

Second Announcement and Call for Papers

International Symposium TOPICAL PROBLEMS OF BIOPHOTONICS – 2007

4-11 August, 2007

Nizhny Novgorod – Moscow – Nizhny Novgorod, Russia

Organizers

Institute of Applied Physics of the Russian Academy of Sciences
Nizhny Novgorod State Medical Academy
University of Nizhny Novgorod
RIKEN Brain Science Institute
Administration of the Nizhny Novgorod Region

Sponsors

Sponsorship is being sought from

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Russian Foundation for Basic Research
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NEWPORT
Spectra-Physics

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Manabu Tanifuji, RIKEN Brain Science Institute, Wako City in Saitama, Japan
Alexey M. Zheltikov, Moscow State University, Russia

The Symposium will include three parallel Topical Conferences:

- Optical Bioimaging
- Nanobiophotonics
- Neuroimaging

and a few **Workshops** on the topics within the symposium scope:

- Russian-Japanese Workshop "Neuroimaging and Neurodynamics"
- Terahertz Imaging and Diagnostics
- Photonics in Cancer Management

Each Conference and Workshop will include oral (invited and contributed talks) and poster sessions. Besides, some plenary lectures on interrelated topics are planned. Oral and poster presentations will be selected by the Program Committee Members by results of the considered submissions.

The working language of the Symposium is English.

Optical Bioimaging

Program Committee

Claude Boccara, Ecole Supérieure de Physique et de Chimie Industrielles, France
Daniel L. Farkas, Cedars-Sinai Medical Center, USA – Co-Chair
Felix I. Feldchtein, IMALUX Corporation, USA
Valentin M. Gelikonov, Institute of Applied Physics RAS, Russia
Karsten König, Fraunhofer-Institut für Biomedizinische Technik, Germany – Co-Chair
Olga V. Kravtchenko, Institute of Electronic Structure & Laser – FORTH, Greece
Jurgen Lademann, Humboldt University, Germany
Jorge Ripoll, Institute of Electronic Structure & Laser – FORTH, Greece
Natalya M. Shakhova, Institute of Applied Physics RAS, Russia – Co-Chair
Valery V. Tuchin, Saratov State University, Russia

Conference scope

Coherence domain optical methods and optical coherence tomography
Optical diffuse tomography
Biomedical spectroscopy and microscopy
Multiphoton microscopy in the biomedical sciences
Modalities for molecular imaging

Scientific Secretary

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The prospective list of invited speakers

Claude Boccara, Ecole Supérieure de Physique et de Chimie Industrielles, France
Stephen A. Boppart, University of Illinois at Urbana-Champaign, USA
Daniel L. Farkas, Cedars-Sinai Medical Center, USA
Jurgen Lademann, Humboldt University, Germany
Jorge Ripoll, Institute of Electronic Structure & Laser – FORTH, Greece

Nanobiophotonics

Program Committee

Sanford Asher, Pittsburgh University, USA
Victor Bagratashvili, Institute of Laser and Information Technologies RAS, Russia
Satoshi Kawata, Osaka University/ RIKEN Brain Science Institute, Japan
Marcus Motzkus, Marburg University, Germany
Jürgen Popp, Friedrich-Schiller University, Germany
Alexander Savitsky, Institute of Biochemistry RAS, Russia
Oleg Sarkisov, Institute of Chemical Physics RAS, Russia
Alexander Sergeev, Institute of Applied Physics RAS, Russia
Chi-Kuang Sun, National Taiwan University, Taiwan
Vladimir Timoshenko, Moscow State University, Russia
Chingyue Wang, Tianjin University, China
Alexey M. Zheltikov, Moscow State University, Russia – Chair

Conference scope

Optical nanomanipulation in biophotonics
Ultrahigh-resolution optical microscopy
Lab-on-a-chip photonics
Nanoparticle-assisted imaging and treatment
Nano-optical tools and methods for biophotonics and biomedical optics
Quantum-dot structures for biomedical applications
Nanosensors and nanoprobes
Genetically engineered probes

Scientific Secretary

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Neuroimaging

Program Committee

Shun-ichi Amari, RIKEN Brain Science Institute, Japan
Konstantin V. Anokhin (Russia), Institute of Normal Physiology RAMS – Co-Chair
Pavel M. Balaban, Institute of Higher Nervous Activity and Neurophysiology RAS, Russia
Qingming Luo, Huazhong University of Science and Technology, China
Svyatoslav V. Medvedev, Institute of Human Brain RAS, Russia
Vladimir I. Nekorkin, Institute of Applied Physics RAS, Russia
Victor I. Popov, Institute of Cell Biophysics RAS, Russia
Dmitri Rusakov, Institute of Neurology, National Hospital for Neurology & Neurosurgery, UK
Manabu Tanifuji, RIKEN Brain Science Institute, Japan – Co-Chair
Vladimir G. Yakhno, Institute of Applied Physics RAS, Russia

Conference scope

New approaches to functional brain imaging

Optical imaging of brain at work

Modeling of neurons and synapses for functional networks

Models of system level phenomena: activity patterns, synchronization and control

Scientific Secretary

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Russian-Japanese Workshop "Neuroimaging and Neurodynamics"

Co-Chairs

Tomoki Fukai (Japan)

Victor Kazantsev (Russia)

Alexey Semyanov (Japan)

Scope

Optical neuroimaging and live cell imaging:

Calcium and voltage imaging

Subcellular imaging: axons, dendrites, spines

Imaging of cell populations: neurons and glia

Neuronal information processing systems

Terahertz Imaging and Diagnostics

Co-Chairs

Alexander Shkurinov (Russia)

Xi-Cheng Zhang (USA)

Scope

Terahertz imaging

Terahertz near-field imaging

Terahertz biomolecular spectroscopy

Terahertz detection of dangerous drugs and atmospheric pollution

Photonics in Cancer Management

Co-Chairs

Igor Reshetov (Russia)

Boris Shakhov (Russia)

Scope

Bioimaging for cancer diagnostics

Photodynamic diagnostics (PDD) and treatment (PDT)

Lasers in cancer management

Current changes in the lists of invited speakers will be given on the web page.

Abstract Submission

Short abstracts should include the following information: title of contribution, author's name and affiliation. The total length of each abstract should not exceed 1 page. It must be written in English and should appear as ASCII or doc file. Short abstracts should be submitted electronically to the Scientific Secretary of the corresponding Conference. The **deadline for submission of short abstracts is March 1, 2007**. The authors will be notified of acceptance not later than April 1, 2007.

Extended (2-page) abstracts of all invited, oral and poster presentations will be published and require a manuscript. Instructions for manuscript preparation will be given together with notification of acceptance. **Manuscript due date is May 15, 2007**. The extended abstracts will be published before the Symposium and distributed among participants.

Visas

All foreign participants and accompanying persons will require a visa. To issue the official letters of invitation which are necessary to obtain Russian visas the following information is needed:

- full name as per passport
- date of birth (day, month, year)
- place of birth (city, country)
- citizenship
- permanent residence (city, country)
- passport number
- date of issue
- passport expiry date
- place of employment (full name, address, tel., fax)
- position
- dates of stay in Russia (arrival/departure)
- place of getting visa (the city where the Russian Consulate is situated)
- copy of passport (pages containing personal data, passport number, expiry date); scanned pages sent by e-mail are preferable; copies sent by fax are accepted if there is no opportunity to scan the needed pages
- mailing address

Please send the requested information to the scientific secretary of the corresponding Conference or Workshop

Key Dates:

Deadline for submission of short abstracts and registration forms	1 March, 2007
Notification of acceptance	1 April, 2007
Deadline for submission of visa information	1 May, 2007
Deadline for submission of extended abstracts	15 May, 2007
Deadline for early registration	15 June, 2007
Deadline for registration	15 July, 2007

Venue

The Symposium will be held on board a comfortable boat "Georgy Zhukov" cruising from Nizhny Novgorod to Moscow and back. Nizhny Novgorod is situated 400 km north-east of Moscow on the banks of two Russian rivers: the Volga and the Oka. One can get to Nizhny Novgorod either by a direct Lufthansa flight (three times a week) or through Moscow. Flights and trains from Moscow to Nizhny Novgorod are available daily.

The format of the Symposium and the informal atmosphere of the river cruise will stimulate active discussions and links between scholars and will give a brilliant opportunity for the participants to get familiar with the Russian history and nature.

The cruise will start in Nizhny Novgorod at 9 a.m. on August 4, 2007. The boat will cruise up the Volga river, through the channels toward Moscow, where it will arrive on August 7, and back. On its route the participants will enjoy the beauties of the Russian nature and will visit ancient cities such as Yaroslavl, Kostroma, and Uglich that belong to the famous Golden Ring of Russia. Also on the route are the famous Makariev Monastery and many other fascinating sites.

A social program for participants and accompanying persons will include, besides sightseeing and tours on the cruise route, music concerts aboard, and symposium dinner. A special lady's program is intended to fill up the time of accompanying persons during scientific sessions.

Cruise timetable

Date	Port	Arrival	Departure
August 4	Nizhny Novgorod		09:00
August 5	Kostroma	09:00	15:00
August 6	Uglich	09:00	12:00
August 7	Moscow	13:00	21:30
August 9	Yaroslavl	09:00	15:00
August 10	Makariev Monastery	19:30	21:00
August 11	Nizhny Novgorod	01:30	23:00

Conference Fees

The cost of accommodation is 700 Euro for each participant. The accommodation on board will be high-class one- or two-berth cabins, breakfast, lunch and dinner included. Also, complimentary coffee will be available during the breaks. The registration fee that includes a registration kit, conference abstracts, historical tours, and welcome party is 200 Euro for participants and 100 Euro for accompanying persons. The registration fee if paid before 15 June, 2007 is 150 Euro.

The registration fee is waived for the program committee members, conference chairs, and invited speakers.

Students will be accorded a reduced registration fee of 100 Euro.

Participants are expected to secure conference fees and travel funding independently.

The enclosed registration form should be completed and returned to the Scientific Secretaries together with the short abstracts not later than on March 1, 2007.

Symposium Web site: <http://www.biophotonics.sci-nnov.ru>

Please fill in the registration form and send it to the Scientific Secretary of the corresponding Topical Conference together with a short abstract not later than on March 1, 2007.

REGISTRATION FORM

Family Name: _

First Name(s):

Second Name (if available):

Birth Date:

Position:

Affiliation:

Mailing Address:

Tel:

Fax:

E-mail:

Conference/Workshop (e.g., Optical Bioimaging):

Paper title: