

World Physics Olympiads Rules and Regulations

Beat the Champion

§1 Vision and Mission

World Physics Olympiad – Beat the Champion (WoPhO) is a secondary school level individual physics competition initiated by Prof. Yohanes Surya, PhD. (founder of the Surya College of Education or STKIP Surya). WoPhO is a unique competition that will last for a full year and consist of three rounds:

1. Selection round
2. Discussion round
3. Final round

The respective missions of each round are:

1. Selection round: providing an opportunity for as many students as possible to participate in a physics competition based on internet technology. Problems presented in the selection round will encourage students to study advanced-level physics that will indirectly enhance their general knowledge on physics.
2. Discussion round: providing an opportunity for the participants (see §5 for the definition of participants) to discuss the problems and solutions of the selection round and other problems at the level of the Physics Olympiad. This will also serve as a communication forum for future physicists that hopefully will become a social network of physics enthusiasts.
3. Final round: providing the ultimate challenge for all participants to contest the Asian and International Physics Olympiads (APhO and IPhO) gold medalists. This will definitely heighten the pressure and enhance the sense of competition.

§2 The Organizer

The three rounds of this competition will be organized separately:

Selection round will be conducted via the Internet by the Surya College of Education and an International Jury.

Discussion round will be held conducted via the Internet by the Surya College of Education.

Final round will be organized by a Physics Society or an educational institution in the hosting country.

The organizer is obliged to provide an equal opportunity to all participants without regards to differences in ethnicity, religion, race and country of origin. There will be no political activity against any individual, group or country in this competition.

§3 Examination Problems

The examination problems presented will be of comparable level of difficulty to the APhO/IPhO problems.

- The Selection round problems will be chosen by the Surya College of Education and the International Board.
- The Final round problems will be the winners of the “Problems for the World Physics Olympiad Competition” (refer to Additional Rules and Regulations no. 1).

§4 Competition Organization (time and venue)

Selection round

- This round will run from February 1st to July 31st of each year.
- Participants solve the problems and submit the solutions via the internet.

Discussion round

- Discussions will be conducted via the Internet between August 1st and December 27th of each year.
- Discussion topic will cover problems at the difficulty level of Physics Olympiads.

Final round

- The final round will be held between December 28th and January 3rd, carrying over to the next year.
- The participants will celebrate the change of the New Year while at the competition.
- The participants can build a global young physicists community.

28 December	- Arrival of participants - Opening Ceremony
29 December	Theoretical round Competition
30 December	Experimental round Competition
31 December	- Excursion/recreation - Celebrating the coming of the New Year
1 January	- Excursion/recreation - Developing the global young physicists community

2 January	- Excursion/recreation - Closing Ceremony
3 January	Participants return to their home countries.

§5 Participants

Selection Round

- Students not yet at university level by June 30th of the competition year.
- Students under 20 years old by June 30th of the competition year.

Discussion Round

- Participants of the Selection Round.
- Anyone interested in following the discussion (Professors, Leaders, etc.)

Final Round

- APhO/IPhO gold and silver medalists of the competition year.
- Students who successfully passed the Selection Round of the competition year (maximum 100 participants).
- Guest participants invited by the organizers (maximum 10 participants/country and maximum total 100 participants).

§6 Organizer's Responsibilities

Selection Round

- The Organizer will choose the problems and evaluate and interview the participants.
- The Organizer will select a maximum of 100 students from the Selection Round and announce the result by August 31st of the competition year at the latest.
- The Organizer will cover the expenses of the Selection Round.

Discussion Round

- The Organizer will moderate the discussion round to ensure its heightened intensity and continuity.

Final Round

- The Organizer will be responsible for the whole program of the Final Round, from the arrival to the departure of the participants.
- The Organizer will cover the expenses of the Final Round.

§7 Competition Execution

Selection Round:

- There will be ten theoretical problems and no experimental problems.
- The competition problems can be downloaded from the WoPhO website starting from February 1st of the competition year.
- Solutions to the problems must be sent to the organizer two months after they are posted. The last solutions must be received by the organizers by July 31st of the competition year. Any late submissions will not be graded.
- Problems will be presented in English. Volunteers may translate the problems into their native languages.

Discussion Round:

- Discussions will be conducted in English.

Final Round:

- The theoretical round consists of three problems and last for six hours.
- The experimental round consists of two problems and last for six hours.
- Graphing calculators are not allowed.
- Problems will be presented in English. There will be no translations of the problems.

§8 Evaluation and Awards

Selection Round:

- The total scores are 100.
- Participants achieving scores above 78% and passing the interview will enter the Final Round (maximum 100 participants).

Discussion Round:

- Awards will be given to the most active participant and/or for the most creative solution.

Final Round:

- The total score for theoretical round will be 30 and for the experimental round, 20.
- Medals and awards are given according to the following rules:
 - Participants will be ranked according to their final score from the highest.
 - Participants who rank between 1 and 10 will be awarded gold medals.
 - Participants who rank between 11 and 20 will be awarded silver medals.
 - Participants who rank between 21 and 30 will be awarded bronze medals.
 - There will be no Honorable Mention.
- The participant who achieves the highest score and scores above all APhO/IPhO gold medalists will receive a scholarship of USD 10,000 and the title “The Real Winner of the Physics Olympiads”. If the highest score is achieved by an APhO/IPhO gold medalist, he/she will only receive a scholarship of USD 5,000 and a diploma and the title “The Real Winner of the Physics Olympiads”.
- The participant who achieves the highest score in the theoretical round and scores above all APhO/IPhO gold medalists will receive a scholarship of USD 5,000 and the title “The Best of the Best Theoretical”. If the highest score in the theoretical round is achieved by an APhO/IPhO gold medalist, he/she will only receive a scholarship of USD 2,500 and the title “The Best of the Best Theoretical”.
- The participant who achieves the highest score in the experimental round and scores above all APhO/IPhO gold medalists will receive a scholarship of USD 5,000 and the title “The Best of the Best Experimental”. If the highest score in the experimental round is achieved by an APhO/IPhO gold medalist, he/she will only receive a scholarship of USD 2,500 and the title “The Best of the Best Experimental”.
- All gold medalists will each receive a scholarship of USD 1,000.
- The Organizing Committee may also present special awards.

§9 The International Jury

- The International Jury is selected based on recommendations and his/her activities within IPhO/APhO and/or capability to answer problems comparable to IPhO/APhO level of difficulty.
- The International Jury must master at least one of the following languages: English, Chinese, Russian or the native language of the host country.

- The International Jury can be:
 - Past IPhO/APhO gold medalists.
 - Past or current IPhO/APhO team leaders
 - Physics professors and/or lecturers.
- The International Jury will be invited to WoPhO's Final Round at the Organizing Committee's expenses (covering round trip economy air fare, accommodations and pocket money).
- The International Jury responsibilities include:
 - Assisting in deciding problems for the Selection Round.
 - Evaluating students' answers during the Selection Round.
 - Interviewing (*) students who achieve scores above 78%.
 - Recommending the 100 best participants to the Final Round.
 - Assisting in Final Round jurying.
- The International Jury will receive a certificate.

§10 The International Board

- The International Board consists of Chairman of WoPhO and members of the International Jury selected by the next host country at previous WoPhO International Board meeting.
- The duties of the International Board:
 - Help selecting problems used in the WoPhO final round.
 - Providing inputs/suggestions to improve the quality of WoPhO from year to year. For example, the International Board may recommend outstanding freshmen from the Ivy League schools/universities as guest participants to enhance the competitiveness of WoPhO.
- The International Board and his/her spouse will be invited to WoPhO's Final Round at the Organizing Committee expenses (covering round trip economy air fare, accommodations, and pocket money).

§11 The International Advisors

The International Advisors consist of:

- The President of The International Physics Olympiad (IPhO), ex-officio
- The President of the Asian Physics Olympiad (APhO), ex-officio
- Physicists with great achievement in Physics (e.g. Nobel Laureates, etc.)
- Special guests invited by the organizer of the competition for that year.

The duties of the International Advisors include providing inputs/suggestions to improve the quality of WoPhO from year to year.

The International Advisors will be provided the following amenities:

- The International Advisor and his/her spouse will be invited to WoPhO's Final Round at the Organizing Committee expenses (covering round trip economy air fare, accommodations, and pocket money).

§12 Guest Participants

- Treated as normal participants, but will be charged a fee.
- Must not yet at university level by June 30th of the competition year.
- Must be under 20 years old by June 30th of the competition year.
- Registration: Guest participants may
 - a. register individually, with one letter of recommendation from his/her school or educational institution and will be selected based on the recommendations (a maximum of ten participants per country can be accepted) **or**,
 - b. be registered and recommended by the host country **or**,
 - c. be recommended by the International Advisors (guest participants could be freshmen of the top universities during the competition year).

§13 Accommodations and Fees

- Selection Round: no fee will be charged.
- Discussion Round: no fee will be charged.
- Final Round:
 - a. APhO/IPhO gold medalists of the competition year:

- will be provided with round trip economy airfare from their home to the venue of WoPhO.
 - will be provided with accommodations, F/B for all activities throughout the event.
 - will receive pocket money amounting to USD 200.
- b. Students qualifying from the Selection Round:
- will be provided with round trip economy airfare from their home to the venue of WoPhO.
 - will be provided with accommodations, F/B for all activities throughout the event.
- c. APhO/IPhO silver medalist of the competition year and students passing the selection round:
- will be provided with accommodations, F/B for all activities throughout the event.
- d. Guest participant, visitor, or observer:
- will be charged the amount of USD 1500 to help cover his/her accommodations, F/B for all activities throughout the event.
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