

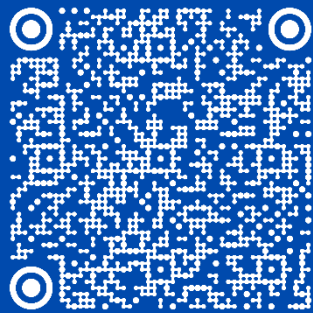


Prokhorov General Physics Institute
of the Russian Academy of Sciences



**22th International Workshop
Complex Systems of Charged
Particles and
their Interactions with
Electromagnetic Radiation**

Moscow, Russia, April 6-10, 2026



Book of Abstracts



PROGRAM

**The program of the 22-th International Workshop Complex Systems of Charged Particles and Their Interactions with Electromagnetic Radiation
(CSCPIER-2026), April 6-10, 2026, GPI RAS, Moscow, Vavilova street 38, building 1, floor 3, conference hall.**

General timetable

Time (UTC+3)	Monday, April 6, 2026	Time (UTC+3)	Tuesday, April 7, 2026	Time (UTC+3)	Wednesday, April 8, 2026	Time (UTC+3)	Thursday, April 9, 2026	Time (UTC+3)	Friday, April 10, 2026
9:30 – 10:00	Gathering and registration of the Workshop participants	10:00 – 11:30	Section 2. Complex Plasmas <u>Moderator:</u> N.G. Gusein-zade	10:00 – 11:45	Section 3. Laser Plasmas <u>Moderator:</u> N.G. Gusein-zade	10:00 – 12:00	Section 3. Laser Plasmas <u>Moderator:</u> N.N. Bogachev	10:00 – 11:45	Section 4. General Plasmas <u>Moderator:</u> N.G. Gusein-zade
10:00 – 10:15	Opening ceremony								
10:15 – 11:30	Section 1. Basic Aspects of Plasma Science <u>Moderator:</u> N.G. Gusein-zade								
11:30 – 11:45	Coffee break	11:30 – 12:00	Coffee break	11:45 – 12:00	Coffee break	12:00 – 12:30	Coffee break	11:30 – 12:00	Coffee break
11:45 – 13:45	Section 1. Basic Aspects of Plasma Science <u>Moderator:</u> N.N. Bogachev	12:00 – 13:45	Section 2. Complex Plasmas <u>Moderator:</u> A.M. Ignatov	12:00 – 14:00	Section 3. Laser Plasmas <u>Moderator:</u> S.Yu. Stremoukhov	12:30 – 13:45	Section 5. Solid State Plasmas <u>Moderator:</u> N.G. Gusein-zade	12:00 – 14:00	Section 4. General Plasmas <u>Moderator:</u> N.N. Bogachev
13:30 – 14:30	Lunch	13:30 – 14:30	Lunch	14:00 – 14:30	Lunch	13:45 – 14:15	Lunch	13:45 – 14:30	Lunch
14:30 – 16:15	Section 1. Basic Aspects of Plasma Science <u>Moderator:</u> N.G. Gusein-zade	14:30 – 16:30	Section 2. Complex Plasmas <u>Moderator:</u> V.Yu. Karasev	14:30 – 16:15	Section 3. Laser Plasmas <u>Moderator:</u> S.V. Popruzhenko	14:15 – 15:30	Section 5. Solid State Plasmas <u>Moderator:</u> V.Yu. Timoshenko	14:30 – 16:15	Section 4. General Plasmas <u>Moderator:</u> N.G. Gusein-zade
16:15 – 16:30	Coffee break	16:30 – 16:45	Coffee break	16:15 – 16:30	Coffee break	15:30 – 16:00	Coffee break	16:00 – 16:30	Coffee break
16:30 – 17:45	Section 1. Basic Aspects of Plasma Science <u>Moderator:</u> D.G. Vasilkov	16:45 – 18:00	Excursion to the laboratories of the Center for Plasma and Microwave Technologies, GPI RAS	16:30 – 18:15	Section 3. Laser Plasmas <u>Moderator:</u> S.V. Popruzhenko	16:00 – 17:45	Section 4. General Plasmas <u>Moderator:</u> E.M. Konchekov	16:30 – 17:45	Section 4. General Plasmas <u>Moderator:</u> N.N. Bogachev
								17:45 – 18:00	Closing ceremony

**The program of the 22-th International Workshop Complex Systems of Charged Particles and Their Interactions with Electromagnetic Radiation
(CSCPIER-2026), April 6-10, 2026, GPI RAS, Moscow, Vavilova street 38, building 1, floor 3, conference hall**

Detailed timetable

April 6 (Monday), 2026						
9:30 — 10:00	Gathering and registration of the CSCPIER-2026 participants					
10:00 — 10:15	Opening Ceremony of the CSCPIER-2026					
Section 1. Basic Aspects of Plasma Science						
	Time (UTC +3)	Report type	Report title	Report authors	Report form	Affiliation
1	10:15 — 10:45	Invited	Thermodynamic limit of the Coulomb system in the model of a bounded one-component plasma	<u>D.I. Zhukhovitskii (1)</u> , E.E. Perevoshchikov (1,2)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
2	10:45 — 11:00	Oral	Robust enhancement of plasma separation for an ensemble of non-interacting ions under realistic field fluctuations	<u>I.V. Voronov</u> , A.P. Oiler, A.V. Timofeev, R.A. Usmanov	Online	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
3	11:00 — 11:15	Oral	Short-range ordering in crystallized mixtures of atomic nuclei and the phase diagram of C/O mixture	D.A. Baiko	Online	Ioffe institute, Saint Petersburg, Russia
4	11:15 — 11:30	Oral	Recovering Electron Spectra with Deep Neural Networks	<u>V.Y. Kozhevnikov</u> , A.V. Kozyrev, V.F. Tarasenko, D.V. Beloplotov, E.Kh. Baksht, D.A. Sorokin, M.I. Lomaev	Offline	Institute of High Current Electronics SB RAS, Tomsk, Russia
	11:30 — 11:45	Coffee Break				
5	11:45 — 12:15	Invited	Tunneling of electromagnetic radiation through a plasma layer: Tunneling time asymptotics and Hartman effect	<u>D.V. Novitsky</u> , M.S. Usachonak, L.V. Simonchik, S.V. Gaponenko	Online	B.I. Stepanov Institute of Physics of the National Academy of Sciences of Belarus, Minsk, Belarus
6	12:15 — 12:30	Oral	Physical Origin of Non-Spectral Matrix Effects in RF Plasmas and Their Suppression via Plasma Parameter Control	T.K. Nurubeyli (1,2), <u>N.Sh. Jafar (1)</u>	Online	(1) Institute of Physics of the Ministry of Science and Education of Republic of Azerbaijan, Baku, Azerbaijan, (2) Azerbaijan State Oil and Industry University, Baku, Azerbaijan
7	12:30 — 12:45	Oral	Unstable high frequency radiation in inhomogeneous plasma in	<u>P. Deka (1)</u> , B. Saikia (2)	Online	(1) Dibrugarh University, Dibrugarh, India (2) Sibsagar University, Sivasagar, India

			presence of drift wave turbulence			
8	12:45 — 13:00	Oral	Interaction of surface waves and generation of acoustics in a microwave atmospheric pressure plasma jet	<u>S. Rath</u> , S. Kar	Online	Indian Institute of Technology Delhi, Delhi, India
9	13:00 — 13:15	Oral	Towards a unified model of DC discharges with liquid (water) electrodes	<u>A.I. Saifutdinov</u> , V.A.Purin, A.A. Saifutdinova	Offline	Kazan National Research Technical University named after A.N. Tupolev, Kazan, Russia
10	13:15 — 13:30	Oral	Structure of the electromagnetic field in an ECR discharge in a resonator excited by a rod antenna	<u>S.A. Dvinin</u> (1,2), D.V. Chuprov (2), Z.A. Qodirzoda (3), D.K. Solihzoda (3)	Offline	(1) Lomonosov Moscow State University, Moscow, Russia (2) RUDN University, Moscow, Russia (3) Tajik National University, Dushanbe, Tajikistan
	13:30 — 14:30	Lunch				
11	14:30 — 15:00	Invited	Thermodynamic functions of non-ideal plasma of indium	A.V. Ivanov, A.M. Kondratyev, <u>A.D. Rakhel</u>, A.S. Shumikhin	Offline	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
12	15:00 — 15:15	Oral	Phonon-roton spectrum in one-component plasma	S.A. Trigger	Offline	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
13	15:15 — 15:30	Oral	The classical charged particle motion in axisymmetrical non-uniform magnetic field	<u>S.A. Maslov</u> (1,2), S.A. Trigger (1)	Offline	(1) Joint Institute for High Temperatures of Russian Academy of Sciences, Moscow, Russian Federation (2) Lomonosov Moscow State University, Moscow, Russian Federation
14	15:30 — 15:45	Oral	Steady-State Ultracold Plasma	<u>A.A. Bobrov</u> , S.A. Saakyan, B.B. Zelener	Offline	Joint Institute for High Temperatures of Russian Academy of Sciences, Moscow, Russian Federation
15	15:45 — 16:00	Oral	Two electron loss mechanisms of ultracold plasma in constant homogeneous crossed electric and magnetic fields	<u>E. V. Vikhrov</u> , B.B. Zelener, B. V. Zelener	Offline	Joint Institute for High Temperatures of Russian Academy of Sciences, Moscow, Russian Federation
16	16:00 — 16:15	Oral	Conductor-Insulator Crossover in Ultracold Plasmas	<u>Yu.V. Dumin</u> (1,2), L.M. Svirskaya (3,4)	Offline	(1) Lomonosov Moscow State University, Moscow, Russia (2) Space Research Institute of the Russian Academy of Sciences, Moscow, Russia (3) South Ural State University, Chelyabinsk, Russia (4) South Ural State Humanitarian Pedagogical University, Chelyabinsk, Russia
	16:15 — 16:30	Coffee Break				

17	16:30 — 17:00	Invited	On the scaling of aneutronic proton – boron fusion in a nanosecond vacuum discharge	<u>Yu.K. Kurilenkov (1,2),</u> A.V. Oginov (2), S.N. Andreev (3), S.Yu. Gus'kov (2), I.S. Samoylov (1)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (3) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
18	17:00 — 17:15	Oral	Possibilities of implementing the proton–boron-11 nuclear fusion reaction in pulsed systems with a magnetic field	A.Yu. Chirkov, E.G. Vovkivsky	Offline	Bauman Moscow State Technical University, Moscow, Russia
19	17:15 — 17:30	Oral	Anomalous electron fluxes in a plasma with ion-acoustic turbulence and possibility of calculation of current density in hollow cathodes	<u>A.A. Shelkovoy (1),</u> S.A. Uryupin (1,2)	Offline	(1) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (2) National Research Nuclear University MEPhI, Moscow, Russia
20	17:30 — 17:45	Oral	To the most probable distributions of structureless particles in higher-level structural units as applied to the physics of phase transitions	M.Yu. Romanovsky (1,2,3)	Offline	(1) PE Science and Innovations, Moscow, Russia (2) ANO National Center for Physics and Mathematics, Sarov, Russia (3) Pirogov Russian National Research Medical University, Moscow, Russia

April 7 (Tuesday), 2026

Section 2. Complex Plasmas

	Time (UTC+3)	Report type	Report title	Report authors	Report form	Affiliation
1	10:00 — 10:30	Invited	Localized oscillations of a linear plasma crystal	A.M. Ignatov	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia
2	10:30 — 10:45	Oral	Microparticle Separation by Rectangular-Voltage Paul Trap in Air	M.S. Dobroklonskaya, L.M. Vasilyak, V.Ya. Pecherkin, V.I. Vladimirov	Offline	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
3	10:45 — 11:00	Oral	Self-organization of active Brownian particles in an anisotropic linear structure depending on external parameters in DC discharge	A.V. Erilin (1, 2), E. A. Kononov (1, 2), R.V. Senoshenko (1, 2), M. M. Vasiliev (1), O. F. Petrov (1)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
4	11:00 — 11:15	Oral	Dynamics of active Brownian motors in complex colloidal system in viscous medium	R.V. Senoshenko, E.A. Kononov, M.M. Vasiliev, O.F. Petrov	Offline	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
5	11:15 — 11:30	Oral	The behaviour of small systems of Janus particles in gas-discharge plasma	X.G. Koss (1,2), K.A. Mizeva (1,2), D.A. Zamorin (1,2), M.M. Vasiliev (1), O.F. Petrov (1,2)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
	11:30 — 12:00	Coffee Break				
6	12:00 — 12:30	Invited	Competing Mechanisms of Dusty Plasma Rotation in a Magnetic Field	V.Yu. Karasev, E.S. Dzlieva, M.A. Gasilov, L.A. Novikov, S.I. Pavlov	Offline	Saint-Petersburg State University, Saint-Petersburg, Russia
7	12:30 — 12:45	Oral	Dust particle rotation in plasma around its own axis	L.G. Dyachkov (1), E.S. Dzlieva (2), L.A. Novikov (2), S.I. Pavlov (2), M.S. Golubev (2), V.Yu. Karasev (2)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Saint-Petersburg State University, Saint-Petersburg, Russia
8	12:45 — 13:00	Oral	Influence of the external electrostatic potential well configuration on the form of the dust particle structures	A.V. Fedoseev (1), M.V. Salnikov (2), M.M Vasiliev. (1), O.F. Petrov (1)	Online	(1) Joint Institute for High Temperatures RAS, Moscow, Russia (2) Institute of Termophysics SB RAS, Novosibirsk, Russia
9	13:00 — 13:15	Oral	On the dispersion of the powder-gas interface during heating by microwave radiation	R. I. Golyatina (1), S. A. Maiorov (2)	Offline	(1) Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia (2) Joint Institute for High Temperatures, Russian Academy of Sciences, Moscow, Russia
10	13:15 — 13:30	Oral	Effect of the nature of cerium-containing compounds on the	N.S. Akhmadullina (1), A.K. Kozak (2), N.N. Skvortsova	Online	(1) A.A. Baikov Institute of Metallurgy and Material Science of Russian Academy of Sciences, Moscow,

			microwave synthesis of luminescent materials	(2), A.S. Sokolov (2), O.N. Shishilov (3)		Russia (2) Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia (3) MIREA – Russian Technological University, Institute of Fine Chemical Technology, Moscow, Russia
	13:30 — 14:30	Lunch				
11	14:30 — 15:00	Invited	Dusty Plasma in the Solar System: Specific Dusty Plasma Effects	<u>S. I. Popel</u>, L.M. Zelenyi	Online	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
12	15:00 — 15:15	Oral	On the possibility of existence of nonlinear dust acoustic perturbations near comets	<u>Yu.S. Reznichenko</u> , S.I. Popel, A.Yu. Dubinskii	Offline	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
13	15:15 — 15:30	Oral	On Dusty Plasmas in Jovian Magnetosphere	<u>S.I. Kopnin</u> , S.I. Popel	Offline	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
14	15:30 — 15:45	Oral	Experimental Investigation of Regolith Simulant Dynamics in a Flow of Charged Plasma Particles	<u>I.A. Shashkova</u> , I.A. Kuznetsov, G.V. Koynash, S.I. Popel, G.G. Dol'nikov, A.N. Lyash, M.E. Abdelaal, A.V. Zakharov	Offline	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
15	15:45 — 16:00	Oral	On nonlinear wave structures in electron-positron-ion dusty plasmas	<u>Yu.N. Izvekova</u> , S.I. Popel	Online	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
16	16:00 — 16:15	Oral	On a Possibility of Dusty Plasma Formation in Venusian Ionosphere	<u>A.Yu. Dubinsky</u> , S.I. Popel, Yu.S. Reznichenko,	Offline	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
17	16:15 — 16:30	Oral	Dust ion-acoustic waves from the interaction of a comet's tail with the plasma of the zodiacal solar cloud	<u>T.I. Morozova</u> , S.I. Popel	Online	Space Research Institute of the Russian Academy of Sciences , Moscow, Russia
	16:30 — 16:45	Coffee Break				
	16:45 — 18:00	An excursion of the laboratory at the Center for Plasma and Microwave Technologies at the Prokhorov General Physics Institute of the Russian Academy of Sciences				

April 8 (Wednesday), 2026

Section 3. Laser Plasmas

	Time (UTC +3)	Report type	Report title	Report authors	Report form	Affiliation
1	10:00 — 10:30	Invited	Generation of elliptically polarized radiation by gas media in two-color laser fields	S.Yu. Stremoukhov (1,2)	Offline	(1) Lomonosov Moscow State University, Moscow, Russia (2) National Research Center "Kurchatov Institute", Moscow, Russia
2	10:30 — 10:45	Oral	Laser Induced Dynamics of the Continuum State Electrons and Subsequent Harmonic Generation in Solids	<u>K.V. Lvov</u> (1,2), S.Yu. Stremoukhov (1,2)	Offline	(1) Moscow State University, Moscow, Russia (2) National Research Center "Kurchatov Institute", Moscow, Russia
3	10:45 — 11:00	Oral	Harmonics generation from relativistic laser structured plasma	A.A. Andreev (1,2), K.Y. Platonov (3), <u>M.V. Sedov</u> (4,5), I.M. Ustinov (5)	Offline	(1) Saint Petersburg State University, Saint Petersburg, Russia (2) Ioffe Physico-Technical Institute, Saint Petersburg, Russia (3) Saint-Petersburg State Polytechnic University, Saint Petersburg, Russia (4) Joint Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (5) National Research Nuclear University MEPhI, Moscow, Russia
4	11:00 — 11:15	Oral	Refractive index ultrafast anisotropy in gaseous media induced by ultra-short laser pulses	<u>K.A. Galyuk</u> , A.A. Ushakov, P.A. Chizhov	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia
5	11:15 — 11:30	Oral	The role of AIS in the multiphoton ionization processes	<u>S.N. Yudin</u> , M.M. Popova, E.V. Gryzlova, A.N. Grum-Grzhimailo	Offline	Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Moscow, Russia
6	11:30 — 11:45	Oral	Compton ionization of hydrogen beam by a twisted photon with use of the COLTRIMS detector	<u>Yu. V. Popov</u> (1,2), K.A. Kouzakov (3), K. A. Bornikov (3)	Offline	(1) Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Moscow, Russia (2) Bogoliubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research, Dubna, Russia (3) Physics Department, Lomonosov Moscow State University, Moscow, Russia
	11:45 — 12:00	Coffee Break				

7	12:00 — 12:30	Invited	Metamaterials and Optoacoustics, Laser-Induced Deformation of Solids, Beryllium Optics and Fine Focusing of Hard X-rays from XFEL	N.A. Inogamov (1,2,3)	Offline	(1) Landau Institute for Theoretical Physics of the Russian Academy of Sciences, Chernogolovka, Russia (2) Dukhov All-Russia Research Institute of Automatics, Moscow, Russia (3) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
8	12:30 — 12:45	Oral	X-Ray Generation in a Microcluster Medium Irradiated by an Ultrashort Laser Pulse	<u>D. A. Gozhev</u> (1), S.G. Bochkarev (1,2), O.E. Vais (1,2), M.G. Lobok (1,2), V.Yu. Bychenkov (1,2)	Offline	(1) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (2) Center for Fundamental and Applied Research, Dukhov All-Russian Research Institute of Automation, Rosatom, Moscow, Russia
9	12:45 — 13:00	Oral	Features of the creation and control of subwavelength microstructures in the process of direct laser writing in the volume of transparent dielectrics	<u>A. V. Bogatskaya</u> (1,2), E.A. Volkova (3), M. P. Verteletskaya (1,2), A. M. Popov (1,2)	Offline	(1) Department of Physics, Lomonosov Moscow State University, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (3) Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Moscow, Russia
10	13:00 — 13:15	Oral	Effect of laser energy density on ablation efficiency of zinc sulfide nanoparticles	<u>A.V. Kharkova</u> , D.A. Kochuev, A.A. Voznesenskaya, D.N. Bukharov	Online	Vladimir State University named after A.G. and N.G. Stoletovs, Vladimir, Russia
11	13:15 — 13:30	Oral	Time delay of reflected and transmitted laser pulse at laser action on a dense plasma slab	A.A. Frolov	Offline	P.N. Lebedev Physical Institute of the Russian Academy of Science, Moscow, Russia
12	13:30 — 13:45	Oral	Scalable Quantum Neuromorphic Architectures Based on Quantum Memristors	<u>A.S. Frolova</u> (1,2), S.Yu. Stremoukhov (1,2), P.A. Forsh (1,2), I.A. Kovalishin (1), D.M. Rusakov (1), M.I. Shakirov (2), K.Yu. Khabarova (2), N.N. Kolachevsky (2,3)	Offline	(1) Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Science, Moscow, Russia (3) Russian Quantum Center, Skolkovo, Moscow, Russia
13	13:45 — 14:00	Oral	Analytical analysis of a quantum memristor on an ultracold $^{171}\text{Yb}^+$ ion	<u>I. A. Kovalishin</u> (1), S.Yu. Stremoukhov (1,2,3), P. A. Forsh (1,2), K. Yu. Khabarova (2), N. N. Kolachevsky (2,4)	Offline	(1) Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Science, Moscow, Russia (3) National Research Nuclear University MEPhI, Moscow, Russia (4) Russian Quantum Center, Skolkovo, Moscow,

						Russia
	14:00 — 14:30	Lunch				
14	14:30 — 15:00	Invited	Laser and beam plasma particle-in-cell simulation in a relativistic reference frame	A.G. Zhidkov	Offline	National Research Nuclear University MEPhI, Moscow, Russia
15	15:00 — 15:15	Oral	Propagation of a monoenergetic beam of relativistic electrons in vacuum	<u>D.E. Iankhotov</u> (1,2), S.V. Kuznetsov (1), N.E. Andreev (1,2)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
16	15:15 — 15:30	Oral	Ion Weibel Instability Directly Observed in Femtosecond Laser-Plasma Expansion	<u>A. V. Korzhimanov</u> , R.S. Zemskov, S.E. Perevalov, A.V. Kotov, A. A. Murzanev, A. I. Korytin, K. F. Burdonov, V. N. Ginzburg, A. A. Kochetkov, S. E. Stukachev, I.V. Yakovlev, I. A. Shaikin, A. A. Kuzmin, A. A. Nechaev, VI. V. Kocharovskiy, A. A. Soloviev, A. A. Shaykin, A. N. Stepanov, M. V. Starodubtsev, E. A. Khazanov	Offline	A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences, Nizhny Novgorod, Russia
17	15:30 — 15:45	Oral	Enhancement of quasi-stationary magnetic fields by orders of magnitude via optimization of the plasma transverse density profile in the regime of relativistic self-channeling	<u>V.A. Kuleshova</u> (1), A.V. Korzhimanov (2)	Offline	(1) Faculty of Physics and Sarov branch, Lomonosov Moscow State University, Moscow, Russia (2) Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences, Nizhny Novgorod, Russia
18	15:45 — 16:00	Oral	Laser-driven autoresonant acceleration of thermal electrons in magnetized plasma channels	<u>Iu.K. Gagarin</u> (1), Ph.A. Korneev (1,2)	Offline	(1) National Research Nuclear University "MEPhI", Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Science, Moscow, Russia
19	16:00 — 16:15	Oral	On scalings of acceleration of electrons and generation of short wavelength radiation in laser plasma and solid targets	<u>M.E. Veysman</u> , I.R. Umarov, N.E. Andreev	Online	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
	16:15 — 16:30	Coffee Break				

20	16:30 — 17:00	Invited	Role of plasma waves in rescattering processes in intense laser fields	<u>V. V. Strelkov</u> (1), S. A. Bondarenko (1,2), I. V. Smetanin (1)	Offline	(1) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (2) National Research Nuclear University MEPhI, Moscow, Russia
21	17:00 — 17:15	Oral	Towards generating electron-positron avalanche pre-cursors at multi-petawatt laser facilities	<u>A. A. Mironov</u>	Online	Center for Theoretical Physics (CPHT), CNRS, Ecole Polytechnique, Institut Polytechnique de Paris, Palaiseau, France
22	17:15 — 17:30	Oral	Measuring ultra-strong fields via pair production in laser plasma	<u>A.A. Andreev</u> (1), I.A. Alexandrov (2),	Online	(1) Saint Petersburg State University, Saint Petersburg, Russia (2) Ioffe Physico-Technical Institute, Saint Petersburg, Russia
23	17:30 — 17:45	Oral	Acceleration/deceleration and twisting of atoms by circularly polarized laser pulses	V.S. Melezhik	Offline	Joint Institute for Nuclear Research, Dubna, Russia
24	17:45 — 18:00	Oral	Relativistic tunnel ionization of highly charged ions by laser radiation of extreme intensity	<u>D.D. Baranov</u> , S.V. Popruzhenko	Offline	National Research Nuclear University “MEPhI”, Moscow, Russia
25	18:00 — 18:15	Oral	Radiation of relativistic electrons created in ionization of atomic gases by laser beams of extreme intensity	<u>N.V. Makarenko</u> , S.V. Popruzhenko	Offline	National Research Nuclear University “MEPhI”, Moscow, Russia

April 9 (Thursday), 2026

Section 3. Laser Plasmas

	Time (UTC +3)	Report type	Report title	Report authors	Report form	Affiliation
26	10:00 — 10:30	Invited	Plasma spectrum simulation: influence of equilibrium plasma composition and lowering of ionization potentials	<u>M. Kuzmanović</u> , M. Ristić, N. Krstevski	Online	Faculty of Physical Chemistry, University of Belgrade, Belgrade, Serbia
27	10:30 — 10:45	Oral	Experimental investigation of ⁸³ Kr isomeric states population in femtosecond laser plasma	<u>S.N. Ryazantsev (1,2)</u> , S.S. Makarov (1,2), I.Yu. Skobelev (1,2)	Online	(1) National Research Nuclear University MEPhI, Moscow, Russia (2) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
28	10:45 — 11:00	Oral	Calculation of the generation of Kr nuclear isomers in the interaction of high-power laser pulses with a gas cluster jet	<u>M.V.Sedov (1,2)</u> , I.Yu. Skobelev (1,2)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) National Research Nuclear University MEPhI, Moscow, Russia
29	11:00 — 11:15	Oral	Observation and interpretation of X-ray emission spectra of laser plasma of krypton clusters	<u>R.K. Kulikov (1,2)</u> , S.S. Makarov (1,2), S.N. Ryazantsev (1,2), I.Yu. Skobelev (1,2)	Offline	(1) National Research Nuclear University MEPhI, Moscow, Russia (2) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
30	11:15 — 11:30	Oral	Diagnostics of preplasma profiles with reflection spectra of a relativistically-intense femtosecond laser pulse	<u>A.R. Poletaeva (1)</u> , N.D. Bukharskii (1,2) Ph.A. Korneev (1,2), I.P. Tsygvintsev (3)	Offline	(1) National Research Nuclear University MEPhI, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia (3) KIAM RAS, Moscow, Russia
31	11:30 — 11:45	Oral	Plasmodynamic estimation of a multilayer target under the influence of external wide band radiation	V.V. Kuzenov, <u>A.G. Polyanskiy</u> , S.V. Ryzhkov	Offline	Bauman Moscow State Technical University (BMSTU), Moscow, Russia
32	11:45 — 12:00	Oral	The impacting laser radiation diffraction influence on photoemission of electrons from a metal needle	A.V. Borovskiy (1), <u>A.L. Galkin</u> (2)	Offline	(1) Baikal State University, Irkutsk, Russia (2) Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia

Coffee Break

Section 5. Solid State Plasmas

1	12:30— 13:00	Invited	Control of electromagnetic characteristics of semiconductor and nanocomposite structures using plasmas of their own free charge carriers	V.Yu. Timoshenko (1,2)	Offline	(1) Lomonosov Moscow State University, Faculty of Physics, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia
2	13:00 — 13:15	Oral	Effect of Free Charge Carrier Plasma in Anisotropic Silicon	<u>Y. Deng</u> , A. Ikonnikov, V.Yu. Timoshenko	Online	Lomonosov Moscow State University, Faculty of Physics, Moscow, Russia

			Nanostructures on their Optical Properties			
3	13:15 — 13:30	Oral	Field emission of electrons from dispersed hybrid diamond-graphite film structures	R.K. Yafarov	Online	Saratov branch of the Kotel'nikov Institute of Radioengineering and Electronics of Russian Academy of Sciences; Saratov, Russian Federation
4	13:30 — 13:45	Oral	Features of avalanche and field ionization in the volume of transparent dielectrics in process of direct laser writing by ultrashort laser pulses	<u>M.P. Verteletskaya (1,2)</u> , A.V. Bogatskaya (1,2), A.M. Popov (1,2)	Offline	(1) M.V. Lomonosov Moscow State University, Faculty of Physics, Moscow, Russia (2) P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia
	13:45 — 14:15	Lunch				
5	14:15 — 14:45	Invited	Correlation Effects in Induced Binary Dipolar Systems in a Double-Plate Geometry	<u>E.A. Allahyarov (1,2,3,4)</u> , H. Lowen (2)	Offline	(1) Theoretical Department, Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Soft Matter Institute, Theory II, Heinrich-Heine Universitaet Duesseldorf, Dusseldorf (Germany) (3) Department of Physics, Case Western Reserve University, Cleveland OH, USA (4) Recognition Science Institute, Austin TX, USA.
6	14:45 — 15:00	Oral	Excitation of terahertz surface plasmons at the interface between Josephson sandwich and dielectric	<u>A.S. Malishevskii</u> , S.A. Uryupin	Offline	P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia
7	15:00 — 15:15	Oral	Plasmonic interband hybridization in HgTe quantum wells	Yu.B. Vasilyev	Online	Ioffe Institute, Saint Petersburg, Russia
8	15:15 — 15:30	Oral	Quantum fluctuations of the number of current carriers and electric charge in quasi-one-dimensional systems in the polar crystal model	L.M. Svirskaya (1,2)	Online	(1) South Ural State Humanitarian and Pedagogical University, Chelyabinsk, Russia (2) South Ural State University (National Research University), Chelyabinsk, Russia
	15:30 — 16:00	Coffee Break				
Section 4. General Plasmas						
1	16:00 — 16:30	Invited	Diagnostics of Atmospheric Plasmas Using Atomic Emission Line Profiles	<u>B. Obradović (1)</u> , G. Sretenović (1), N. Cvetanović (2), S. Ivković (1), V. Kovačević (1), I. Krstić (1), M. Kuraica (1)	Online	(1) University of Belgrade, Faculty of Physics, Belgrade, Serbia (2) University of Belgrade, Faculty of Transport and Traffic Engineering, Belgrade

2	16:30 — 16:45	Oral	Electrical Behaviour of Sub-Atmospheric Alternating Current Plasma for Carbon Dioxide Conversion to Alternative Fuel Production	<u>P. Chattopadhyay</u> , S. Kar	Online	Atmospheric Plasma Research Laboratory, Department of Energy Science and Engineering, Indian Institute of Technology Delhi, Hauz Khas, New Delhi, India
3	16:45 — 17:00	Oral	Control of reactive species doses through ground resistance modulation in a sub radio frequency atmospheric pressure plasma jet interaction with liquid: Implication on dye degradation kinetics and changes in physicochemical properties of liquid	<u>A. Basu Mallick</u> , G.Veda Prakash, S.Kar, R. Narayanan	Online	Department of Energy Science and Engineering, Indian Institute of Technology Delhi, Hauz Khas, New Delhi, India
4	17:00 — 17:15	Oral	Plasma-chemical study of a nonequilibrium microwave discharge in dielectric powders	Z. A. Zakletskii	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow Russia
5	17:15 — 17:30	Oral	Spatial distribution of electric field strength in gas mixtures with helium in an atmospheric pressure glow discharge with different cathode shapes	A.V. Kazak, <u>P.A. Ivanova</u> , L.V. Simonchik, M.U. Tomkavich	Online	B.I. Stepanov Institute of Physics of NAS of Belarus, Minsk, Belarus
6	17:30 — 17:45	Oral	Vacuum ultraviolet radiation of the plasma jet	<u>V. P. Krainov</u> (1), B.M. Smirnov (2)	Offline	(1) Moscow Institute of Physics and Technology, Dolgoprudnyi, Moscow region, Russia (2) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia

April 10 (Friday), 2026

Section 4. General Plasmas

	Time (UTC +3)	Report type	Report title	Report authors	Report form	Affiliation
7	10:00 — 10:30	Invited	Mechanism of highly-ionized plasma filament growth in a pulsed nanosecond discharge in atmospheric air	<u>E. V. Parkevich</u> (1), <u>A.I. Khirianova</u> (1), <u>K.V. Shpakov</u> (1), <u>T.F. Khirianov</u> (1), <u>K.S. Vinogradova</u> (1), <u>A.A. Tarasenko</u> (1), <u>D.V. Antonov</u> (1), <u>S.Yu. Gavrilov</u> (1), <u>N.A. Popov</u> (2)	Online	(1) P.N. Lebedev Physical Institute of the Russian Academy of Sciences 119991, Moscow, Russia, (2) Skobeltsyn Institute of Nuclear Physics, Moscow State University, 119991 Moscow, Russia
8	10:30 — 10:45	Oral	Influence of water vapor on plasma properties of pulse-periodic discharge in non-uniform electric field at air	<u>V.F. Tarasenko</u> , <u>D.V. Beloplotov</u> , <u>A.N. Panchenko</u> , <u>D.A. Sorokin</u>	Online	Institute of High Current Electronics SB RAS, Tomsk, Russia
9	10:45— 11:00	Oral	Creation of luminous charged particles using capillary and corona discharges	<u>V. L. Bychkov</u> , <u>A.A. Logunov</u> , <u>K.N. Kornev</u> , <u>D.V. Bychkov</u> , <u>O.S. Surkont</u>	Offline	Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia
10	11:00 — 11:15	Oral	Transport properties of electron drift in a mixture of xenon and water vapor	<u>S.A. Maiorov</u> (1), <u>G.B. Ragimkhanov</u> (2), <u>R.I. Golyatina</u> (3)	Offline	(1) Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia (2) Dagestan State University, Makhachkala, Russia (3) Russia Prokhorov General Physics Institute, Russian Academy of Sciences, Moscow, Russia
11	11:15 — 11:30	Oral	Processing of ion flow for plasma separation	<u>D.D. Tiubaev</u> , <u>A.P. Oiler</u> , <u>A.V. Timofeev</u> , <u>R.A. Usmanov</u>	Offline	Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
	11:30 — 12:00	Coffee Break				
12	12:00 — 12:30	Invited	On mechanism providing the trajectory twist of surface streamer in a barrier discharge under transverse magnetic field	<u>Yu.S. Akishev</u> , <u>N. Dyatko</u> , <u>V.B. Karalnik</u> , <u>I. Kochetov</u> , <u>A. Petryakov</u>	Offline	Joint-Stock Company "State Scientific Center of the Russian Federation Troitsk Institute for Innovative and Thermonuclear Research" (JSC "SSC RF TRINITI")
13	12:30 — 12:45	Oral	Experimental investigation of the X- and O-mode anomalous absorption in the plasma filament	<u>M.S. Usachonak</u> (1), <u>L.V. Simonchik</u> (1), <u>A.Yu. Popov</u> (2), <u>E.Z. Gusakov</u> (2)	Offline	(1) Institute of Physics of NAS of Belarus, Minsk, Belarus (2) Ioffe Institute, St-Petersburg, Russia

14	12:45 — 13:00	Oral	Experimental demonstration of temporal compression of high-current pulsed electron beam in the system with virtual cathode	<u>D.A. Adamyants</u> , A.E. Donets, V.I. Rogozhin, A.A. Ravaev, A.B. Buleyko, O.T. Loza, I.R. Muftakhov	Offline	JSC "SSC RF TRINITY", Troitsk, Moscow, Russia
15	13:00 — 13:15	Oral	The influence of the intrinsic noise of a relativistic electron beam on the parameters of its propagation	S.E. Andreev, <u>I.L. Bogdankevich</u> , N.G. Gusein-zade	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia
16	13:15 — 13:30	Oral	Calculation of nonlinear spectra of Cherenkov instabilities of dense electron beams in electrodynamic systems of plasma microwaves	<u>A.V. Ershov</u> , M.V. Kuzelev	Offline	Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia
17	13:30 — 13:45	Oral	Self-excitation of a plasma microwave amplifier using an non-uniform absorber	I.N. Kartashov, M.V. Kuzelev, <u>A.V. Tumanov</u>	Offline	Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia
	13:45 — 14:30	Lunch				
18	14:30 — 15:00	Invited	Possibilities of atomic-layer etching in inductively coupled plasma for the creation of nanoelectronic devices	<u>A.V. Miakonkikh</u> , R.R. Khalilullin , V.O. Kuzmenko	Offline	NRC “Kurchatov institute” - Valiev IPT, Moscow, Russia
19	15:00 — 15:15	Oral	Numerical investigation of clamp effect on space charge layer formation and impact on etch uniformity	<u>R.R. Khalilullin</u> (1,2), V.O. Kuzmenko (1), A.V. Miakonkikh (1)	Offline	(1) NRC “Kurchatov institute” - Valiev IPT Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia
20	15:15 — 15:30	Oral	Microwave Gyrotron-Induced Coating Formation on Tungsten Plates from Metal and Dielectric Powders	<u>T.E. Gayanova</u> (1), E.A. Obraztsova (1,2), A.V. Stepanova (3), A.S. Sokolov (1), E.V. Voronova (1), V.D. Stepakhin (1), N.N. Skvortsova (1)	Offline	(1) Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia (2) Moscow Institute of Physics and Technology, Dolgoprudny, Russia (3) Mendeleev University of Chemical Technology of Russia, Moscow, Russia.
21	15:30 — 15:45	Oral	Effective length of a plasma antenna on a plasma column	<u>I.M. Minaev</u> , V.I. Zhukov, O.V. Tikhonovich, D.M. Karfidov, <u>I.L. Bogdankevich</u>	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia
22	15:45 — 16:00	Oral	Structure and Dynamics of a Surface-Wave-Sustained Microwave Discharge in Low-Pressure Argon	<u>V.P. Stepin</u> , V.I. Zhukov, D.M. Karfidov, S.E. Andreev, <u>I.L. Bogdankevich</u> ,	Offline	Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia

				N.N. Bogachev		
	16:00 — 16:30	Coffee Break				
23	16:30 — 17:00	Invited	Plasma Science and Technology in Brazil: Four Pillars from Fusion and Space Plasmas to Atmospheric-Pressure Applications	<u>R.S. Pessoa,</u> G. Petraconi Filho, D.M. Leite, A.L.J. Pereira, A.S. da Silva Sobrinho, H.S. Maciel	Online	Plasmas and Processes Laboratory (LPP), Aeronautics Institute of Technology (ITA), Departamento de Ciência e Tecnologia Aeroespacial, São José dos Campos (SP), Brazil.
24	17:00 — 17:15	Oral	Plasma technologies in aerodynamics	<u>S.V. Ryzhkov,</u> V.V. Kuzenov	Offline	Bauman Moscow State Technical University, Moscow, Russia
25	17:15 — 17:30	Oral	Interaction of Powerful High-Frequency Radio Emission with Plasma in the Lower and Upper Ionosphere - Experimental Results	<u>N.V. Bakhmetieva,</u> I.N. Zhemyakov, E.E. Kalinina, O.K. Khromin	Online	Radiophysical Research Institute, Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
26	17:30 — 17:45	Oral	Investigation of sporadic E-structures and wave phenomena in the Earth's lower ionosphere based on analysis of radio occultation measurements	<u>V.N. Gubenko,</u> I.A. Kirillovich, V.E. Andreev	Offline	Kotelnikov Institute of Radio Engineering and Electronics RAS, Fryazino, Moscow region, Russia
	17:45 — 18:00	Closing ceremony				