



8TH INTERNATIONAL CONFERENCE ON ADVANCED OPTOELECTRONICS AND LASERS CAOL*2019

September 06-08, 2019, Sozopol, Bulgaria

Organized and supported by

IEEE Photonics Society Ukraine Chapter
V. N. Karazin Kharkiv National University, Ukraine
Kharkiv National University of Radio Electronics, Ukraine
Technical University of Sofia, Bulgaria
University of Guanajuato, Mexico
Odessa I. I. Mechnikov National University, Ukraine
Bulgarian Academical Association of Metrology
Institute of Physics, National Academy of Sciences of Ukraine
Ministry of Education and Science of Ukraine
National Scientific Centre "Institute of Metrology"

The 8th **International Conference on Advanced Optoelectronics and Lasers (CAOL*2019)** will be held in Sozopol, Bulgaria, **September 06 – 08, 2019**. CAOL*2019 will provide a forum for scientists in a wide area of laser physics and optoelectronics. The conference will cover wide frontiers in laser physics, photonics, nanotechnology, material physics, nonlinear optics and optical communications. Its characteristic feature is a stronger emphasis on the mathematical, physical and technological aspects of the problems in hand, together with detailed analysis of application problems. The technical program will consist of invited lectures and regular contributed papers.

This year in the frame of CAOL we will organize two accompanying events, Scientific Workshop on Data Science in Modern Optoelectronics and Laser Engineering (DSMOLE*2019) and Scientific Workshop "Measurement Uncertainty: scientific, normative, applied and methodical aspects" (UM*2019). DSMOLE*2019 will be dedicated to problems arising from merging of modern optoelectronics and laser engineering with data science, artificial and computational intelligence. UM*2019 will cover cutting-edge developments in metrology and adjacent fields.

CAOL conference has long history. Previous conferences were successfully held in 2003, 2005, 2008, 2010 and 2013 in Crimea, Ukraine, in 2006 in Guanajuato, México, and in 2016 in Odessa, Ukraine. Information on the previous international meetings on optoelectronics and lasers can be found in *IEEE Photonics Society Newsletter (formerly IEEE/LEOS Newsletters)*: 4-1999, 4-2000, 4-2001, 3-2004 2-2006, 2-2009, 4-2010, 4-2011 etc.

Conference will be held in collaboration with IEEE/IPS, OSA and SPIE, and Regional Chapters of those societies.

CAOL*2019 TOPICS & Workshops

- **Laser physics and applications**
- **Nanotechnology and nanostructures**
- **Resonators, (micro)cavities and beam propagation**
- **THz photonics and electronics**
- **Laser material processing**
- **Nanophotonics, plasmonics, near field optics**
- **Metamaterials, optical invisibility, and transformation optics**
- **Nano-optoelectronics, nano-antennas, nano-sources and confined light emitters**
- **Laser medicine and biophotonics**
- **Photonic links and optical communications**
- **PBG- and photonic crystal-devices**
- **Specialty fibers including structured one and fiber lasers**
- **Integrated photonics and (micro)cavities**
- **Liquid crystals and device applications**
- **Quantum optics and quantum technologies**
- **Optical measurements and instrumentation**
- **Organic photonics**
- **Optical materials**
- **Metrology of optoelectronics and lasers**
- **Renewable Energy and Sustainability**

- **Photonics for big data and Big data in photonics**
- **Ultrafast optics**
- **Nonlinear optics and photonics**
- **Optoelectronic sensors**
- **Dynamical characteristics, internal energy flows and singularities of light fields**
- **Scientific Workshop on Data Science in Modern Optoelectronics and Laser Engineering (DSMOLE*2019)**
- **Scientific Workshop "Measurement Uncertainty: scientific, normative, applied and methodical aspects (UM*2019)"**

CAOL*2019 HONORARY CHAIR

Prof. Valerii V. Semenets (Rector of Kharkiv National University of Radio Electronics, Ukraine)

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Dr. Pavel Neyezhmakov (National Scientific Centre "Institute of Metrology", Ukraine)

CAOL*2019 & WORKSHOPS EXPECTED INVITED SPEAKERS :

Miguel Andrés, University of Valencia, Spain; **Richard M. De La Rue**, University of Glasgow, UK; **Edik U. Rafailov**, Aston University, UK; **Philippe Roy**, XLIM, France; **Pere Perez Millan**, FYLA Laser, Valencia, Spain; **Igor Meglinski**, University of Oulu, Finland; **Igor Aizenberg**, Manhattan College, USA; **Zygmunt L. Warsza**, PIAP, Warszawa, Poland; **Grigori Sokolovskii**, Ioffe Physical-Technical Institute, Russia; **Aleksandr Bekshaev**, Odessa I. I. Mechnikov National University, Ukraine; **Viktor Kotlyar**, Samara National Research University, Russia; **Sergey Tarapov**, O. Ya. Usikov Institute for Radiophysics and Electronics, Kharkiv, Ukraine; **Alexis Kudryashov**, Active Optics NightN Ltd, Russia; **Sergey L. Prosvirnin**, Institute of Radio Astronomy, Kharkiv, Ukraine; **Andrey L. Stepanov**, Kazan E. K. Zavoisk Physical-Technical Institute, Russia; **Fedir F. Sizov**, V. Lashkaryov Institute of Semiconductor Physics, Kyiv, Ukraine; **Irmantas Kašalynas**, Center for Physical Sciences and Technology, Vilnius, Lithuania; etc.

Venue and Location: The conference will be held in Sozopol (the Hotel "Military-Marine Club", Street Respublikanska 18) the oldest Bulgarian town on the Bulgarian Black Sea Coast. Sozopol is located 35 km from Bourgas, the nearest international airport. The international airport Bourgas is accessible by daily flights from many airports of Europe, Asia and America. No visa is required for citizens of the USA, Mexico, Brazil, Australia, Canada, EU, Japan, Israel, and Croatia. Detailed visa information is available on the conference web site.

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Conference web site

<http://www.caolconferences.org>

Submission:

Due date for submission of camera-ready manuscripts is **May 15, 2019**. The length of manuscript shall be 4–6 full pages. **Submission instructions** can be found on conference web site. Manuscript and conference language is **English**. Only electronic submissions will be accepted. The Conference Proceedings will be available at the registration desk. All accepted contributions will be submitted to **IEEE Xplore Digital Library**. Usually, soon after publication in IEEE Xplore Digital Library conference proceedings appear in other Abstracting and Indexing databases (**Scopus, Web of Science, Google Scholar**).

Please note that "No-show" contributions will not form a part of conference proceedings and will not be included in IEEE Xplore Digital Library.

Registration and accommodation

The registration fee for participants is 400 € before/on June 30 and 450 € after June 30. This registration fee includes all conference sessions, the conference proceedings, coffee breaks, reception, conference dinner and one excursion.

For Participants from Ukraine and FSU countries special grants to partial reduction of the registration fee will be available.

A guest program will be organized to take advantage of the history and nature charm of Sozopol.