

## The First BRICS Conference on Photonics

May 30 – 31, 2016 г.

Venue: Skolkovo Institute of Science and Technology, 4<sup>th</sup> floor  
Technopark business centre 3 (ТРОС-3) Nobelya st., bldg. 3, Skolkovo Innovation Centre,  
Moscow, Russia

### Conference Programme

Day 1 – May 30, 2016		
8-15 - 8-45	Transfer from hotels / metro station Park Pobedy to Skoltech	
8-30 – 9-00	<i>Registration. Coffee-break. Networking &amp; Exhibition. (4<sup>th</sup> floor, North side)</i>	
9-00 – 9-20	Official conference opening. (Rooms 407 – 408) Presenting: <ul style="list-style-type: none"> <li>▪ <b>Lyudmila M. Ogorodova,</b> <b>Deputy Minister, Ministry of Education and Science of the Russian Federation,</b> <b>Conference Chair</b></li> <li>▪ <b>Representatives of the BRICS countries</b></li> </ul>	
	Plenary talk & Discussions. (Rooms 407 – 408)	
9-20 – 9-50	<b>Dr. Narayanan Krishnapuram Gopalakrishnan, IEEE Photonics, India</b> <b>«International technological collaboration - possibilities, achievements, challenges »</b>	
9-50 – 11-30	<b>“Discussion of the Materials for the Public Analytical Report on Photonics Development in Russia”</b>	
9-50 – 10-00	<i>Introduction by Alexey K. Ponomarev, Skoltech Vice-President for Industry Cooperation and Innovation</i>	
10-00 – 10-15	Chapter 1 – <i>Photonics Materials, Structures &amp; Sources</i> – <b>Pavel S. Dorozhkin</b> , Skoltech, Principal Research Scientist	
10-20 – 10-35	Chapter 2 – <i>Photonics in Information Technologies</i> – <b>Arkadi V. Chipouline</b> , Darmstadt Technical University & Skoltech	
10-40 – 10-55	Chapter 3 – <i>Photonics for Space Applications</i> – <b>Alexey A. Romanov</b> , Deputy General Director for Science, JC Russian Space Systems	
11-05 – 11-20	Chapter 4 – <i>Biophotonics</i> – <b>Vladimir P. Drachev</b> , Skoltech, Professor	
11-30 – 12-00	<i>Coffee break. Networking &amp; Exhibition. (Cohort area)</i>	
	<b>Sections Session rooms 403, 407 &amp; 408</b>	
12-00 – 14-30	Sessions: <b>“Optical data communications”</b> and <b>“Optical interconnects”</b> , Co-Chairs: <b>V.N. Treshchikov</b> , company T8 & <b>V.Y. Opanasenko</b> , T-Platforms <b>(Room 407)</b>	
12-00 – 12-20	<b>Dr. Vladimir N. Treshchikov</b> , T8, Moscow	<i>Trends in the development of high-speed communication systems</i>
12-25 – 12-50	Prof. <b>Yevgeniy M. Dianov</b> , Full Member of RAS, FORC RAS, Moscow	<i>The new generation of optical fibers: Bi-doped optical fibers</i>
12-55 – 13-15	<b>Dr. Pavel V. Mamyshev</b> , IPG Photonics, Russia-USA	<i>State-of-the-art in optical communications</i>
13-20 – 13-40	<b>Dr. Julio Cesar R.F.de Oliveira</b> , BrPhotonics, Brazil	<i>BrPhotonics: A view on the convergence between photonics and microelectronics</i>
13-45 – 14-05	<b>Konstantin I. Lukin</b> , OJSC "NTC GSP" Supertel Dulce ", St. Petersburg	<i>Optical communication networks. Prospects &amp; Problems</i>

14-10 – 14-30	Dr. <b>Michael Mesh</b> , Compass Electro-Optical Systems, Israel	<i>1.34Tb/s parallel optical interconnect</i>
12-00 – 14-30	<b>Session: «Optical detectors and sensors»</b> Chair: <b>A.A. Romanov</b> , Russian Space Systems Corporation <b>(Room 408)</b>	
12-00 – 12-25	<b>Sergey A. Chernikov</b> , United Nations Office for Outer Space, Vienna, Austria	<i>Opportunities for international cooperation provided by the United Nations and other international organizations in the field of space technology</i>
12-30 – 12-55	<b>Yuri M. Gektin</b> , JSC "Russian Space Systems", Moscow	<i>Problematic issues of equipping space-based IR radiometers with multi-element high-sensitivity photodetectors</i>
13-00 – 13-25	<b>Alexander P. Moroz</b> , JSC "NPO IT"	<i>Hybrid fiber optic information &amp; measuring systems</i>
13-30 – 13-55	<b>Gregory I. Vishnievski</b> , CJSC "ELAR"	<i>Photosensitive charge-coupled devices - some aspects of the development of CCDs</i>
14-00 – 14-25	<b>Anton S. Shchevelev</b> , JSC "NIIFI"	<i>Fiber optic micro- and nano-sized transducers of physical quantities</i>
14-30 – 15-30	<i>Lunch (Technopark-2)</i>	
	<b>Sections Session rooms 403, 407 &amp; 408</b>	
15-30 – 18-00	<b>Session: «Optical data processing and storage»</b> Chair: <b>R.R. Yunusov</b> , Russian Quantum Center <b>(Room 403)</b>	
15-30 – 16-10	Prof. <b>Achanta Venu Gopal</b> , Tata Institute of Fundamental Research, India	<i>Photonic and plasmonic structures for information processing</i>
16-15 – 16-45	Prof. <b>Petr G. Kazansky</b> , University of Southampton, UK	<i>Seemingly unlimited lifetime optical data storage in glass</i>
16-50 – 17-20	Prof. <b>Vladimir I. Belotelov</b> , Russian Quantum Center, Moscow	<i>Magnetic nanophotonics: prospects for data processing</i>
17-25 – 17-55	Dr. <b>Yuriy V. Kurochkin</b> , Qrate & RQC, Moscow	<i>Quantum key distribution networks connecting data storage centers</i>
15-30 – 18-00	<b>Sessions: “Optical data communications” and “Optical interconnects”,</b> Co-Chairs: <b>V.N. Treshchikov</b> , company T8 & <b>V.Y. Opanasenko</b> , T-Platforms <b>(Room 407)</b>	
15-30 – 15-50	<b>Leonid Ya. Karachinskiy</b> , Director General, Connector Optics, St.Petersburg	<i>Active Optical Cables Based on VCSELs for HPC Systems and Datacenters</i>
15-55 – 16-15	Prof. <b>Igor A. Bufetov</b> , Corr. Member of RAS, FORC RAC	<i>The new generation of optical fibers: fibers with a hollow core</i>
16-20 – 16-40	<b>Artur V. Gleim</b> , JS Quantum Communications / ITMO, St.Petersburg	<i>High-performance quantum communications for fiber optical networks</i>
16-45 – 17-05	Prof. <b>Sergey L. Semjonov</b> , FORC RAS, Moscow	<i>The new generation of optical fibers: multicore and multimode optical fibers</i>
17-10 – 17-30	Dr. <b>Sergei V. Melnikov</b> , OJSC "NTC GSP" Supertel DALs", St. Petersburg	<i>Optical amplifier - made in Russia</i>
17-35 – 17-55	Dr. <b>M.A. Slepsov</b> , T8, Moscow	<i>Unrepeated transmission systems with remote and distributed optical amplification</i>
15-30 – 18-00	<b>Session: «Optical detectors and sensors»</b> Chair: <b>A.A. Romanov</b> , Russian Space Systems Corporation <b>(Room 408)</b>	
15-30 – 15-50	<b>Andrey V. Kapustyan</b> , JSC "Russian Space Systems"	<i>Combination of photodetectors with microelectronic display devices</i>
16-00 – 16-20	<b>Oleg Yu. Kazantsev</b> , JSC "NPO" Lepton "	<i>On the possibilities of use of CMOS sensors in hyperspectral cameras and high-resolution cameras for remote sensing space systems</i>
16-30 – 16-50	<b>Pavel A. Chubunov</b> , a branch of OJSC "ACCD" - "NII KP"	<i>Problems of space ionizing radiation influence on optoelectronic devices</i>
17-00 – 17-20	Dr. <b>Maxim A. Odnoblyudov</b> , FGAOU HE "SPbPU"	<i>Broadband fiber light sources for optical sensor systems</i>

17-30 – 17-50	<b>Sergey O. Vykhodtsev</b> , Company T8	<i>The “Dunay” system of monitoring and protection of perimeter and extended objects</i>
18-00 – 18-30	<i>Coffee break. Networking &amp; Poster session &amp; Exhibition (Cohort area)</i>	
18-30 – 19-00	First day concluding remarks (sessions chairs) (Rooms 407 – 408) Networking & Poster session & Exhibition (Cohort area)	
19-00 – 20.00	<i>Dinner (Technopark-2)</i>	
20.00	<i>Transfer to the hotels / metro station Park Pobedy</i>	

<b>Day 2 – May 31, 2016</b>		
9-50 - 10-20	<i>Transfer to Skoltech from hotels / metro station Park Pobedy</i>	
<b>Sections Session rooms 407 &amp; 408</b>		
10-30 – 14-00	Session: <b>“Integrated Optics”</b> , Chair: <b>A.N. Shulunov</b> , Radiotechnical Institute <b>(Room 407)</b>	
10-30 – 10-50	<b>Alexey N. Shulunov</b> , JVC "RTI", Moscow	<i>On the integrated optics development</i>
11-00 – 11-20	<b>K.G.Narayanan</b> , IEEE Photonics, India	
11-30 – 11-50	<b>Victor V. Valuev</b> , JVC "RTI", & <b>Vladislav V. Shcherbakov</b> , Ltd "Centre VOSPI», Moscow	<i>The results of development of photonic devices for radar equipment</i>
12-30 – 12-30	<i>Coffee break. Networking &amp; Poster session &amp; Exhibition. (Cohort area)</i>	
12-30 – 12-50	<b>Valeriy A. Kagadey</b> , Ltd «SPF «Mikran», Tomsk; <b>Konstantin S. Juravlev</b> , Physics of Semiconductors Institute of RAS (Sibir Branch), Novosibisk	<i>On joint projects in the field of photonics</i>
13-00 – 13-20	<b>Dr. Alexander I. Plekhanov</b> , Physics of Semiconductors Institute of RAS (Sibir Branch), Novosibisk	<i>The chromophore-containing polymers and electro-optic device based on those</i>
13-30 – 13-50	Memb. of RAS, <b>Dr. Anton Egorov</b> , Chief Technology Officer Connector Optics LLC, St.Petersburg	<i>Experience in research and development of a modern national photonic and optoelectronic components</i>
10-30 – 14-00	Session: <b>“Biophotonics”</b> , Chair: <b>A.D. Fertman</b> , Skolkovo Foundation <b>(Room 408)</b>	
10-30 – 10-50	<b>Dr. Ilya V. Turchin</b> , IAP RAS	<i>Optical bioimaging methods</i>
11-00 – 11-20	<b>Alexey M. Zheltikov</b> , Russian Quantum Center, Skolkovo / International Laser Center, MSU, Moscow	<i>Fiber-optic neurointerfaces</i>
11-30 – 11-50	<b>Dr. E. V. Gorskiy</b> , TIC, IS RAS	<i>Laser methods for cardio-electrodes' removing</i>
12-00 – 12-30	<i>Coffee break. Networking &amp; Poster session &amp; Exhibition. (Cohort area)</i>	
12-30 – 12-50	<b>Dr. David G. Kochiev</b> , IOP RAS	<i>Lasers in modern clinical practice</i>
13-00 – 13-20	<b>Kirill I. Zaytsev</b> , <b>Igor V. Reshetov</b> , <b>Stanislav O. Yurchenko</b> , MSTU	<i>Terahertz spectroscopy of pigmentary skin nevi: Pilot study of non-invasive early diagnosis of dysplasia and melanomas of the skin</i>
13-30 – 13-50	<b>Dr. Aleksander D. Fertman</b> - Skolkovo biophotonics projects	<i>Ideology of Consortia Business, Clinics and Researchers for biophotonics market development</i>
14-00 – 15-00	<i>Lunch (Technopark-2)</i>	
<b>Sections Session rooms 407 &amp; 408</b>		
15-00 – 17-30	Session: <b>“Integrated optics”</b> , Chair: <b>A.N. Shulunov</b> , Radiotechnical Institute <b>(Room 407)</b>	

15-00 – 15-20	<b>Sergey N. Sokolov</b> , NPP Inject, Saratov	<i>Modern semiconductor lasers and their application prospects</i>
15-30 – 15-50	<b>Uliana O. Salgaeva</b> , AO JSC Perm Research & Industrial & company, Perm	<i>The transition from discrete integrated optical components to photonic integrated circuits</i>
16-00 – 16-20	<b>Rustam A. Khabibulin</b> , Federal State Institution of Science the Institute of microwave semiconductor electronics of RAS, Moscow	<i>Development and production of terahertz quantum cascade laser with a double metal waveguide based on In-Au and Au-Au thermocompression compound</i>
16-30 – 16-50	<b>Sergei L. Semjonov</b> , Federal State Institution of Science Fiber Optics Research Center, RAS (FORC RAS), Moscow, Moscow	<i>Special optical fibers in the Fiber Optics Research Center RAS</i>
17-00 – 17-20	<b>Roman S. Ponomarev</b> , AO JSC Perm Research & Industrial & company, Perm	<i>Impact of the optical crystals surface layer defects on stability of the production of integrated optical circuits</i>
15-00 – 17-30	<b>Session: “Navigation &amp; location systems”</b> Chair: <b>N.A. Gryaznov</b> , Russian State Scientific Centre for Robotics & Technical Cybernetics <b>(Room 408)</b>	
15-00 – 15-20	<b>Nikolay A. Gryaznov</b> , “Institute of Robotics and Technical Cybernetics, St. Petersburg	<i>Photonics in Future Transport</i>
15-25 – 15-45	<b>V. M. Malkov</b> , Research and Production Enterprise “Advent”, St. Petersburg	<i>The 2-nd generation COIL technology for realization powerful mobile laser systems</i>
15-50 – 16-10	<b>A.A. Antipov, S.M. Arakelian, A.O. Kucherik, S.V. Kutrovskaya, M.A. Pankov</b> , State Laser Proving Ground «Raduga», Vladimir	<i>The next generation of photonic devices: creation on the basis of new physical principles due to laser-induced topological nanocluster structures</i>
16-15 – 16-35	<b>S.I. Artamonov, N.A. Gryaznov, V.I. Kuprenyuk, N.A. Romanov, E.N. Sosnov</b> , Institute of Robotics and Technical Cybernetics, St. Petersburg	<i>A series of hybrid lidars for wide application areas</i>
16-40 – 17-00	<b>Anton A. Kondakov</b> , JSC Perm Research & Industrial & company, Perm	<i>Problems of practical application of integrated optical sensor with angular velocity</i>
17-05 – 17-25	<b>Evgeniy V. Burmistrov</b> , JSC "RPC "SPP", Moscow	<i>Automation of CBS "Sazhen-TM-BIS" (Brazilia, Brazil) as a way to improve the accuracy of the measurement range</i>
17-30 – 18-00	<i>Coffee-break, Networking &amp; Exhibition. (Cohort area)</i>	
18-00 – 19-00	Official conference closing (Rooms 407 – 408)	
19-00 – 20-00	<i>Dinner (Technopark-2)</i>	
20-00	<i>Transfer to hotels / metro station Park Pobedy</i>	