Han</u> ; K. Tsushima; M. Sato; T. Shirai; S. Ito; T. Ishizaki; K. Shibukawa; K. Agata; M. Kotani; K. Shimomur
9:30-9:45 AM	<b>High output power 214-Gbit/s 4-PAM operation of Hi-FIT AXEL transmitter</b> <u>S. Kanazawa</u> ; T. Shindo; M. Chen; Y. Nakanishi; T. Yoshimatsu; K. Sano; H. Matsuzaki
9:45-10:00 AM	<b>Weak-Resonant Zero-Bias Operational High-Speed UTC-PD up to 160 Gbps Line Rate</b> <u>T. Umezawa</u> ; A. Matsumoto; K. Akahane; N. Yamamoto
8:30 AM-10:00 AM, Room 2, T1B. <b>Constellation shaping Technologies I, Oral, OECC 2: Transmission Systems and Technologies</b> , Presider: Di Che, Nokia Bell Labs	
8:30-9:00 AM	<b>T1B.1. Revisiting Probabilistic Constellation Shaping in Short-reach IM-DD Systems</b> <u>D. Che</u> ; J. Cho; X. Chen
9:00-9:15 AM	<b>T1B.2. Optimization on integrated Fourier transform spectrum analyzer for optical performance monitoring</b> <u>H. Luo</u> ; Z. Huang; C. Yu

9:15-9:30 AM	<b>T1B.3. The Impact of Probabilistic Constellation Shaping on Channel Equalization with Constant Modulus Algorithm</b> <u>Q. Yan</u> ; C. Guo; X. Hong
9:30-9:45 AM	<b>T1B.4. Performance Comparison of Different 8-QAM Constellations Used in SEFDM systems</b> <u>P. Song</u> ; Z. Hu; C. Chan
9:45-10:00 AM	<b>T1B.5. Digital Resolution Enhancer in PS-256QAM Transmission</b> <u>T. Jin</u> ; L. Bai; S. Hu; J. Zhang; L. Shu; L. Wang; Y. Zhenming; K. Qiu
8:30 AM-10:00 AM, Room 3, <b>T1C. Fiber Materials and Structures, Oral, OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Guangming Tao, Huazhong Univ. of Sci. and Tech.	
8:30-9:30 AM	<b>T1C.1. The Future of Fiber Optic Materials: A Tutorial</b> <u>J. Ballato</u>
9:30-10:00 AM	<b>T1C.2. All-fiber Devices Based on Structured Fibers</b> <u>L. Xiao</u>
8:30 AM-10:00 AM, Room 6, <b>T1F. Mode Multiplexer, Oral, OECC 6: Space-Division Multiplexing and Related Devices</b> , Presider: Binbin Guan, Microsoft Corp	
8:30-9:00 AM	<b>T1F.1. All-fiber Orbital Angular Momentum Mode Generators</b> <u>Z. Bai</u>
9:00-10:00 AM	<b>T1F.2. Multiplane Light Conversion Spatial Mode Multiplexers</b> <u>N.K. Fontaine</u>
8:30 AM-10:00 AM, Room 5, <b>T1E. Optical Devices and Signal Processing I, Oral, OECC 5: Optical Passive Devices and Modules</b> , Presider: Bo Zhang, Juniper Networks	
8:30-9:00 AM	<b>T1E.1. Two-Dimensional Optical True Time-Delay Beamforming System Based on Few-Mode Fiber</b> <u>G. Hu</u> ; X. Liu; M. Zhang; R. Pang
9:00-9:30 AM	<b>T1E.2. Nonlinear Dynamics in Ultrafast Mid-infrared Mode-locked Fiber Lasers</b> <u>P. Wang</u>
9:30-9:45 AM	<b>T1E.3. Compact dual-mode waveguide crossing based on subwavelength gratings assisted multimode-interference couplers</b> <u>C. Zhao</u> ; S. Mao; L. Cheng; S. Wu; Y. Han; Q. Li; H. Fu
9:45-10:00 AM	<b>T1E.4. Broadband tunable filter based on the cascaded contra-directional couplers</b> <u>S. Liao</u> ; H. Bao; T. Zhang; Y. Feng; C. Huang
8:30 AM-10:00 AM, Room 1, <b>T1A. Wireless Over Optics, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Lilin Yi, Shanghai Jiao Tong University	
8:30-9:30 AM	<b>T1A.1. Technology Trends and Challenges of 6G New Radio Access Networks</b> <u>G. Chang</u>
9:30-9:45 AM	<b>T1A.2. Bidirectional IFoF Mobile Fronthaul With DSP-based Channel Multiplexer and Demultiplexer</b> <u>K. Tanaka</u> ; H. Kao; S. Ishimura; K. Nishimura; R. Inohara; M. Suzuki

9:45-10:00 AM	<b>T1A.3. Cloud and Edge Collaborative Computing for Efficient 5G Optical Fronthaul Network Slicing</b> <u>B. Hua</u> ; M. Zhu; J. Zhang; A. Li; M. Lei; Y. Cai; Z. Zhang; Y. Zou
10:30 AM-12:30 PM, Room 6, T2F. <b>Bio-Chemical Optic Sensing</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Liyang Shao, Southern Univ. of Science and Technology	
10:30-11:30 AM	<b>T2F.1. Harnessing Doubly Resonant Modalities in Fiber Optic Sensors Enables Reliable and High Accuracy Chemical Measurements</b> <u>J. Albert</u> ; F. Liu
11:30-11:45 AM	<b>T2F.2. High sensitivity fiber refractive index sensor using tapered 4-core fiber</b> <u>N. Chen</u>
11:45-12:00 PM	<b>T2F.3. Tunable optofluidic Y-branch waveguide based on counter flow</b> Y. Yang; <u>X. Duan</u> ; X. Tu; C. Song
12:00-12:15 PM	<b>T2F.4. Cascaded Long-Period Fiber Grating Liquid Level Sensor at the Dispersion Turning Point</b> K. Lu; C. Jiang; <u>Y. Liu</u>
12:15-12:30 PM	<b>T2F.5. Design of long-range SPR sensor based on D-shaped honeycomb-structure MOF with Au-graphene hybrid layers</b> <u>W. BU</u> ; X. Chen; H. Zhang; z. wu
10:30 AM-12:30 PM, Room 4, T2D. <b>Integrated Sources and Semiconductor Optical Amplifiers</b> , Oral, <b>OECC 4: Optical Active Devices and Modules</b> , Presider: Yanhua Luo, The University of New South Wales	
10:30-11:30 AM	<b>T2D.1. PPLN-based Optical Parametric Amplifiers and their Applications</b> <u>T. Umeki</u>
11:30-12:00 PM	<b>T2D.2. Integrated Photonic Sources and Circuits in Lithium Niobate Platform</b> Y. Lin; C. Lee; H. Chung; M. Younesi; P. Kumar; K. Wang; O. Bernard; C. Shirpurkar; W. Su; R. Geiss; T. Pertsch; A. Sukhorukov; F. Setzpfandt; <u>Y. Chen</u>
12:00-12:15 PM	<b>T2D.3. Efficient Optical Amplification in Erbium-doped Lithium Niobate on Insulator Waveguides</b> <u>Z.C. CHEN</u> ; Q. Xu; K. Zhang; W. Wong; D. Zhang; E. Pun; C. Wang
12:15-12:30 PM	<b>T2D.4. Optical Phase Conjugation Characterization in a Polarization-selected Orthogonal-pumped SOA Subsystem</b> <u>f. sun</u> ; F. Wen; F. Yang; B. Wu; Y. Ling; K. Qiu
10:30 AM-12:30 PM, Room 5, T2E. <b>LiNO3 Photonics</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Cheng Wang, City University of Hong Kong	
10:30-11:30 AM	<b>T2E.1. Integrated Lithium Niobate Photonics and Applications</b> <u>M. Loncar</u>
11:30-11:45 AM	<b>T2E.2. High-gain Erbium-doped Waveguide Amplifier on LNOI Platform</b> <u>m. cai</u> ; j. Xiang; k. Wu; J. Chen

11:45-12:00 PM	<b>T2E.3. Broadband and compact polarization beam splitter in LNOI sub-wavelength gratings</b> <u>C. Deng</u>
12:00-12:15 PM	<b>T2E.4. Simultaneous Kerr Comb and Efficient Second-Harmonic Generation in a LNOI Microring Resonator Through Dispersion Engineering</b> <u>X. Zhang</u> ; C. Sun; B. Xiong; Z. Hao; J. Wang; L. Wang; Y. Han; H. Li; Y. Luo
12:15-12:30 PM	<b>T2E.5. Beam intensity averaging method for high precision beam control in optical phased array</b> <u>H. Takemura</u> ; T. Umezawa; Y. Yamaguchi; N. Yamamoto; T. Kawanishi
10:30 AM-12:30 PM, Room 3, T2C. <b>Multicore Fiber and Interconnects Applications</b> , Oral, <b>OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Jiajing Tu, Jinan University	
10:30-11:00 AM	<b>T2C.1. Multicore and Few-mode Fibers and Devices for Optical Interconnects Application</b> <u>L. Ma</u>
11:00-11:15 AM	<b>T2C.2. Measurement of Mode Dependent Loss of Randomly-Coupled Multi-Core Fiber using Scrambling Method</b> <u>T. Hasegawa</u> ; T. Hayashi
11:15-11:30 AM	<b>T2C.3. Theoretical evaluation of Nonlinear Crosstalk in weakly Multi-core Fiber with Random Perturbations</b> <u>s. jin</u> ; h. pan; w. wang; k. tong; l. xiang
11:30-11:45 AM	<b>T2C.4. Four-core Fan-in/Fan-out applicable for O to L-band operation</b> <u>K. Watanabe</u> ; M. Takahashi; R. Sugizaki; Y. Arashitani
11:45-12:00 PM	<b>T2C.5. Multi-Core Fiber Rotated Optical Switch for Remote Optical Fiber Switching</b> <u>C. Fukai</u> ; Y. Abe; K. Katayama
12:00-12:15 PM	<b>T2C.6. Real-time Long-distance Visible Light Communication and Video Transmission over 100-meter POF</b> <u>Y. Zhang</u>
12:15-12:30 PM	<b>T2C.7. Feasibility of 25Gb/s MWDW Transmission Over a 15-km G652.D Compliant Fiber for 5G Fronthaul Networks</b> <u>X. Chen</u> ; K. Li; R. McCoolk; H. Chen; H. Dong; S. Patel; J. Hurley; J. Stone; M. Li
10:30 AM-12:30 PM, Room 2, T2B. <b>Nonlinearity Compensation</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Qunbi Zhuge, Shanghai Jiao Tong University	
10:30-11:00 AM	<b>T2B.1. Machine Learning for Fiber Nonlinearity Compensation: An Example of Interpretable Machine Learning in Optics</b> Q. Fan; G. Zhou; C. Lu; <u>A. Lau</u>
11:00-11:15 AM	<b>T2B.2. Imbalanced Digital Back Propagation for Nonlinear Optical Fiber Transmissions</b> T. Jin; <u>X. Yi</u> ; J. Zhang
11:15-11:30 AM	<b>T2B.3. Neural-network-based Generalized Filter for Inter-channel Nonlinear Compensation in Long-haul Optical Transmission</b> <u>Z. Yang</u> ; Y. Wu; H. Jiang; M. Fu; L. Yi; W. Hu; Q. Zhuge

11:30-11:45 AM	<b>T2B.4. FPGA-based Implementation of Artificial Neural Network for Nonlinear Signal-to-Noise Ratio Estimation</b> <u>L. Liu</u> ; X. Liu; Z. Zhai; Y. Wu; H. Jiang; L. Yi; W. Hu; Q. Zhuge
11:45-12:00 PM	<b>T2B.5. Experimental Demonstration of 80-Gb/s DSB OOK Signal Transmission Over 100-km SSMF with Simplified Volterra Based DFE</b> <u>M. Zhu</u> ; J. Zhang; Q. Liu; B. Xu; X. Yi; Y. Zhenming; P. Zhang; K. Qiu
12:00-12:15 PM	<b>T2B.6. Simultaneous Nonlinearity Compensation of C+L-band WDM PDM-QPSK Signals using Inter-band Complementary Spectral Inversion</b> <u>H. Kawahara</u> ; T. Seki; K. Hirose; T. Miyamura
12:15-12:30 PM	<b>T2B.7. Nonlinear Distortions Suppression in Optical Single Sideband Modulation with Tunable Optical Carrier to Sideband Ratio</b> <u>Y. Bai</u> ; Z. Zheng; X. Song; Z. Su; H. Zhang; X. Gao; S. Huang
10:30 AM-12:30 PM, Room 1, T2A. <b>Optical Networks II</b> , Oral, OECC 1: <b>Core/Access/Data Center Networks and Subsystems</b> , Presider: Ning Liu, Soochow University	
10:30-10:45 AM	<b>T2A.1. An Efficient Approach for Placing Distributed Fiber Optic Sensors with Concurrent Sensing Capability</b> <u>Z. Ye</u> ; P. Ji; T. Wang
10:45-11:00 AM	<b>T2A.2. Reinforcement Learning Based Joint Allocation Scheme in a TWDM-PON Based mMIMO Fronthaul Network</b> <u>Y. CHENG</u> ; C. Chan
11:00-11:15 AM	<b>T2A.3. VON Provisioning Over Co-Existing Fixed/Flexible Grid Optical Networks</b> <u>X. Yu</u> ; L. Lu; Y. Zhao; J. Zhang
11:15-11:30 AM	<b>T2A.4. Parallel Computation Offloading Between MEC Servers with Metro Optical Network</b> <u>W. Zhang</u> ; S. Yin; C. Yang; Z. Luo; S. Huang
11:30-11:45 AM	<b>T2A.5. A Reinforcement Learning Based Computing Task Offloading Scheme in Incompletely Expanded C+L-Band Metro Optical Networks</b> <u>L. Liu</u> ; S. Yin; C. Yang; W. Zhang; Z. Wang; S. Huang
11:45-12:00 PM	<b>T2A.6. Topological Mapping based Failure Recovery in Multi-domain Quantum Key Distribution Networks</b> <u>J. Zou</u> ; Y. Liu; Z. Shi; R. Liu; X. Zhang
12:00-12:15 PM	<b>T2A.7. Anomaly Detection Based on Correlative Prediction for Elastic Optical Network</b> <u>Y. Wan</u> ; H. Yang; Q. Yao; B. Bao; C. Li; J. Zhang
12:15-12:30 PM	<b>T2A.8. Performance Evaluation of Dynamic Fiber-Granular Routing Networks with Next-Generation Optical Paths</b> <u>T. Matsuo</u> ; R. Shiraki; Y. Mori; H. Hasegawa
2:00 PM-3:30 PM, Room 2, T3B. <b>Coherent Detection Systems</b> , Oral, OECC 2: <b>Transmission Systems and Technologies</b> , Presider: Xian Zhou, Univ Sci & Tech Beijing (USTB)	
2:00-2:30 PM	<b>T3B.1. Coherent Detection in Short Reach Applications</b> <u>T. GUI</u> ; L. Li
2:30-2:45 PM	<b>T3B.2. 110GBaud PDM-64QAM Transmission Enabled by Tomlinson-Harashima Precoding and 120GSa/s DAC</b> <u>G. Huang</u> ; N. Hisao

2:45-3:00 PM	<b>T3B.3. Performance Analysis of Matched Filter-based Carrier Frequency Offset Estimation Methods for CO-OFDM</b> <u>X. Du</u> ; X. Fu; Q. Wang; P. Kam; C. Yu
3:00-3:15 PM	<b>T3B.4. Delayed Self-Heterodyne Measurement for Laser Linewidth induced by White FM-noise PSD Portion</b> <u>Y. Gao</u> ; X. Zhou; j. huo; D. Lu; W. Gao; G. Ge
3:15-3:30 PM	<b>T3B.5. Real-time 80-Channel 75-GHz-Spacing Coherent Transmission over Extended C-Band for Long-haul Network beyond 100G</b> <u>D. Wang</u> ; J. Sun; Y. Li; D. Ge; J. Gu; S. Zhong; Y. Zhao; S. Liao; L. Mao; D. Zhang; H. Li
2:00 PM-3:30 PM, Room 3, <b>T3C. Fiber Laser and Amplification I, Oral, OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Shifeng Zhou, South China University of Technology	
2:00-2:30 PM	<b>T3C.1. Dynamics of Multi-dimensional Femtosecond Fiber Laser</b> <u>X. Wei</u>
2:30-2:45 PM	<b>T3C.2. High-efficiency Brillouin-Erbium Random Fiber Laser via Distributed Random Feedback from a Weak FBG Array</b> <u>J. Zhang</u> ; Z. Qiu; Z. Xiao; H. Xie; Y. Jiang; F. Pang; L. Zhang
2:45-3:00 PM	<b>T3C.3. Erbium-ytterbium Co-doped Phosphosilicate fiber for extended L-band Amplification</b> <u>Y. Chen</u> ; Y. Chu; Y. lou; c. shi; Z. Gu; q. qiu; l. he; y. Xing; j. Peng; h. li; n. dai; j. li
3:00-3:15 PM	<b>T3C.4. Design optimization of 12 Core Er<sup>3+</sup>/Yb<sup>3+</sup> co-doped amplifier and its experimental validation</b> <u>A. LEBRETON</u> ; R. Kerampran; G. Melin; T. Taunay; S. Bordais; Y. Jaouen
3:15-3:30 PM	<b>T3C.5. All-polarization-maintaining Bidirectional Dual-comb Fiber Laser by Nonlinear Polarization Evolution</b> <u>X. Liu</u> ; Z. Li; D. Pan; Q. Li; H. Fu
2:00 PM-3:30 PM, Room 5, <b>T3E. Optical Multiplexers, Oral, OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Guangya Zhou, National University of Singapore	
2:00-2:30 PM	<b>T3E.1. High-speed Coherent Optical Signal Receiver Using Nanophotonics Devices</b> <u>T. Lei</u>
2:30-2:45 PM	<b>T3E.2. Monolithically Integrated Optoelectronic Multiplexer Circuit Using Light Emitting Transistors</b> <u>Y. Chen</u> ; Y. Liang; C. Wu
2:45-3:00 PM	<b>T3E.3. Ultracompact and broadband wavelength (de)multiplexer based on asymmetrical directional coupler with subwavelength grating</b> <u>F. Wang</u> ; X. Xu; J. Zhao
3:00-3:15 PM	<b>T3E.4. Broadband Polarization Insensitive 1x8 WDM Multi-Cast Switch and Amplifier for Optical Networks</b> <u>A. Rasoulzadehzali</u> ; N. Tessema; k. Prifti; S. Kleijn; L. Augusting; R. Stabile; N. Calabretta

3:15-3:30 PM	<b>T3E.5. Resonant-enhanced optical switch based on non-volatile phase change material GST</b> D. Wu; X. Yang; H. Zhang; N. Wang; <u>L. Lu</u> ; J. Chen; L. Zhou
2:00 PM-3:30 PM, Room 1, T3A. <b>Optical Sub-system and Applications, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Yi Yu, Huawei Technologies Co Ltd	
2:00-2:30 PM	<b>T3A.1. Optical Communication Systems: Limits and Possibilities</b> <u>A.D. Ellis</u>
2:30-3:00 PM	<b>T3A.2. Scalability of A-RoF Based Mobile Fronthaul Toward Beyond-5G</b> <u>K. Nishimura</u> ; S. Ishimura; H. Kao; K. Tanaka; R. Inohara
3:00-3:30 PM	<b>T3A.3. Machine Learning for Optical Layer Failure Management</b> <u>D. Wang</u> ; D. Wang; C. Zhang; L. Wang; S. Liu; M. Zhang
2:00 PM-3:30 PM, Room 4, T3D. <b>Semiconductor Lasers and Applications, Oral, OECC 4: Optical Active Devices and Modules</b> , Presider: Zhichao Chen, South China Normal University	
2:00-2:30 PM	<b>T3D.1. Recent Progress in Photonic Crystal Surface-emitting Lasers</b> <u>S. Noda</u>
2:30-2:45 PM	<b>T3D.2. Zn-Diffusion Few-mode VCSELs for 50-Gb/s GI-SMF Transmission over 100 m at 850 nm Wavelength</b> <u>T. Hsu</u> ; Y. Yeh; D. Yang; P. Lee; H. Kuo
2:45-3:00 PM	<b>T3D.3. Narrow Linewidth VCSEL based on Resonant Optical Feedback from an On-chip Microring Add-Drop Filter</b> L. Jiang; <u>l. shi</u> ; J. Luo; Q. Gao; T. Lan; L. Huang; T. Zhu
3:00-3:15 PM	<b>T3D.4. 50 Gb/s PAM-4 VCSELs operating up to 125°C</b> <u>T. Aoki</u> ; R. Kubota; H. Hiroy; S. Yoshimoto; M. Yanagisawa
3:15-3:30 PM	<b>T3D.5. 12-Gb/s Sub-THz Wireless-over-Fiber Links Using Optically Injected Semiconductor Lasers</b> <u>C. Tseng</u> ; C. Lin; S. Hwang
2:00 PM-3:30 PM, Room 6, T3F. <b>Signal Processing in Optical Sensing, Oral, OECC 8: Optical Sensing and Measurement</b> , M. A. Soto, Universidad Técnica Federico Santa María	
2:00-2:30 PM	<b>T3F.1. Fundamentals and Advancements of DSP-based Distributed Fiber Sensors</b> <u>Z. Yang</u>
2:30-2:45 PM	<b>T3F.2. The influence of signal downsampling on the SNR of retrieved phase in the <math>\phi</math>-OTDR system</b> x. liu; f. liu; w. zhang; j. huo; J. Yuan; <u>x. zhou</u>
2:45-3:00 PM	<b>T3F.3. Comparison of SVM method for picking up the microseismic events collected by fiber-optic and electronic monitoring system</b> m. wang; f. liu; L. Yiqiang; j. huo; J. Yuan; <u>x. zhou</u>

3:00-3:15 PM	<b>T3F.4. Spatial Resolution Improvement of a Long Pulse BOTDA Sensor Using a Convolutional Neural Network</b> <u>Z. Ge</u> ; L. Shen; H. Wu; Z. Zhao; M. Tang
3:15-3:30 PM	<b>T3F.5. Ballistocardiography reconstruction based on optical fiber sensor using deep learning algorithm</b> <u>S. CHEN</u> ; F. Tan; W. Lyu; C. Yu
4:00 PM-5:45 PM, Room 6, <b>T4F. Distributed Fiber Sensing I</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Yosuke Mizuno, Yokohama National University	
4:00-4:30 PM	<b>T4F.1. Optical Fiber Shape Sensing Technology</b> <u>G. Yin</u>
4:30-4:45 PM	<b>T4F.2. An Algorithm to Construct 3D Pipeline Bending Shape Based on Ultra-weak FBG Curvature Sensor</b> <u>Z. Wu</u> ; Y. DAI
4:45-5:00 PM	<b>T4F.3. Hollow-Core Negative Curvature Fiber for Refractive Index Sensing Based on Surface Plasmon Resonance Effect</b> <u>Z. Zhichao</u> ; J. Yuan; S. Qiu; X. Zhou; B. Yan; Q. Wu; K. Wang; X. Sang; K. Long; C. Yu
5:00-5:30 PM	<b>T4F.4. Quasi-distributed Acoustic Sensing at Ultrahigh Update Rates</b> <u>A. Eyal</u>
5:30-5:45 PM	<b>T4F.5. Locating Abnormal Event with Ultrafast Speed by Using Edge Detection Method in BOTDA Sensing System</b> S. Liu; <u>L. Wang</u> ; K. Zeng; M. Tang; D. Liu
4:00 PM-6:00 PM, Room 1, <b>T4A. Biophotonics, Microscopy, and Artificial Intelligence</b> , Oral, <b>OECC 9: Biophotonics and Imaging</b> , Presider: Puxiang Lai, Hong Kong Polytechnic University	
4:00-4:30 PM	<b>T4A.1. Early Detection of Blood Clots in COVID-19 by High-throughput Imaging and Artificial Intelligence</b> <u>K. Goda</u>
4:30-5:00 PM	<b>T4A.2. Artificial Intelligence in Biophotonics and Imaging: Advancing Computational Reconstruction and Inference</b> <u>E.Y. Lam</u>
5:00-5:30 PM	<b>T4A.3. Biophotonics 4.0 - Merging AI and Photonics for Better Healthcare</b> <u>J. Popp</u>
5:30-6:00 PM	<b>T4A.4. Computational Raman Microscopy</b> <u>H.B. de Aguiar</u>
4:00 PM-6:00 PM, Room 4, <b>T4D. Distributed Feedback Lasers and Applications</b> , Oral, <b>OECC 4: Optical Active Devices and Modules</b> , Presider: Yitang Dai, Beijing Univ of Posts & Telecom	
4:00-5:00 PM	<b>T4D.1. Narrow Linewidth DFB Lasers for Quantum Applications</b> <u>M. Sorel</u>
5:00-5:30 PM	<b>T4D.2. Recent progress in quantum dot distributed feedback lasers for uncooled and isolator free applications.</b> <u>F. Grillot</u>



5:30-5:45 PM	<b>T4D.3. High speed direct modulation of 1.3 <math>\mu\text{m}</math> grating assisted surface-emitting DFB laser with wide temperature operation</b> <u>J. Luan</u> ; Y. Han; S. Yang; D. Liu; M. Zhang
5:45-6:00 PM	<b>T4D.4. Tunable ultra-narrow linewidth fiber laser based on distributed feedback</b> <u>L. Dang</u> ; L. Huang; Y. Cao; T. Lan; T. Zhu
4:00 PM-6:00 PM, Room 3, <b>T4C. Fiber Laser and Amplification II</b> , Oral, <b>OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Fan Yang, European Molecular Biology Laboratory	
4:00-4:30 PM	<b>T4C.1. Ultrafast Mid-IR Fiber Laser with Few-cycle Pulse Duration and Octave Spectral Spanning</b> <u>M. Pang</u>
4:30-4:45 PM	<b>T4C.2. Pulse-width electrically tunable mode-locked laser based on fiber integrated graphene field effect transistor</b> <u>Z. Ding</u> ; Y. Xiong; F. Xu
4:45-5:00 PM	<b>T4C.3. Linear Polarization-maintaining Fiber Laser Mode-locked by Nonlinear Polarization Evolution</b> D. Pan; X. Liu; <u>H. Fu</u> ; Q. Li
5:00-5:15 PM	<b>T4C.4. Research on the switch of Q-switched mode-locking and continuous-wave mode-locking in an erbium-doped fiber laser based on SESAM</b> <u>Z. Wu</u> ; Q. Wu; y. yao; y. yang; K. Xu; J. Tian
5:15-5:30 PM	<b>T4C.5. Quasi-coherent noise-like pulses in a simplified nonlinear polarization evolution mode-locked fiber laser</b> <u>r. zhou</u> ; Q. Li; H. Fu
5:30-5:45 PM	<b>T4C.6. Rational Harmonic Mode-Locked Bismuth-Based Fiber Ring Laser</b> <u>Y. Fukuchi</u> ; Y. Muramatsu; R. Miyauchi
5:45-6:00 PM	<b>T4C.7. Conversion of dark-bright solitons in a fiber ring laser</b> <u>S. Chen</u> ; X. Liu; H. Fu; Q. Li
4:00 PM-6:00 PM, Room 5, <b>T4E. Optical Frequency Combs and Lasers</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Zhenzhou Cheng, Tianjin University	
4:00-4:30 PM	<b>T4E.1. A Monolithically Integrated Switchable Silicon Microwave Photonic Filter</b> <u>X. Wang</u>
4:30-4:45 PM	<b>T4E.2. Third-harmonic-assisted four-wave mixing in microresonator-based Kerr frequency comb generation</b> <u>H. Zhang</u> ; Y. Wu; Z. Ju; H. Yang; J. He; S. Pan
4:45-5:00 PM	<b>T4E.3. Optical Frequency Comb Generation in Normal Dispersion Microresonators with Coupled-ring Structure</b> <u>Z. Cheng</u> ; D. Huang; F. Li; L. Chao; P. Wai
5:00-5:15 PM	<b>T4E.4. Ultra-thin curved microdisk lasers with high quality factor</b> Z. Zhang; H. Li; T. Zhou; K. NG; X. Sun; <u>Z. Zhang</u>

5:15-5:30 PM	<b>T4E.5. Effects of a Weak Continuous Wave Trigger on Picosecond Pulse Pumped Supercontinuum Generation in Silicon Nitride Waveguide</b> <u>K. Lin</u> ; Q. Li
5:30-5:45 PM	<b>T4E.6. Enhanced Dispersive Wave in the Dispersion Engineered Lithium Niobate Waveguides</b> <u>F. Ye</u> ; J. Huang; Q. Li
5:45-6:00 PM	<b>T4E.7. Improving the frequency chirp linearity of a frequency-modulated continuous-wave laser</b> <u>c. liu</u> ; y. guo; w. xu; L. Lu; L. Zhou; J. Chen
4:00 PM-6:00 PM, Room 2, <b>T4B. Signal Processing for Distortion Compensation</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Xiaoguang Zhang, Beijing University of Posts and Telecommunications	
4:00-4:15 PM	<b>T4B.1. Joint CD and DGD estimation enabled by FrFT based time-frequency reconstruction</b> <u>T. Jiang</u> ; Y. Xiang; H. Tan; M. Tang
4:15-4:30 PM	<b>T4B.2. Rx DSP Algorithm for Transceiver IQ Imbalance Compensation in Coherent Optical OFDM System</b> z. li; Z. Luo; X. Wang; M. Yin; X. Yi; Q. Sui; <u>F. Li</u> ; Z. Li
4:30-4:45 PM	<b>T4B.3. A Stokes-space-rotation Based Randomly Fast RSOP Tracking Algorithm Using Extended Kalman Filter</b> <u>H. Weichen</u>
4:45-5:00 PM	<b>T4B.4. Low Complexity and Robust Pilot-aided Frequency Kalman Filter Scheme for Extreme Polarization Effects Equalization</b> <u>N. Zhang</u> ; X. Zhang; Q. Zhang; N. Cui; L. Xi
5:00-5:15 PM	<b>T4B.5. A Sharp-Peak Model Describing the Fast RSOP Induced by the Lightning Strikes and Its Tracking Method</b> J. Zhao; H. Zhang; J. Gao; <u>W. Zhao</u> ; X. Zhang
5:15-5:30PM	<b>T4B.6. Single-Channel 1.28 Tbit/s Optical Nyquist Pulse Transmission over 3000 km with Roll-off Factor Optimization</b> <u>A. Watanabe</u> ; M. Yoshida; T. Hirooka; M. Nakazawa
5:30-5:45 PM	<b>T4B.7. Measurement of Transmitter IQ Skew in High-Speed Digital Coherent Communication System</b> <u>N. Tsuchida</u> ; T. Kuno; Y. Mori; H. Hasegawa
5:45-6:00 PM	<b>T4B.8. Experimental demonstration of distortion mitigation in 15 Tbit/s OTDM transmission using a cognitive dynamic system</b> <u>M. Naghshvarianjahromi</u> ; S. Kumar; J. Deen; T. Iwaya; K. Kimura; M. Yoshida; T. Hirooka; M. Nakazawa

Wednesday, July 07, 2021

Time	Session or Event Info
8:30 AM-10:00 AM, Room 2, <b>W1B. Constellation Shaping Technologies II</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Xi Chen, Nokia Bell Labs	

8:30-9:00 AM	<b>W1B.1. Shaping and Bit Labeling in High Dimensions to Improve Overall System Performance</b> <u>R. Essiambre</u> ; J. Buonetti; M. Kodialam
9:00-9:15 AM	<b>W1B.2. Capacity Increase in Dual-polarization Nonlinear Frequency Division Multiplexing Systems with Probabilistic Shaping</b> <u>C. Li</u> ; X. Chen; Z. Chen; F. Zhang
9:15-9:30 AM	<b>W1B.3. Optimized M-APSK Constellation Design based on Error Rate Formulation in Laser Phase Noise</b> <u>q. wang</u> ; Z. Quan; X. Du; S. Bi; P. Kam; C. Yu
9:30-9:45 AM	<b>W1B.4. Probabilistically Shaped OFDM for Gradual Capacity Adaptation in 5G ARoF Systems</b> <u>J. Pérez Santacruz</u> ; S. Rommel; A. Jurado-Navas; U. Johannsen; I. Tafur Monroy
9:45-10:00 AM	<b>W1B.5. Impact of Arbitrary Parameters in Parallel Eigenvalue Solving Algorithm on Optical Eigenvalue Communication</b> <u>Y. Terashi</u> ; D. Hisano; K. Mishina; A. Maruta
8:30 AM-10:00 AM, Room 1, <b>W1A. Next Generation Optical Networks, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Chi-Wai Chow, National Chiao Tung University	
8:30-9:00 AM	<b>W1A.1. Free-Space Optical Communication Systems for B5G/6G Networks</b> <u>A. Bekkali</u> ; H. Fujita; M. Hattori
9:00-9:15 AM	<b>W1A.2. Experiment of Segment Routing based Service-Oriented Fast Path Construction for F5G</b> <u>L. Xin</u> ; Y. Zhao; z. li; Y. Li; G. Xie; Y. Lin; J. Zhang
9:15-9:30 AM	<b>W1A.3. Spectrum Trading Based on Blockchain for Resource Allocation of Optical Network Virtualization</b> <u>J. Zhao</u>
9:30-9:45 AM	<b>W1A.4. Numerical Assessment of End-of-Life Impact of Optical Filtering by WSS-based OXCs in WDM Fiber Networks</b> <u>T. Zami</u> ; B. lavigne; A. Ghazisaeidi
9:45-10:00 AM	<b>W1A.5. Evaluation platform with virtualized network emulation for traffic control methods in optical access and 5G co-operation systems</b> <u>K. Sasagawa</u> ; T. Yokotani; S. Kozaki; H. Mineno; T. Suehiro; K. Nakura; M. Noda
8:30 AM-10:00 AM, Room 5, <b>W1E. Optical Devices and Signal Processing II, Oral, OECC 5: Optical Passive Devices and Modules</b> , Presider: Lei Su, Queen Mary University of London	
8:30-9:00 AM	<b>W1E.1. Wavemeter with Ultra-high Resolution and Broad Bandwidth by using Rayleigh Speckle from Single Mode Fiber</b> <u>X. Fan</u>
9:00-9:30 AM	<b>W1E.2. Highly sensitive and compact fiber optic ultrasound sensors for tomography imaging</b> <u>Q. Sun</u>
9:30-9:45 AM	<b>W1E.3. Subwavelength grating for free-space coupling with high collimation and low divergence angle</b> <u>J. Zhou</u> ; Y. Wang

9:45-10:00 AM	<b>W1E.4. High Efficiency Double Layer Grating Couplers Supporting Polarization Diversity for Photonic Switches</b> <u>M. Shirao</u> ; J. Tremblay; J. Henriksson; K. Kwon; J. Luo; A. Honardoost; M. Wu
8:30 AM-10:00 AM, Room 4, <b>W1D. Optical Fiber Sensing Device</b> , Oral, <b>OECC 3: Optical Fibers, Fiber Amplifiers and Fiber Devices</b> , Presider: Limin Xiao, Fudan University	
8:30-9:00 AM	<b>W1D.1. Optical Fiber Sensing Technology and its Applications</b> <u>W. Zhang</u> ; H. Li; L. Zhu; M. Dong
9:00-9:15 AM	<b>W1D.2. An in-fiber Mach-Zehnder interferometer for salinity sensor based on interface-fiber inscribed by femtosecond laser</b> <u>S. Zhang</u> ; Z. Liu; C. Yang; Z. Li
9:15-9:30 AM	<b>W1D.3. Single-Polarization Hollow-Core Negative Curvature Fiber for Temperature Sensing</b> <u>S. Qiu</u> ; J. Yuan; Y. Ni; X. Zhou; B. Yan; Q. Wu; K. Wang; X. Sang; K. Long; C. Yu
9:30-9:45 AM	<b>W1D.4. Novel optical fiber tactile sensor in laparoscope for force feedback</b> <u>P. Wang</u> ; Z. Liu; J. Huang; X. Huang; J. Chen; D. Peng
9:45-10:00 AM	<b>W1D.5. Subwavelength Optofluidic Microstructured Optical Fibers</b> <u>R. Yu</u> ; C. Wang; Y. Hao; L. Xiao
8:30 AM-10:00 AM, Room 3, <b>W1C. RF and 2D Materials Photonics</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Linjie Zhou, Shanghai Jiao Tong University	
8:30-9:00 AM	<b>W1C.1. Brillouin Integrated Photonics for Broadband RF Sensing and Processing</b> <u>B.J. Eggleton</u>
9:00-9:15 AM	<b>W1C.2. Photothermally tunable diffraction grating based on ultra-thin reduced graphene oxide enabled by femtosecond laser</b> <u>S. Jiang</u> ; C. Park; W. Lee; C. Zhou; S. Lee
9:15-9:30 AM	<b>W1C.3. Graphene-Buried Polymer Waveguide Mach-Zehnder Interferometer for Low-Power All-Optical Switching</b> <u>L. Jiang</u> ; Q. Huang; K.S. Chiang
9:30-9:45 AM	<b>W1C.4. Enhanced All-optical Modulation in MoS<sub>2</sub>-coated Side-polished Fibres</b> <u>H. Zhang</u> ; Z. Zhang; N. Healy; A. Peacock
9:45-10:00 AM	<b>W1C.5. Surface plasmon polariton-enhanced photoluminescence of monolayer MoS<sub>2</sub> on a plasmonic grating architecture</b> <u>L. Huang</u>
8:30 AM-10:00 AM, Room 6, <b>W1F. SDM Sub-System</b> , Oral, <b>OECC 6: Space-Division Multiplexing and Related Devices</b> , Presider: Chuanchuan Yang, Peking University	
8:30-9:00 AM	<b>W1F.1. Mode-multiplexed full-field reconstruction using direct and phase retrieval detection</b> <u>H. Chen</u>
9:00-9:30 AM	<b>W1F.2. Wideband and High Throughput Optical Transmission with Multi-core Fibers and Amplifiers</b> <u>B.J. Puttnam</u> ; G. Rademacher; R.S. Luis; Y. Awaji; H. Furukawa

9:30-9:45 AM	<b>W1F.3. Mode dispersion measurement of few-mode fiber utilizing <math>S^2</math> technique</b> <u>J. Yu</u> ; F. Tan; C. Yu
9:45-10:00 AM	<b>W1F.4. All-fiber symmetrical mode multiplexing coupler for multiplexing <math>LP_{11}</math> and <math>LP_{21}</math> modes</b> <u>W. Chang</u> ; H. Guo; B. Mao; M. Feng; Z. Wang; Y. Liu
10:30 AM-12:30 PM, Room 2, <b>W2B. Access and Multiplexing Technologies</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Tao Yang, Beijing University of Posts and Telecommunications	
10:30-11:00 AM	<b>W2B.1. Coherent PON: System Merit and Technical Challenges</b> <u>N. Kaneda</u> ; A. Mahadevan; V. Houtsma; D. van Veen
11:00-11:15 AM	<b>W2B.2. Experimental ARoF System Based on OPLL Mm-Wave Generation for Beyond 5G</b> <u>J. Pérez Santacruz</u> ; D. Dodane; J. Bourderionnet; S. Rommel; A. Jurado-Navas; U. Johannsen; I. Tafur Monroy
11:15-11:30 AM	<b>W2B.3. High Capacity Real-Time Hybrid Optical-Wireless 5G Fronthaul with Dynamic Beam Steering</b> <u>D. Konstantinou</u> ; T. Bressner; S. Rommel; U. Johannsen; A. Smolders; I. Tafur Monroy
11:30-11:45 AM	<b>W2B.4. Wide Field-of-View Color-Converting Concentrator for High-Speed MIMO UV-to-Visible Light Communication</b> <u>Z. Wang</u> ; L. Zhang; J. Li; Z. Wei; Y. Dong; G. Wei; H. Fu
11:45-12:00 PM	<b>W2B.5. Multiple Access Points Oriented Stable Radio Frequency Transfer Using a Wavelength-Tunable Laser</b> <u>Y. Lu</u> ; Z. Jiang; F. Yin; K. Xu; Y. Dai
12:00-12:15 PM	<b>W2B.6. OSR-reduced Quad-level Delta-sigma Modulation based RoF Link for 2-Gbit/s 32-QAM OFDM</b> <u>Z. Weng</u> ; A. Kanno; T. Kawanishi
12:15-12:30 PM	<b>W2B.7. High-Baud-Rate Optical Fiber Transmissions Using a Simplified Two-Channel OTDM Transmitter</b> M. Jiang; Z. Huang; <u>X. Yi</u> ; F. Li
10:30 AM-12:30 PM, Room 4, <b>W2D. High Performance Optical Sensing Technology</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Yongkang Dong, Harbin Institute of Technology	
10:30-11:00 AM	<b>W2D.1. Detection and Compensation of Laser Frequency Noise for High Resolution Optical Sensing</b> <u>X. Bao</u>
11:00-11:15 AM	<b>W2D.2. Research on Temperature Variation of Overhead Transmission Line under Lightning Strike Based on Optical Frequency Domain Reflectometer</b> X. Peng; <u>Z. Yan</u> ; Z. Zhang; Y. Yan; J. Hou; X. Feng
11:15-11:30 AM	<b>W2D.3. Doppler Laser Radar for Range and Speed Measurement of Road Objects with a Single Photon-detector</b> <u>Y. Zhou</u> ; X. Mao; Y. Cheng; Y. Xiong; D. Wang

11:30-12:00 PM	<b>W2D.4. Recent Progress in Brillouin Optical Correlation Comain Technologies as Fiber Optic Nerve systems for Structural Health Monitoring</b> <u>K. Hotate</u> ; Y. Okawa
12:00-12:15 PM	<b>W2D.5. Polarization-Insensitivity Dynamic BOTDA Based on Direct-Detection OFDM</b> <u>D. Qi</u> ; X. GUAN; C. Chan
12:15-12:30 PM	<b>W2D.6. Fast Measurement of Brillouin Frequency Shift in Fiber Based on Principal Components Analysis</b> F. Xiao; M. Lv; <u>X. Li</u>
10:30 AM-12:30 PM, Room 5, <b>W2E. Imaging</b> , Oral, <b>OECC 9: Biophotonics and Imaging</b> , Presider: Edmund Lam, University of Hong Kong	
10:30-11:30 AM	<b>W2E.1. Stimulated Raman Scattering (SRS) Imaging: the Next Frontier of Light Microscopy</b> <u>W. Min</u>
11:30-12:00 PM	<b>W2E.2. Two-photon Fiberscope Technologies for Neural Imaging in Freely-behaving Rodents</b> <u>X. Li</u>
12:00-12:30 PM	<b>W2E.3. Bond-selective Imaging by Optically Sensing the Mid-infrared Photothermal Effect</b> <u>J. Cheng</u>
10:30 AM-12:30 PM, Room 6, <b>W2F. Novel Optoelectronic Devices and Technologies</b> , Oral, <b>OECC 4: Optical Active Devices and Modules</b> , Presider: Wenjun Liu, Beijing University of Posts and Telecommunications	
10:30-11:00 AM	<b>W2F.1. Mie-driven free-space electro-optic transducers</b> <u>I. Benea-Chelmus</u>
11:00-11:30 AM	<b>W2F.2. Moire Excitons and Polaritons in van der Waals Bilayers</b> <u>H. Deng</u>
11:30-11:45 AM	<b>W2F.3. Demonstration of Photon-Photon Resonance Improved Direct Modulation Bandwidth of Partially Corrugated Grating with Passive Feedback</b> <u>S. Sulikhah</u> ; S. Lee; H. Tsao
11:45-12:00 PM	<b>W2F.4. Frequency Comb Assisted Photonic Digital-to-Analog Conversion Based on Frequency Chirp in a QD-SOA</b> <u>M. Sagara</u> ; W. Rui; J. Tsuda; M. Matsuura
12:00-12:30 PM	<b>W2F.5. From Mode Division Multiplexing to Multi-dimensional Optical Communication</b> <u>T. Lei</u>
10:30 AM-12:30 PM, Room 3, <b>W2C. Photonic Waveguides</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Hon Tsang, Chinese University of Hong Kong	
10:30-11:30 AM	<b>W2C.1. Optical Transformation Devices for Mode Multiplexing and Manipulation</b> <u>S. Yu</u>
11:30-11:45 AM	<b>W2C.2. Compact Edge-Coupler for Broadband and High-Efficient Fiber-to-Waveguide Coupling Using Cascaded Silicon Nitride Tapers</b> <u>B. Bhandari</u> ; C. Im; M. Oh; S. Lee

11:45-12:00 PM	<b>W2C.3. Spiral Bragg Grating Waveguides for TE mode On-chip dispersion</b> <u>Y. Sun</u>
12:00-12:15 PM	<b>W2C.4. Topology optimization of sharp waveguide bends for mode-division multiplexing</b> <u>Z. Zhong</u> ; Y. Liu; K. Xu
12:15-12:30 PM	<b>W2C.5. Investigating the polarization rotation effect in meter-long CMOS compatible spiral waveguides</b> <u>Y. Zhu</u> ; L. Zeng; L. Wang; S. Chu; S. Wang
10:30 AM-12:30 PM, Room 1, <b>W2A. Transmission Sub-system, Oral, OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Tianwai Bo, Korea Advanced Inst of Science & Tech	
10:30-11:00 AM	<b>W2A.1. Power Efficiency Measurements in Amplifier Physics-optimized Power-limited SDM Submarine Transmission Systems</b> H. Srinivas; J. Downie; <u>J.M. Kahn</u> ; J. Hurley; X. Liang; J. Himmelreich; J. Krause Perin; D.A. Mello
11:00-11:30 AM	<b>W2A.2. Optical Transmission Network Industrial Trend</b> <u>J. Li</u>
11:30-11:45 AM	<b>W2A.3. Accurate Performance Estimation for Nonlinear System</b> <u>X. Su</u> ; T. Ye; C. Yang; Z. Tao; N. Hisao; H. Takeshi
11:45-12:00 PM	<b>W2A.4. Joint Modulation Format Identification and OSNR Estimation Using Complex-valued Neural Networks</b> <u>F. Cao</u> ; M. Gao; L. Wang; P. Wang; W. Shao
12:00-12:15 PM	<b>W2A.5. Nonlinear Noise Measurement for Optical Communication</b> <u>Z. Tao</u> ; K. Zhang; X. Su; H. Nakashima; H. Takeshi
12:15-12:30 PM	<b>W2A.6. Impact of Cascaded Multi-Band 1x2 Photonic Integrated WSS in Metro-Access Networks</b> <u>R. Kraemer</u> ; M. van den Hout; S. van der Heide; H. Santana; Y. Wang; F. Nakamura; H. Tsuda; A. Napoli; C. Okonkwo; N. Calabretta
2:00 PM-3:15 PM, Room 6, <b>W3F. Optical Signal Processing Based on Waveguide and Fiber Devices</b> , Oral, <b>OECC 4: Optical Active Devices and Modules</b> , Presider: Xiaolei Zhang, Laser Institute of Shandong Academy of Sciences	
2:00-2:30 PM	<b>W3F.1. Silicon Photonics for Data Center Applications</b> <u>M. Kato</u>
2:30-2:45 PM	<b>W3F.2. Single-channel NRZ to Three-channel RZ Format Conversion Using an HNLF in an MZI</b> <u>Z. Hu</u> ; <u>Z. Li</u> ; M. Hou; K. Chen
2:45-3:00 PM	<b>W3F.3. Mach-Zehnder Modulator Based on Low Loss Hybrid Plasmon Polariton Waveguide</b> <u>J. Xing</u> ; <u>C. Sun</u> ; B. Xiong; J. Wang; Z. Hao; L. Wang; Y. Han; H. Li; J. Yu; Y. Luo
3:00-3:15 PM	<b>W3F.4. InGaAs Photodiode on Silicon by Heteroepitaxy</b> <u>B. Song</u> ; B. Shi; z. Si; S. Brunelli; J. klamkin

2:00 PM-3:30 PM, Room 5, <b>W3E. Biophotonics and Tomography</b> , Oral, <b>OECC 9: Biophotonics and Imaging</b> , Presider: Jianxin Chen, Fujian Normal University	
2:00-2:30 PM	<b>W3E.1. Frontier in Optical Coherence Tomography: Doppler OCT, OCTA, and optical coherence elastography</b> <u>Z. Chen</u>
2:30-3:00 PM	<b>W3E.2. Single-shot Cell Tomography for 3D Image Cytometry Applications</b> <u>R. Zhou</u>
3:00-3:30 PM	<b>W3E.3. Wavefront Shaping Empowered High-resolution Optical Focusing at Depths in Tissue and its Application for Single Neuron Optogenetics</b> T. Zhong; Z. Qiu; S. Cheng; L. Sun; <u>P. Lai</u>
2:00 PM-3:30 PM, Room 2, <b>W3B. Fibres in Optical Communication Systems</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Zhong Kangping, Poet Technologies Inc.	
2:00-2:30 PM	<b>W3B.1. Long-haul, High-capacity Transmission with Coupled SDM Fibers</b> <u>G. Rademacher</u> ; R.S. Luis; B.J. Puttnam; R. Ryf; S. van der Heide; T. Eriksson; N.K. Fontaine; H. Chen; R. Essiambre; Y. Awaji; H. Furukawa
2:30-3:00 PM	<b>W3B.2. Ultra-wideband IM/DD Transmission over Hollow-core Fibres</b> <u>Y. Hong</u> ; N. Taengnoi; K. Bottrill; T. Bradley; H. Sakr; J. Hayes; G. Jasion; F. Poletti; P. Petropoulos; D. Richardson
3:00-3:15 PM	<b>W3B.3. 4 × 56 Gb/s MIMO-less Fiber-eigenmode multiplexing transmission over 3 km FMF</b> J. Zhang; <u>X. Wu</u> ; Q. Fan; X. Yi; Z. Tan; J. Li; Z. Li; C. Lu
3:15-3:30 PM	<b>W3B.4. Statistical analysis of multipath interference due to multiple cascaded splices at wavelengths below cut-off in G.654.E fibers</b> <u>H. Kawahara</u> ; T. Seki; K. Hirose; T. Miyamura
2:00 PM-3:30 PM, Room 1, <b>W3A. Modulation and Coding</b> , Oral, <b>OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Jing Zhang, Univ of Electronic Science & Tech China	
2:00-2:15 PM	<b>W3A.1. Analysis and Compensation of Transmitter IQ Imbalance Based on MIMO Equalizer for Single-lane 800G DCI</b> <u>J. Wang</u> ; J. Zhang; M. Zhu; W. Xu; Q. Zhou; X. Liu; Q. Li; B. Hua; Y. Zou; Y. Cai; M. Lei; A. Li; W. Tong
2:15-2:30 PM	<b>W3A.2. Parallelized Turbo equalizer design for bandwidth compensation in optical coherent receiver</b> <u>L. Liu</u> ; f. yu; L. Li
2:30-2:45 PM	<b>W3A.3. Probabilistic Shaped LDPC-coded 400G PM-64QAM DWDM Transmission in 50-GHz Grid</b> <u>X. Han</u> ; Y. Yue; Z. Qu; R. Holmes; I.B. Djordjevic
2:45-3:00 PM	<b>W3A.4. Unamplified 220-Gb/s Transmission over 20 km of SSMF using Simplified Heterodyne Detection System</b> <u>B. Kim</u> ; M. Kim; Y. Chung



3:00-3:15 PM	<b>W3A.5. Complex Modulation and Differential Coherent Detection of Directly Modulated Lasers</b> <u>H. Yang</u> ; L. Lu; W. Wang; X. Wu; P. Wang; A. Lau; L. Chao; C. Guo
3:15-3:30 PM	<b>W3A.6. A Digital In-service Relative Time Delay Estimation Method for SDM Self-homodyne Coherent Systems</b> <u>W. Li</u> ; m. zhang; Y. Chen; C. Zhao; M. Tang
2:00 PM-3:30 PM, Room 4, <b>W3D. Optical Sensing with Resonance</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: Yidong Tan, Tsinghua University	
2:00-2:30 PM	<b>W3D.1. Optical Fiber Bottle Micro-resonator and its Applications in Sensing</b> <u>M. Ding</u>
2:30-2:45 PM	<b>W3D.2. Fiber optic lead ion (<math>Pb^{2+}</math>) sensor using chitosan diaphragm based Fabry-Pérot interferometer</b> <u>A.A. Noman</u> ; J.N. Dash; C. Xin; C. Yu
2:45-3:00 PM	<b>W3D.3. <math>SiO_2</math> waveguide based Mach-Zehnder interferometer with nanoporous ZIF-8 for sensitive VOC detection</b> <u>X. Ma</u> ; L. Jiang; J. Wu; K. Chen
3:00-3:15 PM	<b>W3D.4. The Temperature Sensitivity research of Fiber Bragg grating in Graded-index Multimode Fiber</b> <u>Y. Nan</u> ; P. Mégret
3:15-3:30 PM	<b>W3D.5. Piecewise Temperature Sensing with Fiber Bragg Grating Inscribed Erbium-doped Fiber</b> <u>Z. YANG</u> ; Q. zhao; C. Yu; Y. Liu
2:00 PM-3:30 PM, Room 3, <b>W3C. Silicon Photonics</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Ren-Min Ma, Peking University	
2:00-2:30 PM	<b>W3C.1. Silicon-based Integrated Quantum Photonics</b> <u>J. Wang</u>
2:30-3:00 PM	<b>W3C.2. Coupled Optical Resonators in Si Photonics</b> <u>H. Du</u>
3:00-3:15 PM	<b>W3C.3. Silicon Integrated Low-Loss 4-Channel 5-Bit Optical True-Time Delay Lines</b> <u>Y. Liu</u> ; L. Lu; J. Chen; L. Zhou
3:15-3:30 PM	<b>W3C.4. Heat-tolerant 112-Gb/s PAM4 transmission using active optical package substrate for silicon photonics co-packaging</b> <u>S. Suda</u> ; T. Kurosu; A. Noriki; I. Tamai; A. Ukita; K. Takemura; D. Shimura; Y. Oonawa; H. Yaegashi; T. Aoki; T. Amano
4:00 PM-5:45 PM, Room 4, <b>W4D. Distributed Fiber Sensing II</b> , Oral, <b>OECC 8: Optical Sensing and Measurement</b> , Presider: George Chen, University of South Australia	
4:00-4:30 PM	<b>W4D.1. Distributed fiber sensing using SDM fibers</b> <u>Z. Zhao</u> ; M. Tang
4:30-4:45 PM	<b>W4D.2. Optical Transfer Delay Measurement Based on Stimulated Brillouin Scattering</b> <u>Q. Wang</u> ; M. Xue; T. Liu; X. Zhang; L. Sun; P. Qu; S. Pan

4:45-5:00 PM	<b>W4D.3. Strain Measurement Using EDF Sigma Laser with Cascaded-Chirped Long Period Fiber Grating</b> <u>K. Fukushima</u> ; M.G. Soares; A. Wada; S. Tanaka; F. Ito
5:00-5:30 PM	<b>W4D.4. Time Expansion in Distributed Acoustic Sensing</b> <u>M. Gonzalez-Herraez</u> ; M. Soriano-Amat; V. Durán; H. Martins; S. Martin-Lopez; M. Fernandez-Ruiz
5:30-5:45 PM	<b>W4D.5. Novel Earth Pressure Cell with Double FBG-based Diaphragms for Measuring Vertical and Lateral Effective Stresses in Seabed Soils</b> <u>W. FENG</u> ; T. Zhang; J. YAO; R. Chen; Z. Lei
4:00 PM-6:00 PM, Room 5, <b>W4E. Biophotonics and Imaging, Oral, OECC 9: Biophotonics and Imaging</b> , Presider: Renjie Zhou, The Chinese University of Hong Kong	
4:00-4:30 PM	<b>W4E.1. Energy and Data Efficient Photonic Time stretch Imaging</b> <u>C. Wang</u>
4:30-5:00 PM	<b>W4E.2. Large-scale Tumor-associated Collagen Signatures Identify High-risk Breast Cancer Patients</b> <u>J. Chen</u>
5:00-5:15 PM	<b>W4E.3. Non-interferometric quantitative phase imaging at 1 <math>\mu\text{m}</math> wavelength regime</b> <u>N.K. Soni</u> ; S. Alam; C. Kong; H. He; R. Zhou; K. Wong
5:15-5:30 PM	<b>W4E.4. Huge nonlinearity from photon avalanche nanoprobe enables facile subcellular super-resolution microscopy</b> <u>S. Qiao</u> ; Y. Liang; Z. Zhu; X. Guo; Q. zhan
5:30-5:45 PM	<b>W4E.5. Noncontact Photoacoustic Signal Detection Using Phase-diversity Optical Coherent Receiver</b> <u>X. wang</u> ; M. Hanawa
5:45-6:00 PM	<b>W4E.6. Autophagy induced by a single-time irradiation by femtosecond laser</b> <u>Z. Yu</u> ; H. He
4:00 PM-6:00 PM, Room 6, <b>W4F. Nano-photonic Devices and Waveguides, Oral, OECC 5: Optical Passive Devices and Modules</b> , Presider: Xinyu Fan, Shanghai Jiao Tong University	
4:00-4:30 PM	<b>W4F.1. Inverse-Designed Optical Devices and Modules for High-Density Photonic Integration</b> <u>X. Sun</u>
4:30-5:00 PM	<b>W4F.2. Nanoscale Photonics Devices</b> <u>B. Jia</u>
5:00-5:15 PM	<b>W4F.3. Truncated spot size converters for silicon photonic wire waveguides</b> K. Sainohira; <u>T. Watanabe</u> ; T. Nagayama; S. Fukushima
5:15-5:30 PM	<b>W4F.4. Integrated device for cyclic mode permutation based on multi-plane light conversion</b> <u>Y. Tang</u> ; Z. Yang; Y. Wang; Y. Liu
5:30-5:45 PM	<b>W4F.5. Agile dispersion engineering of photonic waveguides by using neural network aided inverse design</b> <u>Z. Wang</u> ; J. Du; W. Shen; J. Liu; K. Xu; Z. He

5:45-6:00 PM	<b>W4F.6. Broadband Polarization-Independent 3-dB Power Splitter in Silicon-on-insulator</b> <u>D. Meng</u> ; S. Song; L. Li; X. Yi
4:00 PM-6:00 PM, Room 3, <b>W4C. Nanophotonics</b> , Oral, <b>OECC 7: Nanophotonics and Integrated Devices</b> , Presider: Bo Dong, Shenzhen Technology University	
4:00-4:30 PM	<b>W4C.1. Nanophotonic Devices for Optical Trapping</b> <u>L. Zhang</u>
4:30-5:00 PM	<b>W4C.2. Quantum Properties of Subnanometer-sized Plasmonic Nanocavities</b> <u>D. Lei</u>
5:00-5:15 PM	<b>W4C.3. Photonic-assisted Wideband RF Beamformer on InP Membrane on Silicon Platform</b> A.M. Trinidad; J. van Zantvoort; J. van Engelen; Y. Jiao; <u>E. Tangdongga</u> ; T. Koonen
5:15-5:30 PM	<b>W4C.4. Efficient Photocathode Combining Surface Plasmon Resonance Effect with Hole Transport Layer in Visible Light</b> H. JIA; C. Tsoi; W. Zhang; A. Jian; <u>X. Zhang</u>
5:30-5:45 PM	<b>W4C.5. Hosting exceptional points in 1D photonic bandgap waveguide for mode engineering</b> <u>s. dey</u> ; S. Ghosh
5:45-6:00 PM	<b>W4C.6. On-chip photonic convolutional accelerator for image processing</b> <u>J. Cheng</u> ; Y. Zhao; Y. Wei; W. Zhang; H. Zhou; D. Huang; F. Li; P. Wai; J. Dong; X. Zhang
4:00 PM-6:00 PM, Room 1, <b>W4A. Optical Access Networks</b> , Oral, <b>OECC 1: Core/Access/Data Center Networks and Subsystems</b> , Presider: Zizheng Cao, Technische Universiteit Eindhoven	
4:00-4:30 PM	<b>W4A.1. Optical Wireless Communications for the Access Networks</b> <u>F. Ghassemlooy</u>
4:30-4:45 PM	<b>W4A.2. Demonstration of 100 Gb/s 16APSK(4-Amplitude x 4-Phase) Coherent PON System Using a Few MHz-Linewidth LD</b> <u>N. Minato</u> ; Y. Kanda; M. Kashima; H. Sasaki
4:45-5:00 PM	<b>W4A.3. Improved Performance of 64/128-QAM Universal Filtered Multi-carrier PON</b> <u>C. Zhang</u> ; M. Gao; M. Liu; X. You; G. Shen
5:00-5:15 PM	<b>W4A.4. A Machine Learning Assisted Device Fingerprint Identification Technique for TDM-PON System</b> W. Gao; C. Fan; <u>X. Dai</u> ; Y. Wang; W. Lu; M. Cheng; L. Deng; Q. Yang; D. Liu
5:15-5:30 PM	<b>W4A.5. Muxtender: A Fan-out and Reach-extending Device for Rapid and Low-cost 10G-PON Deployment</b> <u>S. Yin</u> ; M. Nagarajan; X. Zhao; T. Zhang; J. Jiang; C. Lam
5:30-5:45 PM	<b>W4A.6. Novel Parallel Interference Cancellation Scheme for Non-Orthogonal Multiple Access in Millimeter-Wave RAN Using Convolutional Neural Network</b> <u>Q. Zhou</u> ; S. Shen; C. Hsu; Y. Chen; J. Finkelstein; G. Chang

5:45-6:00 PM	<b>W4A.7. Inter-channel Interference Mitigation with Iteration Scheme in FDM Access PON System</b> H. Lin; <u>M. Zhu</u> ; J. Zhou; J. Zhang; T. Jin; S. Hu; K. Qiu
4:00 PM-6:00 PM, Room 2, <b>W4B. Transmission Systems and Technologies</b> , Oral, <b>OECC 2: Transmission Systems and Technologies</b> , Presider: Ji Zhou, Jinan University	
4:00-4:15 PM	<b>W4B.1. Kalman filter-based Auto Bias Controller (KF-ABC) for IQ Modulator</b> <u>W. Gao</u> ; G. Ge; L. Yang; D. Lu; J. Huo; X. Zhou
4:15-4:30 PM	<b>W4B.2. Improving the Dynamic Range of Analog-Optical Links with Low-noise Fiber Parametric Amplifiers</b> <u>P. ZHAO</u> ; P. Andrekson
4:30-4:45 PM	<b>W4B.3. Physical-Layer Secure Optical Communication Based on Private Chaotic Phase Scrambling</b> <u>A. Zhao</u> ; N. Jiang; S. Liu; Y. Zhang; K. Qiu
4:45-5:00 PM	<b>W4B.4. Secure Optical Communication based on Orthogonal DQPSK/CSK Modulation and Symbol Overlapped Random Optical Phase Encryption</b> <u>Z. Gao</u> ; Q. Wu; S. Fu; X. Wang; Y. Wang; y. qin
5:00-5:15 PM	<b>W4B.5. Investigation of Forward and Backward Pumped Distributed Raman Amplification Schemes for a Single-Span 600Gb/s Coherent Fiber System</b> <u>R. Hui</u> ; Y. Akasaka; P. Palacharla
5:15-5:30 PM	<b>W4B.6. Improving b-coefficient detection via signal Continuous Spectrum in Soliton Transmissions</b> <u>G. Zhou</u> ; A. Lau
5:30-5:45 PM	<b>W4B.7. Optical Group-delay Filters for 300-GHz-wave Beam Steering</b> <u>M. Che</u> ; K. Kondo; A.A. Ibrahim; K. Kato
5:45-6:00 PM	<b>W4B.8. Design and Optimization of the Parameters in the Waveform Shaping Stage of the Transmitter in the NFDM System</b> <u>J. Wei</u> ; L. Xi; X. Zhang; S. Du; w. zhang; X. Zhang