

**I. General considerations**

1. The Scientific Council expresses its sincere gratitude to Professor Č. Šimane (Czech Republic), Honorary Doctor of JINR, member of the 1st session of the JINR Scientific Council (24–26 September 1956), for his message of greetings on the occasion of JINR's 50th jubilee.

2. The Scientific Council appreciates the report “50 years of JINR” presented by JINR Director A. Sissakian in the context of the Institute's international cooperation in science, technology and education, and thanks the speaker.

The Scientific Council highly appreciates the new steps taken by the JINR Directorate to develop international collaboration. In particular, it notes the recent signing of the “The Memorandum of Understanding between JINR and the Government of the Republic of South Africa through its Department of Science and Technology” concerning cooperation in the research programmes of mutual interest and dedicated funding.

The Scientific Council looks forward to further successful development of JINR's international cooperation.

On the occasion of the 50th anniversary of the Joint Institute for Nuclear Research, the Scientific Council wishes to express its deep satisfaction with the outstanding contributions made by the Institute to the advancement of science and technology over the five decades of its existence. Since its foundation in 1956, excellent research in various fields of modern physics, in accelerator and reactor engineering has been carried out at JINR, and specialists of the highest qualification have been trained here. All this has enabled JINR to evolve into an internationally recognized centre for fundamental research.

In these festive days for the Joint Institute, the Council members extend their sincere congratulations to the veterans of JINR, its entire personnel and the Directorate, who have good reason to be proud of this Institute's many remarkable achievements.

The Scientific Council also wishes to express its confidence that JINR will successfully continue in the future to maintain its role as a major scientific centre of world importance by participating in international collaborations, by developing first-class local facilities and attracting outside users. The Scientific Council reiterates its support of the strategic plan for the further development of JINR's scientific research in the fields of particle physics, nuclear physics, and condensed matter physics as well as of its education and innovation activities for the next 10 years, being actively elaborated by the Institute's Directorate and discussed at the Council sessions.

3. The Scientific Council appreciates the report “Dubnium-105” presented by FLNR Scientific Leader Yu. Oganessian, and thanks the speaker.

The synthesis of heavy and superheavy elements and the study of their nuclear and chemical properties are of the highest priority in the research programme of the Flerov Laboratory of Nuclear Reactions. The International Union of Pure and Applied Physics (IUPAP) and Chemistry (IUPAC) recognized Dubna’s priority in the discovery of elements 102–105 and acknowledged JINR’s important contribution to the discovery of elements 106–108.

In 1997, at the IUPAC General Assembly, Element 105 was named “Dubnium” as a recognition of the key role of FLNR in developing the experimental strategies used in the synthesis of transfermium elements.

The Laboratory staff, under the leadership of Professor Yu. Oganessian, succeeded in making a breakthrough in the synthesis of superheavy elements and in the understanding the factors which influence their enhanced stability. Due to the achieved high quality of the heavy ion beams and to the considerable improvement of the experimental methods, a large programme aimed at the synthesis of superheavy elements was started. As a result, the new elements with atomic numbers 113, 114, 115, 116 and 118 were synthesized for the first time. An official claim for the discovery of these elements has been submitted to the International Union of Pure and Applied Chemistry.

The Scientific Council congratulates the Flerov Laboratory on the outstanding achievements and looks forward to the successful continuation of the superheavy-element research programme.

## **II. International cooperation in science, technology and education**

The Scientific Council is pleased to note the extensive international cooperation between JINR and research institutions of the Member States and other countries. At present JINR collaborates with nearly 700 scientific centres and universities in 60 countries of the world. Together with participation in joint research programmes, this cooperation includes JINR’s scientific and technical assistance in the development and construction of large facilities for Member States. Another important form of JINR’s cooperation is the organization of scientific conferences, schools for young scientists, and exhibitions, in particular the CERN–JINR exhibition “Science Bringing Nations Together” which has been regularly held since 1996 in many countries and institutions.

Examples of this ongoing cooperation were highlighted at this session by Professors J. Engelen (CERN), V. Kadyshovsky (JINR), I. Meshkov (JINR), S. Galès (France), J. Stamenov (Bulgaria), T. Hallman (USA), A. Wagner (Germany), W. Nawrocik (Poland),

J. Ružička (Slovakia), R. Eichler (Switzerland), R. Wagner (France), and P. Spillantini (Italy). The Scientific Council thanks the speakers for their informative presentations.

### **III. JINR prizes**

The Scientific Council congratulates Professors V. Kadyshevsky (JINR) and J. Wess (M. Planck Institute of Physics, Munich, Germany) on being awarded the N. Bogoliubov Prize for the years 2003–2005, in recognition of their outstanding contributions to theoretical physics, in particular to the development of novel algebraic and geometric approaches to the formulation of quantum field theory. The Scientific Council thanks Professor V. Kadyshevsky for his scientific presentation.

The Scientific Council congratulates the laureates of the JINR prizes for 2005 — winners of the annual scientific research competition in the fields of theoretical physics, experimental physics, physics instruments and methods, and applied physics.

### **IV. Election of the executive co-chairman of the Scientific Council**

In a secret ballot the Scientific Council has elected Professor I. Wilhelm (Czech Republic) as executive co-chairman of the Scientific Council for a term of three years.

### **V. Next session of the Scientific Council**

The 101st session of the Scientific Council will be held on 18–19 January 2007.

A. Sissakian  
Chairman of the Scientific Council

N. Russakovich  
Secretary of the Scientific Council