

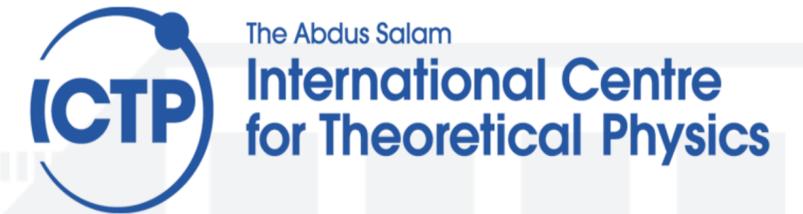


MATHEMATICS

Delivered in English



Organised in cooperation with important research institutes:





SISSA - International School for Advanced Studies

- An Italian University located in Trieste, specialized in PhD programs
- A scientific centre of excellence within the national and international academic scene.



ICTP - International Centre for Theoretical Physics

- A UNESCO institute located in Trieste governed by UNESCO, IAEA and the Italy Government
- An international hub for global scientific excellence

Research areas (UNITS, SISSA, ICTP)

- ❑ Algebra (computational algebra, transformation groups, representation theory)
- ❑ Analysis (ordinary differential equations, partial differential equations, calculus of variations, dynamical systems, control theory, inverse problems)
- ❑ Mathematics education and history
- ❑ Mathematical Physics (integrable systems, quantum mechanics, string theory)
- ❑ Geometry (algebraic geometry, differential geometry, non-commutative geometry, low dimensional topology)
- ❑ Informatics (modelling language and computational techniques for complex systems, bioinformatics, computational logic, data science, machine learning)
- ❑ Applied mathematics (numerical analysis, probability, mechanics of materials, industrial mathematics)

The program lasts **two** years

The employment rate of graduates is almost 100%

Graduates could enter directly the **business world** or continue their studies by attending a PhD program

- Information Technology industries
- Insurance companies
- Research centers
- Computing laboratories
- Societies that deal with Big Data
- Financial institutions
- Biomedical and pharmaceutical industries

MASTER'S DEGREE IN MATHEMATICS

THREE CURRICULA

- Advanced Mathematics
- Computational Mathematics and Modelling
- Mathematical Education

The structure of our program is very **flexible**: you can personalize your study plan

Algebra, Geometry, Analysis

You have to insert 7/8 exams of advanced mathematics (both **pure** and **applied**).

**Probability, Numerical Analysis,
Mathematical Physics, Optimization**

You have to insert 6/7 exams freely chosen from a long list (Mathematics, Informatics, Statistics, Physics, Natural Sciences...)

Internship + Master thesis



The student development is at the heart of our project

Conditions for enrolling in the Master's program in Mathematics

If you have an **Italian degree**, you have to satisfy one of the following conditions:

1. hold a degree in **Mathematics** or **Physics** (Laurea triennale in matematica o fisica)

or

2. have acquired at least 36 CFU in MAT/* areas

If the first condition is met and the degree grade is >80 , admission is automatic, otherwise there is a curriculum evaluation

If you have a **foreign degree**, in any case, there is a curriculum evaluation.

Language requirement: B2 level in English (automatically satisfied by students graduating in Mathematics from Units)

THE PFC PROGRAM

The PFC (Percorso Formativo Comune) is a special program addressed to talented students who want to follow a high-level research career.

- Each of our students can choose to attend this program (no formal inscription)
- This program's participants must follow additional rules (compulsory exams, high grades...)
- If at the end of your curriculum you have satisfied these extra rules, SISSA gives you an additional diploma
- There are some **scholarships for the participants in the PFC program** assigned through a competitive selection (6 scholarships are assigned through a written and oral admission examination - one scholarship is reserved for non-EU students with a special online procedure)

Joint degree with the University of Ljubljana



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**



University of Ljubljana
Faculty of *Mathematics
and Physics*



INFORMATION AND CONTACTS

- <https://corsi.units.it/en/sm34/mathematics> webpage of the degree program - UNITS
- <https://www.math.sissa.it/content/msc-mathematics> webpage of the degree program – SISSA
- fperroni@units.it Prof. Fabio Perroni – coordinator of the program
- mmeccchia@units.it Prof. Mattia Mecchia – responsible for incoming orientation
- <https://portale.units.it/it/studiare/immatricolarsi> the enrolment page of UNITS
- <https://portale.units.it/it/studiare/immatricolarsi/studenti-internazionali> the enrolment page for international students