"Physics of Particles and Nuclei" and "Physics of Particles and Nuclei Letters": the JINR journals celebrate anniversaries

V.G. Kadyshevsky

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PHYSICS OF PARTICLES AND NUCLEI

English Translation of Fizika Elementarnykh Chastits i Atomnogo Yadra

Editor-in-Chief Vladimir G. Kadyshevsky

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PHYSICS OF PARTICLES AND **NUCLEI LETTERS**

English Translation of Pis'ma v Zhurnal Fizika Elementarnykh Chastits i Atomnogo Yadra

Editor-in-Chief Alexei N. Sissakian

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Our Director Acad. A.N. Sissakian, Editor-in-Chief of "Letters", asked me to enlighten the Scientific Council on the activities of both the journals. I will start with the elder brother – "Physics of Particles and Nuclei". The year 1969 can be consider the year of foundation of "Physics of Particles and Nuclei" when the Scientific Council at its January session adopted a recommendation to publish a periodical collection of papers "Problems of Physics of Particles and Nuclei". Academician N.N. Bogoliubov was recommended for the position of Editor-in-Chief, which immediately attracted attention of the world scientific community to this journal. Profs. A.M. Baldin, Nguyen van Hieu, and V.G. Soloviev were appointed Deputy Editors-in-Chief; and P.S. Isaev, Scientific Secretary. The members of the Editorial Board were the following persons: K. Aleksandrov, D.I. Blokhintsev, V.P. Dzhelepov, V.G. Kadyshevsky, N. Kroo, R.M. Lebedev, M.M. Lebedenko, M.G. Meshcheryakov, I.N. Mikhailov, S.M. Polikanov, A.A. Tyapkin, G.N. Flerov, I.M. Frank, H. Hristov, A. Hrynkiewicz, S.Titeica.

The top-priority task of the collection was the publication of review papers relevant to the programme of investigations carried out at JINR, namely, the problems of elementary particle physics, atomic nucleus, physics of transuranium elements, neutron physics, application of nuclear-physical methods in studying condensed matter, problems of creation of new experimental setups and development of new accelerator methods, problems of automatization and mathematical processing of experimental data, etc. Scientists not only from the JINR Member States but also from other countries could publish their review papers in that new collection.

The first issue of the collection "Problems of Physics of Particles and Nuclei" was sent to the printer's in April and on 15 August 1970 1450 copies were printed. That issue included the papers by A.A. Logunov, V.A. Matveev, D.V. Shirkov (later on all of them became academicians), and Samuel Ch Ting (future Nobel Prize winner).

The collection was so popular that a decision was passed to reorganize it into a normal periodical journal "Physics of Particles" and Nuclei (Phys.Part.Nucl.). Since 1 January 1972 the journal came to be issued quarterly. Moreover, to preserve the continuity the numbering on the title-page took into account the previous issues of the collection. In 1976 the number of issues was increased up to 6 a year. For the past 40 years the journal has published more than 2000 reviews devoted to the most urgent theoretical and experimental problems of physics of particles and nuclei. Thus, researchers of microworld physics have at their disposal a splendid encyclopedia the coauthors of which are tens of thousands of highquality specialists from the JINR Member States, USA, Great Britain, Germany, France, Japan, China, South Africa Republic, and others. Our journal really has authority over the scientific world. It is available in the libraries of CERN, Orsay, Fermilab, CalTekh and many other famous laboratories.

During the last decade the impact-factor of the journal has increased and in 2008 it amounted to 1.015. For comparison, the impact-factors of the Russian journals published in English by the "Pleiades Publishing" and distributed by the "Springer+Business Media" are the following: "Physics of Atomic Nuclei" (Yadernaya Fizika) – 0.491, "Physics - Doklady" (all specialities) – 0.696, and "JETP" – 0.892.

Paying tribute to the founders of the Joint Institute for Nuclear Research world-wide known outstanding scientists D.I. Blokhintsev, N.N. Bogoliubov, V.I. Veksler, M.A. Markov, and I.M. Frank our journal "Phys.Part.Nucl." published large interesting reviews dedicated to the centenary of their birth.

In this photograph you can see the end of one of the plenary sessions (13 January, 1993) of the Editorial Board of the journal presided by Editor-in-Chief Academician A.M. Baldin.



From left to right: P.S. Isaev, T.Ya. Zhabitskaya, A.N. Grafova, M.G. Meshcheryakov, , V.V. Volkov, Yu.P. Popov, P.N. Bogoliubov, R.M.Lebedev, and A.M. Baldin.

Physics of Particles and Nuclei

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This is how Editorial Board of "Physics of Particles and Nuclei" looks like at the present time.

- I'd like to draw you attention to the fact that Prof. Peter Isaev has been scientific secretary for all these 40 years. He is involved in the journal affaires practically every day. Bravo, P.S.!
- In 1984, on the initiative of Academician A.M. Baldin the Joint Institute for Nuclear Research began to print the journal "JINR Rapid Communications" in which our scientists could publish their papers containing the results of original theoretical, experimental, scientific and technical, methodical and applied investigations. In 2000, this edition came to be called "Letters to the Journal "Physics of Particles and Nuclei" (Phys.Part.Nucl. Letters for short). The Editorial Board of the "Letters" is headed, as has already been mentioned, by Acad. A.Sissakian, and other members also hold the key positions at the JINR Laboratories.

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This fact allows achievements of scientists along all the lines of researches carried out at the Institute to be reflected promptly and adequately. These are theoretical physics, particle physics, relativistic nuclear physics, nuclear physics, condensed matter physics, lowtemperature physics and cryogenic technology, accelerator physics, methods of physical experiment, computer technologies in physics, applied work in all the above-listed fields of physics, including radiobiology, ecology, and nuclear medicine.

The Editorial Boards of the journals "Phys.Part.Nucl." and "Phys.Part.Nucl.Letters" keep very good working contacts, effectively solve important problems of scientific and publishing policy, expand the scientific subjects of the journals as new strategic plans appear at JINR and new tendencies of modern physics have to be followed, maintain optimal quantitative proportions between theoretical, experimental, and methodical papers published.

Relations between the Editorial Boards and the Publishers are traditionally very important. At different times those were the "Energoatomizdat" (from 1968 to 1991) and the American Physics Institute (1991-1999). At present, the journals are published by the JINR Publishing Department (in Russian and English), and in English by the "Pleiades Publishing" company and are distributed by the Springer Science + Business Media LLC. Since 1995 an electronic Russian version of "Phys.Part.Nucl." is available at the web.site www.jinr.ru/publish/ and an electronic English version at http://www.springer.com/publish/elementary/journal to the creation of which a large contribution was made by the late JINR Vice-Director Ts. Vylov and the former head of the Publishing Department T.Ya. Zhabitskaya. For authors' convenience and speeding-up of the search for publications, since 2009 there has been available the web.site http://pepan.jinr.ru that was created through the involvement of Nathalia Davydova, Lidiya Kalmykova, Peter Zrelov, and Victor Ivanov, staff members of the Laboratory of Information Technologies.

An electronic version of "Letters" is also available. In this slide you can see the content of the next issue of "Phys.Part.Nucl" (January-February 2010). An analogous issue of "Letters" has already been published.

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Thank you for your attention.

"ON HIGGS MASS-GENERATION MECHANISM IN THE STANDARD MODEL"

V. A. Bednyakov, A. V. Bednyakov Joint Institute for Nuclear Research, Dubna N. D. Giokaris Physics Department, The University of Athens, Greece Physics of Particles and Nuclei, vol. 39, No. 1, p. 13-36

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