PROCEEDINGS OF SPIE

Eleventh International Conference on Information Optics and Photonics (CIOP 2019)

Hannan Wang Editor

6–9 August 2019 Xi'an, China

Organized by Chinese Laser Press (China) Northwestern Polytechnical University (China)

Technical Cosponsor SPIE

Published by SPIE

Volume 11209

Part One of Two Parts

Proceedings of SPIE 0277-786X, V. 11209

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Eleventh International Conference on Information Optics and Photonics (CIOP 2019) edited by Hannan Wang, Proc. of SPIE Vol. 11209, 1120901 · © 2019 SPIE CCC code: 0277-786X/19/\$21 · doi: 10.1117/12.2559483 The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:

Author(s), "Title of Paper," in Eleventh International Conference on Information Optics and Photonics (CIOP 2019), edited by Hannan Wang, Proceedings of SPIE Vol. 11209 (SPIE, Bellingham, WA, 2019) Seven-digit Article CID Number.

ISSN: 0277-786X ISSN: 1996-756X (electronic)

ISBN: 9781510631731 ISBN: 9781510631748 (electronic)

Published by **SPIE** P.O. Box 10, Bellingham, Washington 98227-0010 USA Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445 SPIE.org Copyright © 2019, Society of Photo-Optical Instrumentation Engineers.

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$21.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code is 0277-786X/19/\$21.00.

Printed in the United States of America by Curran Associates, Inc., under license from SPIE.

Publication of record for individual papers is online in the SPIE Digital Library.



Paper Numbering: Proceedings of SPIE follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

• The first five digits correspond to the SPIE volume number.

• The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

xv Authors xxiii Conference Committee

Part One

	ELEVENTH INTERNATIONAL CONFERENCE ON INFORMATION OPTICS AND PHOTONICS (CIOP 2019)
11209 02	An open-cavity fiber Fabry-Perot interferometer fabricated by femtosecond laser micromachining for refractive index sensing [11209-3]
11209 03	Bright-dark pulse pair and soliton bunch generation from mode-locked erbium-doped fiber laser with GIMF-SIMF-GIMF as a saturated absorber [11209-5]
11209 04	Electronic, optical properties, and effective masses of $Al_xGa_{1-x}As$ and $In_yGa_{1-y}As$ based on the first principle [11209-6]
11209 05	Electron density analysis of plasma produced by laser irradiation of silicon nitride ceramics [11209-7]
11209 06	Accurate x-ray source dimension measurement by the spherically bent crystal imaging system [11209-8]
11209 07	Fast detection and recognition method of UAV in sky background [11209-9]
11209 08	Ultra-long optical needles with controllable homogeneously 3D spin-orientation produced with an annular spherical mirror [11209-10]
11209 09	The impact of radio-frequency magnetic field on atomic magnetometer [11209-11]
11209 0A	Ultra-precision grinding of transparent AION optical window [11209-13]
11209 OB	Temperature sensing based on photonic crystal fiber filled with thermo-optic liquids of Ethanol- Toluene mixed solution [11209-14]
11209 OC	Light addressable potentiometric sensor phase rapid detection method based on orthogonal detection [11209-17]
11209 OD	Design of CPA reflective mirror in space laser communication via multi-objective optimization [11209-18]
11209 OE	Supercontinuum generation covering visible and near-infrared band in random fiber laser structure [11209-19]

11209 OF	Tilt interferometer for detecting gravitational wave signals at high frequencies [11209-21]
11209 0G	Compression of digital holograms with wavelet transform [11209-24]
11209 OH	Raman spectral properties of Fenbendazole molecules [11209-25]
11209 01	Low-dose CT with a deep convolutional neural network blocks model using mean squared error loss and structural similar loss [11209-26]
11209 OJ	Wide-range frequency offset estimation method for a coherent optical FBMC/OQAM system [11209-28]
11209 OK	Polarization demultiplexer based on a silicon nitride-silica-silicon horizontal slot waveguide [11209-29]
11209 OL	Design of high efficiency ITO phase/intensity modulator based on ultra-thin silicon strip waveguide [11209-30]
11209 OM	Design of variable weight 2D-MD code for spectra/spatial OCDMA systems [11209-31]
11209 ON	Optical unitary transformation of general nonoverlapping-image multimode interference couplers [11209-33]
11209 00	Investigation of cavity confinement enhancing effect in femtosecond laser induced breakdown spectroscopy [11209-35]
11209 OP	In-motion monitoring of atmospheric methane and ethane using a mid-infrared dual-gas simultaneous detection sensor [11209-36]
11209 0Q	Effect of laser energy and polarization on RF emission characteristics of laser induced air plasma [11209-37]
11209 OR	The ionization dose radiation effects of analog front-end for satellite-borne directional polarization camera [11209-38]
11209 OS	Impacts of primary intensity of color gamut in multi-primary display [11209-39]
11209 OT	Noise-like pulses with low repetition rate in an all-polarization-maintaining mode-locked figure-of-9 Er-doped fiber laser [11209-40]
11209 0U	A scheme of color gamut measurement by color discrimination based on human eyes [11209-41]
11209 OV	Effect of recording location on phase-shifting radial-shearing digital holography [11209-43]
11209 OW	Holographic AR display based on free-form lens combiner and LED illumination [11209-44]
11209 OX	Calibration method for a laser-based alignment system [11209-46]

11209 OY	Experimental study on pulsed gamma-ray radiation-induced absorption in optical fibers [11209-47]
11209 OZ	Displacement measurement using Talbot effect [11209-49]
11209 10	High extinction ratio subwavelength grating ring resonator [11209-50]
11209 11	Plasmonic voltage tunable filter based on H-type resonators [11209-51]
11209 12	Infrared dual-band image fusion with simplified pulse coupled neural network and visual saliency map in nonsubsampled shearlet transform domain [11209-52]
11209 13	Load balancing algorithm based on secure routing strategy in satellite optical networks [11209-54]
11209 14	Stable OFC generator based on cascaded phase modulators [11209-56]
11209 15	A parallel timing synchronization architecture for all-digital coherent receiver [11209-57]
11209 16	Hydrogen adsorption and storage of pristine and metal decorated hexagonal GaN monolayer: a first-principles study [11209-58]
11209 17	Combustion wave of monocrystalline silicon induced by millisecond laser [11209-60]
11209 18	Long-term beamwidth and quivering of a modified Bessel Gaussian Schell vortex beam in oceanic turbulence [11209-61]
11209 19	Relative intensity noise suppression of intensity modulator and semiconductor optical amplifier [11209-62]
11209 1A	Design and finite element analysis of a vacuum chuck for weak rigid body parts [11209-63]
11209 1B	Measurement and characterization of feature parameters for assembly parts based on blue structured light [11209-64]
11209 1C	Hybrid integration of high-speed MUTC-PD on SOI [11209-65]
11209 1D	Temperature compensation effect of different packaged FBGs under abrupt temperature changing environment [11209-66]
11209 1E	Research on terahertz image denoising using quadtree-based non-local means [11209-67]
11209 1F	Tunable infrared photodetector based on graphene plasmons controlled by ferroelectric domains [11209-68]
11209 1G	Imaging cancer-associated fibroblasts in human breast tumor tissue using multiphoton microscopy [11209-70]

11209 1H	Ag nanoparticles locally enhanced high performance coupled plasmon waveguide resonance biosensor [11209-71]
11209 11	Design of low noise processing technology based on digital domain [11209-72]
11209 1J	Linear verification of signal demodulation in fiber nutation tracking system [11209-73]
11209 1K	In-situ absolute measurement method for reference surface error of large aperture interferometer based on oblique incidence [11209-74]
11209 1L	Interlaced scanning by laser ultrasonic for defects imaging of train rail surface [11209-75]
11209 1M	Design and analysis of a broadband nanoantenna for energy harvesting [11209-76]
11209 1N	Research on BP neural network for terahertz image segmentation [11209-77]
11209 10	Optimized detector angle for improving signal-to-noise ratio of pinhole x-ray fluorescence computed tomography [11209-78]
11209 1P	3D self-assembly technique applied to manufacturing microsphere whispering gallery mode laser [11209-79]
11209 1Q	Comparative study of the beam steering by a single layer of dielectric and magnetic cylinders [11209-80]
11209 IR	Thermal simulation and structure design of thermally tuned multi-channel interference (MCI) laser [11209-82]
11209 15	Automatic test system for multiwavelength laser-induced damage threshold measurements [11209-83]
11209 IT	The influences of color space in the process of resolution enhancement for digital images [11209-84]
11209 1U	Robust weighted least-squares phase-unwrapping algorithm [11209-85]
11209 1V	Partial coherence measurement for the illumination system in excimer laser lithography based on CCD image sensor [11209-86]
11209 IW	One-shot common-path phase-shifting holography based on micropolarizer camera and large-shearing Wollaston Prism [11209-87]
11209 1X	Optical fiber hydrogen sensor based on a no-core fiber structure [11209-88]
11209 IY	Single channel encryption of color image based on compressed sensing and tricolor grating [11209-90]
11209 1Z	Perimeter monitoring of urban buried pipeline subject to third-party intrusion based on fiber optic sensing and convolutional neural network [11209-91]

11209 20	Quasi-distributed temperature sensing using apodized fiber Bragg grating array [11209-96]
11209 21	Evaluation of the synergistic effect of tamoxifen and HSP70 inhibitor on breast cancer cells based on optical metabolic imaging [11209-97]
11209 22	Full-field optical coherence tomography with an acousto-optically tuned external-cavity laser diode (Invited Paper) [11209-98]
11209 23	Dendrimer phthalocyanine based nanoparticles: an effective photosensitizer for enhanced photodynamic therapy [11209-99]
11209 24	Smartphone based spectrometry platform for mobile health: from spectrometer to multispectral imager [11209-101]
11209 25	A method of measuring FP transmittance based on whispering gallery mode light source [11209-103]
11209 26	Development of vehicle-mounted mie scattering lidar system and aerosol detection cases [11209-104]
11209 27	SDM-WDM-based multiple objects visible light positioning by using conventional monitoring system [11209-106]
11209 28	Inverse spatially offest Raman spectroscopy and its applications sub-surface material detections [11209-107]
11209 29	Utilizing Raman spectral imaging for distinguishing breast cancer from hyperplasia [11209-108]
11209 2A	Modulation format recognition scheme using orthogonal codewords for wavelength division multiplexing system [11209-109]
11209 2B	Study on a fiber Bragg grating accelerometer based on push-pull compliant cylinders [11209-111]
11209 2C	Finite simulation of weld inspection using time-of-flight diffraction method based on laser ultrasonic [11209-113]
11209 2D	Controlling EPR correlations via a coherent signal injection [11209-114]
11209 2E	Femtosecond mode-lock fiber laser with GIMF-SIMF-GIMF structure as the saturable absorber [11209-115]
11209 2F	High-speed light focusing through multimode fiber for spot-scanning imaging [11209-116]
11209 2G	Inverse optimization for designing wide angle diffractive optical element [11209-117]
11209 2H	High reliability transmission system in mobile front haul using a maximal ratio combined receiver with direct and lite-coherent detections [11209-119]
11209 21	Wavelength self-sweeping Yb-doped bi-directional fiber ring laser [11209-121]

- 11209 2JFinite element simulation of photoacoustic imaging of gastric tissue and the related tumor
[11209-122]
- 11209 2K The optical delay measurement for Lijiang Exoplanet Tracker [11209-123]
- Sensing properties of tapered optical fiber coated with atactic polystyrene thin film [11209-124]
- 11209 2M Camera distortion correction method based on cross ration invariance [11209-125]
- 11209 2N Four-wave mixing in integrated photonic waveguides [11209-126]
- 11209 20 A probabilistic shaping 12-QAM scheme based on set-partitioned two-polarization [11209-127]
- 11209 2P Interferenceless coded aperture correlation holography (I-COACH) adaptive compression imaging [11209-128]
- 11209 2Q Study of the modulating efficiency of white LED with different rated powers [11209-129]
- 11209 2R High quality x-ray imaging based on cumulation of forward projection of computed tomography [11209-130]
- 11209 2S Color M-array shape reconstruction of using grid points and center points [11209-132]
- 11209 2T Identifying classic and florid lobular carcinoma in situ using multiphoton microscopy [11209-133]
- 11209 20 An efficient multiplexed optical-fiber sensing method for human tracking [11209-134]
- 11209 2V Research on light-flux fluctuations reciprocity of bidirectional atmospheric laser transmission channel [11209-135]

Part Two

- 11209 2W Identifying three different grades of human breast ductal carcinoma in situ using multiphoton microscopy [11209-136]
- 11209 2X Inverse design of semiconductor laser parameters based on deep learning and particle swarm optimization method [11209-137]
- 11209 2Y Normal incidence polarization independence, oblique incidence large angle insensitivity broadband plasmonic absorber from ultraviolet to near infrared [11209-140]
- 11209 2ZPhase-only optical image encryption and hiding based on normalization and
orthogonalization phase-shifting algorithm [11209-141]
- 11209 30 Influence of the driving signal reflection in the electrode on the signal characteristics of silicon Mach-Zehnder modulators [11209-143]

viii

11209 31	Study on mechanical structures for large flat applied to large-aperture interferometer [11209-144]
11209 32	Interaction of gold nanorods with ovarian cells: toxicity, uptake and intracellular distribution [11209-146]
11209 33	Research on phase mask method-based phase-shifted fiber grating fabrication and sensing properties [11209-147]
11209 34	Polarization-dependent plasmonic color filter based on different sizes nanodisk arrays built-up structure [11209-148]
11209 35	Perfect ultra-narrow band absorber based on lamellar structure for refractive index sensing [11209-149]
11209 36	Fiber optic surface plasmon resonance technology for detection mercury ion [11209-154]
11209 37	Compact data acquisition system for micro spectrometer [11209-156]
11209 38	The nature of non-equilibrium ultrafast demagnetization in ferromagnetic nickel (Invited Paper) [11209-157]
11209 39	Bipolar resistive switching of Ge₂Sb₂Te₅ material [11209-158]
11209 3A	Synthesis and photophysical properties of polyfluoroalkylyate silicon (IV) phthalocyanine [11209-159]
11209 3B	Effect of solvent polarity on surface characteristics and luminescent properties of octadecanethiol passivated GaAs [11209-161]
11209 3C	Terahertz absorber based on graphene coating [11209-162]
11209 3D	Accelerated wavefront sensing based autofocusing using graphics processing unit, field of view reduction and down-sampling [11209-166]
11209 3E	On-site portable single molecule fluorescence imaging device for high-sensitive and accurate target detection [11209-167]
11209 3F	Real-time cellular phase imaging using dual-view transport of intensity phase microscopy [11209-168]
11209 3G	Non-uniform QAM OFDM modulation system based on probabilistic shaping and geometric shaping [11209-169]
11209 3H	Humidity sensor based on twin-hole fiber filled with black phosphorus [11209-170]
11209 31	Method for realizing controllable high voltage in femtosecond laser guided high voltage discharge experiment [11209-171]
11209 3J	Numerical simulation of rail surface defect detection with laser-induced ultrasound [11209-174]

11209 3K	A MEMS-based opto-acoustic-fluidic system for cell imaging [11209-175]
11209 3L	Ultrafast optical resolution photoacoustic microscopy in vivo [11209-176]
11209 3M	A three dimensional point cloud registration method based on backpropagation neural network and random sphere cover set [11209-177]
11209 3N	Research on segmentation of key parts for train safety based on deep learning [11209-179]
11209 30	High-resolution imaging of optical interferometric telescope [11209-180]
11209 3P	Study of the microwave photonic sensing by utilizing the incoherent light source with the serial fiber Bragg gratings [11209-181]
11209 3Q	Diffusion correlation spectroscopy and color doppler ultrasound measurements of blood flow and pulse wave: a comparison study [11209-182]
11209 3R	Study of the third-order nonlinear optical properties of Fe2O3 nanoparticles using the femtosecond intensity scan technique [11209-185]
11209 35	Measuring the biomechanical properties of prostate tumor tissues by atomic force microscopy [11209-186]
11209 3T	Probing the surface micro-nanostructure of ovarian cancer cells using atomic force microscopy [11209-187]
11209 3U	A probabilistic shaping 64QAM scheme based on multilevel coded modulation [11209-188]
11209 3V	Single-source double heterodyne coherent detection high-speed moving target [11209-189]
11209 3W	Indoor near-infrared optical wireless communications with silicon photonic integrated circuits and spatial diversity (Invited Paper) [11209-193]
11209 3X	Optimal design for large-scale MZI silica on silicon optical thermo switching matrix [11209-194]
11209 3Y	A novel method for extracting structural light stripe centerline based on light intensity distribution direction [11209-195]
11209 3Z	Propagation characteristics of vortex beam using visualization analysis [11209-196]
11209 40	Plasmonic properties of AuSi and its nanostructures [11209-197]
11209 41	Three-dimensional polarization tracking model of interactions between light and scattering media [11209-198]
11209 42	Sensing application of metamaterial perfect absorber based on nanodisk array [11209-199]
11209 43	Range-gated laser active imaging controlling system based on ARM and FPGA architecture [11209-200]

11209 44	Multi-mode high-dynamic-range photodetecting scheme based on the novel gate-controlled lateral thyristor [11209-201]
11209 45	Two photon luminescence of gold nanorods with breast cancer cells [11209-202]
11209 46	A dynamic RWA algorithm based on genetic algorithm in SDON [11209-203]
11209 47	Abnormal target detection for key components of locomotive based on image processing [11209-204]
11209 48	Dynamic optimized lamps distribution based on genetic algorithm for visible light communications (Invited Paper) [11209-205]
11209 49	Distinguishing normal and early gastric cancer mucosal structures by multiphoton microscopy [11209-206]
11209 4A	Label-free imaging of bile duct tissues with multiphoton microscopy [11209-207]
11209 4B	Core-shell nanoparticles as surface-enhanced raman scattering substrates for sensitive detection of thiram [11209-208]
11209 4C	Longitudinal monitoring of blood perfusion and brain tissue damage in photothrombotic ischemic stroke rat model [11209-209]
11209 4D	Image super-resolution via deep residual network [11209-210]
11209 4E	Numerical studies of electromagnetic instability and self-generated magnetic field in anisotropic plasma [11209-212]
11209 4F	An immunoturbidimetric assay for specific proteins identification from whole blood based on multi-layered centrifugal microfluidic chip [11209-213]
11209 4G	Sub-100-fs bulk solid-state lasers near 2-micron (Invited Paper) [11209-214]
11209 4H	Analysis of the normal mode effect in resonator integrated optic gyro [11209-216]
11209 41	Design of a Talbot array illuminator based on two-dimensional binary phase grating [11209-217]
11209 4J	Study on multi-parameter measurement of an arbitrary wave plate [11209-218]
11209 4K	Design and simulation of a polarization insensitive optical 90° hybrid based on InP multimode interference coupler [11209-219]
11209 4L	Amplitude-phase precoding scheme for high speed ROF-MIMO systems [11209-220]
11209 4M	Nonlinear optical properties in BP QDs and nanosheets [11209-222]

11209 4N	Particle scattering field calculation and analysis based on Mie scattering theory [11209-223]
11209 40	A novel 3D profile measurement method based on digital photoelastic technology [11209-224]
11209 4P	Simultaneous measurement of strain and torsion based on a seven-core fiber Mach-Zehnder interferometer [11209-225]
11209 4Q	Microgroove based optical fiber refractive index sensor [11209-227]
11209 4R	Research on optimal persistent formation algorithm of wireless ultraviolet collaboration UAV [11209-228]
11209 4S	Bee colony drone formation ultraviolet non-ranging positioning method [11209-229]
11209 4T	Extended filamentation of temporally chirped femtosecond Bessel beam in fused silica [11209-230]
11209 4U	Theoretical and experimental study of the resonance frequency of fiber Bragg grating accelerometer based on equal strength cantilever beam [11209-231]
11209 4V	Direct wafer bonding of GaAs/Si by hydrophobic plasma-activated bonding [11209-232]
11209 4W	Quantum-enhanced metal target detection based on quantum illumination [11209-233]
11209 4X	Object detection and recognition method based on binocular [11209-234]
11209 4Y	Study of technology on spectral polarization imaging [11209-235]
11209 4Z	Single photon counting 3D imaging implemented under signal-to-noise ratio less than one [11209-236]
11209 50	Design and detection experiment of a portable platelet aggregation instrument [11209-237]
11209 51	Intense terahertz waves generated by three-color laser with different frequency ratios [11209-238]
11209 52	Watermarking structured light patterns for one-shot, extendable 3D scanning [11209-239]
11209 53	Microwave channelization based on dual coherent optical frequency combs [11209-240]
11209 54	Inspection of impact damage on CFRP by lock-in induction thermography [11209-242]
11209 55	Theoretical analysis and ZEMAX simulation of the effect of target distance on collection efficiency of fiber probe [11209-243]
11209 56	A chaotic stochastic parallel gradient descent algorithm for fast phase correction of optical phased array [11209-244]

11209 57	A dual-wavelength harmonic mode-locking fiber laser based on sheets-structured bismuthene [11209-245]
11209 58	Joint blind equalization of PDL and RSOP using extended Kalman filter algorithm in stokes vector direct detection system [11209-248]
11209 59	Neural network optimization and high-speed railway wheel-set size prediction forecasting based on differential evolution [11209-249]
11209 5A	Polarization tunable terahertz plasmon induced transparency in graphene ring-rod metamaterial [11209-251]
11209 5B	RF signal generation, hopping and switching based on negative wavelength detuning in SMFP- LDs (Invited Paper) [11209-252]
11209 5C	SNR enhancement receiver based on dual-comb microwave photonic channelization [11209-253]
11209 5D	Effect of the pressure on the performance of Pb3O4/Mg/PTFE infrared decoy [11209-254]
11209 5E	Time-gated and lifetime-unmixed imaging of near- and short wave infrared photoluminescence from rare-earth ion doped nanoparticles [11209-255]
11209 5F	Phase extraction method with spatial-temporal fringe [11209-256]
11209 5G	Femtosecond streak tube with large work area and small size for 3D imaging lidar [11209-257]
11209 5H	Influence of electrical filter bandwidth on the performance of frequency-scanning BOTDR [11209-258]
11209 51	Free-form surface measurement based on fringe reflection [11209-261]
11209 5J	A facile way to synthesize dual-drug delivery nanocarrier for highly efficient therapy and tracing of intracellular drug release [11209-263]
11209 5K	Controllability of refractive index of optical thin films and its application in antireflective coatings of multi-junction solar cells [11209-266]
11209 5L	Label-free imaging of collagen as a potential diagnostic marker for detection of gliomas [11209-267]

Authors

Numbers in the index correspond to the last two digits of the seven-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first five digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Abudurexiti, A., 4E An, Q., 57 An, Xining, 4X Ba, Qingtao, 1Q Ba, Rongsheng, 1S Bai, Jintao, 21 Bai, Qing, 5H Bai, Yunbo, 1K Bai, Zijian, 2S Bao, Yidi, 4V Bassi, Snehi, 5B Bi, Hao, 20 Bi, Linjie, 5K Blair, C., OF Blair, D., OF Blonsky, Adam, 38 Bo, Baoxue, 3B Bryanston-cross, Peter J., 41 Bu, Fan, 11 Cai, Hong-Xing, 05 Cai, Huaqiang, 4G Cai, Pengcheng, 05 Cai, Xueyi, 2Q Cao, Changqing, 12 Cao, Dandan, 4R Cao, Guixing, 13 Cao, Wei-cheng, 11 Chai, Liqun, 1S Chai, Wenyi, 0D Chang, Junwei, 4T Chang, Liang, 2K Chao, Enfei, 1C Chen, Bo, OJ Chen, Chen, 1P, 24 Chen, Cong, 38 Chen, di hu, OR Chen, Dong, 0C Chen, Dong, 20 Chen, Guanjun, 40 Chen, Guo-Xiang, 16 Chen, Hao, 5B Chen, Hui, 2F Chen, Jian, 48 Chen, Jianling, 32, 45 Chen, Jianxin, 1G, 2T, 2W, 5L Chen, Jianzhong, 4l, 4J Chen, Jun, OZ Chen, Kuizhi, 23 Chen, Lanjian, OE

Chen, Mengdan, 3S, 3T Chen, Peifeng, 08 Chen, Peng, 5J Chen, Quanan, 1R Chen, Shenghai, 10 Chen, Weibigo, 15, 1J Chen, Weidong, 4G Chen, Wen, 56 Chen, Xiangning, 30 Chen, Xingxing, 3K Chen, Xinyang, 3O Chen, Xiuqin, 3A Chen, Xuan-Li, 52 Chen, Youting, 4A Chen, Zhong, 2T, 2W Chen, Zong-sheng, 5D Cheng, Minhua, 4S Cheng, Yun-yong, 3Y Cheng, Zhengdong, 07 Cho, Won Bae, 4G Choi, Samuel, 22 Choi, Sun Young, 4G Chong, Handan, 0J Chu, Jinkui, 41 Chu, Shuwen, 1X, 35, 36, 42 Chu, Shuwen, 2Y Chu, Yufei, 25, 26 Chuanlong, Guan, 41 Cui, Wenli, 2Y Cui, Xiaoqi, 3R Cui, Yiping, 5J Dai, Yujia, 00, 0Q Deng, Luzhen, 10 Deng, Qian, 25 Deng, Shibao, 18 Ding, Hui, 1P, 24 Ding, Lei, 1S Ding, Lixing, 2U Dina, Qina-an, 0M Ding, Yuanyuan, 3O Ding, Zhihua, 4C Dong, Guangxi, 1B Dong, Tianhao, OS, OU Dou, Hao, 3Y Dou, Xian-an, 3I Du, Kang, 3R, 40 Du, Xuewei, 06 Du, You, 2R, 3Y Duan, Fajie, 55

Duan, Yakang, 4D Fan, Cheng-yu, 3 Fan, Wen-Hui, 51, 5A Fan, Xiao-Bo, 16 Fang, Na, 5L Fang, Q., OF Feng, Jinchao, 3Q Feng, Pei, 2X Feng, Peng, 0l, 10 Feng, Zhejun, 12 Feng, Zuo, 4H Fengxiao, Zhai, 39 Fu, Haiwei, 3H Fu, Qiang, 4Y Fu, Yangying, 09 Fu, Yuegang, 41 Gan, Rui, 19 Gangwar, Rahul Kumar, 2H Gao, Hong, 4U Gao, Huixuan, 2Y, 35, 42 Gao, Min, 1J Gao, Peng, 4S Gao, Wenjing, 20 Gao, Xiaorong, 1L, 2C, 2M, 2S, 3J, 3M, 3N, 47, 59 Gao, Xin, 3B Gao, Xun, 0H, 0O, 0Q Ge, Hua, 2N Ge, Jian, 2K Ge, Qisi, 3Q Geng, LiYan, 4K Geng, Yi, 2F Geng, Yongqing, 37 Gentry, Christian, 38 Gong, Rui, 1T Gong, Yuanxia, 0Y Griebner, Uwe, 4G Gu, Chun, 0S, 0U Gu, Hang, 5H Gu, Yifan, 0H Gu, Yuzong, 4M Guan, Huan, OK, OL Guan, Qiuju, 2U Gui, Jinbin, 0G Gui, Lin, 2Q, 3P Guina, Mircea, 4G Guo, Bing, 0A Guo, Huichao, 43 Guo, Jianguang, 54 Guo, Jianqiang, 47 Guo, Jing, 10 Guo, Junxiong, 1F Guo, Lijun, 3X Guo, Ming, 17 Guo, P.L., 57 Guo, Ruikang, 1H Guo, Ruotao, 23 Guo, Weihua, 1R Guo, Wenhui, 1G Guo, Yi-ming, 31

Guo, Yongxing, 1D Guo, Yun-ci, 3P Guo, Zhihao, 11, 3C Han, Chunyang, 1P, 24 Han, Dahai, 27 Han, Liang, 3H Han, Qin, 4K Han, WeiHua, OL, ON, 4H Han, Yanjun, 1C Hao, Minru, 3Z Hao, Yunqi, 39 Hao, Zhibiao, 1C Hao, Zuoqiang, 4T Härkönen, Antti, 4G He, Dajiang, 10 He, Jiajia, 1G, 2T He, Jiayuan, 3W He, Peng, 0l, 10 He, Qingli, 28 He, Xiaoliang, 3D, 3E, 3F He, YuMing, 4H Hong, Jianxun, 2N Hong, jin, OR Hong, Yixiao, 2N Hou, Jing, OE Hou, Juan, 1Y Hou, Liangtao, 4Q Hou, Xia, 15, 1J Hu, Bin, OD Hu, Junhui, 4P Hu, Likun, 37 Hu, Qingping, 2D Hu, Rui, 4B Hu, Weidong, 2N Hu, Yongming, 0D Hua, Shijia, 3R, 3R Huang, Chun, 4B Huang, Hui, 4G Huang, Kuidong, 2R Huang, Lijun, 10 Huang, Longping, 37 Huang, Rui, 04 Huang, Tingting, 55 Huang, Wen, 1F Huang, Xingrui, OL Huang, Yin-bo, 31 Hui, Dandan, 5G Hui, Z.Q., 57 Ji, Kaifan, 2K Ji, Wenchao, 31 Jia, Kebin, 3Q Jiadi, Shao, 26 Jian, Dan, 3E Jiang, Chun, 1R Jiang, Desheng, 20 Jiang, Guozhang, 1D Jiang, Hui-lin, 2V, 4Y Jiang, Peng, 2K

Jiang, Rui, OL Jiang, Shan, 20 Jiang, Siyuan, 29 Jiang, Tian, 53, 5C Jiang, Wei, 30 Jiang, Xiangdong, 1H Jiang, Xiao-Qiang, 5A Jiang, Zhilong, 3D, 3E, 3F Jiang, Zhixiang, 0G Jin, Baoquan, 5H Jin, Bin, 2U Jin, Tian, 3K, 3L Jin, Xiaoyu, OG Jin, Yue, 1M Jing, Wei, 4G Jing, Zhenguo, 02, 2Y JU, L., OF Juntao, Cao, 58 Kang, Deyong, 1G, 2T, 2W Kang, Dezhi, 5L Kang, Yan, 4W, 4Z Kang, Yanhui, OX Kapteyn, Henry C., 38 Ke, Yizhen, 1F Keller, Mark, 38 Kong, Lingbao, 1A, 1B Kong, Yan, 3D, 3E, 3F Kuang, Yi, 1D Kuang, Yingxin, OK, OL, ON Kuang, Zhiqiang, 25 Lan, Tian, 04 Lee, Jeonghun, 3W Lei, Zhenkun, 1U, 1W Li, Ang, 02 Li, Bowen, 33 Li, Chong, 04 Li, Gongfa, 40 Li, Hang, 08 Li, Heping, 28, 29 Li, Hongtao, 1C Li, Hui, 21, 2J Li, Jiaosheng, 2Z Li, Jie, 1S Li, Jie, 28 Li, Jing, 04 Li, Jingsheng, 5H Li, Jingyan, 2D Li, Jinlong, 2C, 2M, 2S, 3M Li, Kangkang, 1M Li, Lifei, 4W, 4Z Li, Lijing, 56 Li, Mingcheng, 1H Li, Peng, 4C Li, Qi, 1E, 1N Li, Rui, 02 Li, Rui, 4L Li, Shangdong, 1F Li, Shaoying, OM Li, Shuang, 05

Li, Si-Qi, 16 Li, Suzhen, 1Z Li, Tai, 1J Li, Wei, 1H Li, Wenzhe, 5J Li, X.H., 57 Li, Xia, 23 Li, Xiang, 0M Li, XiaoLei, 1U Li, XiaoLei, 1W Li, Xiaoxiao, OJ Li, Xiuming, 55 Li, Yahong, 41 Li, Yangjie, 20, 2L Li, YanJie, 1U, 1W Li, Yaolu, 4M Li, Ying, 04 Li, You, 0V Li, Yu, 2X Li, Zezheng, OK, ON Li, ZhaoFeng, 4H Li, Zhaojun, 4Q Li, Zhe, 3Q Li, Zhifang, 2J Li, Zhihua, 30 Li, Zhiyong, OK, OL, ON Lian, Shuai, OH Liang, Changshuo, 5H Liang, Jian, 2U Liang, Qiyong, 18 Liao, Cheng, 4N Lim, Christina, 3W Lin, Hongxin, 49, 4A Lin, Hui, 37, 50 Lin, Jingquan, 0Q Lin, Ming, 4L Lin, ShuFeng, OW Lin, Xian, 2N Lin, Yuanxiang, 5L Lin, Zhoubin, 4G Ling, Zhi, 2S, 59 Liu, Changqing, 0M Liu, Chao, 2P Liu, Cheng, 3D, 3E, 3F Liu, Dong, 25 Liu, Fei, 3K Liu, Fuhua, OY Liu, Han, OA Liu, Huan, 1M Liu, J., OF Liu, Jiahe, OH Liu, Jianxia, 2L Liu, Jingkang, 4B Liu, Junjie, OJ Liu, Kangkang, 4F Liu, Kezhou, 4C Liu, Liwei, 4B Liu, Naijin, 13, 2A, 4L

Liu, Qiang, 02, 1X Liu, Qinpeng, 4U Liu, Rong, 5G Liu, Shijie, 1K, 31 Liu, Shiyang, 1Q Liu, Shuxu, 1Q Liu, Sijia, 1B Liu, Siming, 2H Liu, Ting, 54 Liu, Tingting, OZ Liu, Wen, 4V Liu, Xianzhu, 4Y Liu, Xiaoyong, 1V, 1Y Liu, Xin, 19 Liu, Xin, 2O Liu, Xuesheng, 04 Liu, Yang, OK Liu, Yang, 4Y Liu, Yeqi, 13 Liu, Yi, 2V Liu, Yinggang, 33, 3H Liu, Yuanyuan, 1M Liu, Yueying, 02 Liu, Yun, 1X Liu, Yusheng, 4V Liu, Yutao, 12 Liu, Zelong, 1Z Liu, Zhi, 2V Liu, Zhongbo, 4I, 4J Loiko, Pavel, 4G Long, Jiang, 1L, 3M, 3M Long, Zourong, Ol Lu, Baole, 21 Lu, Jiazhe, OH Lu, Li, 25, 26 Lu, mei na, OR Lu, Mengdi, 1X Lu, Pei, 1V, 1Y Lu, Qi, 31 Lu, Qiaoyin, 1R Lu, Shaowen, 1J Lu, Xiaoxu, 2Z Lu, ZiQing, 4K Lun, Baoli, 2K Luo, dong gen, OR Luo, Lin, 1L, 2C, 2M, 3J, 3M, 4D, 59 Luo, Lu-wei, 5D Luo, Yan, 10 Luo, Yanghuan, 2J Luo, Yi, 1C Luo, Yumin, 5C Lv, Yunjie, 4B Ma, Cui, 50 Ma, Dong-xiao, 5D Ma, Jing, 4V Ma, Qi, 07 Ma, Ruyi, 4N Ma, Yinjin, Ol Ma, Zihao, 2X

Mao, Linna, 1F Mao, Rui, 2A Mateos, Xavier, 4G Mei, Ting, 3R, 40 Mero, Mark, 4G Mi, Xianwu, 10 Murnane, Margaret M., 38 Na, Ningjin, 12 Nakarmi, Bikash, 5B Nannan, Liu, 39 Netzelmann, Udo, 54 Ni, Xiao-long, 2V Nie, Bowen, OM Nirmalathas, Ampalavanapillai, 3W Ohulchanskyy, Tymish Y., 5E Oppeneer, Peter M., 38 Pan, Jingyu, 31 Pan, Liyang, 44 Pan, Shilong, 14, 5B Pan, Zhongben, 4G Pang, Yang, 40 Pei, Yan, OT Peng, Jianping, 3J, 47 Peng, Renzhu, 1Z Peng, Wei, 02, 1X, 2Y, 35, 36, 42 Peng, Yiru, 23, 32, 3A, 45 Peng, Zhuang, 25, 26 Petrov, Valentin, 4G Qi, Lin, 3X Qi, Lizhe, 1B Qi, Weizhi, 3L Qi, Xinyuan, 21 Qian, Xiang, 58 Qiao, Chun-hong, 31 Qiao, Litao, 11, 3C Qiao, Xueguang, 2B, 4U Qin, Jun, 2H Qiu, zurong, 0X Qu, Junle, 5E Qun, Zhang, 58 Ran, Lingling, 4Q Ren, Huan, 1S Ren, Jia, 00 Ren, Jianying, 3V Ren, Liyong, 2F Ren, Panpan, 11, 3C Ren, Wenjiao, 1G, 2T Ren, Yangin, 2D Ren, Yu, 29 Rotermund, Fabian, 4G Ruan, Weiwei, 3S, 3T Sang, Xiang, 32, 45 Shangyong, Zhao, 00 Shao, Jianda, 1K Shao, Jianxin, 1V Shao, Min, 3H, 4U Shen, Honglin, 2Q Shen, Jin, 06 Shen, Tingfeng, 2T, 2W

Sheng, Xia, 3U Shi, Can, 27 Shi, Jie, 03, 2E Shi, Junxia, 2U Shi, Mengqi, 5K Shi, Qin, IV, IY Shi, Xun, 38 Si, Shuchun, 1U, 1W Song, Chao, 0H, 0O Song, Dongliang, 28, 29 Song, Juan, OM Song, Peng, 02 Song, Qiang, 2G Song, Rui, OE Song, Su-zhen, 2Q, 3P Song, Tingting, 3W Song, Wenwei, 47 Song, Xiaoya, 33 Song, Xiumin, 3G Song, Yang, 0D Songlin, Fu, 26 Su, Xiyuan, 12 Sugawara, Nariyasu, 22 Sui, Hao, 3J Sujuan, Liu, 39 Sun, Caihong, 49, 4A Sun, Changzheng, 1C Sun, Di, 1Y Sun, Haibin, OZ Sun, Haonan, 3H Sun, Huayan, 3V Sun, Huayan, 43 Sun, Keyang, 44 Sun, Ping, OZ Sun, Shaowei, 3F Suomalainen, Soile, 4G Suzuki, Takamasa, 22 Tan, Mengyuan, 48 Tan, Zhirong, 2N Tang, Xiaodong, 1S Tang, Bo, 30 Tang, Xiaoqiong, 3S Tao, Bo, 40 Tao, Ying, 13, 2A, 2O, 3G, 3U Tao, Zhensheng, 38 Teng, Ming-xuan, 2R, 3Y Tengdin, Phoebe, 38 Tian, Feng, 13, 2A, 2O, 3G, 3U, 4L Tian, Jindong, 2Z Tian, Jinshou, 5G Tian, Qinghua, 13, 2A, 2O, 3G, 3U, 4L Tong, Xingyuan, OC Tu, Bi-hai, OR Tu, Zihan, OP Van Gool, Luc J., 52 Wan, Yuhong, 2P Wang, Bei, 3O Wang, Biao, 4W, 4Z

Wang, Bing, 5D Wang, Binghe, OX Wang, Chaoyan, 30 Wang, Chenjie, 0D Wang, Chuan, 1G Wang, Chuanjun, 2K Wang, Congcong, 04 Wang, Daobin, 0J Wang, Di, 0W Wang, Fangfang, 4M Wang, Guan, OS, OU Wang, Guanghui, 4F Wang, Guangxing, 49, 4A Wang, Guoqing, 0G Wang, Hai-tao, 3 Wang, Hanqi, 51 Wang, Heng, 3R Wang, Jian, 1C Wang, Jiang Yun, 50 Wang, Jianguo, 2K Wang, Jiao, 23, 3A Wang, Jimin, 1H Wang, Jinhu, 0A Wang, Kai, 5A Wang, Kaile, 2I Wang, Ke, 3W Wang, Kexin, 32, 45 Wang, Lai, 1C Wang, Li, 4G Wang, Meiling, 1Q Wang, Min, 3K Wang, Minghui, 27 Wang, Ping, OY Wang, Qiao, 35 Wang, Qing, 1T Wang, Qinglin, 5H Wang, QiongHua, 0W Wang, Qiuping, 06 Wang, Shouyu, 3D, 3E, 3F Wang, Shuai, 4K Wang, Shuang, 28, 29 Wang, Tianrui, 3X Wang, Ting, 12 Wang, Tinggui, 2K Wang, Wei, 14 Wang, Wei, 1A Wang, Wei, 4I, 4J Wang, Xiangchuan, 14 Wang, Xiangyu, 2B Wang, Xiaodong, 27 Wang, Xiaodong, 4V Wang, Xiaoli, 2K Wang, Xiaxiao, 19 Wang, Xingfu, 5L Wang, Xingjun, 2H Wang, Xingliang, 1T Wang, Xingsheng, 0O, 0Q Wang, Xueyan, 1Y Wang, Yang, 3G, 4L

Wang, Yang, 3U Wang, Yang, 3W Wang, Yicheng, 4G Wang, Ying, 08 Wang, Ying-jian, 25, 31 Wang, Yongjun, 2O, 3G, 3U, 4L Wang, Yue, 1E, 1N Wang, Yuhua, 3S, 3T Wang, Yu-Tong, 1N Wang, Yuxi, 33 Wang, Zeyong, 3N Wang, Zhenzhu, 25 Wang, Zhiyong, 04 Wang, Zhuyuan, 5J Wei, Biao, Ol Wei, Jinpeng, 4P Wei, Lixin, 2G Wei, Qingquan, OL Wei, Xiangyu, 4Q Wen, Zengrun, 2l Weng, Guoqing, 4C Wu, Benchao, 4X Wu, Chonghao, 03 Wu, Decheng, 25 Wu, Fupei, OP Wu, Huabing, 1Q Wu, Qianchao, 03 Wu, Shijun, 3A Wu, Tao, OP Wu, Yangcao, 4W Wu, Zanyi, 5L Xi, Gangqin, 1G, 2T Xi, Lei, 3K, 3L Xi, Tingting, 4T Xia, Zhenyuan, 4N Xiang, La, 10 Xiao, Feng, 4K Xiao, Gongli, 34 Xiao, Shuanghuang, 23, 32, 45 Xiao, Wenling, 3A Xiaokai, Gao, 39 Xie, Chenbo, 25, 26 Xie, Liming, 2S Xie, Shusen, 32, 45 Xiechen, Huang, 50 Xin, Wei, 0D Xin, Xiangjun, 13, 2A, 2O, 3G, 3U, 4L Xiong, Bing, 1C Xiong, Li, 1D Xu, Chengfang, 2F Xu, Chunyan, 17 Xu, Donghua, 00 Xu, Jing, 3D Xu, Jun, 4G Xu, Kun, OT Xu, Liang, 2K Xu, Lixin, OS, OU Xu, Longbo, 1K

Xu, Min, 1A Xu, Shuang, 1D, 4N, 4O XU, W.X., 57 Xu, Xiaobin, 4X Xu, Xiaodong, 4G Xu, Xiaoxuan, OX Xu, Xiaoyu, 4X Xu, Xueqin, 49, 4A Xu, Yumeng, 3B Xu, Zhanglang, 06 Xue, Jian-ru, 11 Xue, Lu, OB Xue, Mao, 58 Xue, Qihana, 5G Yakovliev, Artem, 5E Yan, Jiang, 30 Yan, Wei, 4H Yan, Wei, 5H Yan, Xiaoguang, OC Yan, Xu, 12 Yanfu, Yang, 58 Yang, Danqing, 33 Yang, FuHua, 4H, 4V Yang, Fu-qiang, 2R, 3Y Yang, Hongqin, 32, 3A, 3S, 3T, 45 Yang, Hongyan, 34 Yang, Jiachen, 4F Yang, Jie, 53, 5C Yang, Jin, 2C Yang, Jiuru, 4Q Yang, Kai, 2C, 2S, 3N Yang, Kun, 39 Yang, Leijing, 2O, 3G, 3U Yang, Minghao, 4F Yang, Nan, 30 Yang, Shanshan, 4C Yang, Xin, OW Yang, Xiong, 2Y Yang, Yuhua, OU Yang, Yuting, 34 Yang, Zhe, 46 Yang, Zhiqiang, 40 Yao, Binghui, OS, OU Yao, Da-lei, 11 Yao, Jing, 2L Yao, Ping-ping, OR Ye, Cao, 26 Ye, Han, 4K Ye, Jing, 0D Ye, Qing, 2D Ye, Qiuhao, 3A Ye, Weilin, OP Ye, Wen-guang, 3Y Yi, Hong-wei, 11 Yin, Hui, 47 Yin, Jie, OT Yin, Ke, 53 Yin, Ke, 5C Yin, Xiaodong, 2G

Yong, Yao, 03, 2E, 58 You, Wenjing, 38 Yu, Biying, 1G, 21 Yu, Chao, 3U Yu, Dakuan, 2B Yu, Fan, 28, 29 Yu, Haihu, 20, 2L Yu, Haohai, 4G Yu, Huazhang, 2L Yu, Jia, 19 Yu, Jiadong, 1C Yu, Li, 2Y, 35, 42 Yu, Lin, 18 Yu, Miao, 3D Yu, Ming, 37, 50 Yu, S., OF Yu, Xiaoguang, 2K Yuan, Hualei, 4G Yuan, Huizhen, 1X, 36, 42 Yuan, Jie, 09 Yuan, Lihua, OJ Yue, Chaolei, 15 Yue, Ying, 1P, 24 Zan, Guibin, 06 Zeng, Fei, 4O Zeng, Jian, 3L Zeng, Jinshu, 3S Zeng, Xiangwei, 41 Zeng, Xiaodong, 12 Zeng, Zhaobang, 30 Zhan, Juntong, 4Y Zhang, Bo, 13 Zhang, Bo, 27 Zhang, Chunyu, 0A Zhang, Dinghua, 2R Zhang, F., OF Zhang, Fan, 4P Zhang, Guanmao, 11, 3C Zhang, Guowei, 2G Zhang, HanLe, OW Zhang, Hua, 2R Zhang, Huaijin, 4G Zhang, Jianghua, 53, 5C Zhang, Jian-Min, 16 Zhang, Jiawen, 59 Zhang, Jin, OY Zhang, Jinli, 3J Zhang, Junyong, OV Zhang, Kaifu, 34 Zhang, Laixian, 3V, 43 Zhang, Lanzhi, 4T Zhang, Limin, 5B Zhang, Lin, 1Q Zhang, Lizhen, 4G Zhang, Miao, 1R Zhang, Min, 27 Zhang, Qi, 13, 2A, 2O, 3G, 3U, 4L Zhang, Qian, 3N, 47 Zhang, Qinnan, 2Z

Zhang, Tongyi, 4W Zhang, Tongyi, 4Z Zhang, Wang, 2M, 54 Zhang, Wei, 2A, 2O, 3G, 3U, 4L Zhang, Weiquan, 06 Zhang, Wenchao, 56 Zhang, Wending, 3R, 40 Zhang, Wenrui, 12 Zhang, Wenying, 17 Zhang, Xiaoman, 21 Zhang, Xiaosheng, 1F Zhang, Xiaoxi, 1J Zhang, Xin, 53 Zhang, Xin, 5C Zhang, Xuhui, 1X, 36, 42 Zhang, Yan, 3Z Zhang, Yang, 07 Zhang, Yani, OB Zhang, Yanli, OV Zhang, Yingchao, 38 Zhang, Yixin, 18 Zhang, Yongcai, 1V Zhang, Yongxiang, 17 Zhang, Yu, 1L, 3M, 4D, 54, 59 Zhang, Yu, 4A Zhang, Yuehong, 1L Zhang, Yunpeng, 15 Zhang, Yunzhe, 3Z Zhang, Zhe, 5F Zhanye, Zhang, 26 Zhao, Angran, 14 Zhao, C., OF Zhao, Chong, OY Zhao, Haicheng, 24 Zhao, Jianlin, 2B Zhao, Jia-xu, 2V Zhao, Peiyan, 30 Zhao, Qingliang, 0A Zhao, Shixue, 4R Zhao, Taifei, 4R, 4S Zhao, Wei, 4Z Zhao, Xueqiang, 1J Zhao, Yanzhona, 3V Zhao, Yaping, 11, 3C Zhao, Yongguang, 4G Zhao, Yongqiang, 4V Zhao, Yu, 41 Zheng, Chuantao, OP Zheng, Kaiwen, 5G Zheng, Liqin, 1G, 21, 2W Zheng, Xiaoling, 49 Zheng, Xin, 53, 5C Zheng, Yinbo, 1S Zheng, Zhenzhen, 1V Zheng, Zhidan, OP Zhiyuan, Fang, 25, 26 Zhong, Liyun, 2Z Zhou, Bo, OP

Zhou, Canlin, 1U, 1W Zhou, Guangzheng, 04 Zhou, Guanyu, 1A Zhou, Hongyan, 2K Zhou, Jilin, 2K Zhou, Ni, 10 Zhou, Xinda, 1S Zhou, You, 1K, 31 Zhou, Yue, OT Zhu, Baohua, 4M Zhu, Bin, 07 Zhu, Dan, 14 Zhu, Hongna, 3J, 3N, 4D Zhu, Kaiyuan, 4X Zhu, Lu, 1M Zhu, Qing, 11 Zhu, Ren, 15, 1J Zhu, Ronggang, 5F, 5I Zhu, Yu-xuan, 2Q, 3P Zhu, Yuyu, OB Zhu, Yuze, 2L Zhu, Zhenyu, 3J Zhu, Zixin, 2Q Zhuang, Bin, 2F Zhuo, Shuangmu, 49, 4A Zia, Ali, 2P Ziniuk, Roman, 5E Zou, Zhiming, 03, 2E Zusin, Dmitriy, 38

Conference Committee

Conference Chairs

Shining Zhu, Nanjing University (China) Dieter Bimberg, CIOMP, CAS (China) & Technische Universität Berlin (Germany)

Technical Program Chairs

Jianlin Zhao, Northwestern Polytechnical University (China) Yidong Huang, Tsinghua University (China) Shigehisa Arai, Tokyo Institute of Technology (Japan)

Steering Committee

Chair

Zhiping (James) Zhou, Peking University (China)

Jianlin Zhao, Northwestern Polytechnical University (China) Jianrong Qiu, Zhejiang University (China) Limin Tong, Zhejiang University (China) Xianfeng Chen, Shanghai Jiao Tong University (China) Junle Qu, Shenzhen University (China) Sen Han, University of Shanghai for Science and Technology (China) Yanqing Lu, Nanjing University (China) Feng Chen, Shandong University (China) Ming Tang, Huazhong University of Science and Technology (China) Shilong Pan, Nanjing University of Aeronautics and Astronautics (China)

Subcommittees

1 Light-Matter Interactions

Chair

Jianrong Qiu, Zhejiang University (China)

Co-chairs

Feng Chen, Xi'an Jiaotong University (China) Hongbo Sun, Tsinghua University (China) Qiang Wu, Nankai University (China)

Yves Bellouard, École Polytechnique Fédérale de Lausanne, EPFL (Switzerland)

Saulius Juodkazis, Swinburne University of Technology (Australia)
Peter Kazansky, University of Southampton (United Kingdom)
Matthieu Lancry, Paris-Sud Université (France)
Yongfeng Lu, University of Nebraska (United States)
Xiaoming Yu, University of Central Florida (United States)

2 Plasmonics and Metamaterials

Chair

Hui Liu, Nanjing University (China)

Co-chairs

Zheyu Fang, Peking University (China) Fang Liu, Tsinghua University (China) Lei Zhou, Fudan University (China)

Che Ting Chan, The Hong Kong University of Science and Technology (Hong Kong, China)
Yuri Kivshar, Australian National University (Australia)
Jensen Li, The Hong Kong University of Science and Technology (Hong Kong, China)
Zhiyuan Li, South China University of Technology (China)
Cheng-Wei Qiu, National University of Singapore (Singapore)
Min Qiu, Westlake University (China)

3 Ultrafast and Nonlinear Phenomena

Chairs

Zenghu Chang, University of Central Florida (United States) Xianfeng Chen, Shanghai Jiao Tong University (China)

Co-chairs

Claudio Conti, Sapienza Università di Roma (Italy) Yunquan Liu, Peking University (China) Zhiwen Liu, The Pennsylvania State University (United States)

Pengfei Lan, Huazhong University of Science and Technology (China)
Xueguang Ren, Xi'an Jiaotong University (China)
Yan Sheng, Australian National University (Australia)
Chuanshan Tian, Fudan University (China)
Wenjie Wan, Shanghai Jiao Tong University (China)
Kun Zhao, Institute of Physics, CAS (China)

4 Solid State, Fiber, and Other Laser Sources

Chairs

Zhichuan Niu, Institute of Semiconductors, CAS (China) Jun Liu, Shanghai Institute of Optics and Fine Mechanics, CAS (China)

Co-chairs

Haifeng Jiang, National Time Service Center, CAS (China) Ming Li, Institute of Semiconductors, CAS (China) Huiyun Liu, University College London (United Kingdom) Jiangfeng Zhu, Xidian University (China)

Zizheng Cao, Eindhoven University of Technology (Netherlands) Zhaoyang Li, Osaka University (Japan) Dong Mao, Northwestern Polytechnical University (China)

5 Silicon Photonics

Chair

Zhiping (James) Zhou, Peking University (China)

Co-chairs

Daoxin Dai, Zhejiang University (China) Odile Liboiron-Ladouceur, McGill University (Canada) Jing Liu, Tianjin University (China) Jurgen Michel, Massachusetts Institute of Technology (United States)

Vilson Rosa de Almeida, Instituto Tecnológico de Aeronáutica (Brazil) and Universidade Brasil (Brazil)
Xuetao Gan, Northwestern Polytechnical University (China)
Yuqing Jiao, Eindhoven University of Technology (Netherlands)
Di Liang, Hewlett Packard Labs (United States)
Wei Shi, Université Laval (Canada)

6 Microwave Photonics

Chair

Shilong Pan, Nanjing University of Aeronautics and Astronautics (China)

Co-chairs

Antonella Bogoni, National Laboratory of Photonic Networks of CNIT (Italy)
 Ming Li, Institute of Semiconductors, CAS (China)
 Xiaoke Yi, The University of Sydney (Australia)

Fabien Bretenaker, French National Centre for Scientific Research (France)
Lawrence Chen, Mcgill University (Canada)
Yitang Dai, Beijing University of Posts and Telecommunications (China)
Jungwon Kim, Korea Advanced Institute of Science and Technology

(Korea, Republic of)

7 Micro and Nanophotonics

Chairs

Ting Mei, Northwestern Polytechnical University (China) Cunzheng Ning, Tsinghua University (China), and Arizona State University (United States) Limin Tong, Zhejiang University (China)

Jimin Bao, University of Houston (United States) Dawei Di, Zhejiang University (China) Elhadj Dogheche, Université Polytechnique des Hauts-de-France (France) Amr Helmy, University of Toronto (Canada) Byoungho Lee, Seoul National University (Korea, Republic of) Dangyuan Lei, City University of Hong Kong, (Hong Kong, China) Renmin Ma, Peking University (China) Qihua Xiong, Nanyang Technological University (Singapore) Weidong Zhou, University of Texas at Arlington (United States)

8 Optical Materials

Chairs

Jun Wang, Shanghai Institute of Optics and Fine Mechanics, CAS (China) Shifeng Zhou, South China University of Technology (China)

Co-chairs

Juejun Hu, Massachusetts Institute of Technology (United States) Jean-Michel Nunzi, Queen's University (Canada)

André-Jean Attias, Université Pierre et Marie Curie (France)
Yong Gyu Choi, Korea Aerospace University (Korea, Republic of)
Hirokazu Masai, National Institute of Advanced Industrial Science and Technology (Japan)
Liangbi Su, Shanghai Institute of Ceramics, CAS (China)

9 Optical Measurement and Metrology

Chairs

Denis Dontsov, SIOS Meßtechnik GmbH (Germany) **Yanqiu Li**, Beijing Institute of Technology (China) Co-chairs

Sen Han, University of Shanghai for Science and Technology (China) **Cheng Liu**, Shanghai Institute of Optics and Fine Mechanics, CAS, (China)

Josef Lazar, Institute of Scientific Instruments of the Czech Academy of Sciences (Czech Republic)
Peter Lehmann, Universität Kassel (Germany)
Linbo Liu, Nanyang Technological University (Singapore)
Shiyuan Liu, Huazhong University of Science and Technology (China)
Eberhard Manske, Technische Universität Ilmenau (Germany)

10 Infrared and Terahertz Technologies

Chair

Yan Zhang, Capital Normal University (China)

Co-chairs

Wei Shi, Xi'an University of Technology (China) Chao Zhang, University of Wollongong (Australia) Xi-Cheng Zhang, University of Rochester (United States)

Wenhui Fan, Xi'an Institute of Optics and Precision Mechanics, CAS (China)
Lei Hou, Xi'an University of Technology (China)
Masahiko Tani, University of Fukui (Japan)
Qijie Wang, Nanyang Technological University (Singapore)
Xinke Wang, Capital Normal University (China)
Qiye Wen, University of Electronic Science and Technology of China (China)

11 Optical Imaging, Display, and Storage

Chairs

Baoli Yao, Xi'an Institute of Optics and Precision Mechanics, CAS (China) **Toyohiko Yatagai**, Utsunomiya University (Japan)

Co-chairs

Keisuke Goda, University of Tokyo, Japan & Wuhan University (China) Jinyang Liang, INRS (Canada) Changhuei Yang, California Institute of Technology (United States)

Liangcai Cao, Tsinghua University (China) Jianglei Di, Northwestern Polytechnical University (China) Xiangping Li, Jinan University (China) Xinzhu Sang, Beijing University of Posts and Telecommunications (China) Xiaodi Tan, Fujian Normal University (China) 12 Optical Communications and Networks

Chair

Ming Tang, Huazhong University of Science and Technology (China)

Co-chairs

Xiaoping Xie, Xi'an Institute of Optics and Precision Mechanics, CAS (China)Xiangjun Xin, Beijing University of Posts and Telecommunications (China)

Changyuan Yu, The Hong Kong Polytechnic University (Hong Kong, China)

Lei Deng, Huazhong University of Science and Technology (China)
Liang Dou, Alibaba (China)
Haibo Ge, Xi'an University of Posts & Telecommunications (China)
Lei Guo, Chongqing University of Posts and Communications (China)
Ke Xu, Harbin Institute of Technology, Shenzhen (China)
Xiang Li, China Information Communication Technologies Group Corporation (China)
Bo Liu, Nanjing University of Information Science and Technology (China)
Xingwen Yi, Sun Yat-sen University (China)
Fan Zhang, Peking University of Technology (China)
Yongli Zhao, Beijing University of Posts and Telecommunications (China)
Qunbi Zhuge, Shanghai Jiao Tong University (China)

13 Optical Fiber and Waveguide Technologies

Chair

Yuwen Qin, Guangdong University of Technology (China)

Co-chairs

Zhaohui Li, Sun Yat-sen University (China) **Guangming Tao**, Huazhong University of Science and Technology (China) **Xiangjun Xin**, Beijing University of Posts and Telecommunications (China)

Duk-Yong Choi, The Australian National University (Australia) and Jinan University (China)
Weiqing Gao, HeFei University of Technology (China)
Pengyu Guan, Technical University of Denmark (Denmark)
Xin Jiang, Max Planck Institute for the Science of Light (Germany)
Yange Liu, Nankai University (China)
Ruichun Wang, Yangtze Optical Fibre and Cable Co., Ltd. (China)
Yingying Wang, Beijing University of Technology (China)
Shuangyi Yan, University of Bristol (United Kingdom)
Guiyao Zhou, South China Normal University (China)
Kui Li, Beihang University (China)

14 Biophotonics and Optofluidics

Chair

Junle Qu, Shenzhen University (China)

Co-chairs

Aaron H.P. Ho, The Chinese University of Hong Kong (Hong Kong, China) Zhen Yuan, University of Macau (Macau, China)

Ling Fu, Huazhong University of Science and Technology (China) Ming Lei, Xi'an Institute of Optics and Precision Mechanics, CAS (China) Liwei Liu, Shenzhen University (China) Timothy Tan, Nanyang Technological University (Singapore) Changfeng Wu, Southern University of Science and Technology (China) Sihua Yang, South China Normal University (China)

15 Optical Sensors and Systems

Chair

Wei Jin, The Hong Kong Polytechnic University (Hong Kong, China)

Co-chairs

Zuyuan He, Shanghai Jiao Tong University (China) **Kazuo Hotate**, Toyota Technological Institute (Japan)

Ju Han Lee, University of Seoul (Korea, Republic of) Qingwen Liu, Shanghai Jiao Tong University (China) Huilian Ma, Zhejiang University (China) Xinyu Fan, Shanghai Jiao Tong University (China) Wei Ren, The Chinese University of Hong Kong (Hong Kong, China) Liyang Shao, Southern University of Science and Technology (China) Kwang-Yong Song, Chung-Ang University (Korea, Republic of) Chao Wang, Wuhan University (China) Lei Wei, Nanyang Technological University (Singapore)

16 Atomic Physics, Quantum Photonics, and Quantum Information

Chair

Chaoyang Lu, University of Science and Technology of China (China)

Fuli Li, Xi'an Jiaotong University (China) Xiaolong Su, Shanxi University (China) Lijian Zhang, Nanjing University (China) Wei Zhang, Tsinghua University (China)