

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

Room:

**Conference Chairs:**



Prof. John McBride  
(University of Southampton, UK)



Prof. TAN Jiubin  
(Harbin Institute of Technology, China)



Prof. HAN Sen  
(University of Shanghai for Science and Technology, China)



Prof. 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 (Institute 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: HAN Sen, WANG Hexin	
14:00-15:15	<b>VIP Discussion of Optical Precision Manufacturing and Testing Technology and Industry Prospects</b>
15:15-15:40	Measurement of a microsphere diameter with a picometer resolution using whispering gallery mode resonances, Masaki Michihata ( University of Tokyo, Japan) <i>invited</i>
15:40-16:05	Fabrication of high precision bare aluminum freeform mirrors with SPDT and MRF, DAI Yifan (National University of Defense Technology, China) <i>invited</i>
16:05-16:30	Micro-embossing Technology for Precision Optical Microstructures, LEE WB (The Hong Kong Polytechnic University, China) <i>invited</i>

## Technical Program

16:30-16:45	coffee/tea break
<b>Session 2 Chair: John McBride</b>	
16:45-17:10	Absolute Measurement of Super- Smooth Surface, HAN Sen ( University of Shanghai for Science and Technology, China ) <i>invited</i>
17:10-17:35	Recent development in dimensional X-ray computed tomography at the National Physical Laboratory for advanced manufacturing, SUN Wenjuan (National Physical Laboratory, UK) <i>invited</i>
17:35-18:00	Ultra-precision measurement and characterization of microstructures based on Light Field Optics, KONG Lingbao (Fudan University, China) <i>invited</i>
18:00-18:15	Research on computer controlled ultra-precision 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)
<b>Morning 24 May</b>	
<b>Session 2 Chair: Prof. HAN Sen</b>	
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) <i>invited</i>
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 ) <i>invited</i>
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) <i>invited</i>
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) <i>invited</i>
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
<b>Session 3 Chair: Prof. LEE WB</b>	
10:35-11:00	In-situ non-contact optical measurement technique for ultra-precision diamond turning, SHEN Zhengxiang (Tongji University, China) <i>invited</i>
11:00-11:25	Fabrication of microlens array based on surface tension manipulation, DAI Bo (University of Shanghai for Science and Technology, China) <i>invited</i>
11:25-11:50	Flexible surface interferometry with variable optical null optics, CHEN Shanyong (National University of Defense Technology, China) <i>invited</i>
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]
<b>Afternoon 24 May</b>	
<b>Session 4 Chair: Prof. LIU Jian</b>	
13:30-13:55	Characterization of defects for large-aperture optics, WU Zhouling (ZC Optoelectronic Technologies., LTD, China ) <i>invited</i>
13:55-14:20	Diffraction Optics and Optical fabrication technology, XUE Changxi (Changchun University of Science and Technology, China) <i>invited</i>
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

**Technical Program**

	Jianpeng (Chengdu Fine Optical Engineering Research Center, China) [OTA201804-012]
16:05-16:15	<b>coffee/tea break</b>
<b>Session 5</b>	<b>Chair: Prof. KONG Lingbao</b>
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) <i>invited</i>
16:40-17:05	Progress on fabrication and metrology technology study for M3M of TMT, LUO Xiao (Changchun Institute of Optics, Fine Mechanics and Physics, CAS, China) <i>invited</i>
17:05-17:20	An Outdoor Accuracy Evaluation Method of Aircraft Flight Attitude Dynamical Vision 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]