

25th of May

ONSITE SPb-OPEN 2021 - The whole day - arrival, free time

ALFEROV ROOM: ONLINE SPb-POEM 2021

12.30 - 12.35	Opening Ceremony
12.35 - 13.10	Plenary Talk: Pavlos Lagoudakis (Skoltech, Southampton) - <i>Polariton Simulators: a newcomer to problem-specific solvers</i>
13.10 - 13.30	Networking & Online Poster Session
13.30 - 14.15	Nanophotonics (online)
13.30 - 13.45	Thottungal Valapu Raziman (Eindhoven University of Technology) <i>Excitons in nanophotonic landscapes: fluctuating, diffusing, annihilating</i>
13.45 - 13.55	Ekaterina Muratova (Saint-Petersburg Electrotechnical University) <i>Study of long-term changes in visible-light transmittance of porous alumina membranes</i>
13.55 - 14.05	Ekaterina Smolina (Institute of Applied Physics, RAS, Nizhny Novgorod) - <i>Nonlinear edge pulses in photonic valley-Hall lattices</i>
14.05 - 14.15	Svetlana Efremova (All-Russia Research Institute of Automatics, Moscow) <i>1D magnetophotonic crystal: technological peculiarities, structural and magneto-optical properties</i>
14.15 - 14.25	COFFEE BREAK
14.25 - 15.00	Plenary Talk: Lorenzo Pavesi (University of Trento) - <i>Neuromorphic photonics as a route to hybrid artificial intelligence</i>
15.00 - 15.30	Networking & Online Poster Session
15.30 - 16.50	Recent Advances in Fabrication and Analyses Methods (online)
15.30 - 16.05	Plenary Talk: Alexander Gumennik (Indiana University of Bloomington, FAMES Lab) - <i>Smart Fibers: From Concept to Application</i>
16.05 - 16.20	Seong Soo Choi (Research Center for Nanobio Science) <i>Fabrication of various plasmonic nano-aperture platform with its optical characterization</i>
16.20 - 16.30	Mikhail Gutkin (ITMO, Ioffe Institute, Highest School of Mechanics and Control Processes, Peter the Great St. Petersburg Polytechnic University) - <i>Misfit dislocation loops in core-shell nanowires: critical conditions and equilibrium density</i>
16.30 - 16.40	Yuri Hervieu (National Research Tomsk State University) - <i>Early stage of growth of III-V nanowires: from pedestals to nanowires</i>
16.40 - 16.50	Timur Ermatov (Skoltech) - <i>Optical properties of functionalized microstructured fibers and their sensing capabilities</i>
16.50 - 17.20	Networking & Online Poster Session

26th of May

9.00 - 10.00	ONSITE REGISTRATION (Higher School of Economics - St. Petersburg, site on Kantemirovskaya 3)		
ALFEROV ROOM: ONSITE + TRANSLATION SPb-OPEN 2021			
10.00 - 10.10	OPENING CEREMONY, Alexey Zhukov (Higher School of Economics - St. Petersburg, Russia)		
10.10 - 10.40	Wsevolod Lundin (Ioffe Institute RAS, Russia) - <i>MOVPE of III-N heterostructures: how to get out of the imposed rut</i>		
10.40 - 11.10	Anton Egorov (Connector Optics Ltd / Alferov University RAS, Russia) <i>Молекулярно-пучковая эпитаксия полупроводниковых наногетероструктур квантово-каскадных и вертикально-излучающих лазеров и лазеры ближнего и среднего ИК-диапазона на их основе</i>		
11.10 - 11.40	Rustam Khabibullin (Mokerov Institute RAS, Russia) - <i>Will it be possible to make room temperature THz quantum cascade lasers?</i>		
11.40 - 12.00	COFFEE BREAK		
ALFEROV ROOM: ONSITE + TRANSLATION SPb-OPEN 2021		LANDAU ROOM: ONLINE SPb-POEM 2021	
12.00 - 12.30	Vladimir Gavrilenko (Institute for Physics of Microstructures RAS, Russia) - <i>Гетероструктуры с квантовыми ямами HgCdTe/CdHgTe для лазеров среднего ИК и ТГц диапазонов</i>	12.00 - 12.35	Plenary Talk: Theo Rasing (Radboud University) - <i>All-optical control of magnetism: from fundamentals to brain-inspired computing concepts</i>
12.30 - 13.00	Vladimir Dubrovskii (St. Petersburg University, Russia) - <i>III-V nanowire synthesis and applications in optoelectronics: opportunities and challenges</i>	12.35 - 12.55	COFFEE BREAK
13.00 - 13.30	Andrey Lipovskii (Peter the Great St. Petersburg Polytechnic University, Russia) - <i>Towards international year of glass: from vessels to photonics</i>	12.55 - 14.25	Quantum Optics and Information Theory Symposium Chair - Anton Kozubov
13.30 - 13.45	Krasnoborodko Sergey (NT-MDT, Russia) <i>Комплексная характеристика широкого класса объектов с использованием современных методов сканирующей зондовой микроскопии</i>	12.55 - 13.35	Dmitri Horoshko (Institute of Physics NAS Belarus) <i>Multimode pulsed entangled states of light</i>
13.45 - 14.30	ELEVATOR SPEECH SESSION I	13.35 - 13.55	Aleksey Fedorov (Russian Quantum Center) <i>Qudit-based quantum information processing</i>
13.45 - 14.30	ELEVATOR SPEECH SESSION I	13.55 - 14.10	Alexey Kavokin (Institute of Natural Sciences, Westlake University) - <i>Qubits based on Split-Ring Bosonic Condensates of Exciton-Polaritons</i>

		14.10 - 14.25	Lev Leibov (ITMO University) - <i>Ghost imaging in the frequency and time domains based on Gaussian beams of the terahertz spectrum range, modulated by a random phase screen</i>
		14.25 - 14.40	Networking & Poster Session
<p>ONSITE SPb-OPEN 2021:</p> <p>14.30 - 16.00 - LUNCH 16.00 - 18.00 - Poster Session I</p> <p>3. Nanophotonics, Spectroscopy, Microcavities, Optics, Plasmonics, Spintronics, Electroand Magnetooptics 5. Electric, Magnetic and Microwave Devices 6. Other Aspects of Nanotechnology Posters from SPb-POEM2021</p>			
ALFEROV ROOM: ONSITE + TRANSLATION SPb-POEM 2021			
14.40 - 16.10	Photonic and Optoelectronic Materials (onsite)		
14.40 - 14.50	Pavel Sorokin (National University of Science and Technology "MISIS") <i>Transformation of multilayered graphene into thinnest diamond films by chemically induced phase transition</i>		
14.50 - 15.05	Aleksey Dergachev (TESCAN Ltd Russia) - <i>TESCAN high resolution scanning electron microscopy with focused ion beam</i>		
15.05 - 15.20	Sakellaris Mailis (Skoltech) - <i>Laser synthesis of 2D Transition Metal Dichalcogenides</i>		
15.20 - 15.30	Vladimir Popov (Centre of Scientific Research and Perspective Development, JSC Infotecs) <i>Laser anti-Stokes cooling in quantum cascade lasers</i>		
15.30 - 15.40	Aleksandr Kolchin (Lomonosov Moscow State University) - <i>Morphological and phase modifications in amorphous Ge₂Sb₂Te₅ thin films on dielectric substrates driven upon femtosecond laser irradiation</i>		
15.40 - 15.50	Pavel Kokhanchik (Skoltech) - <i>Photonic Berry curvature in double liquid crystal microcavities with broken inversion symmetry</i>		
15.50 - 16.00	Pavel Belov (Saint-Petersburg State University) - <i>Exciton states and electron-hole resonances in semiconductor quantum wells</i>		
16.00 - 16.10	Anton Zasedatelev (Skoltech & University of Southamton) <i>Condensation of Frenkel exciton-polaritons into an excited state and stimulated polariton flows</i>		
16.10 - 16.20	Networking & Poster Session		

ALFEROV ROOM: HYBRID + TRANSLATION SPb-POEM 2021

16.20 - 17.55	THz Symposium - Nonlinear and High Field (hybrid) Chair - Andrei Gorodetsky
16.20 - 16.35	Ivan Oladyshkin (Institute of Applied Physics RAS) <i>Population inversion in graphene produced by strong THz pulses</i>
16.35 - 16.45	Maria Zhukova (ITMO University) <i>Features of nonlinear refractive index measurement by z-scan method for broadband single-cycle THz pulses</i>
16.45 - 16.55	Evgeniya Ponomareva (ITMO University) <i>Laser and matter properties effect on the enhancement of THz waves generation during liquid jets double pulse excitation</i>
16.55 - 17.20	Ihar Babushkin (Leibniz Universität Hannover) <i>Ionization-induced THz generation in circularly-polarized multicolor strong fields: looking inside the atom</i>
17.20 - 17.35	Rostislav Arkhipov (Saint-Petersburg State University) <i>Population density gratings creation and control in resonant medium by half-cycle terahertz pulses</i>
17.35 - 17.45	Wladislaw Michailow (University of Cambridge) - <i>Direct Terahertz detection in a dual-gated GaAs-AlGaAs two-dimensional electron gas</i>
17.45 - 17.55	Alexander Melentev (Moscow Institute of Physics and Technology) - <i>THz and IR spectroscopy of endofullerene H₂O@C₆₀</i>
17.55 - 18.00	SPb-POEM 2021 Day closing remarks

27th of May

9.00 - 10.00	ONSITE REGISTRATION (Higher School of Economics - St. Petersburg, site on Kantemirovskaya 3)		
ALFEROV ROOM: ONSITE + TRANSLATION SPb-OPEN 2021		LANDAU ROOM: ONLINE SPb-POEM 2021	
10.00 - 10.30	<p>Matthieu Roussey (University of Eastern Finland, Finland) <i>Facilitated integrated photonics with strip-loaded waveguides</i></p>		
10.30 - 11.00	<p>Nikolay Ledentsov (VI Systems GmbH, Germany) <i>Optical states on the surface of multilayer Bragg reflectors within the reflection band and new types of laser devices based on them</i></p>	10.30 - 11.40	Photonic and Optoelectronic Materials (online)
		10.30 - 10.40	<p>Rostislav Arkhipov (Saint-Petersburg State University) <i>Compression of single-cycle pulses in resonant absorbing nanomaterials</i></p>
		10.40 - 10.55	<p>Vladimir Enaldiev (University of Manchester) <i>Piezoelectric networks and ferroelectric domains in twistrionic transition metal dichalcogenide heterostructures</i></p>
11.00 - 11.30	<p>Elizaveta Semenova (Technical University of Denmark, Denmark) <i>Monolithic integration of InP on Si by direct epitaxial growth</i></p>	10.55 - 11.10	<p>Vincent Toanen (University of Lyon) <i>Tamm plasmon lasers at room temperature</i></p>
		11.10 - 11.20	<p>Alexey Kasyanov (Dukhov Automatic Research Institute (VNIIA)) <i>Fabry-Perot resonator based on gas-sensitive oxides</i></p>
		11.20 - 11.30	<p>Ivan Zhiltsov (Samara National Research University,) <i>Porous silicon based structures for optoelectronic</i></p>
11.30 - 12.00	COFFEE BREAK	11.30 - 11.40	<p>Yaroslav Peshkov (Voronezh State University) <i>X-ray reflectivity investigation of porous silicon prepared by an electrochemical etching method</i></p>
		11.40 - 12.00	Networking & Poster Session
		12.00 - 13.45	<p>THz Symposium (online) Chair - Maria Zhukova</p>
12.00 - 12.30	<p>Wang Qi (Beijing University of Posts and Telecommunications, China) <i>Rolled-up III-V nanoheterostructures for 3D functional elements and devices</i></p>	12.00 - 12.25	<p>Marco Peccianti (University of Sussex) <i>Time-resolved nonlinear ghost imaging</i></p>

		12.25 - 12.40	Riccardo Degl'Innocenti (Lancaster University) <i>Metamaterial/graphene optoelectronic mirror for the active frequency control of terahertz quantum cascade lasers</i>
12.30 - 13.30	Levon Asryan (Virginia Polytechnic Institute and State University, USA) <i>Internal optical loss and lightcurrent characteristic in injection lasers</i>	12.40 - 12.55	Anastasios Koulouklidis (Heraklion University) <i>Experimental observation of ultrafast THz self-actions in graphene based modulators</i>
		12.55 - 13.05	Olga Boytsova (Kurnakov Institute of General and Inorganic Chemistry) <i>THz transmission switch and Metal-insulator transition properties into the doped- and undoped VO 2 films</i>
13.00 - 13.15	Стариков Александр (Научное оборудование, Россия) <i>Современные решения в нанофотонике от компании NKT Photonics</i>	13.05 - 13.15	Liudmila Alyabyeva (Moscow Institute of Physics and Technology) <i>Hertz-to-infrared electrodynamics of single-crystalline barium-lead hexaferrite Ba_{1-x}Pb_xFe₁₂O₁₉</i>
13.15 - 14.00	ELEVATOR SPEECH SESSION II	13.15 - 13.25	Asmaa Ahmed (Moscow Institute of Physics and Technology) <i>Origin of terahertz excitations in single-crystalline lead substituted M-type barium hexaferrite</i>
		13.25 - 13.35	Evgeny Gorbachev (Lomonosov Moscow State University) <i>Hexaferrite materials displaying terahertz ferromagnetic resonance</i>
		13.35 - 13.45	Michail Lukyanov (Moscow Institute of Physics and Technology) <i>Terahertz spectroscopy of lead substituted barium hexaferrites Ba_{1-x}Pb_xFe₁₂O₁₉</i>
		13.45 - 14.05	Networking & Poster Session
ONSITE SPb-OPEN 2021 14.00 - 15.30 - LUNCH 15.30 - 17.30 - Poster Session II 1. Crystal growth and structural properties of semiconductor materials and nanostructures; 2. Lasers, solar cells and other optoelectronic devices; 4. Nanobiotechnology, Biophysics and Biophotonics; Posters from SPb-POEM2021 17.30 - 18.30 - SPb-OPEN 2021 Closing Remarks and Award Ceremony. Alexey Zhukov (Higher School of Economics - St. Petersburg, Russia)			

ALFEROV ROOM: HYBRID + TRANSLATION SPb-POEM 2021

14.05 - 14.40	Microscopy and (Micro)spectroscopy (hybrid)
14.05 - 14.20	Alexey Feofanov (Lomonosov Moscow State University) <i>Single particle FRET microscopy: shedding light on drug interactions with nucleosome-protein complexes</i>
14.20 - 14.30	Kseniya Khnykina (ITMO University) - <i>Comparison study of surface-enhanced raman spectroscopy substrates</i>
14.30 - 14.40	Dmitriy Rogilo (Rzhanov Institute of Semiconductor Physics SB RAS) <i>In situ reflection electron microscopy for investigation of surface processes on Bi₂Se₃(0001) surface</i>
14.40 - 15.00	COFFEE BREAK
15.00- 16.05	Quantum Optics and Information Theory Symposium (hybrid) Chair - Denis Sych
15.00 - 15.20	Frank Vewinger (Universität Bonn) - <i>Photon Condensates in Microstructured Trapping Potentials</i>
15.20 - 15.35	Ivan Dyakonov (Lomonosov Moscow State University) - <i>The multiphoton source for optical quantum computing</i>
15.35 - 15.50	Nikita Olekhno (ITMO University) - <i>Statistics-induced topological states of anyon pairs and their electric circuit emulation</i>
15.50 - 16.05	Aleksandr Baburin (Bauman Moscow State Technical University) - <i>Low-loss quantum photonic integrated circuits fabrication</i>
16.05 - 16.25	Networking & Poster Session
16.25 - 17.55	Quantum Optics and Information Theory Symposium (hybrid) Chair - Anton Kozubov
16.25 - 16.45	Dmitry Kronberg (Steklov Mathematical Institute RAS) <i>Increasing the distinguishability of quantum states and its application in quantum cryptography</i>
16.45 - 17.05	Denis Sych (Lebedev Physical Institute RAS) - <i>Practical security of quantum key distribution in the presence of side channels</i>
17.05 - 17.25	Andrei Gaidash (ITMO University, Steklov Mathematical Institute RAS) - <i>Quantum control attack</i>
17.25 - 17.40	Evgeniy Kiktenko (Russian Quantum Center) - <i>Probability representation of quantum dynamics with pseudostochastic maps</i>
17.40 - 17.55	Elizaveta Maksimova (Skolkovo, Peter the Great St. Petersburg Polytechnic University) <i>Fast and compact VCSEL-based quantum random number generator</i>

28th of May

ONSITE SPb-OPEN 2021 - the whole day - departure, free time

ALFEROV ROOM: ONLINE SPb-POEM 2021

13.10 - 13.45	Plenary Talk: Edik Rafailov (Aston University) <i>Advances in the development of compact and efficient semiconductor based THz sources</i>
13.45 - 14.00	Networking & Online Poster Session
14.00 - 14.45	Sensing Materials and Devices (online)
14.00 - 14.15	Haider Butt (Khalifa University) - <i>Smart Contact Lens Sensors</i>
14.15 - 14.25	Liubov Sorokina (National University of Science and Technology "MISIS" / Institute of Biochemical Physics named after N.M. Emanuel RAS) - <i>Preparation and Theoretical Investigation of Nanohybrid Materials Based on Hexagonal Boron Nitride Nanoparticles as Promising Carriers to Fight Bacterial and Fungal Infections</i>
14.25 - 14.35	Darya Kulikova (Dukhov Automatics Research Institute (VNIIA), Lomonosov Moscow State University) <i>Optical and magneto-optical sensing elements for hydrogen detection</i>
14.35 - 14.45	Julia Liushnevskaya (Tomsk Polytechnic University) <i>Aggregation activity of platelets in native blood analysis by speckle patterns correlation and piezocoagulography</i>
14.45 - 15.05	Networking & Online Poster Session
14.00 - 14.50	Photonic and Optoelectronic Materials (online)
15.05 - 15.20	Monica Bollani (Politecnico di Milano) <i>Hyperuniform SiGe structures by spinodal solid-state dewetting</i>
15.20 - 15.35	Victor Pavlov (IOFFE Institute) <i>Optical harmonics spectroscopy as a tool for the study of spin-related phenomena in bulk and thin film materials</i>
15.35 - 15.45	Julijana Cvjetinovic (Skolkovo Institute of Science and Technology) <i>Monitoring of diatom algae growth using fluorescence and photoacoustic imaging techniques</i>
15.45 - 15.55	Zahar Bedran (Moscow Institute of Physics and Technology) <i>The direct observation of the reaction of comproportionation of monomers in melanin under the action of water by means of mid-infrared spectroscopy.</i>
15.55 - 16.05	COFFEE BREAK
16.05 - 16.45	2D Materials Symposium (online)
16.05 - 16.20	Xiaoyu Jia (Max Planck Institute for Polymer Research, Mainz) - <i>Investigating Hot-carrier Cooling in Photoexcited Graphene</i>
16.20 - 16.30	Margarita Dezhkina (Prokhorov General Physics Institute of the RAS) - <i>Effects of samples structure on laser transfer of low-dimensional carbon materials</i>

16.30 - 16.45	Marko Kralj (Institute of Physics, Zagreb) - <i>Pristine and modified interfaces with epitaxial 2D materials: electronic and optical properties</i>
16.45 - 17.00	Networking & Online Poster Session
17.00 - 17.35	Plenary Talk: Silvia Giordani (Dublin City University) - <i>Smart Carbon Nano Onions for Biomedical Applications</i>
17.35 - 18.00	SPb-POEM 2021 Closing Remarks and Award Ceremony