

# Statutes of the International Physics Olympiads

*Version accepted in 1999 in Padova (Italy)*  
*Changes: 2000 - Leicester (Great Britain)*

1. In recognition of the growing significance of physics in all fields of science and technology, and in the general education of young people, and with the aim of enhancing the development of international contacts in the field of school education in physics, an annual physics competition has been organised for secondary school students. The competition is called the International Physics Olympiad and is a competition between individuals.
2. The competition is organised by the Ministry of Education, the Physical Society or another appropriate institution of one of the participating countries on whose territory the competition is to be conducted. The organising country is obliged to ensure equal participation of all the delegations, and to invite teams from all those countries that participated during the last three years. Additionally, it has the right to invite other countries.

No country may have its team excluded from participation on any political reasons resulting from political tensions, lack of diplomatic relations, lack of recognition of some country by the government of the organising country, imposed embargoes and similar reasons. When difficulties preclude formal invitation of the team representing a country students from such a country should be invited to participate as individuals.

The competition is conducted in the friendly atmosphere designed to promote future collaborations and to encourage the formation of friendship in the scientific community. Therefore all possible political tensions between the participants should not be reflected in any activity during the competition. Any political activity directed against any individuals or countries is strictly prohibited.

3. Each participating country shall send a delegation, normally consisting of five students (contestants) and two accompanying persons (delegation leaders) at most.

The contestants shall be students of general or technical secondary schools i.e. schools which cannot be considered technical colleges. Students who have finished their school examinations in the year of the competition can be members of the team as long as they have not commenced their university studies. The age of the contestants should not exceed twenty years on June 30th of the year of the competition.

The delegation leaders must be specialists in physics or physics teachers, capable of solving the problems of the competition competently. Each of them should be able to speak English.

4. The Organisers of the Olympiad determine in accordance to the programme the day of arrival and the day of departure as well as the place in their country from which the delegations are supposed to arrive and depart. The costs for each delegation as a result of activities connected to the Olympiad from the day of arrival till the day of departure are covered by the Organising Committee.
5. The competition shall be conducted over two days, one for the theoretical examination and one for the experimental examination. There will be at least one full day of rest between the examinations.

The theoretical examination shall consist of three theoretical problems and shall be of five hours total duration.

The experimental examination shall consist of one or two problems and shall be of five hours total duration.

Contestants may bring into the examination drawing instruments and non-programmable pocket calculators. No other aids may be brought into the examination.

The theoretical problems should involve at least four areas of physics taught at secondary school level. (see Syllabus). Secondary school students should be able to solve the competition problems with standard high school mathematics and without extensive numerical calculation.

The competition tasks are chosen and prepared by the host country and have to be accepted by the International Board (# 7).

The host country has to prepare at least one spare problem which will be presented to the International Board if one of the first three theoretical problems is rejected by two thirds of members of the International Board. The rejected problem cannot be considered again.

6. The total number of marks awarded for the theoretical examination shall be 30 and for the experimental examination 20. The competition organiser shall determine how the marks are allocated within the examinations.

Contestants will be awarded medals in accordance with the marks as follows:

- The mean score of the best three contestants will be considered as 100%.
- Contestants who score 90% or more of this mean receive a gold medal.
- Contestants who score 78% or more but less than 90% of this mean receive a silver medal.
- Contestants who score 65% or more but less than 78% of this mean receive a bronze medal.
- Contestants who score 50% or more but less than 65% of this mean receive a honourable mention.
- Contestants who receive less than 50% of this mean receive a certificate of participation.
- The mentioned scores will be calculated by rounding the 90%-, 78%-, 65%- and 50%-marks off to the nearest lower integer.

Results of those candidates who only receive a certificate of participation should strictly remain to the knowledge of the Members of the International Board and persons allowed to attend its meetings.

7. The governing body of the IPhO is the International Board which consists of the delegation leaders from each country attending the IPhO.

The chairman of the International Board shall be a representative of the organising country when tasks, solutions and evaluation guidelines are discussed and the President of the IPhO in all other topics.

A proposal placed to the International Board, except Statutes, Regulations and Syllabus (see # 10), shall be considered carried if more than 50% of all delegation leaders present at the meeting vote in the affirmative. Each delegation leader is entitled to one vote. In the case of equal number of votes for and against, the chairman has the casting vote. The quorum for a meeting of the International Board shall be one half of those eligible to vote.

The International Board has the following responsibilities:

- a. to direct the competition and supervise that it is conducted according to the regulations;
  - b. to ascertain, after the arrival of the competing teams, that all their members meet the requirements of the competition in all aspects. The Board will disqualify those contestants who do not meet the stipulated conditions;
  - c. to discuss the Organisers' choice of tasks, their solutions and the suggested evaluation guidelines before each part of the competition. The Board is authorised to change or reject suggested tasks but not to propose new ones. Changes may not affect experimental equipment. There will be a final decision on the formulation of tasks and on the evaluation guidelines. The participants in the meeting of the International Board are bound to preserve secrecy concerning the tasks and to be of no assistance to any of the participants;
  - d. to ensure correct and just classification of the students. All grading has to be accepted by the International Board;
  - e. to establish the winners of the competition and make a decision concerning presentation of the medals and honourable mentions. The decision of the International Board is final;
  - f. to review the results of the competition;
  - g. to select the countries which will be assigned the organisation of future competitions;
  - h. to elect the members of the Secretariat of the IPhO.
8. The long term work involved in organising the Olympiads is co-ordinated by a Secretariat for the International Physics Olympiads. This Secretariat consists of the President and Secretary. They are elected by the International Board for a period of five years when the chairs become vacant.

There shall be an Advisory Committee convened at the President of the IPhOs. The Advisory Committee consists of:

0. The President,
  1. The Secretary,
  2. The host of the past Olympiad,
  3. The hosts of the next two Olympiads,
  4. Such other persons appointed by the President.
9. The working language of the IPhO is English.

The competition problems should be presented to the International Board in English, Russian, German, French and Spanish.

The solutions to the problems should be presented in English.

It is the responsibility of the delegation leaders to translate the problems into languages required by their students.

These statutes and other IPhO-documents shall be written in English. Meetings of the International Board shall be held in English.

10. These statutes are supplemented by
  - Regulations concerning the details of the organisation,
  - the Syllabus mentioned in # 5.

Proposals for amendment to these Statutes and the supplementing documents may be submitted to the president or his nominee no later than December 15th prior to consideration.

The President shall circulate, no later than March 15th, all such proposals together with the recommendation of the President's Advisory Committee, to the last recorded address of each delegation leader who attended at the last IPhO.

Such proposals shall be considered by a meeting of the International Board at the next IPhO and shall be considered carried if

- in case of Statutes and Syllabus two thirds or more and
  - in case of Regulations more than one half of the number of the members of the International Board cast their vote in the affirmative. Such changes shall take effect from the end of the current IPhO and cannot affect the operation of the competition in progress.
11. Participation in an International Physics Olympiad signifies acceptance of the present Statutes by the Ministry of Education or other institution responsible for sending the delegation.

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## **Regulations Associated with the Statutes of the International Physics Olympiads**

### **Regulations to # 2**

The Ministry of Education, or the institution organising the competition, allots the task of preparation and execution of the Competition to an appropriate body.

Official invitations to the participating countries should be sent at least six months before the Olympiad. They normally are sent to the national institution that sent the delegation to the previous Olympiad. Copies of the invitation are also sent to the previous years' delegation leaders. The invitation should specify the place and time of the Competition plus the address of the organising secretariat.

Countries wishing to attend the current IPhO must reply to the invitation before March 15, nominating a contact person. Each participating country must in addition supply the host country with the

contestants' personal data (surname, given name, sex, address, date of birth and address of school) by May 15 or as soon as possible.

The host country is only obliged to invite delegations from countries that participated in one of the last three competitions. It may refuse

- applications for participation from any other country;
- applications from participating countries not belonging to the delegation as defined in # 3 (observers, guests).

Each country should, within five years of entry, declare its intention to host for a future Olympiad, suggesting possible years. A country that is unable to organise the competition may be prevented from participating in IPhOs by decision of the International Board.

### **Regulations to # 3**

The accompanying persons are considered by the organisers of the next Olympiad and by the Secretariat of the IPhO (# 8) as contact persons until the next Olympiad (unless new accompanying persons or other contact persons are nominated by the participating country).

Each participating country must ensure that the contestants are all secondary school pupils when they announce the names of the members of their delegations. In addition to the delegations, teams may be accompanied by observers and guests.

Observers may attend all Olympiad meetings, including the meetings of the International Board. However they may not vote or take part in the discussions. Guests do not attend the meetings of the International Board.

If possible, the host country should accept as observers any of the following persons:

- the organiser(s), or nominee(s), from the host country in the subsequent three years;
- a representative of any country expressing an intention to participate in the following IPhO.

### **Regulations to # 4**

The host country must pay for organisation of IPhO, food, lodging, transport and excursions of the delegations plus prizes. However it is not responsible for medical costs and sundry expenses of the participants. Observers and guests may be asked to pay the full cost of their stay plus an attendance fee.

The host country may ask the delegations for a voluntary contribution to the obligatory costs.

### **Regulations to # 5**

The host country is obliged to ensure that the Competition is conducted according to the Statutes. It should provide full information for participating countries, prior to their arrival, concerning venue, dates, accommodation, transport from airports, ports and railway stations. The addresses, telephone, fax, e-mail of all IPhO officers should be provided, together with information concerning relevant laws and customs of the host country.

A program of events during the IPhO should be prepared for the leaders and contestants. It should be sent to the participating countries, prior to the Olympiad.

The organisers of the IPhO are responsible for devising all the problems. They must be presented in English and the other official languages of the Olympiad as indicated in # 9. The examination topics should require creative thinking and knowledge contained within the Syllabus. Factual knowledge from outside the Syllabus may be introduced provided it is explained using concepts within the Syllabus.

Everyone participating in the preparation of the competition problems must not divulge their content.

The standard of problems should attempt to ensure that approximately half the students obtain over half marks.

The International Board shall be given time to consider the examination papers. It may change, or reject, problems. If a problem is rejected, the alternative problem must be accepted. The host country will be responsible for grading the examination papers. The delegation leaders shall have an opportunity to discuss with the examiners the grading of their students' papers. If an agreement, between graders and leaders, to the final marks cannot be reached, the International Board has to decide.

The organisers shall provide the delegation leaders with copies of their students' scripts and allow at least 12 hours for them to mark the scripts.

The host country shall provide medals and certificates in accordance with the Statutes. They must also produce a list of all contestants receiving awards with their marks and associated award. The awards are presented at the Closing Ceremony.

The host country is obliged to publish the Proceedings of the Competition, in English, in the subsequent twelve months. A free copy of the Proceedings should be sent to all delegation leaders and competitors.

#### **Regulations to # 6**

Special prizes may be awarded.

The participant who obtains the highest score should receive a special prize.

#### **Regulation to # 7**

During the meeting of the graders where the final and most detailed version of the grading scheme is set, 3 members of the International Board will be present. They have the right to give advice to the group of graders in order to keep the grading scheme within the tradition of the IPhOs.