

## **PWF Guidelines for Applications**

ICTP Physics Without Frontiers (PWF) works to motivate, train, and educate physics and mathematics university students worldwide, with focus on science and technology lagging countries, to help build the next generation of scientists.

We focus on science and technology lagging countries, specifically working with universities without PhD opportunities in the area of the PWF project. Our priority audience is undergraduate and master students, we do not work with PhD level.

### **The aims of PWF:**

**To train university students** in core topics and cutting-edge research in physics and mathematics using enquiry-based learning and hands-on sessions, and teach transferable skills in computing, programming and machine learning.

**To identify and mentor top students** studying at universities without MSc/PhD programmes to go on to further study abroad, such international summer schools, the ICTP diploma programme, and MSc and PhD positions.

**To support physics and mathematics departments** in universities with little or no research, by providing faculty training, taught university courses, curriculum support, research infrastructure, efforts towards the public understanding of science, and outreach to high school students and teachers.

### **Our volunteer network**

We achieve our aims through the passion and hard work of our network of volunteer scientists who organise projects, mentor students, support departments and provide international connections and collaboration. Our volunteer scientists comprise of lecturers in universities in developing countries, lecturers, postdocs and graduate students originally from developing countries working abroad, along with scientists from non-developing countries and ICTP scientists. This means you! The Physics Without Frontiers volunteer network is composed of more than 80 passionate scientists primarily originally from the partnered countries.

If you do not have a project in mind but are interested to volunteer for a project you can email us with your CV, teaching and training expertise and experience so that we may get in contact if a project matches your skill set.

**To get involved and volunteer, make an application to our open call, or just email us telling us who you are and what you want to do.**

## **PWF Projects:** What you might apply for

Projects to **train university students** in developing countries, proposed by lecturers, postdocs or graduate students:

- PWF online hands-on training or courses in physics and mathematics, or online outreach programmes.
- PWF roadshows, university courses, or schools in physics and mathematics when travel restrictions are lifted.

Projects to support **lecturers and physics and mathematics departments** in developing countries

- Lecturers looking for support to teach a course in physics or mathematics.
- Lecturers looking for support to develop their BSc or MSc curricula in physics and mathematics.

Projects proposed by lecturers, postdocs or graduate students wishing to organise **communication** or **outreach** projects designed to support **diversity** in physics and mathematics, in particular to address the gender gap in STEM.

## **Application process**

### **Stage 1: Initial call for applications (This Call!)**

This stage is designed to allow you to outline your motivation, define the issue you would like to address and put forward any ideas you have for the project. You do not need a full idea for this initial stage, it is an expression of interest. If you do not know the partners, research field, types of activity or budget just write your ideas in the corresponding section in the application or it can be left blank.

If selected we will work with you in the second stage of application to put together a full proposal.

The person making the application should be the project coordinator, and if you have Project team members who will also volunteer to organise the project you may give their names and affiliations. Any connection to ICTP should be stated. We encourage partnering with universities or labs, local industry, educational projects or any other useful partnerships. These, if you have any at this stage, can be listed in the Project Partners section.

You will receive a response to your application as to whether your project is selected to progress to Stage 2

## **Stage 2: Full proposal**

We will work with selected projects to develop a full proposal with complete details, clear objectives and evaluation procedures, dates, and agreed budget. The group members and additional volunteers will be agreed, along with the project partners, project structure and deliverables.

The full proposal must then be approved by all partners involved including ICTP before going ahead.

### **Budget**

PWF is not a funding body, instead we are a volunteer network. We organise projects and empower passionate scientists to share their knowledge and develop collaborations with universities and mentor students. We do have a small amount of funding available and we partner with the local universities, industry or other partners to provide travel grants and other forms of support towards the project.

Typically our projects require <1k, 2k or 3k of funds, to provide travel grants, refreshments, or in some cases equipment for online activities. Universities or local partners are expected to cover refreshments and local costs. PWF can contribute to the budget by providing travel grants. Accommodation for any visiting volunteer is encourage to be covered by the university or local partners. The grant from ICTP PWF must go to the host university or to the volunteer in the case of a travel grant. Subsistence is not provided.

If you have a clear idea of your project, in the budget section of the application provide a detailed breakdown of the budget, and which partner you suggest to provide funding (PWF, university, or local partner). If any travel is expected you should give the details of the travel each volunteer will take (dates, locations) and the estimated cost of the ticket.

If you have a less clear idea please provide a rough estimate and we can discuss. A detailed budget breakdown is not required until the full proposal.