



# ICTP Physics Without Frontiers

Bobby Acharya & Kate Shaw

# Physics Without Frontiers: Our Programs

The ICTP Physics Without Frontiers program works to inspire, train and motivate physics and mathematics university students to help build the next generation of scientists. Each project is unique, developed with the country's specific needs in mind.

**Inspire and Motivate**

**Train and Educate**



**Public  
Outreach**

Secondary Schools  
& the Public



**Masterclass  
Roadshows**

Undergraduate &  
Master students



**Schools and  
Workshops**

Undergraduate &  
Master students



**University  
Courses**

Undergraduate &  
Master students

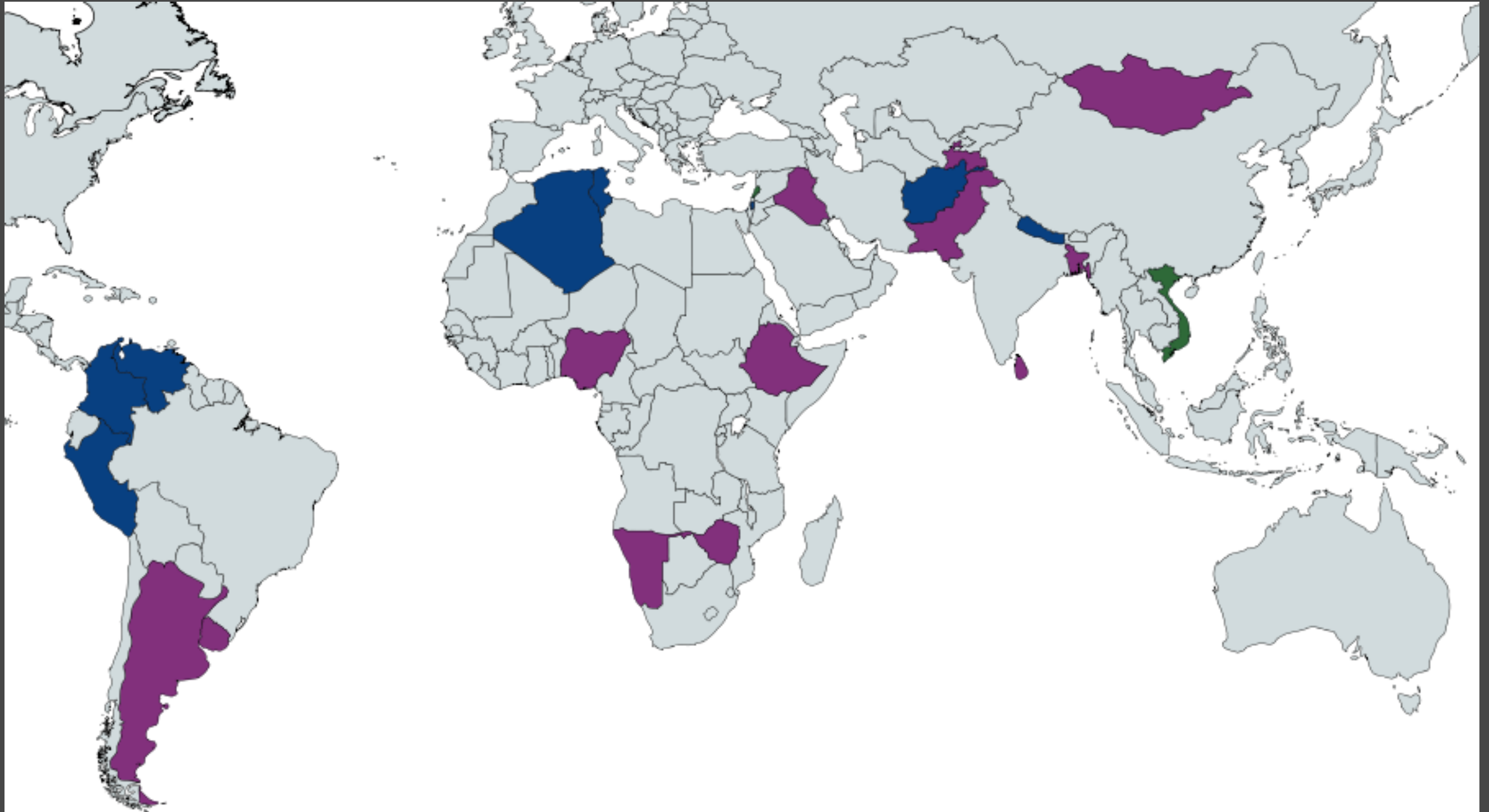
**Network and Collaborate  
Sustained Mentoring**



# Volunteers from the host country and internationals









# Physics Without Frontiers: **Inspire and Motivate!**

## One Day Masterclasses

- *Run by young scientists from the country working abroad*
- Bring research to students using real data
- Inspires and motivates students to go on to further study
- Careers session helps with opportunities and applications
- Connects young scientists back to home institutes stimulating **networking and collaboration**





# Latin-America wide





# Physics Without Frontiers: **Train & Educate**

## Workshops and Schools

- Trainings and lectures in specific areas they have less access
- Careers session helps with opportunities and applications
- Lectures travelling to meet the students and professors can stimulate **networking and collaboration**





# Physics Without Frontiers: Afghanistan (2018+)

INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS



## PHYSICS WITHOUT FRONTIERS AFGHANISTAN

### HIGH ENERGY PHYSICS WORKSHOP

KABUL UNIVERSITY

SATURDAY 31 MARCH - SUNDAY 1 APRIL 2018

PHYSICS FACULTY, LECTURE ROOM 1

PWF is organising a workshop in high-energy physics at Kabul University, Afghanistan. The program is designed for 3rd and 4th year undergraduate physics students throughout the region, to introduce the field and research topics with a focus on cosmology and particle physics.

**REGISTER AT: <http://bit.ly/2tHjim3>**  
**DEADLINE 22 MARCH 2018**

ORGANISED BY ICTP PWF, WITH:

BAKTASH AMINI (KABUL UNIVERSITY, ICTP PWF AFGHANISTAN COORDINATOR)  
KATE SHAW (ICTP PWF COORDINATOR, UNIVERSITY SUSSEX, ATLAS EXPERIMENT AT CERN)  
ENCIEH ERFANI (INSTITUTE FOR ADVANCED STUDIES IN BASIC SCIENCES)





# Physics Without Frontiers: Afghanistan (2018+)





# PWF: 5-day Winter School Nepal (2013 - 2018)





# Physics Without Frontiers: **Train & Educate**

## University courses

- We work with universities that are unable to teach specific courses due to a lack of resources
- Lecturers and teaching assistants work at selected university stimulate **networking and collaboration**
- Continued mentoring is provided to students to support applications for further study





# Physics Without Frontiers University Courses

Particle Physics Course: Palestine (2013 - 2018)



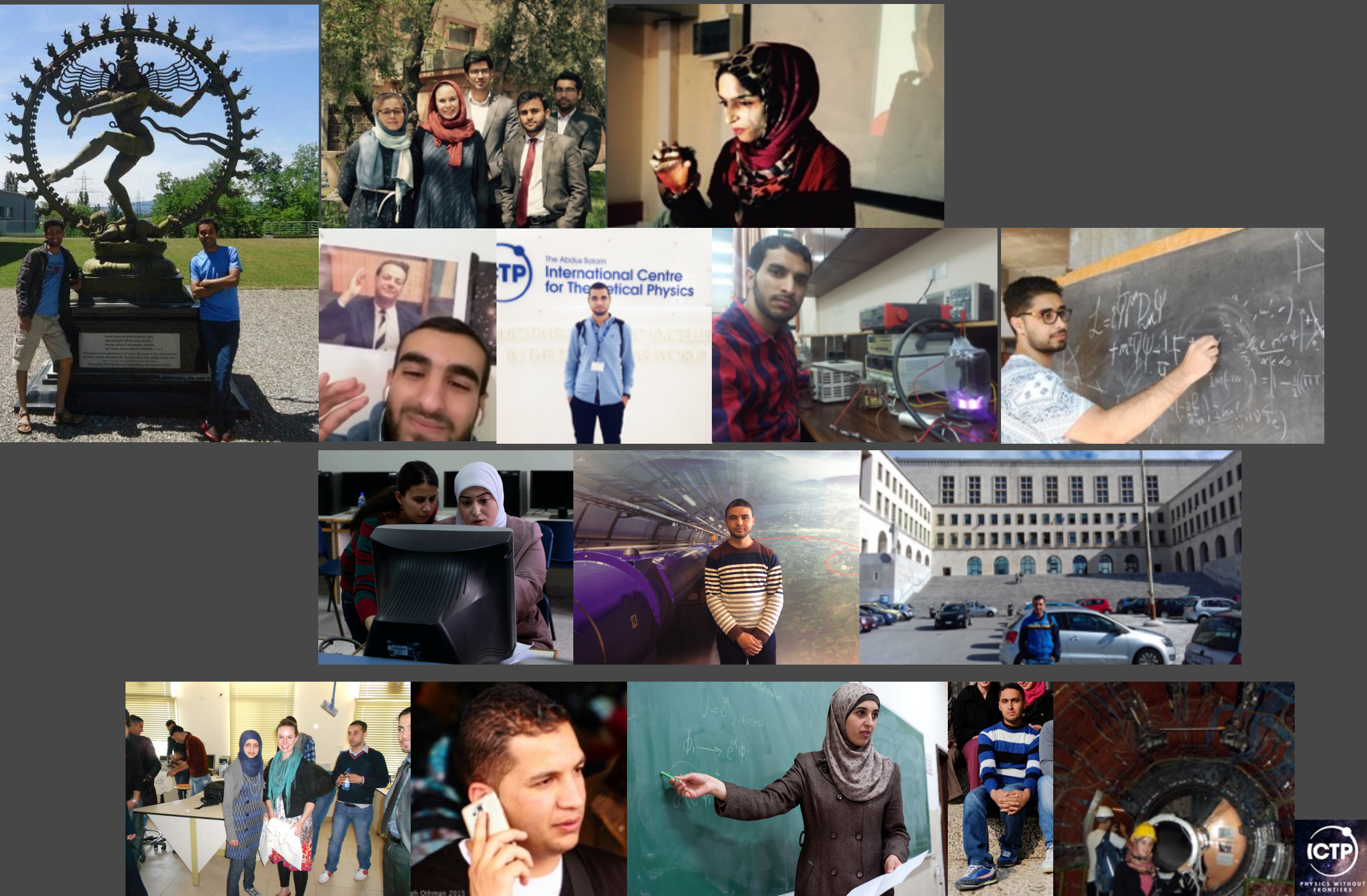
Particle Physics Course: Tunisia (2016)



Numerical Methods Course: Nepal (2016)

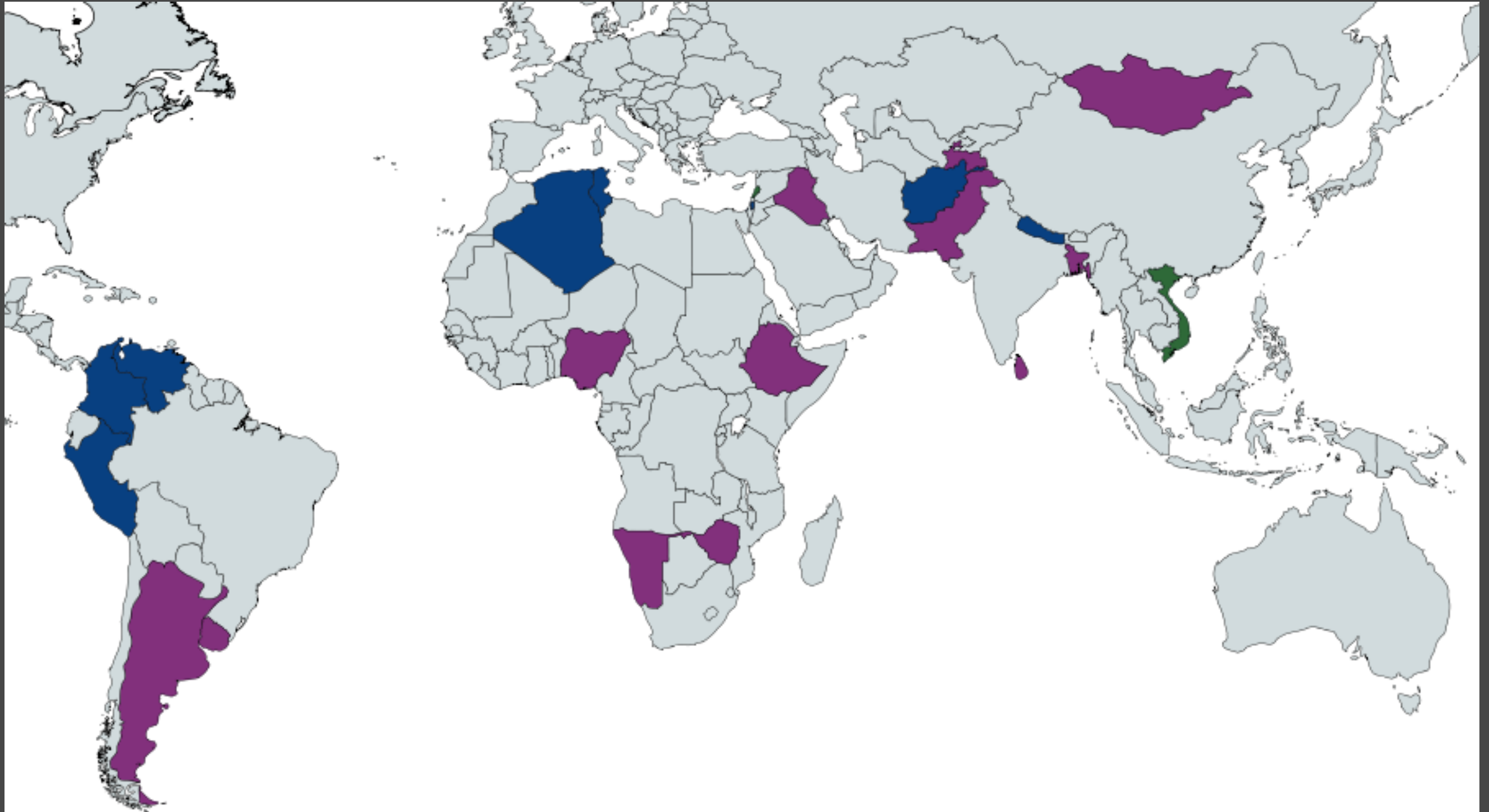


# Network & Collaborate, Sustained mentoring





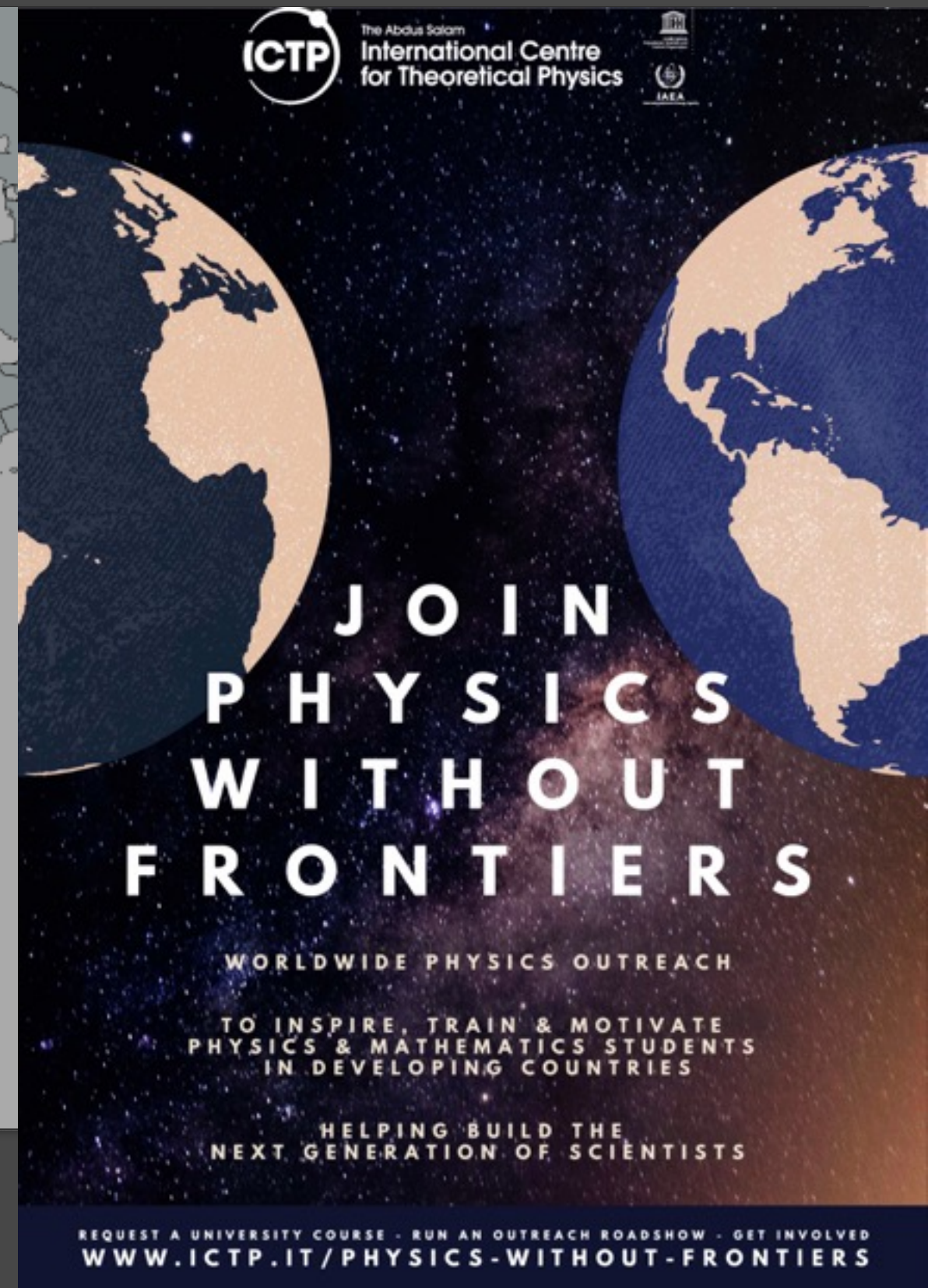
# Physics Without Frontiers: Our project partners...





# Physics Without Frontiers

- Let us know if you have ideas for projects
- Get in touch
  - [physicswithoutfrontiers@ictp.it](mailto:physicswithoutfrontiers@ictp.it)
  - Twitter/Facebook/Instagram @ictpPWF
  - Website <https://www.ictp.it/physics-without-frontiers.aspx>





## Aims of the Project

- To **expose and introduce** ideas in physics to undergraduate and master students
- To **identify strong students**, provide **mentoring** and support for further study,
- To **connect with scientists**, support them with international opportunities and collaboration
- Bring awareness of the university and policy makers to the **importance of supporting physics** departments and ultimately research



# Back Up

