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Elastic Optical Networks I	Split-spectrum channel scheme for future dynamic flexible grid optical networks	Z. Zhang, W. Sun , W. Hu, State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiaotong University, Shanghai, CHINA	AF3E.2	227
Elastic Optical Networks I	Multicast Routing and Spectrum Assignment in Elastic Optical Networks	Z. Yu, Y. Zhao, J. Zhang, X. Yu, B. Chen, , Beijing Univ of Posts & Telecom, Beijing, CHINAX. Lin, , ZTE Corporation, Shenzhen, CHINA	AF3E.3	230
Elastic Optical Networks I	Service-oriented Spectrum Assignment Algorithms in Flexible Bandwidth Optical Networks	K. Song, J. Zhang, Y. Zhao, X. Yu, Y. Yu, B. Chen, H. Yang, , BUPT, Beijing, Beijing, CHINA	AF3E.4	233
Elastic Optical Networks I	Fragments-Minimum Spectrum Allocation Algorithm in Flexible Bandwidth Multi-Fiber Optical Networks	X. Yu, Y. Zhao, J. Zhang, Y. Yu, J. Zhang, , Beijing University of Posts and Telecommunications, Beijing, CHINAX. Lin, X. Cao, , ZTE Corporation, Shenzhen, CHINA	AF3E.5	236
Elastic Optical Networks I	Defragmentation of Flexible Optical Networks Based on Simulated Annealing	Y. Zeng, N. Hua, X. Zheng, H. Zhang, B. Zhou, Department of Electronic Engineering, Tsinghua University, Beijing, CHINAY. Cao, , Institute of China Electronic Equipment System Engineering Company, Beijing, CHINA	AF3E.6	239
Elastic Optical Networks I	Span Restoration for CO-OFDM-based Elastic Optical Networks under Spectrum Conversion	Y. Wei, G. Shen, S. You, School of Electronic and Information Engineering, Soochow University, Suzhou, Jiangsu, CHINA	AF3E.7	242

Elastic Optical Networks II	Strategies for Improving the Throughput of Dynamic Service Provisioning in Elastic Optical Networks	Z. Zhu, W. Lu, L. Zhang, , University of Sci. & Tech.of China, Hefei, ANHUI, CHINA	AS4D.1	245
Elastic Optical Networks II	Traffic Grooming in Flexible Bandwidth Optical Networks	Y. Jia, J. Zhang, Y. Zhao, T. Zhou, X. Yu, H. Yang, W. Gu, , Beijing Univ of Posts & Telecom, Beijing, CHINA	AS4D.2	246
Elastic Optical Networks II	Sub-band Virtual Concatenation Lightpath Blocking Performance Evaluation for CO-OFDM Optical Networks	A. Cai, L. Peng, G. Shen, School of Electronic and Information Engineering, Soochow University, Suzhou, Jiangsu, CHINA	AS4D.3	249
Elastic Optical Networks II	Integrated-Layer Routing and Resources Assignment Optimization in Mixed-Line-Rate IP over OTN Networks	S. Yin, S. Huang, X. Li, J. Zhang, M. Zhang, W. Gu, State Key Laboratory of Information Photonics and Optical Communications, Beijing University of Posts and Telecomm, Beijin, CHINA	AS4D.4	252
Elastic Optical Networks II	A Pattern-layered Routing and Spectrum Allocation in OFDM-based Flexible Optical Networks	X. Chen, B. Guo, S. Ma, Y. Wang, J. Li, Z. Chen, Y. He, , Peking University, Beijing, CHINA	AS4D.5	255
Elastic Optical Networks II	A Collision-aware Spectrum Allocation Scheme in Flexible Optical Networks	Y. Wang, B. Guo, S. Ma, X. Chen, J. Li, Z. Chen, Y. He, , Peking University, Beijing, CHINA	AS4D.6	258
Electronic Processing	Rapid Soft-Decision Trellis Coded 32QAM for Free Space Optical Communication	K. wang, , Beijing University of Posts and Telecommunications (BUPT), Beijing, CHINA	ATh1C.1	261
Electronic Processing	Non-Decision Aid Modified Least Mean Square Algorithm for Joint Blind Equalization and Carrier Recovery in Optical Coherent Receiver	M.H. Adib, M. Khalil , A.M. Chowdhury, Department of Electrical Engineering and Computer Science, North South University, Dhaka, BANGLADESHA.M. Chowdhury, G. Chang, School of Electrical and computer Engineering, Georgia Institute of Technology, Atlanta, GAM. Faruk, Department of Electrical and Electronic Engineering, Dhaka University of Engineering and Technology, Gazipur, BANGLADESH	ATh1C.2	264
Electronic Processing	Symbol spaced adaptive MIMO equalization for ultra high bit rate coherent optical communication	D. Sadot, A. Gorshtein, , Ben Gurion University of the Negev, Beer Sheva, ISRAELD. Sadot, A. Gorshtein, , Multiphy Ltd, Ness Ziona, ISRAEL	ATh1C.3	267
Electronic Processing	Experimental Demonstration of Digital Predistortion for Linearization of Mach-Zehnder Modulators in Direct-Detection MB-OFDM Ultra-Wideband over Fiber Systems	O. Omomukuyo, M.P. Thakur, J.E. Mitchell, Electronic and Electrical Engineering, University College London, London, UNITED KINGDOM	ATh1C.4	270
Electronic Processing	Improvement of Phase Noise Compensation for Direct-Detection Optical OFDM via Data-Aided Phase Equalizer	L. Liu, X. Yang, W. Hu, , Shanghai Jiao Tong University, Shanghai, CHINA	ATh1C.5	273
Electronic Processing	Comparison of CO-SCFDM and CO-OFDM with High-order QAM Mapping	J. Li, D. Li, P. Zhu, Y. He, Z. Chen, , Peking University, Beijing, Beijing, CHINA	ATh1C.6	276
Electronic Processing	Optimization of a Feedforward Symbol Timing Estimator Using Two Samples per Symbol for Optical Coherent QPSK Systems	W. Dawei, S. He, Optical Engineering, Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, CHINAA. Lau, Electrical Engineering, The Hong Kong Polytechnic University, KLN, HONG KONGC. Lu, Electronic and Information Engineering, The Hong Kong Polytechnic University, KLN, HONG KONG	ATh1C.7	278
Energy Efficiency in Optical Access Networks	Cognitive PONs: a Novel Approach Toward Energy Efficiency	L. Valcarenghi, , Scuola Superiore Sant Anna di Pisa, Pisa, PI, ITALY	ATh1D.1	281
Energy Efficiency in Optical Access Networks	Energy Star Rating for Future Telecom Services: Motivation, Methodologies and Challenges	C. Chan, E. Wong, A.F. Gygax, C.A. Leckie, A. Nirmalathas, , University of Melbourne, Melbourne, Victoria, AUSTRALIAD.C. Kilper, , Bell Labs, Alcatel Lucent, Holmdel, NJ	ATh1D.2	284

Energy Efficiency in Optical Access Networks	Investigating the Energy Savings of Cyclic Sleep with Service Guarantees in Long Reach PONs	L. Valcarenghi, , Scuola Superiore Sant Anna di Pisa, Pisa, PI, ITALYM. Chincoli, J. Chen, P. Monti, L. Wosinska, , KTH, Kista, SWEDEN	ATh1D.3	285
Energy Efficiency in Optical Access Networks	Energy-Efficient Dynamic Bandwidth Allocation Algorithm for Sleep/Doze Mode VCSEL-ONU	M. Dias, E. Wong, , National ICT Australia, Victoria Research Laboratory, Melbourne, Victoria, AUSTRALIAE. Wong, , Centre for Energy Efficient Telecommunications, Melbourne, Victoria, AUSTRALIA	ATh1D.4	288
Energy Efficiency in Optical Access Networks	Energy-Efficient Master-Slave Edge-Router Upgrade Paths in Active Remote Nodes of Next-Generation Optical Access	M.C. Parker, S.D. Walker, R. Martin, CSEE, University of Essex, Colchester, UNITED KINGDOMW. van Heddeghem, B. Lannoo, INTEC, IBBT - Ghent University, Gent, BELGIUM	ATh1D.5	291
Energy Efficiency in Optical Access Networks	A Novel Sleep Scheme for Optical Network Unit Based on Downstream Traffic Scheduling in EPON	L. Zhang, Y. Liu, L. Guo, X. Gong, , Northeastern University (China), ShenYang, LIaoning, CHINA	ATh1D.6	294
Fiber Amplifiers and Lasers	Photonic and Optoelectronic Applications of Carbon Nanotube and Graphene	S. Yamashita, Department of Electrical Engineering and Information Systems, The University of Tokyo, Tokyo, JAPAN	AS1A.1	297
Fiber Amplifiers and Lasers	Passively Q-switched erbium-doped fiber laser using a graphene saturable absorber	Z. Dong, H. LI, H. Xia, Y. Liu, , Univ of Electronic Science & Tech China, Chengdu, SICHUAN, CHINAZ. Wang, Y. Chen, , State Key Lab of ETFID, UESTC, Chengdu, CHINA	AS1A.2	300
Fiber Amplifiers and Lasers	Modeling of graphene-based passively Q-switched Tm3+-doped fiber laser	C. liu, C. Ye, Y. Zheng, Z. Liu, Z. Luo, H. Cheng, , Xiamen University, Xiamen, FuJian, CHINA	AS1A.3	303
Fiber Amplifiers and Lasers	Intermodal-beating mode-locking: toward higher-order harmonic mode-locking of Raman laser	Z. Luo, H. Cheng, H. Fu, C. Ye, H. Xu, Z. Cai, Department of Electronic Engineering, Xiamen University, Xiamen, FuJian, CHINA	AS1A.4	306
Fiber Amplifiers and Lasers	Generation of Efficient High-Energy Domain-Wall Pulse in a Long-Cavity Fiber Ring Laser	A. Luo, Z. Lin, P. Zhu, Z. Luo, W. Xu, School of Information and Optoelectronic Science and Engineering, South China Normal University, Guangzhou, Guangdong, CHINAX. Xing, MOE Key Laboratory of Laser Life Science & Institute of Laser Life Science, South China Normal University, Guangzhou, Guangdong, CHINA	AS1A.5	309
Fiber Amplifiers and Lasers	Numerical investigation of dissipative soliton generation in an all-fiber thulium-doped fiber ring laser	H. Xia, H. LI, X. Zhang, S. Zhang, X. Tang, Y. Liu, , Univ of Electronic Science & Tech China, Chengdu, SICHUAN, CHINA	AS1A.6	312
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Fiber Devices I	TBD	A.L. Gaeta, , Cornell University, Ithaca, NY	ATh4A.2	N/A
Fiber Devices I	A Fiber-Based Slow-Light Laser Radar (SLIDAR)	Z. Shi, A. Schweinsberg, J.E. Vornehm, R.W. Boyd, , University of Rochester, Rochester, NYR.W. Boyd, Dept. of Physics, University of Ottawa, Ottawa, Ontario, CANADA	ATh4A.3	319
Fiber Devices I	Efficiently Generation of Cascaded Fiber Four-Wave Mixing by Optical Feedback	X. Xiao, , Tsinghua University, Beijing, CHINA	ATh4A.4	322
Fiber Devices I	Electrically Tunable Delay for Trains of Optical Pulses	S. Tainta, M.J. Erro, M.J. Garde, , Universidad Publica de Navarra, Pamplona, SPAINM. Muriel, , Universidad Politécnica de Madrid, Madrid, SPAIN	ATh4A.5	325
Fiber Devices I	High-Degree Pulse Compression with a Convex Dispersion Profile	Q. Li, , Peking University Shenzhen Graduate School, Shenzhen, CHINAQ. Li, P. Wai, , The Hong Kong Polytechnic University, Kowloon, HONG KONGJ. Kutz, , University of Washington , Seattle, WA	ATh4A.6	328
Fiber Devices II	Nano-wire Fibers	L. Tong, , Zhejiang University, Hangzhou, CHINA	AS2A.1	N/A
Fiber Devices II	Photonic Crystal Fiber Devices	W. Jin, H.L. Ho, , Hong Kong Polytechnic University, Kowloon, HONG KONG	AS2A.2	332
Fiber Devices II	Cascaded Long-period Fiber Gratings on All-solid Photonic Bandgap Fiber	S. Li, Z. Wang, Y. Liu, B. Tai, T. Han, Z. Wu, Institute of Modern Optics, Nankai University, Tianjin, TianJin, CHINA	AS2A.3	333

Fiber Devices II	Magneto-optical Tunability of Microstructured Optical Fiber Filled with Ferrofluid	M. Yinping, , Nankai University, Nankai, TIANJIN , CHINA	AS2A.4	336
Fiber Devices II	Nonlinear-fiber-grating-pair based low-power all-optical switches	C. Li, Department of Physics, Harbin Institute of Technology, Harbin, Helojiang, CHINA	AS2A.5	339
Future Access Networks	China Telecom FTTH deployment - lessons learnt and future plans	B. Wang, , China Telecom, Beijing, CHINA	ATh3C.1	342
Future Access Networks	Next Generation PON offering 40G or more bandwidth	Y. Luo, X. Yan, F. Effenberger, , Huawei Technologies USA, Bridgewater, NJ	ATh3C.2	345
Future Access Networks	Wavelength-Offset Optical Filtering Induced Power Budget Improvements in End-to-End Real-Time Optical OFDM PON Systems	J. TANG, , Bangor University, Bangor, UNITED KINGDOM	ATh3C.3	348
Future Access Networks	Simultaneous Transmission of Baseband and UWB Signals in a WDM-PON Using Phase-Amplitude Hybrid Modulation	P. Cao, Z. Zhuang, X. Hu, L. Zhang, Y. Su, , Shanghai Jiao Tong University, Shanghai, SHANGHAI, CHINA	ATh3C.4	351
Future Access Networks	A Re-Modulation Scheme in WDM-PON based on FP-LD and RSOA Cascaded Structure	H. Feng, S. Xiao, P. Yang, Z. Zhou, J. Shi, , Shanghai Jiao Tong University, Shanghai, CHINA	ATh3C.5	354
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Future Transport Networks	Field Trial of Coherent Channel Tuning from Co-existing Channels Filling Full C-band Using 100GbE Transponder	Y. Aono, M. Sato, T. Tajima, Optical Network Division, NEC Corporation, Abiko, JAPANT.J. Xia, G.A. Wellbrock, , Verizon, Richardson, TXA. Tanaka, P.N. Ji, Y. Huang, M. Huang, E. Ip, T. Wang, , NEC Laboratories America, Princeton, NJ	ATh1H.2	360
Future Transport Networks	500-Gb/s Transmission by 41-GBd PDM-64QAM	W. Peng, , KDDI R&D Laboratories Inc., Fujimino-shi, saitama, JAPAN	ATh1H.3	363
Future Transport Networks	4×1.875-Tb/s transmission over 1280-km SSMF basing on superchannel coherent optical OFDM	X.Q. Zhang, M. Luo, Z. Yang, , WRI, Wuhan, HUBEI, CHINA	ATh1H.4	366
Future Transport Networks	New applications and evolution of optical transport network in China Mobile	L. Wang, , China Mobile, Hong Komg, CHINA	ATh1H.5	N/A
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III-V Semiconductor lasers	Direct Modulation of Deep-Submicron Slotted Single Mode FP Laser	D. Fan, L. Wang, T. Yu, L. Zou, J. He, Department of Optical Engineering, Zhejiang University, Hangzhou, Zhejiang, CHINA	AS4H.2	371
III-V Semiconductor lasers	Q-modulated distributed feedback laser with 28GHz 3dB bandwidth	L.H. Zhu, L. Wang, J. He, Department of Optical Engineering , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AS4H.3	374
III-V Semiconductor lasers	GaAs Based Gratingless Wavelength Tunable Semiconductor Laser	W. Wei, L. Wang, J. He, , State Key Laboratory of Modern Optical Instrumentation, Centre for Integrated Optoelectronics, Department of Optical Engineering Zhejiang University , HangZhou, CHINA	AS4H.4	377
III-V Semiconductor lasers	High power Bragg reflection waveguide diode lasers with twin near-circular emission spots	C. Tong, , Changchun Inst of Optic, Fine Mech & Phy, Changchun, JILIN, CHINA	AS4H.5	380
III-V Semiconductor lasers	Experimental Demonstration of Subnano-Second Wavelength Switching in V-Coupled-Cavity Semiconductor Laser	S. Guo, J. Meng, L. Wang, L. Zou, L.H. Zhu, J. He, Department of Optical Engineering, Zhejiang University, Hangzhou, CHINA	AS4H.6	383
III-V Semiconductor lasers	Analysis of Metal confined AlGaInAs/InP Microdisk lasers Laterally Coupled to Two Waveguides	L. Zou, J. Lin, X. Lv, H. LOng, Q. Yao, Y. Huang, Y. Du, , Institute of Microelectronics of CAS, Beijing, BEIJING, CHINA	AS4H.7	386
Innovative Subsystems	Cascadability of Silicon Microring Resonators for 40-Gbit/s OOK and DPSK Optical Signals	O. Ozolins, V. Bobrovs, G. Ivanovs, Telecommunications Institute, Riga Technical University, Riga 1658, LATVIAO. Ozolins, Y. An, Z. Lali-Dastjerdi, Y. Ding, C. Peucheret, Department of Photonics Engineering, Technical University of Denmark, 2800 Kgs. Lyngby, DENMARK	AS1G.1	390
Innovative Subsystems	Multiband Bandpass Microwave Photonic Filter By Utilizing Wide-band Optical Source Slicing	Y. Jiang, J. Xu, Z. Zhou, H. Li, S. Wang, , Guizhou University, Guiyang, GuiZhou, CHINA	AS1G.2	393

Innovative Subsystems	Next Generation ROADM Architectures	W.I. Way, R&D, NEOPhotonics Corp, San Jose, CA	AS1G.3	396
Innovative Subsystems	A Simple Photonic Method of Quasi-High-Order Ultra-Wideband Pulse Generation with Adjustable Shape	J. Liu, K. Zhu, C. Ye, Centre for Optical and Electromagnetic Research, State Key Laboratory of Modern Optical Instrumentation, Zhejiang University, Hangzhou, Zhejiang, CHINAH. Fu, Department of Electronic Engineering, Xiamen University, Xiamen, Fujian, CHINA	AS1G.4	399
Innovative Subsystems	RF-IF Downconversion and Linearization of an Analog Photonic Link Based on Digital Signal Post-Compensation	R. Shi, P. Li, M. Chen, S. Yang, H. Chen, S. Xie, Electronic Engineering, Tsinghua University, Beijing, Beijing, CHINA	AS1G.5	402
Innovative Subsystems	Generation Method of Optical 64QAM Signal Using Electrical Binary Drive Signals	H.Y. Choi, T. Tsuritani, I. Morita, , KDDI R&D Labs, Fujimino, SAITAMA, JAPAN	AS1G.6	405
LED Technologies and Applications	Smart Lighting - More that Illumination	R.F. Karlicek, Electrical, Computer and Systems Engineering, Rensselaer Polytechnic Institute, Troy, NY	ATh1F.1	408
LED Technologies and Applications	Study of Blue InGaN Multiple Quantum wells Light-emitting Diodes with P-type Quantum Barriers	C. LIU, T. Lu, Z. Ren, X. Chen, B. Zhao, Y. Yin, J. Tong, S. Li, , South China Normal University, G uangzhou, CHINA	ATh1F.2	410
LED Technologies and Applications	Performance Enhancement of InGaN/GaN LEDs by Using Localized Surface Plasmons: Problems and Possible Solutions	L. Jang, A.Y. Polyakov, I. Lee, , Chonbuk National University, Chonbuk, KOREA, REPUBLIC OFY. Cho, Department of Physics, KAIST, Daejeon, KOREA, REPUBLIC OF	ATh1F.4	413
Long Distance Transmission Systems	Ultra-high Capacity Optical Transmission Technologies for 100 Tb/s and Beyond	A. Sano, NTT Network Innovation Laboratories , NTT Corporation, Yokosuka, JAPAN	AS1C.1	N/A
Long Distance Transmission Systems	Analysis of Carrier Phase Extraction Methods in 112-Gbit/s NRZ-PDM-QPSK Coherent Transmission System	T. Xu, S. Popov, School of Information and Communication Technology, Royal Institute of Technology, Stockholm, SWEDENT. Xu, G. Jacobsen, J. Li, Netlab, Acreo AB, Stockholm, SWEDENY. Zhang, College of Precision Instrument and Opto-electronics Engineering, Tianjin University, Tianjin, CHINAS. Sergeyev, Aston Institute of Photonic Technologies, Aston University, Birmingham, UNITED KINGDOM	AS1C.2	415
Long Distance Transmission Systems	Influence of Digital Dispersion Equalization on Phase Noise Enhancement in Coherent Optical System	T. Xu, S. Popov, School of Information and Communication Technology, Royal Institute of Technology, Stockholm, SWEDENT. Xu, G. Jacobsen, J. Li, Netlab, Acreo AB, Stockholm, SWEDENY. Zhang, College of Precision Instrument and Opto-electronics Engineering, Tianjin University, Tianjin, CHINAS. Sergeyev, Aston Institute of Photonic Technologies, Aston University, Birmingham, UNITED KINGDOM	AS1C.3	418
Long Distance Transmission Systems	Low Complexity Blind Level Discrimination Carrier Phase Recovery Algorithm in Optical Coherent Receiver	M. Khalil , M.H. Adib, A.M. Chowdhury, Department of Electrical Engineering and Computer Science, North South University, Dhaka, BANGLADESHA.M. Chowdhury, G. Chang, School of Electrical and computer Engineering, Georgia Institute of Technology, Atlanta, GAM. Faruk, Department of Electrical and Electronic Engineering, Dhaka University of Engineering and Technology, Gazipur, BANGLADESH	AS1C.4	421
Long Distance Transmission Systems	Advanced DSP for optical transmission impairment mitigation	R. Killey, S. Kilmurray, P. Bayvel, , University College London, London, UNITED KINGDOM	AS1C.5	424
Micromanipulation and Cellular Microscopy	Shaped Light for Biophotonics	K. Dholakia, , University of St Andrews, St Andrews, UNITED KINGDOM	ATh1E.1	427
Micromanipulation and Cellular Microscopy	Optically Driven Micromachines	H. Rubinsztein-Dunlop, School of Math & Physics, University of Queensland, Brisbane, Queensland, AUSTRALIA	ATh1E.2	428

Micromanipulation and Cellular Microscopy	Manipulation of Cellular Calcium and Reactive Oxygen Species by a Femtosecond Laser	H. He, M. Hu, C. Wang, Ultrafast Laser Laboratory , Tianjin University, Tianjin, CHINA	ATh1E.3	429
Micromanipulation and Cellular Microscopy	The effect of calcium (Ca2+) induced externalization of ankyrin and phosphatidylserine on the viscoelasticity of human red blood cells measured by jumping optical tweezers	Y. Chen, Y. Ho, A. Chiou, Biophotonics, National Yang-Ming University, Taipei, TAIWANL. Sung, Department of Bioengineering and Institute of Engineering in Medicine, University of California, San Diego, CA	ATh1E.4	432
MIR Sensing	Mid-Infrared Semiconductor Laser Based Trace Gas Sensor Technologies: Recent Advances and Applications	F.K. Tittel, R. Lewicki, M. Jahjah, Y. Ma, P. Stefanski, , Rice University, Houston, TX	ATh4E.1	435
MIR Sensing	Recent Progress in Uncooled Photodetection of the Mid-infrared Radiation	J. Piotrowski, , VIGO System S.A., Ozarow, Mazowiecki, POLAND	ATh4E.2	436
MIR Sensing	Optimisation of Fabrication and Specification of Quantum Cascade Lasers for Spectroscopic Applications	A. Muller, , Alpes Lasers, Neuchatel, SWITZERLAND	ATh4E.3	N/A
MIR Sensing	4-11 µm Distributed Feedback Quantum Cascade Lasers for Environmental Monitoring, Industrial Process Control and Health Diagnostic Applications	C. Zah, F. Xie, C. Caneau, L.C. Hughes, H.P. LeBlanc, S. Coleman, M. Ho, , Corning Incorporated, Corning, NY	ATh4E.4	443
Nanoparticle-based Biophotonics	Upconverting Fluorescent Nanoparticles for Bioimaging and Therapy	Y. Zhang, W. Li, Bioengineering, National University of Singapore, Singapore, SINGAPOREY. Zhang, School of Medical Engineering, Hefei Univ. of Technology, Hefei, CHINA	AS3E.1	444
Nanoparticle-based Biophotonics	In vivo Luminescence Imaging and Tomography using Upconverting Nanoparticles as Contrast Agents	S. Andersson-Engels, H. Liu, C. Xu, P. Svenmarker, Department of Physics, Lund University, Lund, SWEDENA. Gisselsson, P. Kjellman, L. Andersson, R. in't Zandt, F. Olsson, S. Fredriksson, , Genovis AB, Lund, SWEDEN	AS3E.2	446
Nanoparticle-based Biophotonics	Multi-photon evanescent wave (MPEW) excited lanthanide-doped upconverting nanoparticles (UCNPs) for fast single particles tracking and live cell membrane imaging	Q. Zhan, S. He, ZJU-SCNU Joint Research Center of Photonics, South China Normal University, Guangzhou, Guangdong, CHINAQ. Zhan, H. Cheng, J. Qian, S. He, Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, Zhejiang, CHINA	AS3E.3	450
Nanoparticle-based Biophotonics	From Combinatorial Chemistry to Nanocarriers for Cancer Therapy and Imaging	K.S. Lam, Department of Biochemistry & Molecular Medicine, University of California Davis, Davis, CA	AS3E.4	453
Nanoparticle-based Biophotonics	Photosensitizer Encapsulated Organically Modified Silica (ORMOSIL) Nanoparticles for Tumor Diagnosis and Photodynamic Therapy	J. Qian, S. He, , Centre for Optical and Electromagnetic Research, Zhejiang Provincial Key Laboratory for Sensing Technologies, Hangzhou, zhejiang, CHINA	AS3E.5	454
Network Design and Energy Efficiency	Green optical networks: power savings vs. network performance	P. Monti, , The Royal Institute of Technology, Kista, SWEDEN	AS3D.1	N/A
Network Design and Energy Efficiency	Scalable Traffic Grooming in Optical Networks	H. Wang, Z. Liu, G.N. Rouskas, , North Carolina State University, Raleigh, NC	AS3D.2	458
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Network Design and Energy Efficiency	Optimal Design of Cost- and Energy-Efficient Scalable Passive Optical Backbone Networks	F. Abtahi, C. Cavdar, J. Chen, S. Khanmohamadi, L. Wosinska, Information and Communication Technology, The Royal Institute of Technology KTH, Stockholm, SWEDENG. Mantelet, É. Archambault, C. Tremblay, Department of Electrical Engineering, École de technologie supérieure (ÉTS), Montréal, Quebec, CANADAM. Bélanger, , Ciena Corp., Ottawa, Ontario, CANADAS. Khanmohamadi, , Ericsson AB, Stockholm, SWEDEN	AS3D.4	464

Network Survivability and Reconfiguration	Recent Advances in (Optical) Network Survivability	B. Mukherjee, F. Dikbiyik, , University of California Davis, Davis, CA	ATh4D.1	467
Network Survivability and Reconfiguration	Flow Availability in Two-Layer Networks with Dedicated Path Protection	J. Wu, , Communications Research Centre (CRC), Ottawa, Ontario, CANADAW. Ni, C. Huang, Department of Systems and Computer Engineering, Carleton University, Ottawa, Ontario, CANADA	ATh4D.2	469
Network Survivability and Reconfiguration	A Framework of All-optical Restoration via Monitoring Trails (m-trails)	P. Ho, , University of Waterloo, Waterloo, Ontario, CANADA	ATh4D.3	470
Network Survivability and Reconfiguration	Traffic Loss-Based Lightpath Reconfiguration in the Smart Grid Communication Network	H. Wang, W. Guo, W. Hu, State Key Lab of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, Shanghai, Shanghai, CHINA	ATh4D.4	471
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Novel Fibers and Fiber-based Devices	Progress in Bismuth-Doped Silica-Based Fiber Lasers and Amplifiers	E.M. Dianov, I.A. Bufetov, , Fiber Optics Research Center of RAS, Moscow, RUSSIAN FEDERATION	ATh3A.2	478
Novel Fibers and Fiber-based Devices	Nonlinear Polarization Rotation-based Linear Cavity Multi-wavelength Fiber Laser	H. Meng, W. Wei, W. Xiaowei, W. Wei, X. Rui, X. Hongchao, T. Chunhua, H. Xuguang, Laboratory of Nanophotonic Functional Materials and Devices, South China Normal University, G uangzhou, Guangdong, CHINA	ATh3A.3	481
Novel Fibers and Fiber-based Devices	Widely Tunable Multi-Wavelength Fiber Laser Based on Cascaded Stimulated Brillouin Scattering in a Compact Linear Cavity	S. Jiang, Y. Wei, S. Gao, , Zhejiang University, Hangzhou, ZheJiang, CHINA	ATh3A.4	484
Novel Fibers and Fiber-based Devices	Demonstration of a Wavelength Tunable Q-Switched Fiber Laser	M. Srivastava, D. Venkitesh, B. Srinivasan, Electrical Engineering, Indian Institute of Technology Madras, Chennai, INDIA	ATh3A.5	487
Novel Fibers I	Enhancing Optical Communications with New Generation Fibers	D.J. Richardson, , University of Southampton, Southampton, UNITED KINGDOM	ATh1A.1	490
Novel Fibers I	Bandwidth Measurement of Multimode Fibers Using Bit Error Rate Testing	X. Chen, J.E. Hurley, M. Li, , Corning Incorporated, Corning, NY	ATh1A.2	491
Novel Fibers II	Chalcogenide microstructured fibers for sensors and nonlinear applications	J. Troles, P. Toupin, , University of Rennes, Rennes, FRANCEL. Brilland, , PERFOS - Photonics Bretagne, Lannion, FRANCE	AF3A.1	494
Novel Fibers II	Hybrid fibers: multimaterial nanophotonic devices in fiber form	M. Schmidt, H. Lee, P. Uebel, N. Granzow, P. Russell, , Max Planck Institute for the Science of Light, Erlangen, GERMANY	AF3A.2	496
Novel Fibers II	Splicing Optical Microfibers via Polymer Nanowires	Z. Hu, L. Tong, , Zhejiang University, Hangzhou, Zhejiang, CHINA	AF3A.3	499
Novel Fibers II	Simple Technique for Measuring Cut-Off Wavelength of Multi-Core Fiber (MCF) and Its Definition	M. Ohashi, Y. Miyoshi, , Osaka Prefecture University, Sakai, Osaka, JAPANK. Takenaga, S. Matsuo, , Fujikura Ltd., Sakura, Chiba, JAPAN	AF3A.4	501
Novel Fibers II	Design of Two-Core Photonic Crystal Fiber to Eliminate Intermodal Dispersion	M. Liu, , Chongqing University, Chongqing , CHINAK.S. Chiang, , City University of Hong Kong, Hong Kong, CHINA	AF3A.5	504
Novel Fibers II	Suspended hollow core fiber for terahertz wave guiding	X. Jiang, D. Chen, G. Hu, , Zhejiang Normal University, Jinhua, ZheJiang, CHINAX. Jiang, D. Chen, G. Hu, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang Normal University, Jinhua, Zhejiang, CHINA	AF3A.6	507
Novel Optical Materials I	White House Material Genome Initiative (MGI), and Electronic, Electro-Optic and Magnetic Materials	J.J. Chang, , Lawrence Livermore National Laboratory, Livermore, CA	ATh1G.1	N/A

Novel Optical Materials I	Nanophotonics for Organic Material Sensing	B. Lahiri, G. Sharp, N.P. Johnson, , University of Glasgow , Glasgow, UNITED KINGDOMR. De La Rue, S. McMeekin, , NIST, Gaithersburg, MD	ATh1G.2	511
Novel Optical Materials I	Tunable Metamaterials	D.N. Neshev, , Australian National University, Canberra, Australian Capital Territory, AUSTRALIA	ATh1G.3	512
Novel Optical Materials I	On Enhancement of Absorption and Fluorescence within Metal Nanostructures	J. Li, T. Guang, W. Chen, Z. Sun, Department of Physics, Xiamen University, Xiamen, FuJian, CHINA	ATh1G.4	513
Novel Optical Materials II	Advanced Photonics Materials with AIE Feature	B. Tang, Department of Chemistry, Institute for Advanced Study, State Key Laboratory of Molecular Neuroscience, Institute of Molecular Functional Materials and Division of Biomedical Engineering, The Hong Kong University of Science and Technology, Hong Kong, HONG KONG	ATh2G.1	516
Novel Optical Materials II	Plasmonic- and Blue-Phase Liquid Crystalline Photonics Materials	I. Khoo, , Pennsylvania State University, University Park, PA	ATh2G.2	519
Novel Optical Materials II	Towards the development of polymer optical interconnection systems	T. Kaino, O. Sugihara, , Tohoku Universty, Sendai, JAPAN	ATh2G.3	521
Novel Optical Materials II	Enhanced two-photon photoluminescence of light emitting polymers from a resonant waveguide grating structure	C. Hsu, J.H. Lin, Y. Lin, H. Kan, Department of Physics, National Chung Cheng University, Chia Yi, TAIWANC. Lee, Institute of Microelectronics, Department of Electrical Engineering, National Cheng Kung University, Tainan, TAIWANC. Hsu, Graduate Institute of Opto-Mechatronics, National Chung Cheng University, Chia Yi, TAIWAN	ATh2G.4	523
Novel Solar Technologies	III-Nitride Based Solar Hydrogen	H. Jiang, , Texas Tech University, Lubbock, TX	ATh3F.1	N/A
Novel Solar Technologies	Metamaterial-plasmonic Ultra-thin Absorbers for Thin Film Solar Cells	Y. Wang, South China Academy of Advanced optoelectronics, South China Normal University, Guangzhou, Guangdong, CHINAZ. Ren, K. Kempa, Physics, Boston College, Chestnut Hill, MA	ATh3F.2	527
Novel Solar Technologies	Bonded Multijunction Photovoltaics to Improve Efficiency and Performance	J.E. Bowers, , Stanford University, Stanford, CA	ATh3F.3	N/A
Novel Solar Technologies	Efficient Polymer Solar Cells with an Power Conversion Efficiency Over 9%	H. Wu, Z. He, C. Zhong, S. Su, M. Xu, Y. Cao, Institute of Polymer Optoelectronic Materials and Devices, State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou, CHINA	ATh3F.4	531
Optical Access Networks I	Complete cost analysis of Hybrid PON architectures for Next Generation Optical Access Networks	C. Mas Machuca, , Technische Univ. Munchen, Munich, GERMANY	ATh3D.1	532
Optical Access Networks I	Architectural Solutions for Open Access in Next-generation Passive Optical Networks (NG-PONs)	B. Lannoo, A. Dixit, D. Colle, M. Pickavet, , INTEC Univ. of Gent, Gent, BELGIUM	ATh3D.2	533
Optical Access Networks I	The Design Predictability Concern in Optical Network-on-Chip Design	L. Ramini, D. Bertozzi, Engineering Department, Engineering Department of Ferrara, Ferrara, ITALY	ATh3D.3	534
Optical Access Networks I	An MAC Protocol with High Throughput and Low Packet Delay for OFDMA PONs	W. You, L. Yi, W. Guo, W. Hu, State Key Lab of Advanced Optical Communication System and Networks,Department of Electronic Engineering, Shanghai Jiao Tong University, Shanghai, Shanghai, CHINA	ATh3D.4	537
Optical Access Networks I	100-Gb/s Multi-band OFDM-PON Based on Polarization Interleaving and Direct Detection	B. Lin, J. Li, H. Yang, Y. Wan, Y. Luo, P. Zhang, Y. He, Z. Chen, , Peking University, Beijing, Beijing, CHINA	ATh3D.5	540
Optical Access Networks II	Adjustable Gain-Clamped Semiconductor Optical Amplifiers (AGC-SOA)	C. Michie, L. Liu, I. Andonovic, , University of Strathclyde, Glasgow, UNITED KINGDOMT. Kelly, , University of Glasgow, Glasgow, UNITED KINGDOM	AS1D.1	543
Optical Access Networks II	Reducing the impact of failures in Next-Generation Optical Access Networks	J. Chen, , KTH, Kista, SWEDEN	AS1D.2	544

Optical Access Networks II	An Efficiency-Improved MAC Protocol for Asynchronous ONUs in OFDMA PONs	L. Liu, X. Yang, W. Hu, , Shanghai Jiao Tong University, Shanghai, CHINA	AS1D.3	547
Optical Access Networks II	Delivery of VoD services on PONs using Local Storages: Analysis of QoS	S. Abeywickrama, E. Wong, , National ICT Australia, Melbourne, Victoria, AUSTRALIAE. Wong, , Centre for Energy-Efficient Telecommunications, Melbourne, Victoria, AUSTRALIA	AS1D.4	550
Optical Access Networks II	Optimizing Backup Resource Configuration in Survivable Fiber-Wireless Access Network Considering Failure Probability	Y. Liu, L. Guo, L. Zhang, , Northeastern University (China), ShenYang, LIaoning, CHINA	AS1D.5	553
Optical and Radio-over-Fiber Transmission	Advanced performance measurements using 40G coherent systems	C. Tremblay, A. Cassidy, A. Mortelette, , Ecole de technologie superieure, Montreal, Quebec, CANADAA. Cassidy, M. Lyonnais, M. Bélanger, , Ciena Corp., Ottawa, Ontario, CANADAT. Tam, , CANARIE, Ottawa, Ontario, CANADA	AS3A.1	N/A
Optical and Radio-over-Fiber Transmission	Hybrid Multidimensional Dynamic Optical Networking Based on Adaptive LDPC-Coded Mode-Multiplexed CO-OFDM	I.B. Djordjevic, D. Zou, ECE Dept., College of Engineering, University of Arizona, Tucson, AZI.B. Djordjevic, M. Cvijetic, College of Optical Sciences, University of Arizona, Tucson, AZ	AS3A.2	557
Optical and Radio-over-Fiber Transmission	High Performance Fiber-Radio Link: Digitized Radio-over-Fiber Transport	C. Lim, , University of Melbourne, Melbourne, Victoria, AUSTRALIA	AS3A.3	561
Optical and Radio-over-Fiber Transmission	Engineering 400G in Metro/Regional Networks	R. Younce, J. Larikova, Y. Wang, , Tellabs, Naperville, IL	AS3A.4	564
Optical and Radio-over-Fiber Transmission	Long Term Monitoring of Chromatic Dispersion Fluctuations in a Buried Fiber Cable in a Tropical Climate	K.H. Fong, Z. Lambak, K. Khairi, M. Abdul Rahman, Z. Hamzah, M. Abdan, , Telekom Research & Development Sdn Bhd, Kuala Lumpur, Wilayah Persekutuan, MALAYSIA	AS3A.5	567
Optical OFDM	Real-Time Optical OFDM and Colorless OOFDMA PONs	J. TANG, R.P. Giddings, E. Hugues-Salas, Y. Hong, , Bangor University, Bangor, UNITED KINGDOM	AS4G.1	570
Optical OFDM	OFDM-based high spectral efficiency transmission	X. Liu, S. Chandrasekhar, , Alcatel-Lucent, Holmdel, NJ	AS4G.2	571
Optical OFDM	A time-domain channel estimation algorithm for CO-OFDM	X. Fang, C. Yang, F. Zhang, , Peking University, Beijing, CHINA	AS4G.3	575
Optical OFDM	Multi-channel equalization of OFDM signal	T. Zeng, Q. Yang, X. Xiao, C. Li, Z. Yang, S. Yu, , Wuhan Research Inst of Post & Telecom, wuhan, CHINA	AS4G.4	578
Optical Processing I	Optical Signal Processing for Multi-Level Modulation Formats	J. Wang, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, Hubei, CHINA	AS2G.1	581
Optical Processing I	90-Tone Stable Optical Frequency Comb Generation Using a Recirculating Frequency Shifter	Y. Yu, C. Lei, M. Chen, H. Chen, S. Yang, S. Xie, Department of Electronic Engineering, Tsinghua University, Beijing, CHINAS. Wu, Key Laboratory of Special Fiber Optics and Optical Access Network, Shanghai University, Shanghai, CHINA	AS2G.2	584
Optical Processing I	Experimental Observation of Quantum Talbot Effects	X. Zhang, Physics, Beijing Institute of Technology, B eijing, CHINA	AS2G.3	587
Optical Processing I	High-Speed Optical Signal Processing for Terabit/Second Optical Networks	X. Wu, , JDSU, Milpitas, CA	AS2G.4	590
Optical Processing I	100-GHz All-optical Clock Recovery with Fabry-Perot Cavity and Semiconductor Optical Amplifier	L. Huo, D. Wang, Q. Wang, C. Lou, , Tsinghua University, Beijing, BEIJING, CHINA	AS2G.5	593
Optical Processing II	Phase-sensitive Fiber-optic Parametric Amplifiers and Their Applications	P.A. Andrekson, , Chalmers Tekniska Hogskola, Gothenburg SE, SWEDEN	AS3G.1	596
Optical Processing II	A Scheme of Advanced Modulation Formats Generation Based on XPM in SOA-MZI	Y. Zhan, M. Zhang, M. Liu, L. Liu, X. Chen, , State Key Lab. of Information Photonics and Optical Communications (Beijing Univ. of Posts & Telecom.), Beijing, CHINA	AS3G.2	599

Optical Processing II	All-Optical Simultaneous 160-Gbit/s Data Selector and Fredkin Gate Using Twin Four-Wave Mixing Processes in Si-nc Slot Waveguides	C. Gui, J. Wang, C. Xiang, Y. Liu, S. Li, , Wuhan National Laboratory for Optoelectr, Wuhan, CHINA	AS3G.3	602
Optical Processing II	A phase stabilized quadruple OTDM multiplier for RZ/CS-RZ optical clock with an optical bandpass filter	M. Otsuki, R. Takama, H. Toda, , Doshisha University, Kyotanabe, KYOTO, JAPAN	AS3G.4	605
Optical Sensors	Smart Sensors: Trends, Opportunities and Challenges for the Future	K. Karakaya, , IMEC/Holst Centre, Eindhoven, NETHERLANDS	ATh2H.1	608
Optical Sensors	Trace Gas Sensors Based on TDLAS and Their Application	X. Gao, W. Lei, T. Tu, L. Kun, Y. Hongming, W. Guishi, , Anhui Institute of Optics & Fine Mechanics, Chinese Academy of Sciences, Anhui, CHINAC. Weidong, Laboratoire de Physicochimie del' Atmosphere, Université du Littoral Côte d'Opale, Dunkerque, FRANCE	ATh2H.2	609
Optical Sensors	Porous ceramic based multi-pass gas cell studies using absorption spectroscopy	Y. Fu, L. Yang, C. Yan, , Zhejiang Provincial Key Laboratory for Sensing Technologies, Centre for Optical and Electromagnetic Research, JORCEP [KTH-LU-ZJU Joint Research Center of Photonics], Zhejiang University, Hangzhou, CHINA	ATh2H.3	610
Optical Sensors	Application of scattering porous materials as multipass gas cells in multimode diode laser correlation spectroscopy	X. Lou, , Harbin Institute of Technology, Harbin, HeiLongJiang, CHINAX. Lou, C. Xu, G. Somesfalean, S.R. Svanberg, , Lund University, Lund, SWEDEN	ATh2H.4	613
Optical Sensors and Trace Gas Sensing	From gases in glass to ultra-high temperature stable optical fibre grating sensors	J. Canning, iPL, The University of Sydney, Camperdown, Sydney, New South Wales, AUSTRALIA	AS1E.1	616
Optical Sensors and Trace Gas Sensing	Development of Nano-Strain-Resolution Fiber Optic Static Strain Sensor for Crustal Deformation Monitoring	Z. He, Q. Liu, State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, Shanghai, CHINAZ. He, Q. Liu, Department of Electrical Engineering and Information Systems, University of Tokyo, Tokyo, JAPANT. Tokunaga, Department of Environment Systems, University of Tokyo, Tokyo, JAPAN	AS1E.2	618
Optical Sensors and Trace Gas Sensing	Applications of MIR-Laser Systems for Plasma Diagnostics and Trace Gas Detection in Basic Research and Industry	J. Röpcke, Plasma Diagnostics, INP Greifswald, Greifswald, MV, GERMANY	AS1E.3	621
Optical Sensors and Trace Gas Sensing	Power-referenced and self-calibrated PM-FBG vibroscope	L. Shang, T. Guo, F. Liu, F. Du, Z. Zhang, B. Guan, Institute of Photonics Technology, Jinan University, Guangzhou, Guangdong, CHINAH. Tam, Photonics Research Center, Department of Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, HONG KONGJ. Albert, Department of Electronics, Carleton University, Ottawa, Ontario, CANADA	AS1E.4	624
Optical Sensors and Trace Gas Sensing	Optical Porosimetry in Wood Using Oxygen Absorption Spectroscopy and Frequency Domain Photon Migration	L. Mei, J. Larsson, S.R. Svanberg, G. Somesfalean, Physics Department, Lund University, Lund, SWEDENL. Mei, Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, CHINAG. Somesfalean, Joint Research Center of Photonics, Zhejiang University-Royal Institute of Technology-Lund University, Zhejiang University, Hangzhou, CHINAS.R. Svanberg, Centre for Optical and Electromagnetic Research, South China Normal University, Guangzhou, CHINA	AS1E.5	626
Optical Transport Networks	Service-aware transport networks	H. Xu, , Xiamen University, Fujian, CHINA	AS2D.1	N/A

Optical Transport Networks	On Cost Optimized Routing for Scheduled Traffic in Multi-layer Optical Transport Networks	H. Ding, State Key Lab. of Information Photonics and Optical Communication, Beijing University of Post and Telecommunications, Beijing, Beijing, CHINAH. Ding, B. Ramamurthy, P. Yi, Computer Science and Engineering, University of Nebraska Lincoln, Lincoln, NE	AS2D.2	633
Optical Transport Networks	Light-Tree Establishment for Optical Multicasting in Flexible Optical WDM (FWDM) Networks	A. Patel, P.N. Ji, T. Wang, Optical Networking, NEC Laboratories of America, Inc., Princeton, NJJ.P. Jue, , The University of Texas at Dallas, Richardson, TX	AS2D.3	636
Optical Transport Networks	Quasi-Scheduled Optical Path Routing and Wavelength Assignment That Uses Expected Traffic Variation	N. Osawa, H. Hasegawa, K. Sato, , Nagoya university, Nagoya, JAPAN	AS2D.4	639
Performance Monitoring	Polarization dependent loss and polarization mode dispersion in coherent polarization multiplexed transmission	M. Shtaif, A. Andrusier, School of Electrical Engineering, Tel Aviv University, Tel Aviv, ISRAEL	AF3G.1	643
Performance Monitoring	Quality Metrics in Optical Modulation Analysis: EVM and its relation to Q-factor, OSNR, and BER	B. Nebendahl, , Agilent Technologies, Boeblingen, GERMANYR. Schmogrow, A. Josten, D. Hillerkuss, S. Koenig, M. Winter, W. Freude, C. Koos, J. Leuthold, Institute of Photonics and Quantum Electronics, Karlsruhe Institute of Technology , Karlsruhe, GERMANYW. Freude, C. Koos, J. Leuthold, Institute of Microstructure Technology, Karlsruhe Institute of Technology , Karlsruhe, GERMANYJ. Meyer, M. Dreschmann, M. Huebener, Institue of Information Processing, Karlsruhe Institute of Technology , Karlsruhe, GERMANYT. Dennis, , National Institute of Standards and Technology, Boulder, COM. Winter, , Polytec, Waldbronn, GERMANYM. Huebener, Embedded Systems in Information Technology, Ruhr-University, Bochum, GERMANY	AF3G.2	645
Performance Monitoring	Optical Performance Monitoring: from direct detection to coherent optical communication systems	C. Lu, 1The Photonics Research Center, Dept. of Electronic and Information Engineering, Hong Kong Polytechnic University, Hung Hom, HONG KONGA. Pak Tao Lau, Q. Sui, Z. Dong, 2The Photonics Research Center, Dept. of Electrical Engineering, Hong Kong Polytechnic University, Hung Hom, HONG KONGF. Khan, School of Electrical and Electronic Engineering, Universiti Sains Malaysia, Penang, MALAYSIA	AF3G.3	648
Performance Monitoring	Accurate BER Estimation for Coherent Optical Transmission Systems	A. Peracchi, R. Corsini, E. Ciaramella, , Scuola Superiore Sant'Anna, Pisa, ITALY	AF3G.4	649
Performance Monitoring	Non-line-of-sight Ultraviolet Channel Parameters Estimation in Turbulence Atmosphere	H. Xiao, Y. Zuo, C. Fan, C. Wu, J. Wu, , Beijing Univ of Posts & Telecom, Beijing, CHINA	AF3G.5	652
Photonic Integrated Circuits	Modeling and design of high density photonic integrated circuits	W. Huang, , McMaster University, Hamilton, Ontario, CANADA	AS4B.1	N/A
Photonic Integrated Circuits	Ultracompact Channel Drop Filters Based on Waveguide Cavities	P. Yu, T. Hu, C. Qiu, H. Qiu, A. Shen, X. Jiang, J. Yang, Department of Information Science and Electronics Engineering & Cyrus Tang Center for Sensor Materials and Applications, Zhejiang University, Hangzhou, ZheJiang, CHINA	AS4B.2	656
Photonic Integrated Circuits	Design and fabrication of low-refractive-index polymeric photonic crystal nanobeam structures	Z. Meng, Y. Hu, School of Physics and Optoelectronic Engineering, Guangdong University of Technology, Guangzhou, Guangdong, CHINAZ. Meng, Z. Li, Laboratory of Optical Physics, Institute of Physics,Chinese Academy of Sciences, Beijing, Beijing, CHINA	AS4B.3	659

Photonic Integrated Circuits	Polymer Based Hybrid Integrated Coherent Receiver for Next Generation Optical Access Networks	A. Theurer, R. Seidel, R. Ziegler, A. Matiss, A.G. Steffan, , u2t Photonics AG, Berlin, 10553, GERMANYC. Zawadzki, Z. Zhang, N. Keil, , Institute for Telecommunications, Heinrich Hertz Institute, Berlin, 10587, GERMANY	AS4B.4	662
Photonic Integrated Circuits	Polarization-Independent Variable Optical Attenuator Employing Dye-Doped (Polymer/Liquid-Crystal) Composite Film for 1.5-µm Optical Fiber Communication	S. Fukushima, K. Yoshinaga, T. Hachino, Y. Igarashi, , Kagoshima University, Kagoshima City, KAGOSHIMA, JAPANS. Noguchi, H. Higuchi, H. Kikuchi, , Kyushu University, Kasuga City, Fukuoka, JAPAN	AS4B.5	665
Photosensitive and Photomobile Materials	Photomobile Materials: Structures and Functions	T. Ikeda, , Tokyo Institute of Technology, Tokyo, JAPAN	ATh3G.1	668
Photosensitive and Photomobile Materials	Azo dye doped liquid crystals: Physics and applications	A.Y. Fuh, K. Cheng, Department of Physics, National Cheng Kung University, Taiwan, TAIWANA.Y. Fuh, Institute of Electro-optical Science and Engineering, National Cheng Kung University, Taiwan, TAIWANT. Lin, Department of Photonics, National Sun Yat-Sen University, Tainan, TAIWAN	ATh3G.2	669
Photosensitive and Photomobile Materials	Active Plasmonic: from Random to Periodic	C. Umeton, L. De Sio, R. Caputo, U. Cataldi, L. Pezzi, LICRYL Center of Excellence CEMIF.CAL and Department of Physics, Universita della Calabria, Calabria, ITALY	ATh3G.3	670
Photosensitive and Photomobile Materials	Analytical engineering of index maps for the design of all-dielectric metametarials	E. CASSAN, K. Do, , Institut d'Electron Fondam (Univ. PSud), Orsay, FRANCE	ATh3G.4	671
Physics and Devices for High Efficiency LEDs	Physics of High-Efficiency III-Nitride Quantum Wells Light-Emitting Diodes	N. Tansu, J. Zhang, G. Liu, C. Tan, P. Zhu, , Lehigh University, Bethlehem, PAH. Zhao, Department of Electrical Engineering and Computer Sciences, Case Western Reserve University, Cleveland, OH	AS3F.1	673
Physics and Devices for High Efficiency LEDs	Simulation and Design of High Efficient LED	C. Xu, B. Mayank, R. Scarmozzino, Optical Solution Group, Synopsys, Inc., Ossining, NY	AS3F.2	674
Physics and Devices for High Efficiency LEDs	Influence of the P-doping Distribution in GaN Barriers on the Performance of Blue Light-Emitting Diodes	C. LIU, T. Lu, Z. Ren, X. Chen, B. Zhao, Y. Yin, J. Tong, S. Li, , South China Normal University, G uangzhou, CHINA	AS3F.3	675
Physics and Devices for High Efficiency LEDs	Improvement in efficiency droop of GaN-based light-emitting diodes by optimization of active regions	H. Kuo, D. Lin, W. Chao-Hsun, S. Chang, C. Chiu, Y. Lan, Z. Li, J. Li, T. Lu, S. Wang, Department of Photonics and Institute of Electro-Optical Engineering, National Chiao Tung University, Hsinchu, TAIWAN	AS3F.4	678
Physics and Devices for High Efficiency LEDs	Droop Improvement in Blue InGaN Light Emitting Diodes with AlGaN/InGaN Superlattice Barriers	J. Tong, S. Li, Institute of Opto-electronic Materials and Technology, South China Normal University, Guangzhou,, CHINA	AS3F.5	681
Plasmonic and Nonlinear Effects I	Deep-subwavelength Integrated Optoelectronics	X. Yin, R. Ma, M. Liu, E. Ulin-Avila, R. Oulton, V. Sorger, T. Zentgraf, X. Zhang, , University of California Berkeley, Berkeley, CA	AS1B.1	684
Plasmonic and Nonlinear Effects I	Metallodielectric Hybrid Optical Antennas for Ultrabright and Directional Single Photon Emission	X. Chen, V. Sandoghdar, , Max-Planck-Inst Physik des Lichts, Erlangen, GERMANYX. Chen, V. Sandoghdar, Department of Physics, Friedrich-Alexander University Erlangen-Nürnberg, Erlangen, GERMANYM. Agio, , National Institute of Optics (INO-CNR) and European Laboratory for Nonlinear Spectroscopy (LENS), Sesto Fiorentino, ITALY	AS1B.2	685

Plasmonic and Nonlinear Effects I	Linear and Nonlinear Optical Absorption of on-chip Silicon-on-insulator Nanowires with Graphene	L. Yu, Y. Shi, D. Dai, Centre for Optical and Electromagnetic Research, State Key Laboratory for Modern Optical Instrumentation, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Hangzhou, ZHEJIANG, CHINAY. Xu, Department of Information Science and Electronic Engineering, Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AS1B.3	688
Plasmonic and Nonlinear Effects I	Directed optical half-adder based on microring-resonator-based optical switches	Y. Tian, Chinese Academy of Sciences, Institute of Semiconductors, Beijing, BEIJING, CHINA	AS1B.4	691
Plasmonic and Nonlinear Effects I	ALL-OPTICAL MEMBRANE INP SWITCH ON SILICON FOR ACCESS APPLICATIONS	M. Tassaert, G. Roelkens, INTEC, Universiteit Gent, Ghent, BELGIUMO. Raz, G. Roelkens, H. Dorren, ECO, Eindhoven University of Technology, Eindhoven, NETHERLANDS	AS1B.5	693
Plasmonic and Nonlinear Effects I	Dual-band Metamaterial Absorber based on Asymmetrical Snowflake-Shaped Resonators	H. Sun, G. Wen, Y. Huang, J. Zhong, School of Communication and Information Engineering, Univ of Electronic Science & Tech China, Chengdu, SICHUAN, CHINAW. Zhu, Department of Electrical and Computer Systems Engineering, Monash University, Clayton, Victoria, AUSTRALIA	AS1B.6	696
Plasmonic and Nonlinear Effects II	Single-particle Plasmon-resonance Spectroscopy and Transformation Optics Applications in Nanoplasmonics	D. Lei, Physics Department, Imperial College London, London, UNITED KINGDOMD. Lei, Applied Physics Department, The Hong Kong Polytechnic University, Hong Kong, CHINA	AS2B.1	N/A
Plasmonic and Nonlinear Effects II	Frequency-Domain Analysis of High-Speed All-Optical SOA-based Turbo-Switches	G. Wang, C. Wu, X. Yang, W. Hu, , Shanghai Jiao Tong University, Shanghai, CHINA	AS2B.2	700
Plasmonic and Nonlinear Effects II	All Optical Format Conversion from 16QAM to QPSK Based on Four-Wave Mixing in Semiconductor Optical Amplifier	Y. Zhan, M. Zhang, M. Liu, L. Liu, X. Chen, , State Key Lab. of Information Photonics and Optical Communications (Beijing Univ. of Posts & Telecom.), Beijing, CHINA	AS2B.3	703
Plasmonic and Nonlinear Effects II	Optical bistability of a high-Q race-track-resonator based on air-cladded SU-8 optical ridge waveguides	L. Jin, X. Fu, B. Yang, L. Yang, Y. Shi, D. Dai,	AS2B.4	706
Plasmonic and Nonlinear Effects II	Thermal Analysis and Design Optimization of SOI-Integrated Microdisk Lasers	Z. Wang, Z. Sheng, H. Li, C. Qiu, A. Wu, X. Wang, S. Zou, F. Gan, State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, Shanghai, CHINA	AS2B.5	709
Plasmonic and Nonlinear Effects II	Propagation Characteristics of LN Photonic Wires	E. Saitoh, K. Saitoh, M. Koshiba, , Hokkaido University, Sapporo, HOKKAIDO, JAPAN	AS2B.6	712
Plasmonic Nanostructures	Plasmonic Nanostructures: Tailoring Light-matter Interaction	S. Xiao, , DTU Fotonik, Copenhagen, DENMARK	AS2H.1	715
Plasmonic Nanostructures	Photonic devices based on silicon hybrid plasmonic waveguides	F. Lou, L. Thylen, L. Wosinski, , Royal Institute of Technology, S tockholm, SWEDENZ. Wang, , Ghent University, Ghent, BELGIUMD. Dai, , Joint research Center of Photonics of the Royal Institute of Technology (KTH) and Zhejiang University, Hangzhou, CHINAD. Dai, L. Thylen, L. Wosinski, , Zhejiang University, Hangzhou, CHINA	AS2H.2	716
Plasmonic Nanostructures	Novel silicon hybrid plasmonic waveguide with an inverted metal nano-rib for a nanoscale light confinement	Q. Huang, F. Bao, Y. Shi, D. Dai, S. He, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AS2H.3	719

Plasmonic Nanostructures	Ultrasmall Directional Coupler and Disk-resonantor Based on Nano-scale Silicon Hybrid Plasmonic Waveguides	X. Guan, P. Chen, X. Wang, Y. Shi, D. Dai, , Centre for Optical and Electromagnetic Research, State Key Laboratory for Modern Optical Instrumentation, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Hangzhou, Zhejiang, CHINAL. Wosinski, Y. Shi, D. Dai, , JORCEP (Joint Research Center of Photonics of the Royal Institute of Technology (KTH) and Zhejiang University), Hangzhou, Zhejiang, CHINAL. Wosinski, , Laboratory of Photonics and Microwave Engineering, Royal Institute of Technology (KTH), Kista, SWEDEN	AS2H.4	722
Plasmonic Nanostructures	Manipulating Light Scattering with Plasmonic Nanostructures	W. Park, Electrical, Computer & Energy Engineering, University of Colorado, Boulder, CO	AS2H.5	725
PON	Uncooled Dense WDM	I.H. White, J.D. Ingham, S.H. Lee, R.V. Penty, , University of Cambridge, Cambridge, UNITED KINGDOM	AF3C.1	726
PON	FPGA Implementaion of FEC for 10G-EPON	X. Li, Y. Cao, X. Chen, Information Photonics and Optical Communications, Beijing University of Posts and Telecommunications, Beijing, CHINAW. Gao, , GW Delight Technology Co. Ltd, Beijing, CHINA	AF3C.2	729
PON	An Improved FEC Scheme for 10G EPON Based on Channel Adaptation	Y. Cao, X. Chen, X. Li, State Key Laboratory of Information Photonics and Optical Communication, Beijing University of Posts and Telecommunications, Beijing, Beijing, CHINA	AF3C.3	732
PON	Recent Progress in Coherent WDM PON Technology	Y.C. Chung, , KAIST, Daejeon, KOREA, REPUBLIC OF	AF3C.4	735
PON	10-Gbps RSOA-Based Upstream Transmission in WDM-PON with MZI-based Equalizers	T. SU, , State Key Laboratory of IPOC, BUPT, BEIJING, BEIJING, CHINA	AF3C.5	737
PON	10Gbit/s Full-duplex Bidirectional RSOA-based WDM PON using Mach-Zehnder Interferometer and Forward Error Correction	H. Weiping, Beijing University of Posts and Telecommunications, State Key Lab of IPOC(BUPT), Beijing, China/Beijing, CHINA	AF3C.6	740
Poster Session I	Hybrid-Integrated Coherent Receiver Using Chip-to-Chip Bonding Technology	J. Kim, J. Choe, K. Choi, C. Youn, D. Kim, Y. Kwon, E. Nam, Photonics/Wireless Convergence Components Research, ETRI, Daejeon, KOREA, REPUBLIC OF	AF4A.1	743
Poster Session I	Add-Drop Filter with Asymmetric Vertical Gratings in Silicon-on-Insulator Rib Waveguides	Q. huiye, T. Hu, P. Yu, J. Yang, X. Jiang, Information Science and Electronics Engineering, zhejiang university, Hanghzou, Zhejiang, CHINAQ. huiye, Physics and Mechanical & Electrical Engineering, longyan university, longyan, Fujian, CHINA	AF4A.10	747
Poster Session I	Passivated Lead selenide Quantum Dots for Infrared Rradiation Detection	A. Rostami, M. Dolatyari, M. Mahmudi, H. Baghban, H. Rasooli, School of Engineering-Emerging Technologies, University of Tabriz, Tabriz, IRAN, ISLAMIC REPUBLIC OFA. Rostami, Photonics and Nanocrystal Research Lab. (PNRL), Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, IRAN, ISLAMIC REPUBLIC OF	AF4A.11	750
Poster Session I	Bandgap Engineering of InGaAsP/InP Laser Structure by Argon Plasma Induced Point Defects	M. Kaleem, X. Zhang, J. He, Optical Engineering, Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4A.12	753
Poster Session I	A compact triplexer using grating-assisted multimode interference coupler based on silicon nanowire waveguide	W. Ling, C. Qiu, H. Li, Z. Sheng, A. Wu, X. Wang, S. Zou, F. Gan, State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, Shanghai, CHINA	AF4A.13	756

Poster Session I	Design of a Hybrid Slot Plasmonic Waveguide with Nanoscale Light Confinement and Its Application for Ultrafast All-Optical Switching	Z. Zhang, J. Wang, C. Xiang, C. Gui, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, Hubei, CHINA	AF4A.14	759
Poster Session I	Full-Vectorial Analysis of Bending Silicon Wires by Using an Improved Finite-Difference Method	J. Xiao, School of Electronic Science and Engineering, Southeast University (China), Nanjing, JIANGSU , CHINA	AF4A.15	762
Poster Session I	A flattening gain Raman Amplifier involved only 2 cascaded FBG based multi-wavelength pumps	Z. Xiaohui, B. Qinlian, F. Chengpeng, S. Wei, Y. Qi, L. Hao, H. Xuanze, H. Qianggao, L. Shuihua, , Accelink Technologies Co.,Ltd, Wuhan, Hubei, CHINA	AF4A.16	765
Poster Session I	Study of an SPP mode with gain medium based on a hybrid plasmonic structure	N. Zhu, T. Mei, Laboratory of Nanophotonic Functional Materials and Devices, South China Normal University, Guangzhou, Guangdong, CHINAN. Zhu, T. Mei, Optoelectronic Material and Technology, South China Normal University, Guangzhou, Guangdong, CHINA	AF4A.17	768
Poster Session I	Growth of Axial GaAs Nanowire PN and PIN Junctions	J. Li, X. Yan, X. Zhang, X. Lv, J. Cui, X. Ren, , BUPT, Beijing, CHINA	AF4A.18	771
Poster Session I	Directly modulated AlGaInAs-InP Microcylinder Lasers	X. Lv, H. LOng, L. Zou, Q. Yao, Y. Huang, J. Xiao, Y. Du, , Institute of Microelectronics of CAS, Beijing, BEIJING, CHINA	AF4A.19	774
Poster Session I	All-Optical Triode Based on Cross Gain Modulation using InAs Quantum Dot Semiconductor Optical Amplifiers	Y. Maeda, , Kinki University, Higasi-Osaka, Osaka, JAPAN	AF4A.2	777
Poster Session I	Low Cost Wide Waveguide Gap Polarization Mode Converter	L. Wang, Y. Zhao, Y. Xu, School of Optoelectronics Science and Engineering, Huazhong University of Science and Technology, Wuhan, Hubei, CHINAL. Wang, T. Zhou, Z. Chen, W. Ma, R&D Department Three, Accelink Technologies Co., Ltd., Wuhan, Hubei, CHINA	AF4A.20	780
Poster Session I	A Proposal for Broadband Polarization-Insensitive Wavelength Conversion Using a SOI Waveguide	S. Gao, Y. Xie, P. Zhou, X. Li, L. Cao, S. He, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AF4A.21	783
Poster Session I	8×8 Passive Noblocking Microring Resonator Crossbar for On-chip Interconnection Network	Z. yu, Y. Hu, G. Wang, G. Qi, J. Zhao, , China University of Geosciences, Wuhan, HUBEI, CHINAF. Luo, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technolog, Wuhan, Hubei, CHINA	AF4A.22	786
Poster Session I	A wedge-to-wedge plasmonic waveguide for subwavelength confinement and long-range propagation	M. Song, R. Hao, J. Jin, E. Li, Department of Information Science & Electronic Engineering, Zhejiang University, hangzhou, ZHEJIANG, CHINA	AF4A.23	789
Poster Session I	Analysis and Experimented on Frequency Response Characteristics of RSOA based on Small Signal Analysis Method	Y. Zhan, M. Zhang, L. Liu, M. Liu, X. Chen, , State Key Lab. of Information Photonics and Optical Communications (Beijing Univ. of Posts & Telecom.), Beijing, CHINAJ. Zhan, , Jinan Branch Shandong Ltd, China Mobile Group, Jinan, CHINA	AF4A.24	792
Poster Session I	Ultra-broadband metamaterial absorber in terahertz regime	Z. Ma, F. Ding, , Centre for Optical and Electromagnetic Research, State Key Laboratory of Modern Optical Instrumentations, Zhejiang University , Hangzhou, Zhejiang, CHINA	AF4A.25	795
Poster Session I	24-Gbps DD-OFDM Transmission over 40-km SSMF based on 1310-nm EML	W. Lin, Z. Li, Y. Bao, J. Li, X. Feng, B. Guan, Institute of Photonics Technology, Jinan University, Guangzhou, Guangdong, CHINA	AF4A.26	798
Poster Session I	A new method for layout optimization of 1×N optical power splitters	M. Zhang, L. Zhou, X. Li, J. Chen, , shanghai jiaotong university, shanghai, SHANGHAI, CHINA	AF4A.27	801
Poster Session I	A Novel Scheme for Mode Division Multiplexed Transmission by Simultaneous Transmission of Local Lights	T. Nishimori, Z. Yang, J. Matsushita, K. Iwashita, , Kochi-University of Technology, Kochi, JAPAN	AF4A.28	804

Poster Session I	A scalable metro-access integrated network system with reconfigurable WDM central ring and high-quality OFDMA access trees	C. Chen, C. Zhang, Q. Zhang, Q. Kun, , Key lab of optical fiber sensing and communication networks, Ministry of Education, University of Electronic Science and Technology of China, 611731, Chengdu, China, Chengdu, Sichuan, CHINA	AF4A.29	807
Poster Session I	Few-quantum-dot lasing in photonic crystal nanocavities	J. Liu, S. Ates, M. Lorke, , DTU FOTONIK, Kgs Lyngby, DENMARKS. Stobbe, L. Peter, , Niels Bohr Institute, Copenhagen, DENMARK	AF4A.3	810
Poster Session I	Adaptive Control of OFDM Data Rate for LED Visible Light Communications in Different Free Space Transmission Distances and Offsets	Y.F. Liu, C.W. Chow, , National Chiao Tung University, Hsinchu, TAIWANC. Yeh, , Industrial Technology Research Institute, Hsinchu, TAIWANY. Liu, , Hong Kong Productivity Council (HKPC), Hong Kong, HONG KONG	AF4A.30	812
Poster Session I	All-Optical QPSK Signal Regeneration Based on XPM in Semiconductor Optical Amplifier	Y. Zhan, M. Zhang, M. Liu, L. Liu, X. Chen, , State Key Lab. of Information Photonics and Optical Communications (Beijing Univ. of Posts & Telecom.), Beijing, CHINA	AF4A.31	815
Poster Session I	Analysis and System Design of 100G and Beyond CO-OFDM Transmission Technologies	Z. yan, X. Chen, X.B. Wang, L.Y. Chao, , BUPT, Beijing, BEIJING, CHINA	AF4A.32	818
Poster Session I	Asymmetrical Transmitter and Receiver in High-Speed, Multi-band Optical OFDM Transmission Systems	H. Zhang, , UESTC, Chengdu, SICHUAN, CHINA	AF4A.33	821
Poster Session I	Blind Phase Recovery for QAM Modulations Using Constellation Link Statistics	W. Liu, C. Li, , Wuhan Research Institute of Post & Telecommunication, Wuhan, HUBEI, CHINA	AF4A.34	824
Poster Session I	Dependence of Strength of Optical Injection Locking on the Size of Micro-Ring Laser	M. memon, H. Fathallah, , king Saud University, Riyadh, SAUDI ARABIA	AF4A.35	827
Poster Session I	Dynamic Range Expansion using Phase Diversity Detection in Phase-Noise Cancelled OFDR	K. Iwashita, S. Hiramatsu, K. Miyamoto, Electronic and Photonic Systems Engineering, Kochi University of Technology, Kami, Kochi, JAPAN	AF4A.36	830
Poster Session I	Generation of Chaos Utilizing an Optically Injected Semiconductor Ring Laser	X. Zhang, G. Yuan, Z. Wang, School of Optoelectronic Information, University of Electronic Science and Technology of China, Chengdu, Sichuan, CHINA	AF4A.37	833
Poster Session I	Guiding electromagnetic energy with subwavelength dielectric particle chain	H. Li, A. Wu, C. Qiu, J. Du, J. Wang, Z. Wang, Z. Sheng, X. Wang, S. Zou, F. Gan, State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, CHINAH. Li, C. Qiu, J. Wang, Z. Wang, , Graduate University of Chinese Academy of Sciences, B eijing, CHINA	AF4A.38	836
Poster Session I	High Speed Data Security Enabled by Stimulated Brillouin Scattering in Optical Fiber	T. Zhang, L. Yi, W. Hu, State Key Lab of Advanced Optical Communication Systems and Networks, Department of Electronic Engineering,Shanghai Jiao Tong University, Shanghai, Shanghai, CHINA	AF4A.39	839
Poster Session I	On-chip CMOS-compatible optical signal processor	R. Ji, L. Zhang, Y. Tian, J. ding, L. Yang, , Institute of Semiconductors, CAS, Beijing, BEIJING, CHINA	AF4A.4	842
Poster Session I	Linear Analog Photonic Link Based on Cascaded Polarization Modulators	H. Zhang, X. Chen, Nanjing National Laboratory of Microstructures, Nanjing University, Nanjing, CHINAH. Zhang, S. Pan, M. Huang, College of Electronic and Information Engineering, Nanjing Univ Aeronautics & Astronautics, Nanjing, CHINA	AF4A.40	845

Poster Session I	Modulation Instabilities in Birefringent Two-core Optical Fibers	J.H. Li, K.W. Chow, Mechanical Engineering, University of Hong Kong, Hong Kong, CHINAK.S. Chiang, Electronic Engineering, City University of Hong Kong, Hong Kong, CHINAB.A. Malomed, Physical Electronics, Tel Aviv University, Tel Aviv , ISRAEL	AF4A.41	848
Poster Session I	Nonlinearity Impact on In-Band Crosstalk Penalties for 112-Gb/s PDM-CO-OFDM Transmission	M. Deng, X. Yi, H. Zhang, Z. Luo, K. Qiu, , University of Electronic Science and Technology of China, Chengdu, Sichuan, CHINA	AF4A.42	851
Poster Session I	On Timing Offset Estimation in Coherent Optical OFDM Systems with Low Optical Modulation Index	L. Huang, X. Hong, , Zhejiang University, Hangzhou, Zhejiang, CHINAX. Hong, C. Guo, , South China Normal University, Guangzhou, Guangdong, CHINA	AF4A.43	854
Poster Session I	Optical OFDMA with dynamic sub-carrier allocation enabled flexible and scalable metro-access integrated networks	Q. Zhang, C. Zhang, C. Chen, Q. Kun, , Key Lab of Optical Fiber Sensing and Communication Networks (Ministry of Education), and School of Communication and Information Engineering, University of Electronic Science and Technology of China, Chengdu, CHINA	AF4A.44	857
Poster Session I	Performance Analysis of Photonic-Assisted Multi-Channel Compressive Sampling	R. Li, Y. Liang, H. Chen, M. Chen, S. Yang, S. Xie, Department of Electronic Engineering, Tsinghua University, Beijing, CHINA	AF4A.45	860
Poster Session I	Signal Generation and Transmission of 13-Gb/s OFDM Signal using RSOA in Carrier Distribution WDM-PON	C.W. Chow, Y. Lin, Department of Photonics, National Chiao Tung University, Hsinchu, TAIWANC. Yeh, , Industrial Technology Research Institute (ITRI), Hsinchu, TAIWANY. Liu, , Hong Kong Productivity Council (HKPC), Hong Kong, HONG KONG	AF4A.46	863
Poster Session I	Zero-Overhead Noise Compensation via Amplitude and Phase Equalization for Optical OFDM Transmission	L. Lilong, W. Hu, X. Yang, , Shanghai Jiao Tong University, Shanghai, CHINA	AF4A.47	866
Poster Session I	Hybrid FRR/p-Cycle Link Pair Design for MPLS-TP Node Protection	C. Cao, Key Laboratory of Information Photonics and Optical Communications, Beijing University of Posts and Telecommunications, Beijing, CHINAC. Cao, , China United Network Communications Co.,Ltd., , Beijing, BEIJING, CHINAG.N. Rouskas, Computer Science, North Carolina State University, Raleigh, NCP. Zhang, X. Tang, , China Unicom Research Institute, Beijing, BEIJING, CHINA	AF4A.48	869
Poster Session I	Design of Optical Path Networks Employing Large-capacity WSS/WBSS-Combined Optical Cross-connects	H. Le, H. Hasegawa, K. Sato, , Nagoya University, Nagoya, Aichi, JAPAN	AF4A.49	872
Poster Session I	Dual-electrode Tunable Asymmetric π Equivalent Phase Shift SBG Semiconductor Laser	Y. Zhou, Science school, Changzhou Institute of Technology, Changzhou, Jiangsu, CHINAY. Zhou, X. Chen, Microwave-Photonics Technology Laboratory, Nanjing National Laboratory of Microstructures, Nanjing University, Nanjing, JIANGSU , CHINAJ. Hou, Institute of Semiconductors, Chinese Academy of Sciences, Beijing, CHINA	AF4A.5	875
Poster Session I	Traffic partition grooming in the robust, reconfigurable and heterogeneous optical networks	W. Hou, L. Guo, , Northeastern University (China), ShenYang, LIaoning, CHINA	AF4A.50	878
Poster Session I	High-order QAM Transmission for OFDM-PON using Pre-compensation	B. Lin, J. Li, M. Jiang, H. Yang, Y. Wan, Y. Luo, P. Zhang, Y. He, Z. Chen, , Peking University, Beijing, Beijing, CHINA	AF4A.51	881
Poster Session I	Spectrum Sharing for Time-varying Traffic in OpenFlow-based Flexi-Grid Optical Networks	C. Xie, State Key Laboratory of Information Photonics and Optical Communication, Beijing University of Posts and Telecomm, Beijing, Beijing, CHINA	AF4A.52	884

Poster Session I	Nested PON: A Smooth Migrating Scheme from GPON to XG-PON	X. Hu, X. Chen, S. Yu, C. Du, N. Zhang, State Key Lab of Information Photonics and Optical Communications, Beijing Univ of Posts & Telecom, Beijing, BEIJING, CHINAR. Zheng, , Huawei Technologies, Shenzhen, GUANGDONG, CHINA	AF4A.53	887
Poster Session I	Partial defragmentation in flexible grid optical networks	J. Luo, Z. Zhang, W. Sun , W. Hu, State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, Shanghai, Shanghai, CHINA	AF4A.54	890
Poster Session I	Best Fit Decreasing based Defragmentation Algorithm in Semi-dynamic Elastic Optical Path Networks	J. Wang, S. Huang, W. Ju, H. Wang, J. Zhang, W. Gu, , BUPT, Beijing, CHINAY. He, , Peking University, Beijing, CHINA	AF4A.55	893
Poster Session I	Ethernet Frame Aggregation at Optical Network Unit Mesh Point Portal (ONU-MPP) in Fiber Wireless (FiWi) Access Networks	K. Li, W. Guo, W. Hu, State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, Shanghai, Shanghai, CHINA	AF4A.56	896
Poster Session I	Design and Evaluation of a Resilient Protection Scheme For Hybrid WDM/TDM PON	P. Xu, Z. Zhiguo, X. Chen, C. zhihui, , BUPT, Beijing, CHINA	AF4A.57	899
Poster Session I	Improving Connections Provisioning in Hybrid Immediate/Advance Reservation WDM Networks	A. Muhammad, R. Forchheimer, Electrical Engineering, Linköping university sweden, Linkoping, SWEDEN	AF4A.58	902
Poster Session I	RSVP-TE Fast Reservation for Large Scale Distributed Wavelength-Routed Network	Z. Xu, S. Huang, Y. Zhao, M. Zhang, J. Zhang, W. Gu, State Key Laboratory of Information Photonics and Optical Communications, Beijing University of Posts and Telecommunications, Beijing, Beijing, CHINA	AF4A.59	905
Poster Session I	Different Channel-Spacing DFB Laser Array Fabricated by SAG after Optimization	C. Zhang, L. Ma, S. Liang, B. Wang, H. Zhu, W. Wang, Key Laboratory of Semiconductors Materials, Institute of Semiconductors, CAS, Beijing, CHINA	AF4A.6	908
Poster Session I	Harmonically Mode-Locked Fiber Ring Laser Using a Bismuth-Based Erbium-Doped Fiber and a Bismuth-Based Highly Nonlinear Fiber	Y. Fukuchi, J. Maeda, Department of Electrical Engineering, Tokyo University of Science, Shinjuku-Ku, Tokyo, JAPAN	AF4A.60	910
Poster Session I	Fourier domain mode-locked fiber laser based on dual-pump fiber optical parametric amplification	B. Sun, H. Chen, K. Hu, P. Zhou, S. Gao, S. He, State Key Laboratory of Modern Optical Instrumentation, Zhejiang University, Hangzhou, Zhejiang, CHINAB. Sun, H. Chen, K. Hu, P. Zhou, S. Gao, S. He, Centre for Optical and Electromagnetic Researc, Zhejiang University, Hangzhou, Zhejiang, CHINAD. Chen, Institute of Information Optics, Zhejiang Normal University, Jinhua, ZheJiang, CHINAD. Chen, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4A.61	913
Poster Session I	Crosstalk Comparison of Multi-Core Fibers with α-index and Trench-Index Cores	S. Yamamoto, M. Ohashi, Y. Miyoshi, , Osaka Prefecture University, Sakai, Osaka, JAPAN	AF4A.62	916
Poster Session I	Widely repetition- and wavelength-tunable soliton pulse generation pumped by an actively mode-locked fiber laser	Y. Wei, K. Hu, B. Sun, S. Gao, , Zhejiang University, Hangzhou, ZHEJIANG, CHINAY. Wei, T. Wang, , Hangzhou Dianzi University, Hangzhou, ZHEJIANG, CHINA	AF4A.63	919
Poster Session I	Transmission Characteristics of Multi-Core Fiber (MCF) with Trench-Index Cores	R. Cho, M. Ohashi, Y. Miyoshi, , Osaka Prefecture University, Sakai, Osaka, JAPAN	AF4A.64	922
Poster Session I	Stress and Hydraulic Pressure Sensor Based on a Dual-Core Photonic Crystal Fiber	F. Xu, G. Hu, D. Chen, B. Peng, , Zhejiang Normal University, Jinhua, ZheJiang, CHINAZ. Liu, H. Tam, Photonics Research Centre, Department of Electrical Engineering, The Hong Kong Polytechnic University, HongKong, CHINA	AF4A.65	925

Poster Session I	Modeling of mid-infrared fiber optical parametric oscillator	H. Cheng, Z. Luo, C. Ye, Y. Huang, C. Liu, Z. Cai, Department of Electronic Engineering, Xiamen University, Xiamen, Fujian, CHINA	AF4A.66	928
Poster Session I	A proposal for coupling of terahertz pulse onto a subwavelength cylindrical waveguide using a polymer taper	H. Chen, B. Sun, S. Gao, S. He, State Key Laboratory of Modern Optical Instrumentation, Zhejiang University, Hangzhou, Zhejiang, CHINAH. Chen, B. Sun, S. Gao, S. He, Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, Zhejiang, CHINAD. Chen, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang University, Hangzhou, Zhejiang, CHINAD. Chen, Institute of Information Optics, Zhejiang Normal University, Jinhua, Zhejiang, CHINA	AF4A.67	931
Poster Session I	Dynamical Evolution of Cascaded Four-Wave Mixing Processes in an Optical Fiber	X. Xiao, , Tsinghua University, Beijing, CHINA	AF4A.68	934
Poster Session I	Dual-Pumped Fiber Optical Parametric Oscillator with Uniform Multi-wavelength Lasing	K. Hu, B. Sun, Y. Wei, S. Gao, S. He, State Key Laboratory of Modern Optical Instrumentation, Zhejiang University, Hangzhou, CHINAK. Hu, B. Sun, Y. Wei, S. Gao, S. He, Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, CHINAD. Chen, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang University, Hangzhou, CHINAD. Chen, Institute of Information Optics, Zhejiang Normal University, Jinhua, CHINA	AF4A.69	937
Poster Session I	Critical Dimensions for Axial Double Heterostructure Nanowires Using Finite-Element Method	H. Geng, X. Yan, X. Zhang, J. Li, Y. Huang, X. Ren, State Key Laboratory of Information Photonics and Optical Communications, Beijing University of Posts and Telecommunications, Beijing, CHINA	AF4A.7	940
Poster Session I	Influence of Electrical Conditions on Silicon Pulse Shaping and Modelocking	S. Gao, L. Cao, B. Sun, S. Jiang, K. Hu, Y. Wei, , Zhejiang University, Hangzhou, ZHEJIANG, CHINAY. Wei, , Hangzhou Dianzi University, Hangzhou, ZHEJIANG, CHINA	AF4A.70	943
Poster Session I	Rescue Monitoring System in Coal Mine Disaster Based on Distributed Fiber Vibration Sensing Technique	C. Li, Q. Xiao, C. Wang, Department of Material Science, fudan university, shanghai, CHINA	AF4A.71	946
Poster Session I	Refractive index sensitivity characteristics of fiber taper long-period grating	Z. Yin, X. Zhang, Y. Liu, F. Pang, T. Wang, , Shanghai University, Shanghai, CHINA	AF4A.72	949
Poster Session I	Optimization of tapered optical fiber probe for evanescent wave sensor	Z. zhang, X. Xiao, , Tsinghua University, Beijing, CHINA	AF4A.73	952
Poster Session I	The effect of ASE on XPM employed all optical OOK to Multi-level modulation format conversion	G. Huang, Y. Miyoshi, A. Maruta, Graduate School of Engineering, Osaka University, Sita, Osaka, JAPANK. Kitayama, Graduate School of Engineering, Osaka Prefecture University, Sakai, Osaka, JAPAN	AF4A.74	955
Poster Session I	Investigation of a cladding-etched thin-core fiber modal interferometer and its application for refractive index sensing	G. Yan, A. Zhang, G. Ma, S. He, Centre for Optical and Electromagnetic Research, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Hangzhou, ZHEJIANG, CHINAG. Yan, A. Zhang, G. Ma, S. He, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang University , Hangzhou, ZHEJIANG, CHINA	AF4A.75	958
Poster Session I	Numerical investigation of polarization rotation locking of vector solitons in a fiber ring laser	D. Zeng, H. LI, S. Zhang, X. Tang, J. Liao, R. Lu, , Univ of Electronic Science & Tech China, Chengdu, SICHUAN, CHINA	AF4A.76	961

Poster Session I	High Sensitivity Long-Period Fiber Gratings Written in Tapered Fibers by CO2 Laser	Z. Wu, Y. Liu, Y. Zhao, Q. Guo, X. Zhang, N. Chen, F. Pang, T. Wang, School of Communication and Information Engineering, Shanghai University, Shanghai, Shanghai, CHINA	AF4A.77	964
Poster Session I	Micro-patterning replication of planar optical elements on silicone LED encapsulant film using imprinting technique	L. Wan, , South China Normal University, Guangzhou, CHINA	AF4A.8	967
Poster Session I	Polarization manipulation holographic lithography by single refracting prism	M. Wu, , South China Normal University, Guangzhou, CHINA	AF4A.9	970
Poster Session II	Acceleration of the Monte Carlo method for photon migration in turbid media	Z. Guo, F. Cai, S. He, , Centre for Optical and Electromagnetic Research, Zhejiang University, Hangzhou, Zhejiang Province, CHINAZ. Guo, S. He, , Zhejiang Provincial Key Laboratory for Sensing Technologies, Hangzhou, Zhejiang Province, CHINAF. Cai, , JORCEP [Joint Research Centre of Photonics of the Royal Institute of Technology (Sweden), Lund University (Sweden), and Zhejiang University, Hangzhou, Zhejiang Province, CHINA	AF4B.1	978
Poster Session II	Fano Resonance in Metallic Ring-Ellipse Nanostructures	J. lin, , Zhejiang University, hangzhou,zhejiang province, ZheJiang, CHINA	AF4B.11	981
Poster Session II	Raman Spectroscopy/PCA Based Molecule Mechanism Detection of K562 Cell Apoptosis Induced by Adriamycin	T. Tao, X. Lu, L. Zhong, Laboratory of Nanophotonic Functional Materials and Devices, South China Normal University, GuangZhou, GuangDong, CHINAL. Zhong, Medical College, Jinan University, GuangZhou, GuangDong, CHINA	AF4B.12	984
Poster Session II	Using micrograting for real-time detecting surfactants at aqueous/liquid crystal interfaces	H. Huang, Y. Li, C. Yang, F. Chao, S. Hwang, Department of Electro-Optical Engineering, National United University, Miaoli, TAIWAN	AF4B.13	987
Poster Session II	White-light Fresnel Incoherent Correlation Holography	Y. Liu, L. Zhong, X. Lu, Laboratory of Nanophotonic Functional Materials and Devices, South China Normal University, GuangZhou, GuangDong, CHINA	AF4B.14	990
Poster Session II	Phase Reconstruction of Biological Cells by Digital Microscopic Image Plane Holography	D. Zhang, L. Zhong, X. Lu, Laboratory of Nanophotonic Functional Materials and Devices, South China Normal University, GuangZhou, GuangDong, CHINA	AF4B.15	993
Poster Session II	Polarization-fluctuation Induced Drift in Resonator Micro Optic Gyro	Y. Yan, Y. Chen, H. Ma, Z. Jin, , Zhejiang University, hangzhou, ZHEJIANG, CHINA	AF4B.16	996
Poster Session II	Quantitative phase imaging and spectroscopy techniques for the study of sickle cell diseases	Y. Park, , KAIST, Daejeon, KOREA, REPUBLIC OF	AF4B.17	999
Poster Session II	Fiber-Optic Catalytic Hydrogen Sensor Based on Thin-core Fiber Modal Interferometer	J. Liu, Z. Yebin, A. Zhang, Centre for Optical and Electromagnetic Research, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Hangzhou, Zhejiang, CHINAJ. Liu, Z. Yebin, A. Zhang, Joint Research Laboratory of Optics of Zhejiang Normal University and Zhejiang University, Zhejiang University, Zhejiang Normal, Hangzhou, Zhejiang, CHINAH. Tian, Q. An, Dept Polymer Sci & Engn, Key Lab Macromol Synth & Functionalizat, Minist Educ, Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4B.18	1001
Poster Session II	Lateral resolution enhancement in confocal microscopy with a higher SNR	C. Kuang, Y. Wang, Z. Gu, S. Li, X. Liu, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AF4B.19	1004
Poster Session II	Acceleration of the Acquisition of the Jacobian Matrix in Diffuse Optical Tomography	F. cai, S. He, , Zhejiang University, hangzhou, Zhejiang, CHINA	AF4B.2	1007

Poster Session II	Magnetic Rotation Spectroscopy for Oxygen Detection	J. Wang, C. Yan, Zhejiang Provincial Key Laboratory for Sensing Technologies, Centre for optical and Electromagnetic Research, JORCEP [KTH-LU-ZJU Joint Research Center of Photonics], Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4B.20	1010
Poster Session II	The algebraic reconstruction of SD-OCT based on compressed senssing theory	X. Lu, Z. Ding, W. Wu, L. Chen, State Key Lab of modern Optical Instrumentation, Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4B.22	1016
Poster Session II	Using of the gas absorption spectrum as band-stop filter in a EDFA fiber loop laser	K. Guo, , Zhejiang Provincial Key Laboratory for Sensing Technologies, Hangzhou, CHINAK. Guo, C. Yan, , Centre for optical and Electromagnetic Research, Hangzhou, CHINAC. Yan, , JORCEP [KTH-LU-ZJU Joint Research Center of Photonics], Hangzhou, CHINAC. Guo, , Zhejiang University, Hangzhou, CHINA	AF4B.23	1019
Poster Session II	Fiber Laser Sensor for Load Measurement Based on Beat Frequency Demodulation Technique	L. Chen, L. Huang, L. Gao, X. Chen, College of Engineering and Applied Sciences and National Laboratory of Solid State Microstructures, Nanjing University, Nanjing, CHINA	AF4B.24	1022
Poster Session II	Depletion Characteristics of Brillouin Gain Spectrum in Fiber Brillouin Amplifiers	S.M. Haneef, D. Venkitesh, B. Srinivasan, Electrical Engineering, Indian Institute of Technology, Madras, Chennai, Tamilnadu, INDIA	AF4B.25	1025
Poster Session II	Measuring the high temperature distribution of a Molybdenum bar with an un-cooled color CCD sensor	C. Yan, B. Wang, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AF4B.26	1028
Poster Session II	Multilongitudinal mode fiber laser sensor for temperature measurement	L. huang, L. Qian, L. Chen, L. Gao, X. Chen, College of Engineering and Applied Sciences and National Laboratory of Solid State Microstructures, nanjing university, nanjing, CHINA	AF4B.27	1031
Poster Session II	Second harmonic microscopic imaging and spectroscopic characterization in pathological prostate tissue	Z. Zhuang, Z. Guo, H. Liu, X. Deng, , Soutih China Normal University, Guangzhou, CHINAB. Yu, , Key Laboratory of Optoelect ronic Science and Technology for Medicine , Minist ry of Education , Fujian Normal University, Fuzhou, CHINA	AF4B.28	1034
Poster Session II	Three-dimensional Orientation Sensors by Defocused Imaging of Gold Nanorods in the near IR region	P. Xu, , South China Normal University, Guangzhou, CHINA	AF4B.29	1036
Poster Session II	Venous Oxygenation Mapping with a CCD Camera	J. Li, B. Dunmire, D. Leotta, , South China Normal University, Guangzhou, Guangdong, CHINAJ. Li, , University of Washington, Seattle, WA	AF4B.3	1037
Poster Session II	Polarization Modulated of Second Harmonic Generation on a line-aligned Molecular Scatterers	Z. Zhuang, Z. Guo, S. Liu, , Soutih China Normal University, Guangzhou, CHINA	AF4B.30	1040
Poster Session II	Glycerol diffusion in skin at glucose impact on tissue	D. Tuchina, A.N. Bashkatov, E. Genina, V.V. Tuchin, , Saratov State University, Saratov, RUSSIAN FEDERATIONV.V. Tuchin, , Institute of Precise Mechanics and Control RAS, Saratov, RUSSIAN FEDERATION	AF4B.31	1042

Poster Session II	“S-shaped” Photoluminescence Emission Shift in Cu(In,Ga)Se2 Thin Films	Y. Liao, D. Hsieh, H. Kuo, Department of Photonic & Institute of Electro-Optical Engineering, National Chiao Tung University, Hsinchu, TAIWANY. Liao, Department of Electrophysics, National Chiao Tung University, Hsinchu, TAIWAND. Chiu, Compound Semiconductor Solar Cell Department, Next Generation Solar Cell Division, Green Energy and Environment Research Laboratories, I ndustrial Technology Research Institute, Hsinchu, TAIWANS. Kuo, Department of Electronic Engineering, Chang Gung University, Hsinchu, TAIWANF. Lai, W. Lin, Department of Photonic Engineering, Yuang Ze University, Hsinchu, TAIWAN	AF4B.32	1043
Poster Session II	Novel Nanostructures for Solar Energy Harvesting	T. Sun, C. Guo, K. Kempa, Z. Ren, Department of physics, Boston College, Chestnut Hill, MAY. Wang, Institute for Advanced Materials, Academy of Advanced Optoelectronics, South China Normal University, Guangzhou, CHINA	AF4B.33	1045
Poster Session II	Electrochemically prepared black silicon for improved photon-to-electron conversion efficiency	X. ao, , South China Normal University, Guangzhou, CHINA	AF4B.34	1047
Poster Session II	Influence of annealing temperature on properties of RF sputtered InxSy buffer layers in Cu(In,Ga)Se2 solar cells	J. Lu, Y. Li, , Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4B.35	1050
Poster Session II	Optimization of GaAs nanowire array for solar cells	Y. HU, optical engineering, ZHE JIANG UNIVERSITY, HANGZHOU, ZHEJIANG, CHINA	AF4B.36	1053
Poster Session II	High Performance of Double-layer Quantum Dots with PDMS Film for Novel GaAs Solar Cells	C. Hsin-Chu, H. Han, K. Chen, T. Yu-Lin, S. Min-Hsiung, H. Kuo, P. Yu, Department of Photonics and Institute of Electro-Optical Engineering, National Chiao Tung University, Hsinchu, TAIWANL. Chien-Chung, Institute of Photonic System, National Chiao Tung University, Tainan, TAIWANY. Chang, , Millennium Communication Co., Ltd., Hsinchu, TAIWANS. Min-Hsiung, , Research Center for Applied Sciences, Taipei, TAIWAN	AF4B.37	1056
Poster Session II	Effects of DC sputtering power on the properties of AZO films deposited at room temperature for CIGS photovoltaics	Y. Li, D. Wang, J. Lu, H. Jin, J. Zhou, Information Science and Electronic Engineering, Zhejiang University, Hangzhou, Zhejiang, CHINA	AF4B.38	1059
Poster Session II	Highly efficient CdS-quantum-dot-sensitized InGaN multiple quantum well solar cells	Y. Tsai, H. Chen, H. Han, P. Yu, H. Kuo, Department of Photonic & Institute of Electro-Optical Engineering, National Chiao Tung University, Hsinchu, 30010, TAIWANL. Chien-Chung, Institute of Photonic System, College of Photonics, National Chiao Tung University, Tainan, 71150, TAIWAN	AF4B.39	1062
Poster Session II	Plasmon Excitation on a Metal Grating and its Phase Detection Based Biosensor Application	Z. Luo, Centre for Optical and Electromagnetic Research, South China Normal University, Guangzhou, CHINAT. Suyama, Y. OKuno, Graduate School of Science of Technology, Kumamoto University, Kumamoto, JAPAN	AF4B.4	1065
Poster Session II	The resolution of the Maxwell’s fish eye lens	F. Sun, S. He, , Zhejiang University, Hangzhou, ZHEJIANG, CHINAS. He, , Royal Institute of Technology (KTH), Stockholm, SWEDEN	AF4B.40	1068
Poster Session II	Growth and characterization of GaAs/InxGa1-xAs/GaAs axial heterostructure nanowires by MOCVD	X. Lv, State Key Laboratory of Information Photonics & Optical Communications, Beijing University of Posts, Beijing, CHINA	AF4B.41	1071

Poster Session II	A Novel Digital Signal Processing System for Open–loop Fiber Optic Gyroscope	Q. Wang, C. Yang, Z. Wang, , Peking University, Beijing, CHINA	AF4B.5	1074
Poster Session II	Biological sample measurement using a 10° tilted fiber grating sensing probe	F. Liu, T. Guo, L. Shang, Z. Zhang, F. Du, B. Guan, Institute of Photonics Technology, Jinan University, Guangzhou, Guangdong, CHINAX. Zhu, Y. Liu, Department of Biochemistry, Medical School, Jinan University, Guangzhou, Guangdong, CHINAJ. Albert, Department of Electronics, Carleton University, Ottawa, Ontario, CANADA	AF4B.6	1077
Poster Session II	High sensitivity refractive index sensor based on multimode fiber coated with an axisymmetric metal grating layer	Y. Ma, G. Farrell, Y. Semenova, Q. Wu, Photonics Research Centre, Dublin Institute of Technology, Dublin 8, IRELANDA. Chan, Electronics Engineering, City University of Hong Kong, Hong Kong, HONG KONG	AF4B.7	1079
Poster Session II	Method to suppress bias drift and improve the accuracy of north finding with fiber optic gyroscopes	C. He, C. Yang, Z. Wang, State Key Laboratory on Advanced Optical Communication Systems and Networks,Department of Electronics, Peking University, Beijing, CHINA	AF4B.8	1082
Poster Session II	Enhance the Resolution of STED by Fluorescent Lifetime Subtractive Imaging	X. Hao, C. Kuang, Z. Gu, S. Li, Y. Wang, X. Liu, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AF4B.9	1085
Quantum Well and Quantum Dot Structures	Integrated quantum photonic devices	J.L. O'Brien, , University of Bristol, Bristol, UNITED KINGDOM	AS1H.1	N/A
Quantum Well and Quantum Dot Structures	Tensile-strained InGaAsP-InP quantum-well laser with coupled disks emitting at 1.5μm	Y. Huang, Q. Yao, Y. Du, X. Lv, L. Zou, H. LOng, , Institute of Microelectronics of CAS, Beijing, BEIJING, CHINA	AS1H.2	1089
Quantum Well and Quantum Dot Structures	Structural and optical characterization of highly-strained BInGaAs/GaAs quantum wells	Z. Jia, Q. Wang, X. Ren, Y. Yan, S. Cai, X. Zhang, Y. Huang, X. Duan, , State Key Laboratory of Information Photonics and Optical Communications (Beijing University of Posts and Telecommunications), Beijing, CHINA	AS1H.3	1092
Quantum Well and Quantum Dot Structures	Fabrication of PbS-PEG Hybrid Nanocomposite Infrared Detectors	A. Rostami, M. Dolatyari, S. Miri, H. Baghban, H. Rasooli, aSchool of Engineering-Emerging Technologies, University of Tabriz, Tabriz, IRAN, ISLAMIC REPUBLIC OFA. Rostami, Photonics and Nanocrystal Research Lab. (PNRL), Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, IRAN, ISLAMIC REPUBLIC OFH. Shekari, Department of Physical Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, IRAN, ISLAMIC REPUBLIC OF	AS1H.4	1095
Quantum Well and Quantum Dot Structures	GaSb-based laser monolithically grown on Si substrate operating under cw at room temperature	E. Tournié, J.R. Reboul, K. Madiomanana, L.Cerutti, and J.B. Rodriguez Université Montpellier 2, Institut d'Electronique du Sud – UMR 5214 CNRS, Place Eugène Bataillon, 34095 Montpellier Cedex 5, France	AS1H.5	1098
Raman-based Biophotonics	SERS Based Biosensors	M. Olivio, , Singapore Bioimaging Consortium, Singapore, SINGAPORE	ATh3E.1	N/A
Raman-based Biophotonics	Functionalized Arrays of Raman-Enhancing Nanoparticles for Capture and Culture-Free Analysis of Bacteria in Human Blood	Y. Wang, Inst of Atomic and Molecular Science, Academia Sinica, Taipei, TAIWANY. Wang, Physics, National Taiwan University, Taipei, TAIWAN	ATh3E.2	1100
Raman-based Biophotonics	The Many Facets of Raman Spectroscopy	J. Popp, Institute of Physical Chemsitry and Abbe Center of Photonics, Friedrich-Schiller University Jena, Jena, GERMANYJ. Popp, , Institute of Photonic Technology, Jena, GERMANY	ATh3E.3	1101

Raman-based Biophotonics	Raman enhancement of graphene oxide via reduced Ag nanoparticles on the suface	D. Wang, J. Qian, F. Cai, S. He, Centre for Optical and Electromagnetic Research, Zhejiang Provincial Key Laboratory for Sensing Technologies, State Key Laboratory of Modern Optical Instrumentations, Zhejiang University, Hangzhou, CHINA	ATh3E.4	1104
Remote Sensing	Remote Sensing of Atmospheric Compounds Using Backscattered Light from Nanosecond and Femtosecond Laser Light	G. David, B. Thomas, A. Miffre, P. Rairoux, , Universite Lyon 1 CNRS, Villeurbanne, FRANCE	AF3D.1	1107
Remote Sensing	Laser Remote Sensing - From Environmental to Medical Applications	S.R. Svanberg, Physics Department, Lunds Universitet, Lund, SWEDENS.R. Svanberg, Center for Optical and Electromagnetic Research, South China Normal University, Guangzhou, CHINA	AF3D.2	1110
Remote Sensing	Environmental monitoring with portable, tunable diode laser based gas analyzers	H. Adam, , Boreal Laser, Devon, Alberta, CANADA	AF3D.3	1113
Remote Sensing	Applications of MIR-Laser Systems for Plasma Diagnostics and Trace Gas Detection in Basic Research and Industry	J. Roepcke, , INP Greifswald, Greifswald, GERMANY	AF3D.4	N/A
SC6-ICAM Joint Session	Electromagnetic waves interaction with various metallic nanomaterials	Michael Giersig, Department of Physics, Free University Berlin, Germany	JS4F.3	1115
Silicon Modulators	Low power consumption Ge/SiGe Quantum well optical modulator	D. Marris-Morini, P. Chaisakul, M. Rouifed, X. Le Roux, S. Edmond, J. Coudevyll, L. Vivien, Institut d'Electronique Fondamentale, Université Paris Sud, Orsay cedex, FRANCEG. Isella, D. Chrastina, J. Frigerio, Dipartimento di Fisica del Politecnico di Milano, L-Ness, Como, ITALY	AS3B.1	1116
Silicon Modulators	Design of Traveling Wave Electrode for High-speed Silicon Modulators	Z. Yanyang, Z. Linjie, S. Xiaomeng, J. Chen, Department of Electronic Engineering, Shanghai Jiaotong University, Shanghai, CHINA	AS3B.2	1119
Silicon Modulators	High speed silicon Mach-Zehnder modulator with circuit model analysis	H. Xu, X. Xiao, X. Li, Y. Hu, Z. Li, T. Chu, Y. Yu, J. Yu, , Institute of semiconductors,CAS, Beijing, BEIJING, CHINA	AS3B.3	1122
Silicon Modulators	Mach-Zehnder based optical sitches in silicon-on-insulator	W. Wang, Y. Zhao, T. Hu, H. Qiu, J. Yang, M. Wang, X. Jiang, Department of Information Science and Electronics Engineering, Zhejiang University, Hangzhou, ZHEJIANG, CHINA	AS3B.4	1125
Silicon Modulators	Low-power-consumption, 40-Gb/s Mach-Zehnder silicon optical modulator	J. Ding, R. Ji, L. Zhang, L. Yang, , Institute of Semiconductors, Chinese Academy of Sciences, Beijing, CHINA	AS3B.5	1128
Silicon Modulators	Silicon on insulator modulator structures for data rates of 40 Gb/s and above	F.Y. Gardes, D.J. Thomson, G.T. Reed, ORC, University of Southampton, Southampton, UNITED KINGDOMJ. Fedeli, , CEA-Leti, GRENOBLE, FRANCEL. O'Faolain, K. Debnath3, T. Krauss, School of Physics & Astronomy,, University of St Andrews, St Andrews, UNITED KINGDOML. Lever, Z. Ikonic, R.W. Kelsall, Institute of Microwaves and Photonics, University of Leeds, Leeds, UNITED KINGDOM	AS3B.6	1130
Silicon Photonics I	Silicon Photonics: Opportunities and Challenges	H. Rong, , Intel Corporation, Pleasanton, CA	ATh1B.1	N/A
Silicon Photonics I	Low Loss Silicon Nanowire Waveguide Fabricated with 0.13µm CMOS Technology	Z. Sheng, C. Qiu, H. Li, A. Wu, X. Wang, S. Zou, F. Gan, , Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, CHINAC. Qiu, L. Li, A. Pang, , Grace Semiconductor Manufacturing Corporation, Shanghai, CHINAH. Li, , Graduate University of Chinese Academy of Sciences, Beijing, CHINA	ATh1B.2	1134

Silicon Photonics I	Fabrication and Characterization of Silicon Photonic Waveguides and Devices via Selective Oxidation Process	X. Wang, X. Guan, Y. Shi, D. Dai, , Center for Optical and Electromagnetic Research,State Key Laboratory for Modern Optical Instrumentation, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Hangzhou, ZHEJIANG, CHINA	ATh1B.3	1137
Silicon Photonics I	Novel suspended small SiO2 ridge optical waveguides for optical sensing	P. Chen, Y. Zhu, Y. Shi, S. He, D. Dai, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	ATh1B.4	1140
Silicon Photonics I	Ultra-short Silicon Polarization Beam Splitter Based on an Asymmetrical Bent Directional Coupler	J. Wang, D. Dai, Centre for Optical and Electromagnetic Research, State Key Laboratory for Modern Optical Instrumentation, Zhejiang Provincial Key Laboratory for Sensing Technologies, Zhejiang University, Zijingang Campus, HangZhou, Zhejiang, CHINAD. Liang, , Hewlett Packard Laboratories, Palo Alto, CAY. Tang, D. Dai, J.E. Bowers, Department of Electrical and Computer Engineering, University of California, Santa Barbara, CA	ATh1B.5	1143
Silicon Photonics I	Silicon Photonics Based Transceivers for High-Capacity Optical Interconnetcs	M. Asghari, , Kotura, Inc., Monterey Park, CA	ATh1B.6	N/A
Silicon Photonics II	Coupling and Packaging Issues of Silicon Based Photonic Integrated Circuits	C. Kopp, , CEA Grenoble, Grenoble, FRANCE	ATh3B.1	1147
Silicon Photonics II	Waveguide Grating coupler based on CMOS poly-silicon gate layer	C. Qiu, Z. Sheng, A. Wu, X. Wang, S. Zou, F. Gan, State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, Shanghai, CHINAC. Qiu, L. Li, A. Pang, S. Zou, , Grace Semiconductor Manufacturing Corporation, Shanghai, Shanghai, CHINA	ATh3B.2	1150
Silicon Photonics II	Silicon mode-(de)multiplexer for a hybrid multiplexing system to achieve ultrahigh capacity photonic networks-on-chip with a single-wavelength-carrier light	D. Dai, , Zhejiang University, Hangzhou, ZHEJIANG, CHINA	ATh3B.3	1153
Silicon Photonics II	Polarization Dispersion Compensated AWG with Angled Star Couplers Based on Silica-on-Silicon	X. Xia, J. Zou, T. Lang, J. He, STATE KEY LABORATORY OF MODERN OPTICAL INSTRUMENTATION, ZHEJIANG UNIVERSITY, HANG ZHOU, ZHEJIANG, CHINAT. Lang, COLLEGE OF OPTICAL AND ELECTRONIC TECHNOLOGY, CHINA JILIANG UNIVERSITY, HANGZHOU, ZHEJIANG, CHINA	ATh3B.4	1156
Silicon Photonics II	Silicon Photonics for Optical Fiber Communication Applications	D. Vermeulen, C.R. Doerr, , Acacia Communications Inc., Maynard, MAG. Roelkens, D. Van Thourhout, , Ghent University - imec, Ghent, BELGIUM	ATh3B.5	1159
Silicon Photonics III	High speed silicon modulators and germanium detectors	L. Vivien, D. Marris-Morini, M. Ziebell, G. Rasigade, L. Virot, E. CASSAN, P. Crozat, D. Bouville, , Univ. Paris sud - CNRS Inst d'Electronique Fondamentale, Orsay, FRANCEL. Virot, J. Hartmann, J. Fedeli, , CEA-Leti, Grenoble, FRANCEC. Baudot, F. Boeuf, , STMicroelectronics, Crolles, FRANCE	ATh4B.1	1161
Silicon Photonics III	Coupled-Resonator-Induced-Transparency in Cascaded Self-Coupled Optical Waveguide (SCOW) Resonators	L. Zhou, J. Xie, L. Lu, Z. Zou, X. Sun, J. Chen, , Shanghai Jiao Tong University, Shanghai, SHANGHAI, CHINA	ATh4B.2	1164
Silicon Photonics III	Two-Channel Simultaneous Polarization Demultiplexing and Wavelength Conversion for Polarization-Multiplexing Signals in a SOI Waveguide	Y. Xie, S. Gao, S. He, , Centre for Optical and Electromagnetic Research, State Key Laboratory of Modern Optical Instrumentation, Zhejiang University, Hangzhou, CHINA	ATh4B.3	1167
Silicon Photonics III	Chirped Optical Pulse Compression Using a Silicon Channel Waveguide	L. Cao, S. Gao, , Zhejiang University, Hangzhou, ZheJiang, CHINA	ATh4B.4	1169

Silicon Photonics III	Self-pulsation and excitability mechanism in silicon-on-insulator microrings	T. Van Vaerenbergh, M. Fiers, P. Mechet, T. Spuesens, R. Kumar, G. Mortier, K. Vandoorne, B. Schneider, P. Bienstman, Photonic Research Group, UGent-IMEC, Ghent, BELGIUMB. Schrauwen, J. Dambre, Electronics and information systems, UGent, Ghent, BELGIUM	ATh4B.5	1172
Silicon Photonics III	Design and Fabrication of a High Performance Beam Splitter Based on the Silicon Nanowire Waveguide	Z. Sheng, Z. Wang, C. Qiu, A. Wu, X. Wang, S. Zou, F. Gan, , Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, CHINAC. Qiu, L. Li, A. Pang, S. Zou, , Grace Semiconductor Manufacturing Corporation, Shanghai, CHINA	ATh4B.6	1175
Silicon Photonics III	Polarization Insensitive One-to-Six WDM Multicasting in a Silicon Nanowire	M. Pu, H. Hu, C. Peucheret, H. Ji, M. Galili, L.K. Oxenløwe, P. Jeppesen, J.M. Hvam, K. Yvind, , Danmarks Tekniske Universitet, Lyngby, DENMARK	ATh4B.7	1178
Silicon Photonics Sources	Monolithic integration of an electrically pumped Ge laser on Silicon	J. Michel, , Massachusetts Institute of Technology, Cambridge, MA	AF3B.1	N/A
Silicon Photonics Sources	Multi-Channel and High-Density Hybrid Integrated Light Source on Silicon Optical Waveguide Platform	T. Shimizu, M. Okano, N. Hatori, M. Ishizaka, Y. Urino, T. Yamamoto, M. Mori, T. Nakamura, Y. Arakawa, , PECST, Tsukuba/Tokyo, JAPANT. Shimizu, N. Hatori, M. Ishizaka, Y. Urino, T. Yamamoto, T. Nakamura, , PETRA, Tsukuba, Ibaraki, JAPANM. Okano, M. Mori, , AIST, Tsukuba, Ibaraki, JAPANY. Arakawa, , The University of Tokyo, Tokyo, JAPAN	AF3B.2	1182
Silicon Photonics Sources	Luminescent mechanisms of Si-rich SiOx analyzed by full-band time-resolved photoluminescence	C. Wu, G. Lin, , National Taiwan University, Taipei, TAIWAN	AF3B.3	1185
Silicon Photonics Sources	Room temperature photoluminescence from tensile-strained germanium-on-insulator fabricated by a Ge condensation technique	S. Huang, W. Lu, C. Li, W. Huang, H. Lai, S. Chen, Department of Physics, Semiconductor Photonics Research Center, Xiamen university, Xiamen, Fujian, CHINA	AF3B.4	1188
Silicon Photonics Sources	Hybrid silicon lasers: progress and perspectives	M. Fiorentino, D. Liang, G. Kurczveil, R.G. Beausoleil, , Hewlett Packard Labs, Palo Alto, CA	AF3B.5	1191
Slow Light	Integrated Photonics Enabled by Slow Light	J. Moerk, Y. Chen, S. Ek, T. Suhr Skovgaard, M. Heuck, K. Yvind, , Danmarks Tekniske Universitet, Kngs. Lyngby, DENMARK	AS3H.1	1194
Slow Light	Experimental evidence for the mirage effect and giant dispersive phenomena in graded photonic crystals	E. CASSAN, K. Do, X. Le Roux, , Institut d'Electron Fondam (Univ. PSud), Orsay, FRANCEJ. Dellinger, B. Cluzel, F. De Fornel, , Laboratoire Interdisciplinaire Carnot de Bourgogne, CNRS, Dijon, FRANCE	AS3H.2	1195
Slow Light	Dispersion engineered wide slot photonic crystal waveguides by Bragg-like corrugation of the slot to a comb	C. Caer, X. Le Roux, E. CASSAN, Institut d'Electronique Fondamentale, University Paris-Sud, Orsay, FRANCEX. Le Roux, , CNRS, Orsay, FRANCE	AS3H.3	1197
Slow Light	A Tunable Bragg Grating Optical Delay Line Based on Chirp Dynamic Tuning	S. Lili, L. Zhou, Z. Zou, T. Ye, J. Chen, , Shanghai Jiaotong University, Shanghai, SHANGHAI, CHINA	AS3H.4	1199
Slow Light	Compact and spectrally selective asymmetric co-directional coupler using slow light photonic crystal waveguide	E. CASSAN, A. Lupu, , Institut d'Electron Fondam (Univ. PSud), Orsay, FRANCE	AS3H.5	1202
Solar Cells and Thermoelectric Technologies	Coupling between radiation and internal modes: light trapping in thin film solar cells with periodic texture	F. Haug, A. Naqavi, C. Ballif, , Ecole Polytechnique Federale de Lausanne, Neuchatel, SWITZERLAND	AF3F.1	1204
Solar Cells and Thermoelectric Technologies	Aluminum Nanoparticles for Efficient Light-trapping in Plasmonic Gallium Arsenide Solar Cells	X. LI, , Soochow University, Suzhou, JIANGSU , CHINA	AF3F.2	1206
Solar Cells and Thermoelectric Technologies	High Performance Multi-Junction Solar Cells	H. Yang, Institute of Physics, Chinese Academy of Sciences, Zhongguancun, CHINA	AF3F.3	N/A

Solar Cells and Thermoelectric Technologies	III-Nitride Based Thermoelectric – Current Status and Future Potential	J. Zhang, H. Tong, G. Liu, N. Tansu, , , ChengDu, SICHUAN, CHINA	AF3F.4	1210
Solar Cells and Thermoelectric Technologies	Solar Energy Conversion into Electricity and Hot Water by Thermoelectric Effect	Z. Ren, Department of Physics, Boston College, Chestnut Hill, MA	AF3F.5	1211
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks I	Heterogeneous Photonic and Electronic Integrated Circuit Technologies for future Computing and Networking Systems	B. Yoo, , University of California Davis, Davis, CA	AW1A.1	N/A
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks I	III-V and Silicon Photonic Integrated Circuit Technologies	T.L. Koch, , University of Arizona, Tucson, AZ	AW1A.2	N/A
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks I	Silicon- and Plasmonics-based Nanophotonics for Telecom and Interconnects	L. Wosinski, F. Lou, L. Thylen, School of ICT, Royal institute of Technology, Kista, SWEDENL. Wosinski, D. Dai, L. Thylen, 2JORCEP (Joint Research Center of Photonics of the Royal Institute of Technology (Sweden) and Zhejiang University), , Zhejiang University, Hangzhou, CHINAD. Dai, Centre for Optical and Electromagnetic research, State Key Laboratory for Modern Optical Instrumentation, Zhejiang University, Hangzhou, CHINAZ. Wang, Department of Information Technology (INTEC), Gent University, Gent , BELGIUM	AW1A.3	1214
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks I	Silicon Based Modulators and Systems for Short Reach Interconnect	G.T. Reed, , University of Surrey, Guildford, UNITED KINGDOM	AW1A.4	1215
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks II	Si/Ge/silica monolithic photonic integration for telecommunication applications.	K. Yamada, Microsystem Integration Laboratories, NTT, Atsugi, JAPANK. Yamada, Material Engineering, University of Tokyo, Tokyo, JAPAN	AW2A.1	N/A
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks II	Silicon Photonics for High Speed WDM Optical Engine Application	D. Feng, M. Asghari, , Kotura, Inc., Monterey Park, CA	AW2A.2	1217
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks II	Silicon and Hybrid Silicon Photodetectors for Photonic Integrated Circuits	A.W. Poon, S. Feng, Y. Zhang, Y. Li, Y. Geng, K. Lau, , Hong Kong Univ of Science & Technology, Hong Kong, HONG KONG	AW2A.3	1218
Special Workshop: Photonic Integrated Circuits for Next Generation Computers and Networks II	Modeling Challenges for Large-scale Photonic Integrated Circuits	A. Richter, , VPI Systems, Berlin, GERMANY	AW2A.4	1219

Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Un-met Challenges in the Biomedical Field-examples from Medicine-Can Photonics Meet Some of These?	K. Svanberg, Department of Oncology, Lund University, Lund, SWEDENK. Svanberg, Centre for Optics and Electromagnetic Research, South China Normal Univ., Guangzhou, CHINA	ATh4H.1	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Microrheology for Biomedical Applications	A. Chiou, , National Yang-Ming University, Taipei , TAIWAN	ATh4H.10	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Problems and Opportunities in Commercialization in Applied Photonics	S.R. Svanberg, , Lunds Universitet, Lund, SWEDEN	ATh4H.2	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	BioPhotonics in Europe	J. Popp, , Friedrich-Schiller University Jena, Jena, GERMANY	ATh4H.3	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Promoting Innovation in Biophotonics to Economical Growth	D. Matthews, , University of California Davis, Sacramento, CA	ATh4H.4	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	The Global Market for Photonics	E. Arthurs, , SPIE, Bellingham, WA	ATh4H.5	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Title to be Announced	X. Li, Dept. of Biomedical Engineering, Johns Hopkins University, Baltimor4e, MD	ATh4H.6	N/A

Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Title to be Announced	H. Ma, , Tsinghua University, Shenzhen, CHINA	ATh4H.7	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Title to be Announced	C. Sun, , National Taiwan Univ., Taipei, TAIWAN	ATh4H.8	N/A
Special Workshop: Biophotonics Challenges-Research Frontiers vs. Biomedical Applications in the Real World and Commercialization I: Invited Speakers	Title to be Announced	D. Xing, , South China Normal University, Guangzhou, CHINA	ATh4H.9	N/A
Transmission Impairments	Phase estimation in Digital Coherent Optical Communications	C. Yu, P. Kam, S. Cao, ECE Department, National University of Singapore, Singapore, SINGAPOREC. Yu, , A*STAR Institute for Infocomm Research, Singapore, SINGAPORE	AS4C.1	1230
Transmission Impairments	Blind and Low Complexity CD Compensation and Estimation Method in DSP based Coherent Optical Systems	E. Matarazzo, R. Corsini, A. Peracchi, T. Foggi, G. Meloni, L. Potì, E. Ciaramella, , CNIT, Pisa, ITALYR. Magri, , Ericsson Telecomunicazioni, P isa, ITALY	AS4C.2	1234
Transmission Impairments	An Investigation on Power Allocation between Subcarriers with Mixed Formats in Spectrum-flexible Optical Networks	S. Ma, B. Guo, Y. Zhao, X. Chen, J. Li, Z. Chen, Y. He, , Peking University, Beijing, CHINA	AS4C.3	1237
Transmission Impairments	Nonlinearity equalization technology in digital coherent receiver	T. Yoshida, , Mitsubishi Electric Corporation, Kamakura, JAPAN	AS4C.4	1240
Transmission Impairments	Stabilization of 40 Gbit/s Optical DQPSK Receiver	T. Chikamoto, M. Nishioka, T. Shimizu, H. Toda, , Doshisha University, Kyotanabe, Kyoto, JAPANK. Inafune, M. Kagawa, H. Murai, , Oki Electric Industry Co., Ltd., Warabi, Saitama, JAPAN	AS4C.5	1243
Transmission Impairments	Long Term Monitoring of Chromatic Dispersion Fluctuations in a Buried Fiber Cable in a Tropical Climate	K.H. Fong, , Telekom Research & Development Sdn Bhd, Kuala Lumpur, Wilayah Persekutuan, MALAYSIA	AS4C.6	1246
White LED Technologies and III-Nitride Solar Technologies	Nanocrystal Optoelectronics for High Quality Semiconductor Lighting	H. Demir, , Bilkent University, Ankara, TURKEY	AS2F.1	N/A
White LED Technologies and III-Nitride Solar Technologies	Simulataneous Formation of InGaN Nanostructures with Varying Shapes for White Light Source Applications	A. Gasim, T.K. Ng, B.S. Ooi, Photonics Laboratory, King Abdullah Univ. of Science & Technol, Thuwal, SAUDI ARABIAD. Cha, 2Advanced Nanofabrication, Imaging and Characterization Core Laboratory, King Abdullah Univ. of Science & Technol, Thuwal, SAUDI ARABIAP.K. Bhattacharya, 3Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI	AS2F.2	1250
White LED Technologies and III-Nitride Solar Technologies	Design of Phosphorescent OLED Materials	H. Agren, B.F. Minaev, , Royal Institute of Technology, Stockholm, SWEDEN	AS2F.3	N/A

White LED Technologies and III-Nitride Solar Technologies	III-nitride Photovoltaics	J. Wierer, , Sandia National Laboratories, Albuquerque, NM	AS2F.4	1252

Additional Paper: The localized surface plasmon resonance sensor based on tapered optical fiber modified with gold nanoparticles (AF4B.10) 1253

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