



World of **MEPhi**

May' 18

**CONGRATULATIONS ON
THE VICTORY DAY!**

MEPHI HOLDS MEETING DEDICATED TO VICTORY IN GREAT PATRIOTIC WAR

On May 7, on the eve of the Great Victory Day, lyceum students, lecturers and employees of the University have gathered in the main square of MEPhI to honor the memory of all those who gave their lives for the victory, as well as to express gratitude to those who remain in service today.

May 9 is a special and very important holiday for MEPhI, because the University was created during the war for the needs of the front; it is the place which forged science and laid knowledge, the use of which brought victory over fascism. Among the first students and teachers were veterans, who later, in peaceful conditions, created the scientific basis for the defense industry, helped to establish the nuclear industry of the country.

At this sunny, spring day there were lots of sincere words of gratitude to veterans and parting words to the younger generation. Opening the solemn meeting, the first vice-rector of MEPhI O.V. Nagornov read out a greeting from the President of the Russian Federation V.V. Putin, which says: «We are proud of the greatness of

our fathers and grandfathers' feat who defended the freedom and independence of the Fatherland, who saved the world from Nazism. Their faith in a just cause, love for the Motherland will always be a model of morality, patriotism, and spiritual strength for us.»

In continuation of the meeting, the staff and students of the University honored the memory of those killed in the Great Patriotic War with a minute of silence. Further, according to the established in University tradition, hieromonk Cassian served a funeral requiem in memory of the MEPhI veterans who have not lived to this day. The participants of the solemn meeting laid scarlet carnations to the Monument of Glory.

The event continued with the documentary film «Plague. Chronicles of the Third Reich» by the graduate of MEPhI Maksim Sergeevich Kuznetsov. Nazism in Germany, from its origin to the defeat in 1945 – in the unique shots of cameramen of the Third Reich. What led to the spread of the «brown plague» in Europe, at what price it was stopped near Moscow and on the banks of the Volga? Two decades, pressed in



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MEPhI attaches great impor-

tance to patriotic education of young people, traditionally holds a number of solemn events dedicated to this significant date. And on the holiday itself, on the 9th of May, students, lecturers and employees of the University took part in the Patriotic action «Immortal regiment» in Red Square.



ON THE EVE OF THE 9TH OF MAY OUR UNIVERSITY HELD A NUMBER OF SOLEMN EVENTS DEDICATED TO THIS SIGNIFICANT EVENT WITH THE ACTIVE SUPPORT OF THE VETERANS COUNCIL

Students of the Military Department laid flowers at the Memorial of the Eternal flame on the Red square



MEPhI delegation laid wreaths at the monument to Soviet Union Marshal G.K. Zhukov



The delegation of students, lecturers, staff and students of lyceums made an anniversary trip to the city of Naro-Fominsk with the laying of flowers at the obelisk of Komsomol members who died in the battles for this city. The monument was built in October 1967 on the initiative of MEPhI students.





Roman Nikolaenko



Irina Belousova

PARTICIPANTS OF JUNIOR CONTEST BECOME WINNERS OF INTERNATIONAL COMPETITION OF SCIENTIFIC AND ENGINEERING PROJECTS INTEL ISEF IN USA

From 13rd to 18th of May Pittsburgh (USA) has hosted the International Science and Engineering Fair Intel ISEF, which was attended by more than 1,000 students from 75 countries.

The Intel ISEF competition is sometimes called the «Small Nobel prize» – more than 20 future Nobel laureates became Intel ISEF prize-winners, being students. The national team of the Russian Federation included the team of winners and prize-winners of the Russian contest

of scientific works of schoolchildren «Junior» (organized by MEPHI).

The team members of Junior contest Irina Belousova and Roman Nikolaenko won the prizes of the Intel ISEF. Irina Belousova's work on the synthesis of derivatives of 5-fluorine, 5-phenyltripamine, potential anticancer drugs have been awarded the title of winner of the second degree. The project of the student of the Lyceum №1511 (MEPHI Pre-university) Roman Nikolaenko was dedicated to the development of a portable detector of wide atmo-

spheric showers of particles and made on the basis of SEC NEVOD at the National Research Nuclear University MEPhI; he was awarded a prize of the fourth degree. Throughout the history of the Intel ISEF competition Russia has received the award in physics only four times, two of them were received by students of the MEPhI Pre-university (the first time in 2015, the second time this year), which indicates its high scientific school. It's worth noting that both works were performed under the guidance of the staff of

the SEC NEVOD.

In total, five projects from the «Junior» contest were selected to participate in the Intel ISEF:

in the section «Physics and astronomy»

- Roman Nikolaenko (Lyceum 1511, Pre-university, MEPhI, Moscow);

- Maxim Mamchur (Samara Regional Center for Gifted Children, Samara);

in the section «Chemistry»

- Irina Belousova (Secondary

School named after Marshal V. I. Chuikov, Moscow);

- Elizaveta Sovdagarova (Secondary School named after Marshal V. I. Chuikov, Moscow) and Vladimir Kharitonov (Secondary School named after Marshal V. I. Chuikov, Moscow);

in the section «Mathematics»

- Egor Batarin (Lyceum 1523, Pre-university of MEPhI, Moscow).

Once again the success of the «Junior» team confirmed the high level of our competition.

THE FIRST PHYSICAL LAUNCH OF BM@N EXPERIMENT COMPLETES IN DUBNA

The first physical launch of the BM@n (Baryonic Matter at Nuclotron) experiment on the derived beam at the Nuclotron with a fixed target aimed at the study of dense nuclear matter and strange particles has been completed.

The experiment is a part of the NICA mega-project at the Joint Institute for Nuclear Research (JINR) in Dubna. The start is scheduled for 2020. A post-graduate student of INPhE and a part-time engineer of the Interdepartmental laboratory of experimental nuclear physics MEPhI Andrey Galavanov participated in the preparation and conduct of a trial session of the experiment.

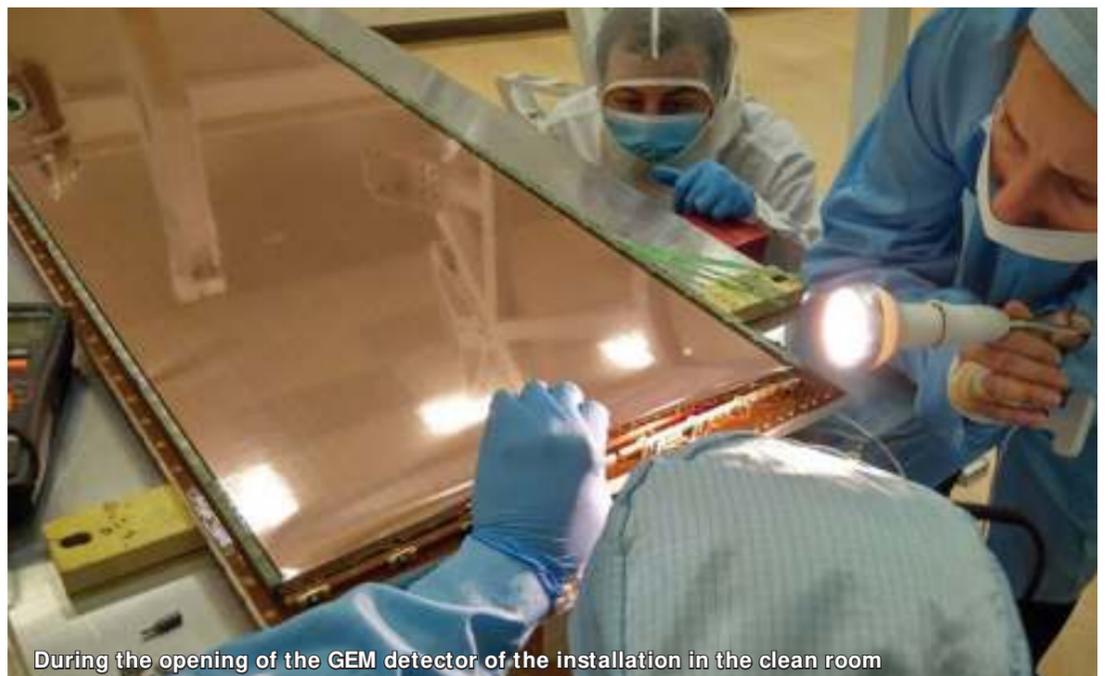
Andrey described the work at the initial stage as follows: «I was attached to a group that deals with the Central track system of the BM@N experiment based on gas electron multipliers (GEM) inside the installation's analyzing magnet. During the preparation for the session, our tasks included assembling detectors, efficiency testing, repairment (if necessary) and installation to the workplace (including cabling and connection of detectors to the data collection system). We organized round-the-clock duties; it was necessary to monitor the state of our detectors, to fix faults in time and, if possible, to eliminate them.

In general, the session was held very well; almost all detectors worked steadily, showed a high level of reliability. Data were collected with three different beams of nuclei - carbon, argon and krypton; moreover krypton beam was obtained at the Nuclotron for the first time. The main result of the first session is that the experimental facility included all the planned detector systems and we established cooperation between different groups of detector specialists. As for the physical results, there are several months of patience and painstaking processing of measurement results.

The general results of the session were discussed at the first collaboration meeting on MPD and BM@n experiments at the NICA facility. As a result, MEPhI became an official participant of these experiments. With the participation of the assistant professor of INPhE P.Y. Naumov, who is a curator of my specialty in postgraduate school «Instruments and methods of physical experiment», two excursions to the BM@N installation were organized for students. I thank my supervisor, Professor A.I. Bolozdynya, acting director of INPhE N.S. Barbashina for the opportunity to participate in the largest experiment in the field of particle physics in Russia».



Inside the magnet of the installation



During the opening of the GEM detector of the installation in the clean room