## PROCEEDINGS OF SPIE

# 3rd International Symposium on Advanced Optical Manufacturing and Testing Technologies

# Optical Test and Measurement Technology and Equipment

Junhua Pan James C. Wyant Hexin Wang Editors

8–12 July 2007 Chengdu, China

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Published by SPIE

Volume 6723

Proceedings of SPIE, 0277-786X, v. 6723

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Author(s), "Title of Paper," in 3rd International Symposium on Advanced Optical Manufacturing and Testing Technologies: Optical Test and Measurement Technology and Equipment, edited by Junhua Pan, James C. Wyant, Hexin Wang, Proceedings of SPIE Vol. 6723 (SPIE, Bellingham, WA, 2007) Article CID Number.

ISSN 0277-786X ISBN 9780819468802

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

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Printed in the United States of America.

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#### Introduction

Optical manufacturing technology has seen tremendous progress especially during the last 10 years both in China and abroad. It plays remarkable supporting and enabling roles in many industries and contributes to technology and society development. Optical manufacturing technology has become a very important interdisciplinary field of manufacturing science and optical science. It is closely associated with developments in information technologies, bioscience, materials, nanotechnologies, etc. At the same time, optical manufacturing has developed into a new global business involving optics, optoelectronics, and photonics in the world economy system. Today, as China becomes an integral part of the global economy, it is hard to find an area of optical manufacturing or optical market that doesn't involve the close cooperation between China and the rest of the world.

To satisfy the needs for timely exchanges of optical manufacturing technologies and market information, the first international symposium on Advanced Optical Manufacturing and Testing Technology (AOMATT) was sponsored and organized by the Chinese Optics Society (COS), The Institute of Optics and Electronics (IOE) of Chinese Academy of Science (CAS), and SPIE in 2000. Prof. WANG Daheng, a leading authority of Chinese optics and optical engineering and an academician of both the Chinese Academy of Science and Chinese Academy of Engineering, chaired the first successful AOMATT symposium in Chengdu, China. The first AOMATT in 2000 resulted in 106 papers published in the Proceedings of SPIE, Vol. 4231. A much larger second AOMATT meeting was held in Xian, China, in 2005. It resulted in 359 papers published in the Proceedings of SPIE, Vols. 6148–6150. The third AOMATT symposium came back to Chenadu. China, in July 2007. By all accounts, it was even a bigger success. More than 700 delegates from all over the world attended the opening ceremony and plenary session on the first day of the symposium. A total of 483 oral and poster papers were presented at the symposium. They are published in the Proceedings of SPIE, Vols. 6721-6724.

Professor ZHOU Bingkun, AOMATT 2007 Symposium General Chair, President of the Chinese Optical Society, and Academician of Chinese Academy of Science, chaired the opening ceremony and the plenary presentation, and gave its congratulations to the symposium in his opening speech. Professor CAO Jinghua, Vice Director of the Bureau of International Co-operation of Chinese Academy of Science, attended the opening ceremony and gave a warm opening speech. Dr. Philip Stahl from NASA Marshall Space Flight Center, a member of SPIE's Board of Directors and Vice President of ICO, represented SPIE at the symposium and delivered the first symposium plenary presentation entitled "James Webb Space Telescope: The First Light Machine." It was warmly received by the symposium delegates. Other symposium plenary speakers include Dr. Bernard Delabre from

ESO of Germany, Dr. Eric Ruch from REOSC of France, Dr. Jim Burge from the University of Arizona of USA, Dr. David Walker from Univ. College London of UK, Dr. Yoshiharu Namba from Chubu University of Japan, Dr. Tadashi Hatano from Tohoku University of Japan, Dr. Masaomi Kameyama from Nikon Corporation of Japan, Dr. Xiangang Luo from IOE of China, and Dr. Sen Han from Veeco Corporation, USA. The plenary presentations have given symposium delegates the opportunity to learn about the latest developments in large mirror and telescope technology, advanced optical manufacturing technology, optical testing, and nanotechnologies. The symposium has provided an excellent platform for all delegates to network with each other, review progresses in their fields, discuss future technology and market trends, explore collaboration and business opportunities, etc.

We are delighted that each new AOMATT symposium is more successful than the last. AOMATT has established itself as a must-attend leading optical design and manufacturing symposium in China. We are confident the meeting will get even better in the future and become a well-known international symposium. We would like to express our sincere appreciation to all organizations and individuals who have contributed to the success of AOMATT. We want to thank all authors and symposium delegates for attending the symposium and sharing their research and development with their colleagues around the world. The next AOMATT symposium will be held in China in 2009. We are looking forward to seeing you all at an even more successful AOMATT.

#### Li Yang

Secretary General, AOMATT 2000, 2005, 2007 Chairman of the Committee on Optical Manufacturing Technology of Chinese Optical Society

#### **Jinxue Wang**

Deputy Secretary General, AOMATT 2007 Raytheon Santa Barbara Remote Sensing

