



# 6<sup>TH</sup> INTERNATIONAL CONFERENCE ON ADVANCED OPTOELECTRONICS AND LASERS CAOL\*2013

September 9-13, 2013, Sudak, Crimea, Ukraine

## Organized jointly by

IEEE Photonics Society Ukraine Chapter  
IEEE AP/MTT/ED/AES/GRS/NPS/EMB East Ukraine Joint Chapter  
Kharkov National University of Radio Electronics, Ukraine  
V.N. Karazin National University, Kharkov, Ukraine  
Taurida National V.I. Vernadsky University, Crimea, Ukraine  
Institute of Physics National Academy of Sciences of Ukraine  
University of Guanajuato, Mexico  
Ministry of Education and Science, Youth and Sports of Ukraine

The 6<sup>th</sup> International Conference on Advanced Optoelectronics and Lasers (CAOL\*2013) will be held in Sudak, Crimea, Ukraine, **September 9 - 13, 2013**. CAOL\*2013 will provide a forum for scientists in a wide area of laser physics and optoelectronics. The conference will cover wide frontiers in laser physics, nanotechnology, new materials, nonlinear optics and optical communications. Its characteristic feature is a stronger emphasis on the mathematical, physical and technological aspects of the researches, together with a detail analysis of the application problems. The technical program traditionally consists of invited lectures and regular contributed papers.

The previous conferences were successfully held in 2003, 2005, 2008 and 2010 in Crimea, and in 2006 in Guanajuato, Mexico. 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\*2013 TOPICS

- Physics of advanced and novel lasers
- Solid-state, liquid and gas lasers and applications
- Semiconductor lasers and nanotechnology
- Resonators, (micro)cavities and beam propagation
- THz generation, detection, guidance and control
- Laser chemistry and laser material processing and nanofabrication
- 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
- Ultrafast photonics
- Nonlinear optical materials and devices
- Photonic links and optical communications
- PBG and photonic crystal devices
- Specialty fibers including structured one and fiber lasers
- Integrated and nonlinear waveguide photonics
- Liquid crystals for advanced optoelectronics and lasers
- Quantum information, quantum & optical computing, quantum entanglement
- Optical measurement and instrumentation
- Organic coherent/incoherent photonics

## CAOL\*2013 GENERAL CHEAR

Prof. Igor A. Sukhoivanov (University of Guanajuato, Mexico)

## TECHNICAL PROGRAM COMMITTEE CO-CHAIRS

Prof. Marian Marciniak (National Institute of Telecommunications, Poland)

Prof. Vasiliy A. Svich (V.N.Karazin National University, Ukraine)

## ORGANIZING COMMITTEE CO-CHAIRS

Prof. Vyacheslav A. Maslov (V.N. Karazin National University, Ukraine )

Prof. Igor V. Dzedolik (Taurida National V.I. Vernadsky University, Ukraine)



## 12<sup>th</sup> International CONFERENCE on LASER and FIBER-OPTICAL NETWORKS MODELING, LFNM\*2013

September 11-13, 2013

LFNM'2013 topics include but are not limited to:

- Modeling/simulation and design of all kinds of lasers and LEDs
- Modeling and simulation in quantum optics
- Computational studies of optical phenomena at the micro- and nanoscales
- Theoretical and computational design of electromagnetic waveguiding and specialty photonic structures
- Modeling and simulation of laser-matter interaction at micro-and nanoscale
- Computational nonlinear fiber and integrated optics
- Computational studies of novel photonic materials and theoretical designs of photonic devices
- Simulation/modeling tools, methods, approaches
- Multiscale modeling/simulation in optoelectronics and photonics
- Theoretical and computational studies of photonic links, networks and systems
- Computational terahertz photonics and electronics
- Modeling and simulation in ultrafast optics
- Theory and computational physics of nanostructures

### CAOL/LFNM INVITED SPEAKERS:

**Miguel Andrés**, University of Valencia, Spain

**Richard M. De La Rue**, University of Glasgow, UK;

**Anton S. Desyatnikov**, Nonlinear Physics Centre, The Australian National University, Australia;

**Silvano Donati**, University of Pavia, Italy;

**Andrey Gorbach**, University of Bath, UK;

**Mohamed Henini**, Nottingham Nanotechnology and Nanoscience Centre, University of Nottingham, UK;

**Paul Harrison**, University of Leeds, UK;

**Diana Huffaker**, Integrated NanoMaterials Core Lab, California NanoSystems Institute, USA;

**Takeo Katayama**, Graduate School of Materials Science, Nara Institute of Science and Technology, Japan;

**Yuriy Kivshar**, Nonlinear Physics Centre, Australian National University, Canberra, Australia;

**Eugene Kuzin**, Instituto Nacional de Astrofisica Optica y Electronica, Mexico;

**Volodymyr Lysak**, School of Semiconductor and Chemical Engineering, Chonbuk National University, Republic of Korea;

**Anatoliy M. Negriyko**, Institute of Physics, National Academy of Sciences of Ukraine, Ukraine;

**Alexander I. Nosich**, Usikov Institute of Radiophysics and Electronics, National Academy of Sciences, Ukraine;

**Shum Ping**, Nanyang Technological University, Singapore;

**Sergii L. Prosvirnin**, Institute of Radio Astronomy of the National Academy of Sciences, Kharkov, Ukraine;

**Nataliya Sakhnenko**, Kharkov National University of Radio Electronics, Ukraina;

**Marat S. Soskin**, Institute of Physics, National Academy of Sciences, Ukraine;

**R. K. Shevgaonkar**, Indian Institute of Technology, Delhi, India

**Hoe Tan**, The Australian National University, Australia;

**Volodymyr Tkachenko**, Università di Napoli Federico II, Italy;

**Bo Yong**, Institute of Physics, Chinese Academy of Sciences, Beijing, China.



## 2<sup>nd</sup> International Workshop “NONLINEAR PHOTONICS”, NLP\*2013

September 10 - 11, 2013

WORKSHOP AND TECHNICAL PROGRAM COMMITTEE CHAIR

Dr. Anton Desyatnikov (Australian National University, Australia)

NLP\*2013 topics include but are not limited to:

- Nonlinear effects in active and passive optical devices and systems
- Nonlinear optical materials and devices
- Semiconductor and quantum well nonlinear photonics
- Nonlinear metamaterials
- Liquid crystals in optics and photonics
- Integrated and nonlinear waveguide photonics
- High-speed optic and photonic links
- Nonlinear optical waveguides
- Optical structuring, manipulation and control by light
- Nonlinear spatio-temporal beam engineering
- Nonlinear effects in plasmonics and nano-optics

### NLP INVITED SPEAKERS

**Andrei Maimistov**, Moscow Engineering Physics Institute, Moscow Institute for Physics and Technology, Russia;

**Alex Rozhin**, Aston University, UK;

**Sven Höfling**, Wilhelm Conrad Röntgen Research Center for Complex Material Systems, Universität Würzburg, Germany;

**Vladimir Konotop**, Faculdade de Ciências da Universidade de Lisboa, Portugal;

**Victor Moshchalkov**, Institute for Nanoscale Physics and Chemistry, Belgium;

**Falk Eilenberger**, Friedrich-Schiller-Universität Jena, Institute of Applied Physics, Jena, Germany;

**Ivan I. Smalyukh**, University of Colorado at Boulder, USA;

**Anatoly P. Sukhorukov**, Lomonosov Moscow State University, Moscow, Russia;

**Yana Izdebskaya**, Nonlinear Physics Centre, The Australian National University, Australia;

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**Venue and Location:** The conference will be held in Sudak which is one of the well-known cities of the Crimea. Sudak is a small historic town, and will be hosted by the [Touristic Sanatroy Complex "Sudak"](#). Transportation Connections: daily air flight connection Simferopol <=> Kyiv. The international airport Boryspil in Kyiv is accessible by daily flights from many airports of Europe, Asia and America. From the Simferopol airport you can take a bus or minibuses. No visa is required for citizens of the USA, Canada, EU, Norway, Switzerland, Japan, Russia, Israel, and Croatia. Participants except those mentioned need a visa to enter Ukraine.

### REGISTRATION AND ACCOMMODATION

The registration fee for participants is 350 € before/on July 15 and 400 € after July 15. IEEE Student member 150/200 €. 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.

**Cancellation Policy:** A €50 service charge will be assessed for processing refunds.

Conference registration form with details about registration and hotel prices will be available on the conference web site. The arrangement of the accommodation for the participants and accompanying persons will be offered by the Organizing Committee.

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

**SOCIAL EVENTS:** City excursion; Boat trip around Sudak bay; Excursion to the Theodocia; Visiting the winery “Novy Svit”

### Contact for general information:

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<http://caol.kture.kharkov.ua>

### Due Dates:

For submission of 2-3 pages camera-ready papers is **May 31, 2013**. Only electronic submissions will be accepted.

Postdeadline paper may be submitted up to **August 1, 2013**

The Conference Proceedings will be published in English and will be available at the registration desk. All accepted contributions will be submitted to IEEE Xplore Digital Library.