

6th International Conference on Optics, Photonics and Lasers (OPAL' 2023)



17-19 May 2023

Funchal (Madeira Island), Portugal

<http://www.opal-conference.com>

About the Event

Similar to the previous OPAL conferences, the 6th International Conference on Optics, Photonics and Lasers (OPAL' 2023) will incorporate three symposiums covering a broader range in optics, photonics and lasers, and provide an excellent opportunity to exchange ideas and present latest advancements in these areas. The OPAL 2023 will be organized by the IFSA - a professional, non-profit association serving for industry and academy for 20 years.

The purpose of OPAL' 2023 is bring together leading international researchers, engineers and practitioners interested on any of the optical related technologies. The conference will offer plenary and invited talks, contributed oral and poster presentations, special sessions, tutorials, and exhibitions of commercial products. Social and cultural events will also take place to foster networking among the participants in a friendly manner.

Optics:

- Optical and Fibre Optical Sensors and Instrumentation
- Micro-Opto-Electro-Mechanical Systems (MOEMS)
- Physical Optics
- Optoelectronic Devices, Photonics, Nanophotonics and Biophotonics
- Organic Optoelectronics and Integrated Photonics
- Optical Communications, Switching and Networks
- High-speed Opto-electronic Networking
- Optical Fiber Technology: Materials, Devices and Systems
- Optical Information Processing
- Holography
- Optical Metrology
- Optical Imaging Systems and Machine Vision
- Optical Computing
- Guided Wave Optics
- Optics in Condensed and Soft Matter
- Quantum Optics
- Lasers and Laser Applications
- Nonlinear Optics
- Nano and Micro Optics
- Matter Waves
- Quantum Information
- Bio and Medical Optics
- Optical Materials, Characterization Methods and Techniques
- Optical Methods for Process Control
- Microscopy and Adaptive Optics
- Lasers in Medicine and Biology
- Engineering Applications of Spectroscopy
- Optical Microscopy of Composites

Photonics:

- Photonic Sensors
- Photodetectors
- Photonic Integrated Circuit (PIC)
- Photonic Integration and Packaging
- Photonic Crystals
- Biophotonics
- Microwave Photonics
- Nanophotonics
- Photonic Materials and Metamaterials
- Quantum Photonics
- Terahertz Photonics
- Photonic Computing
- Applications of Photonic Technologies

Lasers:

- Laser Science
- Laser and laser optics
- Semiconductor Lasers
- Laser Metrology
- Chemical Gas Lasers
- Fiber Lasers
- Nonlinear Lasers
- Laser Propulsion
- Lasers and LEDs
- Laser Nanotechnology
- Laser Spectroscopy and Microscopy
- Laser Applications
- Lasers in Medicine and Biology



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Special Sessions:

Quantum Optics and Quantum Information

The special session will address the underlying principles as well as practical realizations of photonic quantum technologies and present the latest developments in the field.

The topics include:

- Quantum light generation, control, and detection
- Fundamental tests using quantum optics
- Quantum communication and quantum cryptography
- Quantum networks
- Photonic quantum computation and simulation
- Photonic quantum sensing and metrology
- Quantum random number generation
- Quantum optomechanics
- Quantum memories and repeaters

Special Session Chair:

Dr. Vladyslav Usenko (Palacky University Olomouc, Czech Republic)
E-mail: usenko@optics.upol.cz

Semiconductor Quantum Confined Nanostructure (dot, dash, rod, wire) Based Materials and Devices

The steep increase in energy demand and bandwidth requirement for the exponentially growing internet and mobile connectivity market calls for further innovation in ultra-compact, high integrated, low energy consumption, and high performance technologies for active optical semiconductor devices, such as light-emitting diodes, mode-locked lasers, and semiconductor optical amplifiers (SOA).

The topics include:

- Theory of semiconductor materials and devices with quantum confined nanostructure
- Material growths and device designs with quantum confined nanostructure
- Quantum confined semiconductor lasers
- Quantum confined semiconductor optical amplifiers
- Quantum confined superluminescent diodes
- Applications of the quantum confined semiconductor devices

Special Session Chair:

Youxin (Linda) Mao (Photonics Device Group, Advanced Electronics and Photonics Research National Research Council, Canada)
E-mail: Youxin.Mao@nrc-cnrc.gc.ca

Deadlines:

Submission (2-page abstract):	1 March 2023
Notification of acceptance:	15 March 2023
Registration:	30 March 2023
Camera ready (4-6 pages paper):	15 April 2023

One event - three publications !

- 1) All registered abstracts will be published in the conference proceedings (USB flash drive edition of published Proceedings with the ISBN), distributed during the conference and submitted for indexing to the Web of Science. The previous OPAL' 2018 - 2019 Conference proceedings were indexed by the Conference Proceedings Citation Index.
- 2) Authors will be invited to submit full-page extended papers to the special issues of Sensors & Transducers (ISSN 2306-8515, e-ISSN 1726-5479) open access journal on 'Optics, Photonics and Lasers', MDPI Photonics (ISSN: 2304-6732) or MDPI Sensors (ISSN: 1424-8220) open access journals.
- 3) The limited number of full-page papers published in the journal will be selected by the Editorial Board to extend for book chapters for the open access Book Series on 'Advances in Optics: Reviews', Vol. 6.

Organising Committee

Chairman:

Prof., Dr. Sergey Y. Yurish (IFSA, Spain)

Advisory Chairmen:

Dr. Qiang Wu (Northumbria University, Newcastle Upon Tyne, UK)
Prof., Dr. Claude Phipps (Photonic Associates, USA)
Prof., Dr. George Semouchkin (Michigan Technological University, USA)
Prof., Dr. Sandeep Singh Sengar (Cardiff Metropolitan University, UK)
Prof., Dr. Boris Mizaikoff (Ulm University, Germany)
Prof., Dr. Mahmoud Daoudi (National Center for Nuclear Sciences and Technologies, Tunisia)
Dr. Aleksej Rodin (State Research Institute Center for Physical Sciences and Technology, Lithuania)
Dr. Vladyslav Usenko (Palacky University Olomouc, Czech Republic)

Conference Manager:

Mrs. Tetyana Zakharchenko (IFSA Publishing, S.L., Spain)

