World Year of Physics 2005 in Bulgaria

The community of Bulgarian physicists met the proclamation of 2005 as World or International year of physics (WYP'2005) with enthusiasm.

Two committees were set up: Honorary committee, headed by the President of the Republic of Bulgaria, Mr. G. Parvanov and Steering committee, headed by the President of the Union of Physicists in Bulgaria (UPB), Academician M. Mateev. It was UPB that organized most of the WYP'2005 events in Bulgaria.

Physicists throughout the country joined the celebrations – Fig. 1. The most enthusiastic were teachers and students in schools and universities.



Fig. 1. The most active participants in the WYP'2005 celebration in Bulgaria

It is impossible to enumerate all the events that have happened during the whole 2005-year in this report. They can be classified in the following groups: participation in international programs, conferences, festivals, competitions, exhibitions, performances and issuing of books and articles.

One can find a list of the major events in Application 1. More detailed information about all that has happened in Bulgaria during the celebrations is given on the web-cite: <u>http://www.phys.uni-sofia.bg/upb/AboutWYP.html</u> . I will present here only several examples.

Bulgaria participated in the launching conference in Paris with a delegation of about twenty people, most of them students in schools and universities, winners in the Physics Olympiads or other competitions. We were very active in the international light relay "Physics enlightens the world" – Fig.2 and in the international program "Physics talent search". Both newspapers and TV stations largely announced the events and they had a big impact on the society.

UPB annually organizes a national conference on the problems of physics education in secondary schools and universities. The 2005 conference, 33rd in order, was dedicated to the importance of physics for the development of modern communications and for the information technologies. It took place in Varna, from 7 to 10 April.



Fig. 2. Photographs of 50 W CuBr laser illuminating Sofia within the framework of the international light relay 'Physics Enlightens the World'

The culmination point of the WYP'2005 celebrations in Bulgaria was the international conference "Horizons of physics", which took place in Sofia on 29 September. The conference was opened by the President G. Parvanov – Fig.3, who pointed out the significance of physics as one of the fundamental sciences and more generally, the importance of physics for the progress of human society. The invited speakers were well known scientists: Academician V. Kadishevsky, Director of Joint institute for nuclear research in Dubna, Prof. M. Ducloy, Head of the International WYP'2005 steering committee, Academician N. Sabotinov, Vice-President of BAS, Academician M. Mateev, President of UPB, Academician A. Petrov, Director of ISSP, Academician S. Panchev.



Fig. 3. President of the Republic of Bulgaria Mr. G. Parvanov opened the international conference "Horizons of physics"

Festivals are between the most favorable forms for the young people as they presented knowledge in an amusing way. The biggest festivals that we organized were: "Playing science" in Sofia, "Physics fest" in Plovdiv and "Science for humanity" in Silistra.

Several exhibitions presented the striking achievements of modern physics and interesting historical topics. Exhibition of EFDA acquainted the public with thermonuclear fusion, exhibition of CERN – with the progress in particle physics, exhibition of Sofia University Library – with rare physics books and journals, the original 1905 Einstein's papers between them.

Two national competitions among the secondary school students have been organized by UPB and Ministry of Science and Education. These are: competition for physics on Internet "Physics in my eyes" and competition for astronomy on Internet "Hunters for sky treasures"

In 2005 UPB with the help of the Ministry of Science and Education published the anthology "From quarks to Universe", with articles by prominent Bulgarian physicists. The book is available in each Bulgarian secondary school and will be used as an additional textbook in physics education With the help of the Ministry of Communications a special post-card devoted to WYP'2005 was issued.

The final chord of the WYP'2005 celebrations in Bulgaria was set in the city of Varna on 29 December, where a monument of A. Einstein was unveiled-Fig. 4.



Fig. 4. Monument of A. Einstein in the city of Varna

To find an adequate financing of all these events was one of the most difficult tasks that we had to solve. We received a small grant from the National Science Foundation. So, we had to search for sponsors for each the events. The major sponsors were: Ministry of Science and Education, Ministry of Communications, Universities in Sofia, Plovdiv and Shumen, Bulgarian Academy of Sciences, Municipalities of Plovdiv and Varna and others. We are very grateful to all of them.

UPB considers the celebration of WYP'2005 in Bulgaria as very successful. The main goal to acquaint the society and especially the young people with the achievements of contemporary physics and to highlights its importance for the other natural sciences and for the progress of technologies have been completely fulfilled.

We will try to keep the gained during 2005 inertia in the following years.

D. Dinev WYP'2005 coordinator for Bulgaria

Appendix 1

LIST OF THE MAJOR EVENTS

Participation in International Programs

- "Physics Enlightens the World"
- "Physics Talent Search"

Conferences

- 32nd National Conference on Problems of Physics Education "Physics and Informational and Communicational Technologies", 7-10 April, Varna
- Conference "Physics in Bulgarian Academy of Sciences", 21 April, Sofia
- Scientific Symposium "Development and Distribution of Physical Knowledge in Bulgaria", 10 May, Plovdiv
- Conference "Nuclear Physics for the People", 27 October, Sofia
- International Conference "Horizons of Physics", 29 September, Sofia

Festivals

- "Playing Science", 25 March, Sofia (with British Council)
- "Week of Physics",28 March- 1 April, Technical University, Sofia
- Physics Festival, 14 May, Plovdiv
- Festival "Science for Humanity", 13 May, SilistraNational Festival "Science on Stage", 23 May, Pleven

Competitions

- National Competition for Physics on Internet "Physics in my Eyes"
- National Competition for Astronomy on Internet "Hunters for Sky Treasures"
- Competition "Amusing Physics", 27 April, Sliven
- Competition for Demonstration Devices and Computer Programs for Physics Education in Secondary Schools, 14 May, Sofia

Exhibitions

- "Thermonuclear Fusion the Energy of Stars", 27 November-12 December 2004, Sofia University, Sofia (with EFDA)
- "Physics in Bulgarian Academy of Sciences", Gallery "Academia", 21 April-20 May, Sofia
- "Physics in the University Library", 27 September, Sofia University, Sofia
- "European Center for Nuclear Research and Bulgaria", 8-18 November, Sofia (with CERN)

Miscellaneous

- Issuing of Post Card dedicated to WYP'2005
- Performance "Forgive, me, Newton", 19 April, Veloko Tarnovo
- Publishing of the Anthology "From Quarks to Universe"
- Exhibition of Paintings by Artist Simeonov, September, Sofia
- Unveiling of Monument of A. Einstein, 29 December, Varna