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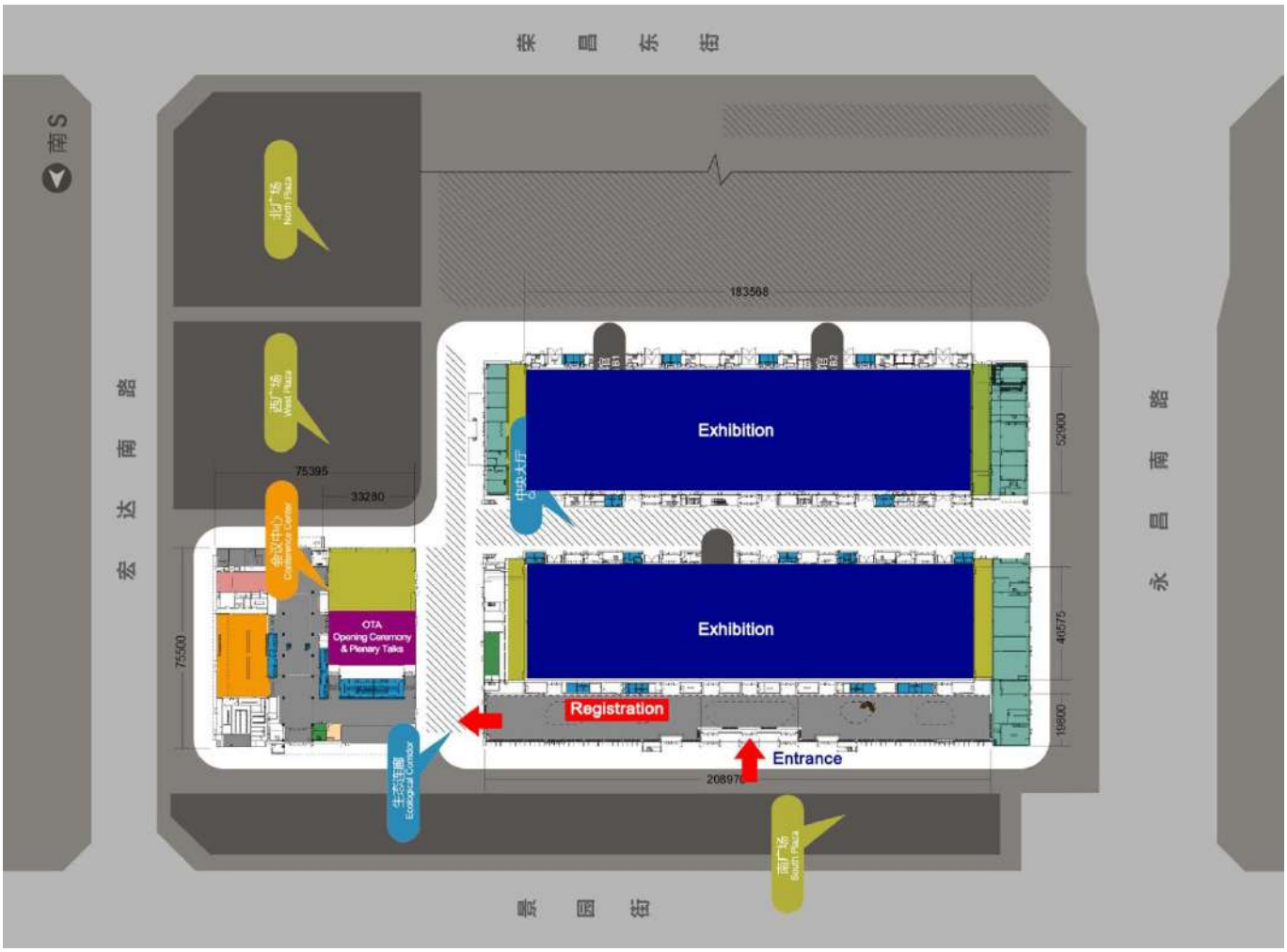
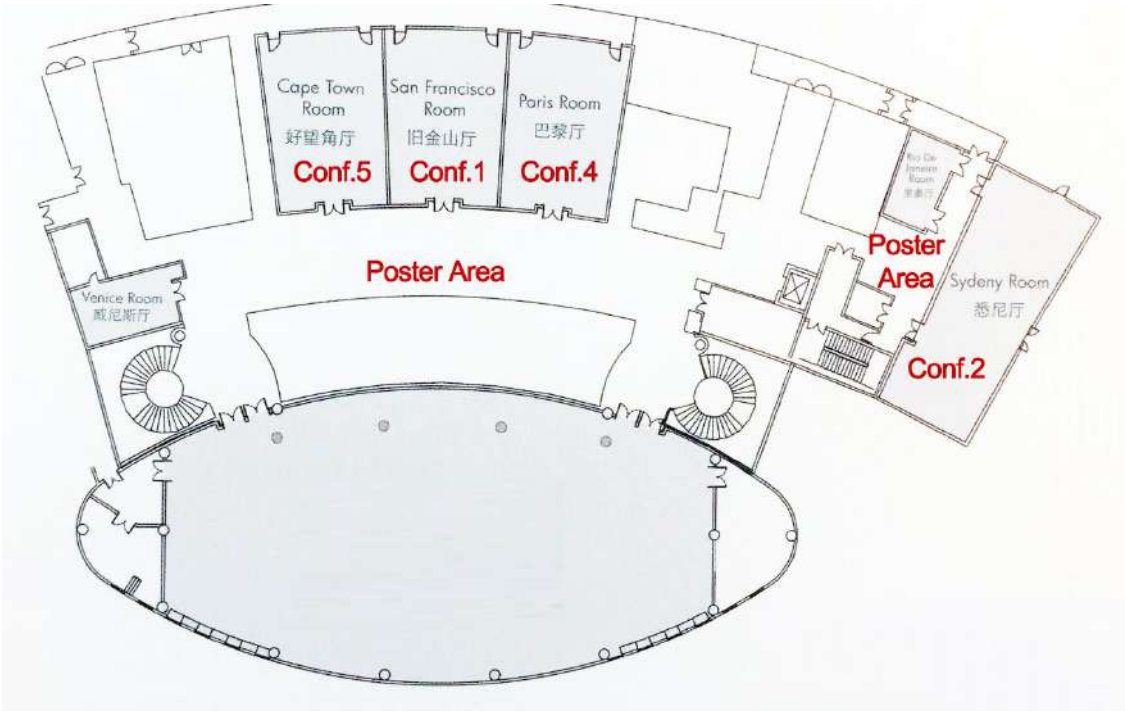
Facility Maps

L1, Beijing Etrong International Exhibition & Convention Center (Etrong)



L3, Pullman Hotel



Conf.1 Advanced Lasers Technology and Application (San Francisco Room, L3, Pullman Hotel)
Conf.2 3 Dimensional Image Acquisition and Display Technology and Application (Sydeny Room, L3, Pullman Hotel)
Conf.3 Optical Sensing and Imaging Technology and Application (He Hua Room, L4, Pullman Hotel)
Conf.4 Optical Precision Manufacturing and Testing Technology and Application (Paris Room, L3, Pullman Hotel)
Conf.5 Micro Optics and MOEMS (Cape Town Room, L3, Pullman Hotel)

Map around Beijing Etrong International Exhibition & Convention Center (Etrong)

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Division of Information and Electronic Engineering of Chinese Academy of Engineering

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SPIE

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Department of Cooperation and Coordination for Industry, Academe and Research, CHIA

Science and Technology on Low-light-level Night Vision Laboratory

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- Beijing Engineering Research Center for Mixed Reality and Advanced Display Technology，Beijing Institute of Technology
- Key Laboratory of Intelligent Computing & Signal Processing, Ministry of Education, Anhui University

- National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics
- Key Laboratory of Photoelectronic Imaging Technology and System, Ministry of Education
- Science and Technology on Optical Radiation Laboratory
- Science and Technology on Electromagnetic Scattering Laboratory
- Science and Technology on Special System Simulation Laboratory
- Aviation Key Laboratory of Science and Technology on Infrared Detector
- Key Laboratory of Instrumentation Science and Dynamic Measurement Ministry of Education，North University of China
- China 3D Industry Association
- Infrared and Low Light Level Technology Application Industrial Alliance, Chinese Society for Optical Engineering
- Optical Fiber Sensing Technology Committee of Experts, Chinese Society for Optical Engineering
- Optical Communications and Information Network Committee, China Society for Optical Engineering

Supported by

- BOE Technology Group Co., Ltd
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- Shanghai Photon Technology Co., Ltd

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ZHANG Dawei (University of Shanghai for Science and Technology, China)

ZHAO Huijie (Beihang University, China)

ZHOU Pu（National University of Defense Technology, China）

Daily Schedule

International Symposium on Optoelectronic Technology and Application (OTA 2018)

Tuesday 22 May	Wednesday 23 May	Thursday 24 May
08:00 to 20:00, L1 of Etrong *OTA 2018 Registration*	09:00 to 09:40, Conference Hall , L1 of Etrong *OTA 2018 Opening Ceremony* *Chinese Society for Optical Engineering Awarding Ceremony*	
	09:40 to12:00, Conference Hall , L1 of Etrong *Plenary Presentation* 09:40-10:05 The Scientific Mission of "Mozi" and The Progress of Space Quantum Communication Technology, **WANG Jianyu** (Key Laboratory of space active Opto-Electronics Technology of CAS Shanghai Institute of Technical Physics, CAS, China) 10:05-10:30 Metasurface Holography Towards Full Complex-amplitude Modulation, **Byoungho LEE** (Seoul National University, Korea) 10:30-10:55 Optical Surface Metrology: Limitations, Innovations, Some Very Old Surfaces and Some New Directions, **J.W. McBride** (University of Southampton, UK) 10:55-11:20 Femtosecond Laser Precision Micro-nanofabrication, **SUN Hongbo** (Tsinghua University, China) 11:20-11:40 Industrial Applications of Pulsed Terahertz Gauging Systems, **Irl Duling** (Picometrix, LLC, USA) 11:40-12:00 Three Examples Show Challenges Related to The Optical Precision Manufacturing and Testing Technologies, **WANG Hexin** (Carl Zeiss Shanghai Co. Ltd., China)	08:30 to12:00 *Conf. Presentation* Conf.1 Advanced Lasers Technology and Application (San Francisco Room, L3, Pullman Hotel) Conf.2 3 Dimensional Image Acquisition and Display Technology and Application (Sydeny Room, L3, Pullman Hotel) Conf.3 Optical Sensing and Imaging Technology and Application (He Hua Room, L4, Pullman Hotel) Conf.4 Optical Precision Manufacturing and Testing Technology and Application (Paris Room, L3, Pullman Hotel) Conf.5 Micro Optics and MOEMS (Cape Town Room, L3, Pullman Hotel)

Tuesday 22 May	Wednesday 23 May	Thursday 24 May
·	13:00 to 14:00 *Poster Session*	13:00 to 14:00 *Poster Session*
·	13:30 to 18:00 *Conf. Presentation* Conf.1 Advanced Lasers Technology and Application (Conference Room C, L2, Etrong) Conf.2 3 Dimensional Image Acquisition and Display Technology and Application (Sydeny Room, L3, Pullman Hotel) Conf.3 Optical Sensing and Imaging Technology and Application (He Hua Room, L4, Pullman Hotel) Conf.4 Optical Precision Manufacturing and Testing Technology and Application (Paris Room, L3, Pullman Hotel) Conf.5 Micro Optics and MOEMS (Cape Town Room, L3, Pullman Hotel)	13:30 to 18:00 *Conf. Presentation* Conf.1 Advanced Lasers Technology and Application (San Francisco Room, L3, Pullman Hotel) Conf.2 3 Dimensional Image Acquisition and Display Technology and Application (Sydeny Room, L3, Pullman Hotel) Conf.3 Optical Sensing and Imaging Technology and Application (He Hua Room, L4, Pullman Hotel) Conf.4 Optical Precision Manufacturing and Testing Technology and Application (Paris Room, L3, Pullman Hotel) Conf.5 Micro Optics and MOEMS (Cape Town Room, L3, Pullman Hotel)
18:30 to 19:30, Cape Town Room and San Francisco Room, L3, Pullman Hotel *Welcome Reception*		

Other Activities

Exhibitions

08:30 to 17:00, L1, Etrong *2018 China(Beijing) International Technology Exchange Fair and 10th Photonics China*	08:30 to 17:00, L1, Etrong *2018 China(Beijing) International Technology Exchange Fair and 10th Photonics China*	08:30 to 17:00, L1, Etrong *2018 China(Beijing) International Technology Exchange Fair and 10th Photonics China*
08:30 to 17:00, L1, Etrong *College and Key Laboratories' Achievements Exhibition*	08:30 to 17:00, L1, Etrong *College and Key Laboratories' Achievements Exhibition*	08:30 to 17:00, L1, Etrong *College and Key Laboratories' Achievements Exhibition*

Global Intelligent Industry Conference (GIIC)

09:00 to12:00, Conference Hall, L1, Etrong *Opening Ceremony and Plenary Presentation*	09:00 to12:00, Grand Skylight International Hotel *Sessions of GIIC*	
13:30-17:00, Conference Hall, L1, Etrong *Intelligent Industry Innovative Design Summit Forum*	13:30-17:00, Grand Skylight International Hotel *Sessions of GIIC*	

Daily Schedule

Tuesday 22 May	Wednesday 23 May	Thursday 24 May
The 7th China (Beijing) International Conference of Optical Fiber Sensors Technology and Applications		
	13:30-17:00, Conference Hall, L1, Etrong	
2018 China Conference on Ocean Information Network Technology and Industry Development		
09:00-17:00, Conference Room A, L2, Etrong		
Activities of *Infrared and Laser Engineering*		
14:00-16:00, Paris Room, L3, Pullman Hotel *Infrared and Laser Engineering Working Conference*		

General Information

Conference Location

OTA 2018 will be held at Beijing Etrong International Exhibition & Convention Center and Pullman Hotel. Beijing Etrong is situated in the core area in Yizhuang, surrounded by two urban trunk roads-Ronghua Road and Rongjing Street and adjacent to RONG CHANG DONG JIE Station.

Registration

Tuesday 22 May, 08:00 to 20:00, L1, Etrong
Wednesday 23 May, 08:00 to 10:00, L1, Etrong

Proceedings

Proceedings will be available three months after the conference.

Poster Presentation

Presenters should place their papers on the assigned board at 14:00 to 20:00 on 22 May 2018. The author or coauthor is required to stand by the poster of 80cm (height) × 80cm (width) at 13:00 to 14:00 on 23 May 2018 and 24 May 2018.

Meals

Lunch:
12:00 to13:00, Wednesday 23 May, Etrong
12:00 to 13:00, Thursday 24 May, Pullman Hotel

Welcome Reception (For Vip):
18:30 to 19:30, Cape Town Room and San Francisco Room, L3, Pullman Hotel

Plenary Talks

Plenary Talk 1

The Scientific Mission of "Mozi" and The Progress of Space Quantum Communication Technology

WANG Jianyu, ZHANG Liang

(Key Laboratory of Space Active Opto-Electronics Technology of CAS, Shanghai Institute of Technical Physics, CAS, China)

Abstract:

The Quantum Science Experiment Satellite is one of the four science experimen satellites in the first phase of space science pilot project of CAS. It is also the first satellite in the world to be used for the space quantum communication experiments. This project aims to establish a long distance quantum experimental platform between the satellite and ground stations, and to complete a series of space scale quantum communication experiments. In August 16, 2016, “Mozi” was successfully launched, which laid an important foundation for the space-earth integrating large-scale quantum science experimental platform. The content of this report includes:

1. The science goals of the “Mozi” Satellite are introduced, including quantum key distribution (QKD) from the satellite to ground, the wide-area quantum communication network demonstration, quantum entanglement distribution from the satellite to two ground stations to test Bell‘s inequality, and quantum teleportation experiment from ground to satellite to test the feasibility of the long distance quantum teleportation.
2. The engineering missions of the “Mozi” Quantum Science Experiment Satellite, the space-earth integrating system and the main technical specifications of the satellite platform are introduced. During the development of the project, many key technical problems had been solved, and we had made great progress in the space optics including the high precision optical tracking and pointing between the satellite and ground stations, the near-diffraction-limited optical system for photon emission and detection, the polarization state maintaining and polarization vector benchmark tracking technologies, the single photon detection technology in space, and the composite satellite attitude control technology, etc.
3. The in-orbit tests and results of the quantum satellite are presented. The test data shows that all the performance parameters have reached or exceeded the expected requirements, whether in optical tracking and pointing, near-diffraction-limited light emission, polarization state maintaining, single photon detection or composite satellite attitude control. By the time of August, 2017, all the science goals have been successfully completed.

Brief CV:

WANG Jianyu is the academician of the Chinese Academy of Sciences and the researcher Professor of Shanghai Institute of Technical Physics. He is also the president of Shanghai Branch of Chinese Academy of Sciences. He received his BS degree in Physics from Hangzhou University in 1982, and the MS degree and PhD from Shanghai Institute of Technical Physics, Chinese Academy of Sciences in 1987 and 1990. He is the associate editor of “Journal of Infrared and Millimeter Wave” and “Journal of Applied Science”. He serves as a member of the COSPAR Chinese Committee, and the chairman of SPIE Asia Pacific Conference on multispectral / hyperspectral remote sensing technology and application. His research interests include passive and active optoelectronic remote sensing system, Hyperspectral imaging technology, laser remote sensing imaging technology and free-space quantum communication technology. Now He is responsible for the implementation of the project of quantum science experimental satellite.

Plenary Talk 2

Metasurface Holography Towards Full Complex-amplitude Modulation

Byoungho LEE

(School of Electrical and Computer Engineering, Seoul National University, Korea)

Abstract:

Holography is an optical technology that records and reconstructs spatial information of light, showing great potential for various applications such as 3D holographic imaging and optical data storage. To obtain a holographic image, various holographic devices including spatial light modulators and diffractive optical elements have shown the potential, but limited capabilities have hindered further development. In particular, current holographic devices have only a few micron scale resolution while the subwavelength scale resolution is required to eliminate diffraction orders obstructing the reconstructed holographic images. In addition, current holographic devices provide only phase or amplitude modulation, while both are required to completely reconstruct light profiles. This imperfect function in typical holographic devices causes a critical noise due to the lack of light information. Metasurfaces are planar optical devices composed of subwavelength nanostructures and have been shown unprecedented abilities to control electromagnetic waves. Hence, metasurfaces have been considered as novel holographic devices which are expected to overcome limitations of conventional ones. Recent advances in nanophotonic technology show that the metasurfaces are possible to provide not only subwavelength-scale resolutions but also any other multi-functionalities that have not been shown in conventional optics. In this talk, various metasurface platforms for holographic generation and manipulation of electromagnetic waves will be presented. General introduction of metasurface holography will be provided with its applications. Then, I will introduce the next step of those metasurfaces that provides complete control of both amplitude and phase information. Particularly, our recent work shows that X-shaped dielectric metasurfaces successfully provide full, continuous, and broadband control of both amplitude and phase of visible light at the subwavelength scale. Finally, the perspectives for the future of this area will also be discussed.

Brief CV:

Byoungho Lee received his Ph.D. degree from the Department of Electrical Engineering and Computer Science, University of California, Berkeley in 1993. He has been in the faculty of the School of Electrical and Computer Engineering, Seoul National University since September 1994, where he is now serving as the department head. Prof. Lee is the President-Elect of the Optical Society of Korea. He is a Fellow of OSA, SPIE, IEEE, and is a Member of the Korean Academy of Science and Technology and a Senior Member of the National Academy of Engineering of Korea. He served as a Director-at-Large of OSA, chair of the Member and Education Services Council of OSA, and chair of a Technical Group and a Technical Division of OSA. Currently he is on the editorial board of Advances in Optics and Photonics and Light: Science and Applications, and is the editor-in-chief of the Journal of Information Display. He has served on the editorial board of Optics Letters, Applied Optics and Japanese Journal of Applied Physics as well as the editor-in-chief of the Journal of the Optical Society of Korea. He has received several distinguished awards such as the Scientist of the Month Award of Korea (2009), the Academic Award of the Optical Society of Korea (2006), the Academic Award of Seoul National University (2013), Special Recognition Award of the Society for Information Display (2015), and the National Science Medal of Jinbojang (2016).

Plenary Talks

Plenary Talk 3

Optical Surface Metrology: Limitations, Innovations, Some Very Old Surfaces and Some New Directions

J.W. McBride

(University of Southampton, UK)

Abstract:

The speaker will provide an overview of some key issues in the precision measurement of surfaces using optical methods. Existing methods to be considered will include the application con-focal scanning methods for the evaluation of large scale surfaces, when compared to microscopy based systems using direct areal measurements. The applications to be discussed will include a range of complex surfaces, dental, paleontology, and early mechanical sound recordings. Consideration will then be given to the new area of precision X-ray computer tomography. The emphasis will be on the application of XCT for the evaluation of structured surfaces and for the evaluation of the internal dimension of manufactured surfaces.

Brief CV:

John McBride is a Professor at the University of Southampton. Previously the CEO of the University of Southampton Malaysia Campus (USMC), 2010-2017, where he delivered the Universities for international campus from an idea to a fully operation campus; 2010-2012, Associate Dean for Research in the Faculty of Engineering and the Environment; and 1998-2010, the head of the electro-mechanical research group at the University of Southampton. He is an expert on electrical contact physics, nano-materials and optical/X-ray metrology; he has published over 300 papers, 3 patents, and is an associate editor of the IEEE Transactions on Components and Packaging and Manufacturing Technology (CPMT).

As Principle Investigator, (PI) he has completed research projects in excess of £7.6Million and supervised as chair over 20 Ph.D students. He has chaired sessions and acted on the organising committees of numerous international conferences. He was the Technical Chair for the 2016 International Conference on Electric Contacts.In 2006 he was awarded the IEEE Holm Scientific Achievement Award, an international award recognising outstanding scientists and engineers in the field of electric contacts or related technologies. In 2008 he was awarded the international James A. Lindner Prize for research on early sound recording. In 2015 he was co-author on the Best Paper, IEEE Transactions on Components, Packaging and Manufacturing Technology.

His research has led to the development of a number of spinout companies, these include 3 optical Metrology companies. In 2001 he established the spin out company TaiCaan Technologies Ltd. a world leader in optical surface metrology. In 2010 he established the University of Southampton Malaysia Campus, as a Malaysian company. Building from an idea to a fully functioning campus. Since 2010 he has been advising Universities and Governments on issues around the globalisation of education, research assessment and industry collaboration.

Plenary Talk 4

Femtosecond Laser Precision Micro-nanofabrication

SUN Hongbo

(State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instrument, Tsinghua University, China)

Abstract:

Since its demonstration on early days that femtosecond laser was utilized as a tool to prototype real three-dimensional structures, femtosecond laser direct writing (FsLDW) has been attracting more and more research interest and efforts. Depending on materials, its fabrication resolution reached several tens of nanometers. For transparent materials, three-dimensional structures could be readily designed and fabricated. What is more attractive is the technology is applicable to various materials from polymers, transparent solids, semiconductors, metals, and ceramics. Various micro-nanosctructures and devices varying from micro-optics, micro-electronics, micro-mechanics, and microfluidics, to sensors, optoelectronics, biomimetics and biophotonics have exhibited, mainly based on two-photon induced photopolymerizatin technology. For practical industrial application, the capability of device fabrication from hard processing materials is more important. Significant progress has been achieved through ten year work in our lab along this line. In this talk, I will introduce our research on fabrication micro-photonic and optical devices using diamond, sapphire, lithium niobate and silica. Excellent optical performances have been achieved from these devices.

Brief CV:

SUN Hongbo, currently the Changjiang-Scholar professor of optical engineering at Tsinghua University, China. He received the B.S. and the PhD degrees in electronics from Jilin University, Changchun, China, in 1992 and 1996, respectively. He worked as a postdoctoral researcher in Satellite Venture Business Laboratory, the University of Tokushima, Japan, from 1996 to 2000, and then as an assistant professor in Department of Applied Physics, Osaka University, Japan. In 2004, he was promoted as a full professor (Changjiang Scholar) in Jilin University, and since 2017 he has been working in Tsinghua University, China. His research interests have been focused on ultrafast optoelectronics, particularly on laser nanofabrication and ultrafast spectroscopy: Fabrication of various micro-optical, microelectronical, micromechanical, micro-optoelectronic, microfluidic components and their integrated systems at nanoscale, and exploring ultrafast dynamics of photons, electrons, phonons, and surface plasmons in solar cells, organic light-emitting devices and low-dimensional quantum systems at femtosecond timescale. So far, he has published over 400 scientific papers in the above fields, which have been cited for more than 12000 times according to ISI search report. He is currently the topical editor of Optics Letters (OSA), Light: Science and Applications (Nature Publishing Group), Chinese Science Bulletin (Springer), and editorial advisory board member of Nanoscale (RSC) and Display and Imaging (Old City Publishing). He is IEEE, OSA, SPIE, and COS fellow.

Plenary Talk 5

Industrial Applications of Pulsed Terahertz Gauging Systems

Irl Duling
(Picometrix, LLC, USA)

Abstract:
For the past 20 years, universities and companies have worked to move Terahertz systems out of the laboratory and into practical use. Now Terahertz systems can be built that are robust enough to endure the factory environment and are being deployed in industrial process control and non-destructive testing. Examples of these applications will be presented.

Brief CV:
Dr. Duling has been the Director of Terahertz Business Development for Picometrix, LLC (now TeraMetrix, a division of Luna) since 2006. He has over 20 years of experience developing products and businesses in high-speed opto-electronics. Dr. Duling received his BS in Physics from MIT, his PhD in Optics from the University of Rochester, has over 30 patents, over 70 publications and over 100 papers in the areas of ultrafast optoelectronics, communications, and terahertz.

Plenary Talk 6

Three Examples Show Challenges Related to the Optical Precision Manufacturing and Testing Technologies

WANG Hexin
(Carl Zeiss Shanghai Co. Ltd., China)

Abstract:
Manufacturing includes normally testing because if you can't measure, you can't manufacture.
Now days more and more tailed manufacturing is required due to specific customer needs. In order to keep competitive and provide affordable solutions we have to do trade-off between tailed and scalable platform technologies:
·Manufacturing: Removal, additive, modification, hybrid/integrated…
·Testing: Contact and non-contact for 1D, 2D and 3D in nano-, micro-, macro-, astro-scales; including gravity, velocity, acceleration, …
·And digitization (Industry 4.0): Automation, artificial intelligence, machine learning etc. to increase efficiency and reliability etc.
This paper offers an overview about optical precision manufacturing and testing technologies based on selected applications, then shows three examples to point out the related challenges.

Brief CV:
WANG Hexin, Vice President of the Corporate Research & Technology and Government Affairs, ZEISS China Innovation and R&D Center, Carl Zeiss Shanghai Co., Ltd.

- Obtained the bachelor and master respectively in 1982 and 1985 in China, and PhD in 1992 in Germany
- Worked at the Anhui Institute of Optics and Fine Mechanics, University of Oldenburg and Physikalisch-Technische Bundesanstalt (PTB) in Germany
- Joined Zeiss in 1996 and won Zeiss Innovation Prize in 2005. He is one of the initiators/drivers for executing a ZEISS key technology since 2003 and for founding the pilot ZEISS Innovation Office in China in 2006. He is the founding director of the Corporate Research & Technology in China
- Is a guest professor of Fudan University and a reviewer for the sixth and seventh framework programs of European Community
- Belongs to the editorial board of the journal AOT – Advanced Optical Technologies, and the president of Advisory Committee of the Society of Chinese physicists in Germany (GCPD e. V., www.gcpd.eu. founded in 1990 in Germany)

Conf. 1: Advanced Lasers Technology and Application

Room: Conference Room C, L2, Etrong

Room: San Francisco Room, L3, Pullman Hotel

Conference Chairs:

WANG Lijun
(Changchun institute of Optics, Fine Mechanics and Physics, CAS, China)

LIU Zejin
(National University of Defense Technology, China)

Shibin Jiang
(Advalue Photonics, USA)

Excutive Chair:

ZHOU Pu (National University of Defense Technology, China), SHI Wei(Tianjin University, China)

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Keming Du(EdgeWave GmbH, Germany), Vijay Kancharla(IPG Photonics Corp, USA), Andrew Tian (Spectra-Physics, USA), Zhigang Zhao(University of Tokyo, Japan), QIN Guanshi (Jilin University, China), XIE Guoqiang (Shanghai Jiaotong University, China), WEI Zhiyi(Institute of Physics, Chinese Academy of Sciences, China), LI Wenxue(East China Normal University, China), WU Dong (University of Science and Technology of China, China), LUO ZhiChao (South China Normal University, China), ZHANG Jian(Shanghai Institute of Ceramics, Chinese Academy of Sciences, China) , HU Minglie(Tianjin University, China)

Afternoon	**23 May** Room: Conference Room C, L2, Etrong
Session 1	Chair: Shibin Jiang (Advalue Photonics, USA)
13:30-13:55	Micro processing of macro parts (MP^2) with ultra-short pulse lasers, Keming Du(EdgeWave GmbH, Germany) ***Invited***
13:55-14:20	Ultrafast fiber laser enabled high repetition rate VUV sources generation, Zhigang Zhao (University of Tokyo, Japan) ***Invited***
14:20-14:45	High-end laser cleaning technology and industrial development, YAO Jianquan (Tianjin University,

	China) ***Invited***
14:45-15:10	The application prospect and development of ultra-fast laser processing technology in aviation industry, ZHANG Wei(AVIC Beijing Aviation Manufacturing Engineering Research Institute, China) ***Invited***
15:10-15:35	Application of picosecond laser in remote laser ranging and its key technologies, HUANG Yutao (Institute of Optics and Electronics, Chinese Academy of Sciences, China) ***Invited***
15:35-15:50	**coffee/tea break**
Session 2	Chair: SHI Wei(Tianjin University, China)
15:50-16:15	Research on high-performance single-frequency silica fiber laser and power scaling based on all fiber-based MOPA configuration, SHI Wei(Tianjin University, China) ***Invited***
16:15-16:40	High power fiber lasers covering 1 to 2 um, FENG Yan(Shanghai Institute of Optics and Fine Mechanics, CAS, China) ***Invited***
16:40-17:05	Multi-band RF intensity modulated laser sources, YANG Suhui(Beijing Institute of Technology) ***Invited***
17:05-17:30	All-solid fluorotellurite fibers for 10-W-level supercontinuum generation from 1 to 4 μm, QIN Guanshi (Jilin University, China) ***Invited***
Morning 24 May	Room: San Francisco Room, L3, Pullman Hotel
Session 3	Chair: WEI Zhiyi(Institute of Physics, Chinese Academy of Sciences, China)
08:30-08:55	New progresses on high power femtosecond fiber laser, WEI Zhiyi(Institute of Physics, Chinese Academy of Sciences, China) ***Invited***
08:55-09:20	Study and progress on ultraclean optical vortex generation from laser, XIE Guoqiang (Shanghai Jiaotong University, China) ***Invited***
09:20-09:45	Photo darkening performance and radiation response in Yb^{3+} doped silica fiber, YU Chunlei (Shanghai Institute of Optics and Fine Mechanics, CAS, China) ***Invited***
09:45-10:10	Femtosecond Optical Frequency Combs and Dual-comb Spectroscopy, LI Wenxue(East China Normal University, China) ***Invited***
10:10-10:30	**coffee/tea break**
Session 4	Chair: XIE Guoqiang(Shanghai Jiaotong University, China)
10:30-10:55	Glass and Sapphire Drilling Using Fiber Lasers, Shibin Jiang (Advalue Photonics, USA) ***Invited***
10:55-11:20	Advances in Fiber Laser Welding of Aluminum and Copper, Vijay Kancharla (IPG Photonics Corp, USA) ***Invited***
11:20-11:45	Ultra-short pulsed lasers for advanced, industrial manufacturing, Andrew Tian (Spectra-Physics, USA) ***Invited***
11:45-12:00	Theoretical investigation of mode competition in high-power fiber lasers and amplifiers at 1018nm, XIE Zhaoxin(Tianjin University, China) (OTA201801-011)
12:00-12:15	3.01kW average power all-fiber amplifier with 0.16nm narrow-linewidth single-mode beam quality, SHI Yi (Research Center of Laser Fusion, China Academy of Engineering Physics, China) (OTA201801-002)
Afternoon 24 May	
Session 5	Chair: ZHOU Pu(National University of Defense Technology, China)
13:30-13:55	Recent progress on RE:YAG composite laser ceramics, ZHANG Jian(Shanghai Institute of Ceramics, Chinese Academy of Sciences, China) ***Invited***
13:55-14:20	Few cycle pulse generation from fiber femtosecond laser, HU Minglie(Tianjin University, China) ***Invited***

14:20-14:45	Recent advances in 2D materials-based multi-wavelength ultrafast lasers and phenomenon, GUO Bo(Harbin Engineering University, China) ***Invited***
14:45-15:10	Exploring frequency down-conversion mid-infrared laser with flexible spectrum by pumping with novel fiber source, LI Xiao(National University of Defense Technology, China) ***Invited***
15:10-15:25	**coffee/tea break**
Session 6	Chair: ZHANG Jian(Shanghai Institute of Ceramics, Chinese Academy of Sciences, China)
15:25-15:50	Soliton explosion dynamics in ultrafast fiber lasers, LUO Zhichao (South China Normal University, China) ***Invited***
15:50-16:15	The application of picosecond laser in the processing field of thin film solar cell, WANG Zhihui (Beijing Laize Photonics Co., Ltd) ***Invited***
16:15-16:40	Unified theory of the temporal-spectral dynamics in Ytterbium-doped fiber lasers, ZHOU Pu (National University of Defense Technology, China) ***Invited***
16:40-16:55	Preliminary research on seed pulse-shaping of an all-fiber supercontinuum source, XU Zehua (National University of Defense Technology, China) (OTA201801-037)
16:55-17:10	Advances in Mechanism Research of Femtosecond Laser Filamentation Induced Hydrometeors Formation, GAO Taichang(National University of Defense Technology, China) (OTA201801-046)
17:10-17:25	Single-frequency fiber laser operating above 2 um based on cascaded single-mode-multimode-single-mode fiber structures and Sagnac loop, SHI Chaodu (Tianjin University, China) (OTA201801-034)

Conf. 2: 3 Dimensional Image Acquisition and Display Technology and Application

Room: Sydeny Room, L3, Pullman Hotel

Conference Chairs:

Byoungho LEE

(Seoul National University, Korea)

WANG Yongtian

(Beijing Institute of Technology, China)

CAO Liangcai

(Tsinghua University, China)

SITU Guohai

(Shanghai Institute of Optics and Fine Mechanics, CAS, China)

Program Committee:

Ayman Alfalou (ISEN-Brest, France), CHEN Linsen (Soochow University, China), CHENG Dewen (Beijing Institute of Technology, China), David J Brady (Duke University, USA), DAI Qionghai (Tsinghua University, China), LIAO Hongen (Tsinghua University, China), Partha Banerjee (University of Dayton, USA), PENG Xiang (Shenzhen University, China), SU Yikai (Shanghai Jiao Tong University, China), SANG Xinzhu (Beijing University of Posts and Telecommunication, China), Ting-Chung Poon (Virginia Tech, USA), WANG Qionghua (Sichuan University, China), WEI Sui (Anhui University, China), WEI Zhenzhong (Beihang University, China), YU Jingyi (ShanghaiTech University, China), ZHAO Jianlin (Northwestern Polytechnical University, China).

Afternoon	**23 May**
Session 1	Chair: WANG Yongtian (Beijing Institute of Technology, China)
14:00-14:25	Recent advances in phase retrieval using transport of intensity, Partha Banerjee (University of Dayton, USA) ***Invited***
14:25-14:50	3D volumetric microscope systems using adaptive objective lens and depth-of-field expanding phase plate, LI Guoqiang (The Ohio State University, USA) ***Invited***
14:50-15:15	Deep Learning on Light Fields, YU Jingyi (ShanghaiTech University, China) ***Invited***
15:15-15:35	Computational Imaging: where optics meets deep learning, SITU Guohai（Shanghai Institute of Optics and Fine Mechanics, CAS, China）
15:35-15:50	Compression of phase-only holograms with JPEG standard and deep convolutional neural network, JIAO Shuming (Shenzhen University, China) (OTA201802-006)

Technical Program

15:50-16:00	**coffee/tea break**
Session 2	Chair: Byoungho Lee (Seoul National University, Korea)
16:00-16:35	Large-size three-dimensional light-field displays, SANG Xinzhu (Beijing University of Posts and Telecommunication, China) ***Keynote***
16:35-17:00	Why lens_ array based 3D Display not yet Commercialized? —from the perspective of optical reconstruction, WEI Sui (Anhui University, China) ***Invited***
17:00-17:25	Photometric 3D Reconstruction, Yasuyuki Matsushita (Osaka University, Japan) ***Invited***
17:25-17:50	Implementation and Assessment of Table-top Holographic Display, Jinwoong Kim (ETRI, Korea) ***Invited***
17:50-18:05	Single-channel Based Color Image Encryption Using Detour Cylindrical Diffraction and Color Space Converting, WANG Jun (Sichuan University, China) (OTA201802-036)
Morning 24 May	
Session 3	Chair: SITU Guohai (Shanghai Institute of Optics and Fine Mechanics, CAS, China)
08:30-09:05	Ongoing Studies for Automatic Road Anomalies Detection on 2D and 3D Pavement Images, Ayman Alfalou (ISEN-Brest, France) ***Keynote***
09:05-09:30	Designs and evaluation of AR near eye display, CHENG Dewen (Beijing Institute of Technology, china) ***Invited***
09:30-10:55	Electronic holography using MEMS SLM, Yasuhiro Takaki (Tokyo University of Agriculture and Technology, Japan) ***Invited***
10:55-10:20	Real-time and Convenient 4D Reconstruction, LIU Yebin (Tsinghua University, China) ***Invited***
10:20-10:35	**coffee/tea break**
Session 4	Chair: Ayman Alfalou (ISEN-Brest, France)
10:35-11:00	Innovation of 3D Spatial Information Acquisition and Autostereoscopic Display in Biomedicion, LIAO Hongen (Tsinghua University, China) ***Invited***
11:00-11:25	Electronic holography using MEMS SLM, Yasuhiro Takaki (Tokyo University of Agriculture and Technology, Japan) ***Invited***
11:25-11:50	Direct phase measuring deflectometry for 3D shape measurement of discontinuous specular objects, ZHANG Zonghua (Hebei University of Technology, China) ***Invited***
11:50-12:05	Depth Distortion Problem for Self-interference Incoherent Digital Holography and its Solution, Kiseung Bang (Seoul National University, Korea) (OTA201802-039)
Afternoon 24 May	
Session 5	Chair: SANG Xinzhu (Beijing University of Posts and Telecommunication, China)
13:30-13:55	Dense Light Field Reconstruction from Sparse Sampling Using Residual Network, WANG Qing (Northwestern Polytechnical University, China) ***Invited***
13:55-14:20	Hologram calculation and system realization in holographic display, YU Yingjie (Shanghai University, China) ***Invited***
14:20-14:40	Three-dimensional display based on volume holographic photopolymer doped with gold nanorods, CAO Liangcai (Tsinghua University, China)
14:40-14:55	Full parallax synthetic hologram based on SRTM elevation terrain data, HOU Rui (Ocean University of China, China) (OTA201802-034)
14:55-15:10	Active liquid crystal micro phase modulation device based on deep sub-grating FP oscillation, HU Heteng (Anhui University,, China) (OTA201802-051)
15:10-15:25	**coffee/tea break**

Session 6	Chair: CAO Liangcai (Tsinghua University, China)
15:25-15:50	Real-time integral imaging pickup system using camera array, DENG Huan (Sichuan University, China) ***Invited***
15:50-16:15	Configurable cameras with MMS architecture, Wubin Pang (Duke University, USA) ***Invited***
16:15-16:30	Key factors of 3-D imaging system, XING Qi (Ningbo Vision Display Technology Co., Ltd)
16:30-16:45	Design and analysis of an analog signal readout circuit for SPAD, JIN Xiangliang (Xiangtan University, China) (OTA201802-050)
16:45-17:00	Effective speckle suppression from step processing and improvement of dual-domain de-noising approach for digital holography, LU Wei (Beihang University, China) (OTA201802-022)
17:00-17:15	RGB-D dense SLAM with keyframe-based method, FU Xingyin (Shenyang Institute of Automation, Chinese Academy of Sciences, China) (OTA201802-003)

Conf. 3: Optical Sensing and Imaging Technology and Application

Room: He Hua Room, L4, Pullman Hotel

Conference Chairs:

Mircea Guina

(Tampere University of Technology, Finland)

GONG Haimei

(Shanghai Institute of Technical Physics, CAS, China)

LU Jin

(Tianjin Jinhang Institute of Technical Physics, China)

LIU Dong

(Zhejiang University China)

Program Committee:

CHEN Qian (Nanjing University of Science and Technology, China), GU Yi (Shanghai Institute of Microsystem and Information Technology, CAS, China), JIN Weiqi (Beijing Institute of Technology, China), WANG Yueming (Shanghai Institute of Technical Physics, CAS, China)

Afternoon 23 May	
Session 1 Infrared sensing and imaging technology I **Chair:** Mircea Guina (Tampere University of Technology, Finland)	
14:00-14:30	The development and space applications of high performance InGaAs SWIR focal plane arrays, GONG Haimei (Shanghai Institute of Technical Physics, CAS, China) ***Invited***
14:30-15:00	Development of SWIR PIN and avalanche photodiodes using InGaAs and related materials, GU Yi (Shanghai Institute of Microsystem and Information Technology, CAS, China) ***Invited***
15:00-15:15	Negative differential capacitance in InGaAs/InAlAs photodetector, CHEN Jun (Soochow University, China) (OTA201803-079)
15:15-15:30	Calculation and fitting of response curve based on focal plane FTIR detection system, GAO Cong (Shanghai Institute of Technical Physics, CAS, China) (OTA201803-124)
15:30-15:45	**coffee/tea break**
Session 2 Image processing and analysis I **Chair:** GONG Haimei (Shanghai Institute of Technical Physics, CAS, China)	
15:45-16:15	Advances in wavelength tailoring of semiconductor light sources for quantum technology and sensing, Mircea Guina (Tampere University of Technology, Finland) ***Invited***
16:15-16:45	Applying the optoelectronic technology to fault diagnosis in a rocket engine failure, LI Jianhua

	(National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics, China) ***Invited***
16:45-17:00	Study on Inner Orientation Element Measurement for plane array Camera Using Self-calibration technique, Ma Lina (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-067)
17:00-17:15	Toward a Domain-specific Heuristic Knowledge based Spectrum Reconstruction Method for Multispectral Camera with CMOS Fabry-Perot Interferometer, Zhao Anna (Tianjin Jinhang Institute of Technical Physics, China) (OTA201803-092)
17:15-17:30	Remote Sensing Image Segmentation Based on a Modified Pulse Coupled Neural Network, SUN Li (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-094)
17:30-17:45	Research on multi-channel gain response nonuniformity correction technique for x-ray single-photon detection, ZHANG Feiran (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-107)
17:45-18:00	Simulation and Experiment of Diffractive Optic Imaging Spectrometer, ZHAO Haibo (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-134)
Morning 24 May	
Session 3 Infrared sensing and imaging technology II **Chair:** GU Yi (Shanghai Institute of Microsystem and Information Technology, CAS, China)	
08:30-09:00	Mid-infrared photo-acoustic detectors for highly sensitive gas sensing, Markku Vainio (University of Helsinki, Finland) ***Invited***
09:00-09:30	Recent development in high sensitive multi element infrared detectors at VIGO System S.A., Pawel Leszcz (VIGO System S.A., Poland) ***Invited***
09:30-09:45	Near infrared spectral regression calibration method based on wavelength feature selection and independent component analysis and its application to the rapid prediction of total aromatics, HUI Guohua(Zhejiang A & F University, China) (OTA201803-110)
09:45-10:00	Effectiveness Simulation of Cryogenic Optics for Improving Detecting Sensitivity of Infrared Systems, Zhang Lisha (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-060)
10:00-10:15	**coffee/tea break**
Session 4 Image processing and analysis II **Chair:** SONG Guofeng (Institute of Semiconductors, CAS, China)	
10:15-10:45	Recent progress of High resolution airborne hyperspectral imaging technology, WANG Yueming (Shanghai Institute of Technical Physics, CAS, China) ***Invited***
10:45-11:15	Liquid crystal adaptive imaging system with phase diversity image reconstruction technology, YANG Chengliang (Changchun Institute of Optics, Fine Mechanics and Physics, CAS, China) ***Invited***
11:15-11:30	Dim and small target detection based on background adaptive multi-feature fusion, LU Fuxing (Shanghai Institute of Technical Physics, CAS, China) (OTA201803-100)
11:30-11:45	Bibliometric trend analysis on global image processing research, CHEN Songcong (Lanzhou Library, Chinese Academy of Sciences, China) (OTA201803-110)
11:45-12:00	The Real-time Data Processing and Lightning Extraction Technology of Lightning Imager on FY-4 Meteorological Satellite, ZHANG Shoucai (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-077)

Technical Program

Afternoon 24 May	
Session 5 Novel laser radar and related technology **Chair:** LIU Dong (Zhejiang University, China)	
13:30-14:00	Development of high-spectral-resolution lidar for profiling optical properties of atmosphere aerosols, LIU Dong (Zhejiang University, China) ***Invited***
14:00-14:30	Beam quality management in high power solid-state lasers and their applications in high spectral resolution lidar, LIU Chong (Zhejiang University, China) ***Invited***
14:30-14:45	A green-band Scheimpflug lidar system – Feasibility studies for atmospheric remote sensing, MEI Liang (Dalian University of Technology, China) (OTA201803-021)
14:45-15:00	Recovery of ammonia absorption spectroscopy using asynchronous differential detection, CONG Menglong (Inner Mongolia University for the Nationalities, China) (OTA201803-065)
15:00-15:15	**coffee/tea break**
Session 6 Ultra-violet and visible sensing and imaging technology **Chair:** LU Jin (Tianjin Jinhang Institute of Technical Physics, China)	
15:15-15:45	Perovskite quantum dots embedded composite films enhancing uv response of silicon photodetectors for broadband and solar-blind light detection, WANG Lingxue (Beijing Institute of Technology, China) ***Invited***
15:45-16:15	XU Yun (Institute of Semiconductors, CAS, China) ***Invited***
16:15-16:30	Revolutionary high emissivity coating, WANG Depei
16:30-16:45	Research on nonlinear focal plane stitching method for TDICCD space camera (OTA201803-071), ZHONG Hui (Beijing Institute of Space Mechanics & Electricity, China)
16:45-17:00	ESD design of radiation-hardened for UV AlGaN focal plane arrays readout circuit, XIE Jing (Shanghai Institute of Technical Physics, CAS, China) (OTA201803-106)
17:00-17:15	Boresight testing of the space camera, XING Hui (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-085)
17:15-17:30	High Accuracy Alignment Facility for the Receiver and Transmitter of Laser Altimeter, DU Guojun (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-095)
17:30-17:45	The design of laser detection circuit with high reliability and large dynamic range based on APD, WU Xueying (Beijing Institute of Space Mechanics & Electricity, China) (OTA201803-108)

Conf. 4: Optical Precision Manufacturing, Testing Technology and Application

Room: Paris Room, L3, Pullman Hotel

Conference Chairs:

John McBride

(University of Southampton, UK)

TAN Jiubin

(Harbin Institute of Technology, China)

HAN Sen

(University of Shanghai for Science and Technology, China)

ZHANG Xuejun

(Changchun Institute of Optics, Fine Mechanics and Physics, CAS, China)

Program Committee:

Chair: LIU Jian (Harbin Institute of Technology, China)

Committee: Christof Pruss (University of Stuttgart, Germany), KONG Lingbao (Fudan University, China), LI Xiaochun (CDGM GLASS CO., LTD, China), LI Shengyi (National University of Defense Technology, China), LEE WB (The Hong Kong Polytechnic University, China), QIU Zhongjie (Shanghai Songcheng Optical Instrument Co., Ltd., China), Sadakazu Haino (Institue of Physics, Academia Sinica), SUN Hongbo (Tsinghua University, China), SUN Wenjuan (National Physical Laboratory (NPL), UK), SHENG Weixing (Shanghai Institute of Optics and Fine Mechanics, CAS, China), WANG Zhanshan (Tongji University, China), XU Xueke (Shanghai Hengyi Optical Precision Mechanism Ltd, China), XING Tingwen (Institute of Optics and Electronics, CAS, China), ZHANG Dawei (University of Shanghai for Science and Technology, China).

Afternoon	**23 May**
Session 1	Chair: John McBride (University of Southampton, UK)
14:00-14:25	Measurement of a microsphere diameter with a picometer resolution using whispering gallery mode resonances, Masaki Michihata (University of Tokyo，Japan) ***Invited***
14:25-14:50	Absolute Measurement of Super- Smooth Surface, HAN Sen（University of Shanghai for Science and Technology, China） ***Invited***
14:50-15:15	Micro-embossing Technology for Precision Optical Microstructures, LEE WB (The Hong Kong Polytechnic University, China) ***Invited***

15:15-15:40	Recent development in dimensional X-ray computed tomography at the National Physical Laboratory for advanced manufacturing, SUN Wenjuan (National Physical Laboratory, UK) ***Invited***
15:40-15:55	coffee/tea break
Session 2	Chair: HAN Sen(University of Shanghai for Science and Technology, China), WANG Hexin (Carl Zeiss Shanghai Co. Ltd., China)
15:55-16:10	Fabrication of high precision bare aluminum freeform mirrors with SPDT and MRF, DAI Yifan (National University of Defense Technology, China) ***Invited***
16:10-16:35	Ultra-precision measurement and characterization of microstructures based on Light Field Optics, KONG Lingbao (Fudan University, China) ***Invited***
16:35-16:50	Research on computer controlled ultra-precison polishing of freeform surfaces, WANG Chunjin (Partner State Key Laboratory of Ultraprecision Machining Technology, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, China)
16:50-18:00	**VIP Discussion of Optical Precision Manufacturing and Testing Technology and Industry Prospects**
Morning 24 May	
Session 3	Chair: HAN Sen (University of Shanghai for Science and Technology, China)
08:30-08:55	Measurement Parameter, Methods and Error Analysis of Wedge Focus Lens, SHEN Weixing (Shanghai Institute of Optics and Fine Mechanics, CAS, China) ***Invited***
08:55-09:20	A promising resolution to the limits of microscope on smooth surface: Fluorophore Aided Scattering Microscopy, LIU Jian（Harbin Institute of Technology, China） ***Invited***
09:20-09:45	SLM-based Femtosecond laser 3D microfabrication for microoptical and microfluidic applications, WU Dong (University of Science and Technology of China, China) ***Invited***
09:45-10:10	Three-dimensional microfabrication using spatiotemporal shaped femtosecond laser pulses, CHU Wei (Shanghai Institute of Optics and Fine Mechanics (SIOM), CAS, China) ***Invited***
10:10-10:25	Optical characterization of geometrically marginally stable cavities for gravitational wave detectors, WANG Haoyu (University of Shanghai for Science and Technology, China) (OTA201804-043)
10:25-10:35	**coffee/tea break**
Session 4	Chair: LEE WB (The Hong Kong Polytechnic University, China)
10:35-11:00	In-situ non-contact optical measurement technique for ultra-precision diamond turning, SHEN Zhengxiang (Tongji University, China) ***Invited***
11:00-11:25	Fabrication of microlens array based on surface tension manipulation, DAI Bo (University of Shanghai for Science and Technology, China) ***Invited***
11:25-11:50	Flexible surface interferometry with variable optical null optics, CHEN Shanyong (National University of Defense Technology, China) ***Invited***
11:50-12:05	Fabrication Technology of Large Size Nanometer Precision Diffraction Gratings, LI Wenhao (Changchun Institute of Optics, Fine Mechanics and Physics, C AS, China) (OTA201804-047)
Afternoon 24 May	
Session 5	Chair: LIU Jian (Harbin Institute of Technology, China)
13:30-13:55	Characterization of defects for large-aperture optics, WU Zhouling (ZC Optoelectronic Technologies., LTD, China) ***Invited***
13:55-14:20	Diffractive Optics and Optical fabrication technology, XUE Changxi (Changchun University of Science and Technology, China) ***Invited***
14:20-14:35	An improved material removal model for robot polishing based on feature-selecting deep residual neural networks, YU Yi (Fudan University, China) (OTA201804-050)

14:35-15:50	Experimental Study on Laser Induced Damage Induced by Optics Surface Contamination, LONG Kai (Tsinghua University, China) (OTA201804-005)
15:50-16:05	Design of computer generated hologram for testing the wedged focus lens with large aperture, CUI Jianpeng (Chengdu Fine Optical Engineering Research Center, China) (OTA201804-012)
16:05-16:15	**coffee/tea break**
Session 6	Chair: KONG Lingbao (Fudan University, China)
16:15-16:40	Measurement of antireflective coat's residual reflectance of large aperture sampling wedge element by interference methods, DA Zhengshang (Xi'an Institute of Optics & Precision Mechanics of Chinese Academy of Sciences, China) ***Invited***
16:40-17:05	Progress on fabrication and metrology technology study for M3M of TMT, LUO Xiao (Changchun Institute of Optics, FineMechanics and Physics, CAS, China) ***Invited***
17:05-17:20	An Outdoor Accuracy Evaluation Method of Aircraft Flight Attitude Dynamical Vison Measure System, CAI Binhu (Beihang University, China)(OTA201804-045)
17:20-17:35	A plasmonic triple-wavelength demultiplexing structure based on metal-insulator-metal waveguides side-coupled with nanoring cavities, XU Siyu (National University of Defense Technology, China) (OTA201804-009)
17:35-17:50	Experimental study on Protection Performance of the One-Layer Plasma Array against the NEMP, Liu Yang (College of Electronic Engineering ,China) (OTA201804-015)

Conf. 5: Micro Optics and MOEMS

Room: Cape Town Room, L3, Pullman Hotel

Conference Chairs:

WANG Yuelin

(Shanghai Institute of Micro-system and Information Technology, CAS, China)

Huikai XIE

(University of Florida, USA)

Program Committee:

Frederic Zamkotsian (CNRS, France), Cédric CLEVY (Franche-Comté University, France), Jeong Bong Lee (The University of Texas at Dallas, USA), Yoshihiro Taguchi (KEIO University, JAPAN), Yves-Alain Peter (Polytechnique Montréal, Canada), Sylwester Bargiel (FEMTO-ST Institute, France), Wei-Chuan Shih(University of Houston, USA), LI Tie (Shanghai Institute of Microsystem and Information Technology, CAS, China), LIANG Jingqiu (Changchun Institute of Optics, Fine Mechanics and Physics, CAS, China), WANG Junbo (Institute of Electronics, CAS, China) QIAO Dayong (Northwestern Polytechnical University, China), SHEN Wenjiang (Suzhou Institute of Nano-Tech and Nano-Bionics, CAS, China), WU Wengang (Peking University, China)

Afternoon 23 May	
Session 1 **Chair:** Huikai Xie (University of Florida, USA)	
14:00-14:25	Optical MEMS, key components for future instrumentation in Space, Frederic Zamkotsian (CNRS, France) ***Invited***
14:25-14:50	Development of Micro-machined Based Electrochemical seismic sensors, WANG Junbo (Institute of Electronics, CAS, China) ***Invited***
14:50-15:15	On Chip Resonant Optical Sensors, Yves-Alain Peter (Polytechnique Montréal, Canada) ***Invited***
15:15-15:40	Design and Fabrication of Integrated MicroLED Arrays Based on MOEMS Technology, LIANG Jingqiu (Changchun Institute of Optics, Fine Mechanics and Physics, CAS, China) ***Invited***
15:40-15:50	**coffee/tea break**
Session 2 **Chair:** Frederic Zamkotsian (CNRS, France)	
15:50-16:15	Optical Micro and Nanoscale Sensing using MOEMS Technology for Thermophysical Properties Engineering, Yoshihiro Taguchi (Keio University, Japan) ***Invited***
16:15-16:40	Review the Research on Uncooled Infrared Detector Based on MEMS at SIMIT, FENG Fei (Shanghai Institute of Microsystem and Information Technology, CAS, China) ***Invited***
16:40-17:05	Design, fabrication and Testing of Mega-pixel Uncooled Infrared Focal Plane Array Detector, LIU Xiang (Zhejiang Dali Technology Co. Ltd, China) ***Invited***
17:05-17:30	Recent Advances in Thermal Imaging Technology, SHEN Chongfei (Shanghai Magnity Electronics, China) ***Invited***
Session 3 **Chair:** Huikai Xie (University of Florida, USA)	

17:30-18:00	Panel Discussion
Morning 24 May	
Session 4 **Chair:** Wei-Chuan Shih (University of Houston, USA)	
08:30-08:55	MEMS-enabled Tunable Nanophotonics, Jeong-Bong (JB) Lee (The University of Texas at Dallas, USA) ***Invited***
08:55-09:20	MEMS Mirror Based Micro-LiDAR, Huikai Xie (University of Florida, USA) ***Invited***
09:20-09:45	Optical Color Manipulations and Sensing Applications of Visible-light Metamaterials Composed of Three-dimensional Optical Nanoatennnas, WU Wengang (Peking University, China) ***Invited***
09:45-10:10	Robotic Micro-assembly for Integrated Optics, Cédric Clevy (Franche-Comté University, France) ***Invited***
10:10-10:20	**coffee/tea break**
Session 5 **Chair:** WU Wengang (Peking University, China)	
10:20-10:45	Robust and High-efficiency Photothermal Conversion on Nano Porous Gold Disk Array for Sensing and Actuation Applications, Wei-Chuan Shih (University of Houston, USA) ***Invited***
10:45-11:10	Micro Mirror and Application in 3D Metrology, QIAO Dayong (Northwestern Polytechnical University, China) ***Invited***
11:10-11:35	Reservoir Blue-green Algae Bloom Monitoring Based on Miniaturized UAV Spectral Imaging Technology, LIU Shuyang (Tianjin Jinhang technical physics research institute, China) ***Invited***
11:35-12:00	MEMS 2D Scanning Micromirror for Laser Display, SHEN Wenjiang (Suzhou Institute of Nano-tech and Nano-bionics, CAS, China) ***Invited***

Contributions

Conf.1 Advanced Lasers Technology and Application

01-001 Effect of optical path difference on coherent polarization beam combination of ultrashort lasers pulses, Zhang Fan

01-002 3.01kW average power all-fiber amplifier with 0.16nm narrow-linewidth single-mode beam quality, Shi Yi

01-003 Detection of ammonia using logarithmic-transformed wavelength modulation spectrum, Cong Menglong

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