



HOMI BHABHA CENTRE FOR SCIENCE EDUCATION TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Olympiad Exposure Camps in Physics and Astronomy 2022

Introduction:

Homi Bhabha Centre for Science Education (HBCSE) is a national centre of the Tata Institute of Fundamental Research (TIFR), Mumbai. The broad goals of the centre are to promote equity and excellence in science and mathematics education from primary school to undergraduate college level. It is India's nodal centre for Olympiad programmes in Mathematics, Physics, Chemistry, Biology, Astronomy, and Junior Science.

Applications are invited ([click here](#)) from teachers and educators for Olympiad Exposure Camps in Physics and Astronomy which will be organised in partly online and partly onsite mode by HBCSE. These camps are not intended for students and they need not apply.

Camp Objective:

The primary objective of these camps is to spread awareness about the national and international Olympiad programme, in particular, in Physics and Astronomy. An orientation towards the academic and organizational aspects of the Physics and Astronomy Olympiads will be provided. The camps also serve as platforms for productive interaction within the teacher community.

Camp Structure:

Each camp will consist of an online component and an onsite component (to be held at HBCSE, Mumbai, and ARIES Nainital (the latter only for Astronomy)). The online component of the Physics and Astronomy camps will be common.

The online camp will consist of multiple lecture sessions spanning 4 to 5 days. Further, tutorials and laboratory/observation sessions will be conducted at HBCSE, Mumbai/ ARIES, Nainital at a later date.

In Astronomy, typical topics covered will be celestial mechanics, optics, positional astronomy, stellar physics etc. The onsite component in astronomy will consist of problem solving sessions and telescope handling/night sky observation.

In Physics, the participants will be provided a flavour of theoretical and experimental problems in national and international Olympiads. Some sessions will also focus on misconceptions and



different areas in physics education research. The onsite component will focus on problem solving and laboratory sessions.

Dates and Venues:

Common Online component for Physics and Astronomy: The online sessions will be held from 17 to 21 January 2022. There would be 4 sessions on each day between 10 AM and 5 PM.

Onsite component for Physics:

- At HBCSE, Mumbai on 8 to 10 February 2022.

Onsite component for Astronomy: There will be two onsite camps (participants will be invited to only one according to preference and availability):

- At HBCSE, Mumbai on 11 to 13 February 2022.
- At ARIES, Nainital on 21 to 23 March 2022.

For the camp at ARIES, Nainital, preference will be given to applicants from Uttarakhand and surrounding regions.

Travel and Accommodation:

Participants will be reimbursed to and fro travel fare as per their entitlement (maximum II-AC) for the onsite part of the camp at the respective venue. Food and accommodation at the respective venue will be provided for all participants.

Who can apply?

- Educators from different sectors, i.e., university/college teachers of physics or astronomy
- High school science teachers (with background in physics/mathematics)
- Astronomy outreach personnel from scientific institutions, staff of planetaria and science museums as well as active amateur astronomers are encouraged to apply
- Students and applicants below the age of 23 years will not be considered
- It is preferred that the participants have a background in Physics and/or Mathematics
- Previous participants of Astronomy or Physics Olympiad Exposure Camps will not be considered again. Previous participants of Olympiad Exposure Camps in other subjects may be considered subject to availability of seats.
- Applicants may apply in both subjects with an indicated preference of selection. Applicants will be selected for a camp in one of the subjects only.

Rules and Regulations regarding application:

- Click [here](#) to fill the online application form.
- Last date of application: **31 December 2021**.
- Intimation regarding selection will be put on the HBCSE website by 10 January 2022.



- Selected participants will also be invited through an official letter sent over email.
- The list of selected participants for each of the camps will be displayed separately. Additionally, some teachers may be invited to attend online sessions only.
- Selected participants may be disqualified from attending the onsite component if they fail to maintain sufficient attendance in the online sessions.
- Any queries regarding the camp can be sent to pritesh@hbcse.tifr.res.in