

First Step to Nobel Prize in Physics

Waldemar Gorzkowski

First Step to Nobel Prize in Physics is an annual international competition in research projects in physics. All the secondary (high) school students regardless of the country, type of the school, sex, nationality etc. are eligible for the competition. The only conditions are that the school cannot be considered a university college and the age of the participants should not exceed 20 years on March 31 (every year March 31 is the deadline for submitting the competition papers). There are no restrictions concerning the subject matter of the papers, their level, methods applied etc. All these are left to the participants' choice. The papers, however, have to have a research character and deal with physics topics or topics directly related to physics.

The project belongs to the out-of-school education. *Participation in the competition does not involve any agreement or consent of the school or educational authorities*. The pupils conduct their research in the way and conditions that are the most convenient for them.

Characteristic features of the First Step are:

- **1.** The criteria used when evaluating the papers do not depend on age there are no *discounts* for the young age of participants.
- **2.** There are no prizes such as cameras, video, etc. There are no financial prizes. Instead, the winners are invited to our Institute for one month research terms (usually in November). During the terms they are involved in the real research work going on in the Institute.
 - **3.** The proceedings with the awarded papers are published every year.

The competition is supervised by the Organizing Committee which consists of all members of the Scientific Council of the Institute. The papers are evaluated by the Evaluating Committee nominated by the Organizing Committee. In the first two competitions only Polish physicists participated in the Evaluation Committee. In the third competition one foreigner took part in evaluation of the papers. In the fourth competition the number of physicists from foreign countries was 10. In the fifth competition number of foreigners in the Evaluating Committee was 14. At present the majority of the judges are from abroad. Several years ago a collective body named International Advisory Committee has been created. At present it consists of 24 persons with substantial experience in work with high school students.

The materials on the competition are disseminated to all the countries mostly via diplomatic channels. The competition is also advertised in several physics magazines for students and teachers. (Every year about 30 articles on the *First Step* are published in several countries). Different private channels are also used. In the first fourteen competitions the students from 76 countries participated.

The *First Step* (as far as we know) is the only competition that publishes proceedings including practically *all the awarded papers*. Due to that all our most important decisions may be verified.

The main aims of the competition are:

- 1. Promotion of scientific interests among young students;
- 2. Selection of outstanding students (this point is especially important in case of pupils from countries or regions in which access to science is difficult) and their promotion (very often our winners are sent to better universities and receive appropriate financial help from the local authorities);
 - **3.** Enhancing motivation of students to scientific work;
- **4.** Stimulation of schools, parents, local educational centers, etc. to greater activity in work with students interested in research (we know that in some countries, some regions and even in some schools preliminary local selections are organized, sometimes such selections involve large numbers of participants);
- **5.** Establishing friendly relations between young physicists (recently all winners are invited to the Institute at the same time, they are accommodated in the same place, they cooperate with each other, etc.).

If you are interested in details (including terms and conditions of participation, please visit our home page:

http://info.ifpan.edu.pl/firststep

or

www.ifpan.edu.pl

Waldemar Gorzkowski President of the Organizing Committee