



CONFERENCE SCHEDULE

	9:00	15:30
<i>July 1, Tuesday</i>	Plenary Session I (10:00)	Sections 1, 2, 3
<i>July 2, Wednesday</i>	Sections 2, 4, 5	Sections 2, 4, 5
<i>July 3, Thursday</i>	Semiplenary Sessions I, II	Poster Session
<i>July 4, Friday</i>	Sections 4, 5, 6, 7	Plenary Session II

PRELIMINARY CONFERENCE PROGRAM

July 1, Tuesday, 10:00

Plenary Session I

Conference opening. - 15 min.

Baryshevsky V.G. High-energy nuclear optics of polarized particles. - 30 min.

Gridnev K.A. Properties of nuclei in the neighborhood of neutron and proton drip lines. - 30 min.

Goldberg V.Z. Recently developed approaches to calculate nuclear structure need tests by novel experimental methods. - 30 min.

Shirokov A.M. Comprehensive *ab initio* study of light nuclei with JISP16 *NN* interaction. - 30 min.

Kadmensky S.G., Bunakov V.E. Dynamical effects' role in the formation of T-odd angular asymmetries of the products of ternary fission caused by polarized neutrons. - 30 min.

July 4, Friday, 15:30

Plenary Session II

Urin M.H. The particle-hole dispersive optical model and its application to the description of the simplest photonuclear reactions. - 30 min.

Shlomo Sh. Sensitivities of energies of giant resonances to properties of the energy density functional. - 30 min.

Korzhib M.V. International nuclear physics research platforms and their impact on the science progress. - 30 min.

Abramovich S.N. Threshold phenomena in nuclear reactions. - 30 min.

Tchuvil'sky Yu.M. T-Odd correlations in $(n,\gamma\gamma)$ -, $(n,\alpha\gamma)$ - and $(n,f\gamma)$ -reactions. - 30 min.

Lutostansky Yu.S. Synthesis of heavy and superheavy nuclei in intensive neutron fluxes of explosive processes. - 30 min.

Conference closing.

July 3, Thursday, 9:00
Semiplenary Session I

Lukyanov V.K. Theoretical analysis of inelastic pion-nucleus scattering within the microscopic optical potential. - 20 min.

Kadmensky S.G. The properties of true quaternary nuclear fission with the taking into account its multisteps and sequential character. - 20 min.

Tsekhanovich I.A. A multi-parameter nuclear-fission experiment: why and how to measure all at once? - 20 min.

Barabanov M. Search for charmonium and exotics with hidden charm and strangeness in antiproton-proton annihilation. - 20 min.

Artemenkov D.A. Clustering features of light neutron-deficient nuclei in relativistic dissociation. - 20 min.

Barbui M. Exploring the alpha cluster structure of nuclei using the thick target inverse kinematics technique for multiple alpha decays. - 20 min.

Skobelev N.K. The population of isomeric states in fusion and transfer reactions with beams of weakly bound nuclei near the Coulomb barrier. - 20 min.

July 3, Thursday, 9:00
Semiplenary Session II

Kezerashvili R.Ya. Lightest kaonic nuclei. - 20 min.

Severyukhin A.P. Complex configuration effects on β -decay rates. - 20 min.

Rukhadze N.I. New search for double electron capture of ^{106}Cd with the TGV-2 spectrometer. - 20 min.

Joint talk:

Dependence of branching coefficients for multidecay nuclei from K -shell population of their atoms in strongly heated medium.

Effect of atomic ionization on p -nucleus synthesis rate in extremely heated substance of massive star.

Effect upon characteristics of nuclear isomeric states by synchrotron radiation.

Speaker *Kopytin I.V.* - 20 min.

Gurevich G.M. "Complete experiment" in meson photoproduction. - 20 min.

Joint talk:

Partial and total photoneutron reaction cross sections new data for $^{91,94}\text{Zr}$ isotopes.

Photodisintegration of $^{186,188,189,190,192}\text{Os}$ isotopes: likenesses and differences.

Speaker *Varlamov V.V.* - 20 min.

Joint talk:

Production of isotopes and isomers with irradiation of $Z = 47$ — 50 targets by 23 MeV bremsstrahlung.

Microstructure manifestations in nuclear reactions.

Speaker *Karamian S.A.* - 20 min.

July 1, Tuesday, 15:30

Section I

Experimental Investigations of Atomic Nucleus Properties

Novatsky B.G. Detection of light neutron nuclei in alpha-particle-induced fission of ^{238}U by activation method with ^{27}Al . - 15 min.

Chernyshev B.A. High excited states of ^6He . - 15 min.

Danilov A.N. Search for alpha cluster states in ^{11}B . - 15 min.

Zuyev S. On the possibility of studying cluster structure of light nuclei by proton quasifree scattering at low energies. - 15 min.

Mynbayev N.A., Nurmukhanbetova A.K. Resonances in the $\alpha+^{13}\text{C}$ interaction. - 15 min.

Mitropolsky I.A. Data evaluation and structure of nuclei with $A = 146$. - 15 min.

Joint talk:

Investigation of ^{166}Er in $(n, n'\gamma)$ reaction.

On rotational bands with $K^\pi = 0^+_2, 2^+_2$ and 1^+_1 in ^{160}Gd , ^{164}Dy and ^{166}Er .

Speaker *Govor L.I.* - 15 min.

Joint talk:

Influence of atom environments on energies of the *KLL* Auger transitions in ^{85}Rb from the EC decay of ^{85}Sr .

Searching for the lifetime broadening of the rubidium *KLL* Auger lines.

Speaker *Inoyatov A.Kh.* - 15 min.

Dzhilavyan L.Z. Experimental parameters of the isovector *E1* giant resonance in dependence on correctness of taking into account bremsstrahlung spectra. - 15 min.

Joint talk:

Width of the giant dipole resonance in heavy nuclei.

Systematics of the giant dipole resonance widths of nuclei with the number of nucleons ≥ 40 .

Speaker *Kapitonov I.M.* - 15 min.

Izosimov I.N. Nuclear decay study using total absorption γ -ray spectroscopy. - 15 min.

July 1, Tuesday, 15:30

Section II

Experimental Investigations of Nuclear Reactions Mechanisms

Artemenkov D.A. Correlations of α -particles in splitting of ^{12}C nuclei by neutrons of energy of 14.1 MeV. - 15 min.

Zelenskaya N.S. Angular correlation in inelastic scattering $^{24}\text{Mg}(p, p_1\gamma)^{24}\text{Mg}$ at $E_p = 7.4$ MeV. - 15 min.

Riabov V.G. Neutral kaon production in $p+p$, $d+\text{Au}$ and $\text{Cu}+\text{Cu}$ collisions at 200 GeV. - 15 min.

Riabov Yu.G. Measurement of phi meson nuclear modification factors in $p+\text{Pb}$ and $\text{Pb}+\text{Pb}$ collisions in the ALICE experiment at LHC. - 15 min.

Bystritsky V.M., Dudkin G.N. Experimental observation of the channeling effect in the study of dd -reaction in the astrophysical deuteron collision energy range in titanium deuteride. - 15 min.

Konobeevski E. Study of $d + d \rightarrow ^2\text{He} + ^2\text{n}$ reaction at deuteron energy of 15 MeV. - 15 min.

Slusarenko L.I., Omelchuk S.E. Protons from three-body and four-body break-up in the DD-collisions. - 15 min.

Balabekyan A.R. The investigation of $^{197}\text{Au}(d, xpyn)X$ reactions at the energy of 2.2 GeV/nucleon. - 15 min.

Jakovlev V.A. Formation of neutron-deficient heavy nuclides in He-3 induced reaction at intermediate energies. - 15 min.

Sadykov B.M. Elastic and inelastic scattering of ^3He ions on ^{16}O nucleus at 60 MeV. - 15 min.

July 2, Wednesday, 9:00

Section II

Experimental Investigations of Nuclear Reactions Mechanisms

Sakuta S.B. The channel coupling and triton cluster exchange effects in ^3He scattering on ^6Li nuclei. - 15 min.

Chuvilskaya T.V. Investigation of fusion reactions $^{194}\text{Pt}(\alpha, n)^{197\text{mg}}\text{Hg}$ and $^{195}\text{Pt}(^3\text{He}, n)^{197\text{mg}}\text{Hg}$ at near-barrier energies. - 15 min.

Joint talk:

Isomeric yields ratios of ^{238}U photofission fragments at end-point energy of bremsstrahlung photons about 18 MeV.

Investigation of $^{178\text{m}2}, ^{179\text{m}2}\text{Hf}$ isomers creation in reactions with alpha-particles.

Speaker *Savrasov A.N.* - 15 min.

Joint talk:

The measurements of diffraction of the angular distributions of alpha particles with energies 29 MeV on nuclei ^{59}Co , ^{197}Au , ^{209}Bi .

The phenomenon of diffraction rise of cross sections in the forward hemisphere of angles as the effect of nuclear and cluster interference.

Speaker *Dyachkov V.V.* - 15 min.

Krutenkova A.P. Fragmentation of carbon ions at 0.3—2.0 GeV/n: comparison with the models of ion-ion interactions. - 15 min.

Erdemchimeg B. Study of projectile fragmentation of ^{40}Ar on ^9Be target at 40 A MeV. - 15 min.

Kotov D.O. Light hadron production in Cu+Au collisions at 200 GeV. - 15 min.

Pritula R.V. Mechanisms of hydrogen isotope formation during preequilibrium stage of stopped pion absorption reaction. - 15 min.

July 2, Wednesday, 15:30

Section II

Experimental Investigations of Nuclear Reactions Mechanisms

Fedotov G.V. Recent results on $\pi^+\pi^-$ electroproduction off protons. - 15 min.

Chesnokov V.V. Estimates of exclusive channel cross-sections from the CLAS meson electroproduction data. - 15 min.

Isupov E.L. New results of nucleon resonances studies in photo and electroproduction of charged pions in CLAS. - 15 min.

Skorodumina Iu.A. $\pi^+\pi^-p$ electroproduction off the bound proton in resonance region with CLAS. - 15 min.

Dzhilavyan L.Z. Cross sections of the reaction $^{115}\text{In}(\gamma, \gamma')^{115\text{m}}\text{In}$ in the E1 giant resonance region. - 15 min.

Stopani K.A. Multinucleon photonuclear reactions on ^{209}Bi : experiment and evaluation. - 15 min.

Stibunov V.N. Negative charged pion production on a deuteron by quasi-real photons. - 15 min.

Zevakov S.A. Measurements of the tensor analyzing power component T_{20} of coherent photoproduction of neutral pion on tensor-polarized deuteron at the VEPP-3 storage ring. - 15 min.

Gorelov D.A. Independent fission yield measurements with JYFLTRAP. - 15 min.

Svirikhin A.I. The neutron multiplicity study at spontaneous fission of short-lived isotopes ($Z > 100$) using VASSILISSA recoil separator. - 15 min.

July 1, Tuesday, 15:30

Section III

Theory of Atomic Nucleus and Fundamental Interactions

Orlov Yu.V., Nikitina L.I. Nuclear vertex constants and asymptotic normalization coefficients of ^{16}O bound and resonant $\alpha + ^{12}\text{C}$ states from effective-range and Padé approximations. - 15 min.

Yakovlev S.L. Coordinate asymptotics of wave functions of the three and four particle systems with short-range interactions. - 15 min.

Joint talk:

Features of the proton single-particle spectra of Ni, Zn, and Ge isotopes near the proton drip-line.

Proton dispersive optical potential of even-even Sn isotopes with $100 \leq A \leq 132$.

Study of the proton shell structure evolution of even-even Zr isotopes with $50 \leq N \leq 82$ within dispersive optical model.

Speaker *Bespalova O.V.* - 15 min.

Boboshin I.N. Neutron shell structure of Cd isotopes: disappearance of the magic number $N = 64$. - 15 min.

Efimov A.D. Determination of the phonon amplitudes employed in boson expansion theories. - 15 min.

Joint talk:

Baktybayev K. Nucleon – pair shell model calculations in generalized seniority basis.

Baktybayev K. SD – Nucleon – pair shell description of the collective excitations of spherical nuclei.

Speaker *Baktybayev K.* - 15 min.

Kurteva A.A. Excited states of ^{65}Cu . - 15 min.

Solnyshkin A.A. Analysis of the excited states in even-even Dy isotopes within IVBM. - 15 min.

Lutostansky Yu.S. Phenomenological description of the Coulomb energies for medium-heavy and superheavy nuclei. - 15 min.

Khamzin A.A. Superfluidity of the heated Fermi systems in static fluctuation approximation. - 15 min.

Lunev A.V., Mikhajlov V.M., Vlasnikov A.K. Particle-hole structure of finite systems with pairing. - 15 min.

July 2, Wednesday, 9:00

Section III

Theory of Atomic Nucleus and Fundamental Interactions

Okhunov A.A. Properties of rotational bands of isotopes Yb. - 15 min.

Nikitin A.S. Oscillations of the inertia moment of a finite Fermi system in the cranking model framework. - 15 min.

Silenko A.J. Description of electromagnetic and strong interactions in rotating frames at collisions of high

energy nuclei. - 15 min.

Goncharova N.G. Dipole resonance splitting and shell structure peculiarities of ^{52}Cr nucleus. - 15 min.

Gorelik M.L. On properties of high-energy isoscalar monopole (p-h)-type excitations in medium-heavy mass spherical nuclei. - 15 min.

Igashov S.Yu. On damping of the Gamow-Teller resonance in ^{118}Sb . - 15 min.

Sery A.I. Spin polarization of nucleons. Limits of low and high temperatures. – 15 min.

Panov I.V. Beta-decay rates of short-lived neutron-rich nuclei, involved into the r-process. - 15 min.

Sushenok E.O. β -Decay rates and tensor correlations. - 15 min.

Romanov Yu.I. The right-polarized neutral (anti)leptons in the solar neutrino flux. - 15 min.

July 2, Wednesday, 15:30

Section IV

Nuclear Reactions Theory

Shebeko A.V. Relativistic interactions in meson-nucleon systems: applications in the theory of nuclear reactions. - 15 min.

Uzikov Yu.N. Spin observables in pd-scattering and test of T -invariance. - 15 min.

Safin M.Ya. On longitudinally polarized electron scattering off polarized proton target. - 15 min.

Joint talk:

Contribution of higher multiplicity collisions in elastic $p^6\text{He}$, $p^{8,9}\text{Li}$ scattering in the framework of the diffraction theory.

Excited state of ^{15}C $J^\pi=5/2^+$ nucleus and inelastic scattering of protons.

Speaker *Ibraeva E.T.* - 15 min.

Cherevko K. Phase trajectories of the nuclear system in the proton induced multifragmentation phenomena. Mechanical breakdown. - 15 min.

Rouba A.A. Birefringence of deuterons in an unpolarized target: theory and experiment. - 15 min.

Zelenskaya N.S. The analysis of (t, p) reactions on ^{16}O nucleus. - 15 min.

Solovyev A.S. The resonating group model description of the radiative capture reaction $^3\text{He}(\alpha, \gamma)^7\text{Be}$. - 15 min.

Platonova M.N. Theoretical description of scattering in $3N$ system with account of dibaryon channels and $3N$ forces. - 15 min.

July 4, Friday, 9:00

Section IV

Nuclear Reactions Theory

Belyaeva T.L. $^8\text{B} + ^{58}\text{N}$ interaction at low energies. - 15 min.

D'yachenko A.T. The features of the non-equilibrium equation of state in heavy-ion collisions at intermediate energies. - 15 min.

Guzey V.A. Nuclear gluon distribution at small x from photoproduction of J/ψ in ion ultraperipheral collisions at the LHC. - 15 min.

Blokhintsev L.D. New approach to folding with the Coulomb wave function. – 15 min.

Ilyin A.P. Analytic representation of the amplitude of multi-particle Coulomb breakup. - 15 min.

Golovanova N.F. Self-consistent description of particle -bound system's scattering by unitarity's conserving. - 15 min.

Samarin V.V. The quantum description of the coupling with neutron rearrangement channels in fusion reactions in the vicinity of Coulomb barrier. - 15 min.

Ivankov Yu.V. The description of characteristics of two-protons decay of Fe-45 in the theory of two-steps two-proton decay. - 15 min.

Lubashevsky D.E. The role of wriggling –vibrations of fissile nuclei for the formation of angular and spin distributions of neutrons and gamma-quanta evaporated by fission fragments. - 15 min.

Unzhakova A.V. Clustering mechanism in fission and CCT channel formation. – 15 min.

July 2, Wednesday, 9:00

Section V

Equipment, Methods and Automation of Nuclear Experiments, Interaction of Nuclear Radiation with the Matter and Applications of Methods of Nuclear Physics

Rozov S.V. New phase of the EDELWEISS dark matter search experiment. – 20 min.

Yakushev E. Development of setup for neutrino-nucleus coherent scattering observation. - 20 min.

Lyashuk V.I. Neutrino factory on the base of intense neutron sources. - 15 min.

Tikhomirov V.V. To the new sources for photo-nuclear reaction study. - 15 min.

Karamian S.A. Prospects for the methods of radionuclide production. - 15 min.

Fomichev A.S. EXPERT setup to study exotic radioactivity. - 15 min.

Slepnev R.S. Development of neutron detectors for the studies on the ACCULINNA and ACCULINNA-2 setups. - 15 min.

Kuchinsky N.A. Straw-detector with cathode read-out. - 15 min.

Rumiantcev M.M. Time of flight system of the MPD. - 15 min.

July 2, Wednesday, 15:30

Section V

Equipment, Methods and Automation of Nuclear Experiments, Interaction of Nuclear Radiation with the Matter and Applications of Methods of Nuclear Physics

Samedov V.V. Fluctuations in the process of charge induction in semiconductor detectors with cylindrical geometry. - 15 min.

Shvetsova N.Yu. Gas gain and aging rate of the gas discharge detectors. - 15 min.

Sytov A.I. To the influence of single scattering on nuclei on the efficiency of the future LHC crystal-based collimation system. - 15 min.

Kuzhir P. Heat resistant carbon nanotubes based in organic unfired ceramics for nuclear application. - 15 min.

Generalov L.N., Karpov I.A. Application of $^{27}\text{Al}(p,\gamma_2)^{28}\text{Si}^*$ (4.618 MeV) resonance reaction excited at proton energy of 2.489 MeV in calibration experiments. – 15 min.

Joint talk:

Application of variations calculus methods for optimization of time-of-flight neutron spectrometer characteristics.

Improvement of dynamical characteristics of rhodium-based self-powered neutron detector.

Speaker *Kuten S.A.* - 15 min.

Abalonski D. The results of numerical simulation of the detection device and measurement geometry for deep radiation monitoring. - 15 min.

Belousov A.V. GEANT4 Monte Carlo calculated dosimetry parameters for ^{169}Yb . - 15 min.

Kadmenskii A.G. High energy nuclei channeling. - 15 min.

Chuvil'skaya T.V. Copper fragmentation in nuclear reactions under impact of high energy cosmic protons. - 15 min.

July 4, Friday, 9:00

Section V

Equipment, Methods and Automation of Nuclear Experiments, Interaction of Nuclear Radiation with the Matter and Applications of Methods of Nuclear Physics

Verenich K.A. Secondary neutrons generated by the medical linear electron accelerator. - 15 min.

Mustafaeva S.N. Aurum-doped CdIn₂S₄ single crystals for Roentgen detection. – 15 min.

Joint talk:

Radiation effects of near-field in gamma activated nanoparticles ZrO₂–catalystes in methanol conversion.

Element analysis of biological samples of children with different chronic diseases by accelerator base techniques.

Speaker *Dikiy N.P.* - 15 min.

Mamatkulov K.Z. Implantation of ions ⁸He, Kr and Xe in nuclear track emulsion. - 15 min.

Prokopev E.P. Study of electronic properties of transition metals and alloys by positron annihilation spectroscopy. - 15 min.

Filosofov D.V. ⁴⁴Ti(⁴⁴Sc) - PAC study in TiO₂ and Sc₂O₃.

Lukashevich R. Comparator units for metrological certification of weak X-ray and gamma radiation fields by dose rate. - 15 min.

Savderova N.V. MuSun experiment: the control of impurities in ultraclean deuterium gas. - 15 min.

Nichyparchuk A. "In situ" monitoring of soil contamination by multifunctional AT6101DR portable gamma spectrometer taking into account radionuclide contamination in depth. - 15 min.

Krassovitskiy P.M. Resonant diffusion of beryllium molecule. - 15 min.

July 4, Friday, 9:00

Section VI

Fundamental Problems of Nuclear Power Engineering

Section VII

Experience and problems of high-quality training in nuclear physics, atomic power engineering and nuclear technologies

Bahdanovich R.B. Reactions contribution to total energy release in nuclear reactors. - 15 min.

Kiyavitskaya H. The challenges of creating subcritical research installations driven by external neutron sources. - 15 min.

Korbut T. Adaptation of birth-and-death process for time evolution description of system “neutron + subcritical multiplying medium”. - 15 min.

Kish Yu.V. Measurement of the reaction rates in ²³²Th samples irradiated by 4 GeV deuterons and secondary neutrons. - 15 min.

Zavorka L. Investigation of the effective neutron energy at the massive spallation uranium target quinta. - 15 min.

Joint talk:

Structure of material of reactor vessel for nuclear power plants: neutron small-angle scattering data.

Study of interaction of deuterium plasma with the first wall in Globus-M tokamak by nuclear microanalysis techniques.

Speaker *Lebedev V.M.* - 15 min.

Zamani M. Release assessment of tritium in liquid effluents of Bushehr nuclear power plant (BNPP) in 2013. - 15 min.

Sovestnov A.E. Research of evolution of an atomic order and of valence state of rare-earth atoms and uranium in a new metalcarbon composite namely pyrolyzate of bis-phthalocyanine $C_{64}H_{32}N_{16}Me$ (Me = Y, La, Ce, Eu and U). - 15 min.

Varonik N.I. Polymeric compositions for “dry” decontamination of NPP equipment and premises. - 15 min.

Sytova S.N. Classification and systematization of structure of Belarusian educational and research portal of nuclear knowledge. - 15 min.

July 3, Thursday, 15:30

Poster Session

Section I

Experimental Investigations of Atomic Nucleus Properties

Chechev V.P. New evaluation of decay and radiation characteristics of ^{198}Au .

Fomichev A.V. Possibility of the use of fission reaction as an indicator of neutron clusters.

Korotkova L.Yu. Study of highly excited states of ^9Li isotope in pion absorption reaction.

Morozova N.V. Influence of metal environment on ^{212}Po α -decay half-life at room temperature.

Sergeev V.O. An estimate of isomeric transition energy in the decay of ^{234m}Pa .

Testov D. Neutron detector TETRA to reveal the β -decay properties of neutron rich nuclei in the vicinity of neutron closed shells $N=50$, $N=82$.

Section II

Experimental Investigations of Nuclear Reactions Mechanisms

Bazarov E.H. Production of cumulative protons in hadron and nucleus-nucleus collisions at high energies.

Bezshyyko O.A. Isomer ratios for products of photonuclear reactions on ^{121}Sb .

Bondarenko I.P. New experimental data of $^{54}\text{Fe}(n, \alpha)^{51}\text{Cr}$ reaction cross-section in 4.5–7 MeV neutron energy region. (where results-poster)

Derechkey P.S. A study of isomeric yield ratios in the $^{124}\text{Te}(\gamma, n)^{123m}\text{Te}$ reaction in the giant $E1$ -resonance region.

Derechkey P.S. Studies of dependence of isomeric yield ratios on the gamma quanta energy in the $^{140}\text{Ce}(\gamma, n)^{139m,g}\text{Ce}$ reaction.

Dzhilavyan L.Z. Yields and cross-sections of the (γ, n) and (γ, p) reactions on the Ti isotopes in the GDR region.

Ivanov I.A. Elastic scattering cross section measurement of ^{13}C nuclei on ^{12}C at energy 22.75 MeV.

Kattabekov R.R. Exposure of nuclear track emulsion to ultrarelativistic μ -mesons.

Khromyleva T.A., Khryachkov V.A. New experimental data for $^{53}\text{Cr}(n, \alpha)^{50}\text{Ti}$ reaction. (where results-poster)

Lepekhin F.G. Experimental study of the fragmentation of relativistic nuclei.

Palvanov S.R. Excitation of isomeric states in reactions (γ, n) and $(n, 2n)$ on ^{76}Ge , ^{82}Se and ^{81}Br .

Shvedunov N.V. Cadmium isotope photodisintegration.

Plavko A.V. Forward-angle values of polarization-transfer (PT) coefficients for the $^{16}\text{O}(\bar{p}, \bar{p}')^{16}\text{O}$ ($4^-, T = 1$) and $^{28}\text{Si}(\bar{p}, \bar{p}')^{28}\text{Si}$ ($6^-, T = 1$) reactions.

Strekalovsky A.O. Searching for new long lived isomers in thermal fission of ^{235}U .

Zholdybayev T.K. Formation mechanisms of inclusive cross-sections of (p,xp) and (p,x α) reactions on Cu nucleus.

Zholdybayev T.K. Investigation of reactions on ^{112}Sn nucleus initiating by ^3He ions of 50 MeV with emission of deuterons, tritons and α -particles.

Section III

Theory of Atomic Nucleus and Fundamental Interactions

Baurov Yu. A. The discovery of global anisotropy of physical space and new non-gauge interaction: fundamental experiments, theoretical description and practical application.

Frolov P.A. The method of unitary clothing transformations: vertex renormalization in the operators of nucleon-nucleon interaction.

Imasheva L.T., Stepanov M.E. Ground state multiplet splitting estimation based on nuclei masses .

Kartashov V.M. Capabilities of nuclear electron spectroscopy in the study of non-stationary processes in condensed media.

Kolesnikov N.N. Alpha-stability of superheavy nuclei.

Kolesnikov N.N. Beta-stability of superheavy nuclei.

Kolesnikov N.N. Nuclear shells and the structure of the energy surface of heavy elements.

Lin E.E. Cluster model of formation of sub-nuclear and sub-atomic objects.

Loginov A.Yu. Rotating skyrmions of the (2 + 1)-dimensional Skyrme gauge model with a Chern–Simons term.

Nurmukhamedov A. Does the “stability iseland” exist?

Sitdikov A.S. The superselection model for the algebra of canonical anticommutation relations in the framework of C*-crossed product.

Sorokin Yu.I. Photon spin, width of oscillator energy level and giant dipole resonance structure.

Section IV

Nuclear Reactions Theory

Andreev A.V. Isospin dependence of mass-distribution shape of fission fragments of Hg isotopes.

Babak O.V. Sub-barrier interaction of deuterons with $^{58,62}\text{Ni}$, ^{124}Sn nuclei.

Bulychev A.O. Generalized approach to the description of multi-steps decays in chains of genetically related nuclei.

Fadeev S.N. Cluster exchange and anomalous large angle scattering.

Fedorov S.V. Four-dimensional Langevin dynamics of heavy-ion-induced fission.

Ibraeva E.T. Protons scattering on ^9B , ^9Be isotopes within the diffraction theory.

Ilyin A.P. Semianalytic approximations for the amplitude of the electrical breakup of two-cluster nuclei.

Ivanov A.E. Investigation of the influence of nuclear matter on hard lepton-nuclei and hadron-nuclei interactions using Monte Carlo generator HARDPING.

Kovalchuk V.I. Influence of ^6Li breakup on reaction cross section of $^{12}\text{C}(^6\text{Li}, ^6\text{Li})^{12}\text{C}$ at 18-28 MeV/nucleon.

Section V

Equipment, Methods and Automation of Nuclear Experiments, Interaction of Nuclear Radiation with the Matter and Applications of Methods of Nuclear Physics

- Andrianov V.A.* Influence of gas pressure on intensity of the pyroelectric X-ray sources.
- Andrianov V.A.* Superconducting tunnel junction X-RAY detectors: temporary shape of the signals.
- Emets E.G.* The complex of neutron transmutation doping of silicon on the basin type reactor like IRT.
- Gauzshtein V.V.* Measurement of the tensor analysing power components of the π^- photoproduction on deuterons at large proton momenta.
- Issadykov A.N.* Determination of the neutron / gamma separation threshold on single crystals of stilbene.
- Ivshin K.A.* Cryogenic time–projection chamber for measurement of muon capture rate on the deuteron.
- Janseitov D.M.* Optimization of the parameters of detectors array based on CsI (TI) for registration of charged particles in experiment aimed to determine 2p decay of the ^{17}Ne .
- Khankin V.V.* Operational experience with 55 MeV pulsed race-track microtron.
- Krusanov G.A.* Role of photonuclear reactions products in the equivalent dose calculation.
- Krylov V.* Development of the versatile leetech platform at the PHIL photoinjector.
- Kurilik A.S.* Optimal bremsstrahlung energies to measure atomic numbers of objects.
- Lebedev V.M. et al.* Using of the 120-cm cyclotron for the study of simultaneous ionizing radiation and hypomagnetic conditions effects on the simplest biological objects.
- Mitropolsky I.A.* The code BARON – the tool for model description of nuclear rotational bands.
- Mitropolsky I.A.* The code ELENA: radiation properties of elements and isotopes for the analysis with neutrons.
- Mitropolsky I.A.* The use of Ritz combinations for the analysis of nuclear level schemes.
- Morozova N.V.* Afterpulses of the H6780 and R7600U–200 metal channel photomultiplier tubes.
- Pop O.M.* Some problems of producing consistent values of the decay constants of radioactive nuclides.
- Pop O.M.* Standard sets of nuclides being the members of the ^{232}Th , ^{235}U , ^{238}U series. Their identification and use.
- Rumyantseva N.S.* Optimization of PSD method for BEGe detectors.
- Selyankina S.M.* Evaluated integral cross sections of $^9\text{Be}(d,\alpha_{0,1})$ reactions.
- Sergienko V.A.* Measurement of radioactive fallout in Leningrad region.
- Skvortsov V.A.* Compact gamma-ray lasers and gamma-ray holograms.
- Skvortsov V.A.* The material processing by using an exotic quasiparticles.
- Spirin D.O.* Analysis of multispectral radiosopic images using the segmentation data algorithm.
- Valiev F.F.* Estimation of model applicability linear current in a gas environment.
- Vlasenko T.S.* Heavy ion irradiation influence on the thermodynamic properties of saline solution.
- Zherebchevsky V.I.* Multi-purpose detector system for investigations of multinucleon transfer reactions.
- Zuyev S.V.* Optimization of a photoneutron W-Be-source of thermal neutron.
- Арлычев М.А., Огородников С.А.* Механизм компенсации угловой зависимости спектра тормозного излучения при расчете эффективного атомного номера материала методом двухэнергетической абсорбции.
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Section VI

Fundamental Problems of Nuclear Power Engineering

Dikiy N.P. Diffusion cesium, strontium and alkaline in magnesium phosphates system.

Kazbekova D. Nuclear materials protection and national security.

Байрамуков В.Ю. Structure of the carbon matrix made by pyrolyzed bis-phthalocyanine by atomic force microscopy.

Section VII

Experience and problems of high-quality training in nuclear physics, atomic power engineering and nuclear technologies

Zarubina I.G. Imaging of nuclear interactions in nuclear track emulsion.