

ФОТОНИКА

МИР
ЛАЗЕРОВ
И ОПТИКИ

28–31 марта 2023

Россия, Москва, ЦВК «ЭКСПОЦЕНТР»
www.photonics-expo.ru

17-я международная специализированная выставка
лазерной, оптической и оптоэлектронной техники

Реклама 12+

EVENT SCHEDULE*

17th edition of the International Exhibition PHOTONICS. WORLD OF LASERS AND OPTICS 2023

EXPOCENTRE Fairgrounds, Moscow, Russia

28 March (Tuesday)		
1.	10.30–13.00 Southern Hall, Forum Pavilion	Joint meeting of the Council of Head Technologists, the Technology Platform and the Laser Association on Human Resources for the Photonics Industry Organised by the Laser Association, EXPOCENTRE AO
2.	11.00–13.00 Western Hall, Forum Pavilion	Investment Session on Key Photonics Technology Projects Organised by the Perm Photonics Centre of Competence, EXPOCENTRE AO
3.	13.00	Official opening ceremony of Photonics. World of Lasers and Optics 2023
4.	14.00–16.30 Southern Hall, Forum Pavilion	Meeting of the Technical Committee on Standartization ‘Optics and Photonics’ (TC296) Organised by the Laser Association, EXPOCENTRE AO
5.	14.00–17.00 Orange Hall, Forum Pavilion	Panel on Opportunities for Chinese-Russian Cooperation in Photonics <ul style="list-style-type: none"> – Opportunities and prospects for the Chinese-Russian scientific and technical cooperation 2023. State support for joint projects – Experience gained from organising cooperation between member organisations of the China Optical Valley Laser Association and the CIS Laser Association, recommendations for the organisers of new projects – Possible joint infrastructure projects in the field of photonics: congresses, trade shows, the Russian-Chinese scientific journal,

		<p>unified standard on photonics technical terms</p> <p>Organised by the Laser Association, EXPOCENTRE AO</p>
6.	<p>14.00–16.30 Western Hall, Forum Pavilion</p>	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Semiconductor photonics. Nanophotonics</p> <p>Moderated by G.S. Sokolovsky, Chief Researcher at Ioffe Physical-Technical Institute</p> <p>Topics:</p> <ul style="list-style-type: none"> – Optoelectronic terahertz emitters for ultrafast spectroscopy and imaging systems D.S. Ponomarev, Institute for Ultra-High Frequency Semiconductor Electronics K.I. Zaitsev, Prokhorov General Physics Institute – Russian developments of semiconductor lasers in the 800-2000 nm wavelength range S.O. Slipchenko, Ioffe Physical-Technical Institute – High-power laser diodes and laser beacons ($\lambda = 750-1000$ nm) based on nanoheterostructures of different material systems N.V. Gultikov, Stelmakh Polus Research Institute – Quantum cascade lasers and mid-IR detectors V.V. Dyudelev, Ioffe Physical-Technical Institute – Promising laser and optoelectronic components and their application S.N. Sokolov, the Inject Research and Production Enterprise – Discussion of the activities and current challenges of the WG8 G.S. Sokolovsky, Ioffe Physical-Technical Institute <p>Organised by the Laser Association, EXPOCENTRE AO</p>
7.	<p>14.00–16.30 Marble Hall, Forum Pavilion</p>	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Optical elements and components</p> <p>Moderated by L.N. Arkhipova, Head Optician at Vavilov State Optical Institute</p> <p>Topics:</p> <ul style="list-style-type: none"> – A structure, physic-chemical and laser characteristics of yttrium-aluminium garnet transparent optical ceramics doped with rare-earth ions P.A. Ryabochkina, Ogarev Mordovia State University, Saransk A.Yu. Kanaev, the Raduga State Laser Range, Vladimir E.A. Lomonova, Prokhorov General Physics Institute, Moscow – Production of computer-synthesised holograms for the control of aspherical optical components at the Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences

		<p>V.P. Korolkov, Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk</p> <ul style="list-style-type: none"> – Recording optical waveguides in photo-thermo-refractive glass using femtosecond laser radiation I.P. Tarasov, LLS, ITMO University, St. Petersburg – Improvement of the method of shaping non-classical rifled diffraction gratings by using a pendulum-type dividing machine A.N. Melnikov, State Institute of Applied Optics, Kazan – «Generation efficiency of composite active elements based on Russian Nd:YAG ceramics Ya.V. Ulyanov, the Raduga State Laser Range, Vladimir <p>Organised by the Laser Association, EXPOCENTRE AO</p>
8.	17.00–19.00 Southern Hall, Forum Pavilion	<p>Assembly of the Laser Association</p> <p>Organised by the Laser Association, EXPOCENTRE AO</p>
29 March (Wednesday)		
9.	10.00–13.00 Southern Hall, Forum Pavilion	<p>Plenary Session of the 11th the Photonics Technology Platform</p> <p>Topics:</p> <ul style="list-style-type: none"> – The 2022 Nobel Prize in Physics. Quantum physics from puzzle to technology A.K. Fedorov, PhD in Physics and Mathematics, Professor, the Russian Quantum Center, Moscow – Photo theranostics for tumour diseases A.A. Shiryaev, Institute of Cluster Oncology of Sechenov University, Moscow – Holographic technology: yesterday, today, tomorrow V.Yu. Venediktov, PhD in Physics and Mathematics, Professor, St. Petersburg Electrotechnical University 'LETI', St. Petersburg – Photonics in China Xiao Zhu, Professor, Head at the National Engineering Research Center for Laser Processing, Huazhong University, Wuhan, China <p>Organised by the Laser Association, EXPOCENTRE AO</p>
10.	13.00–16.00 Southern Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Photonics in agriculture and environmental management</p> <p>Moderated by Yu.N. Kulchin, Academician, Chair at the Far Eastern Branch of the Russian Academy of Sciences</p> <p>Topics:</p> <ul style="list-style-type: none"> – Agrobiophotonics – development prospects E.V. Zheravleva, EFKO Group

- **Laser and spectral technologies to improve agricultural production efficiency**
Ya.P. Lobachevsky, the Department of Agricultural Sciences of the Russian Academy of Sciences, the Federal Scientific Agroengineering Center VIM, Moscow
- **Agrobiophotonics: development trends**
Yu.N. Kulchina, Institute of Automation and Control Processes of the Far Eastern Branch of the Russian Academy of Sciences, Vladivostok
- **Development and application of photoconversion fluoropolymer films for high latitude greenhouses**
S.V. Gudkov, the Biophotonics Center, Prokhorov General Physics Institute, Moscow
- **Prospects for the use of photonics in potato farming**
S.V. Zhevara, the Russian Potato Research Centre
- **Light-transforming films in aeroponic potato growing facilities**
V.I. Starovoytov, the Russian Potato Research Centre
- **Plants. Light. Agrochemistry**
N.V. Smirnova, Institute of Soil Science and Agrochemistry of the Siberian Branch of the Russian Academy of Sciences
- **Effect of continuous LED lighting in low-energy monochromatic photon flux modes at 390, 440, 525, 660 and 730 nm on germination of beet, ramtil, fescue, soybean and wheat seeds**
V.N. Zelenkov, the Russian Research Institute of Vegetable Production – a branch of the Federal Research Centre of Vegetable Production and the Russian Research Institute of Medicinal and Aromatic Plants
- **Effect of subdoses of UV-B radiation on the productivity of spring wheat (*Triticum Aestivum* L.)**
E.A. Sosnin, Institute of High Current Electronics of the Siberian Branch of the Russian Academy of Sciences, Tomsk
- **Light as a key to business success in agriculture: practical and economic aspects**
O.Yu. Mironova, Lomonosov Moscow State University, Moscow
- **Challenges and solutions for LED lighting in greenhouses and city farms**
Yu.V. Trofimov, Center of LED and Optoelectronic Technologies of NAS Belarus
- **Effect of optical radiation on reproductive products of fish and farm animals**
V.Yu. Plavsky, Stepanov Institute of Physics of NAS Belarus, Minsk
- **Development of new methods and innovative equipment for solving scientific and applied problems of the agrobiological sector based on photo- and optoelectronic systems**
E.V. Kozeev, the Siberian Federal Research Centre of Agro-BioTechnologies of the Russian Academy of Sciences
- **Spectral optics for agriculture and foodstuffs. Affordable**

		<p>solutions V.O. Vasilyeva, LPS, St. Petersburg</p> <ul style="list-style-type: none"> – A mobile software and hardware system for rational vertical cultivation K.V. Kovalevsky, Innofarm-DV – Using mycelium of higher mushrooms for engineering applications I.E. Kuznetsova, Kotelnikov Institute of Radioengineering and Electronics, Moscow – Control platform for LED luminaire emission spectrum R.V. Rybakov, Advanced Grower Systems <p>Organised by the Laser Association, EXPOCENTRE AO</p>
11.	13.00–16.00 Orange Hall, Forum Pavilion	<p>Working meeting of coordinators of Russian technology platforms</p> <p>Organised by the Laser Association, EXPOCENTRE AO</p>
12.	13.00–16.00 Western Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Joint conference on fibre optic cables and fibre optic components, and optical sensorics</p> <p>Moderated by S.L. Semyonov, Head at the Fiber Optics Research Center of the Russian Academy of Sciences – Prokhorov General Physics Institute, A.V. Zarenbin, FORC-Photonics</p> <p>Topics:</p> <ul style="list-style-type: none"> – A current status and prospects of Russia's first plant for production of telecom optical fibres D.A. Tanyakin, Optic Fiber Systems, Saransk – Specialised optical fibres, fibre components and fibre handling equipment available in the sanctioned environment V.B. Romashova, LLS, St. Petersburg – Production of fibre optic components and special optical fibres at the Technopark-Mordovia, results and the development plan Yu.V. Dolgov, Technopark-Mordovia, Saransk – Development and production of specialised optical fibres I.S. Azanova, Perm Scientific and Industrial Instrument Making Company, Perm – Specialised optical fibre at the Fiber Optics Research Center of the Russian Academy of Sciences and Devyatykh Institute of Chemistry of High-Purity Substances of the Russian Academy of Sciences S.L. Semyonov, the Fiber Optics Research Center of the Russian Academy of Sciences, Moscow – Chinese-made equipment for shearing and welding of standard fibres with retained polarisation and increased sheath diameter

		<p>R.R. Kashina, LLS, St. Petersburg and Shanghai Shinho Fiber Communication, China</p> <ul style="list-style-type: none"> – Development of Expanded Beam multi-port connectors and power optic connectors at OPTEL P.V. Bazakutsa, OPTEL, Moscow – Quartz low-mode microstructured optical fibres with induced chirality G.A. Pchyolkin, Vavilov State Optical Institute – Development and implementation of an innovative method for safety control and diagnostics of nuclear reactor cores based on new Russian fibre-optic technologies O.V. Butov, Kotelnikov Institute of Radio-engineering and Electronics, Moscow – Prospects for the use of fiber Bragg grating arrays in special type optical light guides D.V. Ryakhovsky, the Fryazino Branch of Kotelnikov Institute of Radio-engineering and Electronics, Fryazino – A component base and turnkey solutions for fibre sensor systems M.D. Komissarov, LLS – NordLase – Russian development of lasers and optoelectronic devices for sensorics and ranging D. Sachenko, LLS <p>Organised by the Laser Association, EXPOCENTRE AO</p>
<p>13. 13.00–16.00 Marble Hall, Forum Pavilion</p>		<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Fibre optic cables and fibre optic components</p> <p>Moderated by V.E. Pozhar, Department Head at the Research and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences</p> <p>Topics:</p> <ul style="list-style-type: none"> – Hyperspectral video cameras based on acousto-optical filters A.S. Machikhin, V.E. Pozhar, V.I. Batshev, A.B. Kozlov, I.A. Balandin, M.O. Sharikova, the Research and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences – Multispectral video camera for snapshots B.I. Batshev, A.S. Machikhin, A.V. Kryukov, I.A. Balandin, the Research and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences – Advanced X-ray optical methods for researching promising crystalline materials Ya.A. Eliovich, A.I. Protsenko, V.I. Akkuratov, A.V. Targonsky, A.E. Blagov, Yu.V. Pisarevsky, M.V. Kovalchuk, the Federal Research Centre of Crystallography and Photonics of the Russian Academy of Sciences – 3D nanoscopy based on structured light fields

		<p>D.V. Prokopova, N.N. Losevsky, S.A. Samagin, S.P. Kotova, I.Yu. Eremchev, I.T. Mynzhasarov, A.V. Naumov, Institute of Spectroscopy of the Russian Academy of Sciences, the Samara Branch of Lebedev Physical Institute of the Russian Academy of Sciences</p> <ul style="list-style-type: none"> – Active acoustic wave energy output from a laser Q-switch V.Ya. Molchanov, K.B. Yushkov, A.N. Darinsky, the Acousto-Optics Research and Education Centre at the University of Science and Technology – Non-linear optical laser power limiter for passive protection of multi-wavelength lidar detection systems and CCD and CMOS matrices of photo and video devices M.S. Savelyev, P.N. Vasilevsky, A.Yu. Gerasimenko, Moscow Institute of Electronic Technology – PMT-MCP photon counters with high peak/length ratio G.V. Fedotova, N.A. Belik, Baspik, Vladikavkaz – Video recording optical module for ophthalmic stereomicroscope A.S. Veselov, A.E. Gavlina, the Research and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences <p>Organised by the Laser Association, EXPOCENTRE AO</p>
<p>14. 15.00–18.00 Press Hall, Congress Centre</p> <p>LIMITED</p>		<p>Meeting of the Working Group of the Scientific and Technical Council of the Military-industrial Complex</p> <p>Organised by Perm Scientific and Production Company PAO, EXPOCENTRE AO</p>
<p>15. 16.00–19.00 Southern Hall, Forum Pavilion</p>		<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Laser macromachining of industrial materials and additive technologies</p> <p>Moderated by G.A. Turichin, Research Supervisor at the Shipbuilding & Shiprepair Technology Centre</p> <p>Topics:</p> <ul style="list-style-type: none"> – Direct laser growing technology: basic principles, ILIST series process units, functional characteristics of materials and workpieces, examples of industrial applications G.A. Turichin, State Marine Technical University, St. Petersburg – Production of large-scale, high-precision steel structures using laser technology – from 3D modelling to inspection assembly and testing A.G. Sukhov, the Regional Center of Laser Technologies, Yekaterinburg – Hybrid laser arc welding is a breakthrough technology for Russian shipbuilding V.V. Osipov, State Marine Technical University, St. Petersburg – Large-format 5-axis laser cutting machines for shipbuilding

		<p>K.M. Zhilin, LLS, St. Petersburg</p> <ul style="list-style-type: none"> – Measurements of the energy characteristics of reflected radiation during laser processing operations O.A. Kryuchina, IRE-Polus, Fryazino – Development of laser technology in Khristianovich Institute of Theoretical and Applied Mechanics of the Siberian Branch of the Russian Academy of Sciences A.G. Malikov, Khristianovich Institute of Theoretical and Applied Mechanics of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk – Russian selective laser fusion equipment: current status and development prospects A.A. Kim, Laser Systems, St. Petersburg – Experience of developing technology for Russian 5-axis laser cutting, welding and surfacing equipment M.N. Milenkiy, Lasery i Apparatura TM, Moscow <p>Organised by the Laser Association, EXPOCENTRE AO</p>
16.	16.00–19.00 Orange Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Photonics in medicine and life sciences</p> <p>Moderated by A.V. Samorodov, Head of the Department of Biomedical Engineering Systems at Bauman Moscow State Technical University</p> <p>Topics:</p> <ul style="list-style-type: none"> – Endovenous laser coagulation of varicose veins: the evolution continues V.P. Minaev, IRE-Polus V.Yu. Bogachev, Pirogov Russian National Research Medical University K.A. Kaperiz, the National Medical Research Center for Therapy and Preventive Medicine – Current state of laser technology in urology A.Z. Vinarov, Sechenov University – Reduced glutathione nanosensor based on surface-enhanced Raman scattering of light A.A. Yushina, Russian Research Institute for Optical and Physical Measurements – Hardware-software platform for screening tests based on spectral analysis of exhaled air using laser optical-acoustic spectroscopy and machine learning Yu.V. Kistenev, Tomsk State University, Tomsk – Applications of infrared spectroscopy, including laser spectroscopy for environmental and medical applications I.L. Fufurin, Bauman Moscow State Technical University, Moscow <p>Organised by the Laser Association, EXPOCENTRE AO</p>
17.	16.30–19.00 Western Hall,	<p>Panel on Photonics in Moscow</p>

	Forum Pavilion	Organised by the Laser Association, EXPOCENTRE AO
18.	16.00–19.00 Marble Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Photonics test and measurement and diagnostic technology for the process industry</p> <p>Moderated by S.A. Babin, Corresponding Member of the Russian Academy of Sciences, Director at Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences</p> <p>Topics:</p> <ul style="list-style-type: none"> – Interferometric methods for the inspection of precision machining of materials V.P. Korolkov, E.V. Sysoev, Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences, Technological Design Institute of Scientific Instrument Engineering of the Siberian Branch of the Russian Academy of Sciences – ECB for solid-state nanophotonics developed by Rzhanov Institute of Semiconductor Physics of the Siberian Branch of the Russian Academy of Sciences V.A. Gaysler, K.S. Zhuravlev, V.V. Preobrazhensky, I.I. Ryabtsev, G.Yu. Sidorov, M.V. Yakushin, A.V. Latyshev, Rzhanov Institute of Semiconductor Physics of the Siberian Branch of the Russian Academy of Sciences – The problem of high-precision geometric calibration of scanning devices for multi-channel selective laser fusion machines A.V. Savin, Laser Systems, Voenmeh Baltic State Technical University – Optical spectrometers for monitoring the chemical composition of substances and materials V.A. Labusov, V.G. Garanin, Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences, VMK-Optoelektronika – Digital laser. Generation of structured beams, including vortex beams V.V. Dudorov, E.V. Adamov, V.P. Aksenov, E.A. Bogach, V.V. Kolosov, M.E. Levitskiy, Zuev Institute of Atmospheric Optics of the Siberian Branch of the Russian Academy of Sciences – Practical experience of developing and implementing an intellectual property management system based on the Competence Center of the National Technologic Initiative in Photonics and its consortium member organisations A.V. Nikolaev, the Competence Center of the National Technologic Initiative in Photonics, Perm National Research Polytechnic University – Current scientific solutions for semi-natural modelling and prototyping of innovative metrology equipment for quality control of optical surfaces based on the analysis of scattered laser emission characteristics

		<p>D.G. Denisov, Bauman Moscow State Technical University</p> <ul style="list-style-type: none"> – 1.3-1.5 μm signal input technology for low-loss measurements during series production of PICs <p>D.D. Levin, the Zelenograd Nanotechnology Center</p> <p>Organised by the Laser Association, EXPOCENTRE AO</p>
30 March (Thursday)		
19.	10.00–13.00 Southern Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Quantum technologies</p> <p>Moderated by V.I. Belotelov, Deputy Research Director at the International Centre for Quantum Optics and Quantum Technologies</p> <p>Topics:</p> <ul style="list-style-type: none"> – Solid-state femtosecond laser systems with multi-diode pumping: current status and future developments N.S. Petrovich, FemtoVision – Quantum photonic integrated circuits G.N. Goltsman, Moscow Pedagogical State University – Fiber optic quantum sensing in thermometry and thermogenetics A. Fedotov, Russian Quantum Center – Orbital angular momentum beams for atmospheric quantum communication channels V. Petrov, St. Petersburg State University, ITMO University – Passive preparation of quantum states for QSS – A new type of photomultipliers Yu. Pozdnyakov, Dephan – Experimental analysis of QRate and ID Quantique single photon detectors S. Mosentsov, LLS <p>Organised by the Laser Association, EXPOCENTRE AO</p>
20.	10.00–13.00 Orange Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Metrology support for photonics</p> <p>Moderated by V.N. Krutikov, Research Supervisor at Russian Research Institute for Optical and Physical Measurements</p> <p>Topics:</p> <ul style="list-style-type: none"> – Current status of metrological support for photonics technologies and products (Results of activities in 2022, plans for 2023) I.S. Filimonov, Russian Research Institute for Optical and Physical Measurements, Moscow

		<ul style="list-style-type: none"> – Improvement of GET 196 and metrological support for Raman spectroscopy M.M. Chugunova, Russian Research Institute for Optical and Physical Measurements, Moscow – Measurement of optical density of transmittance in the narrow band on GET 206-2016 A.V. Koldashov, Russian Research Institute for Optical and Physical Measurements, Moscow – Use of optical measurement attenuators to ensure unity of measurement of laser beam energy characteristics A.I. Kolpakov, Russian Research Institute for Optical and Physical Measurements, Moscow – Current state and prospects of metrological support for measurements of femtosecond range optical pulse timing M.V. Kanzyuba, Russian Research Institute for Optical and Physical Measurements, Moscow – Metrological support for measurements of surface-enhanced Raman scattering spectra M.K. Alenichev, Russian Research Institute for Optical and Physical Measurements, Moscow – Improvement of the state primary standard for the unit of refractive index GET 138 G.N. Vishnyakov, Russian Research Institute for Optical and Physical Measurements, Moscow – Installation for measuring the modulation transfer coefficient of optical systems A.A. Golopolosov, Russian Research Institute for Optical and Physical Measurements, Moscow – Calculation of the synchrotron channel optical system F.Yu. Vinogradov, Russian Research Institute for Optical and Physical Measurements, Moscow – Test bench for the examination of absorbing optical coatings for radiation resistance to high-intensity laser radiation K.V. Zayats, Russian Research Institute for Optical and Physical Measurements, Moscow <p>Organised by the Laser Association, EXPOCENTRE AO</p>
21.	10.00–13.00 Western Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Photonics in navigation and geodesy</p> <p>Moderated by A.L. Sokolov, Chief Researcher at the Scientific and Production Corporation ‘Systems of Precision Instrument Making’</p> <p>Topics:</p> <ul style="list-style-type: none"> – The role of quantum-optical Tochka stations in the ephemeris-time support of GLONASS V.D. Shargorodsky, I. Ignatenko, Russian Research Institute for Physical-Engineering and Radiotechnical Metrology

		<ul style="list-style-type: none"> – A retroreflector system for high-orbit GLONASS space vehicles A. Fokina, the Scientific and Production Corporation ‘Systems of Precision Instrument Making’ – Design results of a space laser communication system V.V. Murashkin, the Scientific and Production Corporation ‘Systems of Precision Instrument Making’ – Creating a guidance system for quantum key transmission equipment S.A. Petushkov, the Scientific and Production Corporation ‘Systems of Precision Instrument Making’ – Improving the energy and accuracy characteristics of a quantum optical system V.D. Nenadovich, the Scientific and Production Corporation ‘Systems of Precision Instrument Making’ – Design and research of a fibre optic gyroscope layout using SMF fibre T.I. Malygina, Russian State Hydrometeorological University <p>Organised by the Laser Association, EXPOCENTRE AO</p>
<p>22. 10.00–13.00 Marble Hall, Forum Pavilion</p>		<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Radiophotonics</p> <p>Moderated by V.V. Valuev, Chief Researcher at RC Module</p> <p>Topics:</p> <ul style="list-style-type: none"> – Development of a transceiver module based on a vertically emitting laser V.V. Scherbakov, Center VOSPI – Vertical-emitting lasers in the 1.55 μm spectral region K.O. Voropaev, OKB-Planeta – Photonic integrated circuits for analogue-to-digital processing of ultra-wideband signals R.S. Starikov, National Research Nuclear University MEPhI – An electro-absorption modulator for 1.55 μm wavelength D.V. Gulyaev, Rzhhanov Institute of Semiconductor Physics of the Siberian Branch of the Russian Academy of Sciences – Radio imaging techniques V.V. Kulagin, Kotelnikov Institute of Radioengineering and Electronics – Measuring the phase distribution in the receiving antenna R.V. Ryzhuk, National Research Nuclear University MEPhI – Development and research of optical and electronic components of integrated transceivers based on SOI and SiGe technologies for 25 Gbit/s fibre optics A.A. Kokolov, TUSUR University – Effect of a deposited SiO₂ buffer layer on the electro-optical characteristics of H:LiNbO₃ modulators A.A. Zhuravlev, Perm Scientific and Industrial Instrument Making Company

		<ul style="list-style-type: none"> – An electro-optical beam control system for an optical phased antenna array N.S. Laskavy, Perm Scientific and Industrial Instrument Making Company – An integral optical splitter based on polarising waveguides M.A. Vetoshkin, Perm Scientific and Industrial Instrument Making Company – Fiber optic transmission lines and integrated ring resonators for low noise optoelectronic microwave generators A.B. Ustinov, St. Petersburg Electrotechnical University ‘LETI’ – Experience of research on electro-optical modulators and construction of measuring stands for characterisation of photonic integrated circuits K.I. Ivanov, LLS <p>Organised by the Laser Association, EXPOCENTRE AO</p>
<p>23. 13.00–16.00</p>	<p>Southern Hall, Forum Pavilion</p>	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Fibre optic communication lines and their components</p> <p>Moderated by O.E. Naniy, Department Head at T8</p> <p>Topics:</p> <ul style="list-style-type: none"> – Advances and prospects for Russian-made DWDM communication systems V.N. Treschikov, T8 – Experience of research on electro-optical modulators and construction of measuring stands for characterisation of photonic integrated circuits K.I. Ivanov, LLS – Regular domain structures for electro-optical modulation of laser radiation formed by an electron beam on a polar cut of lithium niobate S.M. Shandarov, TUSUR University L.S. Kokhanchik, the Institute of Microelectronics Technology and High-Purity Materials of the Russian Academy of Sciences – Evolution to open fibre optic transport systems S.S. Kogan, T8 – Specifics of measurement techniques and refinement of the Brillouin scattering characteristics of industrial single-mode fibres N.V. Kurilenko, Russian Research and Development Cable Institute – Clock synchronisation system for DP-QPSK signal demodulator used in coherent optical transponders S.A. Volkov, Coherent Systems – «Influence of nonlinear noise correlation on the range of fibre optic links R.R. Ubaydullaev, T8 Science and Technology Center – «Fiber amplifiers with optical gain stabilisation

		<p>A.Yu. Igumenov, T8 Science and Technology Center</p> <ul style="list-style-type: none"> – Highly stable laser for optical communications and distributed sensors A.V. Reznikov, T8 Sensor <p>Organised by the Laser Association, EXPOCENTRE AO</p>
24.	13.00–16.00 Orange Hall, Forum Pavilion	<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Laser and optoelectronic information systems</p> <p>Moderated by A.A. Marmalyuk, Department Head at Stelmakh Polus Research Institute</p> <p>Topics:</p> <ul style="list-style-type: none"> – Scaling the parameters of an AIG:Nd3+ based longitudinally optically pumped laser rangefinder with laser diode arrays by scaling the active medium size and the emission field of the laser diodes matrix N.A. Savchenko, Stelmakh Polus Research Institute – Honeywell's effective laser gyroscopy strategy: miniaturisation with simplified design and technology T.I. Solovyova, Stelmakh Polus Research Institute – Minimising latitude and longitude autonomous navigation errors with the non-linearity of the scale factor of a Zeeman laser gyroscope over a rotation range of up to 100°/s P.A. Filatov, Lasex, Moscow Institute of Physics and Technology – Adjustment and parameter check of optical resonators with a non-planar contour V.G. Semyonov, Lasex, Moscow Institute of Physics and Technology – Development of power adaptive photonics technologies for remote power supply V.F. Matyukhin, MIREA – the Russian Technological University – Smooth optimization of the expansion of marked image sets for neural network training V.A. Kulin, CRI Cyclone – Calculation of GPS coordinates of objects detected from aerial survey data G.S. Finyakin, CRI Cyclone – Optoelectronic systems for remote monitoring of the surface layer of the atmosphere A.N. Ermolin, M.A. Konyaev, Laser Systems – NordLase is a Russian developer and manufacturer of lasers (hybrid, solid-state, fibre lasers) and laser systems. Achievements and innovations D. Savchenko, LLS <p>Organised by the Laser Association, EXPOCENTRE AO</p>

<p>25. 13.00–16.00 Western Hall, Forum Pavilion</p>		<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Holographic technologies</p> <p>Moderated by V.Yu. Venediktov, Professor of St. Petersburg Electrotechnical University ‘LETI’</p> <p>Topics:</p> <ul style="list-style-type: none"> – Diffractional neural networks R.S. Starikov, National Research Nuclear University MEPhI – Laser lithography and vacuum plasma technology for the production of diffraction and micro-optical elements V.P. Korolkov, Institute of Automation and Electrometry of the Siberian Branch of the Russian Academy of Sciences – «Embossed holograms. The current state and near-term prospects A.F. Smyk, James River Branch llc – A mask-based method for synthesising full-colour image holograms of real objects Ch.B. Kaytukov, the Atlas Research and Technical Center – Specifics of development of waveguide optical augmented reality systems A.B. Solomashenko, Bauman Moscow State Technical University – Holographic optical elements based on photo-thermo-refractive glass N.V. Nikonorov, ITMO University – Recording optical waveguides in photo-thermo-refractive glass using femtosecond laser light (jointly with ITMO University) I.P. Tarasov, LLS – Equipping holographic laboratories in 2023 A.O. Taganov, Azimuth Photonics – Adaptive holographic tomography for bio-medical applications (overview) V.M. Petrov, St. Petersburg State University, ITMO University; A.P. Pogoda, V.V. Sementin, Voenmeh Baltic State Technical University A.A. Sevryugin, V.V. Venediktov, St. Petersburg Electrotechnical University ‘LETI’ – Diffusion fracture of holograms – a tool for materials research and selective element construction A.V. Veniaminov, ITMO University <p>Organised by the Laser Association, EXPOCENTRE AO</p>
<p>26. 13.00–16.00 Marble Hall, Forum Pavilion</p>		<p>Conferences of the 11th Congress of the Photonics Technology Platform</p> <p>Laser micromachining, engraving and marking</p> <p>Moderated by S.G. Gorny, Director at Laser Center</p>

		<p>Topics:</p> <ul style="list-style-type: none"> – Trends on the laser equipment market I.N. Fomenko, Laser Center – IRE-Polus laser processing equipment and technology S.A. Shmelyov, IRE-Polus – Choosing laser micromachining equipment: possibilities and limitations A. Tsyganova, Lasery i Apparatura Group – NordLase's micromachining capabilities – solutions and prospects K.M. Zhilin, LLS – Advanced laser micromachining systems for electronics and radioelectronics materials D.V. Virko, the Central Research Institute of Laser Equipment and Technologies, Skolkovo – SUSTAINABLE production. High-tech equipment, rationality and honesty D.A. Schukarev, RAZUM – Experience of application of the TurboMarker system in the electronics industry N.B. Samartsev, Insys – Laser technology in art restoration V.A. Parfenov, St. Petersburg Electrotechnical University 'LETI' – Laser applications: from reverse engineering to medicine I.P. Ivanenko, Lomonosov Moscow State University – Experience of interaction between science and industry A.V. Loginov, ITMO University <p>Organised by the Laser Association, EXPOCENTRE AO</p>
31 March (Friday)		
<p>27.</p>	<p>10.00–13.00 Forum Pavilion, Southern Hall</p>	<p>Extended meeting of the Council for Optics and Photonics of the Department of Physical Sciences of the Russian Academy Sciences Discussion of the most important results of the RAS institutes working under the scientific and methodological guidance of the Department of Physical Sciences of the Russian Academy Sciences</p> <p>Organised by the Laser Association, EXPOCENTRE AO</p>

**Subject to alteration*