

# PRIZES AND GRANTS

The **G.Flerov Prize for 2009** was awarded to Professors S.Galès (GANIL, Caen, France), D.Guillemaud-Mueller (INP, Orsay, France), and Yu.Penionzhkevich (FLNR, JINR) for the studies «Synthesis and Properties of Exotic Nuclei near the Border of the Nucleon Stability».

The **B.Pontecorvo Prize for 2010** was awarded to Professor S.Petkov (SISSA/INFN, Trieste, Italy; the Bulgarian Academy of Sciences) for fundamental contribution to the research of neutrino passing in matter, the processes  $\mu \rightarrow e\gamma$ ,  $\mu \rightarrow 3e$  and Majorana properties of neutrino; to Professor Y.Suzuki (Tokyo University, Japan) for an outstanding contribution to the discovery of atmosphere- and solar-neutrino oscillations in the Super-Kamiokande experiment.

The **V.Dzhelepov Prize** was awarded to RAS Corresponding Member L.Ponomarev (RRC «Kurchatov

Institute») for outstanding achievements in the field of experimental and theoretical research aimed to solve application tasks with nuclear physics methods.

By the Order of the Government of the Russian Federation Num.285-p of 25 February 2011, the Prize of the RF Government 2010 in science and technology was awarded to Deputy Director of the Veksler and Baldin Laboratory of High Energy Physics of JINR Doctor of Physics and Mathematics A.Kovalenko, Deputy Director of the Veksler and Baldin Laboratory of High Energy Physics of JINR Candidate of Physics and Mathematics G.Trubnikov, Chief Engineer of the Nuclotron facility Candidate of Technical Science (Engineering) H.Khodzhibagiyani, and Academician A.Sissakian for the development of heavy-ion accelerators of a new generation for relativistic nuclear physics and innovative nuclear-energy technologies.

## JINR PRIZES FOR 2010

### I. Theoretical Physics Research

#### First Prize

«Integrable Models of Non-equilibrium Statistical Mechanics».

*Authors:* A.Povolotsky, V.Priezzhev.

#### Second Prize

«Investigation of the Properties of Exotic Hadrons».

*Authors:* N.Kochelev, Hee-Jung Lee, V.Vento.

### II. Experimental Physics Research

#### First Prize

«Synthesis of Element 117 in the Reaction  $^{249}\text{Bk} + ^{48}\text{Ca}$ ».

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

### Second Prizes

1. «Solution of the Scientific Problems, Related to the Creation of Transdermal Vesicular Drug Carriers, by Neutron and X-ray Scattering».

*Authors:* M.Kiselev, A.Balagurov, E.Zemlyanaya, E.Ermakova, N.Ryabova, A.Kisselev, P.Lesieur, T.Hauss, R.Neubert, V.Aksenov.

2. «Measurement of the P-odd Asymmetry in Emission of Tritons in the  $^6\text{Li}(n, \alpha)^3\text{H}$  Reaction and  $\gamma$ -quanta in the  $^{10}\text{B}(n, \alpha)^7\text{Li}^* \rightarrow \gamma \rightarrow ^7\text{Li}(\text{g.st.})$  Reaction with Cold Polarized Neutrons».

*Authors:* Yu.Gledenov, P.Sedyshev, V.Vesna, E.Shulgina, V.Nesvizhevsky, T.Soldner.

### III. Physics Instruments and Methods

#### First Prize

«Design, Construction and Commissioning of the LHC Transverse Feedback Power System».

*Authors:* E. Gorbachev, N. Lebedev, A. Makarov, N. Pilyar, S. Rabtsun, V. Zhabitsky, W. Höfle, R. Louwerse, E. Montesinos, D. Valuch.

#### **Second Prizes**

1. «Transition Radiation Detector — Tracker (TRT) for the ATLAS Inner Detector (LHC)».

*Authors:* F. Dittus, D. Froidevaux, Yu. Gusakov, N. Grigalashvili, G. Kekelidze, V. Lysan, V. Myalkovskiy, V. Peshekhonov, A. Savenkov, I. Zhukov.

2. «Modernization of the Detection System of the Separator VASSILISSA: Creation of a Detector for the Study of Spontaneous Fission Properties of Short-Lived Heavy Nuclei».

*Authors:* A. Svirikhin, A. Yeregin, I. Izosimov, A. Isaev, A. Kuznetsov, O. Malyshev, A. Popeko, E. Sokol, M. Chelnokov, V. Chepigin.

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

#### **First Prize**

«New Theoretical and Experimental Investigations of Seismic Properties of the Earth's Lithosphere on the Basis of Neutron Diffraction Data».

*Authors:* T. Ivankina, V. Ignatovich, H. Kern, T. Lokajicek, A. Nikitin, L. Phan, K. Ullemeyer, R. Vasin.

#### **Second Prizes**

1. «Cryodiagnostics for Superconducting Accelerators».

*Authors:* V. Vainberg, Yu. Dedikov, A. Klebaner, A. Kovrizhnykh, V. Miklayev, K. Panferov, S. Romanov, B. Sveshnikov, Yu. Filippov, V. Shabratov.

2. «The Use of the Molecular Dynamics Method in Studying a Dark-Adapted State of the Photoreceptor Protein Rhodopsin of Retina Visual Cells».

*Authors:* M. Ostrovsky, Kh. Kholmurodov, T. Feldman.

#### **Encouraging Prizes**

1. «Nonperturbative QCD Effects in Soft and Semi-hard Particle Interactions at High Energies».

*Author:* G. Lykasov.

2. «Acceleration of Xe Ions at the Nuclotron».

*Authors:* A. Govorov, D. Donets, V. Salnikov, V. Slepnev, A. Butenko, H. Khodzhibagiyev, V. Karpinsky, V. Volkov, G. Trubnikov, A. Sidorin.

3. «Investigations of Cluster Formation in Liquid Solutions of Fullerenes».

*Authors:* M. Avdeev, V. Aksenov, E. Kyzyma, T. Tropin, A. Khokhryakov, L. Bulavin, L. Rosta, M. Korobov, V. Priezzhev, J. Schmelzer.

### **GRANTS**

In 2010, 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 144 projects in the framework of the following contests: «Ambitious Scientific Projects» — 53; «Projects to Develop Material and Technical Resources for Scientific Research» — 1; «Target Fundamental Research» — 5; «Publication Projects» — 2; «Scientific Research by Young Russian Scientists in RF Leading Scientific Organizations» — 6.

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 — 6 projects; together with the Helmholtz Association in Germany — 1 project; together with the Ministry of Science and Technology of the Government of India — 2 projects; together with the EINSTEIN syndicate in Italy — 1 project; together with the State Foundation of Natural Sciences of

China — 3 projects; together with the Ministry of Education, Culture and Science of Mongolia — 1 project; together with the Council on Scientific and Technical Research of Turkey — 1 project; in collaboration with the State Foundation for Basic Research of Ukraine — 3 projects; together with the National Centre for Scientific Research of France — 5 projects; together with CERN — 1 project; together with the Japanese society to promote sciences — 1 project.

RFBR rendered financial support to JINR in the organization of 11 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». Thirty-eight JINR staff members received financial support for their participation in scientific conferences within 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 2 grants of the President of the Russian Federation.