# LXXIV International conference Nucleus-2024: Fundamental problems and applications

#### Tuesday, 2 July 2024

<u>Applications of nuclear methods in science, technology, medicine and radioecology: Radiation therapy</u> - Conference Hall (09:30 - 11:30)

[id] title	presenter
[77] Increasing The Accuracy Of Dose Delivery To CTV During PBS Proton Therapy	KISELEV, Vasilii
	AKULINICHEV, Sergey
	SHCHERBAKOV, Alexey
	YAKOVLEV, Ivan
	Mr POPOV, Andrey Mr SOSNOV, Dmitry
	Mrs MARTYNOVA, Valeriia
[231] CONTRIBITION OF PHOTOELECTRIC EFFECT TO THE DOSE ENHANCEMENT FACTOR IN PHOTON ACTIVATION THERAPY	RASULOVA, Dildora
[267] DOSES OF INTERNAL HUMAN RADIATION FROM RADON DURING HEATING OF RESIDENTIAL BUILDINGS WITH NATURAL GAS IN THE CONDITIONS OF THE NORTH	PETROVA, Kristina
	[77] Increasing The Accuracy Of Dose Delivery To CTV During PBS Proton Therapy [150] RESEARCH OF THE FLASH EFFECT AT THE PROTON ACCELERATOR OF INR RAS [329] ASSESSMENT OF SOME UNACCOUNTED CONTRIBUTIONS TO THE ABSORBED DOSE DURING RADIATION THERAPY [171] ЭКСПЕРИМЕНТЫ ПО ОБЛУЧЕНИЮ БИОЛОГИЧЕСКИХ МОДЕЛЕЙ В ПРОТОННОМ ПУЧКЕ [332] Technological state and prospects of production of modern X-ray diagnostic systems [192] Анализ клеточной гибели и пролиферативной активности клеточных культур при облучении протонами в режиме флэш [231] CONTRIBITION OF PHOTOELECTRIC EFFECT TO THE DOSE ENHANCEMENT FACTOR IN PHOTON ACTIVATION THERAPY [267] DOSES OF INTERNAL HUMAN RADIATION FROM RADON DURING HEATING OF RESIDENTIAL BUILDINGS WITH NATURAL GAS IN THE

## <u>Applications of nuclear methods in science, technology, medicine and radioecology: Detectors/Therapy</u> - Conference Hall (12:00 - 14:00)

time [id] title presenter 12:00 [168] SILICON PIXEL SENSORS FOR DETERMINATION OF PETROV, Vitalii CHARACTERISTICS OF PROTON BEAMS IN THE ENERGY RANGE 100 -1000 MeV FOR THEIR USE IN TRACKING DETECTORS MERZLIKIN, Grigorii 12:15 [170] Оценка точности дозиметрии протонов с плёночными детекторами 12:30 [172] Позиционно-чувствительный черенковский монитор мощных пучков GAVRILOV, Yuri протонов 12:45 [324] Study of the yield of positron emitters after irradiation with 100 and 200 Mr ADONYEV, Stepan MeV protons of natural calcium targets 13:00 [315] Measurement of the Photo-peak Efficiency and Covariance Analysis of Dr DAS, Pretam Kumar □-Ray Detectors of TANGRA Project using 22Na, 60Co, 133Ba, 137Cs, 152Eu, 228Th and Comparison with the Geant4 and MCNP Simulation. YERGASHOV, Almat 13:15 [284] Determination of the Parameters of Prototype of "Gamma" Installation at the IREN Facility

13:30 [59] Project BECQUEREL at portal of nuclear knowledge BelNET	Dr SYTOVA, Svetlana
13:45 [102] Estimation of biological protection at the new cyclotron complex DC-140 using Monte Carlo method	BOLATKAZYYEV, Yeldos

## <u>Applications of nuclear methods in science, technology, medicine and radioecology: Radiation technologies/Radioecology</u> - Conference Hall (15:00 - 17:00)

time	[id] title	presenter
15:00	[259] Dosimetric planning of radiation treatment of bio-objects and materials	ZOLOTOV, Sergei
15:15	[208] STUDY OF THE RADIOECOLOGICAL SITUATION AT THE SITES OF EMERGENCY UNDERGROUND NUCLEAR EXPLOSIONS IN THE 70S IN YAKUTIA	Dr MAMAEVA, Sargylana
15:30	[145] THE EFFECT OF X-RAY RADIATION AND ACCELERATED ELECTRONS ON POTATO YIELD	CHULIKOVA N.S., Чуликова
15:45	[244] APPLICATION OF COMBINED RADIATION TECHNOLOGIES FOR STERILIZATION OF CULTURAL HERITAGE ARTIFACTS	NIKOLAEVA, Nadezhda
16:00	[158] Определение тормозной способности ионов углерода в органических соединениях при помощи ядер отдачи	TIMOFEY, Bobrovskiy
16:15	[235] PROSPECTS AND DIRECTIONS FOR IMPROVING RADIATION STERILIZATION TECHNIQUES	Ms KHUTSISTOVA, Alana
16:30	[322] New beam dynamics simulation for the updated coil design of MSC230 cyclotron for medical-biological research	SEDOV, Leonid
16:40	[33] ИЗМЕРЕНИЕ КОНЦЕНТРАЦИИ АЛЬФА-ИЗЛУЧАЮЩИХ НУКЛИДОВ В РАСТВОРАХ С ПОМОЩЬЮ АЛЬФА-СПЕКТРОМЕТРИИ	ERSHOV, Konstantin

#### Applications of nuclear methods in science, technology, medicine and radioecology - Conference Hall (17:30 - 19:20)

time	[id] title	presenter
17:30	[331] PROGRAM FOR QUICK CALCULATION OF ABSORBED DOSE DISTRIBUTION BY DEPTH IN HOMOGENEOUS OBJECTS	STUDENIKIN, Felix
17:50	[333] Chemical transformations of volatile organic compounds in animal-derived products after irradiation	IPATOVA, Victoria
18:05	[353] Optimization of radiation treatment of biological objects	Dr BLIZNYUK, Ulyana
18:20	[70] Механизм уточнения энергетических потерь ионов в области низких энергий с помощью измерения эффекта Доплера	GRACHKOV, Alexey
18:35	[220] Performance of the Mass Testing Setup for Arrays of Silicon Photomultipliers in the TAO Experiment	РЫБНИКОВ, Арсений
18:50	[247] Evolution of the neutron spectrum during propagation of the neutron flux in solid bodies	KHLIUSTIN, Denis
19:05	[355] Monte Carlo Simulation Techniques in Radiation Dosimetry: Advancements and Applications	ASHUROV, Sindorjon