

Conference: “20 Years of the Young Physicists’ Tournament” at Czech Republic



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Abstract

In 2007 the Young Physicists’ Tournament (YPT) celebrated 20 years of its international lifetime. Between September 10th and 13th 2007 the Department of Physics and Informatics of the Faculty of Education of the University of Hradec Kralove (FE UHK), the Czech Committee of the Young Physicists’ Tournament, the Committee for Talents of the Union of Czech Mathematicians and Physicists (UCMP) and the First Private Language Grammar School in Hradec Kralove (FPLGS HK) organised in Hradec Kralove the conference with international participation called “20 Years of the Young Physicists’ Tournament”.

Keywords: Tournament of Physics, search for talented students, evaluation.

Resumen

En 2007 el Torneo de Físicos Jóvenes (YPT) celebró 20 años de su tiempo de vida internacional. Entre el 10 y 13 de septiembre el Departamento de Física e Informática de la Facultad de Educación de la Universidad Hradec Kralove (FE UHK), el Comité Checo del Torneo de Físicos Jóvenes, el Comité para Talentos de la Unión Checa de Matemáticos y Físicos (UCMP) y la Primera Escuela Privada de Gramática del Lenguaje en Hradec Kralove (FPLGS HK) organizaron en Hradec Kralove la conferencia con participación internacional llamada “20 Años del Torneo de Físicos Jóvenes”.

Palabras clave: Torneos de Física, búsqueda de alumnos talentosos, evaluación.

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I. INTRODUCTION

Between September 10th and 13th 2007 the Department of Physics and Informatics of the Faculty of Education of the University of Hradec Kralove (FE UHK), the Czech Committee of the Young Physicists’ Tournament, the Committee for Talents of the Union of Czech Mathematicians and Physicists (UCMP) and the First Private Language Grammar School in Hradec Kralove (FPLGS HK) organised in Hradec Kralove the conference with international participation called “20 Years of the Young Physicists’ Tournament”. The conference took place in ceremonious and newly renovated premises of the FE UHK. The UHK rector J. Mikulecka and Academy of Science of Czech Republic (CR) chairman V. Paces took patronage over the conference. English was the official language of the conference.

In 2007 the Young Physicists Tournament (YPT) celebrated 20 years of its international lifetime. **We can mark it as a very difficult competition in physics that corresponds with physicists’ real work. It advances the team work and that is why the participants —contrary to other competitions — are the teams of secondary school pupils.** It is sympathetic that in really most of the countries, that have participated till now, the national

societies of physicists significantly participate on its organisational reinsurance too.

In the present history of this competition the Czech Republic has significantly contributed to the competition’s development especially by fair and successful participation of national teams — we can say that the CR belongs to five most successful teams in competition’s present international history. **The Czech team leaders share actively in the international development of the competition by their theoretical and methodological works which are related to participating the competition and methodology of processing the problems entered** [1, 2, 3, 4].

The conference was focused not only on the balance of the YPT development history but also on the pragmatic perspectives connected with the future development. Z. Kluiber was the conference chairman; I. Volf was the International Scientific and Program Board chairman. The conference was visited by 25 specialists from seven countries and farther the DPI FE UHK postgraduates and students, FPLGS HK pupils and other persons concerned and guests. The main themes of discussions were:

1. The competition conception and organisation.
2. The competition problems and presentation of the problems’ solutions.

3. The rating of teams and individuals.
4. National and international experiences.
5. The perspectives of the competition.

After the conference had been opened — the UHK rector J. Mikulecka and AS CR vice-chairman P. Vlasak had their speeches too — the first scientific lecture was referred by F. Janouch from the University of Stockholm. In his speech he initially named the YPT competition positives for obtaining young people for the physics studies; then the scientific part of his speech was focused on especially energetic balance on our planet, forms of retrieval and use of energetic sources and prognoses in the future.

The conference proceeding got also greetings from: J. Kocourek, the deputy of the Minister of Education, Youth and Sports of the CR, S. Zajac, the UCMP chairman or J. Ridky, the director of the Institute of Physics of the Academy of Sciences.

Student J. Hron, the first winner of the “Czech Head” Prize in the “Hope” category, briefly characterised his experiences from the work of pupils in a team that participated in the YPT.

The IYPT Executive Committee president G. Tibell from Sweden referred the essential speech focused on the history of 20 years existence of the IYPT. He appreciated the CR’s participation on the IYPT’s advancement. The World Federation of Physics Competitions vice-president Z. Rajkovits referred about fundamental experiences from organising the competition in Hungary and she also presented main data about solving several competition problems. Some other problems were discussed by L. Skrapis, also from Hungary.

G. Hofferek from Austria, S. Simeonova from Bulgaria and F. Kundracik from the Slovak Republic introduced in their speeches their experiences from organising the competition and its progression in their countries. The IYPT Executive Committee General Secretary M. Plesch from Slovakia formulated tasks for the perspective improving the quality of the IYPT competition. P. Ferko from Slovakia took a think on a deepness of physics cognition or corresponding formulating and solving physical problems respectively. I. Stefancinova from Slovakia and I. Volf made a summary analysis of physical problems solved by primary and secondary pupils. V. Kulich from the CR formulated his experiences from work with physics talented pupils from the position of a physics teacher; grammar school vice-director. O. Kourimska from the CR introduced a very complex physical problem attaching biology and sketched out the conception of solving it. S. Panos from the CR took a think on the conception of rating a team member and a team as a whole in the IYPT competition. J. Vesely from the CR paid attention to an international seminar of secondary school pupils, who are interested in scientific activities; M. Cvrcek from the CR dealt with questions of modelling and applying during the IYPT problems’ solutions; L. Palkovicova from Slovakia focused her contribution on highlighting the cardinal aspects of work with pupils in scientific activities. J. Cesakova from the CR pointed out the influence of project teaching for preparation of future IYPT solvers. Z. Kluiber evaluated some experiences from

the world presentation of young people’s scientific-technical projects—the Intel ISEF—in relation to the IYPT future development. P. Pavlicek and E. Jedlickova from Opava Grammar School (CR) compared of work conception and results of pupils in the IYPT competition with present-day main general educational goals of the grammar school. V. Pecina and D. Hruska, the UHK Faculty of Education students (CR), characterised their personal experiences from the YPT national final. I. Volf pointed out the relationship of the IYPT and other international physics competitions [5, 6]. U. Woznikowska-Bezack and P. Wolak from Poland documented the history of single years of the IYPT and the competition progression in Poland. A. Kopynova and V. Juranek from the FPLGS HK presented very quality information about work and results of their secondary school and about participation of pupils in science competitions. Z. Kluiber, who takes part in international competitions periodically, balanced the IYPT results in the CR during passed two decades.

The conference came to following conclusions:

- The IYPT is significant specific international competition of secondary school pupils in physics that significantly orients them for studying physics, technology and natural sciences.
- The IYPT as a competition proceeds differently in different countries, the common goal is to get pupils familiarised with the precise work of physicists and the conception of team solution of a physical problem.
- The IYPT has got expectations for further development. New teams from new countries are entering the competition, e.g. China, Nigeria, Iran etc.
- The conference was an important inspiration for work of all who are interested in the IYPT competition.

Pupils of the FPLGS HK took a very attentive care of the abroad conference participants; they took them around the historical town centre of Hradec Kralove and arranged a very valuable concert for them. The conference’s cultural-social event then was the visitation of Hradec chateaux in Hradec Kralove neighbourhood.

The conference proceedings will be issued, where all the conference papers will be included. The proceedings will be administered to all IYPT participating schools in the CR and will become another theoretical and practical aid for the IYPT development—it will be distributed to all deputies of participating countries at the 21st IYPT in Croatia in 2008.

Thus the Czech Republic has contributed to future development of the IYPT competition. Especially the conference participants from the CR enriched the rows of Czech physicists.

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NOTE

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