

NUCLEUS 2018

JULY, 02 (Monday)

Plenary session I

10:00

10:00 – 10:15: Conference opening. **100 ANNIVERSARY OF VORONEZH STATE UNIVERSITY** V.N. Popov

10:15 – 10:45: **SYNTHESIS OF NEW ELEMENTS – PRESENT AND FUTURE**
Yu.Ts. Oganessian, V.K. Utenkov

10:50 – 11:20: **PECULARITY OF NUCLEAR REACTIONS INDUCED BY LOOSELY BOUND CLUSTER NUCLEI** Yu.E.Penionzhkevich

11:25 – 11:55: **THE DETERMINATIVE ROLE OF THE INTERFERENCE EFFECTS IN THE DESCRIPTION OF THE T-ODD ASYMMETRIES IN THE REACTIONS OF TERNARY FISSION OF NUCLEI BY COLD POLARIZED NEUTRONS**
Kadmensky S.G., Titova L.V., Bunakov V.E.

12:00 – 12:20: *Coffee break*

12:20 – 12:50: **NEW NN INTERACTION BASED ON CHIRAL EFFECTIVE FIELD THEORY FOR DESCRIPTION OF LIGHT NUCLEI**
Shirokov A. M.

12:55 – 13:25: **ABOUT TERNARY FISSION OF NUCLEI INDUCED BY NEUTRONS**
Danilyan G.V.

13:30 – 14:00: **FIRST EXPERIMENTS AT THE NEW FRAGMENT SEPARATOR ACCULINNA-2**
Fomichev A.S. for Acculinna-2 collaboration

14:30 – 15:00 – *Lunch*

JULY, 02 (Monday)

Section I

Experimental investigations of atomic nucleus properties

Oral Session

15:30

15:30 – 15:45 **INVESTIGATION OF THE EFFECT OF COHERENT ELECTROMAGNETIC RADIATION BY RADIOACTIVE DECAY OF ^{152}Eu .**

Barmina E.V., Simakin A.V., Smirnov A.A., Stegailov V.I., Tyutyunnikov S.I., Shafeev G.A., Scherbakov I.A.

15:50 – 16:05 **FORMATION OF ROTATIONAL BANDS IN THE ^9Be NUCLEUS**

Starastsin V.I., Demyanova A.S., Ogloblin A.A., Danilov A.N., Dmitriev S.V.

16:10 – 16:25 **^8He SPECTROSCOPY IN STOPPED PION ABSORPTION BY $^{12,14}\text{C}$**

Chernyshev B. A., Gurov Yu. B., Lapushkin S. V., Leonova T. I., Sandukovsky V. G.

16:30 – 16:50 *Coffee break*

16:50 – 17:10 **PHOTONUCLEAR REACTIONS ON PALLADIUM ISOTOPES**

Belyshev S.S., Ishkanov B.S., Kuznetsov A.A., Fursova N.J., Khankin V.V.

17:15 – 17:30 **CLUSTER STATES IN LIGHT NUCLEI**

Demyanova A.S.

17:35 – 17:50 **SEARCH FOR EXCITED STATES WITH ENHANCED RADII IN ^{12}B AND ^{12}N**

Danilov A.N., Demyanova A.S., Ogloblin A.A., Belyaeva T.L., Goncharov S.A.

17:55 – 18:10

E_0 TRANSITIONS IN EVEN–EVEN NUCLEI OF DYSPROSIUM WITH $A = 156, 158, 160$

Kalinnikov V.G. , Stegailov V.I., Sushkov A.V. and Shirikova N.Yu.

18:15 – 18:30 **THE DECAY OF HIGH SPIN (9+) STATES OF $^{156,158,160}\text{Ho}$**

Kalinnikov V.G., Vaganov Y.A., Hons Z., Sushkov A.A., Stegailov V.I., Yushkevich Yu.V.

18:30 - 19:00 *Dinner*

Section III

Theory of atomic nucleus and fundamental interactions

Oral Session

15:30

15:30 – 15:45 **DAMPING PARAMETERS OF THE CHARGE-EXCHANGE GIANT MONOPOLE RESONANCES WITHIN A SEMI-MICROSCOPIC APPROACH**

Kolomiitsev G.V., Gorelik M.L., Urin M.H.

15:45 – 16:00 **ACTUAL STATUS OF “DANSS” PROJECT**

V. Belov on behalf of DANSS collaboration

16:00 – 16:15 **THE QUARK CONFIGURATIONS AND COLOR SUPERSELECTION RULES**

Nikitin A.S., Sitdikov A.S.

16:15 – 16:30 **HADRON MASSES AND NN POTENTIALS IN THE VACUUM BUBBLE**

MODEL

M. V. Kosov

16:30 – 16:50 *Coffee break***16:50 – 17:10 MASS RELATIONS FOR ESTIMATION OF NUCLEON-NUCLEON CORRELATIONS IN NUCLEI**Sidorov S.V., Tretyakova T.Yu., Vladimirova E.V., Ishkhanov B.S.**17:15 – 17:30 INVESTIGATION OF NEUTRINO PROPERTIES AT KNPP IN GEMMA-III EXPERIMENT**Lubashevskiy A.V. for the GEMMA-III collaboration**17:35 – 17:50 NEW RESULTS OF THE SEARCH FOR NEUTRINOLESS DOUBLE BETA DECAY FROM GERDA PHASE II**

Rumyantseva N. on behalf of the GERDA Collaboration

17:55 – 18:10 NEUTRON STAR MATTER AND BARYONIC INTERACTIONSImasheva L.T., Lanskoj D.E., Mikheev S.A., Tretyakova T.Yu.18:10 – 18:30 *JOINT TALK***ON RESONANT PROPERTIES OF NUCLEAR INTERNAL CONVERSION AND ON POSSIBILITY OF ITS RESONANT STIMULATION**

Koltsov V.V.

ON STIMULATION OF NUCLEAR ISOMER DE-EXCITATION IN PLASMA OF ELECTRIC EXPLOSION OF CONDUCTORS

Koltsov V.V.

18:30 - 19:00 *Dinner*

Section IV
Nuclear reactions theory
Oral Session
15:30

15:30 – 15:45 ISOVECTOR QUANTAL FLUCTUATIONS IN THE SUPERHEAVY DI-NUCLEAR SYSTEMS AND THE FISSION FRAGMENT CHARGE DISTRIBUTIONS.

Rubchenya V.A.

15:50 – 16:05 INVESTIGATION OF THE THRESHOLD BEHAVIOR OF $^{234}\text{U}(n,f)$ REACTION

Onegin M. S.

16:10 – 16:25 DESCRIPTION OF CONTINUUM STATES WITHIN NO-CORE SHELL MODEL. SINGLE-STATE HORSE METHOD.A. I. Mazur, A. M. Shirokov, I. A. Mazur, L. D. Blokhintsev, I. J. Shin, Y. Kim, J. P. Vary16:30 – 16:50 *Coffee break*

16:50 – 17:10 **CONTRIBUTION OF TRANSFER DIRECT MECHANISMS TO $^{15}\text{N}(\alpha,p)^{18}\text{O}$ REACTION PROTON SPECTRA**

Ognev V.Yu., Galanina L.I., Zelenskaya N.S.

17:15 – 17:30 **POLARIZING CHARACTERISTICS OF $^{24}\text{Mg}(2^+)$ NUCLEUS FORMED IN $^{27}\text{Al}(p, \alpha)^{24}\text{Mg}(2^+)$ REACTION**

Galanina L.I., Zelenskaya N.S., Lebedev V.M., Orlova N.V., Spassky A.V.

17:35 – 17:50 **PROTON TRANSFER IN REACTIONS $^3\text{He} + ^{197}\text{Au}$, ^{194}Pt**

Naumenko M.A., Samarin V.V., Penionzhkevich Yu.E., Skobelev N.K.

17:55 – 18:10 **COMPARISON OF APPROACHES BASED ON DIFFERENT ALGEBRAIC VERSIONS OF THE RESONATING GROUP MODEL FOR RADIATIVE CAPTURE**

Solovyev A.S., Igashov S.Yu.

18:15 – 18:30

18:30 - 19:00 *Dinner*

JULY, 03 (Tuesday)

Plenary session II

9:00

9:00 – 9:20: **THE 80TH ANNIVERSARY OF THE PROFESSOR K.A. GRIDNEV**

A.K. Vlasnikov

9:20 – 9:50: **INFLUENCE OF THE STRUCTURE OF LIGHT WEAKLY BOUND NUCLEI ON THE BEHAVIOR OF NUCLEAR REACTIONS**

Skobelev N.K.

9:55 – 10:25: **PARTICLE-HOLE DISPERSIVE OPTICAL MODEL FOR GIANT RESONANCES**

Urin M.H.

10:30 – 11:00: **NUCLEAR CLUSTERING IN AB INITIO CALCULATIONS**

Rodkin D. M., Tchuvil'sky Yu. M.

11:00 – 11:30 **INTERACTION OF π^\pm - AND K^+ -MESONS WITH $^{13,15}\text{C}$, ^{15}N NUCLEI AT INTERMEDIATE ENERGIES IN THE GLAUBER THEORY**

Ibraeva E.T., Imambekov O.

11:30 – 11:50: *Coffee break*

11:50 – 12:20: **RESONANCE STRUCTURE OF THE CHARGE-EXCHANGE STRENGTH FUNCTION**

Lutostansky Yu. S.

12:20 – 12:50: **CONNECTION OF EXPERIMENTAL CHARACTERISTICS OF P-EVEN**

T-ODD ASYMMETRIES FOR TERNARY FISSION OF NUCLEI BY COLD POLARIZED NEUTRONS WITH TRIPLE AND QUINARY SCALAR CORRELATIONS
Kadmensky S.G., Lubashevsky D.E., Kostryukov P.V.

12:50 – 13:20: **MEASUREMENT OF T-ODD EFFECTS IN THE NEUTRON INDUCED FISSION OF ^{235}U AT A HOT SOURCE OF POLARIZED RESONANCE NEUTRONS**
 Kopatch Yu.N. Novitsky V.V., Ahmadov G.S., Gagarski A.M., Berikov D.B., Zhumadilov K.Sh., Danilyan G.V., Hutanu V., Klenke J., Masalovich S.

13:25 – 13:55: **PERSPECTIVES OF DEVELOPMENT OF RADIATION TECHNOLOGIES IN RUSSIA** Chernyaev A.P., Borshchevskaya P.Yu., Lykova E.N., Varzar S.M., Zheltonozhskaya M.V.

14:00 – 14:30: **NONPROLIFERATION REGIME AND EXPORT CONTROL**
 Avrorin E.N., Churikov Yu.I.

14:30 – 15:00 – *Lunch*

JULY, 03 (Tuesday)

Section I

Experimental investigations of atomic nucleus properties

Oral Session

15:30

15:30 – 15:45 **NEUTRON RADII OF Ca AND Zr ISOTOPES NEAR THE NEUTRON DRIP-LINE WITHIN THE DISPERSIVE OPTICAL MODEL**
 Bepalova O.V., Klimochkina A.A.

15:50 – 16:05 **MODULATION OF ANGULAR DISTRIBUTIONS OF SCATTERED ALPHA PARTICLES BY MULTICLUSTER NUCLEI**
Dyachkov V.V., Dusebayeva K.S., Akhmetzhanova M.M.

16:10 – 16:25 **STRUCTURE OF β -DECAY STRENGTH FUNCTION $S_{\beta}(E)$ IN HALO NUCLEI**
 Izosimov I.N.

16:30 – 16:50 *Coffee break*

16:55 – 17:15 *Joint talk* **COLLECTIVE STATES IN ^{156}Dy**
Efimov A.D., Stegailov V.I.

COLLECTIVE STATES IN ^{158}Dy
Efimov A.D., Stegailov V.I.

17:20 – 17:35 **CLUSTERIZATION AND CRYSTALLIZATION OF NUCLEI**
 Penionzhkevich Yu.E., Yushkov A.V.

17:40 – 17:55 **SEARCH FOR LIGHT MULTINEUTRONS IN FISSION OF ^{238}U INDUCED BY NEUTRONS FROM THE IR-8 REACTOR**
Novatsky B.G., Govor L.I., Kurkin V.A., Nikolskii E.Yu., Sakuta S.B., Stepanov D.N.

18:30 - 19:00 *Dinner*

Section II
Experimental investigations of nuclear reactions mechanisms.
Oral Session
15:30

15:30 – 15:45 RADIAL FLOW IN THE INTERACTION OF RELATIVISTIC DEUTERONS WITH A GOLD TARGET

Avdeyev S.P., Karcz W., Kirakosyan V.V., Rukoyatkin P.A., Stegaylov V.I., Botvina A.S.

15:50 – 16:05 INVESTIGATIONS OF THE NUCLEAR REACTION EXCITATION FUNCTIONS WITH MEDICAL RADIONUCLIDES WHICH FORMED IN THE EXIT CHANNELS

Zherebchevsky V.I., Alekseev I.E., Kalinin V.A., Krymov E.B., Lazareva T.V., Lebedev L.S., Maltsev N.A., Nesterov D.G., Panin R.B., Prokofev N.A., Sevastianova K.K., Torilov S.Yu.

16:10 – 16:25 Three-body correlations in ${}^6\text{Be}$ populated in (p,n) reaction

Chudoba V. for ACCULINNA group

16:30 – 16:50 *Coffee break*

16:50 – 17:10 ANGULAR CORRELATIONS IN THE 14.1 MEV NEUTRONS INELASTIC SCATTERING ON Al

N.A. Fedorov, T.Yu. Tretyakova, Yu.N. Kopatch, V.M. Bystritsky, D.N. Grozdanov, F.A. Aliyev, I.N. Ruskov, V.R. Skoy, C. Hramco, A. Kumar, A. Gandhi, D. Wang, E.P. Bogolyubov, D.I. Yurkov and TANGRA collaboration

17:15 – 17:30 SYSTEMATICS OF NEPTUNIUM AND PLUTONIUM TRACER CROSS SECTIONS IN THE p AND ${}^3\text{He}$ INDUCED REACTIONS

Jakovlev V.A., Rubchenya V.A.

17:35 – 17:50 FISSION MODES IN PHOTOFISSION OF ${}^{238}\text{U}$ BELOW 20 MEV

Belyshev S.S., Ishkanov B.S., Kuznetsov A.A., Khankin V.V., Popova M.M.

17:55 – 18:10 INVESTIGATIONS OF ${}^{15}\text{N}$ IONS BY ${}^{16}\text{O}$ AT THE ENERGIES 1.25 AND 1.75 MeV/nuc

N. Burtebayev, A.K. Morzabayev, Zh. K. Kerimkulov, N. Amangeldi, J. Burtebayeva, M. Nassurlla, B. Mauyey, Ye. Kok, N.A.Sailaukhanov

18:15 – 18:30 TWO VARIANTS OF A MATRIX DETECTOR FOR DETECTING TWO COINCIDENT PROTONS IN THE $d + d \rightarrow p + p + n + n$ REACTION: SIMULATION OF THE EXPERIMENT, SELECTION OF SETUP PARAMETERS, TESTING OF PROTOTYPES

Mitcuk V.V., Kasparov A.A., Konobeevski E.S., Mordovskoy M.V., Zuev S.V.

18:30 - 19:00 *Dinner*

Section III
Theory of atomic nucleus and fundamental interactions
Oral Session
15:30

15:30 – 15:45 **AB INITIO CALCULATION OF PARTIAL WIDTHS OF NUCLEON RESONANCES OF LIGHT NUCLEI**

Rodkin D. M., Tchuvil'sky Yu. M.

15:50 – 16:05 **SOFTWARE FOR CALCULATING AND VISUALIZING MASS DIFFERENCE CHARACTERISTICS**

Vladimirova E.V., Dashkov I.D., Ishkhanov B.S., Tretyakova T.Yu.

16:10 – 16:25 **ELECTRONIC CATALOGUE OF MUONIC X-RAYS**

Zinatulina D.R., Brudanin V.B., Egorov V.G., Perevoschikov L.L., Petitjean C., Shirchenko M.V., Yutlandov I.A.

16:30 – 16:50 *Coffee break*

16:50 – 17:15 *Joint talk* **PAIRING ENERGIES VIA NEUTRON EXCESS FOR**

$150 \leq A \leq 190$ Vlasnikov A.K., Zippa A.I., Mikhajlov V.M.

$(j-1)$ ANOMALY AND PAIRING ENERGY

Vlasnikov A.K., Efimov A.D., Zippa A.I., Mikhajlov V.M.

17:15 – 17:30 **NEUTRINO INTERACTION WITH ATOMIC NUCLEI**

Semenov S.V.

17:35 – 17:50 **SUPPRESSION OF WEAK FORCES IN NUCLEI**

Krygin G.B., Kurteva A.A., Mitroshin V.E.

17:55 – 18:10 **PROPERTIES OF HEAVY AND SUPER-HEAVY NUCLEI WITH N=149, 151, AND 153**

Markova M., Tretyakova T., Shneydman T., Antonenko N.

18:15 – 18:30 **SEARCH FOR PERIODICAL VARIATIONS OF Fe-55 ISOTOP WEAK DECAY PARAMETERS**

S. Mayburov

18:30 - 19:00 *Dinner*

JULY, 04 (Wednesday)**Section II****Experimental investigations of nuclear reactions mechanisms.****Oral Session****9:00**

9:00 – 9:15 **A MEASUREMENT OF NEUTRON SPECTRUM OF W-Be SOURCE DETERMINING INPUT ENERGY FROM ENERGIES OF SECONDARY PARTICLES IN $n + {}^1\text{H} \rightarrow n + p$ REACTION**

Mordovskoy M.V., Zuyev S.V., Konobeevski E.S., Mitcuk V.V., Surkova I.V.

9:20 – 9:35 **PHOTO-EXCITATION OF Cd AND In NUCLEI BY REAL AND VIRTUAL PHOTONS IN THE 4 – 9 MeV ENERGY REGION**

Konobeevski E.S., Mordovskoy M.V., Nedorezov V.G., Ponomarev V.N., Solodukhov G.V., Zuyev S.V.

9:40 – 10:00 **PHOTO-EXCITATION OF Cd AND In NUCLEI BY REAL AND VIRTUAL PHOTONS STUDY OF THERMAL NEUTRON SPECTRUM OF THE W-Be PHOTONEUTRON SOURCE OF INR RAS**

Afonin A.A., Konobeevski E.S., Zuyev S.V.

A SETUP FOR CHARGED PARTICLES AND NEUTRONS DETECTION FOR STUDY p, d AND ${}^4\text{He}$ REACTIONS ON LIGHT NUCLEI

Konobeevski E.S., Afonin A.A., Kasparov A.A., Lebedev V.M., Mitcuk V.V., Mordovskoy M.V., Spassky A.V., Zuyev S.V.

10:05 – 10:25 *Joint talk* **STUDY OF LIGHT NUCLEI CLUSTER STRUCTURE IN d - ${}^9\text{Be}$ INTERACTION**

Konobeevski E.S., Afonin A.A., Kasparov A.A., Lebedev V.M., Mitcuk V.V., Mordovskoy M.V., Spassky A.V., Zuyev S.V.

FISSION OF ${}^{235,238}\text{U}$ AND ${}^{232}\text{Th}$ NUCLEI BY REAL AND VIRTUAL PHOTONS IN THE THRESHOLD ENERGY REGION

Konobeevski E.S., Mordovskoy M.V., Nedorezov V.G., Ponomarev V.N., Solodukhov G.V., Zuyev S.V.

10:30 – 10:45 **EXPERIMENTAL STUDIES OF π^0 and η MESON PRODUCTION IN U+U COLLISIONS AT 192 GeV**

Berdnikov A.Ya., Berdnikov Ya.A., Kotov D.O., Radzevich P.V., Zharko S.V.

10:50 – 11:05 **EXPERIMENTAL STUDIES OF K_S и ω MESON PRODUCTION IN Cu+Au COLLISIONS AT 200 GeV**

Berdnikov A.Ya., Berdnikov Ya.A., Kotov D.O., Radzevich P.V., Zharko S.V.

11:10 – 11:25 **INFLUENCE OF NUCLEAR TEMPERATURE ON ISOSCALING PARAMETER IN PHOTOFISSION**

Droynan J., Khomenkov V.P., Zheltonozhsky V.A., Zhemenik V.I.

11:30 – 11:50 *Coffee break*

11:55 – 12:10 **ISOMERIC CROSS SECTION RATIOS FOR THE NUCLEAR REACTION**

$^{41}\text{K}(\alpha, n)^{44\text{m}}\text{Sc}$

Chuvilskaya T.V.

12:15 – 12:30 **ANGULAR p - γ -CORRELATION IN THE REACTION**

$^{13}\text{C}(d, p_3)^{14}\text{C}(3^-; 6.73 \text{ MeV})$

Galanina L.I., Zelenskaya N.S., Lebedev V.M., Orlova N.V., Spassky A.V., Tyurin I.S.

12:35 – 12:50 **TOTAL REACTION CROSS SECTIONS FOR $^{6,8}\text{He}$, $^{8,9}\text{Li}$, $^{7,9-12}\text{Be}$ NUCLEI ON SI AND TA**

Issatayev T., Hue B.M., Lukyanov S.M., Mendibayev K., Artukh A.G., Borcea C., Cuong P.V., Erdemchimeg B., Kuterbekov K., Maslov V.A., Ostashko V., Penionzhkevich Yu.E., Sereda Yu., Mrazek J. and Thiep T.D.

12:55 – 13:10 **SPLITTING OF FRAGMENTATION PEAKS IN $^{56}\text{Fe} + ^9\text{Be}$ COLLISIONS AT 0.23 GEV/NUCLEON**

Abramov B.M., Borodin Yu.A., Bulychjov S.A., Dukhovskoy I.A., Krutenkova A.P., Kulikov V.V., Martemianov M.A., Matsyuk M.A., Turdakina E.N.

13:15 – 13:30 **THE BREMSSTRAHLUNG SPECTRA REPRESENTATIONS AND RELATED YIELDS OF PHOTONUCLEAR REACTIONS**

Belyshev S.S., Dzhilavyan L.Z., Stopani K.A.

13:35 – 13:50 **ESTIMATION OF $^{238}\text{U}(\gamma, f)$ AND $^{238}\text{U}(\gamma, n)$ REACTIONS CROSS SECTIONS**

Popova M.M., Belyshev S.S., Ishkanov B.S., Kuznetsov A.A., Khankin V.V.

14:00 – 14:30 *Lunch*

Section III

Theory of atomic nucleus and fundamental interactions

Oral Session

9:00

9:00 – 9:15 **THE NEW TYPES OF GERMANIUM DETECTORS TO SEARCH FOR A NEUTRINOLESS DOUBLE BETA DECAY**

Rumyantseva N.

9:20 – 9:35 **SOLAR NEUTRINO CAPTURE CROSS-SECTION FOR ^{76}Ge NUCLEI**

Fazliakhmetov A.N., Inzhechik L.V., Koroteev G.A., Lutostanky Yu.S., Tikhonov V.N., Vyborov A.K.

9:40 – 9:55 **THE SPECTRUM OF UNSTABLE ISOTOPES ^9He AND ^{10}He**

Sharov P.G., Grigorenko L.V., Egorova I.A., Rymzhanova S.A., and Sidorchuk S.I.

10:00 – 10:15 **BYUON ENERGY: DARK ENERGY, COSMIC RAYS UP TO ULTRAHIGH ENERGY, GAMMA-RAY BURSTS, RESULTS OF TERRESTRIAL EXPERIMENTS**

Baurov Yu.A.

10:20 – 10:35 NUCLEAR REACTIONS WITH NEUTRONS IN ENVELOPES OF ACCRETING NEUTRON STARS

Chugunov A.I.

10:40 – 10:55 DESCRIPTION OF BANDCROSSING OF Ba ISOTOPES BY MICROSCOPIC VERSION OF IBM1

Efimov A.D., Mikhajlov V.M.

11:00 – 11:15 SPLINE APPROXIMATION METHOD FOR SOLVING HYPERRADIAL EQUATIONS FOR 3- AND 4-BODY SYSTEMS

Samarin V.V.

11:30 – 11:50 *Coffee break*

11:55 – 12:10 ASTROPHYSICAL S-FACTOR OF THE DIRECT $\alpha(d, \gamma)^6\text{Li}$ CAPTURE REACTION IN A THREE-BODY MODEL

E.M. Tursunov, D. Baye, S.A. Turakulov

12:15 – 12:30 EXCITATION OF NUCLEAR ISOMERIC STATES IN FIELD OF SYNCHROTRON RADIATION

Kopytin I.V.

12:35 – 12:50 CROSS-SECTIONS FOR THE SOLAR NEUTRINOS CAPTURE BY NUCLEI AND CHARGE-EXCHANGE RESONANCES

Lutostansky Yu.S., Osipenko A.P., Tikhonov V.N.

12:55 – 13:10 CALCULATION OF $E\lambda$ -TRANSITIONS IN HEAVY NUCLEI

Adamian G.G., Antonenko N.V., Jolos R.V., Malov L.A.

13:15 – 13:30 SUPERALGEBRAIC FORM OF THE DIRAC EQUATION

Monakhov V.V.

13:35 – 13:50 THE LEPTON CHARGES IN THE PATTERN OF CURRENTS DESCRIPTIONS OF THE WEAK PROCESSES

Romanov Yu.I.

14:00 – 14:30 *Lunch*

Section V

Technique and methods of experiment and their applications in nuclear physics and related fields of science and technology

Oral Session

9:00

9:00 – 9:15 LONGEVITY STUDIES OF MULTIWIRED PROPORTIONAL CHAMBERS OF THE CMS EXPERIMENT AT THE LHC

Gavrilov G.E., Buzoveria M.E., Kireicheva V.I., Nasybulin S.A.

9:20 – 9:35 FORMATION OF OXIDE NANOSTRUCTURES ON THE SURFACE OF RADIATION-OXIDATED ALUMINUM

Gadzhieva N.N.

9:40 – 9:55 INVESTIGATION OF THE PHYSICAL PROPERTIES OF GAS-DISCHARGE PARTICLE DETECTORS USING THE MONTE CARLO METHOD

Tavtorkina T.A., Krivshich A. G., Illin D.S., Maisuzenko D.A.

10:00 – 10:15 INVESTIGATION OF FULLERENOLS AND ENDOFULLERENOLS SELF-ASSEMBLY IN AQUEOUS SOLUTIONS BY THE NUCLEAR PHYSICS METHODS

Suyasova M.V., Lebedev V.T., Sedov V.P., Kuklin A.I., Kyzyma O.A., Tropin T.V.

10:20 – 10:35 CHANGES IN CHARACTERISTICS OF BONE GRAFTS DURING RADIATION STERILIZATION

I.V. Matveichuk, V.V.Rozanov, A.P. Chernyaev, Ju.Ju. Litvinov

10:40 – 10:55 INVESTIGATION OF NEUTRINO PROPERTIES AT KNPP IN GEMMA-III EXPERIMENT

Lubashevskiy A.V. for the GEMMA-III collaboration

11:00 – 11:15 PRODUCTION AND THERMOCHROMATOGRAPHIC SEPARATION OF NO-CARRIER-ADDED ^{90}Nb via $^{93}\text{Nb} (p, 4n) ^{90}\text{Mo}$

Chuprakov I.A., Karaivanov D.V., Aksenov N.V., Filosofov D.V.

11:30 – 11:50 *Coffee break*

11:55 – 12:10 IR-SPECTROSCOPIC STUDY OF nano-ZrO₂ + nano-Al₂O₃ SYSTEMS UNDER THE INFLUENCE OF GAMMA IRRADIATION

Agayev T.N., Gadzhieva N.N., Melikova S.Z., Imanova G.T.

12:15 – 12:30 The study of the mechanism of water adsorption on the surface of nano-Zr by IR spectroscopy

Agayev T.N., Huseynov V.I.

12:35 – 12:50 RANDOM COINCIDENCES OF EMPIRICAL DISTRIBUTION VECTORS OF EVENT FLOW COUNTS

Akindinova E.V., Babenko A.G., Vakhtel V.M., Rabotkin V.A.

12:55 – 13:10 THE IMPACT OF 1 MEV ELECTRON BEAM ON MICROBIOLOGICAL PARAMETERS OF CHILLED TROUT

Chernyaev A.P., Bliznuk U.A., Borschegovskaya P.Yu., Studenikim F.R., Yurov D.S.

13:15 – 13:35 Joint talk_RADIATION RESISTANCE OF THE POLYMER MATERIAL UNDER NEUTRON IRRADIATION

Skorkin V.M.

DISTRIBUTION OF DT NEUTRONS IN THE COMBINED MODERATOR

Skorkin V.M.

13:40 – 13:55 **ELECTRONIC PROCESSES OCCURING IN GaSYb MONOCRYSTAL WITH IRRADIATED HIGH-ENERGY RAYS**

Madatov R.S., Tagiyev T.B., Khaliqzadeh A.Sh.

14:00 – 14:30 *Lunch*

JULY, 04 (Wednesday)

Section II

Experimental investigations of nuclear reactions mechanisms.

Oral Session

15:30

15:30 – 15:55 *Joint talk* **EVALUATION OF THE SECTION OF THE REACTION $\text{Li}(n, \alpha)\text{T}$**

Abdullaev H.S., Najafov B.A., Ibragimov N.A.

ESTIMATION OF ELASTIC SCATTERING OF NEUTRONS SILVER IN THE OPTICAL MODEL

Abdullaev Kh.Sh., Najafov B.A., Ibrahimov N.A.

16:00 – 16:25 *Joint talk* **NEW PHOTONEUTRON REACTION CROSS SECTION DATA FOR ^{153}Eu and ^{165}Ho**

Varlamov V.V., Davydov A.I.

EVALUATION OF RELIABLE PARTIAL AND TOTAL PHOTONEUTRON REACTION CROSS SECTIONS FOR $^{145,148}\text{Nd}$

Varlamov V.V., Kaydarova V.D.

16:30 – 16:50 *Coffee break*

16:50 – 17:10 **ENERGY DEPENDENCE OF TOTAL REACTION CROSS SECTION FOR $^{6,8}\text{He} + \text{Si}$ AND $^{9,11}\text{Li} + \text{Si}$ MEASURING BY MULTI SET-UP**

Yu. E. Penionzhkevich, Yu. G. Sobolev, D. Aznabaev, A.A. Bezbakh, M.P. Ivanov, A. Kugler,

N.A. Lashmanov, A. Maj, V.A. Maslov, N.K. Skobelev, I. Sivacek,

R.S. Slepnev¹, V.V. Smirnov¹, S.I. Stukalov^{1,5},

A.S. Fomichev, V.A. Zernyshkin

17:15 – 17:35 **POPULATION OF $^{177\text{m}}\text{Lu}$ IN REACTION WITH BREMSSTRAHLUNG PHOTONS**

Zheltonozhsky V.A., Savrasov A.M.

17:40 – 17:55 **HOYLE-STATE IN DISSOCIATION OF RELATIVISTIC ^{12}C NUCLEI**
Zaitcev A.A

18:00 – 18:15

18:30 - 19:00 *Dinner*

Section V

Technique and methods of experiment and their applications in nuclear physics and related fields of science and technology

Oral Session

15:30

15:30 – 15:45 **STUDY OF THE HYPERFINE INTERACTION DEPENDENCE OF THE CRYSTALLITE SIZE AND APPLIED TEMPERATURE IN CoFe_2O_4 by $\gamma\gamma$ -TDPAC**
Temerbulatova N. T., Velichkov A. I., Karaivanov D. K., Kochetov O. I., Salamatina D. A.,
 Tsvetkov M. P., Milanova M. M., Filosofov D. V.

15:50 – 16:05 **DOSIMETER OF IONIZING RADIATION**
Gitlin V.R., Kadmsky S.G., Hamad Amin A.S.

16:10 – 16:25 **THE USAGE OF THE MOS STRUCTURE AS A SENSITIVE ELEMENT OF UV-DOSIMETER**
Gitlin V.R., Kadmsky S.G., Elfimov A.V.

16:30 – 16:50 *Coffee break*

16:55 – 17:10 **LOW NEUTRON FLUX MEASUREMENTS IN UNDERGROUND LABORATORY IN MODANE USING IODINE-CONTAINING SCINTILLATORS**
Ponomarev D., Filosofov D., Kalaninova Z., Medvedev D., Rozova I., Rozov S., Timkin V.,
 Yakushev E.

17:15-17:30 **STUDYING THE POSSIBILITIES OF COMPTON TOMOGRAPHY VIA SIMULATION**
 Dolgopopolov M.A., Minin L.A., Krynina T.V.

17:35-17:50 **STUDY OF THE POSSIBILITY OF USING VARIOUS AEROSOL FILTERS IN NEUTRON ACTIVATION ANALYSIS**
 Afonin A.A., Andreev A.V., Burmistrov Yu.M., Konobeevski E.S., Mordovskoy M.V.,
 Pletnikov E.V., Zuyev S.V.

17:55-18:10

18:15 – 18:30

18:30 - 19:00 *Dinner*

JULY, 04 (Wednesday)

Poster Session

17:00

JULY, 05 (Thursday)

Section IV
Nuclear reactions theory
Oral Session

9:00

9:00 – 9:15 CLUSTERING IN MULTIDIMENSIONAL POTENTIAL ENERGY SURFACE CALCULATIONS

A.V. Unzhakova, O.N. Granichin

9:20 – 9:35 COMPARATIVE MDWBA ANALYSIS OF NUCLEON TRANSFER REACTIONS ON $^{24,25}\text{Mg}$ FOR ANC OBTAINING

Tojiboyev O.R., Artemov S.V., Burtebayev N., Karakhodzhaev A.A., Ergashev F.Kh.

9:40 – 9:55 THE DESCRIPTION OF TWO-PROTON VIRTUAL DECAYS OF THE SPHERICAL NUCLEI IN THE FRAMEWORK OF THE SUPERFLUID MODEL OF NUCLEI

Ivankov Yu.V., Kadmensky S.G.

10:00 – 10:15 THE COLLATION OF CHARACTERISTICS OF T-ODD ASYMMETRIES IN CROSS SECTIONS OF TERNARY FISSION REACTIONS BY COLD POLARIZED NEUTRONS FOR THE CASES OF THE EMISSION OF PRESSION AND EVAPORATION THIRD PARTICLES

S.G. Kadmensky, V.E. Bunakov, D.E. Lyubashevsky

10:20 – 10:35 ON DIRECT ONE-NEUTRON DECAY OF THE GIANT DIPOLE RESONANCE

Tulupov B.A., Urin M.H.

10:40 – 10:55 TRENDS IN MECHANISMS OF $^9\text{Be}(d, ^4\text{He})^7\text{Li}$ TRANSFER REACTION

Urazbekov B.A., Denikin A.S., Itaco N., Lukyanov S.M., Sakhiyev S.K.

11:00 – 11:20 ABOUT POSSIBILITY OF HEAVY MESON RESONANCES'S DISPLAY AT HIGH ENERGY ELASTIC NUCLEON – NUCLEON SCATTERING

Golovanova N.F.

ELASTIC AND INELASTIC NUCLEONS AND ALFA PARTICLES SCATTERING ON CLUSTER'S NUCLEI IN SELF CONSISTENT METHOD OF THREE PARTICLES SCHRODINGER EQUATION'S SOLUTION

Golovanova N.F., Golovanov A.A.

11:30 – 11:50 *Coffee break*

11:50 – 12:05 MULTINUCLEON TRANSFER IN REACTIONS $^{40}\text{Ca} + ^{96}\text{Zr}$, $^{40}\text{Ca} + ^{124}\text{Sn}$, $^{40}\text{Ca} + ^{208}\text{Pb}$

Samarin V.V.

12:10 – 12:25 FISSION RATES OF EXCITED NUCLEI: SPATIAL AND ENERGY DIFFUSION REGIMES

Chushnyakova M. V., Gontchar I. I.

12:30 – 12:45 SOLUTION OF SCATTERING AMPLITUDE FOR A FINITE REGION OF

CALCULATIONSKrassovitskiy P.M., Pen'kov F.M.**12:50 – 13:05 EFFECT OF POLARIZATION PHENOMENA ON INTERACTION OF PROJECTILE WITH A SOLID TARGET**

G.M. Filippov

14:30 - 15:00 *Lunch***Section V****Technique and methods of experiment and their applications in nuclear physics and related fields of science and technology****Oral Session****9:00****9:00 – 9:25 *Joint talk* FEATURES OF THE INFLUENCE OF IRRADIATION ON STRUCTURE OF STRUVITE-K**Dikiy N.P., Bereznyak E.P., Lyashko Yu.V., Medvedeva E.P., Medvedev D.V., Uvarov V.L., Hodyreva Y.S., Fedorets I.D.**PRODUCTION OF OSTEOTROPIC ISOTOPES BY PHOTONUCLEAR METHOD**Dikiy N.P., Dovbnaya A.N., Krasnoselsky N.V., Lyashko Yu.V., Medvedeva E.P., Medvedev D.V., Uvarov V.L., Fedorets I.D.**9:30 – 9:55 *Joint talk* MONITORING OF NEUTRONS FIELD OF THE REACTOR VVR-SM AT RECEPTION OF PHOSPHORUS-33**Ashrapov U.T., Rustamov N.M., Alieva M.U.**DEVELOPMENT OF THE STATIONARY RADIONUCLIDE GENERATOR OF ^{188}W - ^{188}Re** Ashrapov U.T., Khujaev S., Kodina G.E.**10:00 – 10:25 *Joint talk* THE CHARACTERISTICS OF CARBON DETECTION WITH USING OF $^{13}\text{C}(\gamma, p)^{12}\text{B}$ ACTIVATION**Belyshev S.S., Dzhilavyan L.Z., Lapik A.M., Pokotilovski Yu.N., Rusakov A.V.**TIME OPERATIONAL MODE OF SCINTILLATION DETECTORS FOR MEASURING INDUCED ^{12}B - AND ^{12}N - ACTIVITIES AT PULSED ELECTRON ACCELERATORS**Dzhilavyan L.Z., Lapik A.M., Rusakov A.V.**10:30 – 10:45 ON THE MEASUREMENT OF THE DECAY ENERGY OF THORIUM-229 ISOMER**Gusev Yu.I., Karpeshin F.F., Novikov Yu.N., Popov A.V., Tikhonov V.I.**10:50-11:05 DETECTION OF DELAY NEUTRONS NEAR THE THRESHOLD OF URANIUM PHOTO FISSION**Lapik A.M., Nedorezov V.G., Ponomarev V.N., Rusakov A.V., Solodukhov G.V., Tselebrovsky A.N., and Verbitsky S.S.

11:10-11:25 INVESTIGATION OF THE GAMMA QUANTA AND NEUTRONS FLUXES DURING THE MEDICAL ELECTRON ACCELERATOR OPERATION

Lykova E.N., Zheltonozhskaya M.V., Chernyaev A.P.

11:30 – 11:50 *Coffee break*

11:55 – 12:10 PHOTOACTIVATION TECHNIQUE FOR DETERMINING OF ^{10}Be ACTIVITY IN REACTOR STRUCTURAL MATERIALS

Zheltonozhskaya M.V., Zheltonozhsky V.A., Chernyaev A.P.

12:15 – 12:30 DEVELOPMENT OF STRIP AND PIXEL DETECTORS BASED ON CdZnTe

Gazizov I.M., Letov A.G., Olnev A.A., Smirnov A.A., Stegailov V.I., Tyutyunnikov S.I.

12:35 – 12:50 A NEW DETECTOR FOR STUDYING CUMULATIVE PROCESSES IN HADRONIC COLLISIONS

Lazareva T.V., Valiev F.F., Zherebchevsky V.I., Nesterov D.G., Feofilov G.A.

14:30 – 15:00 – *Lunch*

Sections VII, VI

Experience and problems of qualitative training of Russian and foreign specialists in field of nuclear physics, atomic power engineering and nuclear technologies

Fundamental problems of nuclear power and nuclear technologies

Oral Session

9:00

ACTINIDES ^{237}Np , ^{241}Am , ^{239}Pu IN THE NEUTRON FIELD OF "QUINTA" SETUP

Tyutyunnikov S.I., Dalkhjav O., Kilim S., Szuta M., Strugalska-Gola E., Stegailov V.I., Smirnov A.A., Kryachko I.A., Khushvaktov J.H.

A STUDY ON THE TRANSPORTATION OF REACTOR PRODUCED EXOTIC NUCLEI BY THE GAS-JET METHOD

D. Simonovski, Yu.N. Novikov, Yu.I. Gusev, S.V. Chenmarev

A QUASIINFINITE TARGET ^{238}U ON PROTON BEAM

Tyutyunnikov S.I. et al.

ESTIMATION OF FUEL ASSEMBLES MODIFICATION POSSIBILITY FOR NUCLEAR REACTORS ON THERMAL NEUTRONS

Aleinikov A.N.

REMIX FUEL RADIOACTIVITY INFLUENCE ON FUEL CYCLES REDUCTION

Aleinikov A.N., Tolstykh V.S.

MOX-FUEL USING AT THERMAL NEUTRON REACTORS

Aleinikov A.N., Aleksandrov O.I.

S³ – DETECTOR OF THE REACTOR NEUTRINO (STATUS OF THE PROJECT)

Fomina M.V., Egorov V.G., Kazartsev S.V.

“ONE CONTROL ROD EJECTION” ACCIDENT ANALYSIS FOR THE NPP-2006 PROJECT USING DYN3D/SERPENT CODES

Usheva K.I., Kuten S.A., Khruschinsky A.A., Babichev L.F.

ANEUTRONIC NUCLEAR REACTIONS IN THE LASER PRODUCED PLASMA - NEW RESULTS, NEW PERSPECTIVES

Belyaev V.S., Zagreev B.V., Matafonov A.P., Kedrov A.Yu., Lobanov A.V.

RADIATION-CHEMICAL TRANSFORMATIONS IN AQUEOUS SOLUTIONS OF FORMIC, OXALIC AND NITRIC ACID MIXTURES AS MODEL SYSTEMS OF RADIOACTIVE LIQUID WASTES

U.A. Gulieva, M.A. Gurbanov, E.T. Abdullayev

INVESTIGATION OF THE DESTRUCTION PROCESSES OF FUEL-CONTAINING MATERIALS WITH MICROBIOTA

Zheltonozhskaya M.V., Zheltonozhsky V.A., Tugay T.I.

DEVELOPING THE DESIGN METHODS FOR HEAT GENERATION IN HIGH LEVEL WASTE OF NPP

Dolgopolov M.A., Rabotkin V.A.

Sections VII, VI**Experience and problems of qualitative training of Russian and foreign specialists in field of nuclear physics, atomic power engineering and nuclear technologies****Fundamental problems of nuclear power and nuclear technologies****Poster Session****METHOD OF THE TOTAL NEUTRON CROSS SECTION MEASUREMENT BY SEMICONDUCTOR Si DETECTOR**

Artemov S.V., Ergashev F.Kh., Karakhodzhaev A.A., Kulabdullaev G.A., Tojiboyev O.R., Yuldashev B.S.

INFLUENCE OF POWERFUL RADIATION ON A THERMONUCLEAR TARGET THERMAL DEFORMATION

Dobrynina A.O., Kuzenov V.V., Shumaev V.V.

TREATMENT OF LIQUID RADIOACTIVE WASTE GENERATED DURING THE DECOMMISSIONING OF SMALL RESEARCH FACILITIES

Torapava V.V., Radkevich A.V., Zaruba A.M., Dashouk E.M.

JULY, 06 (Friday)

Plenary session III

9:30

9:30 – 10:00: **ROLE OF THE HEAVY STRIPPING MECHANISM IN THE FORMATION OF α -PARTICLES ANGULAR DISTRIBUTION IN $^{27}\text{Al}(p, \alpha)^{24}\text{Mg}$ REACTION**

Galanina L.I., Zelenskaya N.S., Lebedev V.M., Ognev V.Y., Orlova N.V., Spassky A.V.

10:05 – 10:35: **CHARGE PARTICLE FORMATION IN STOPPED PION ABSORPTION BY NUCLEI**

B.A. Chernyshev, Yu.B. Gurov, S.V. Lapushkin, T.I. Leonova, R.V. Pritula, V.G. Sandukovsky

10:40 – 11:10: **FUTURE OF THE NUCLEAR POWER**

Butsev V.S., Pavlov A.A.

11:10 – 11:40: *Coffee break*

11:40 – 12:10: **ELASTIC AND INELASTIC SCATTERING OF α -PARTICLES BY ^{20}Ne NUCLEI AT ENERGY OF 48.8 MeV**

Burtebayev N., Duisebayev A., Duisebayev B.A., Zholdybayev T., Nassurlla Marzhan, Sadykov B.M., Sakuta S.B., Nassurlla Maulen

12:15 – 12:45: **CALCULATION AND COMPARISON OF KEY PARAMETERS CHARACTERIZING THE MAGNETO-INERTIAL FUSION**

Kuzenov V.V., Ryzhkov S.V.

12:50 – 13:20: **RESULTS OF THE MICROSCOPIC SELF-CONSISTENT THEORY OF QUASIPARTICLE-PHONON INTERACTION IN NUCLEI**

Kamerdzhev S.P., Achakovskiy O.I., Saperstein E.E., Shitov M.I., Tolokonnikov S.V.

13:25 – 13:55: **ALPHA DECAY MODEL OF SPHERICAL NUCLEUS IN SYNCHROTRON RADIATION FIELD**

Kopytin I.V.

14:00 – 14:30 **THE CRITIQUE OF THE T-NULL THEOREM AND THE NEW APPROACH TO SEARCH OF THE T-INVARIANCE VIOLATIONS IN QUANTUM SYSTEMS**

Kadmensky S.G., Kostryukov P.V.

Conference closing

14:30 – 15:00 – *Lunch*

JULY, 04 (Wednesday)

Poster Session

Section I

Experimental investigations of atomic nucleus properties

INVESTIGATION OF CLUSTER CONFIGURATIONS OF NUCLEI FROM ^{11}B TO ^{209}Bi ON α -PARTICLES BEAMS

Burtebayev N., Dyachkov V.V., Zaripova Y.A., Yushkov A.V., Zholdybayev T.K., Nassurlla M.

MODERNIZATION OF THE SCATTERING CAMERA ON THE U-400 BEAM FOR PRECISION MEASUREMENTS OF HEAVY MULTICLUSTERS

Dyachkov V.V., Lukyanov S.M., Sidorov Ya.V.

EVOLUTION OF THE SINGLE-PARTICLE STRUCTURE OF NEUTRON-RICH ISOTONES WITH $N = 20$ WITHIN THE DISPERSIVE OPTICAL MODEL

Bespalova O.V., Klimochkina A.A.

STRUCTURE AND TOTAL STRENGTH OF THE MAGNETIC DIPOLE RESONANCE ON EXCITED STATES IN SD SHELL NUCLEI

Kachan A.S., Kurhuz I.V., Mishchenko V.M., Utenkov S.N.

OUTLIERS IN THE SEQUENCES OF COUNTS OF RADIATION FLOW PARTICLES

Akindinova E.V., Vakhtel V.M., Gorshkova Yu.N., Rabotkin V.A.

A NEW SCATTERING CHAMBER FOR CONDUCTING PRECISION EXPERIMENTS ON THE HEAVY-ION REACTION CROSS SECTIONS AT THE ACCELERATOR DC-60 (ASTANA, KAZAKHSTAN) AT LOW ENERGIES

Kuterbekov K.A., Mendibayev K., Lukyanov S.M., Penionzhkevich Yu.E., Kabyshev A.M., Azhibekov A.K., Mukhametzhana A.M., Kenzhin E.A., Sadykov B.M., Sobolev Yu.G., Maslov V.A.

Section II

Experimental investigations of nuclear reactions mechanisms

Исследование возбуждения K -изомера ^{179}Hf

Желтоножская М.В., Желтоножский В.А., Саврасов А.В.

PROTONS WITH CUMULATIVE VARIABLE $X > 1$ MODELLING IN $^{12}\text{C} + \text{Be}$ REACTIONS WITH ENERGIES OF 0.6, 0.95 AND 2.0 GeV/NUCLEON

Berdnikov A.Ya, Larionova D.M., Larionova M.M., Solovev V.N.

INVESTIGATION OF $^{14}\text{N}+^{10}\text{B}$, SYSTEM NUCLEAR REACTIONS OUTPUTS AT LOW ENERGY

Kurakhmedov A., Burtebayev N., Kerimkulov Zh., Mukhamejanov Y., Alimov D., Amangeldi N., Boztosun I., Temerbayev A., Kok Ye.

KINEMATICAL SIMULATION OF QUASIFREE SCATTERING OF DEUTERONS AND ALPHA PARTICLES ON CLUSTERS IN $^{6,7}\text{Li}$ AND ^9Be

Kasparov A.A., Afonin A.A., Konobeevski E.S., Mitcuk V.V., Zuyev S.V.

MEASURING OF BREMMSTRAGLUNG EMISSION IN ALPHA-DECAY OF PO-214

Paskhalov A.A.

REGISTRATION OF LOW INTENSIVE α - γ TRANSITIONS IN CHAIN OF RA-226 DECAY

Paskhalov A.A.

THE INCLUSIVE CROSS SECTIONS FOR THE FORMATION OF P, D, α FROM THE INTERACTION OF α -PARTICLES OF 29 MEV ENERGY WITH NUCLEI ^{27}Al AND ^{59}Co

Duisebaev B.A., Zholdybaev T.K., Sadykov B.M., Nassurlla M., Ismailov K.M., Ussabayeva G., Dyachkov V.V.

EXPERIMENTAL STUDIES OF Φ -MESON PRODUCTION IN Cu+Au COLLISIONS AT 200 GEV AND U+U COLLISIONS AT 192 GEV

Berdnikov A.Ya., Berdnikov Ya.A., Kotov D.O., Mitrankov Yu.M.

EXPERIMENTAL STUDIES OF RESONANCE STATES IN REACTIONS WITH HEAVY IONS ON THE DC-60 CYCLOTRON

D. K. Nauruzbayev, V. I. Zherebchevsky, S. Yu. Torilov, V. Z. Goldberg, A. K. Nurmukhanbetova, M. S. Golovkov, G. V. Rogachev

PROGRAMS OF THE R-MATRIX DESCRIPTION OF NEUTRON CROSS SECTION STRUCTURE

A.B.Popov

MEASUREMENT OF THE (p , xp) REACTION CROSS-SECTION FOR PROTON ENERGIES OF 7 MEV ON THE MIDDLE NUCLEI

Duisebaev B.A., Zholdybaev T.K., Sadykov B.M., Nassurlla M., Ismailov K.M., Ussabayeva G.Yu., Boztosun I.

INVESTIGATION OF THE EXCITATION FUNCTIONS FOR (n , p) REACTION ON NUCLEI BETWEEN $40 < A < 239$

Torilov S.Yu., Maltsev N.A., Panin R.B., Zherebchevsky V.I.

TOTAL REACTION CROSS SECTIONS OF NEUTRON-RICH LIGHT NUCLEI MEASURED BY THE COMBAS FRAGMENT-SEPARATOR

Erdemchimeg B., Artukh A.G., Davaa S., Isataev T., Hue B.M., Klygin S.A., Kononenko G.A., Khuukhenkhoo G., Kuterbekov K., Lukyanov S.M., Mikhailova T.I., Maslov V.A., Mendibaev K., Sereda Yu.M., Penionzhkevich Yu.E., Vorontsov A.N.

THE ISOMERIC RATIOS OF THE $^{133,135}\text{Xe}$ YIELD IN THE ^{238}U PHOTOFISSION PRODUCTS

Zheltonozhskaya M.V., Zheltonozhsky V.A., Savrasov A.V., Chernyaev A.P.

INVESTIGATION OF THE EXCITATION CROSS SECTION OF ISOMERIC STATES OF ^{143}Sm NUCLEI IN THE REACTIONS (γ, n) AND $(n, 2n)$

Palvanov S.R., Ahmedov S., Tuymurodov D.I.

Section III

**Theory of atomic nucleus and fundamental interactions
ON THE DOUBLE SPIN ASYMMETRIES IN THE ELASTIC SCATTERING OF
ELECTRONS OFF PROTONS**

Safin M.Ya.

**STUDY OF GROUND STATES OF $^{6,7,9,11}\text{Li}$ NUCLEI BY FEYNMAN'S CONTINUAL
INTEGRALS METHOD**

Samarin V.V., Naumenko M.A.

**ISOMERIC STATE OF ^{229}Th AND ITS POPULATION IN THE REACTION OF THE
COULOMB EXCITATION**

Isakov V. I.

NEUTRON EXCESS ODD-ODD ISOTOPES OF In CLOSE TO ^{132}Sn

Isakov V. I.

ZERO-SOUND IN NUCLEAR MATTER WITH ASYMMETRY PARAMETER

$$-1 \leq \beta \leq 1$$

Sadovnikova V.A.

**THE POSSIBILITY OF EXISTENCE OF THE NEUTRON STABILITY PENINSULA
OF NUCLEI FOR NEUTRON MAGIC NUMBER $N = 126$**

Tarasov V.N., Kuprikov V.I., Tarasov D.V.

**THE INVESTIGATION OF Zr ISOTOPES PROPERTIES IN APPROXIMATION OF
RELATIVISTIC AND NONRELATIVISTIC SELF-CONSISTENT MEAN FIELD**

Tarasov V.N., Kuprikov V.I., Tarasov D.V.

POLARIZATION BREMSSTRAHLUNG IN ALPHA DECAY

Kretinin I.Yu., Kornev A.S., Suvorov K.I., Zon B.A.

MANY BODY INTERACTIONS IN NUCLEAR MATTER Drukarev E.G., Ryskin M.G.,

Sadovnikova V.A.

**QUANTUM-MECHANICAL SIMULATION OF MULTIELECTRON ATOMS IN
STRONG EXTERNAL FIELDS**

Romanov A.A., Silaev A.A., Sarantseva T.S., Smirnova D.A.,

Frolov M.V., Vvedenskii N.V.

Section IV

Nuclear reactions theory

A NON-EQUILIBRIUM EQUATION OF STATE AND EMISSION OF HIGH ENERGY PARTICLES IN HEAVY ION COLLISIONS

D'yachenko A.T., Mitropolsky I.A.

THE INFLUENCE OF COLOR RECONNECTION AND JET FORMATION EFFECTS ON CHARGE PARTICLE TRANSVERSE MOMENTUM DISTRIBUTION IN P+P COLLISIONS AT LHC ENERGIES

Sandul V.S., Feofilov G.A., Vechernin V.V.

GENERALIZED MULTIPOMERON EXCHANGE MODEL

Feofilov G. A., Kovalenko V. N., Puchkov A. M., Valiev F. F.

SCATTERING OF PROTONS ON CARBON ISOTOPES $^{9,13,15}\text{C}$ IN THE GLAUBER APPROXIMATION

Ibraeva E.T., Imambekov O.

Section V

Technique and methods of experiment and their applications in nuclear physics and related fields of science and technology

NUCLEAR MICROPROBE TO BE USED AS EVALUATOR OF CATHODE ELECTRODE DEGRADATION OF CATHODE STRIP CHAMBER PROTOTYPE UNDER CMS EXPERIMENT

M.E.Buzoverya, I.A.Karpov, A.Yu.Arkipov, V.I.Kirejcheva, G.E.Gavrilov

MODELING OF POSITRON BEAM PRODUCTION FOR USING IN NUCLEAR MEDICINE

Sinelnikov A.G., Chernyaev A.P., Morozova E.P.

EVALUATION OF NONHOMOGENEITY OF LARGE SEQUENCES OF EMPIRICAL DISTRIBUTION SERIES OF RADIATION FLOW PARTICLE COUNTS BY SMALL SAMPLES

Babenko A.G., Vakhtel V.M., Muratov I.V., Rabotkin V.A.

DEVICE FOR REGISTRATION OF THE NUMBER OF PULSES AND MEASURING OF TIME INTERVALS OF RADIATION FLOWS

Babenko A.G., Vakhtel V.M., Dvurechensky V.I., Rabotkin V.A.

CHANGES OF OPERATING CHARACTERISTICS OF TRANSFORMER OIL UNDER IONIZING RADIATION

Iskenderova Z.I., Gurbanov M.A.

VME BASED DATA ACQUISITION SYSTEMS

Slepnev R.S., Bezbakh A.A., Chudova V., Fomichev A.S., Golovkov M.S., Gorshkov A.V., Krupko S.A., Kurz N., Mentel M., Plucinski P., Sharov P.G., Ter-Akopian G.M.

SIMULATION OF ENERGY DEPOSITION IN PATIENT BODY DURING EXPOSURE FROM X-RAY CT.

Viarenich K.A., Minenko V.F., Kuten S.A., Khrutchinsky A.A., Makarevich K.O.

STUDY OF THE FACTOR OF LOCAL ACCUMULATION OF DAUGHTER PRODUCTS OF RADON DECAY IN THE BODY BY THE BETA-SPECTROMETRY

Dyachkov V.V., Zariyova Yu.A., Yushkov A.V., Shakirov A.L., Bigeldiyeva M.T., Dusebayeva K.S., Abramov K.E.

NUCLEAR RADIATION DETECTORS BASED ON HIGH QUALITY 4H-SiC SEMICONDUCTOR

Hrubčín L., Zařko B., Boháček P., Rozov S., Sandukovsky V., Ivanov O., Semin V., Mitrofanov S., Skuratov V., Gurov Yu.

AgGaS_{2x}Se_{2-2x} SINGLE CRYSTALS FOR UNCOOLED AND PRACTICALLY NON-INERTIAL X-RAY RECORDING DEVICES

Asadov S.M., Mustafaeva S.N., Guseinov D.T.

ACCELERATOR COMPLEX FOR FUNDAMENTAL RESEARCHES BASED ON ELECTRON LINAC ЛУЧ-8-5 ПБ.

Nedorezov V.G., Ponomarev V.N., Solodukhov G.V.

FEATURES OF ELECTROMAGNETIC FIELD GENERATED BY INTERACTION OF HIGH ENERGY ELECTRONS WITH SOLID MEDIUM TAKING INTO ACCOUNT SECONDARY PROCESSES.

Valiev F.F.

THE DIGITAL TDPAC SPECTROMETER FOR CONDESED MATTER RESEARCH AT LOW TEMPERATURE AND HIGH PRESSURE

Salamatin A.V., Mikhin M.V., Salamatin D.A., Tsvyashchenko A.V., Budzynski M.

RESEARCHING THE SYNERGETIC EFFECT USING A RADIOACTIVE BEAM IN MEDICINE VIA STATISTICAL SIMULATION

Dolgopolov M.A., Babicheva S.Yu.

MODIFICATION OF ACTIVATION METHOD OF THE ASTROPHYSICAL S-FACTORS MEASUREMENT

Artemov S.V., Burtebayev N., Igamov S.B., Kholbaev I., Rumi R.F., Karakhodzhaev A.A., Tojiboyev O.R., Ergashev F.Kh., Eshkobilov Sh.Kh., Khalikov R.I., Burtebayeva J., Nassurlla M., Khojayev R., Sabidolla A.

SIMULATION OF PRECISE EXPERIMENT OF LOSS COEFFICIENT MEASUREMENT DEPENDING ON VELOCITIES OF UCN WITH GRAVITATIONAL SPECTROSCOPY.

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