



ICTP Postgraduate Diploma Programme



<https://diploma.ictp.it/>

- since 1991
- 790 students
- roughly 26% female
- about 43% have returned home and begun teaching in colleges and schools
- about 43% have earned their Ph.D. degrees (15% from the US, 16% from Western Europe, and 10% from elsewhere)
- 83% of the students have retained contact with ICTP
- The geographic distribution of students admitted is:
 - Africa, 41%
 - Asia, 38%
 - Latin America 14%
 - Eastern Europe 5%
 - Oceania 2%

This **one-year pre-PhD** programme consists of **two semesters** of basic and advanced courses given by experts in the following fields:

- High Energy, Cosmology and Astroparticle Physics (HECAP)
- Condensed Matter Physics (CMP)
- Earth System Physics (ESP)
- Mathematics (MTH)

Grading System:

> 90% = E (Excellent)

75-90% = A (Very Good)

65-74% = B (Good)

50-64% = C (Satisfactory)

<50% = F (Fail)

- young qualified graduates in physics, mathematics or related fields
- below 28 years of age
- around 10 students per field
- qualified graduates from all countries that are members of the United Nations, UNESCO or IAEA
- students with degree equivalent to an MSc (or an exceptionally good BSc) in physics, mathematics or related fields
- The selection of candidates will be based on their university record and on academic recommendations.
- ICTP will cover travel and living expenses.
- Since the Postgraduate Diploma Programme is in English, fluency in speaking and writing is an essential qualification.
- There are no course fees.
- Students will receive a scholarship of 450 Euro per month for the entire year of study.
- Accommodation is provided by ICTP.

Condensed Matter Physics

Symmetries and Bands

Statistical Mechanics

Many-Body Theory

Numerical Methods

Biological Physics

High Energy, Cosmology and Astroparticle Physics

Relativistic Quantum Mechanics

Quantum Electrodynamics

Quantum Field Theory

General Relativity and Cosmology

Group Theory

Particle Physics

The Standard Model

Supersymmetry

Earth System Physics

Fluid Dynamics

Solid-Earth Geophysics

Climate Variability and Changes

Dynamics and Physics of the Atmosphere and Oceans

Earth System Dynamics

Physics of Earthquakes and Volcanoes

Structure of the Earth's Interior

Dynamics of the Lithosphere

Mathematics

Algebra

Analysis

Algebraic Geometry

Differential Geometry

Topology

Dynamical Systems

- Copies of transcripts of university academic records and university degrees in English (The selected candidates will be required to provide originals or certified copies of these documents as well as of their official English translation before he/she can be admitted to the Programme).
- Any certificates or documents that give proof of the student's ability to follow advanced-level courses, study and write scientific literature in the English language.
- Two letters of recommendation, from senior scientists familiar with the applicant's studies and work.

Applications are now being accepted for the 2019-2020
academic year!

Deadline is 31 January 2019.

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<http://www.ictp.tv/diploma/>