



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

## Tuesday 12 July 2022

### Applications of nuclear methods in science and technology - Физический ф-т, ауд. 5-42 (10:00-11:40)

-Conveners: Nikolay Chechenin

time	[id] title	presenter
10:00	[350] Contacts for self-scanning SiC energyconverters in nano-microwatts range	Dr DOLGOPOLOV, Mikhail
10:20	[300] Flexible scenario for background suppression in heavy element research	TSYGANOV, Yury
10:40	[57] LOOKING FOR AN ELECTRON BRIDGE IN 229mTh	POPOV, Andrey
11:00	[182] CONJUGATE OBJECTS IN QUANTUM COMMUNICATION	СИТДИКОВ, Айрат
11:20	[164] Perspectives of inorganic scintillator GAGG application for precision electromagnetic calorimetry	Mr AVERYANOV, Dmitry

### Applications of nuclear methods in science and technology - Физический ф-т, ауд. 5-42 (12:10-13:55)

-Conveners: Nikolay Chechenin

time	[id] title	presenter
12:10	[36] CALIBRATION OF RADIOISOTOPE DEVICES	ASHRAPOV, Ulugbek
12:35	[39] TO TESTING OF THRESHOLD SILICA AEROGEL CHERENKOV DETECTORS ON COSMIC RAYS	DZHILAVYAN, Leonid
13:35	[204] Validation of nuclear de-excitation models of Geant4 toolkit	NEPEIVODA, Roman

### Applications of nuclear methods in science and technology - Физический ф-т, ауд. 5-42 (15:00-16:40)

-Conveners: Nikolay Novikov

time	[id] title	presenter
15:00	[372] TARGET DESIGN FOR EXPERIMENTAL INVESTIGATION OF ADS WITH PROTON AND LIGHT ION BEAMS	PARAIPAN, Mihaela
15:20	[295] Estimation of the degree of agreement of empirical random vectors using central moment functions	Mr VAKHTEL, Victor Mr KOSTOMAKHA, Daniil
15:30	[296] Method for processing and analysis of homogeneity of large sets of small-volume samples of low-intensity radiation streams	Mr VAKHTEL, Victor
15:40	[31] THERMOLUMINESCENCE TRAPPING PARAMETERS OF IRRADIATED K-FELDSPAR	MAMMADOV, Sahib
16:00	[115] Simple explanation of the experimental $^{57}\text{Fe}$ Mössbauer isomer shift of iron compounds	DEDUSHENKO, Sergey
16:20	[305] SEARCH CRITERIA FOR MINERAL DEPOSITS IN THE ZONES OF MODERN AND ANCIENT VOLCANISM ON URANIUM AND THORIUM AND THEIR FISSION PRODUCTS	YAFYASOV, Adil

**Applications of nuclear methods in science and technology - Физический ф-т, ауд. 5-42 (17:10-19:00)****-Conveners: Nikolay Novikov**

time	[id] title	presenter
17:10	[355] HIGH ENERGY IONOLUMINESCENCE DECAY IN Al <sub>2</sub> O <sub>3</sub>	ISSATOV, Askar
17:30	[247] INFINITE ELECTRON OSCILLATIONS NEAR THE CELL SEPARATOR IN THE SIMPLEST REACTOR	ZEMLIANSKAYA, Daria
17:50	[252] Relativistic runaway electron avalanche acceleration in complex thunderstorm electric structures	STADNICHUK, Egor
18:30	[179] Compton scattering of entangled and decoherent annihilation photons	MUSIN, Sultan

## Wednesday 13 July 2022

### Applications of nuclear methods in science and technology - Физический ф-т, 5-19 (15:00-16:40)

**-Conveners: Mikhail Merkin**

time	[id] title	presenter
15:00	[162] Determination of the oxygen content in the investigated samples using delayed neutron counting technique	MITROFANOV, Konstantin
15:20	[248] Influence of neutron detector structural materials on fast neutron detection	Dr KARAEVSKY, Sergey
15:40	[330] USING THE TAGGED NEUTRON METHOD FOR DETERMINING THE CONCENTRATION OF CARBON IN SOIL	KOPATCH, Yuri
16:00	[301] Measurement of yields and angular distributions of $\gamma$ -quanta from the interaction of 14.1 MeV neutrons with oxygen, phosphorus and sulfur nuclei	GROZDANOV, Dimitar
16:20	[241] Using Tagged Neutron Method for On-line Analysis of Materials on Conveyor	Ms AKHUNOVA, Albina

### Applications of nuclear methods in science and technology - Физический ф-т, ауд. 5-19 (17:10-18:50)

**-Conveners: Mikhail Merkin**

time	[id] title	presenter
17:10	[283] APPLICATION OF TRITIUM LABEL FOR THE DETECTION OF NANODIAMOND FILMS ON THE SURFACE OF COLLAGEN TISSUE	Mr SHEN, Tianyi
17:30	[373] ADSORPTION MODIFICATION OF NANODIAMONDS WITH TRITIUM-LABELED CATIONIC SURFACTANTS AND POLYSACCHARIDES	SINOLITS, Artem
17:50	[374] TRITIUM LABEL IN STUDYING PROTEIN-LIGAND INTERACTION: SELF-ORGANIZATION AT THE INTERFACES	Dr CHERNYSHEVA, Maria
18:10	[386] DEVELOPMENT OF THE CRITERION FOR THE IDENTIFICATION OF CONTRAST AGENTS IN PHOTON-COUNTING COMPUTED TOMOGRAPHY	SOTENSKIY, Rostislav
18:30	[147] Neutron response function of CeBr <sub>3</sub> -NaI(Tl) phoswich spectrometer for 1.0 ÷ 5.5 MeV neutron energy range	Mr ZEINULLA, Zhassulan

## Friday 15 July 2022

### Applications of nuclear methods in science and technology - НИИЯФ, 19 к, ауд. 2-15 (17:10-18:50)

-Conveners: Nikolay Chechenin

time	[id] title	presenter
17:30	[358] Comparative analysis of various variants of magneto-inertial thermonuclear fusion	BATRAK, Nikita
17:50	[359] Investigation of the Conditions for the Formation of Particle Fluxes and High-Power Radiation in a Plasma with a Strong Magnetic Field	KOPALEISHVILI, Nikita
18:30	[145] PHYSICAL FEATURES OF THE VVER-1200 REACTOR CORE REFLECTOR MODEL IN SERPENT CODE	Ms USHEVA, Krystsina