## THE XXIV ANNUAL CONFERENCE SARATOV FALL MEETING 2020

## VIII SYMPOSIUM ON OPTICS & BIOPHOTONICS AND XXIV INTERNATIONAL SCHOOL FOR JUNIOR SCIENTISTS AND STUDENTS ON OPTICS, LASER PHYSICS & BIOPHOTONICS

SEPTEMBER 29 - OCTOBER 2, 2019, SARATOV, RUSSIA

## **CO-LOCATED WITH CONFERENCE:**

## **"TOWARDS OPTICAL AND MULTIMODALITY TRANSLATIONAL IMAGING"**

## SEPTEMBER 30- OCTOBER 2, 2019, SARATOV, RUSSIA

## Organized by

Saratov State University (National Research University of Russia) (SSU) Research-Educational Institute of Optics and Biophotonics, SSU

International Research-Educational Center of Optical Technologies for Industry and Medicine "Photonics", SSU

Institute of Biochemistry and Physiology of Plants and Microorganisms, RAS

Institute of Precision Mechanics and Control, RAS (IPMC RAS)

Saratov State Medical University named after V.I. Razumovsky

Volga Region Center of New Information Technologies, SSU

Tomsk State University (National Research University of Russia) (TSU)

ITMO University

Bauman Moscow State Technical University (BMSTU)

Institute of Solid State Physics of the RAS (ISSP RAS)

Prokhorov General Physics Institute of the RAS (GPI RAS)

Bach Institute of Biochemistry, Research Center of Biotechnology of the RAS

Sechenov First Moscow State Medical University (Sechenov University)

Institute of Ultra High Frequency Semiconductor Electronics of the RAS (IUHFSE RAS)

Biomedical Photonics Committee of Chinese Optical Society, China SPIE Student Chapter of SSU SPIE Student Chapter of BMSTU SPIE Student Chapter of ISSP RAS SPIE Student Chapter of Samara University OSA Student Chapter of SSU OSA Student Chapter of BMSTU

## In cooperation with

Russian Society for Photobiology Saratov Science Center of the RAS Biophotonics.World - the worldwide consortium Biophotonics4Life EPIC – European Photonics Industry Consortium

## Co-sponsored by

Ministry of Science and Higher Education of the Russian Federation Saratov State University RAS – Russian Academy of Sciences RFBR – Russian Foundation for Basic Research SPIE – The International Society for Optics and Photonics OSA – The International Optical Society IEEE – Institute of Electrical and Electronics Engineers Russian Technology Platform "The Medicine of the Future" Russian Technology Platform "Photonics" European Technology Platform "Photonics21" Samara University INJECT RME LLC, Saratov, Russia LLC SPE Nanostructed Glass Technology, Saratov, Russia

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**The main goal** of the Symposium is to present and discuss recent developments and applications of optical and laser technologies in medicine and biology, precise mechanics and control of tissues and cells, coherent optics of random and ordered media, material and environmental sciences, nonlinear dynamics of laser systems, laser physics, spectroscopy and molecular modeling, nanophotonics and nanobiophotonics.

Fundamental problems of photonics, quantum optics and ultrafast optical techniques will be discussed. The main attention will be paid to discussion of basic research of interactions of coherent, low-coherent, polarized, spatiallyand temporally-modulated electromagnetic radiation within the broad wavelength range from x-rays to terahertz with inhomogeneous scattering media and biological tissues and cells. Elastic, inelastic (Raman, SERS and CARS) and dynamic light scattering, Doppler shift, photoacoustic, photothermal and nonlinear interactions, mechanical stresses, and photobiological effects will be considered. On this basis, the variety of laser and optical technologies for medical diagnostics, therapy, surgery, and light dosimetry, as well as for diagnostics and imaging of random and ordered media will be presented. Studies on lasers, fibers, and microstructured waveguides will be discussed. Plasmonics and biosensing will be one of the key features of the meeting.

Official languages of the meeting are English and Russian.

## The Conference fee

For foreign participants, the conference fee is \$200 (lunches, barbecue, Volga-river voyage, and light refreshments are included), may be paid during the Meeting or transferred to the account number for request.

For Russian participants the Conference fee will depend on financial support from sponsoring organizations.

# Lodging

Western style mini-hotel Bohemia in the downtown

http://www.bohemiahotel.ru

Hotel "Slovakia" ashore the Volga river

http://slovakia.all-hotels.ru/

Hotel "Volga" in the downtown

http://astoria-saratov.ru/en/hotels/volga/

Hotel "Saratov" in the downtown

http://astoria-saratov.ru/en/hotels/saratov/

Hotel "Volna" ashore the Volga river

http://volna64.ru/

## Culture program

Visits to Conservatoire, Theaters, and Museums, 2-hour Volga-tour.

## Visa application support

To apply for visa to Russian Consulate you need an official invitation letter. The following information about you and accompany persons is needed:

1. Passport (valid up to six months after October 2, 2020) number:

dates of issue: \_\_\_\_\_ and of expiry: \_\_\_\_\_\_ (copy of passport page with photo)

Date of birth: \_\_\_\_\_, place of birth: \_\_\_\_\_

3. Living address:\_\_\_\_\_

4. Working position:\_\_\_\_\_

5. Working address:\_\_\_\_\_

6. Name of town, where you are going to apply for visa (Russian consulate) Please, send this information to general secretary of the SFM-20

Elina A. Genina: <u>eagenina@yandex.ru</u>

# Proceedings

Conference papers will be published as Conference Proceedings (in Russian and English) under the title "Optical Physics and Biophotonics", SPIE Proceedings (3 volumes), and in Russian and International peer-reviewed journals: Journal of Biomedical Photonics & Engineering, Quantum Electronics (Russian/English), Optics and Spectroscopy (Russian/English), Nonlinear Applied Physics (Russian/English), Journal of Biomedical Optics, Optical Engineering, The European Physical Journal, and MDPI Materials.

All papers will be subjected to the normal refereeing process for the journals.

For special issue of *Quantum Electronics* manuscripts of papers should be submitted not later than **August 31, 2020**. For SPIE Proceedings and Book of manuscripts "Optical Physics and Biophotonics" – not later than **October 31, 2020**.

# **QUANTUM ELECTRONICS**

## Laser Biophotonics

### Submission Deadline 31 August 2020

Dear colleagues!

Considering your outstanding expertise in the development and application of lasers and laser techniques for diagnostics and modification of biological objects, we invite you to make a contribution to the next special issue of the journal Quantum Electronics on Laser Biophotonics. The issue is scheduled to appear in the first issue of the journal for 2021 and will be composed primarily of invited original articles by leading researchers in the area of biophotonics.

Articles should be submitted in electronic form (MS Word and PDF formats are accepted) to the address of one of the invited editors (Articles should not be sent to the editorial office). The recommended length of the article is 15 pages, 2-spaced, 12 font size, including figures.

For the convenience of planning the issue, we ask you to inform in advance about your plans in connection with this invitation and, in case of a positive decision, the preliminary title of your article.

### Featured Issue Editors:

Alexander V. Priezzhev, Moscow State University, <u>avp2@mail.ru</u> Valery V. Tuchin, Saratov State University, IPMC RAS, <u>tuchinvv@mail.ru</u> Andrei E. Lugovtsov, Moscow State University, <u>anlug@biomedphotonics.ru</u> Mikhail Yu. Kirillin, IAP RAS, <u>mkirillin@yandex.ru</u>

## **Journal of Biomedical Optics**

# **Advances in Terahertz Biomedical Science and Applications**

https://www.spiedigitallibrary.org/journals/journal-of-biomedical-optics/callfor-papers#navBarAnchor

Submission Deadline **31 October 2020** Submit a Manuscript Author Guidelines

Guest Editors

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# **Optical Engineering**

## **Advances in Terahertz and Infrared Optoelectronics**

https://www.spiedigitallibrary.org/journals/optical-engineering/call-forpapers#navBarAnchor

#### Manuscripts due 31 October 2020.

Submit a Manuscript Author Guidelines

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### The European Physical Journal (EPJ)

EPJ ST Special Issue: Breakthrough optics- and complex systems-based technologies of modulation of drainage and clearing functions of the brain https://epist.epi.org/epist-open-calls-for-papers

#### Submission Deadline: September 30, 2020.

A pdf of this Call for Papers can be downloaded here

We are looking forward to your contributions.

#### **Guest Editors:**

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Materials: section Optics and Photonics

### **Advanced Materials for Biophotonics Applications**

https://www.mdpi.com/journal/materials/special\_issues/advanced\_biophoto nics\_applications

Deadline for manuscript submissions: **31 December 2020**.

### Special Issue Editors

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