

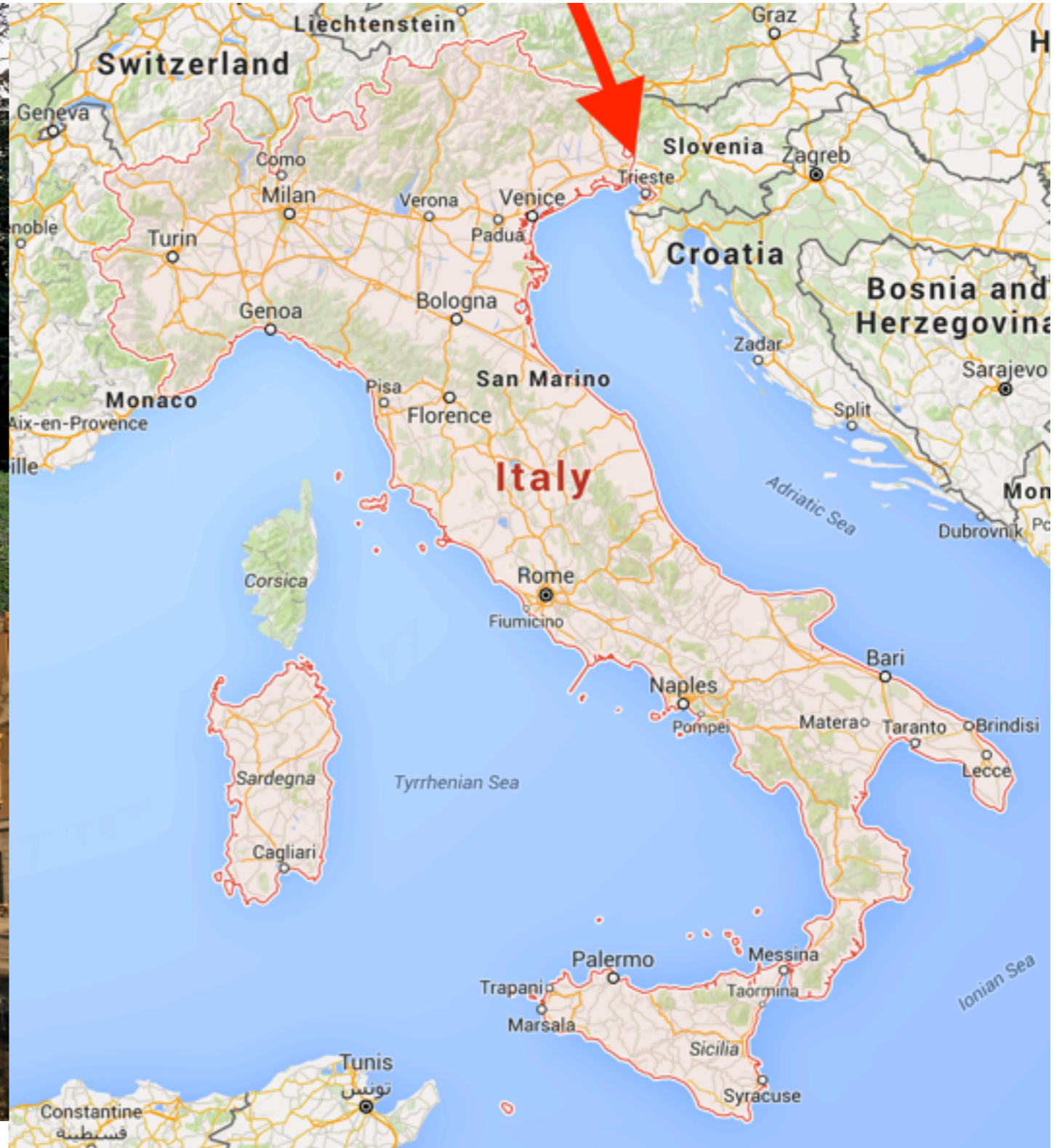


# ICTP PHYSICS WITHOUT FRONTIERS

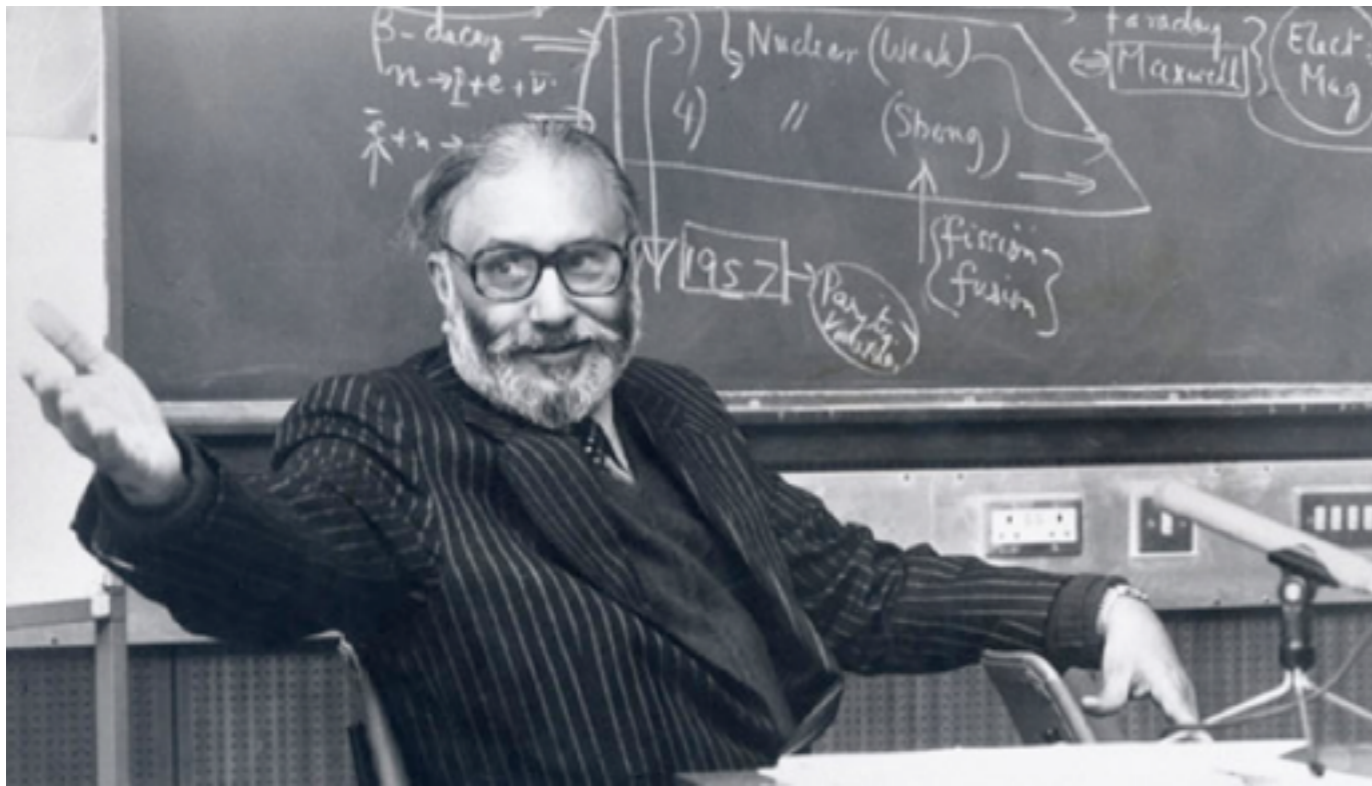
AFGHANISTAN

Kabul University, 31st March 2018

# Trieste, Italy



# The Abdus Salam International Centre for Theoretical Physics, (ICTP)



Abdus Salam shared the 1979 Nobel Prize in Physics for his contribution to electroweak unification

In 1964, Salam founded the International Centre for Theoretical Physics (ICTP), Trieste, in the North-East of Italy and served as its director until 1993.

ICTP emerged as a focal point of cooperation between the North and South, aiming to help scientists from developing countries overcome their isolation and contribute to state-of-the-art research in physics and mathematics.



ICTP's mission is to

- Conduct research at the highest international standards
- Foster the growth of research in physical and mathematical sciences especially in support of excellence in developing countries
- Develop high-level scientific programmes keeping in mind the need of developing countries and provide an international forum of scientific contact for scientist from all countries



The Abdus Salam International Centre for Theoretical Physics, (ICTP)

[www.ictp.it](http://www.ictp.it)



Research ▲

Scientific Calendar

Programmes ▼

**HECAP**

High Energy,  
Cosmology and  
Astroparticle  
Physics

**CMSP**

Condensed Matter  
and Statistical  
Physics

**MATH**

Mathematics

**ESP**

Earth System  
Physics

**AP**

Applied Physics

**QLS**

Quantitative Life  
Sciences

**New Research  
Areas**

New Research  
Areas



## Programmes

- Postgraduate diploma
- ICTP/IAWA Sandwich training programme
- Range of joint master and PhD programmes
- Associates scheme
- Laboratory opportunities



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[www.ictp.it](http://www.ictp.it)

PRE-PHD PROGRAMMES	DEGREE PROGRAMMES	CAREER DEVELOPMENT	LABORATORY OPPORTUNITIES	SCIENTIFIC OUTREACH
ICTP Postgraduate Diploma Programme	Joint ICTP/SISSA PhD Programme in Physics and Mathematics	Conferences, workshops and schools	Training and Research in Italian Laboratories	Office of External Activities
ICTP/IAEA Sandwich Training Education Programme	Joint PhD Programme, Earth Science and Fluid Mechanics	Junior Associates	ICTP-ELETTRA Users Programme	ICTP Partner Institutes
	Physics PhD Program	Regular Associates	ICTP Laboratories	Science Dissemination Unit
	Joint Masters in Physics	Senior Associates		African Review of Physics
	Joint ICTP/Collegio Carlo Alberto Program in Economics	Federated Institutes		ICTP in East Africa
	International Master, Physics of Complex Systems	OFID Postgraduate Fellowship		Physics Without Frontiers
	Master of Advanced Studies in Medical Physics	The Kuwait Programme at ICTP		
	Masters in High Performance Computing			



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ICTP Science Dissemination Unit

<http://ejds.ictp.it/ejds/>

[Home](#) > [Programmes](#) > [Scientific Outreach](#) > Science Dissemination Unit

## SCIENTIFIC OUTREACH

[Office of External Activities](#)

[ICTP Partner Institutes](#)

[Science Dissemination Unit](#)

[African Review of Physics](#)

[Physics Without Frontiers](#)

## Science Dissemination Unit

### Bridging the digital and knowledge divide

ICTP's Science Dissemination Unit (SDU) researches and develops innovative, low-cost information and communication technology solutions for developing countries, and disseminates science texts via electronic media. Ongoing SDU activities include the development and maintenance of the award-winning "Enhance your Audience", or EyA, system, which webcasts all physics and mathematics lectures given through ICTP's Diploma Programme, as well as selected ICTP conferences and workshops.

The SDU also addresses skill shortfalls of staff in universities, research centres, scientific academies and ministries of science and technology throughout the developing world by providing free access to scientific literature and advanced training in ICT, both on-site and in Trieste.

The SDU established the [Scientific FabLab](#) ("fabrication laboratory") on August 12, 2014 a space devoted to creativity and research with a focus on applications in the fields of science, education and sustainable development that can benefit society.

More details about SDU's activities are on its [website](#).



[Home](#) > [Physics Without Frontiers](#)

# Physics Without Frontiers

Contacts:   

Worldwide physics outreach

PWF UNIVERSITY COURSES

PWF WORKSHOPS AND SCHOOLS

PWF MASTERCLASS ROADSHOWS

GET INVOLVED AND APPLY

NEWS

PWF CURRENT PROJECTS

PHYSICS WITHOUT FRONTIERS  
POSTER

[Download Poster PDF](#)

PHYSICS WITHOUT FRONTIERS  
BROCHURE

[Download PDF](#)

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



Projects are organised by PhD students, postdoctoral researchers and lecturers, passionate to promote physics and mathematics in developing countries. If you are interested in getting involved contact us at [physicswithoutfrontiers@ictp.it](mailto:physicswithoutfrontiers@ictp.it).

**The program includes:**

**PHYSICS WITHOUT FRONTIERS UNIVERSITY COURSES:** Physics Without Frontiers partners with physics and mathematics departments that are unable to teach specific courses due to a lack of resources. Faculty members at universities are invited to request courses. More information can be found [here](#).

**PHYSICS WITHOUT FRONTIERS WORKSHOPS AND SCHOOLS:** Organised at a given university for local undergraduate and master students, Physics Without Frontiers organises intense pedagogical workshops and schools, to expose and train the students in research fields they lack access to. More information can be found [here](#).

**PHYSICS WITHOUT FRONTIERS MASTERCLASS ROADSHOWS:** Masterclass roadshows are organised by groups of young researchers, passionate about advocating their research field back in their home country. The roadshow centres around intensive 'masterclasses' in universities across the host country, in addition to numerous outreach and public events. Working groups are invited to submit an application for their project. More information can be found [here](#).





# PHYSICS WITHOUT FRONTIERS: AFGHANISTAN

Work to promote physics in Afghanistan and support university physics department and faculty

- organise activities
- support in curriculum
- access to internal conferences and workshops

Coordinator will cooperate with ICTP and other international partners such as CERN, support physics nation-wide

Hope to support universities to do physics outreach to high schools



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)



The Abdus Salam  
International Centre  
for Theoretical Physics



Kabul University  
Ministry of Higher Education  
Islamic Republic of Afghanistan



Institute for Advanced Studies  
in Basic Sciences  
Gava Zang, Zanjan, Iran



# PHYSICS WITHOUT FRONTIERS: AFGHANISTAN



PWF Afghanistan  
Coordinator  
Baktash Amini  
(Kabul University)



PWF HEP Workshop  
Local organiser  
Ahmad Sajad Narzari  
(Kabul University)



PWF HEP Workshop  
Local organiser  
Jawad Ahmadi  
(Kabul University)



Kate Shaw  
ICTP,  
University Sussex



Dr Encieh Erfani  
IASBS, Zanjan



Guest Speaker:  
Wakil Sarfaraz  
University Sussex

## Saturday, 31 March 2018

- 08:30 - 09:00      **Registration**
- 09:00 - 10:30     **Opening Session**
- 10:30 - 11:00     **Break**
- 11:00 - 12:30     **Introduction to High Energy Physics**  
Convener: Kate Shaw (Ictp)
- 12:30 - 14:00     **Break and Group Photo**
- 14:00 - 15:30     **A little history of the Universe**  
Convener: Dr. Encieh Erfani (Institute for Advanced Studies in Basic Sciences)
- 15:30 - 16:00     **Break**
- 16:00 - 17:30     **An Introduction to Particle Physics**  
Convener: Kate Shaw (Ictp)
- 17:30 - 18:00     **Latex and academic papers**  
Convener: Mr. Wakil Sarfaraz (University of Sussex)

## Sunday, 1 April 2018

- 09:00 - 10:30     **Developments in Cosmology**  
Convener: Dr. Encieh Erfani (Institute for Advanced Studies in Basic Sciences)
- 10:30 - 11:00     **Break**
- 11:00 - 12:30     **Discovering Fundamental Particles with the Large Hadron Collider at CERN**  
Convener: Kate Shaw (Ictp)
- 12:30 - 14:00     **Break and Film: Particle Fever**
- 14:00 - 15:30     **Where we stand Exploring the Universe**  
Convener: Dr. Encieh Erfani (Institute for Advanced Studies in Basic Sciences)
- 15:30 - 16:00     **Break**
- 16:00 - 17:30     **The hunt for DARK MATTER**  
Conveners: Kate Shaw (Ictp), Dr. Encieh Erfani (Institute for Advanced Studies in Basic Sciences)
- 17:30 - 18:00     **Careers Session**
- 18:00 - 18:30     **Certificates & Goodbye**



Scientific thought and its creation is  
the common and shared heritage of  
mankind.

— *Abdus Salam* —