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Technologies*

Subnanometer Accuracy Measurement for Synchrotron Optics and X-Ray Optics

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Introduction

The 8th International Symposium on Advanced Optical Manufacturing and Testing Technology (AOMATT 2016) was held 26–29 April 2016 at the Suzhou International Conference Center, Suzhou, China. The symposium was opened in the morning of 26th April with a formal opening ceremony. The ceremony started with the introduction of VIP guests, symposium chairs, conference chairs, and plenary speakers. Professor Liwei Zhou AOMATT 2016 Symposium Chairman, Professor Bin Xu Vice President of Institute of Optics and Electronics (China), one of the sponsors of AOMATT 2016, and Professor Yuan Yinnan, Vice President of Soochow University (China) gave opening speeches to a packed auditorium.

Plenary sessions followed immediately after the conclusion of the opening ceremony. There were a total of eight plenary presentations: "Less is more: extreme optics with zero refractive index physics", by Dr. Eric Mazur, Balkanski Professor of Physics and Dean of Applied Physics at Harvard University (United States); "Large optical telescopes in the era of large wide-field survey", by Dr. David R. Silva, Director of United States National Optical Astronomy Observatory (United States); "The European Extremely Large Telescope (E-ELT) revolution is under construction", by Dr. Marc Cayrel, European Southern Observatory (ESO) Project Manager, E-ELT Optomechanics (Germany); "Ultra-precision lens fabrication via molding: advances and challenges", by Dr. Liangchi Zhang, Professorial Fellow of Australian, Head of the Laboratory for Precision and Nano Processing Technologies, The University of New South Wales (Australia); "Advancing ultra-precision machining to high performance", by Dr. Ing. Oltmann Riemer, Head of the Laboratory for Precision Machining, Universität of Bremen (Germany); "Micro/nano-optics for flexible functional devices: today and future", by Dr. Linsen Chen, Chief of National United Engineering Research Center of Digital Optical Imaging and Display, Soochow University (China); "New angles on angle metrology: approaching fundamental limits", by Dr. Ralf D. Geckeler, Head of Length and Angle Graduations Group, Physikalisch-Technische Bundesanstalt (Germany); and "Functional photonic nanostructures: from thin films and slits to catenaries", by Dr. Xiangang Luo, Director of State Key Laboratory of Optical Technologies for Nano-Fabrication and Micro-Engineering, Chinese Academy of Sciences (China).

More than 800 people attended the opening ceremony and full-day plenary sessions. More than 1,000 abstracts were submitted to AOMATT 2016. About 500 submissions were selected for oral and poster presentations after careful reviews by conference chairs and committee members. Oral papers were presented in eight parallel conference sessions 27 and 28 April. An all-symposium poster session was held in the afternoon of 28 April. Many papers highlighted cutting edge research and development in optical design, manufacturing, and testing. Authors and attendees had very productive discussions and exchanged ideas throughout the symposium.

The AOMATT 2016 organizing committee would like to express their sincere appreciation for the strong support of SPIE, technical co-sponsor and long-term partner of AOMATT. Dr. Andrew Brown, Senior Director of SPIE, sent a letter of congratulations to the symposium. In his letter, Dr. Brown thanked all symposium chairs, conference chairs, and committee members for their leadership, and all authors and attendee for their contributions to make AOMATT 2016 a success. Dr. Brown also stated: "The vision of AOMATT is closely aligned with SPIE's mission to promote optics and photonics around the world. SPIE sponsors and co-sponsors technical conferences around the world and contribute millions of dollars every year in support of education and outreach programs, such as scholarships, travel grants, and other educational programs."

Finally, we would like to express our sincere appreciation to COS—The Chinese Optical Society (China), and IOE—Institute of Optics and Electronics, Chinese Academy of Sciences (China), for sponsoring and supporting AOMATT 2016. We want to thank all authors and participants as well volunteers for their contributions to the symposium and sharing their research with colleagues around the world.

We look forward to seeing everyone at AOMATT 2018.

Li Yang
Secretary General, AOMATT 2016
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