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Editors

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3 Plenary Session III
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4 Plenary Session IV
Nicolás Pazos-Pérez, Centre Tecnologic de la Quimica de Catalunya, (Spain)

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(Russian Federation)

17 Oral Sessions Biomedical Spectroscopy

Vyacheslav I. Kochubey, N.G. Chernyshevsky Saratov State University
(Russian Federation)

Alexander B. Pravdin, N.G. Chernyshevsky Saratov State University
(Russian Federation)

18 Oral Session Polarization

Dmitry A. Zimnyakov, N.G. Chernyshevsky Saratov State University
(Russian Federation)

19 Oral Session Low-Dimensional Structures

Olga Glukhova, N.G. Chernyshevsky Saratov State University
(Russian Federation)

20 Oral Session Spectroscopy

Kirill I. Berezin, N.G. Chernyshevsky Saratov State University
(Russian Federation)

Lev M. Babkov, N.G. Chernyshevsky Saratov State University
(Russian Federation)

21 Oral Session Nonlinear Dynamics

Vadim S. Anishchenko, N.G. Chernyshevsky Saratov State University
(Russian Federation)

22 Joint SFM/PALS Poster/Internet Session

Dmitry Agafonov, N.G. Chernyshevsky Saratov State University
(Russian Federation)

Ivan V. Fedosov, N.G. Chernyshevsky Saratov State University
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Introduction

The Third International Symposium on Optics and Biophotonics (Saratov Fall Meeting, or SFM15) and Seventh Finnish-Russian Photonics and Laser Symposium (PALS15) was held in Saratov, Russian Federation, 22-25 September 2015 with over 500 participants from the Russian Federation, United States, Canada, Europe, as well as Asian and Pacific Ocean countries. It covered a wide range of modern problems of fundamental and applied optics, laser physics, photonics, and biomedical optics.

In the framework of the Symposium, the Conferences and Workshops were organized as followed:

- **Optical Technologies in Biophysics & Medicine XVII**
  Elina A. Genina, Igor Meeglini, and Valery V. Tuchin, Chairs

- **Laser Physics and Photonics XVII**
  Vladimir L. Derbov, Chair

- **Spectroscopy and Molecular Modeling XVI**
  Lev M. Babkov and Kirill V. Berezin, Chairs

- **Nanobiophotonics XI**
  Nikolai G. Khlebtsov, Chair

- **Microscopic and Low-Coherence Methods in Biomedical and Non-Biomedical Applications VIII**
  Kirill Larin, Chair

- **Internet Biophotonics VIII**
  Alexey N. Bashkatov, Ivan V. Fedosov, and Valery V. Tuchin, Chairs

- **Nonlinear Dynamics VI**
  Vadim S. Anishchenko, Chair

- **Low-Dimensional Structures V**
  Olga Glukhova, Chair

- **Biomedical Spectroscopy II**
  Vyacheslav I. Kochubey and Alexander B. Pravdin, Chairs

- **Advanced Polarization Technologies in Biomedicine and Material Science II**
  Igor V. Meglinski and Dmitry A. Zimnyakov, Chairs

- **Computational Biophysics and Analysis of Biomedical Data II**
  Dmitry E. Postnov, Chair

PALS15 was an important event that attracted leading researchers in the field of photonics and laser physics from Finland and the Russian Federation. The invited lectures and oral and poster presentations were distributed in six major modules:
Fundamental Aspects of the Light-Matter Interaction
Nano- and Microoptics
Biophotonics
Plasmonics
Nonlinear Optical Spectroscopy
Advanced Sensing

The main focus was the discussion of fundamentals and general approaches and
descriptions of coherent, low-coherent, polarized, spatially and temporally
modulated light interactions with inhomogeneous absorbing media, photonic
crystals, optical biopsy, tissue phantoms, and optical properties of various tissues
both *in vitro* and *in vivo*. Static and dynamic light scattering in tissues, Doppler,
photo-acoustic and photo-thermal laser-tissue interactions, light induced
mechanical stress, and photodynamic effects were also considered. On this basis
the variety of laser and optical technologies for medical diagnostics, therapy,
surgery, and light dosimetry, as well as for spectroscopy of random and ordered
media were presented. New fundamental phenomena in quantum optics
together with novel laser and fiber-optical technologies were discussed, as well
as photonics of micro- and nanostructures. Since the use of almost every
measurement method or imaging technique present computational issues, the
relevant state-of-the-art approaches were discussed in the framework of a newly
introduced conference on computational biophysics and data analysis.

SFM15 and PALS15 were organized in the following manner: morning plenary
sessions, afternoon lectures and oral sessions, and then evening poster
presentations and internet discussion. Attendees listened with great interest to the
plenary lectures delivered by leading experts in urgent fields of optical and laser
science, and then they engaged in discussions afterwards.

Plenary and invited lectures, oral, and poster presentations covered a wide area
of tissue optics, spectroscopy and imaging, controlling of optical properties of
tissues, and the biophysical and photo-chemical aspects of photo- and laser
therapy.

The special features traditional of Saratov Fall Meetings are the Internet Sessions
and one-day online discussions. In 2015, this Internet session included 2 plenary
lectures, 24 invited lectures and 24 reports.

The papers by the participants from the United States, Russian Federation,
Denmark, Germany, Netherland, Ireland, Italy, Finland, Poland, Israel, China, etc.
were available during the meeting and will be available for a whole year until the
next meeting.
It is a great pleasure and privilege for the editors to thank all of the authors for their contributions to the symposiums, especially to the Internet lecturers for their exciting presentations.

The organizers of SFM15 are grateful to all the sponsoring organizations and programs that efficiently supported this meeting, especially to:

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