

**Program of the VI International Scientific School-Conference
of Young Scientists
“MODERN PROBLEMS OF PHYSICS AND TECHNOLOGIES”,
devoted to the 75th Anniversary of the National Research Nuclear University
MEPhI and 95th Anniversary of Academician N.G. Basov
April 17-21, 2017 Moscow, MEPhI**

18.04 Tuesday

09.00 - 10.00	Registration
10.00 - 13.00	Plenary session 1. Chairman: I.I. Yashin Assembly hall of MEPhI
10.00 - 10.30	M.N. Strikhanov, Rector of MEPhI; O.N. Krokhin, Scientific Adviser of N.G. Basov Higher School of Physics <i>Opening of the school-conference</i>
10.30 - 11.00	I.N. Zavestovskaya, (MEPhI, LPI of RAS) <i>75th anniversary of MEPhI</i>
11.00 - 11.30	B.Yu. Sharkov (FRRC, Germany, MEPhI) <i>Universe in the laboratory - FAIR and NICA mega science projects</i>
11.30 - 12.00	K.V. Kopeikin (SPbSU) <i>Consciousness and physical reality</i>
12.00 - 12.30	O.N. Krokhin (LPI, MEPhI) <i>Photon</i>
12.30 - 13.00	I.G. Zubarev (LPI, MEPhI). <i>95th anniversary of Academician N.G. Basov, the Nobel prize - winner</i>
13.00 - 14.00	Lunch
14.00 - 16.30	Poster session 1. Chairman V.A. Kurnaev Reading hall of the library, 2d floor <i>Session «Laser physics, solid state physics, optics and plasma physics», Session «Engineering physics technologies for biomedicine»</i>
16.30 - 17.00	Coffee break
17.00 - 19.30	Youth session 1. Chairman: Yu.A. Aleshchenko Conference hall of 3rd floor of the main building of MEPhI Oral presentations in English on all subjects of the School

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19.04 Wednesday

09.00 - 10.00	Registration
10.00 - 13.00	Plenary session 2. Chairman: V.N. Petrovsky Auditorium A304 of the main building of MEPhI
10.00 - 10.30	Yuris Purans (University of Latvia, MEPhI) <i>Modern problems of XAFS-spectroscopy using synchrotron radiation</i>
10.30 - 11.00	Yu.N. Kulchin (IACP, Far-East Branch of RAS) <i>Pulsed laser nanofabrication of advanced nanophotonic structures</i>
11.00 - 11.30	A. Kabashin (Aix-Marseille University, France, MEPhI) <i>Plasmon metanaterials for ultrasensitive biosensing -</i>
11.30 - 12.00	Igor V. Meglinski - (University of Oulu, Finland, MEPhI) <i>Coherent effects of multiple scattering of light: application in biomedical optical diagnostics</i>
12.00 - 12.30	Giovanni Barbero - (Politecnico di Torino, Italy, MEPhI) <i>Effect of the viscosity on the electrical response of a hydrosolution</i>
12.30 - 13.00	A.I. Bolozdynya (MEPHI) <i>Problem of dark matter or How to see Invisible</i>
13.00 - 14.00	Lunch
14.00 - 16.30	Poster session 2. Chairman: A.A. Postnov Reading hall of the library, 3rd floor <i>Session «Nuclear physics and technologies, particle physics, astrophysics and cosmophysics», Session «IT technologies, intelligent systems, cybersecurity», Session «Electronics, automatics, spintronics, nanotechnologies»</i>
16.30 - 17.00	Coffee break
17.00 - 19.30	Youth session 2. Chairman: G.V. Tikhomirov Conference hall of 3rd floor of the main building of MEPhI Oral presentations in Russian. <i>Session «Laser physics, solid state physics, optics and plasma physics», Session «Nuclear physics and technologies, particle physics, astrophysics and cosmophysics»</i>

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20.04 Thursday

09.00 - 10.00	Registration.
10.00 - 13.00	Plenary session 3. Chairman: V.Yu. Timoshenko Conference hall of 3rd floor of the main building of MEPhI
10.00 - 10.30	A. M. Zagrebaev (MEPhI) Process optimization of nuclear power stations in force majeure circumstances
10.30 - 11.00	L.A. Kuzmichev (SINP MSU) Gamma-astronomy of super high energies and TAIGA Project
11.00 - 11.30	M. M. Nazarov (NRC "Kurchatov Institute") How short can powerful laser pulses be made and where superstrong optical fields are used?
11.30 - 12.00	V.A. Oleinikov (IBCh RAN, MEPhI) Nano-, Micro-, Bio-: New tools for medicine
12.00 - 12.30	V. Lysenko (National Institute of Applied Sciences, Lyon, France, MEPhI) Photoelectric measurements on silicon for electronic tongue application
12.30 - 13.00	Rudolf Wolfgang Steiner (“Institute for Laser Technologies in Medicine and Metrology (ILM)” at the University of Ulm, Germany, MEPhI) Trends in Therapeutic - Laser Applications
12.00 - 13.00	Registration of schoolchildren
13.00 - 14.00	Lunch
14.00 - 15.00	Plenary session 4. Chairman: A. Kharin Conference hall of 3rd floor of the main building of MEPhI Presentation of the Strategic Academic Units of MEPhI (INPh&E, PhysBio, LAPLAS, NESPI, ICIS)
15.00 - 16.30	Poster session for schoolchildren. Coffee break. Reading hall of the library, 3rd floor
15.00 - 16.30	Excursion to the laboratories of MEPhI for participants
16.30 - 17.30	Awarding ceremony of the winners of competition of the schoolchildren projects
17.30 - 18.00	Excursion to the laboratories of MEPhI for schoolchildren

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21.04 Friday

09.00 - 10.00	Registration
10.00 - 13.00	Plenary session 5. Chairman: I.N. Zvestovskaya Auditorium A304 of the main building of MEPhI
10.00 - 10.30	A.V. Parfenov (Physical Optics Corporation, USA) <i>Advanced Semiconductor (solid-state) image detectors</i>
10.30 - 11.00	V.N. Mironov (3D bioprinting solutions) <i>Technology of 3D bioprinting: From idea to new industry</i>
11.00 - 11.30	Valery Bychenkov (LPI of RAS) <i>Perspective frequency standards for terrestrial and space Applications</i>
11.30 - 12.00	S.P. Kotova (Samara Branch of LPI, Samara) <i>Formation of double-leafed light fields with the rotation of the intensity distribution for microscopy</i>
12.00 - 12.30	Anton Fojtik (Czech Technical University in Prague, Czech Republic) NANO – TODAY’S FASCINATING PHENOMENON. <i>NANO - The next dimension</i>
12.30 - 13.00	V. N. Chikin, A.A. Sukhareva (MIPT, RUSNANO) <i>Interuniversity program of specialist training for innovation enterprises</i>
13.00 - 14.00	Lunch
14.00 - 16.00	Youth session 3. Chairman: V.V. Klimov Assembly hall of - MEPhI Oral presentations in Russian <i>Session «Engineering physics technologies for biomedicine», Session «IT technologies, intelligent systems, cybersecurity», Session «Electronics, automatics, spintronics, nanotechnologies»</i>
16.00 - 16.30	Coffee break
16.30 - 18.00	Chairman: I.I. Yashin Young scientist award. Closing School-Conference. Awarding ceremony of the winners of the online Olympiad in Physics <i>Assembly hall of MEPhI</i>

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22.04 Sunday

08.30 – 14.00	All-Russian Student Olympiad in Biophysics and Nuclear Medicine
15.00 – 18.00	Excursion around Moscow
18.00 – 22.00	Departure of participants

**The program of the all-Russian stage of the All-Russian Students' Olympiad in
Biophysics and Nuclear Medicine**

22.04 Saturday. The first day

8.30 – 9.30	Registration of participants
9.30 – 9.45	Opening of the Olympiad
10.00 – 14.00	Holding the Olympiad
14.00 – 15.00	Lunch
15.00 – 17.00	The cultural program

23.04 Sunday. The second day

11.00 – 13.00	Announcement of results. Awarding of winners and laureates
13.00 – 14.00	The cultural program
14.00 – 18.00	Departure of nonresident participants