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Yang Zhao**
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Contents

vii	<i>Conference Committee</i>
ix	<i>Introduction</i>

PHOTONICS AND OPTICAL MATERIALS RESEARCH

13398 02	Preparation of a main-chain azobenzene polyurethane and its application in photopatterning [13398-52]
13398 03	An ultra-low-power optical transmitter for linear-drive optical [13398-33]
13398 04	The tilted fiber Bragg grating based on PMMA for measuring temperature and strain [13398-32]
13398 05	SVMD-based denoising methods for differential absorption lidar retrieval of CO₂ concentration profiles [13398-29]
13398 06	Propagation characteristics of the Bessel-Gaussian beams carrying power-exponent-phase vortex [13398-21]
13398 07	Exploring parameter variations in Pound-Drever-Hall laser frequency stabilization: a simulation approach [13398-38]
13398 08	Study on the synchronized measurement technique of two-gas concentration based on digital modulation and demodulation TDLAS [13398-61]
13398 09	Investigating the measurement of target rotate speed at off-axis incidence of vortex beam under different topological charge [13398-68]
13398 0A	Guided-mode resonant grating filter based on Sb₂Se₃ with dual-band tuning [13398-60]
13398 0B	High-precision assembly and adjustment method of a laser beam-expanding lens of spaceborne [13398-41]
13398 0C	Research on online correction method of dynamic ampacity parameters of submarine cable based on optical fiber temperature measurement [13398-54]
13398 0D	Research on multicomponent gas laser detection technology in coal mine goaf with shared absorption pool [13398-70]
13398 0E	Overview of solid-state LiDAR for robotics [13398-6]
13398 0F	Research on key technology of optical fibre integrated sensing for power distribution grids [13398-46]

- 13398 OG **Research on energy consumption carbon emissions at grid scale based on NPP-VIIRS nighttime light data** [13398-18]
- 13398 OH **Optical power monitoring based on back propagation neural network algorithm** [13398-35]
- 13398 OI **Research on low-latency in industrial PON systems** [13398-31]
- 13398 OJ **Optimization of pulsed thulium fiber pre-amplifier with wavelength of 1908.06 nm** [13398-2]
- 13398 OK **Study on the influence of different colloidal materials on the temperature sensing characteristics of FBG based on vacuum dispensing technology** [13398-39]
- 13398 OL **Formation of controllable 1D and 2D subwavelength structures on 4H-SiC by delayed triple femtosecond laser pulse irradiation** [13398-58]

SPECTRAL TECHNOLOGY AND OPTICAL IMAGING ANALYSIS

- 13398 OM **Bifocal metalens incorporating spatial-variant subwavelength gratings** [13398-30]
- 13398 ON **The impact of energy spectrum deviation and correction analysis in dual-energy CT system** [13398-45]
- 13398 OO **Post-processing preparation of perovskite nanorods for polarized display** [13398-63]
- 13398 OP **Reflective frequency selective absorber based on computational pixelated metasurface** [13398-74]
- 13398 OQ **High-precision GaN surface defect detection based on quadriwave lateral shearing interferometry** [13398-12]
- 13398 OR **A method for improving the uniformity of LED display screens based on CCD images** [13398-7]
- 13398 OS **High-sensitivity PCF-SPR sensor with three-core structure for three-parameter sensing** [13398-36]
- 13398 OT **A self-reference SPR sensor with high Q factor and stability based on gold rectangular nanohole array** [13398-26]
- 13398 OU **Fourier transform spectrometer chip based on silicon-polymer hybrid waveguide** [13398-3]
- 13398 OV **Low-color tolerance mixing algorithm for nonlinear color spaces and applications** [13398-50]
- 13398 OW **A surface defect detection method of titanium alloy using deep learning** [13398-4]

- 13398 0X **Soft-limiting PAPR suppression for reducing companding loss power in OTFS systems**
[13398-8]
- 13398 0Y **Research on background update algorithms combined with semantic information in optical gas imaging technology** [13398-44]
- 13398 0Z **Calibration method for trinocular stereovision system consisting of one projector and dual cameras** [13398-71]
- 13398 10 **Exploration of agricultural ecosystem monitoring technology based on laser speckle contrast imaging** [13398-73]
- 13398 11 **Research on the heat map denoising method based on improved PDE** [13398-55]
- 13398 12 **Ultraviolet-visible imaging spectropolarimeter spectral modulation module design**
[13398-28]
- 13398 13 **Design method of light-field camera based on metalens array** [13398-72]
- 13398 14 **Determination of the characteristic parameter of nanofilm based on ellipsometer and scanning electron microscope** [13398-23]
- 13398 15 **Ocean acoustic field model based on three-dimensional parabolic equation** [13398-40]

CROSS-DOMAIN COMMUNICATION AND SIGNAL PROCESSING TECHNOLOGY

- 13398 16 **Laser-generated sound air-water cross-medium communication method based on FSK modulation** [13398-11]
- 13398 17 **Radio resource allocation optimization of space-terrestrial link based on reinforcement learning** [13398-49]
- 13398 18 **Low-complexity signal detection of OTFS in high-speed mobile communication system**
[13398-17]
- 13398 19 **An anti-interference acoustic detection method for cross-water-air medium communication** [13398-67]
- 13398 1A **Research on two-interference alignment algorithms based on non-ideal beamforming spatial channels** [13398-48]
- 13398 1B **High-speed time-space synchronization method based on data link** [13398-53]
- 13398 1C **Research on high-speed multi-modulation coherent optical communication technology**
[13398-75]
- 13398 1D **A dual band antenna associated communication and mid-field power transmission system for biomedical implants** [13398-37]

- 13398 1E **Research on synchronisation methods for ocean wideband communications** [13398-66]
- 13398 1F **Research on high-frequency partial discharge positioning and anti-interference technology for transformers with multiterminal coupling sensing** [13398-59]
- 13398 1G **An energy-efficient routing protocol based on SP-DPC clustering in WSNs** [13398-43]
- 13398 1H **Design and implementation of public-private integrated communication terminals for new power system** [13398-20]
- 13398 1I **Test method research of emergency position service platform** [13398-24]
- 13398 1J **Research of UAV task system common data recorder technology** [13398-16]
- 13398 1K **Research on DOA estimation method of millimeter wave radar based on sparse reconstruction** [13398-62]
- 13398 1L **Performance study of hybrid precoding based on JSDM and SIC under 3D MIMO multiuser** [13398-25]
- 13398 1M **Distributed communication in smart agriculture at vineyard of Liangshan, China** [13398-65]
- 13398 1N **LFM-assisted PAPR reduction scheme for satellite Internet of Things sparse code multiple access systems** [13398-5]
- 13398 1O **Indoor location and orientation detection based on visible light communication using an improved sparrow search algorithm** [13398-22]
- 13398 1P **Adaptive GNSS-5G fusion localization method based on active noise prediction** [13398-69]

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Introduction

The 2024 4th International Conference on Optics and Communication Technology (ICOCT 2024) was held 9–11 August 2024 in Nanjing, China. It brought together researchers and practitioners in both industry and academia around the world to discuss emerging issues on optics and communication technologies, for sharing state-of-art results, and for exploring new areas of research and development.

The heart of ICOCT 2024 beats with the rhythm of internationalization, as evidenced by the rich tapestry of keynote speakers, researchers, industry leaders, and students who have converged under one roof. Their diverse backgrounds, experiences, and perspectives have enriched the discourse, fostering deep insights into emerging trends, unresolved problems, and potential breakthroughs. More than 100 national and international participants attended the conference, which was featured with opening speech, keynote speech, oral and poster presentations, as well as academic discussion, in which a wide range of topics were covered and the most recent significant results were presented. During the conference, Professor Bingxiang Li from Nanjing University of Posts and Telecommunications showed his research from three aspects: a) fast electro-optic switching enabled by the nanosecond electrical modification of order parameters effect; b) pattern formation in liquid crystals produced by the external stimuli; c) stable and tunable three-dimensional solitons as director bullets driven by AC electric fields. Participants interacted actively with him on the report through questions raising and answering. The conference has served as a catalyst for the formation of new partnerships, collaborations, and even interdisciplinary alliances, setting the stage for future advancements that transcend national borders.

The Proceedings of ICOCT 2024 is a testament to the profound impact that optics and communication technologies continue to have on society. Quantities of excellent papers evaluated based on their originality, technical or research content, correctness, relevance to the conference's theme, contributions, and readability were included in the Proceedings. They encapsulate a broad spectrum of groundbreaking research, ranging from fundamental studies in photonics, quantum optics, and optical materials to applied research in optical communications, optical sensing, and optoelectronics. Each contribution, be it a theoretical exploration or an experimental demonstration, underscores the relentless pursuit of knowledge and the relentless drive to push the boundaries of what is possible.

With the excellent quality of all the presentations and contributions and the efforts of all the committee members and staff, ICOCT 2024 was a complete success. We would also like to extend our gratitude to all the speakers and authors for sharing scientific ideas and presenting new perspectives with us. Meanwhile, we appreciate the endeavor from the editorial team of the Proceedings.

We hope that through the publication of this Proceedings, we can inspire more people to think and explore, and promote the research and practice in fields related of and to optics and communication technologies to move forward.

The Committee of ICOCT 2024