



The Abdus Salam  
International Centre  
for Theoretical Physics

**Bobby Acharya**



# ICTP: a successful model of international collaboration



## A successful model of international collaboration

- Leading **global** institution for scientific research and education  
--- Emphasis on developing countries ---
- Founded in **1964** by Nobel Laureate **Abdus Salam**
- Since 1995, tripartite:  
Italy (85%) + IAEA (10%) + UNESCO (1,5%)



# An Institute for Scientists Run By Scientists. Scientific Council:



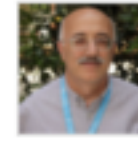
**Professor Carlos Alberto Aragão de Carvalho**  
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SCIENTIFIC COUNCIL



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**Professor Cumrun Vafa**  
CENTER FOR THE  
FUNDAMENTAL LAWS OF  
NATURE HARVARD  
UNIVERSITY DEPARTMENT  
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MASSACHUSETTS

## RESEARCH



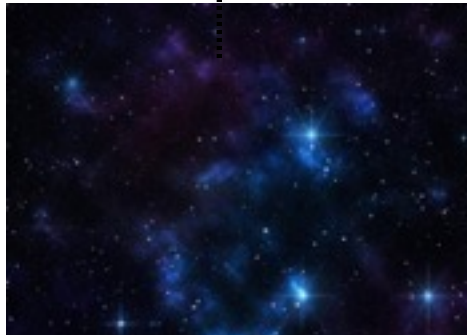
## EDUCATION



## OUTREACH

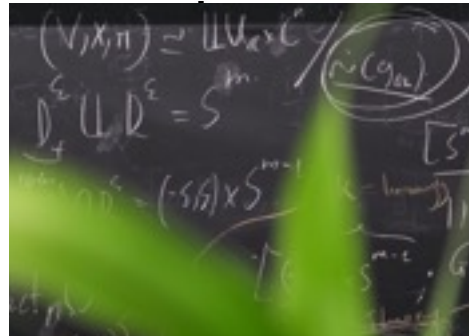


1964



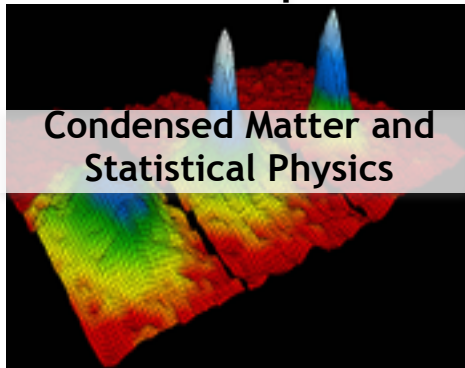
High Energy, Cosmology  
& Astroparticle Physics

1974



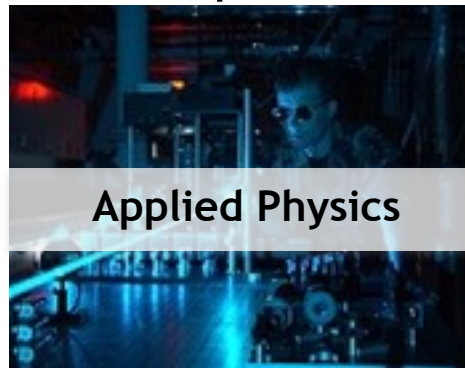
Mathematics

1986



Condensed Matter and  
Statistical Physics

1990



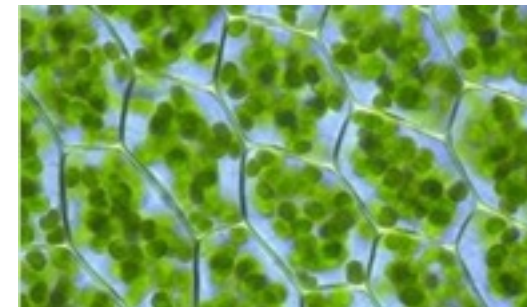
Applied Physics

1998



Earth System Physics

2014



Quantitative Life Sciences



- Postgraduate Diploma Programme

- STEP (Sandwich PhD)

- PhD in main research areas

- Masters: **Medical Physics, HPC, Complex Systems**



## Fighting the “Brain Drain”

1964: Associates and Federation Schemes Programmes at ICTP and developing countries: conferences, workshops, schools

1983: Training & Research in Italian Laboratories (

1985: Office of External Activities (OEA)

Also: ICTP hosts TWAS, IAP, OWSD



ICTP organizes **conferences, schools and workshops**:  
each year ~ **60** at ICTP and ~ **20** in developing countries

Half of them on subjects related to main research areas, the rest on many topics:

- *medical physics*
- *optics*
- *nano physics*
- *plasma physics*
- *electronics*
- *science dissemination*
- *e-learning*
- *entrepreneurship*
- *nuclear physics (IAEA)*
- *teacher training*
- *3-D printing*

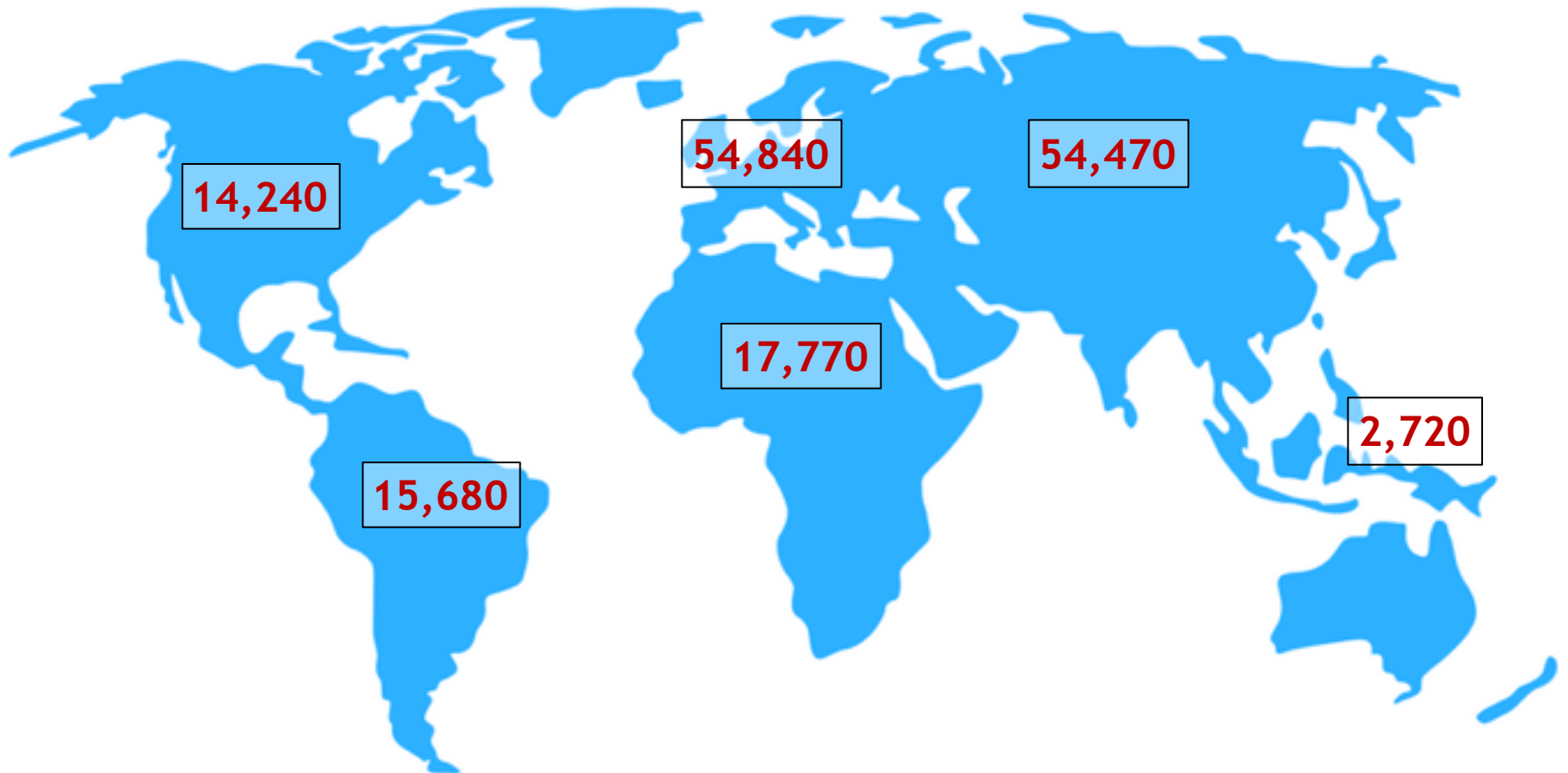


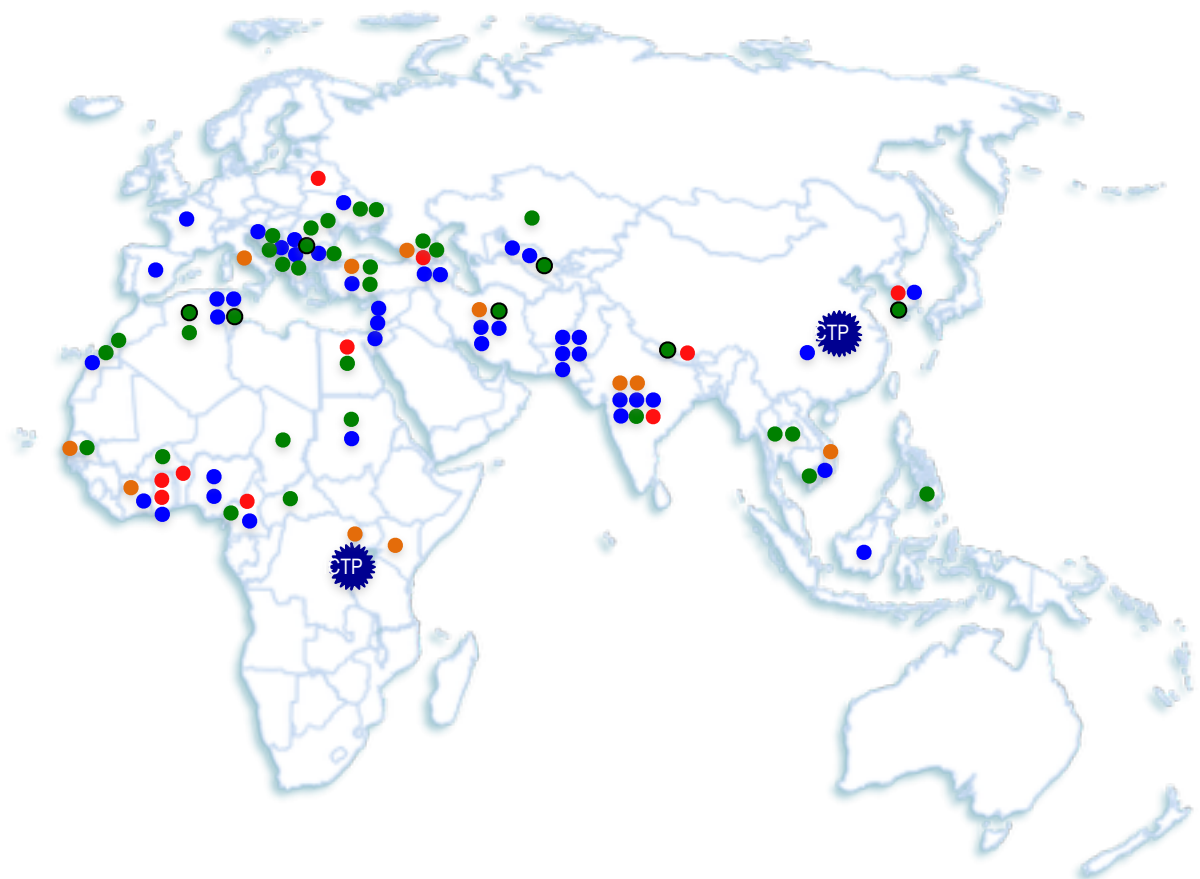


# ICTP Scientific Visitors



Since 1970, over 150,000 scientists from 188 countries





- **Affiliated Centres (13)**
- **Networks (9)**
- **Scientific Meetings (54)**

- **Schools and Workshops (15)**
- **ICTP Partner Institutes (4) in:**  
Brazil, Mexico, Rwanda, China

# ICTP's Impact: Partner Institutions



ICTP-SAIFR: San Paulo, Brazil (2011)



Funded by State University of Sao Paulo (UNESP),  
Sao Paulo Research Funding Agency (FAPESP) and ICTP  
[www.ictp-saifr.org](http://www.ictp-saifr.org)



ICTP-SAIFR building



Opening ceremony in 2012



Visitors & training activities

# ICTP's Impact: Partner Institutions



## ICTP-Asian Pacific: Beijing, China (2017)

The Chinese Academy of Sciences and UNESCO paves the way for the opening of ICTP-Asia Pacific as a UNESCO Category 2 institute, as well as an ICTP partner institute

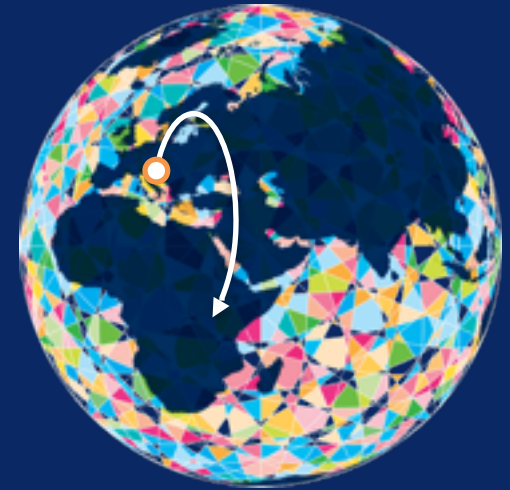


Signing ceremony, May 2017

# ICTP's Impact: Partner Institutions



EAFIR: Kigali, Rwanda (2017)



Professor Omololu Akin-Ojo, a condensed matter physicist from Nigeria, has been appointed director of the institute (November 2017)

Due to start MSc Physics Course This year 2018!!

# ICTP's Impact: Partner Institutions

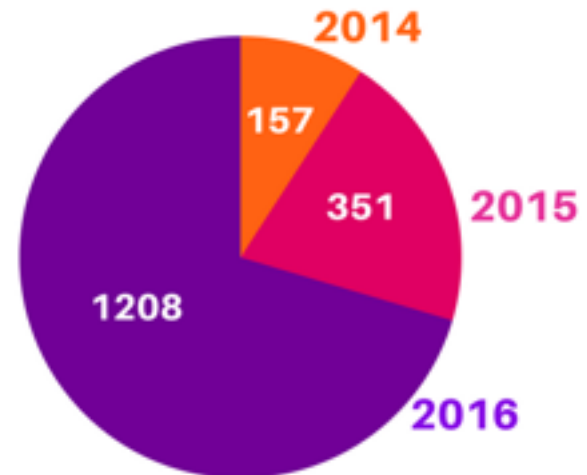
MCTP: Chiapas, Mexico (2014)\*



1716 participants, 26 countries represented  
Funded in collaboration with the Universidad Autonoma de Chiapas (UNACH)



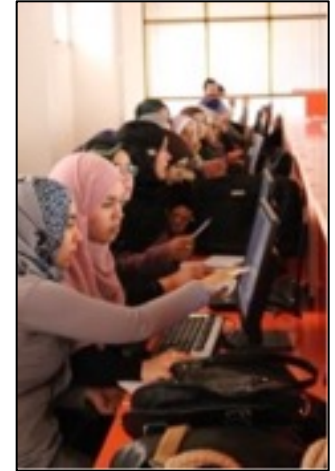
N. of participants, 2014-2016



# ICTP New Programme: Physics Without Frontiers



ICTP's "science roadshow" has visited Palestine, Algeria, Lebanon, Tunisia, Nepal, Venezuela, Colombia, ...



# ICTP Supporting Women in Science



## NUMBERS

In 2017 at ICTP:



55 postdocs → 33% female  
5 120 visitors → 26% female



## EVENTS

**Career Development Workshop for Women in Physics** from 9 to 13 October 2017, following two other workshops organized in 2013 and 2015

**UN's International Day of Women and Girls in Science:** three activities organized by ICTP



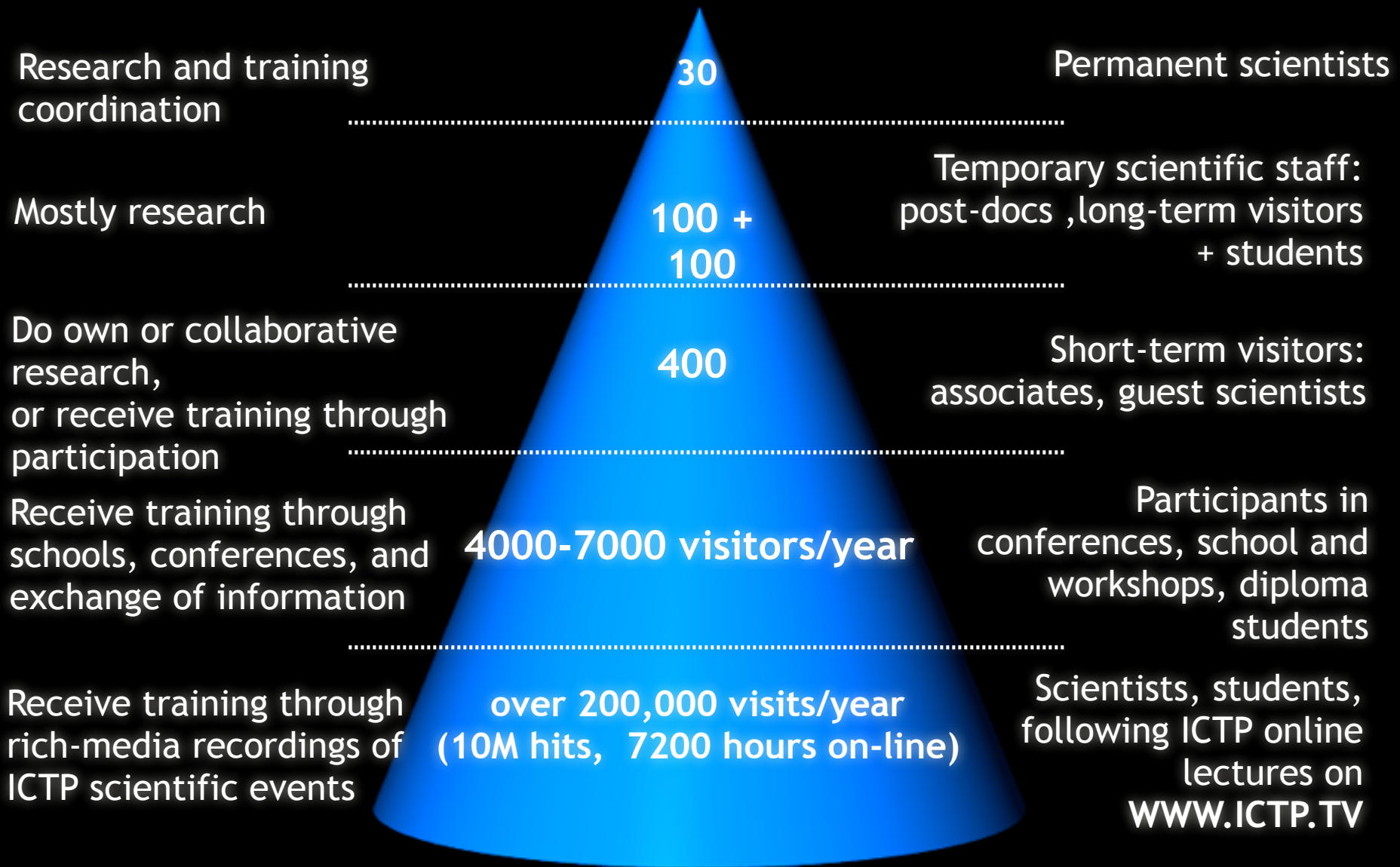
Career Development Workshop for Women in Physics



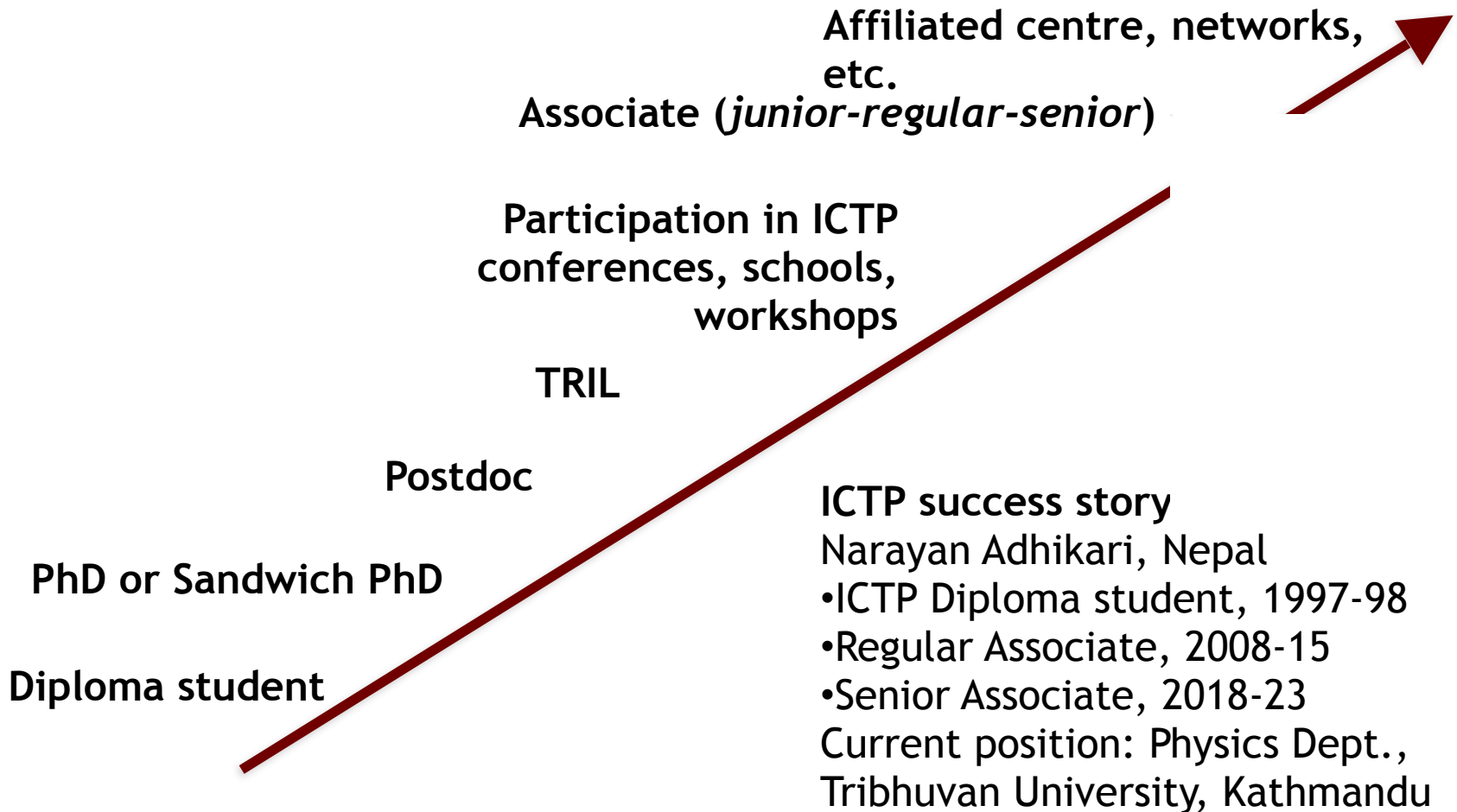
9 - 13 October 2017  
Trieste, Italy

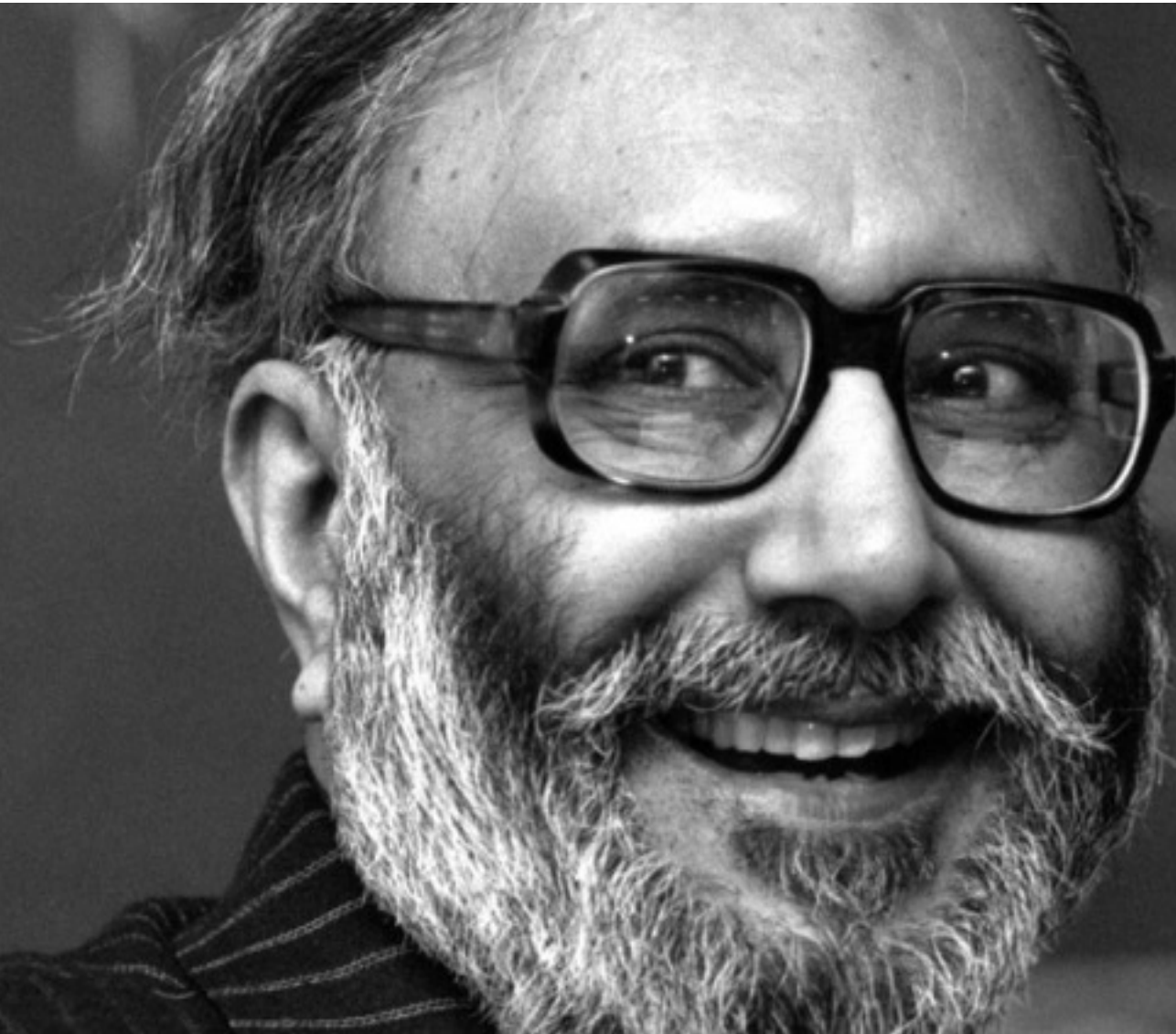






## ICTP supports scientists throughout their careers





*"Scientific thought and its creation is the common heritage of humankind."*

*Abdus Salam*



The Abdus Salam  
International Centre  
for Theoretical Physics



IAEA  
International Atomic Energy Agency



**Thank you**  
(more info at [www.ictp.it](http://www.ictp.it))

