

# PRIZES AND GRANTS

The **2011 B. Pontecorvo Prize** was awarded to Stanley Vojcicki (Stanford University, the USA), for outstanding contribution to the development of the MINOS detector, new results in particle physics and, in particular, in neutrino oscillations.

By the Order of the President of the Russian Federation Num.724 of 08.06.2011, the **2010 State Prize**

of the Russian Federation in science and technology was awarded to FLNR Scientific Leader Academician Yu. Oganessian and JINR Vice-Director Professor M. Itkis, for the discovery of a new stability region of superheavy elements.

## JINR PRIZES FOR 2011

### I. Theoretical Physics Research

#### First Prize

«Neutrinoless Double-Beta Decay and Double-Electron Capture».

*Authors:* F. Šimkovic, A. Faessler, M. Krivoruchenko, V. Rodin, P. Vogel.

#### Second Prize

«Vacuum Energy in Quantum Field Theory with Allowance for the Boundary Conditions».

*Authors:* M. Bordag, V. Nesterenko, I. Pirozhenko.

### II. Experimental Physics Research

#### First Prize

«Observation of a New Type of Cluster Decay».

*Authors:* D. Kamanin, Yu. Pyatkov, A. Alexandrov, I. Alexandrova, N. Kondratyev, Yu. Kopatch, E. Kuznetsova, V. Zhuchko, W. von Oertzen, W. Trzaska.

#### Second Prizes

1. «Sub-Barrier Reactions with Beams of Weakly Bound Cluster Nuclei».

*Authors:* A. Kulko, S. Lukyanov, Yu. Penionzhkevich, N. Skobelev, Yu. Sobolev, V. Kroha, A. Kugler, J. Mrázek, N. Demekhina, C. Borcea.

2. «Measurements of Hadron Production Cross-Sections in Proton- and Pion-Nucleus Interactions with Beam Momenta from 1.5 to 15 GeV/c».

*Authors:* A. Bolshakova, I. Boyko, M. Gostkin, D. Dedovich, A. Zhemchugov, Z. Krumshteyn, Yu. Nefedov, G. Shelkov, J. Wotschack, F. Dydak.

3. «Study of the Decays  $K^\pm \rightarrow \pi^\pm l^+ l^-$ ».

*Authors:* E. Goudzovski, V. Kekelidze, D. Madigozhin, V. Pervushin, Yu. Potrebenikov.

### III. Physics Instruments and Methods

#### First Prize

«Development and Construction of the ECR Ion Source DECRIS-SC2 with a Superconducting Magnet System».

*Authors:* V. Bekhterev, S. Bogomolov, V. Drobin, A. Efremov, Yu. Kostukhov, A. Lebedev, V. Loginov, V. Seleznev, N. Yazvitsky, B. Yakovlev.

#### Second Prizes

1. «Observation of the Effect of Spatial Laser Beam Stabilization in Atmospheric Air with Standing Acoustic Waves and Its Possible Applications in Building Fiducial Laser Lines».

*Authors:* Yu. Batusov, J. Budagov, M. Lyablin, A. Sissakian.

2. «Proposal and Investigation of New Materials — Low-Temperature Fluoropolymers for Ultracold Neutrons Storage Chambers with Very Low Neutron Losses, Used in a New Precision Neutron Lifetime Measurement».

*Author:* Yu. Pokotilovski.

3. «Tensor-Vector Deuteron Polarimeter at the Nuclotron Internal Target for Energies 270–2000 MeV».

*Authors:* P. Kurilkin, V. Ladygin, A. Malakhov, S. Reznikov, A. Khrenov, Y. Maeda, S. Sakaguchi, Y. Sasamoto, K. Suda, T. Uesaka.

#### **IV. Applied Physics Research**

##### ***Second Prize***

«Research on the Adequacy of Neutron Dosimeter Readings to New Dosimetric Quantities in Radiation Monitoring at JINR's Nuclear Physics Facilities».

*Authors:* V. Aleynikov, L. Beskrovnaya, Yu. Mokrov.

##### **Encouraging Prizes**

1. «Handbook of Neutron Optics».

*Authors:* M. Utsuro, V. Ignatovich.

2. «Spin-State Transitions and Magnetic Ordering in Complex Cobalt Oxides».

*Authors:* D. Kozlenko, N. Golosova, B. Savenko, S. Kichanov, E. Lukin, V. Kazimirov, Z. Jiráček.

3. «Gas Detectors of Nuclear Radiation».

*Author:* Yu. Akimov.

#### **GRANTS**

In 2011, to implement scientific projects, the staff members of the Joint Institute for Nuclear Research received financial support of the International Scientific Technical Centre (ISTC), the Russian Foundation for Basic Research (RFBR) and funds of the RF Ministry of Education and Science.

The Russian Foundation for Basic Research financed 127 projects in the framework of the following contests: «Ambitious Scientific Projects» — 51; «Projects to Develop Material and Technical Resources for Scientific Research» — 1; «Target Fundamental Research» — 7; «Publication Projects» — 1; «Scientific Research by Young Russian Scientists in RF Leading Scientific Organizations» — 1.

RFBR, together with the Austrian Scientific Foundation, financed 1 project; in collaboration with the Belarussian Republican Foundation for Basic Research — 2 projects; together with the National Scientific Research Society of Germany — 5 projects; together with the State Foundation for Natural Sciences of China — 1 project; together with the Ministry of Education, Culture and Science of Mongolia — 2 projects; in collaboration with the State Foundation for Basic Research of Ukraine — 2 projects; together with the National

Centre for Scientific Research of France — 6 projects; together with the National Foundation of the Republic of South Africa — 1 project.

RFBR rendered financial support to JINR in the organization of 17 scientific conferences in the framework of the competitions «Organization of All-Russian and International Scientific Conferences in the Territory of Russia» and «Organization of Scientific Events for Young Scientists». Twenty-eight JINR staff members received financial support for their participation in scientific conferences in the framework of the competitions «Participation of Russian Scientists in International Events Abroad» and «Participation of Young Russian Scientists in Scientific Events Held in Russia and Abroad».

In the framework of the Programme of the State Support for Young Russian Scientists, the Institute received 1 grant of the President of the Russian Federation.

In the framework of the programme «Scientific Electronic Library» financial support was obtained in the competition to get access to electronic scientific information resources of foreign publishing houses.