

## Research **Doctorate** (PHD)

[PhD Homepage](#) > [PhD Programmes](#) > [Active Phd Programmes](#) > Mathematical Models and Methods in Engineering

### **Mathematical Models and Methods in Engineering**

Modelli e Metodi Matematici per l'Ingegneria



Joint PhD Program in Mathematics  
**Pavia - Milano Bicocca -**  
**INdAM**

# Ph. D. in Mathematics - University of Ferrara, Modena and Reggio Emilia, Parma



DOTTORATO DI RICERCA IN INFORMATICA E MATEMATICA

You are here: [Home](#)

Cerca

COMPUTER SCIENCE  
DEPARTMENT 

MATHEMATICS  
DEPARTMENT 

## PHD PROGRAMME IN COMPUTER SCIENCE AND MATHEMATICS



[Futuri studenti](#) [Studenti](#) [International students](#) [Docenti](#) [Imprese](#) [Laureati](#) [Personale](#)

[DIPARTIMENTO](#) [DIDATTICA](#) [RICERCA](#) [PERSONALE](#) [QUALITÀ](#) 

## Dottorati di ricerca

[HOME](#) > [Dipartimenti](#) > ... > [Dottorati di ricerca](#) > [Dottorato di Ricerca in Matematica e Informatica](#)

## Dottorato di Ricerca in Matematica e Informatica



## PhD Program in Mathematics and Applications

The Doctoral School in *Mathematics and Applications*, in collaboration with the Istituto Nazionale di Alta Matematica "Francesco Severi" (CIAFM consortium) is established in 2017 at the Department of Mathematics and Applications "Renato Caccioppoli" of University of Napoli Federico II. It focuses on the following scientific areas:

- Algebra
- Geometry
- Mathematical Analysis
- Mathematical Physics
- Numerical Analysis
- Operations Research
- Probability and Statistics



vai

Home > Ph.D. Program

TRAINING PROGRAM

RESEARCH

PEOPLE

ADMINISTRATION

ADMISSION

### PH.D. PROGRAM IN MATHEMATICS



### CONTACTS

#### Secretary

Lorenzo de Pasqua  
segdott@mat.uniroma1.it ✉  
Office 112, first floor  
tel +39 06 49913270 int 23270



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

PHD PROGRAMME  
**MATHEMATICS**

IT EN

- HOME
- PHD
- COUNCIL
- STUDENTS
- TEACHING
- CONTACTS



UPCOMING SEMINARS





Scuola Internazionale Superiore di Studi Avanzati

# MATHEMATICS

EDUCATION

RESEARCH

COMMUNITY

EVENTS

## HOME

### RESEARCH FIELDS

- **geometry**, in particular algebraic, differential, and noncommutative geometry, also with applications to quantum field and string theory
- **mathematical analysis**, in particular calculus of variations, control theory, partial and ordinary differential equations
- **mathematical modelling**, in particular mechanics of solids and fluids, modelling of complex and biological systems, multiscale analysis
- **mathematical physics**, in particular integrable systems and their applications, nonlinear partial differential equations, mathematical aspects of quantum physics
- **numerical analysis and scientific computing**, applied to partial differential equations and to control problems

### PHD AND MSC COURSES:

- Geometry and Mathematical Physics
- Mathematical Analysis, Modelling, and Applications
- Master of Science in Mathematics (Laurea Magistrale in Matematica) in collaboration with the University of Trieste
- Joint SISSA-ICTP professional Master in High Performance Computing (MHPC)



## Openings

Public calls for academic personnel (Permanent positions)

Professors (Temporary/Researchers/Visiting Professors)

SISSA Mathematical Fellowships

Post Doctoral Fellowships

PhD Scholarships

Call for Applications (PhD)

Undergraduate Fellowships

Postgraduate Fellowships

Master of Science in Mathematics

Marie Skłodowska-Curie Grants



SCUOLA  
NORMALE  
SUPERIORE

> PISA > FLORENCE

ABOUT SNS

ADMISSION

ACADEMICS

RESEARCH

INTERNATIONAL



ALESSIO FIGALLI FIELDS MEDAL





# GALILEAN SCHOOL OF HIGHER EDUCATION

GALILEAN SCHOOL

ADMISSION

DISCOVERING PADOVA

UNIVERSITY OF PADOVA



## STUDYING IN PADOVA

### UNIPD COURSES HELD IN ENGLISH

English language plays a vital role in communication both in the scientific community and the working world.



**HOW TO APPLY TO UNIPD**  
Both EU/EU equated and non-EU citizens can enrol at the University of Padova, but enrolments follow different steps.

NEWS AND EVENTS

[The Online Application for the 1st semester a.y. 2018-19 \(for all students\)](#)

[The Online Application for the 1st semester a.y. 2018-19 \(for all students\)](#)

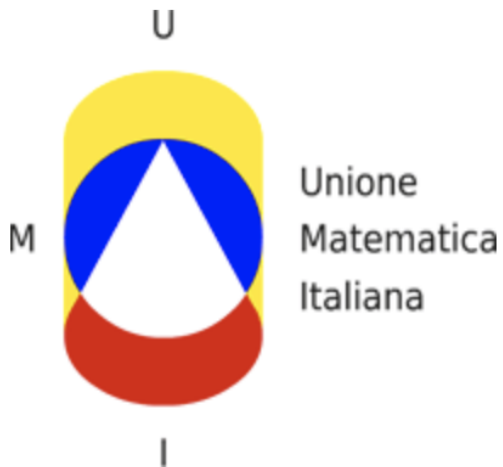
# Technology Talents





Olimpiadi

CIIM



## Unione Matematica Italiana

-  
Piazza Porta San Donato 5  
I-40126 Bologna  
tel. +39 051 243190  
fax +39 051 4214169  
-  
[dipmat.umi@unibo.it](mailto:dipmat.umi@unibo.it)

## Cerca

## JOB OPPORTUNITIES

### Grants for doctorates

Here the agreements with research institutes of high scientific profile. The Mathematics Italian Union has concluded agreements with the following research institutes:

1. Istituto de Matematica Pura e Aplicada (IMPA), Rio De Janeiro, Brazil.
2. King's College London (KINGS), Londra, Great Britain.
3. Korea Institute of Advances Studeis (KIAS), Seoul, Korea.
4. Massachussets Institute of Technology (MIT), Cambridge, USA.
5. Pontificia Universidade Catolica (PUC), Rio De Janeiro, Braszl.

UMI

Activities of the Unione

Prizes

Job Opportunities

Grants for doctorates

Publishing

News



- **Borse di studio /Positions with scholarships: 14**
- **Posti liberi / positions without financial support: 4**
- **Posti in apprendistato del Politecnico di Torino / positions with apprenticeship contract, Politecnico di Torino: 1**
- **Posti con assegno / positions with research fellowship: 1**

[Carolina Araujo](#) (IMPA, Rio de Janeiro, BRAZIL)  
[Sara Bonella](#) (CECAM-EPFL, Lausanne, SWITZERLAND)  
[Denis Bonheure](#) (Université Libre de Bruxelles, BELGIUM)  
[Nabile Boussaïd](#) (Université de Besançon, FRANCE)  
[Sandra Di Rocco](#) (KTH, Stockholm, SWEDEN)  
[Monika Dörfler](#) (Universität Wien, AUSTRIA)  
[Marisa Fernández](#) (Universidad del País Vasco, SPAIN)  
[Reika Fukuizumi](#) (Tohoku University, Sendai, JAPAN)  
[Justin Holmer](#) (Brown University, USA)  
[Konstantin Khanin](#) (University of Toronto, CANADA)  
[Simon Salamon](#) (King's College, London, UK)  
[Eric Vanden-Eijnden](#) (New York University, USA)  
[Hishamuddin Zainuddin](#) (Universiti Putra Malaysia, MALAYSIA)

**n. 1 posto in apprendistato “Addfor S.p.A. Politecnico di Torino / n. 1 position with apprenticeship contract “Addfor S.p.A.”, Politecnico di Torino**

- 1) Modeling, Simulation, Prediction, and Control in Networks. (*borse Politecnico*),  
(*supervisors: Giacomo Como, Davide Ambrosi, Stefano Berrone, Enrico Bibbona*)
- 2) Topological methods for dimensionality reduction with application to simulation and privacy.  
(*borsa Politecnico di Torino*), (*supervisors: Giovanni Petri, Francesco Vaccarino*)
- 3) Apprendimento automatico per l'automazione avanzata. (*posto in apprendistato Politecnico di Torino - Addfor S.p.A.*), (*supervisors: Francesco Vaccarino, Enrico Busto*)
- 4) Mathematical multi-scale modeling of biological tissues. (*assegno di ricerca, Politecnico di Torino*), (*supervisor: Alfio Grillo*)

Some reserved for foreigners



# Programma per Giovani Ricercatori "Rita Levi Montalcini"

## Bando 2017

- **Comunicazioni dal Comitato:** [27/06/2018](#) ★
- **Bando:** [Decreto n. 1006 del 20 dicembre 2017](#) [english version](#)
- **Publicato in Gazzetta Ufficiale in data:** [26 febbraio 2018](#)
- **Il termine per la presentazione on-line delle domande è scaduto il 28 marzo 2018**

The Italian Ministry of Education, University and Research assigned 5,000,000 euros to the continuation of the program “**Rita Levi Montalcini program for young researchers**” to the benefit of young Italian and foreign scholars and experts, doctorate graduates in research or equivalent for not more than 6 years and employed permanently abroad in research or didactic activities for at least three years, aimed at the realization of research programmes offered autonomously at Italian universities, through the agreement of contracts.

The call allows young researchers to list up to five preferred Host Italian Institutions without requiring any prior commitment by them; however, selected applicants enrollment will have to be approved through the commitment of the university department/centre at the Host Institution in order to provide adequate resources.

**Postdoc:** 'assegno di ricerca' (i.e. work as a research assistant for a specific project) is the closest to a post-doc; in fact, it is becoming a post-doc, even though this has not been carried out in law. However, in recent years few standard post-doc programmes have been opened in Italian universities. Visit single Italian university websites (see the list of Italian universities).

**Entry positions:** the main starting position for a career in Italian academia is usually that of 'ricercatore'. Until a few years ago this was a permanent position, with a probationary period of three years, and meant passing a written and oral examination. This was changed by the 'Moratti reform' in 2005 and, more radically, by the 'Gelmini reform' of 2010. Nowadays, there are two types of contract, 'ricercatore tipo A' and 'ricercatore tipo B', with different lengths and prospects but similar duties. The contract for 'ricercatore tipo A' lasts for three years and can be extended for only two more years after evaluation, while the contract for 'ricercatore tipo B' lasts for three years with no possibility of an extension. The difference between the two types is that while the type A contract is not a career path towards an associate professor position, those with type B do have this opportunity. Both contract types involve teaching duties; in the past, the permanent researcher position did not include teaching, which was voluntary.

Being hired as a 'professore a contratto', a temporary lecturer position, usually to cover teaching needs, is also possible. Recently, however, departments have been discouraged in doing this since they could be penalized in the allocation of funds if the majority of lecturers are not on a tenure-track course.

**Career progress:** with the current rules, to move up to a professorship position a 'ricercatore', or an external candidate, needs first to get what is called 'idoneita'; that is, being considered 'idoneo' (employable, or fit for service) by a national committee within a specific discipline. Once the committee has provided the list of 'candidati idonei', those candidates can proceed to the second step and apply for a position at a local university, within a period of four years. If the candidate does not get a position within this period, s/he must apply again for the 'idoneita'. Candidates who do not pass the national competition have to wait for two years to re-apply. Click [here](#) for more information.

**Temporary/permanent positions:** apart from 'assegno di ricerca', 'professore a contratto', and 'ricercatore di tipo B', all other positions are tenure or tenure-track.

# Perugia 2018



In Summer 2018 graduate, five courses in mathematics will be organized at the Department of Mathematics and Informatics of the University of Perugia (Italy), under the sponsorship of the Consorzio per l'Alta Formazione in Matematica (CIAFM) and of the Italian Department of University and Research (MIUR). The lectures will be given from **July 23** to **August 17** (participants will register July 22).

The courses are addressed to young graduates wishing to extend and complete their knowledge of mathematics at the Master or Ph.D. level.

## JULY 22 – AUGUST 17

Course	Instructor	Syllabus
<b>Commutative Algebra and Geometry</b>	<b>Juan Migliore</b> <i>University of Notre Dame, South Bend, Indiana, US</i>	
<b>Complex Analysis</b>	<b>Francois Berteloot</b> <i>Université Paul Sabatier, Toulouse, France</i>	
<b>Functional Analysis</b>	<b>Massimo Picardello</b> <i>University of Rome "Tor Vergata", Italy</i>	
<b>Numerical Analysis</b>	<b>Arieh Iserles</b> <i>University of Cambridge, UK</i>	
<b>Introduction to Mathematical Statistics</b>	<b>Vadim Kaimanovich</b> <i>University of Ottawa, Canada</i>	




## Cortona 2018

During Summer 2018 an advanced graduate course in mathematics, consisting of two teaching modules, will be held in Cortona at Palazzone of the Scuola Normale Superiore. The Palazzone is a prestigious historic building dating back to the 16th century, subjected to protection by the Italian Department of Culture. The courses are sponsored by Consorzio per l'Alta Formazione in Matematica (CIAFM), Department of University and Scientific Research (MIUR), and Istituto di Alta Matematica (INdAM).

# HIGH DIMENSIONAL PROBABILITY FOR MATHEMATICIANS AND DATA SCIENTISTS

July 2 – July 13, 2018

Lecturer 1	Lecturer 2	Abstract
<b>Larry Goldstein</b> <i>University of Southern California</i>	<b>Yosef Rinott</b> <i>The Hebrew University of Jerusalem</i>	



# FONDAZIONE CIME ROBERTO CONTI



since 1954

Centro Internazionale Matematico Estivo  
International Mathematical Summer Center

## 2018 Courses List



### **Geometric Analysis**

June 18 - June 22, 2018 - Cetraro (CS) - [Info on the conference venue](#)



### **Geometric Representation Theory and Gauge Theory**

June 25 - June 29, 2018 - Cetraro (CS) - [Info on the conference venue](#)



### **Complex non-Kähler geometry**

July 9 - July 13, 2018 - Cetraro (CS) - [Info on the conference venue](#)



### **The Mathematics of Mechanobiology**

*CIME-EMS Summer School in Applied Mathematics*

August 27 - August 31, 2018 - Cetraro (CS) - [Info on the conference venue](#)