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НАЦИОНАЛЬНЫЙ ЦЕНТР
ФИЗИКИ И МАТЕМАТИКИ



МГУ Саров

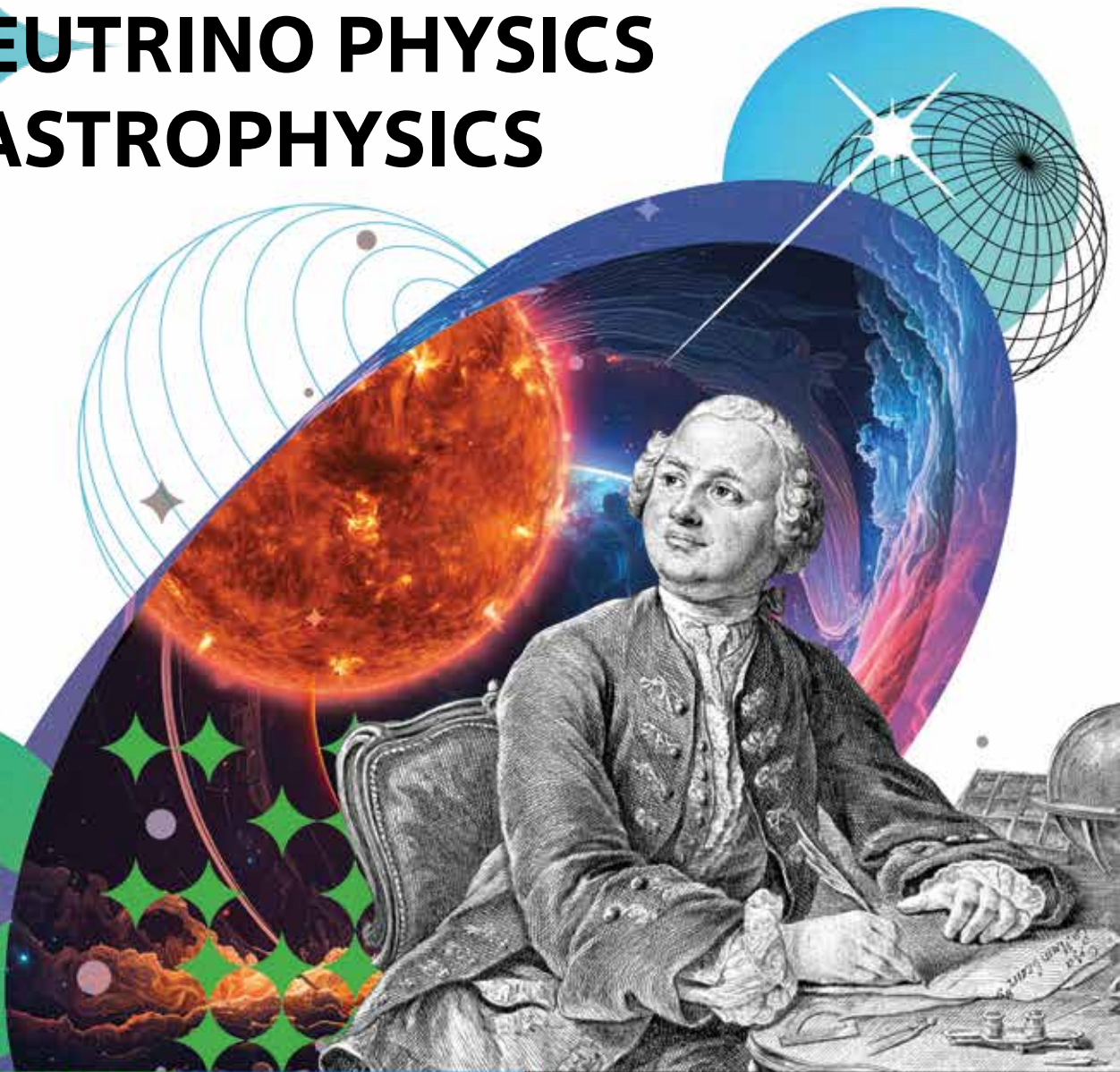


**ФИЗИЧЕСКИЙ
ФАКУЛЬТЕТ МГУ**

16th INTERNATIONAL SCHOOL ON NEUTRINO PHYSICS AND ASTROPHYSICS

23–27

September | 2024



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23 September / Monday

time	activity	venue
08:30–09:30	Breakfast	Dining room, 1st floor
08:30–09:30	Registration	Hall «Book», Dining room 2nd floor
09:30–10:00	OPENING Moscow Time (UTC+3) (Central European Summer Time (UTC+2) is 1 hour less): Duration of lectures is 50+10 min, duration of presentations at young scientist's session is 17+3 min. Chair: Alexander Studenikin (MSU) • Welcome on behalf of the National Centre for Physics and Mathematics (NCPHM) • Welcome on behalf of Joint Institute for Nuclear Research (JINR) • Welcome on behalf of Russian Federal Nuclear Center – All-Russian Scientific Research Institute of Experimental Physics (RFNC-VNIIEF)	Hall «Book», Dining room 2nd floor
10:00–10:30	Scientific Programme of National Centre for Physics and Mathematics • Stanislav Davydenko, NCPHM	Hall «Book», Dining room 2nd floor
10:30–11:00	The Moscow University branch in Sarov «MSU_Sarov» • Grigory Kachalin, RFNC-VNIIEF & MSU-Sarov	Hall «Book», Dining room 2nd floor
11:00–11:30	Welcome from Programme Committee: The neutrino (history, current status and prospects) • Alexander Studenikin, MSU	Hall «Book», Dining room 2nd floor
11:30–12:30 online	Fundamental physics with reactor neutrinos • Eugeny Yakushev, JINR	Hall «Book», Dining room 2nd floor
12:30–12:50	Welcome on behalf of Faculty of Physics of Moscow State University • Vladimir Belokurov, MSU	
12:50–13:00	Group photographing of participants 📷	The main entrance of the Academic building of MSU Sarov
13:00–14:00	Lunch	Dining room 1st floor
14:00–15:00 online	Solar neutrino searches in laboratory experiments • Gioacchino Ranucci, INFN Milan	Hall «Book», Dining room 2nd floor
15:00–16:00 online	High energy neutrino astronomy and neutrino telescope Baikal-GVD • Maxim Sorokovikov, JINR	Hall «Book», Dining room 2nd floor
16:00–16:30	Tea break	Pavilion
Young scientist's session # 1		Hall «Book», Dining room 2nd floor
16:30–16:50	Neutrino oscillations in the axion-like particles superfluid • Alexey Lichkunov, MSU	
16:50–17:10	Neutrino flavor and spin-flavor oscillations in transversely moving matter • Yuri Litvinenko, MSU	
17:10–17:30	Decoherence effects in propagation of cosmic neutrinos • Anastasia Nikolaeva, MSU	
17:30–18:00	Tea break	Pavilion

time	activity	venue
Young scientist's session # 2		
18:00–18:20	Impact of sterile neutrino decay on the dynamics of the expanding Universe • Alexander Shchepkin, SPbPU & Ioffe Physical-Technical Inst. RAS	Hall «Book», Dining room 2nd floor
18:20–18:40	Leptogenesis via absorption by primordial black holes • Nikolay Pozdnyakov, NSU	
18:40–19:00	Investigation of the properties and nature of a diffuse ionized gas medium at various heights and radii of disk galaxies • Vera Postnikova, MSU	
19:00–19:20	Effects of radiation transfer in neutral helium lines formed in ionized interstellar medium • Inna Kozlovskaya, MSU-Sarov	
19:30–21:00	Welcome Drink & Buffet	Pavilion

24 September / Tuesday

time	activity	venue
08:00–09:00	Breakfast	Dining room 1st floor
09:00–10:00 <i>online</i>	The present status of the Standard Model • Edward Boos, SINP MSU	Hall «Book», Dining room 2nd floor
10:00–11:00 <i>online</i>	Physics programmes at the present and future e+e colliders • Ivanka Bozovic, VINCA Inst., Belgrade	Hall «Book», Dining room 2nd floor
11:00–11:30	Tea break	Pavilion
11:30–12:30	Neutrino oscillations in accelerator long-base experiments • Yury Kudenko, INR RAS	Hall «Book», Dining room 2nd floor
12:30–13:30	The present status and future prospects of the double beta decay • Alexander Barabash, Kurchatov Inst., ITEP	Hall «Book», Dining room 2nd floor
13:30–14:30	Lunch	Dining room 1st floor
Young scientist's session # 3		
14:30–14:50	Detection of muon neutrinos using 3D segmented scintillator detector SuperFGD • Anna Dergacheva, INR RAS	Hall «Book», Dining room 2nd floor
14:50–15:10	Measurement of muon neutrino and antineutrino spectra with improved particle identification in the near detector of the T2K experiment • Daria Fedorova, INR RAS & MIPT	
15:10–15:30	Calibration of the SuperFGD detector taking into account the attenuation of the signal in the WLS fiber • Angelina Chvirova, MEPhI	
15:30–15:50	Estimation of the atmospheric neutrinos detection efficiency in the NOvA experiment • Alexandra Ivanova, ISU	
15:50–16:10	Search for the double beta decay of Zr-96 into excited states of Mo-96 • Temirlan Khusainov, JINR & MEPhI	

time	activity	venue
16:10–16:40	Tea break	Pavilion
Young scientist's session # 4		
16:40–17:00 <i>online</i>	Energy spectrum of primary cosmic rays according to the data of the Tunka-Grande array • Anna Ivanova, ISU	Hall «Book», Dining room 2nd floor
17:00–17:20	Analysis of the spatial and temporal structure of EAS according to the data of the Tunka-Grande array • Roman Monkhoev, ISU	
17:20–17:40	Detection of gamma rays from the Crab Nebula using data from the TAIGA-IACT facility in the stereo observing mode • Pavel Volchugov, SINP MSU	
17:40–18:00	Stereoscopic observations of HAWC j2019+368 and LHAASO j0341+5258 gamma-ray sources on TAIGA-IACT facilities • Alexander Razumov, MSU	
18:00–18:20	Application of an array of multi-wire drift chambers with shielding by absorber layers for the study of high-energy near-vertical muons • Ivan Troshin, MEPhI	
18:20–18:40	Neutrino production in quasar plasma processes • Anatoly Kovalev, SPbPU	
18:40–19:40	Dinner	Dining room 1st floor
19:40–21:30	Cultural and entertainment program	Hall «Book», Dining room 2nd floor

25 September / Wednesday

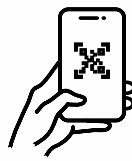
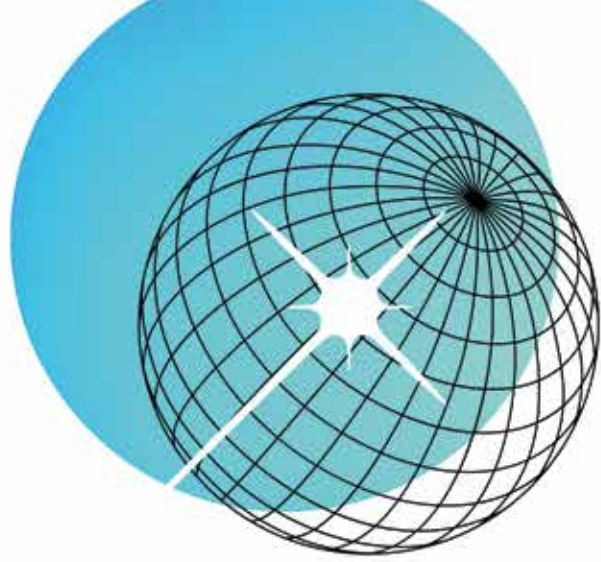
time	activity	venue
08:00–09:00	Breakfast	Dining room 1st floor
09:00–10:00	Electromagnetic properties of neutrinos • Alexander Studenikin, MSU	Hall «Book», Dining room 2nd floor
10:00–11:00 <i>online</i>	The Gallium Anomaly • Carlo Giunti, INFN Torino	Hall «Book», Dining room 2nd floor
11:00–11:30	Tea break	Pavilion
11:30–12:30	Astrophysical neutrinos interactions and oscillations • Artem Popov, MSU	Hall «Book», Dining room 2nd floor
12:30–13:30	Neutrino quantum decoherence: Theory and experiment • Konstantin Stankevich, MSU	Hall «Book», Dining room 2nd floor
13:30–14:30	Lunch	Dining room 1st floor
14.30 – 19.00	Excursion program	Sarov
19:00–20:00	Dinner	Pavilion
20:00–21:30	Cultural and entertainment program	Hall «Book», Dining room 2nd floor

26 September / Thursday

time	activity	venue
08:00–09:00	Breakfast	Dining room 1st floor
09:00–10:00	Neutrinos in Early Universe • Dmitry Gorbunov, INR RAS	Hall «Book», Dining room 2nd floor
10:00–11:00 online	Multimessenger astronomy • Konstantin Postnov, MSU	Hall «Book», Dining room 2nd floor
11:00–11:30	Tea break	Pavilion
11:30–12:30	Astrophysics of particles and neutrinos • Grigory Rubtsov, INR RAS	Hall «Book», Dining room 2nd floor
12:30–13:30 online	Supernovae neutrinos • Yufeng Li, IHEP	Hall «Book», Dining room 2nd floor
13:30–14:30	Lunch	Dining room 1st floor
14:30–15:30	Experimental methods of neutrino physics • Bayarto Lubsandorzhiiev, INR RAS	Hall «Book», Dining room 2nd floor
15.30-16:30	Subterahertz receivers for radio astronomy and dark matter search • Andrey Pankratov, Alekseev Univ., Nizhny Novgorod	Hall «Book», Dining room 2nd floor
16:30 – 17:00	Tea break	Pavilion
Young scientist's session # 5		Hall «Book», Dining room 2nd floor
17:00-17:20	Calibration of the RNO-G neutrino radio detector based on signals from solar radio bursts • Maria Mikhailova, MEPhI	
17:20-17:40	Development of the NTSim software package for modelling neutrino telescopes and evaluating the efficiency of neutrino-induced event detection in the Baikal-GVD experiment • Sergey Zavyalov, MSU & JINR	
17:40-18:00	Search for sub-microsecond bursts of Cherenkov radio emission caused by the interaction of high-energy neutrinos with lunar regolith • Sergey Shavkovich, PUSGU	
18:00-18:20	Exploring primordial black holes with neutrino spectra: Unveiling future observational opportunities • Pavel Kislitsyn, Ioffe Phys. Tech. Inst.	
19:00-21:00	Conference Dinner	Pavilion

27 September / Friday

time	activity	venue
08:00–09:00	Breakfast	Dining room 1st floor
09:00-10:00	Astrophysical black holes: The case of the black hole in the galactic centre • Alexander Zakharov, JINR, Kurchatov Inst. – ITEP	Hall «Book», Dining room 2nd floor
10:00–11:00	Neutrinos in gravitational fields • Maxim Dvornikov, IZMIRAN	Hall «Book», Dining room 2nd floor
11:00–11:30	Tea break	Pavilion
11:30–12:30	Neutrino coherent scattering on nuclei • Dmitry Akimov, MEPhI	Hall «Book», Dining room 2nd floor
12:30–13:30	Neutrino interactions with atomic systems and the SATURNE project • Konstantin Kouzakov, MSU	Hall «Book», Dining room 2nd floor
13:30–14:30	Lunch	Dining room 1st floor
Young scientist's session # 6		Hall «Book», Dining room 2nd floor
14:30–14:50	Neutrino interactions • Fedor Lazarev, MSU	
14:50-15:10	Neutrino scattering on superfluid helium with account for neutrino electromagnetic properties and collective effects • Maxim Vyalkov, MSU-Sarov & NCPHM	
15:10-15:30	Nonstandard neutrino interactions in neutrino scattering on atoms and nuclei • Maxim Verkhovtsev, MSU-Sarov & RFNC-VNIIEF	
15:30-15:50	Search for dark vector bosons in coherent elastic neutrino-nucleus and neutrino-atom scattering • Mikhail Kubasov, MSU	
15:50-16:10	Ionization of helium by solar neutrinos • Ivan Stepanysov, MSU	
16:10-16:30	Tea break	Pavilion
16:30-18:00	NCPHM scientific seminar Introduction • Alexander Sergeev, NCPHM Neutrino as a window to new physics • Alexander Studenikin, MSU	
18:00-19:00	Closing Session of the 16th International School on Neutrino Physics and Astrophysics / Farewell wishes • Alexander Sergeev, the NCPHM Scientific Leader • Vyacheslav Solovyev, the RFNC-VNIIEF Scientific Leader • Alexander Studenikin (MSU), Co-chair of the Programme Committee • Arkady Yukhimchuk (RFNC-VNIIEF), Co-chair of the Programme Committee	Hall «Book», Dining room 2nd floor
19:00-20:00	Dinner	Dining room 1st floor



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