

What is the Physics Olympiad?

The Physics Olympiad is a competition for young people who want to demonstrate their knowledge and enthusiasm for physical phenomena. It consists of several rounds of exams, where great prizes can be won for solving different tasks. For example, the five best participants get the chance to attend the International Physics Olympiad (IPhO). Five other participants represent Switzerland at the European Physics Olympiad (EuPhO) in an European capital. At all these events, participants meet like-minded people and visit places of interest to physicists, such as laboratories or observatories. The school knowledge is expanded with the camps and training events. You'll meet new friends, develop your interest in physics, and maybe even win a trip around the world - join us!

Who are we?

The association Physics Olympiad Switzerland organizes the Physics Olympiad and elimination for EuPhO and IPhO. We consist of mostly former participants who want to share their experiences during our professional or academic life. We are part of the Science Olympiad association, which organizes similar competitions in biology, chemistry, geography, mathematics, computer science, linguistics, philosophy, robotics and economics.

How can I participate ?

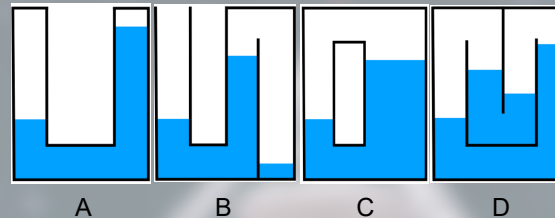
It's easy - go to firstround.physics.olympiad.ch to register and complete the first round by 30 September 2023. After having passed the first round, you will be invited to the physics camp in Vordemwald and also have the opportunity to exercise on your own - with detailed feedback from us to prepare you for further rounds. In further events you will learn experimental skills and meet many like-minded people. Don't worry if you don't have any physics knowledge from senior year of high school - solving Olympiad tasks requires mainly intuition and a clever approach - you can learn the rest during the training events.

Who can participate?

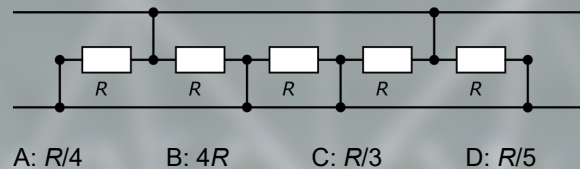
Participants of the Physics Olympiad must have not attended the university in the year of Physics Olympiad. To join the second round and be invited to camps you must be also under 21 years of age before 1st July 2024 and have Swiss or Liechtenstein citizenship OR official residency. For the final round you have to attend a school in Switzerland or Liechtenstein.

Example Questions

Question 1: The pipes in the pictures below contain water (blue) and air (white). Outside the pipes there is atmospheric pressure. Which of the drawn water containers is statically possible?

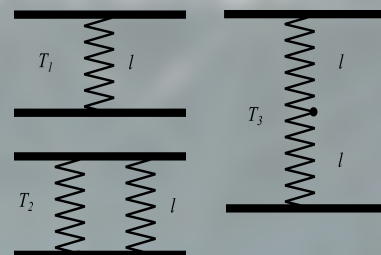


Question 2: How big is the total resistance between the upper cable and the lower cable in the circuit shown below?



Question 3: There are five identical springs with length l , as shown in the image below. At the lower end, the springs are grounded, on top there is a board with mass m . The boards are oscillating. Which statement is true for the oscillation periods T_1 , T_2 and T_3 ?

- A: $T_1 > T_2 = T_3$
B: $T_3 < T_1 < T_2$
C: $T_2 < T_1 < T_3$
D: $T_1 < T_2 = T_3$



More tasks from previous years can be found on our website www.physics.olympiad.ch.

Solution: 1. A' B : 5. A' 3. C

Agenda 2023/2024

14. August - 30. September 2023

First Round

Multiple-Choice-Test
on physics.olympiad.ch or at school

19.-24. November 2023

Physics-Camp

Training for the 2. Runde, focus theory

17. January 2024

Second Round

Exams in Bern, Lausanne, Lugano and Zürich

16.-18. February 2024

EPFL Trainingscamp

Training for the final round, focus experiments

09.-10. March 2024

Swiss Physics-Olympiade

Final round and Award distribution

April-June 2024

Experimental/Theory Training

Neue Kantonsschule Aarau / Wallis

June 2024

European Physics Olympiad

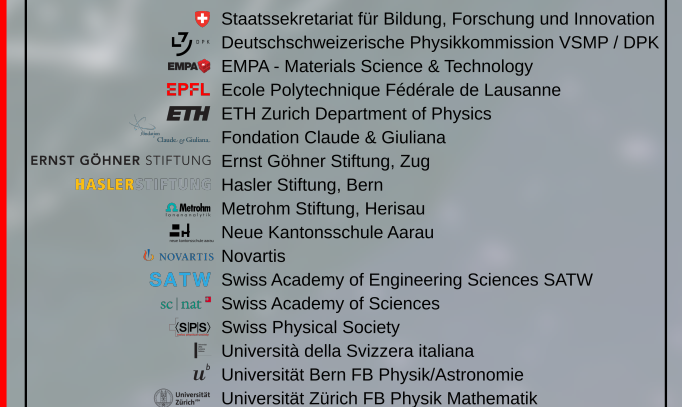
July 2024

International Physics Olympiad

Further information to the agenda, participation conditions or registration can be found on our homepage

www.physics.olympiad.ch.

Contact : Verein Physik-Olympiade, 8000 Zürich



Physics is not your favourite topic? Do you know the nine other science olympiads in Switzerland? They are also available in the subjects Biology, Chemistry, Geography, Informatics, Linguistics, Mathematics, Philosophy, Robotics and Economics. We are all connected by the umbrella association Science Olympiads. Have a look at www.science.olympiad.ch and register immediately!

Background and Title: Photo by Lavi Pershik, unsplash