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Optical Test and Measurement Technology and Equipment

Yudong Zhang
Wei Gao
Editors

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Introduction

The 7th International Symposium on Advanced Optical Manufacturing and Testing Technology (AOMATT) was held 26–29 April 2014 at the Harbin International Conference Center, China.

AOMATT 2014 was kicked off with a formal opening ceremony. The ceremony started with the introduction of VIP guests, symposium chairs, conference chairs, and plenary speakers, followed by opening speeches by Prof. Liwei Zhou, AOMATT 2014 Symposium Chairman, Prof. Bin Xu, Vice President of IOE, a sponsor of AOMATT 2014, and Prof. Yingchun Liang, Assistant President of Harbin Institute of Technology, a local co-sponsor of AOMATT 2014. Dr. H. Philip Stahl, 2014 President of SPIE, technical cosponsor of AOMATT 2014, could not attend the symposium this year due to a schedule conflict, but sent his congratulation letter. In his letter, Dr. Stahl gave high marks for AOMATT and stated:

> AOMATT is a very successful collaboration between SPIE, the Institute of Optics and Electronics of the Chinese Academy of Sciences, and the Chinese Optical Society. It has become a well-known international symposium on advanced optical manufacturing and testing technologies. The vision of AOMATT is closely aligned with SPIE's mission to promote optics and photonics around the world.

All of the conference sponsors and attendees greatly appreciate SPIE and Dr. Stahl's long-standing support of AOMATT since its inception in 2002.

The plenary sessions started immediately after the conclusion of the opening ceremony. There were a total of nine plenary presentations: Dr. Larry Stepp, Telescope Department Head for the Thirty Meter Telescope (TMT) Project, USA, presented "Manufacturing the Optics for the Thirty Meter Telescope"; Dr. Bernard Delabre, Optical Design Engineer of European Southern Observatory (ESO), Germany, presented "The Progress of the European Extremely Large Telescope"; Dr. Tao Sun, Director of the Centre for Precision Engineering(CPE) of Harbin Institute of Technology, presented "Method and procedure for the high-efficiency and ultra-precision diamond turning of large optical mirrors"; Dr. Wei Gao, Professor and Director of Research Center for Precision Nanosystems, Dept. of Nanomechanics of Tohoku University, Japan, presented "Precision nanometrology for fabrication of micro optics"; Dr. Xuejun Zhang, Vice President of Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), CAS, presented "Advanced manufacturing and testing technologies for multiple mirror space telescopes"; Dr. A.G. Poleshchuk, Head of the Laboratory of Diffractive Optics, and Dr. Victor P. Korolkov, senior scientist of Institute of Automation and Electrometry, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia, presented "Diffractive optical elements: fabrication and application"; Dr.

Axel Schindler, Science and Technology Consultant of Leibniz Institute of Surface Modification (IOM), Germany, presented "Advanced ion beam finishing and atmospheric plasma technology for high end optics"; Dr. Harald Giessen, Chair for Ultrafast Nano-Optics in the Department of Physics at the University of Stuttgart, Germany, presented "Complex hybrid plasmonics: new materials and new functionalities"; Dr. Xiangang Luo, Director of State Key Laboratory of Optical Technologies on Nano-Fabrication and Micro-Engineering of Institute of Optics and Electronics, CAS, presented "Manipulating the polarization states of electromagnetic waves using subwavelength structures". More than 600 people attended the opening ceremony and the full-day plenary sessions.

More than 400 oral and poster papers were selected for AOMATT 2014. About 102 oral papers were presented in six parallel conference sessions on 27 April. A special Technical Workshop was held in the morning of 28 April. An all-symposium poster session was held in the afternoon of 28 April. Authors and attendees had active discussions and exchange of ideas throughout the symposium. Many papers presented cutting-edge research and development work in optical design, manufacturing, and testing. The success of AOMATT 2014 continued the tradition of focus and excellence of this biannual international topical symposium in China.

We would like to express our sincere appreciation to COS—The Chinese Optical Society, IOE—Institute of Optics and Electronics, Chinese Academy of Sciences, and to SPIE for sponsoring and supporting AOMATT 2014. We would like to thank all chairs, committee members, authors, and attendee for their contributions to the symposium and sharing their research with colleagues around the world.

The 8th AOMATT is planned for 2016, and we look forward to seeing everyone at AOMATT 2016. Please watch for the Call for Papers and symposium announcements on the SPIE, IOE and COS web sites.

Li Yang
Secretary General, AOMATT 2014

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