

**International Conference for young scientists, specialists and post-graduates on  
Nuclear Reactor Physics ICNPR-2020**

**7-11 September 2020**

**Conference program**

<b>7 September</b>		
<b>Открытие Конференции. Пленарное заседание. Conference opening. Plenary session.</b>		
14:00-14-30	Открытие конференции	
14-30-15-00	<u>Цибульский В.Ф.</u> НИЦ «Курчатовский институт»	Экономика, энергетика и тенденции ближайшего десятилетия
15-00 –15-30	<u>Хомяков Ю.С.</u> АО «Прорыв»	Естественная безопасность как база формирования широкомасштабной ядерной энергетики на базе реакторов на быстрых нейтронах и ЗЯТЦ
15-30-16-00	<u>Мосунова Н.А.</u> ИБРАЭ РАН	Коды нового поколения проектного направления «Прорыв»
16-00 – 16-30	<u>Зизин М.Н.</u> НИЦ «Курчатовский институт»	Пространственная нейтронная кинетика. Опыт разработки программ и тестов.
16-30 - -17:00	<u>Тихомиров Г.В.</u> НИЯУ МИФИ	Актуальные вопросы подготовки кадров для атомной отрасли
<b>8 September</b>		
<b>Секция «Тестовые задачи, коды и базы данных» Computational reactor tests, codes, data bases and multiphysics calculations of nuclear reactors</b>		
10:00-10:15	<u>Zadorozhnyi A.V.</u> , Ozrin V.D. <i>Nuclear Safety Institute of the Russian Academy of Sciences (IBRAE RAN)</i>	The influence of precipitates upon the thermal conductivity of nitride fuel
10:15-10:30	<u>Saldikov I.S.</u> , Tikhomirov G.V., Bogdanova E.V., Pugachev P.A., Ryzhov S.N., Smirnov A.D., Ternovskykh M.Y. <i>MEPhI</i>	CORIUMSITY program code for analysis of radiation characteristics of a corium
10:30-10:45	<u>Pyatnitskaya N.Yu.</u> , Listratov Ya.I., Belyaev I.A. <i>NRU MPEI</i>	Flow in thin shear layers and jets of various types under the influence of magnetic fields in relation to cooling systems of fusion installations
10:45-11:00	<u>Zagrebaev A.M.</u> , <u>Trifonenkov A.V.</u> <i>MEPhI</i>	The analysis of RBMK neutron flux profile distortions using operational data history. The recovery of axial xenon-135 distribution based on the operational data history. The calculation of the nuclear reactor start-up delay due to neutron flux profile distortions
11:00-11:15	<u>Zagrebayev A.M.</u> , Ramazanov R.N. <i>MEPhI</i>	Mathematical model of the distribution of the coolant flow rate in the group distribution header and its use to determine the flow rate in the RBMK reactor channel

11:15-11:30	<u>E.V. Bogdanova</u> , G.V. Tikhomirov <i>MEPhI</i>	Classification and verification of variance reduction techniques in deep penetration problems
11:30-11:45	Gurevich M.I., Kalugin M.A. <u>Kuznetcov A.N.</u> , Oleynik D.S. Shkarovsky D.A. <i>NRC "Kurchatov Institute"</i>	Development and testing of algorithms for performing computation of detector readings from a pulsed neutron source
11:45-12:00	<u>A.D. Smirnov</u> , E.V. Bogdanova, P.A. Pugachev, I.S. Saldikov, S.N. Ryzhov, G.V. Tikhomirov, M.Y. Ternovskykh, H. Takezawa, J. Nishiyama, T. Obara <i>MEPhI, TIT, TCU</i>	Benchmark calculations of sub-critical fuel debris particles using Monte Carlo codes
12:00-12:15	<u>P.A. Pugachev</u> , E.V. Bogdanova, A.D. Smirnov, G.V. Tikhomirov, <i>MEPhI</i>	Optimization of highly irregular geometries for the needs of post-accident reactor's safety analysis via Monte-Carlo codes
	<u>M.Y. Ternovskykh</u> , H.M. Abdumalikov <i>MEPhI</i>	Neutron-physical characteristics modeling of light water reactors corium suspension in water
12:15-12:30	<u>Blandinski V.Y.</u> , <u>Kotov I.A.</u> , Nevinitsa V.A., Fomichenko P.A. <i>NRC "Kurchatov Institute"</i>	Preliminary calculation of CEFR start-up tests
12:30-12:45	Ya.A. Kotov, <u>V.A. Nevinitsa</u> , A.Yu. Smirnov <i>MEPhI</i>	Accounting for Uranium-234 During the Analysis of Experiments at the Research Fast Reactor with High Enrichment
12:45-13:00	<u>Romanenko V.I.</u> , Nikonov S.P. <i>MEPhI</i>	SKETCH-N/ATHLET coupled calculations using the boundary conditions plugin
13:00-13:15	<u>Yu. V. Stogov</u> <i>MEPhI</i>	Estimation of accuracy of the method of gamma-spectrometry for nondestructive control of the gadolinium content and uranium enrichment in non-irradiated VVER-type fuel pellets
13:15-13:30	<u>Жердев Г.М.</u> <i>Атомстандарт</i>	Расчет эффектов реактивностей и их погрешностей в системе СКАЛА-РОКОКО
13:30-14:30		<b>Перерыв</b> <b>Break</b>

#### **Секция «Расчетное сопровождение действующих и проектируемых ядерных реакторов»**

#### **Calculation for the needs of operation and design of nuclear reactors**

14:30-14:45	Alferov V.P., Geraskin N.I., Kozhin A.F., Kruglikov A.E., Ozherelev S.A., Serebryakov A.A., <u>Shchurovskaya M.V.</u> , Yakovlev L.I., Andreev D.V, Gaiduchenko A.B., Aleeva T.B. <i>MEPhI, NRC "Kurchatov Institute"</i>	Experience of long-term U-Al fuel performance in research reactors with low energy generation
14:45-15:00	<u>A.M. Osipov</u> , E.Y. Bragin, S.V. Prochorenkov <i>NRC "Kurchatov Institute"</i>	The simulate of the stratification of an explosive mixture of hydrogen and air in the RBMK-1000 spent-fuel storage pool
15:00-15:15	<u>M.V. Bobkova</u> , T.N. Korbut, E.A. Rudak <i>State Scientific Institution "The</i>	Description of transient processes in multiplying medium by the physical birth-and-death model

	<i>Joint Institute for Power and Nuclear Research – Sosny”</i>	
15:15-15:30	<u>Брагин Евгений Юрьевич</u> <i>NRC “Kurchatov Institute”</i>	The simulate of the stratification of an explosive mixture of hydrogen and air in the RBMK-1000 pre-reactor spent fuel storage
15:30-15:45	<u>Kruglikov A.E.</u> , Volkov Yu.N., Zizin M.N., Nevinitsa V.A., Fomichenko P.A., Boyarinov V.F.  <u>Kruglikov A.E.</u> , Shchurovskaya M.V., Volkov Yu.N., Nevinitsa V.A., Fomichenko P.A., Zizin M.N.  <i>MEPhI, NRC “Kurchatov Institute”</i>	Computational analysis of experiments to determine the kinetic parameters at the ASTRA HTGR type critical facility.  Homogenized group constants generation using Monte Carlo codes for diffusion calculation of pebble bed reactor.
15:45-16:00	<u>Ashraf O.</u> and Tikhomirov G.V. <i>MEPhI, Ain Shams University</i>	SMSFR vs SD-TMSR for minor actinides transmutation
16:00-16:15	<u>A.S. Gryazev</u> , A.M. Osipov, D.V. Finoshkina, I.A. Tupotilov <i>NRC “Kurchatov Institute”, NRU MPEI</i>	Analysis of hydrogen explosion in the at-reactor spent fuel storage pool of NPP with RBMK-1000
16:15-16:30	<u>A.K. Smirnova</u> , A.V. Krayushkin <i>NRC “Kurchatov Institute”</i>	Modernization of the CHAIN code for fission gas release calculation
16:30-16:45	<u>B. Djaroum</u> , D. A. Solovyev, A. A. Semenov, N. V. Schukin, I.A. Molev, A. I. Al-Shamayleh, T. H. Ahmad <i>MEPhI</i>	Water exchange amount reduction algorithm for power control of VVER-1000/1200 units operating in load-following mode
16:45-17:00	<u>Rahman SK Anisur</u> , M A Uvakin <i>MEPhI</i>	Investigation of the power peaking factors Kr in the fuel assembly during the maneuvering mode of the VVER-1000 reactor
17:00-17:15	<u>A.V. El'shin</u> , A.U. Koreshkova, A. K. Makovets <i>INE (branch) Peter the Great SPbU</i>	Comparison of the equations of the surface harmonics method and the finite difference method in the test problem
17:15-17:30	<u>J. A. Korchova</u> , N. V. Harbachova, N. D. Kuzmina, N. V. Kulich <i>Joint Institute for Power and Nuclear Research-Sosny</i>	Influence of the highly toxic actinides content on the potential hazard of spent nuclear fuel from Belarusian NPP during long-term storage and disposal of its recycle products

### 9 September

<b>Секция «Инновационные проекты реакторов и топливных циклов»</b> <b>Advanced nuclear reactor design and challenges in closed fuel cycle implementation</b>		
10:00-10:15	<u>J. Bousquet</u> , R. Henry, A. Seubert <i>GRS</i>	New Finite Element Neutron Kinetics Code System FENNECS/ATHLET for Coupled Safety Assessment of (Very) Small and Micro Reactors
10:15-10:30	Shmelev A.N., Geraskin N.I., Kulikov G.G., Kulikov E.G., Apse V.A., <u>Glebov V.B.</u> <i>MEPhI</i>	The problem of large-scale production of plutonium-238 for autonomous energy sources
10:30-10:45	<u>M.Y. Ternovskykh</u> , E.V. Bogdanova <i>MEPhI</i>	Cross-verification of the constants system on the task of BR-1200 control and protection system efficiency calculation
10:45-11:00	Bahdanovich R.B., Karpovich	Modeling of BN-600 Hybrid Core Benchmark

	G.W., <u>Abu Sondos M. A.</u> , Kaprinayova K., Farkas G., Tikhomirov G.V. <i>Belarusian State University, Obninsk Institute for Nuclear Power Engineering MEPhI, AAAlbalqa'a Applied University, Slovak University of Technology in Bratislava, MEPhI</i>	(HEX-Z) with MCU-PTR and SERPENT 2
11:00-11:15	<u>Romain Henry</u> , Yann Périn, Kiril Velkov and Sergei Pavlovich Nikonov <i>GRS</i>	Cross-sections production for VVER analysis, application to Rostov-2 Benchmark
11:15-11:30	Chugunov A.S., <u>Vinnitskii V.A</u> <i>Saint-Petersburg state institute of technology</i>	Radwaste management in VVER technology: feasibility of splitting and the transition to the separate collection and processing
11:30-11:45	<u>Emil Situdikov</u> , Anton Diachenko <i>Rosatom Technical Academy</i>	Possibilities and features of REMIX technology as an initial stage in the establishing of a full-scale two-component nuclear energy system
11:45-12:00	Georgy Tikhomirov, <u>Alexander Gerasimov</u> <i>MEPhI, NRC "Kurchatov Institute"</i>	The main problems of transmutation of actinides and long-lived fission products from NPP spent fuel
12:00-12:15	Kulikov G.G., Shmelev A.N., Apse V.A., <u>Kulikov E.G.</u> <i>MEPhI</i>	Physical aspects for involvement of thermonuclear reactors into nuclear power systems
12:15-12:30	Kulikov G.G., Shmelev A.N., Kruglikov A.E., Apse V.A., <u>Kulikov E.G.</u> <i>MEPhI</i>	Assessment of a possibility to produce non-traditional nuclear fuel in thorium blanket of hybrid thermonuclear reactor
12:30-12:45	<u>Kulikov G.G.</u> , Shmelev A.N., Apse V.A., Kulikov E.G. <i>MEPhI</i>	Assessment of a possibility to use 232U in radioisotope thermoelectrical generators
12:45-13:00	Stogov V.Yu., Korobeinikov V.V., <u>Kosyakin D.A</u> <i>Obninsk Institute for Nuclear Power Engineering MEPhI</i>	Problems of MOX fuel using in thermal reactors and possible their solution
13:00-13:15	Belavina E.A., <u>Sardov P.A.</u> , Belyaev I.A. <i>Joint Institute for High Temperatures of the Russian Academy of Sciences, MEPhI</i>	Temperature-correlation method for measuring velocity in a flow of liquid metal
13:15-13:30	<u>R.A.Kurskiy</u> , D.V.Safonov, O.O.Zabusov, A.B.Gayduchenko, A.S.Bragin, A.V. Rozhkov <i>NRC "Kurchatov Institute"</i>	Hydride reorientation and mechanical properties assessment of E110 cladding tubes under long-term dry storage conditions
13:30-14:30	<b>Перерыв</b> <b>Break</b>	
<b>Секция «Общие вопросы атомной энергетики (материалы, подготовка кадров, системы управления и защиты)»</b>		
14:30-14:45	<u>Buzhan P.</u> , Karakash A. <i>Scientific and production company "Doza"</i>	Hand-foot monitors for nuclear plants based on plastic scintillator-WLS-SiPM technology

14:45-15:00	<u>Raspopov D.A.</u> , Belousov P.A <i>IATE MEPhI</i>	Using of WorldSkills International standards for studying and training the specialists in nuclear industry
15:00-15:15	K V Kutsenko, A A Lavrukhin, V A Pershukov, M Yu Ternovskykh, G V Tikhomirov <i>MEPhI, ROSATOM State Atomic Energy Corporation</i>	Features of training specialists for responsibility centers of the project direction "Proryv"
15:15-15:30	A. C. Chergui, E. V. Popova, A. A. Stifutkin, O. Dendene , O. V. Bychkova <i>MEPhI</i>	Experimental comparison of the measurement results of two different silicon photomultipliers (sipms) and organic scintillator to detect fast neutrons.
15:30-15:45	<u>Varseev Evgenii</u> <i>AHO ДПО "Техническая академия Росатома"</i>	Internationalization of nuclear education and training with the use of nuclear infrastructure and simulation tools
15:45-16:00	Kruglov A.B., Kruglov V.B., <u>Struchalin P.G.</u> , Kharitonov V.S., Paredes P.L., Rachkov V.I. <i>MEPhI</i>	Experimental studying of thermal resistance of multilayer system "construction steel-liquid lead- construction steel"  Effect of impurities on the thermal conductivity of lead at temperature range 350-900 °C
16:00-16:15	<u>Thabit M. Abuqudaira</u> , Yuri V. Stogov <i>MEPhI</i>	Better utilization of MOX fuel in VVER type reactors
16:15-16:30	Y.A. Maslov, V.I. Skrytnyy, M.V.Bayaskhalanov, A. Sanetullaev	Staff training experience for the Uzbekistan nuclear industry in Branch of MEPhI in Tashkent
16:30-16:45	Kalin B.A., Skrytnyi V.I., Polyansky A.A. <i>MEPhI</i>	Organizational and methodological support of targeted training of specialists in the field of handling irradiated nuclear fuel for Rosatom enterprises
16:45-17:00	B.A. Горбунов, А.Г. Ильченко, С.Г. Андрианов, <u>М.Н. Мечтаева</u>  B.A. Горбунов, <u>М.Н. Мечтаева</u> <i>ИГЭУ</i>	Компьютерные технологии в системе подготовки специалистов для атомной отрасли в ИГЭУ  Применение современных пакетов численного и математического моделирования в учебном процессе при подготовке специалистов для ядерной энергетики в ИГЭУ
17:00-17:15	В.А. Горбунов, А.Г. Ильченко, С.Г. Андрианов, <u>М.А. Вольман</u> <i>ИГЭУ</i>	Применение компьютерных тренажерных систем при подготовке специалистов-атомщиков в ИГЭУ
17:15-17:30	<u>Saldikov I.S.</u> <i>MEPhI</i>	Analysis of rare publications topics in Russian Federation compared to the Worldwide by Russian National Center of INIS IAEA
17:30-17:45	Savander V.I., <u>Alassaf S.H.</u> <i>MEPhI</i>	Analysis the effectiveness of using extended core life cycle at NPPs abroad with VVER-type reactors
17:45-18:00	T.N. Korbut, V.V. Znevich, M.O. Kravchenko, A.M. Petrovskiy, M.V. Bobkova, I.A. Zubets <i>The Joint Institute for Power and Nuclear Research - Sosny</i>	Advanced Nuclear Security Program At The Joint Institute for Power and Nuclear Research - Sosny

	<i>Nuclear Research – Sosny</i>	
18:00-18:15	<u>Никитин Степан Николаевич</u> <i>MEPhI</i>	Interaction of uranium alloys with stainless steels
18:15-18:30	<u>Бовыкина Надежда</u> <u>Владимировна</u> <i>Военный комиссариат</i> <i>Московской области</i>	Transition to multilateral nuclear disarmament: challenges and options
18:30-18:45	<u>Цывкунова Елена</u> <u>Александровна</u> <i>MEPhI</i>	Science Diplomacy Club MEPhI: Advancing Science Diplomacy Education and Training.

**10 September**

**Короткие сообщения по тематике АЭ**

**Short reports session**

10:00-10:10	<u>Chernov D.O.</u> , Korobeynikov V.V., Mikhalev A.V <i>INPE MEPhI</i>	Use of Am-241 in RTGs
10:10-10:20	<u>Panchenko A.A.</u> <i>NRC "Kurchatov Institute"</i>	Point kinetics model as part SAPFIR-2006 software package
10:20-10:30	<u>A.S. Glazkov</u> , D.T. Ivanov <i>NRC "Kurchatov Institute"</i>	Criticality analysis of corium extraction from core catcher
10:30-10:40	<u>Dendene O.</u> , Afanasyev V.V., Al- Amin M. <i>MEPhI</i>	Theoretical simulation of collimators for neutron diagnostics of international thermonuclear experimental reactor plasma
10:40-10:50	<u>A.I. Elazaka</u> , G.V. Tikhomirov <i>MEPhI</i>	A new approach of spectral regulation in the pressurized water reactors using Zr rods
10:50-11:00	<u>A.I. Al-Shamayleh</u> , D.A. Solovyov, A.A. Semyonov, N.V. Shchukin, B. Djaroum, H.A. Tanash <i>MEPhI</i>	Determining the critical concentration of boric acid and the time of its onset when reaching to minimum controllable power for VVER
11:00-11:10	<u>Smirnov Vladislav Pavlovich</u> <i>Obninsk institute for nuclear</i> <i>power engineering</i>	Dynamic flowsheet of nuclear power plants in SVG format
11:10-11:20	<u>A.M. Zagrebaev</u> , R.N. Ramazanov, <u>E.U. Piskunova</u> <i>MEPhI</i>	Diagnostic of the performance of in-reactor sensors and forecasting the time of their failure
11:20-11:30	<u>Y.E. Litvintsova</u> , S. Laouar, M.I. Delov, D.M. Kuzmenkov, A.A. Lavrukhin, K.V. Kutsenko <i>MEPhI, Nuclear Research Centre</i> <i>of Birine</i>	Diagnostics of coolant boiling onset based on the analysis of fluctuations of thermohydraulic parameters
11:30-11:40	<u>E. A. Dashanova</u> , A.V. Geraseva, A.A. Shcherbakov <i>Russian State Research Center –</i> <i>Burnasyan Federal Medical</i> <i>Biophysical Center of Federal</i> <i>Medical Biological Agency, MEPhI</i>	Adaptation of the model approach to assessing the uncertainty of sample activity
11:40-11:50	<u>Baatar T.</u> , Kulikov E.G., Glazkov O.V. <i>MEPhI</i>	Increasing burn-up of KLT-40S fuel by introduction of neptunium
11:50-12:00	<u>I.A. Zubets</u> , T.N. Korbut, M. O. Kravchenko <i>Joint Institute for Power and</i> <i>Nuclear Research – Sosny</i>	The Modeling of kinetic characteristics of subcritical assembly "Yalina" using SuperMC Monte Carlo code.

	<u>R.A. Vnukov</u> , Masum Rana Pramanik, V.V. Kolesov  <u>Vnukov R.A.</u> , Zhavoronkova I.A., Kolesov V.V., Karpovich G.V.  <i>IATE MEPhI, MEPhI</i>	Effects of the location and composition of fuel elements in fuel assemblies of a VVER-1200 reactor on the campaign parameters  Effect of gadolinium absorber radial profiling in fuel pins on VVER-1000 assembly neutron-physical characteristics
12:00-12:10	<u>Nikalaichyk A.</u> , Bahdanovich R. <i>Belarusian State University</i>	Calculation of VVER MOX pin-cell benchmark with OpenMC code
12:20-12:30	<u>И.А. Бабамурадов</u> , А.Р. Музафаров, С.П. Никонов <i>MEPhI</i>	Analysis of the reactivity accident of the VVER-1000 reactor caused by the rupture of the steam generator's steam pipeline
12:30-12:40	<u>A.R. Muzaferov</u> , S.P. Nikonov <i>MEPhI</i>	Analysis of the connection of an idle MCP with three operating without a preliminary reduction in the power of the VVER-1000 reactor
12:40-12:50	<u>Khomyakov D.</u> <i>MEPhI</i>	Neutron-physical characteristics of BFS-1 to create a VR simulator
12:50-13:00	<u>Грушин Никита Анатольевич</u> АО "ВНИИАЭС"	Problems of small-group and combined RBMK calculations. Method of cross section correction. (Program MNT-CUDA)
13:00-14:00	<b>Перерыв</b> <b>Break</b>	
14:00-14:10	<u>Shcherbakov A.A.</u> <i>MEPhI</i>	Neutron-physical characteristics of Godiva for VR simulator
14:10-14:20	<u>D. V. Finoshkina</u> , O.I. Melikhov, A.M. Osipov <i>NRU MPEI, NRC "Kurchatov Institute"</i>	Estimation of pressure during steam explosion in the subreactor room of NPP with RBMK-1000
14:20-14:30	<u>Laidani.Z</u> , Tolokonsky A. O., Abdulraheem K.K., Ouahioune.M, Berreksi.R. <i>MEPhI</i>	Modelling and simulating of a multiple input and multiple output system to control the liquid level and temperature by using model predictive control.
14:30-14:40	<u>Ouahioune Mohand</u> , Tolokonskiy Andrey Olegovich, Berreksi Rabie, Laidani Zahir <i>MEPhI</i>	Temperature control of a CSTR using NARMA-L2 neuro-controller
14:40-14:50	<u>Hassan A.A.</u> , Alassaf S.H., Savander V.I., Afanasyev V.V <i>Joint Institute for Nuclear Research "JINR", MEPhI</i>	Investigation of using U-233 in thorium base instead of conventional fuel in Russian PWR by SERPENT Code
14:50-15:00	<u>Glyva K.I.</u> , Nikonorov S.P. <i>MEPhI</i>	Simulation of 3d hydraulic effects on the IR-8 reactor's IRT-3M FA using ATHLET code
15:00-15:10	<u>Berreksi.R</u> , Tolokonsky A. O., Korolev S.A., Laidani.Z, Ouahioune.M. <i>MEPhI</i>	Application of fuzzy logic in real time systems, UMICOM software and hardware complex
15:10-15:20	<u>H. A. Tanash</u> , D. A. Solovyev, A. A. Semenov, N. V. Schukin, I.A. Molev, B. Djaroum, A. I. Al-Shamayleh <i>MEPhI</i>	An investigative study of the neutron flux behavior due to enrichment and burn up for different types fuel assemblies of VVER 1200 Reactor
15:20-15:30	Alhmoud A.Z., Kruglov V.B.,	Accident Tolerant Fuel For VVER reactors.

	Kruglov A.B. <u>Alhmoud A.Z.</u> , Kruglov V.B.  <i>MEPhI</i>	U-10MO and U3Si2 fuels for future nuclear power plant.
15:30-15:40	<u>V.Y. Shorov</u> , M. Y. Ternovykh, A.S. Gerasimov <i>MEPhI</i>	Study of radiation levels in the area of the transport container for transportation of VVER-1000 reactors spent nuclear fuel
15:40-15:50	V.D. Zhukov, A.S. <u>Listov</u> , V.G. Pronyaev, V.V. Sinitsa <i>NRC "Kurchatov Institute"</i>	Estimation of the effect of anisotropy of elastic neutron scattering on the integral parameters of a model experiment
15:50-16:00	<u>E.O. Soldatov</u> , Yu.N. Volkov, M.N. Zizin <i>NRC "Kurchatov Institute", MEPhI</i>	Parallel calculations of the stationary diffusion equation.
16:00-16:10	<u>Лобарев А.Л.</u> , Соколов Д.А. <i>MEPhI</i>	Testing system development for full-scale VVER simulators
16:10-16:20	Andrey Zagrebayev, <u>Stanislav Ten</u> <i>MEPhI</i>	Visualization of the nuclear reactor operational parameters archive using the principal component analysis.
16:20-16:30	<u>A.Y. Tolochkov</u> , H. M. M. Bastawesy Rifai, S. Laouar, M.I. Delov, D.M. Kuzmenkov, K.V. Kutsenko <i>MEPhI, Nuclear Research Centre of Birine</i>	Analysis of the effect of induced external convection on heat transfer from a horizontal heater
16:30-16:40	<u>Ignatev I. A.</u> , Klimenko D. S., Kolesov V. V., Korobeynikov V. V. <i>OINPE MEPhI, SSC RF – IPPE</i>	Evaluation of the burnout efficiency of NP-237 and AM-241 in a BN-600 reactor with a modified core
16:40-16:50	Terekhova A.M., Karazhelevskaya Yu.E., <u>Dikova T.S.</u> <i>IATE MEPhI</i>	Investigation the possibility of burning Cm a curium fuel reactor
16:50-17:00	<u>Pisarev A.N.</u> , Kolesov V.V. <i>MEPhI</i>	Influence of errors in one-group constants and / or neutron flux spectrum on uncertainty of nuclide number densities in the burn-up calculations in cells with different spectrum

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#### Короткие сообщения по тематике АЭ Short reports session

10:00-10:10	Terekhova A.M., Zlobin A.S., Karazhelevskaya Y. E., <u>Levon M.A.</u> <i>Obninsk Institute for Power Engineering</i>	Irregularity of plutonium isotopic composition of the BREST-OD-300 initial load
10:10-10:20	<u>Badahmaoui Tayeb</u> , Bugrieva Elena Pavlovna, Lavrukhan Alexey Anatolievich <i>MEPhI, All-Russian Research Institute for Chemical Technology, JSC "VNIIHT", Nuclear Research Center of Tamanrasset</i>	Characteristics of uranium mineralization in the Tin Seririne sedimentary basin (Algeria)
10:20-10:30	Klimenko D.S., Ignatiev I.A.,	Research study of possibility producing

	Kolesov V.V., Korobeynikov V.V. <i>OINPE MEPhI, SSC RF-IPPE</i>	radioisotope Mo-99 in the active core of the BN-600 reactor using an irradiated assembly with a high flux of thermal and resonance neutrons
10:30-10:40	<u>Chudinova V.A.</u> , Nikonov S.P. <i>MEPhI</i>	Modeling the core of a lead-cooled reactor
10:40-10:50	<u>Kudriavtseva A.S.</u> , Shmelev A.N. <i>MEPhI</i>	The influence of neutron reflector with special physical properties on fast reactor kinetics
10:50-11:00	<u>Ata-Kurbanova F.B.</u> <i>MEPhI</i>	Comparative analysis of methods for measuring burnup of spent fuel assemblies IRT MEPhI
11:00-11:10	<u>Levchenko J.V.</u> , Levon M.A. <i>Obninsk Institute for Power Engineering</i>	Transmutation in different types of reactors
11:10-11:20	<u>Shcherbakov A.A.</u> <i>MEPhI</i>	Using virtual reality to train specialists in nuclear energy
11:20-11:30	<u>Touiza M.</u> , Ananiev A.V. <i>MEPhI</i>	Influence of zirconium concentration on the extraction of technetium (VII) in SNF processing
11:30-11:40	<u>Ryzhov S.N.</u> , Tikhomirov G.V. <i>MEPhI</i>	Prospective methods for optimization of minor actinides transmutation technology
11:40-11:50	<u>S Medguedem</u> , A S Korsun, V N Fedoseev , M I Pisarevsky and Y N Balberkina <i>MEPhI</i>	Numerical simulation of turbulent flow in smooth and rough pipe Using Ansys Fluent Package.  Computational Fluid Dynamics in Turbulent FLOW with Artificial Roughness-wall Using ANSYS Fluent Package
11:50-12:00	<u>Ablatipova A. Yu.</u> , Zubarev V.N. <i>MEPhI</i>	Justification for the construction of a linear part of the video surveillance system for monitoring in an extended area
12:00-12:10	<u>Bartev N.O.</u> , Aleeva T.B., Zubarev V.N. <i>MEPhI</i>	Comparison of metrological characteristics of methods for determining uranium enrichment using NaI and Ge detectors
12:10-12:20	<u>Bazdnikin N. I.</u> , Zubarev V. N. <i>MEPhI</i>	Investigation of radioactive reactor graphite by gamma-spectrometric method.
12:20-12:30	<u>Kiryukhin P.K.</u> <i>MEPhI</i>	Development of a dynamic model of a multilayer critical sphere
12:30-12:40	<u>Yu-Fen Chang</u> , Boris V. Balakin <i>Høgskulen på Vestlandet</i>	Novel bio-compatible tracers for Positron Emission Particle Tracking
12:40-12:50	<u>Bukalin A.O.</u> , Zagrebaev A.M., Samanchuk V.N. <i>MEPhI</i>	Visualization of the process of neutron-physical calculation of a nuclear reactor for a reactor physics automated training system
12:50-13:00	<u>Mechraoui S.</u> , Bogdanov F.A., Gromushkin D.M., Izhbulyakova Z.T.,Yurin K.O., Yashin I.I. <i>MEPhI</i>	Project of a detector for registration of thermal neutrons based on inorganic scintillator using light-collecting fibers
13:00-13:10	<u>Romanenko V.I.</u> <i>MEPhI</i>	Prediction of the moderator temperatures using neural networks
13:10-13:20	<u>M. N. Vlasov</u> , A. S. Korsun, Yu. A. Maslov, I. G. Merinov, V. S. Kharitonov <i>MEPhI</i>	Determination of integral turbulence model parameters as applied to the calculation of flows in fuel assemblies of fast reactors in porous-body approximation
13:20-13:30	<u>A. Ghadbane</u> , Y. A. Maslov, I. G. Merinov	Numerical analysis of the impact of an innovative mixing grid with lateral swirl

	<i>MEPhI</i>	generators on the turbulent flow of VVER 7-rod bundles  Comparison between CFD Analysis and Experimental Data for Turbulent Flow in a 19-Rod Bundle of a TVSA fragment of VVER reactors type  Analysis of the Cross-flow using sectorial mixing grid type in fuel assemblies of an alternative design of VVER-1000 reactors
13:30-13:40	<u>Khnykina E.S.</u> <i>IATE MEPhI</i>	Study of the possibility of using thorium-uranium nuclear fuel in a reactor of VVER-1000 type