



# LXXII International conference "Nucleus-2022: Fundamental problems and applications"

## Wednesday 13 July 2022

### Poster session: Neutrino physics and nuclear astrophysics (10:00-11:30)

[id] title	presenter	board
[152] Precision measurements of $^{210}\text{Bi}$ $\beta$ -spectrum for neutrino physics tasks.	DERBIN, Alexander	
[136] Precision measurement of $^{144}\text{Ce}$ – $^{144}\text{Pr}$ beta-spectrum	DRACHNEV, Ilia	
[10] LOW RADIOACTIVE AMMONIUM ACETATE FLUX	MIRZAYEV, Nijat MAMMADOV , Khaqani KARAIVANOV , Midko TEMERBULATOVA , Nargiza RAKHIMOV, Alimardon ROZOV, Sergey YAKUSHEV, Evgeniy FILOSOFOV, Dmitry	
[218] A NEW OUTLOOK ON THE SQUARE-WELL POTENTIAL APPROACH FOR ASTROPHYSICAL FUSION REACTION	TORILOV, Sergey	
[125] iDREAM detector today	KONSTANTINOV, andrei	
[114] DETERMINATION OF THE ENERGY OF HIGH-ENERGY PROTONS (1 TEV AND HIGHER) BY THE LFM METHOD	FEDOSIMOVA, Anastasiya	
[86] Radio detection of neutrinos in Antarctica	MIKHAILOVA, Maria	

### Poster session: Nuclear technology and methods in medicine, radioecology. (10:00-11:30)

[id] title	presenter	board
[38] ESTIMATES OF THE EXPECTED AVERAGE ANNUAL EFFECTIVE DOSE OF NATURAL RADIATION BACKGROUND OF EMPLOYEES IN THE ADMINISTRATIVE BUILDING, TAKING INTO ACCOUNT THE DISTRIBUTION OF RADON AND ITS DECAY PRODUCTS	ZARIPOVA, Yuliya	
[41] STUDY OF GENETIC EFFECTS IN BIOASSAYS ARISING FROM RADIATION THERAPY USING A LINEAR ACCELERATOR ELEKTA AXESSE	BIGELDIYEVA, Mirgul	
[42] STUDYING THE DOSE LOAD ON THE RESPIRATORY SYSTEM FROM HEAVY NATURAL RADIONUCLIDES DURING TOBACCO SMOKING	BIGELDIYEVA, Mirgul	
[190] STUDIES OF RADON CONCENTRATION IN RESIDENTIAL AND PUBLIC BUILDINGS LOCATED IN THE TIEN SHAN FOOTHILLS AND THE NEVA LOWLAND AREAS	Dr DYACHKOV, Vyacheslav	
[347] THE DOSE CALCULATION BASED ON CBCT IMAGES FOR LONG TARGET CASES: A PHANTOM STUDY	Mrs LISOVSKAYA, Anastasiya	

[442] APPLICATION OF LITHIUM-DOPED CRYSTALS IN TASKS OF SEPARATE DETECTION OF GAMMA-RAYS AND NEUTRONS	Mr LAGUTSKIY, Ilya	
[403] REFERENCE FIELDS FORMED AT THE DOSIMETRIC BETA-RADIATION FACILITY	ТИТКОВ, Руслан	
[325] APPLICATION OF SRI2(EU) CRYSTAL IN PROBLEMS OF GAMMA-RADIATION SPECTROMETRY	KOMAR, Damian	
[351] Agility multileaf collimator parameters optimization in the independent dose calculation system	Mrs LOGINOVA, Anna	

**Poster session: Synchrotron and neutron radiation sources and their use in scientific and applied fields (10:00-11:30)**

[id] title	presenter	board
[236] A LINEAR ELECTRON ACCELERATOR – TOP-UP INJECTOR FOR THE 4TH GENERATION SPECIALIZED SYNCHROTRON RADIATION SOURCE USSR	Mr ASHANIN, Iliia	
[180] INVESTIGATION OF CRYSTAL AND MAGNETIC STRUCTURES OF MULTIFERROIC MATERIAL UNDER HIGH PRESSURE	LIS, Olga	
[342] A LINEAR ELECTRON ACCELERATOR WITH AN ENERGY OF 8-50 MEV WITH INJECTION FROM AN ELECTRON SOURCE BASED ON CLUSTER PLASMA SYSTEMS	ASHANIN, Iliia	
[408] Determination of neutron detection efficiency of DEMON and PARIS detectors using a $^{252}\text{Cf}$ source	SAIKO, Olga	
[273] MEPHI'S OPTION OF LAB SCALE COMPTON SOURCE	Prof. POLOZOV, Sergey	

**Poster session: Applications of nuclear methods in science and technology (10:00-11:30)**

[id] title	presenter	board
[202] SiC Nuclear Radiation Detectors after Irradiation by Heavy Ions and Neutrons	Mr HRUBCIN, L.	
[215] THE MEASUREMENT OF THE LOW LEVELS OF RADIOACTIVITY BY LIQUID SCINTILLATION ALPHA AND BETA SPECTROMETER QUANTULUS 1220	GRUZDOV, Konstantin	
[122] THE APPROBATION OF ION-PLASMA TECHNOLOGY FOR REACTOR GRAPHITE DEACTIVATION	Dr PETROVSKAYA, Anna	
[51] Radiation resistance of SiC detectors under neutron irradiation	Mr EVSEEV, S.	
[389] MULTIPARAMETRIC REGISTRATION SYSTEMS IN RADIOCHEMISTRY	ERSHOV, Konstantin	
[434] SEARCH CRITERIA FOR MINERAL DEPOSITS IN THE ZONES OF MODERN AND ANCIENT VOLCANISM ON URANIUM AND THORIUM AND THEIR FISSION PRODUCTS	Prof. ЯФЯСОВ, Адиль	
[418] FLUCTUATIONS OF THE INDUCED CHARGE CAUSED BY FLUCTUATIONS OF THE X-RAY QUANTUM ABSORPTION POINT IN A PLANE-PARALLEL SEMICONDUCTOR DETECTOR	SAMEDOV, Victor	
[279] Position sensitive fast neutron detector based on the double-sided silicon strip detectors	ERBOLOT, Askar	

[277] <b>4π-METHODS FOR TOTAL REACTION CROSS SECTION MEASUREMENTS</b>	STUKALOV, Sergey	
[314] <b>SIMULATION OF THE FAST READOUT SYSTEM FOR MCP-BASED BEAM-BEAM COLLISIONS MONITOR FOR NICA EXPERIMENTS</b>	Mr MAKAROV, nikodim	
[338] <b>INTERACTION OF SERUM ALBUMIN AND GRAPHENE OXIDE: INVESTIGATION BY TRITIUM PROBE AND MOLECULAR DOCKING</b>	BUNYAEV, Vitalii	
[348] <b>TOF MEASUREMENT OF LOW-ENERGY NEUTRON SCATTERING BY DEFORMED NUCLEI</b>	Dr SKORKIN, Vladimir	
[40] <b>STUDY OF SORPTION PROPERTIES OF MODIFIED STRUCTURAL MATERIALS FOR NUCLEAR POWER ON GAMMA-QUANTUM BEAMS OF LINEAR ACCELERATOR</b>	ZARIPOVA, Yuliya	

**Poster session: Design and development of charged particle accelerators and ionizing radiation sources (10:00-11:30)**

[id] title	presenter	board
[156] <b>COMPACT NEUTRON CALIBRATION SOURCE BASED ON <math>^{252}\text{Cf}</math> RADIONUCLIDE AND A SILICON SEMICONDUCTOR DETECTOR</b>	Dr TRUSHIN, Maxim	
[253] <b>FOURIER-IR SPECTROSCOPIC STUDIES OF n-C<sub>6</sub>H<sub>14</sub> AND n-C<sub>6</sub>H<sub>14</sub> + H<sub>2</sub>O SYSTEMS</b>	Dr MELIKOVA, Sevinj	
[382] <b>The effect of the "FLAT-TOP" resonant system of the DC-280 accelerator on the accelerated ion beam</b>	ИГОРЕВИЧ, Павел	
[455] <b>INVESTIGATION OF SECONDARY ELECTRON EMISSION PROCESSES IN ACCELERATOR CHARGED PARTICLE BEAM MONITORING SYSTEMS</b>	Dr ZEMLIN, E. O.	

**Poster session: Experimental and theoretical studies of nuclear reactions (10:00-11:30)**

[id] title	presenter	board
[352] <b>NEUTRON SCATTERING ANALYSIS BY LIGHT NUCLEI USED COUPLED CHANNEL OPTICAL MODEL</b>	SKORKIN, Vladimir	
[340] <b>DETERMINATION OF THE ASYMPTOTIC NORMALIZATION COEFFICIENTS FOR <math>^{7}\text{Li}+p \rightarrow ^{8}\text{Be}</math> FROM THE PERIPHERAL DIRECT CAPTURE <math>^{7}\text{Li}(p,\gamma)^{8}\text{Be}</math> REACTION AND THE ASTROPHYSICAL S FACTOR AT LOW ENERGIES</b>	TURSUNMAKHATOV, Kakhramon	
[346] <b>A METHOD OF GAMMA-SPECTRUM PROCESSING BASED ON EXPONENTIAL SMOOTHING</b>	Dr MININ, Leonid	
[345] <b>Computer Simulation of PFN Detector</b>	SIDOROVA, Olga	
[194] <b>Preliminary data of the experiment to determine the cluster structure of the excited states of the <math>^6\text{Li}</math></b>	MORDOVSKOY, Michael	
[9] <b>Computer modeling of ttH Higgs boson production process in the framework of MSSM model</b>	Dr OBIKHOD, Tetiana	
[6] <b>Is Electroweak Interaction – a Kind of Cosmological Lambda Term in Maintaining Nuclear Existence and Stability?</b>	UVS, Seshavatharam	
[196] <b>Test experiment to determine the time distribution of the background between MMF accelerator pulses on the RADEX channel.</b>	MORDOVSKOY, Michael	

[94] DEPENDENCE OF THE CONVERSION WIDTHS ON THE FINE STRUCTURE OF THE ELECTRON SHELL	KARPESHIN, Feodor	
[137] SOME REGULARITIES IN THE FORWARD ANGLE YIELDS OF ISOTOPES WITH $4 < Z < 20$ IN THE REACTION OF $40\text{Ar}(40 \text{ A MEV})$ WITH $9\text{Be}$ .	BATCHULUUN, Erdemchimeg	
[424] SIMPLE METHOD FOR OBTAINING MASS DISTRIBUTIONS OF FISSION FRAGMENTS	ANDRONENKO, Lyudmila	
[95] HIDDEN VARIABLES IN ANGULAR CORRELATIONS OF FISSION PRODUCTS	KARPESHIN, Feodor	
[271] ON THE WIDTH OF $\gamma$ -LINE AND THE PHOTON STRUCTURE	KOLTSOV, Vladimir	
[229] $6\text{Li}(d,\alpha)4\text{He}$ REACTION CROSS SECTION EVALUATION IN 0-20 MeV DEUTERON ENERGY RANGE	Ms SELYANKINA, S. M.	
[433] STUDY OF THE EXCITATION OF ISOMERIC STATES IN $(\gamma, n)$ , $(n, 2n)$ AND $(n, \gamma)$ REACTIONS ON $^{198,200}\text{Hg}$ NUCLEI	Prof. PALVANOV, Satimboy	
[429] STUDY EXCITATION OF ISOMERIC STATES IN $(\gamma, n)$ , $(n, 2n)$ AND $(n, \gamma)$ REACTIONS ON $^{108,110}\text{Pd}$	Prof. PALVANOV, Satimboy	
[37] DIFFRACTION PROCESSES IN 12-C ELASTIC SCATTERING BY MEDIUM NUCLEI	Dr DYACHKOV, Vyacheslav	
[440] CHARGE DISTRIBUTIONS FOR NUCLEI-ISOBARS DURING $238\text{U}$ PHOTOFISSION	KUZNETSOV, Aleksander	
[446] ELECTRON AND POSITRON SPECTRA FROM PAMELA BY MULTIVARIATE DATA ANALYSIS METHODS	МУХИИ, Павел	
[27] Effect of double spin-orbit parameters on fusion barrier of prolate-prolate deformed nuclei	Dr MITTAL, Rajni	
[97] HYDROGEN ISOTOPES PRODUCTION UNDER $(\pi^-)$ - MESON ABSORPTION IN SILICON "LIVE" TAGET	Dr CHERNYSHEV, Boris	
[400] DESCRIPTION OF CHARGE-EXCHANGE REACTIONS IN TIME-DEPENDENT 2D MODEL	SAMARIN, Viacheslav	
[302] USING A $\Delta E(\text{SI})$ - $E(\text{CSI(TL)})$ TELESCOPE TO IDENTIFY LIGHT CHARGED PARTICLES	Mr ZEINULLA, Zhassulan	
[376] New approaches to neutron monitoring in low background neutrino experiments	PONOMAREV, Dmitrii	
[377] MODERNIZATION OF CORSET SETUP TO MEASURE CHARGE DISTRIBUTIONS OF FISSION FRAGMENTS USING BRAGG IONIZATION CHAMBER	Dr KIRAKOSYAN, Vahan Dr MUKHAMEJANOV, Yerzhan Mr OSTROUKHOV, Artem	

**Poster session: Intermediate and high energies, heavy ion collisions (10:00-11:30)**

[id] title	presenter	board
[154] QUARK-GLUON STRING MODEL (QGSM) AND ITS APPLICATION FOR INELASTIC DC INTERACTIONS AT A MOMENTUM OF 4.2 A GEV/S	BEKMIRZAEV, raxmatillo	
[456] TRANSVERSE MOMENTUM FLUCTUATIONS IN NICA AND SPS ENERGY RANGE	Dr ZVIAGINA, A. P.	
[109] COMPARISON OF SOME KINEMATICAL CHARACTERISTICS OF PROTONS IN COLLISIONS $n^{12}\text{C}$ AND $p^{12}\text{C}$ AT 4.2 GeV/s	BEKMIRZAEV, raxmatillo	

<b>[286] The Regge meson spectrum from holographic Wilson confinement criterion</b>	SOLOMKO, Timofey	
<b>[282] Confinement potential from holographic approach to strong interactions</b>	AFONIN, Sergey	
<b>[381] Ultra lightweight support structures and gaseous cooling system for the novel silicon pixel detectors</b>	MISHENEVA, Vera	

**Poster session: Nuclear structure: theory and experiment (10:00-11:30)**

[id] title	presenter	board
<b>[132] STRUCTURE AND SYNTHESIS OF MAGNETIZED HEAVY NUCLEI</b>	ULANOVA, Alina Mr KONDRATYEV , Vladimir	
<b>[77] INCOHERENT NEUTRAL PION PHOTOPRODUCTION ON THE TENSOR-POLARIZED DEUTERON AT VEPP-3</b>	GAUZSHTEIN, Vyacheslav	
<b>[44] RELATIVISTIC INVESTIGATION OF LOW NUCLEON SYSTEMS IN THE FORMALISM OF BETE-SALPETER-FADDEEV</b>	YUREV, Sergey	
<b>[299] ON THE ELASTIC ELECTROWEAK SCATTERING OF POLARIZED LEPTONS BY SPIN 7/2 NUCLEI</b>	Dr SAFIN, Minikhan	
<b>[328] Improved study of the collisional quenching of the pionic helium long-lived states</b>	YUDIN, S.N.	