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Bingxiang Li Chao Ren Editors

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### Introduction

The Third International Conference on Optics and Image Processing (ICOIP 2023) was held 14–16 April 2023 in Hangzhou, China in a hybrid format. Approximately 100 researchers, teachers, students, and engineers working in the field of optics, devices, and image processing attended the conference.

The general objectives of the ICOIP 2023 were: (1) to generate an adequate academic and scientific forum to present the work and experiences of researchers/teachers/students, contributing this way, to the production of new knowledge in the field of optics devices and image processing; and (2) to establish specific relationships between all the participants in the conference, with activities and/or workshops independently.

The subject areas in which papers were presented were:

- Optoelectronic Devices and Integration
- High-Performance Semiconductor Optical Amplifiers
- Laser Physics and Nonlinear Optics
- Object Tracking and Pattern Recognition
- Nonlinear Optical Devices and All-optical Signal Processing, etc.

The Conference took place for three days. The invited keynote speakers were:

- Bingxiang Li, Professor, Nanjing University of Posts and Telecommunications (China), winner of the National Youth Talent Project, winner of the Ministry of Human Resources and Social Security's high-level talent project, working on the basic research and application development of the structure, physical properties, effects and manipulation of Liquid Crystal Soft Materials for a long time: Orientation and Order of Liquid Crystals for Soft Matter Photonics
- Chuan Qin, Professor, University of Shanghai for Science and Technology, China, Senior Member of CCF and CSIG, the Highly Cited Chinese Researcher (Elsevier, 2020), committed to Image Processing, Multimedia Security and AI Security, published over 150 peer-reviewed papers in journals and conferences including IEEE TIP, IEEE TIFS, IEEE TMM, IEEE TCSVT and ACM Multimedia: Recent Advances on Perceptual Image Hashing
- Sailesh Iyer, Professor, Rai University, Ahmedabad, India, President of RU IIC and RU Nodal Officer-GSIRF, engaged in Computer Vision and Image Processing, Cyber Security, Data Mining and Analytics, Artificial Intelligence, Machine Learning, Blockchain

We thank the organizers, sponsors and all the participants and contributors for making the conference possible and interesting. We express our appreciation to SPIE for providing help in publishing this Proceedings volume.

The Committee of ICOIP 2023