
PUBLISHING DEPARTMENT

In 2006 the Publishing Department published JINR communications and preprints of 190 titles. Issued were 45 official publications.

A total of 37 books of abstracts, proceedings of various conferences, schools and workshops organized by JINR were issued.

Among them are the proceedings of the XX International Symposium on Nuclear Electronics & Computing (NEC'2005), the proceedings of the 7th international workshop «Isomers and Quantum Nucleonics», the next volume of the series «Nucleation Theory and Application», which includes the contributions presented in the course of the workshops held at the Bogoliubov Laboratory of Theoretical Physics in 2003–2005, the proceedings of the 8th international workshop «Relativistic Nuclear Physics: from Hundreds of MeV to TeV», the collection of papers «Bogoliubov Laboratory. 50 Years». Also published were the annual reports of JINR for 2005 (in Russian and in English).

A photo album «Scientific Dubna Seen by Yuri Tumanov» was published to mark the 50th anniversary of JINR. It contains the portraits of the Institute's noted scientists and specialists, authors of discoveries, laureates of various prizes, photos of the participants of the international collaboration, as well as photographs of the members of JINR governing bodies.

«Photon Methods of Radiation Registration» is a monograph by Yu. K. Akimov that came out on the occasion of the Institute's 50th birthday. This book is addressed to the students and postgraduates studying modern methods of radiation registration, as well as to the researchers concerned with design or operation of equipment for registration of nuclear radiation.

Another book that appeared in 2006 is «Notes of an Islander: Letters. Diaries. Talks» by E. M. Molchanov.

In 2006, seven issues of the journal «Physics of Elementary Particles and Atomic Nucleus» with 37 reviews were printed. Also published were seven issues of the journal «Particles and Nuclei, Letters» with 76 articles, describing ingenious scientific, technological, methodical and applied results. The seventh issue of the journal contains the proceedings of the VI Scientific Seminar in Memory of V. Sarantsev. Publication of the bulletin «JINR News» in the Russian and English languages was continued. In addition to the four

regular ones, a special issue of the bulletin was published, which is dedicated to the XXXIII International Conference on High Energy Physics held in Moscow on 26 July–2 August 2006 and co-organized by JINR. Since August 2006 the Publishing Department has been printing the JINR weekly newspaper «Dubna: Science. Cooperation. Progress».

The issuance of the series «Lectures for Young Scientists» was resumed. The books «Split Seconds That Saved Our Universe» by A. L. Lyubimov and «Lectures on QED and QCD» by A. Grozin were published as continuation of this series.

The materials of the celebration of the 50th anniversary of JINR were issued in electronic version on compact disks. These include congratulatory addresses, scientific reports delivered at the 100th session of the JINR Scientific Council, a photo report on the celebration of the Institute jubilee, and information about the events held in JINR Member States.

The Publishing Department sent more than 200 articles and reports by JINR scientists to journals and various conferences, symposia, workshops, schools, held both in the JINR Member States and in other countries. Papers by JINR staff members were published in the «Journal of Experimental and Theoretical Physics», «Instruments and Experimental Techniques», «Yadernaya Fizika», «Physics of Elementary Particles and Atomic Nucleus», «Physical Review», «Journal of Physics», «Physics Letters», «Nuclear Physics», «Nuclear Instruments and Methods», «European Physical Journal», etc.

Publications of the Joint Institute for Nuclear Research were sent to 44 countries of the world.

To keep readers of the Science and Technology Library informed about new publications received, there are bulletins of the Library and of the Intellectual Property, Licensing and Standardization Office printed by the Publishing Department. Traditionally, the «Bibliographic Index of Papers Published by JINR Staff Members in 2005» was issued.

The Publishing Department was also engaged in Xerox copying and book binding to fulfil numerous orders of JINR Laboratories. Over 152 000 various forms were printed for processing of experimental information and for other purposes.

SCIENCE AND TECHNOLOGY LIBRARY

In 2006 the JINR Scientific Library rendered services to 4340 readers. 40 000 copies of publications were given out. As of 1 January 2007, the library stock amounted to 425 594 copies, 183 729 of them being in foreign languages.

On the whole, the library received 5187 books, periodicals and preprints from all compiling sources including 2653 publications in foreign languages. All new publications were registered in the central catalogues, branch catalogues and in the information system Liber. 673 publications ordered by readers were received via the interlibrary loan system. The weekly express bulletins «Books», «Articles», «Preprints» (156 issues) were published including 16 324 titles. Electronic versions of the bulletins are distributed among 100 addresses via e-mail. Subscription is available via the scientific library website in the section «Services».

The exhibitions of new acquisitions of books, preprints, periodicals and theses were arranged weekly. 4126 publications were displayed. Six topical exhibitions were organized.

The electronic catalogues of books, journals, articles, preprints and theses are accessible in Internet at the address: <http://lib.jinr.ru>. The total number of requests to the JINR electronic catalogues was 10000. A new service has been recently introduced to our readers to provide on-line ordering of literature via OPAC (On-line Public Access Catalogue).

The «Bibliographic Index of Papers Published by JINR Staff Members in 2005» (1702 titles) was prepared by the Scientific Library and published by the JINR Publishing Department. The Index is available on the library website, in the section «Services». The database of papers of JINR scientists (bibliographic descriptions of papers since 1987) is Internet accessible.

The Library received 170 titles of periodicals. Due to the Library subscription to the foreign journals, JINR scientists have access to full-text electronic versions of these journals.

«Scientific Electronic Library of the RFBR» is used by our readers very actively. More than 3000 titles are available in this e-library. The total number of requests to the electronic journal versions through «Scientific Electronic Library of the RFBR» and sites of foreign publishing houses was 90 000. The Bonus from the EBSCO Information Services company provided for the Library renewal of the subscription to the electronic encyclopaedia «Physical Science and Technology» and 12 electronic books of the Kluwer Publishing. Electronic collection of Springer books on physics and astronomy was purchased. Now JINR scientists have on-line access to the full texts of more than 6000 titles of Springer books published in 2005–2007.

In 2006, in exchange for JINR publications printed by the JINR Publishing Department, the Library received 1603 publications from 37 countries. Among them 280 issues were from Russia, 353 from Germany, 162 from Italy, 123 from the USA, 46 from France, 31 from Switzerland, 186 from Japan, and 96 from CERN.

In 2006, within the framework of the information system Liber database, the input of documents to electronic catalogue was for: books — 2161 titles, journals — 2192 numbers, preprints — 1262 titles, theses and author's abstracts — 538 titles, book and journal articles — 1607 titles. As of 1 January 2007, the number of records introduced into the information system Liber was 68 365 and the total number of copies — 88 752.

A new project «History of JINR and Dubna in Books, Journals and Metropolitan Newspapers» dedicated to the 50th anniversary of JINR was started.

LICENSING AND INTELLECTUAL PROPERTY DEPARTMENT

In 2006 the activities of the Department were conducted in the following areas.

Intellectual Property Protection. Materials of four applications for invention were expertized to be issued and sent to the RF Patent Department to obtain patents: «A Method to Protect Skin and Mucosa against the Damaging Action of Ionizing Radiation» (DLNP); «Pore Membrane and Method of Its Application» (FLNR); «A Method to Adjust Dimensions and Dispersion of Nanoparticles in Magnetic Liquids» (FLNP); «Coordinate Gas-Filled Detector» (VBLHE).

One patent was obtained for the following invention:

- «A Method of Multi-Element Ion Implantation (of a Variant)». Authors: S. Dmitriev, V. Reutov, A. Efremov (JINR).

Patents and Information. In 2006, 78 official patent bulletins of the Russian Federation (in paper form) were acquired at JINR. They were processed with accounting for JINR research topics. Twelve issues of the «Patents» bulletin were produced for JINR departments. The Department stock is 2278 RF bulletins.

Standardization. Acquisition of documents that are included in the list of the main legal acts and norms in the field of atomic energy usage was continued. Twenty-three documents were collected to this topic. Standard library was supplemented, 54 GOST documents, GOST and TU directories, SID (Standard Information Directories) were purchased in 2006. The

following documents on standardization worked out by the department staff members were introduced:

- STO 08626319-006-2006 «The General Programme for Quality Provision in JINR Activities to Use Atomic Energy».
- STO 08626819-007-2006 «Programme for Quality Provision at Radioactive Wastes Handling in JINR Departments».

280 changes were introduced into SIDs in the copies of the standard library and subscribers.

Licensing. Licenses were obtained: for the communication service in data transmission; for production of nuclear fuel for the IBR-2M nuclear reactor; for the IBR-2 reactor operation. Documents to produce a license to handle nuclear materials at scientific research and experimental design activities were prepared and forwarded to the Federal Office of ecological, technological and atomic control.

Metrology. Metrological surveillance at JINR: control was rendered to the compilation of schedules of measurement equipment (ME) checks in JINR departments in 2006; the schedules of standard ME checks were accorded with the basic organizations of the RF State Standard Office; ME checking was organized of the equipment possessed by JINR, according to the schedules (applications, transport, expenses for work payment, warrants to obtain equipment, ME delivery for checking and back).

EXPERIMENTAL WORKSHOP

In 2006, the JINR Experimental Workshop manufactured products to the amount of 103 207.1 thousand roubles, including 22 243.0 thousand roubles on the orders of JINR.

Among JINR customers the main client was the Laboratory of Neutron Physics — products on its orders were manufactured to the amount of 14 348.6 thousand roubles. They were parts of reflectors with haulage and stationary shielding, the ring neutron detector, a driver with an automatic fastening. On the orders of the Laboratory of Nuclear Problems, products were manufactured to the amount of 4 477.0 thousand roubles. Among them were: a trigger plane module, the AT frame, a vessel to measure radon, a toroidal section, frame elements for straw chambers, etc. Other JINR customers were LHE, LNR and LPP.

Alien customers were represented by more than 50

enterprises and organizations of different industries. An impressive part of their orders still came from the Scientific Production Centre Aspekt. On its orders, various parts of equipment were produced to control the displacement of radioactive materials, costing 46 558.7 thousand roubles. The cooperation with SPC Aspect much facilitated stable operation of the Experimental Workshop in 2006. Other customer companies were Dinistor, SpektrAp, Transinform-Terminal, Doza, Raid-Kad, Elektrotchpribor, Kompaniya bezopasnost, ESTO (Moscow), Neftegazgeofizika, Geomekhanika (Tver), Dedal, Atoll, Ekom, the business centre Magistr (Dubna).

In the frames of the international cooperation, activities were continued on the contract with CERN. The total amount of products for it was of 16 123.7 thousand roubles.

FINANCIAL ACTIVITIES

The Committee of Plenipotentiaries of the Governments of the JINR Member States approved a budget of US\$ 38 555.8 thousand to cover research, construction of basic facilities, and other JINR activities in 2006. The actual annual receipts amounted to US\$ 39 851.9

thousand, or 103.4% of the annual allocations.

In 2006, the actual research expenditures of the Joint Institute for Nuclear Research amounted to US\$ 41 559.3 thousand.

Actual expenditures were as follows:

Item	Annual budget, US\$ thous.	Actual expenditures in 2006, US\$ thous.	% to budget
I. Research	20 225.1	21 206.0	104.8
II. Basic facilities	3 225.9	3 162.7	98.0
III. Infrastructure of the Laboratories	6 172.7	7 646.8	123.9
IV. Infrastructure of the Institute	6 977.7	9 543.8	136.8
V. Plenipotentiaries' grants, 8% of Member States' contributions	1 954.4		
VI. Directorate reserve fund, 5% of budget	0		
Total expenditures	38 555.8	41 559.3	107.8

STAFF

As of 1 January 2007, the total number of the staff members at the Joint Institute for Nuclear Research was 5281.

Working at JINR are: Full Members of the Russian Academy of Sciences (RAS) — V. G. Kadyshesky, Yu. Ts. Oganessian, A. N. Tavkhelidze, D. V. Shirkov; Corresponding Members of RAS — A. A. Korshennikov, I. N. Meshkov, A. N. Sissakian, G. D. Shirkov; Full Members of other academies of sciences — V. L. Aksenov, I. A. Golutvin, A. V. Eremin, A. A. Kuznetsov, V. A. Moskalenko, A. G. Popeko, A. N. Sissakian; Corresponding Members of other academies of sciences — A. S. Vodopianov, B. N. Zakhariev, A. V. Eremin, I. Zvara, S. P. Ivanova,

R. M. Mir-Kasimov, Yu. E. Penionzhkevich, A. I. Titov; 267 doctors of science, 627 candidates of science, including 85 professors and 19 assistant professors.

In 2006, there were 485 people employed and 674 people discharged because of engagement period expiry and for other reasons.

During the year, the following academic titles were conferred: Corresponding Member — 1; Professor — 1; Assistant Professor — 1.

In 2006, 15 scientists received a Candidate of Science degree and 4 received a Doctor of Science degree. Among them were scientists from JINR (15), Argentine (1), the Republic of Belarus (1), Egypt (1) and the Slovak Republic (1).

AWARDS

In the jubilee year, JINR scientists and specialists were awarded with state orders, decorations of distinction in science, and certificates of honour by scientific organizations and universities from the Institute Member States and the Russian Federation.

By the Order of the President of the Russian Federation of 23 March 2006, for large contribution to the development of science, strengthening of international scientific and technical cooperation and long standing conscientious work the following Prizes were awarded:

- *the Order «For the Service for Homeland», Fourth Class*, to JINR Scientific Leader Academician **V. Kadyshesky**;
- *the Order of Honour* to LNP Chief Engineer **V. Ananiev**; JINR leading researcher, consultant of the Laboratory of Nuclear Reactions **V. Volkov**;
- *the Order of Friendship* to Director of the Scientific Centre of Applied Research **V. Samoilov**;
- *the Medal of the Order «For the Service for Homeland», First class*, to Director of the Laboratory of Nuclear Problems **A. Olchevski**;
- *the Medal of the Order «For the Service for Homeland», Second class*, to JINR Power Engineer **V. Boiko**, Deputy Director of the Laboratory of Theoretical Physics **V. Voronov**, JINR maintenance engineer **L. Edunov**, JINR Chief Scien-

tific Secretary **V. Zhabitsky**, Director of the Laboratory of Information Technologies **V. Ivanov**, Director of the Laboratory of Nuclear Reactions **M. Itkis**, Director of the Laboratory of Particle Physics **V. Kekelidze**, Director of the Laboratory of High Energies **A. Malakhov**, senior researcher of the Laboratory of Nuclear Problems **V. Mitsyn**, department head of the Experimental Workshop **V. Sazonov**.

By the Order of the Russian Federation No. 857 of 8 August 2006, for the large contribution into the development and strengthening of bilateral relations and scientific and technical cooperation between the Russian Federation and the Republic of Belarus:

- *the Order of Friendship* was awarded to First Deputy Chairman of the State Committee on Science and Technology of the Republic of Belarus **V. Nedilko**.

By the Order of the President of the Russian Federation No. 857 of 8 August 2006, for the large contribution into the development and strengthening of scientific and technical cooperation between the Russian Federation and the Republic of Bulgaria:

- *the Order of Friendship* was awarded to Vice-Director of the Joint Institute for Nuclear Research **Ts. Vylov**.

By the Order of the President of the Russian Federation No. 857 of 8 August 2006, for the large contribution into the development and strengthening of scientific and technical cooperation between the Russian Federation and the Socialist Republic of Vietnam:

- the *Order of Friendship* was awarded to JINR senior researcher **Nguyen Manh Shat**.

By the Order of the President of the Russian Federation No. 1235 of 4 November 2006, for the large contribution into the development and strengthening of scientific-technical cooperation between the Russian Federation and the European Organization for Nuclear Research (CERN), as well as for the personal commitments into the widening and strengthening of scientific ties between the two international organizations JINR–CERN:

- the *Order of Friendship* was presented to CERN Director-General Adviser on Nuclear Research Doctor **N. Koulberg**.

The *Order of Friendship (DPRK)* was awarded to **A. Sissakian**.

The *Medal «Friendship» (PDRK)* was awarded to **A. Belushkin, P. Bogolyubov, M. Itkis, V. Katrasev**.

The *Medal of the Republic of Armenia in the Name of Ananiya Shirakatsi* was awarded to **A. Sissakian**.

The *Order «Polar Star» (Mongolia)* was awarded to **V. Kadyshesky, A. Sissakian**.

The *Medal «Friendship» (Mongolia)* was awarded to **Yu. Gangrsky, A. Malakhov, I. Puzynin**.

The *Decoration «Honorary Worker of Science» (Mongolia)* was awarded to **V. Voronov, G. Gambold, V. Kalinnikov, E. Kladnitskaya, A. Kobzev, M. Loshchilov, N. Russakovich**.

The *Decoration «Honorary Worker of Education» (Mongolia)* was awarded to **Yu. Batusov, A. Belov, P. Bondarrenko, B. Savenko**.

Eight JINR staff members were awarded the badge «*Honorary Worker of Science and Technology*».

The *Decoration «For Achievements in Science» of the Ministry of Education and Science of the Ukraine* was awarded to **Yu. Budagov, V. Kadyshesky, A. Sissakian**.

The «*Petro Mogila*» *Decoration of the Ministry of Education and Science of the Ukraine* was awarded to **V. Katrasev, V. Korenkov, A. Olchevski**.

Four JINR staff members were awarded the *Diploma of the RF Ministry of Education and Science*.

Thirteen JINR staff members were awarded the *Diploma of the RF Federal Agency on Science and Innovation*.

Sixteen JINR staff members were awarded the *Diploma of the RF Federal Agency on Atomic Energy*.

The *Diploma of the Ministry of Education and Science of the Ukraine* was awarded to **I. Golutvin, V. Zhemenik, A. Malakhov, N. Piskunov, G. Samosvat**.

The *Diploma of the Ministry of Education of the Republic of Belarus* was awarded to **Yu. Budagov, I. Golutvin, S. Ivanova, I. Savin, S. Shulga**.

The *Diploma of the State Committee on Science and Technology of the Republic of Belarus* was presented to **V. Kadyshesky, V. Katrasev, Yu. Kulchitsky, N. Russakovich, A. Sissakian**.

The «*Demitrie Kantemir*» *Medal of the Academy of Sciences of the Republic of Moldova* was awarded to **V. Kadyshesky, A. Sissakian**.

The *Diploma of the Academy of Sciences of the Republic of Moldova* was awarded to **K. Gudima, S. Ivanova, V. Moskalenko, D. Shirkov**.

The *Diploma of the Supreme Council on Science and Technology of the Academy of Sciences of the Republic of Moldova* was presented to **S. Ivanova**.

The *Diploma of the National Academy of Sciences of the Republic of Belarus* was awarded to **V. Aksenov, V. Kadyshesky, Yu. Oganessian, D. Shirkov**.

The *Diploma of the Belarussian Republican Foundation for Fundamental Research* was awarded to **A. Belushkin, M. Itkis, A. Malakhov, A. Olchevski, S. Tyutyunnikov**.

The *Medal «For Promotion of the Development of Science» of the International Association of Academies of Sciences* was awarded to **P. Bogolyubov**.

The *Medal of the Maria Sklodowska-Curie University (Lublin)* was awarded to **V. Kalinnikov, A. Kobzev**.

The *Medal «50 years of Poland at JINR»* was awarded to 43 JINR staff members.

The *George Medal «Honour. Glory. Labour» (IV class) of the International Academy of Rating Technologies and Sociology «Golden Fortune»* was awarded to **Yu. Budagov, V. Volkov, I. Golutvin, V. Zinov, N. Isaeva, Yu. Oganessian, I. Savin, M. Shafranova**.

JINR Director **A. Sissakian** was awarded the «*Honorary Decoration of the Moscow Region*» for his outstanding services for the social-economic development of the city of Dubna.

JINR Chief Legal Adviser **N. Ivanov** was awarded the badge «*With Gratitude*» of the Governor of the Moscow region.

Three JINR staff members were awarded the badge «*For Labour and Diligence*».

Seven JINR staff members were awarded the *Diploma of the Ministry of Industry and Science of the Moscow Region*.

Six JINR staff members were awarded the *Diploma of the Chief Administration of Labour and Social Issues*.

Eight people were awarded the *Diploma of the Governor of the Moscow Region*.

Six JINR staff members were favoured the *Honorary Mention of the Governor of the Moscow Region*.

JINR Director **A. Sissakian** was awarded the honorary decoration «*For the Services for Dubna*».

The title of the *Honorary Citizen of the City of Dubna* was conferred to Academician of the Russian Academy of Sciences, Honorary Director of the JINR Laboratory of Theoretical Physics **D. Shirkov**.

Forty JINR staff members were awarded the *Diploma of Dubna*.

246 JINR staff members were conferred the title «*Honorary Staff Member of JINR*» for the services for JINR and long-standing fruitful work.

In connection with the jubilee of the Institute, 149 JINR staff members were awarded the «*Honorary Diploma of JINR*», 268 staff members were awarded *Certificates of Merit*, 114 staff members were presented *Letters of Appreciation*.

The title «*Honorary Doctor of JINR*» was conferred to **J. Ditrich** (Germany), **A. Skrinsky** (Russia), **N. Rowley** (France), **H. Šimane** (Czechia) for their outstanding services for JINR in the development of priority trends of science and technology and training scientific staff.

By the Order of the President of the Russian Federation No. 73 of 4 February 2006, for the services in scientific activities the honorary title «*Honoured Worker*

of Science of the Russian Federation» was conferred to the LTP veteran Professor **N. Chernikov**.

By the Order of the President of the Russian Federation No. 73 of 4 February 2006, for the services in strengthening rule of law and long-standing conscientious work the honorary title «*Honoured Man of Law of the Russian Federation*» was conferred to JINR Chief Legal Adviser **N. Ivanov**.

In 2006, 185 JINR staff members were awarded the departmental decoration in labour «*Veteran of Atomic Power Engineering and Industry*».

On 26 March 2006, foreign Prizes were ceremonially awarded to JINR staff members for their large contribution to the development of international scientific-technical cooperation in the frames of JINR, on the occasion of the 50th anniversary of the Joint Institute for Nuclear Research.