

European Physics Olympiad 2023 - First Circular (30.11.2022)

Dear friends and colleagues,

it is our great honor to announce that the 7th European Physics Olympiad (EuPhO) will take place in Hannover, Germany from June 16 to 20, 2023. EuPhO 23 is organised jointly by the Leibniz University Hannover (LUH) and the Leibniz Institute for Science and Mathematics Education (IPN) in Kiel. More detailed information on the competition is given below.

We invite you to declare your intention to participate by pre-registering for EuPhO 23 until December 31, 2022 using the form at

www.ipn.uni-kiel.de/eupho2023_registration

Only pre-registered countries will be invited to formally register for EuPhO 23 in February 2023. As we can only accommodate a maximum of 40 teams, we might not be able to invite all pre-registered countries to the competition. Precedence will be given to teams from Europe followed by guest teams that have already participated in former EuPhOs. If necessary, the order of pre-registration will also be taken into account.

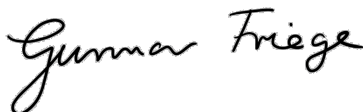
For any questions, please contact the EuPhO 2023 organising team at organiser@eupho23.de. We will provide more information on the competition on our website, which will launch soon.

We hope to see you in Hannover. With best regards,



Prof. Jaan Kalda

Tallinn University of Technology
President of EuPhO



Prof. Gunnar Friege

Leibniz University Hannover
Chairman local
organising committee



Dr. Stefan Petersen

Leibniz Institute for Science and
Mathematics Education, Kiel
Chairman local
organising committee

Overview of EuPhO (based on eupho.ee/about/)

The European Physics Olympiad (EuPhO) is a competition for high school students. The concept of the EuPhO resembles real research situations, with short problem descriptions and plenty of room for creative solutions.

The first EuPhO was held in Tallinn, Estonia in 2017, the second in Moscow, Russia in 2018, and the third in Riga, Latvia in 2019. The fourth EuPhO was to be held in Sato Mare, Romania, in 2020, but was cancelled due to the Covid 19 pandemic. Instead, an online edition of the Olympiad was organised by Estonia with great success and 257 participants from 54 participating countries from around the world. The ongoing pandemic led to the decision to also organise the fifth EuPhO in 2021 in an online format. It was again successfully organised by Estonia, with 46 participating countries and 219

participants. In 2022, the sixth EuPhO was held in Ljubljana, Slovenia with 182 students from 37 countries.

As a European competition, the EuPhO primarily attracts European countries, but guest teams from around the world are also welcome. However, as we can only accommodate a maximum of 40 teams at EuPhO 23 we might not be able to welcome all countries willing to take part.

EuPhO Rules (based on eupho.ee/rules/)

Eligibility requirements

Similar to the IPhO, the competition is designed for high school students. The age of the contestants should not exceed twenty years on June 30th of the year of the competition, i.e. their 21st birthday should be after that date. We shall consider the age in years as a rounded digit with the floor function having been applied. In other words, if someone's 21st birthday is July 2, he/she is eligible.

The competition is open for countries from Europe and beyond. Each country is eligible to send one team consisting of up to 5 students and one leader; observers and/or visitors are also welcome. The host country is eligible to send a second team. Countries officially participating in the EuPhO accept the responsibility of organising the competition themselves at some point in time.

Educational systems vary from country to country, and in some cases the boundary between a high school and a university becomes vague. Per current definition, we consider a school where students have more than one third of lectures (on average per year) on topics related either to physics or mathematics to be equivalent to a university. However, if there are students in your team who come from schools which according to this criterion are considered universities, but you feel that those students have not been taught university-level physics courses, please contact the President of EuPhO to find a fair solution.

Competition Rules

The competition consists of two rounds: an experimental exam and a theoretical exam.

There is no discussion of the problem texts, it is the responsibility of the international academic committee of the Olympiad to guarantee the quality of the problems. Academic committee is also responsible for the grading of the problems (if necessary, they can appoint additional markers). The problem texts are short, so the leaders are expected to be able to complete the translation of both theoretical and experimental problems within an hour.

IPHO-style moderation of the marks is substituted by appellation: it is the responsibility of students to appeal any unjust grading (leaders can be present during the appellation and, if needed, translate the communication).

During the theoretical round (5 hours), there are three problems, one of which is very difficult, one is moderately difficult, and one is relatively less demanding. Full solution of each problem gives 10 points, grading granularity is one point. Partial credit is given for each idea or formula which is used in a full solution. During experimental examination (5 hours), there will be one or two tasks.

The award thresholds in points are determined after appellation as such smallest numbers that at least 8 % of participants will receive a gold medal, at least 25 % – a gold or silver medal, 50 % – a gold, silver, or bronze medal. The results of participants from non-European countries do not affect the award thresholds, but all the contestants with marks above the thresholds are awarded with medals.

Fees and practical issues

The participation fee for students and the team leader is 250 EUR per person, i.e. a total of 1500 EUR for a complete team of five students and one leader. Additional observers and/or visitors are welcome subject to the capacities available. The participation fee for each additional observer or visitor is 350 EUR. The same fee of 350 EUR per person also applies to all members of guest teams. Leaders will be accommodated in double rooms as standard. A limited number of single rooms will be available; the additional fee for single room accommodation will be around 200 € per person.

Important dates for EuPhO 23

December 31, 2022	Deadline for pre-registration at www.ipn.uni-kiel.de/eupho2023_registration
February 2023	Invitation to EuPhO 23 and registration with confirmation of number of persons attending
March 2023	Participation fee is invoiced and formal invitation letters to obtain visas are issued, if necessary
May 15, 2023	Deadline for submitting team and travel details as well as for payment of fees
June 16-20, 2023	EuPhO 23 (duration of hospitality in Hannover)

Preliminary program for EuPhO 23

Date	Students	Leaders / Observers
Friday June 16	Arrival & Opening Ceremony	
Saturday June 17	Theoretical Exam & Activity	Translation & Activity
Sunday June 18	Experimental Exam & Activity	Translation & Activity
Monday June 19	Moderation, Excursion & Farewell party	
Tuesday June 20	Closing Ceremony & Departure	

Note on Covid-19

Currently only very few Covid-19 related restrictions apply in Germany. But we all know that the situation may change again. We will keep you informed and ask you to bear the following in mind:

- *Entry restrictions* - As of now, most entry restrictions for persons arriving to Germany have been lifted. Please check for updates at www.auswaertiges-amt.de/en/coronavirus/2317268.
- *Obligatory Masks* – Wearing a protective mask (class FFP2) is still compulsory in (some) public transports (trains and busses) in Germany. As EuPhO 23 is scheduled in early summer we are positive that mask requirements will be relaxed until then.
- *In case of symptoms or infection* – You should travel to EuPhO 23 only if you feel well and are free of symptoms typical for a Corona infection. Should you become sick or develop any symptoms during your stay, please let us know immediately. We will provide you with self-test-kits to check for a possible Corona infection. In case of a positive self-test we will assist you with further diagnostics and procedures. Note that a positive test will not necessarily exclude a person from taking the EuPhO exams (we will try and find a way to let persons take exams from their room).