



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

## Tuesday 12 July 2022

### Nuclear structure: theory and experiment - Физический факультет, ауд. 5-19 (10:00-11:40)

-Conveners: Dmitri Eremenko

time	[id] title	presenter
10:00	[56] First experiment at the Super Heavy Element Factory. New data in the $^{243}\text{Am} + ^{48}\text{Ca}$ reaction.	KOVRIZHNYKH, Nikita
10:20	[48] Detailed study of radioactive decay properties of nobelium isotopes with $\alpha$ , $\beta$ , $\gamma$ -spectroscopy method	TEZEKBAYEVA, Mereigul
10:40	[59] The multiplicity of neutrons of spontaneous fission of $^{250}\text{No}$ obtained in complete fusion reactions with heavy ions at the SHELS separator.	Mr SAILAUBEKOV, Bekzat
11:00	[151] Neutron multiplicity distributions for $^{250}\text{No}$ spontaneous fission from ground state or at the decay of the isomeric state	MUKHIN, Roman
11:20	[116] Study of the $^{242}\text{Pu} + ^{48}\text{Ca}$ and $^{238}\text{U} + ^{48}\text{Ca}$ reactions at DGFRS-II	Mr IBADULLAYEV, Dastan

### Nuclear structure: theory and experiment - Физический факультет, ауд. 5-19 (12:10-13:50)

-Conveners: Dmitri Eremenko

time	[id] title	presenter
12:10	[354] POSSIBLE ROTATIONAL STRUCTURE OF $^{13}\text{C}$ LOW-LYING EXCITED STATES	Dr DANILOV, Andrey
12:30	[392] SIZE ISOMERS IN LIGHT NUCLEI	DEMYANOVA, Alla
12:50	[333] STUDY OF EXCITED STATES IN ATOMIC NUCLEI $^{46}\text{Ti}$ AND $^{45}\text{Ti}$ IN REACTIONS WITH $^3\text{He}$ BEAM AT 29 MeV	Dr SKOBELEV, Nikolay
13:10	[191] $^8\text{He}$ SPECTROSCOPY IN STOPPED PION ABSORPTION REACTION	LEONOVA, Tatiana
13:30	[55] Experimental manifestation of the strong nuclear interaction in the optical spectra of solids	PLEKHANOV, Vladimir

### Nuclear structure: theory and experiment - Физический факультет, ауд. 5-19 (15:00-16:40)

-Conveners: Alexander Mazur

time	[id] title	presenter
15:00	[50] Analysis of M1 excitations in $^{28}\text{Si}$ using inelastic proton scattering	ONEGIN, Mikhail
15:20	[280] STUDY OF $^{209}\text{Bi}(\gamma, xn)$ REACTIONS IN ENERGY REGION UP TO 100 MeV	DEMICHEV, Mikhail
15:40	[158] First tests on GRAND set-up	KUZNETSOVA, Alena
16:20	[244] DIRECT ONE-NEUTRON DECAY OF THE ISOSCALAR GIANT DIPOLE RESONANCE IN MEDIUM-HEAVY SPHERICAL NUCLEI: A SEMI-MICROSCOPIC DESCRIPTION	Mr GORELIK, Mikhail

**Nuclear structure: theory and experiment - Физический факультет, ауд. 5-19 (17:10-19:00)****-Conveners: Alexander Mazur**

time	[id] title	presenter
17:10	[272] THE HALF-LIFE OF $^{229m}\text{Th}$ ISOMERS IN ACID SOLUTION	KOLTSOV, Vladimir
17:30	[265] NATURAL WIDTHS OF ATOMIC LEVELS IN THORIUM DETERMINED BY THE ICES METHOD	INOYATOV, Anvar
17:50	[78] EXPERIMENTAL INVESTIGATIONS OF THE 9.2, 15.1, AND 24.3 keV NUCLEAR TRANSITIONS IN $^{227}\text{Th}$ AND CONSEQUENCES OF THEIR RESULTS FOR SPIN-PARITY ASSIGNMENTS TO LOW-LYING STATES OF $^{227}\text{Th}$	Dr INOYATOV, Anvar
18:10	[491] OCTUPOLE EXCITATIONS IN $^{238}\text{U}$	USMANOV, Pazlitdin
18:20	[492] K-FORBIDDEN M1-TRANSITIONS IN $^{156}\text{Gd}$	USMANOV, Pazlitdin

# Thursday 14 July 2022

## Nuclear structure: theory and experiment: NS3 - Физический ф-т, 5-19 (15:00-16:40)

-Conveners: Valentin Nesterenko

time	[id] title	presenter
15:00	[238] Generalization of theory of finite fermi-systems for pygmy- and giant multipole resonances	Prof. KAMERDZHIEV, Sergey
15:20	[262] Microscopic description of isoscalar giant monopole resonance: the case of $^{48}\text{Ca}$	Dr ARSENYEV, Nikolay
15:40	[89] PROPERTIES OF GAMOW-TELLER AND CHARGE-EXCHANGE GIANT SPIN-MONOPOLE RESONANCES IN MEDIUM-HEAVY CLOSED-SHELL PARENT NUCLEI: A SEMIMICROSCOPIC DESCRIPTION	BONDARENKO, Vladimir
16:00	[68] NUCLEUS SURFACE TENSION AND ITS MICROSCOPIC RESONANCE DESCRIPTION	Mr DOLGODVOROV, Aleksey
16:20	[69] INFLUENCE OF NUCLEON PAIRS ON THE NUCLEAR SURFACE TENSION	Prof. GONCHAROVA, Natalia

## Nuclear structure: theory and experiment: NS3 - Физический ф-т, 5-19 (17:08-18:48)

-Conveners: Valentin Nesterenko

time	[id] title	presenter
17:08	[443] LOCAL MAGIC NUCLEI: PROPERTIES AND STRUCTURE	BOBOSHIN, Igor
17:35	[65] Influence of nuclear surface diffuseness on halo structure of Zr isotopes near the neutron drip line	BESPALOVA, Olga
17:55	[166] Role of Quarks in Nuclear Structure	MUSULMANBEKOV, Genis
18:15	[487] SMOOTHNESS OF MASS SURFACE OF ODD ACTINIDE NUCLEI AND PAIRING ENERGIES	Dr VLASNIKOV, A. K.

## Friday 15 July 2022

### Nuclear structure: theory and experiment: Few body - Физический ф-т, ЦФА (10:00-11:40)

-Conveners: Alexander K. Motovilov

time	[id] title	presenter
10:00	[197] Theoretical study of antihydrogen formation reactions in the three body $e-e+p$ system via Faddeev-Merkuriev equations in total orbital momentum representation	GRADUSOV, Vitaly
10:20	[171] Optimal bounds on the speed of subspace evolution governed by a time-dependent Hamiltonian	MOTOVILOV, Alexander K.
10:40	[213] UNION OF DISCRETIZED SPECTRA FOR SCATTERING CALCULATIONS	POMERANTSEV, Vladimir
11:00	[255] RECENT PROGRESS IN DESCRIPTION OF NN SCATTERING WITH THE DIBARYON MODEL	RUBTSOVA, Olga
11:20	[103] CONTRIBUTION OF INDUCED DIPOLE INTERACTION TO THE ASYMPTOTIC BEHAVIOR OF WAVE FUNCTION COMPONENTS FOR THE SCATTERING IN THREE BODY COULOMB SYSTEMS	YAKOVLEV, Sergey

### Nuclear structure: theory and experiment: NS1 - Физический ф-т, 5-19 (10:00-11:40)

-Conveners: Igor Izosimov

time	[id] title	presenter
10:00	[163] POSSIBILITIES TO IMPROVE VARIATIONAL CALCULATIONS USING OSCILLATOR BASIS	KULIKOV, Vasily
10:20	[186] Ab initio calculations of branching ratios of alpha particles, neutrons and protons in the decay of excited states of beryllium isotopes.	Prof. TCHUVIL'SKY , Yuri
10:40	[185] AB INITIO STUDY OF RADII AND COULOMB SHIFTS OF SIX-NUCLEON ISOBAR ANALOGUE STATES	RODKIN, Dmitry
11:00	[91] SS-HORSE APPROACH: FURTHER DEVELOPMENT AND APPLICATION TO THE STUDY OF LIGHT NUCLEI	MAZUR, Alexander
11:20	[7] SEARCH FOR ALPHA-CONDENSATE EFFECTS IN DISSOCIATION OF RELATIVISTIC NUCLEI	ZAITSEV, Andrei

### Nuclear structure: theory and experiment: NS1 - Физический ф-т, 5-19 (12:10-13:50)

-Conveners: Igor Izosimov

time	[id] title	presenter
12:10	[33] EXTRAPOLATION OF THE LOWEST STATE ENERGIES IN SUPERHEAVY EVEN-EVEN NUCLEI	EFIMOV, Alexander
12:30	[258] ROTATIONAL SPECTRA OF EVEN-EVEN ACTINIDE AND RARE-EARTH NUCLEI	OKHUNOV, Abdurahim
12:50	[75] Probing Microscopic Properties of Superdeformed Nuclei	JAIN, Poonam
13:10	[81] The Fayans energy-density functional. New constraints from the equations of state.	BORZOV, Ivan
13:30	[458] Neutron multiplicity of transplutonium nuclei	BEZBAKH, Anna

**Nuclear structure: theory and experiment: Few body - Физический ф-т, ЦФА (12:10-13:50)****-Conveners: Alexander K. Motovilov**

time	[id] title	presenter
12:10	[391] BOSE-HUBBARD MODELS WITH ON-SITE AND NEAREST-NEIGHBOR INTERACTIONS: EXACTLY SOLVABLE CASE	LAKAEV, Saidakhmat
12:30	[384] MINLOS-FADDEEV REGULARIZATION OF ZERO-RANGE INTERACTIONS IN THE THREE-BODY PROBLEM	MALYKH, Anastasia
12:50	[385] ABSENCE OF THE THREE-BODY BOUND STATES FOR SMALL MASS RATIO IN THE TWO-COMPONENT SYSTEM	Dr KARTAVTSEV, Oleg
13:10	[432] Potential splitting approach for scattering problem for few-body quantum systems	YAREVSKY, Evgeny
13:30	[208] Simple model of dissociation based on time-dependent Faddeev equations	Dr ROUDNEV, Vladimir

**Nuclear structure: theory and experiment: NS1 - Физический ф-т, 5-19 (15:00-16:40)****-Conveners: Alexander Mazur**

time	[id] title	presenter
15:00	[224] Nuclear shape evolution in the lead region: neutron-deficient bismuth and gold isotopes	MOLKANOV, Pavel
15:20	[129] Evolution of the phenomenologically determined collective potential along the chain of Zr isotopes	MARDYBAN, Evgenii
15:40	[96] ON SHORT-RANGE CORRELATIONS IN ATOMIC NUCLEI	KOSTENKO, Boris
16:00	[239] Dynamic three-quasiparticle correlations in the ground state	Mr SHITOV, Mikhail
16:20	[425] STUDY OF COULOMB BREAKUP OF $^{11}\text{Be}$ WITHIN THE NON-PERTURBATIVE SEMICLASSICAL AND QUANTUM-QUASICLASSICAL TIME-DEPENDENT APPROACHES	VALIOLDA, Dinara

**Nuclear structure: theory and experiment: Few body - Физический ф-т, ЦФА (15:00-16:40)****-Conveners: Vladimir Melezhik**

time	[id] title	presenter
15:00	[394] Quantum-quasiclassical approach for few-body problems in atomic and nuclear physics	MELEZHNIK, Vladimir
15:20	[398] Hydrogen Atom in Strong Elliptically Polarized Laser Fields within Discrete-Variable Representation	Dr SHADMEHRI, Sara
15:40	[378] The reprojection method for inelastic collision processes	Prof. BELYAEV, Andrey
16:00	[266] LITHIUM-10 AS BORROMEAN NUCLEUS SUBSYSTEM	SHAROV, Pavel
16:20	[157] PECULIARITIES OF THE ENERGY SPECTRUM OF THE $^{12}\text{C}$ NUCLEUS IN A $3\alpha$ MODEL	TURSUNOV, Ergash

**Nuclear structure: theory and experiment: NS1 - Физический ф-т, 5-19 (17:10-18:50)****-Conveners: Alexander Mazur**

time	[id] title	presenter
17:10	[451] Behavior of moment of inertia in highly deformed $^{24}\text{Mg}$ and $^{20}\text{Ne}$	MARDYBAN, Mariia

17:30	[159] INTERPLAY OF ORDER AND CHAOS IN NUCLEAR STRUCTURE	Dr NAZMITDINOV, Rashid
17:50	[409] Study of nuclear matter density distribution in light exotic nuclei from proton elastic scattering in inverse kinematics	INGLESSI, Alexander
18:10	[438] NUCLEAR DATA AND THE STANDARD MODEL PARAMETERS	SUKHORUCHKIN, Sergey
18:30	[25] 4G model of fitting RMS radius of proton	Prof. S, Laksminarayana