

# PRIZES AND GRANTS

The **2008 B. Pontecorvo Prize** was awarded to Professor V. Rubakov (INR, Moscow), for his essential contributions to the study of close interrelation among

particle physics, astrophysics and cosmology, and to the elaboration of a fundamentally new theory of physical space.

## PRIZEWINNERS OF JINR'S ANNUAL COMPETITION FOR BEST RESEARCH

### I. Theoretical Physics Research

#### *First Prize*

«Full Integrability of Supergravity Billiards: The Arrow of Time, Asymptotic States and Trapped Surfaces in the Cosmic Evolution».

*Authors:* P. Fre, A. Sorin.

#### *Second Prize*

«Search for New Physics in the Rare Decay  $\pi^0 \rightarrow e^+e^-$  and  $(g-2)_\mu$  and Pion Polarizability in ChPT».

*Authors:* A. Dorokhov, M. Ivanov.

### II. Experimental Physics Research

#### *First Prize*

«Prediction and Experimental Observation of Accelerating Matter Effect in Neutron Optics».

*Authors:* P. Geltenbort, M. Jentschel, D. Kustov, G. Kulin, V. Nosov, A. Strepetov, A. Frank.

#### *Second Prizes*

1. «Experimental Study of the Nuclear Spinodal State».

*Authors:* S. Avdeyev, A. Budzanowski, V. Karnaukhov, W. Karcz, V. Kirakosyan, V. Rodionov, H. Oeschler, I. Skwirczynska.

2. «Study of Two-Photon Interactions in the DELPHI Experiment».

*Authors:* B. Batyunya, V. Pozdniakov, I. Tyapkin, N. Zimin, A. Zinchenko, I. Boyko, Yu. Vertogradova, V. Zhuravlev, F. Kapusta.

3. «Mechanisms of Microorganism Mutation Process at the Action of Radiation with Different LET».

*Authors:* O. Belov, A. Boreyko, N. Koltovaya, E. Krasavin, A. Parkhomenko.

4. «Investigations of the Properties of Fusion-Fission and Quasifission Processes in Reactions Induced by Heavy Ions».

*Authors:* M. Itkis, E. Kozulin, A. Bogachev, D. Gorelov, G. Knyazheva, L. Krupa, T. Loktev, S. Smirnov, E. Chernyshova, Yu. Itkis.

### III. Physics Instruments and Methods

#### *First Prize*

«Production and Acceleration of Tritium Ion Beam at the U400M Cyclotron».

*Authors:* V. Bekhterev, S. Bogomolov, Yu. Vinogradov, G. Gulbekian, A. Efremov, V. Loginov, Yu. Ognessian, S. Pashchenko, M. Khabarov, A. Yukhimchuk.

### IV. Applied Physics Research

#### *First Prize*

«Template Technology for Forming Metallic Nanostructures».

*Authors:* S. Dmitriev, V. Reutov, M. Miklyaev, A. Sokhatsky, B. Mchedlishvili.

### **Second Prizes**

1. «Investigation of Models of Thermal and Thermoelastic Processes of Heavy Ion Interaction with Materials».

*Authors:* I. Amirkhanov, A. Didyk, A. Hofman, D. Muzafarov, I. Puzynin, T. Puzynina, I. Sarhadov, N. Sarkar, Z. Sharipov, E. Zemlyanaya.

2. «Investigation of Martensitic Transformation and Fatigue Properties of Austenitic Stainless Steel by Neutron Diffraction Method».

*Authors:* Yu. Taran, J. Schreiber.

### **Encouraging Prizes**

1. «Deuteron Structure Investigation in Experiments on Polarized Deuteron Fragmentation

with the Emission of Protons at Large Transverse Momenta and in Inelastic Deuteron Scattering».

*Authors:* L. Azhgirey, V. Zhmyrov, L. Zolin, A. Yusupov, V. Ladygin, N. Ladygina, A. Litvinenko, S. Reznikov, A. Khrenov, N. Yudin.

2. «Monochromatization of Ion Beams at the DRIBs Accelerator Complex for Studying Nuclear Reactions at Energies Close to the Coulomb Barrier».

*Authors:* R. Astabatyanyan, M. Ivanov, I. Kalagin, A. Kulko, S. Lukyanov, V. Maslov, V. Melnikov, S. Mitrofanov, Yu. Penionzhkevich, N. Skobelev.

## **GRANTS**

In 2008, to implement scientific projects, the staff members of the Joint Institute for Nuclear Research received financial support of the International Scientific and Technical Centre (ISTC), the International Association for the promotion of cooperation with scientists from the New Independent States of the former Soviet Union (INTAS), the Russian Foundation for Basic Research (RFBR), and funds of the RF Ministry of Education and Science.

The Russian Foundation for Basic Research financed 72 projects in the framework of the following contests: «Enterprising Scientific Projects» — 63 projects, «Projects for Development of the Material and Technical Basis for Scientific Research» — 1 project, «Directed Fundamental Research» — 1 project, «Publishing Projects» — 4 projects, «Urgent Publishing Projects» — 1 project, «Scientific Research of Young Russian Scientists in Leading RF Scientific Organizations» — 2 projects.

RFBR, together with the National Scientific Research Society of Germany financed 6 projects, jointly with CERN — 2 projects, together with the Romanian Academy of Sciences — 1 project, with the Vietnamese

Academy of Sciences and Technology — 1 project, with the State Foundation for Natural Sciences of China — 3 projects, with the Ministry of Education, Culture and Science of Mongolia — 1 project, together with the Belarussian Republican Foundation for Basic Research — 3 projects, with the Academy of Sciences of Moldova — 1 project, and with the State Foundation for Basic Research of Ukraine — 3 projects.

RFBR rendered JINR financial support to hold 22 scientific conferences in the framework of the contests «Organization of All-Russian and International Scientific Conferences in the Territory of Russia». Financial support was also rendered to 36 JINR staff members to take part in scientific conferences abroad in the framework of the contest «Participation of Russian Scientists in International Events Abroad».

In the context of the Programme of the State Support for Young Russian Scientists and Leading Scientific Schools, the Institute received 5 grants of the President of the Russian Federation, among them 3 grants for scientific schools and 2 grants for young Russian scientists.