

PRIZES AND GRANTS

The **2012 B. Pontecorvo Prize** was awarded to Ettore Fiorini (University of Milan–Bicocca, Italy) for his outstanding contributions to the experimental search

of neutrinoless double-beta decay, in particular to the pioneering development of the semiconductor and cryogenic techniques applied for registration of this process.

JINR PRIZES FOR 2012

I. Theoretical Physics Research

First Prize

«Differential Equations and Functional Integral».

Author: G. Efimov.

Second Prize

«Multichannel Problems in Low-Dimensional Few-Body Systems».

Author: V. Melezhik.

II. Experimental Physics Research

First Prizes

1. «Investigation of Production and Decay Properties of Elements 113, 115, 117, and 118».

Authors: Yu. Oganessian, F. Abdullin, A. Voinov, S. Dmitriev, M. Itkis, A. Polyakov, R. Sagaidak, V. Utyonkov, Yu. Tsyganov, I. Shirokovsky.

2. «Measurement of the Neutrino Mixing Angle θ_{13} in the Daya Bay Experiment».

Authors: V. Vorobel, M. Gonchar, Yu. Gornushkin, P. Leitner, D. Naumov, I. Nemchenok, A. Olshevski.

The Jury for JINR Prizes wishes to acknowledge the substantial scientific and technological contributions made to this investigation by B. Grynyov and P. Zhmurin of the Institute for Scintillation Materials of the National Academy of Sciences of Ukraine.

Second Prize

«Refraction and Reflection of Polarized Neutrons from Non-collinear and Non-complanar Magnetic Systems».

Authors: V. Aksenov, V. Bodnarchuk, V. Ignatovich, S. Kozhevnikov, D. Korneev, Yu. Nikitenko, A. Petrenko, F. Radu, A. Fraerman.

III. Physics Instruments and Methods

First Prize

«Physical and Power Start-up of the Modernized IBR-2 Research Reactor».

Authors: V. Ananiev, A. Vinogradov, A. Dolgikh, L. Edunov, Yu. Pepelyshev, A. Rogov, S. Tsarenkov, A. Zaikin, I. Tretiyakov, N. Romanova.

Second Prizes

1. «The Multimeter Method of Investigation of Promising Functional Materials by Quantum Chemistry, Neutron Scattering and Optical Spectroscopy».

Authors: V. Kazimirov, M. Smirnov, A. Balagurov, I. Natkaniec.

2. «Research and Development Aimed at Improving the Main Parameters of Straw Detectors for Accelerator Experiments».

Authors: A. Savenkov, V. Peshekhonov, V. Myalovsky, V. Lysan, G. Kekelidze, I. Zhukov, N. Grigalashvili, V. Davkov, K. Davkov, I. Boguslawski.

IV. Applied Physics Research

First Prize

«New Type of Track Membranes with Asymmetric Pores for a Wide Spectrum of Nanotechnology Applications».

Authors: P. Apel, I. Blonskaya, S. Dmitriev, N. Levkovich, O. Orelovich, A. Presz, V. Sartowska, R. Spohr.

Second Prize

«JINR–IBA Cyclotron C235-V3 for the First Hospital Centre of Proton Therapy in Dimitrovgrad».

Authors: M. Kazarinov, G. Karamysheva, S. Kostromin, N. Morozov, A. Olshevski, V. Romanov, E. Samsonov, E. Syresin, N. Shakun, G. Shirkov.

Encouraging Prizes

1. «New Class of Special Functions of Mathematical Physics».

Author: V. Spiridonov.

2. «Properties of Hot Nuclei Produced in Collisions

of Light Relativistic Beams of the Nuclotron with a Heavy Target».

Authors: S. Avdeev, V. Karnaukhov, W. Karcz, V. Kirakosyan, P. Rukoyatkin, O. Srekalovsky, E. Strokovsky.

3. «Simulation of Nucleus–Nucleus Interactions at High Energies».

Authors: A. Galoyan, O. Rogachevsky, A. Polanski, V. Uzhinsky.

GRANTS

In 2012, to implement scientific projects, the staff members of the Joint Institute for Nuclear Research received financial support of the Russian Foundation for Basic Research (RFBR) and funds of the RF Ministry of Education and Science.

The Russian Foundation for Basic Research financed JINR projects in the framework of the following competitions: «Ambitious Scientific Research Projects» — 55 projects; «Scientific Projects Implemented by Young Scientists (My First Grant)» — 5 projects; «Scientific Research by Young Scientists from CIS Countries in Russian Scientific Institutions» and «Scientific Projects Implemented by Young Scientists under the Guidance of Candidates and Doctors of Science in RF Scientific Institutions» — 2 projects; «Fundamental Research-Based Projects» — 11 projects; «Publication of Scientific Papers» — 1 project.

RFBR, together with the Belarussian Republican Foundation for Basic Research, financed 1 project; together with the German Research Foundation — 1 project; together with the State Foundation of Natural Sciences of China — 2 projects; together with the Ministry of Education, Culture and Science of Mongolia — 3 projects; together with the State Foundation for Basic Research of Ukraine — 2 projects; together with

the National Centre for Scientific Research of France— 3 projects; together with the National Research Foundation of the Republic of South Africa — 1 project; together with the European Organization for Nuclear Research (CERN) — 2 projects.

RFBR rendered financial support to JINR for organization of 14 scientific conferences in the framework of the competitions «Organization of Russian and International Scientific Events in the Territory of Russia» and «Organization of Scientific Events for Young Researchers in the Territory of Russia». Financial support was also rendered to 5 JINR staff members for their participation in scientific conferences in the framework of the competitions «Participation of Russian Scientists in International Events Abroad» and «Organization of Russian–Ukrainian Seminars in 2012».

Thirteen projects were financed in 2012 in the framework of the competition of research projects of the Belarussian Republican Foundation for Basic Research (BRFBR) and the Joint Institute for Nuclear Research.

Financial support was rendered in the competition of the programme «Scientific Electronic Library» to obtain the access to electronic scientific information resources of foreign publishing houses.