Master Degree in Mathematics
University of Verona

http://www.univr.it/mathematics

Department (of excellence) of Computer Science

2020/2021

Why mathematics?

Professional environments requiring strong mathematics skills:

- Life sciences, biology, <u>health</u> and medicine.
- Computer science in general, and HPC (High Performance Computing) and big data in particular (we have a <u>cluster</u>), <u>example</u>.
- Physics at all scales and engineering sciences. Material science.
- Social sciences, in the broadest sense. Development of complex systems or modelling and data analysis.
- <u>Finance</u>, insurance.

Modelling Week 2016, Verona

ECMI modelling week 2021, Saint-Petersburg, Russia


ECMI modelling week 2022, Verona

Why in English?

- The official language of science is English
- More opportunities for studying/research/job both in Italy and abroad
- CLIL: English as mandatory teaching language in high school classes (C1 level required)
- Highly qualified international teaching staff

Leaders in internationalization

Department of Computer Science (Verona)

Crediti ottenuti all'estero da Studenti ERASMUS+ OUTGOING
Credits earned abroad by ERASMUS+ OUTGOING Students
(valori assoluti / absolute values)

- BIOINFORMATICA
- INFORMATICA
- MATEMATICA APPLICATA
- MEDICAL BIOINFORMATICS
- INGEGNERIA E SCIENZE INFORMATICHE
- MATHEMATICS
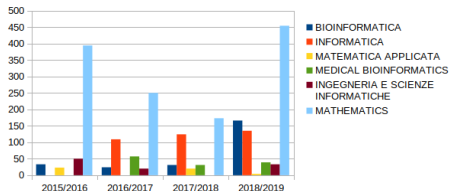
Studenti ERASMUS+ OUTGOING 2015-2019
ERASMUS+ OUTGOING Students 2015-2019

Mathematics >
rest of the dep.
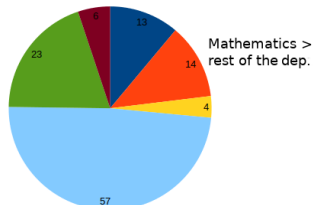
Mathematics	year	VR	NorthEast	Italy
Percentage of graduates with at least 12 ECTS abroad	2018	29.41	24.19	18.96
	2017	45.45	23.83	15.61
	2016	35.71	22.60	14.83
Percentage of students who obtained the Bachelor abroad	2018	29.03	5.69	4.50
	2017	23.53	5.73	5.02
	2016	18.75	4.35	5.26

Internships (some examples, also abroad with Erasmus+)

- Chiara, 2016, Google Summer of Code
- Cristiano, 2016, European Space Agency SOCIS
- Chiara, 2014, Camera di Commercio, Verona
- Andrea, 2014, Fairmat (software house and financial mathematics)
- Isacco, 2014, Aleph Energy (models for energy markets)
- Alessandro, 2014, Cattolica Insurance
- Cristina, 2013/14, Erasmus and internship, University of Innsbruck (Austria)
- Sara, 2011, French Institute of Petroleum, Paris (France)
- Gregorio, 2014, Enginsoft (Computer Aided Engineering)
- Elisa, 2012, Zamperla (roller coasters design), Vicenza
- Martina, 2013, Atraki (traffic flow modeling), Verona

Job opportunities: alumni

- Fabio 2019, PhD in Mathematics, Universities of Trento and Verona
- Mauro, 2018, post-doc Technishe Universität München
- Mirko 2017, PhD, Innsbruck
- Valentina 2017, PhD in Bioengineering, Politecnico di Torino
- Matteo 2017, PhD, Nice
- Emanuele 2017, Ernst & Young, Milano
- Greta 2016, Unicredit, Milano
- Giulia 2016, post-doc, Nantes
- Chiara 2015, Research Fellow, CNR-IMATI, Pavia
- Gregorio 2015 Generali, Treviso
- Giulia 2015, KPMG, Verona
- Marcella 2014, permanent researcher at Inria Saclay and École Polytechnique in France
- Simone, 2014, research associate, DAMTP & Fitzwilliam Museum, University of Cambridge
- Davide, 2013, researcher at the Technologies of Vision research unit of the Fondazione Bruno Kessler in Trento
- Elena, 2014, post-doc at the Department of Civil Environmental and Mechanical Engineering of the University of Trento
- Giulia, 2013, assistant professor in mathematical analysis at Politecnico di Milano
- Marcello, 2013, analyst, Panrhema (financial advice), Milan
- Silvia, Andrea, . . . , 2012, high school teachers
- http://www.univr.it/mathematics/alumni-ae

Curricula

Common foundational courses

- Differential geometry
- Functional analysis
- Analytical mechanics
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- **Curriculum Applied Mathematics - core courses**
    - Data fitting and reconstruction
    - Foundations of data analysis
    - Statistical learning
    - Stochastic calculus
    - Numerical modeling and Optimization

Elective courses: main tracks and tutors

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I. seminar and mini courses delivered by international faculties
II. courses from other masters in Verona (partially in Italian)
III. courses in agreement with University of Trento
IV. courses within Erasmus+ mobility program

Further activities

- 1 semester (or 2) of mobility experience abroad (Erasmus+ & UniVR Worldwide programs)
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- NEW: 30 ECTS + final project in Grenoble (France): joint degree (starting in 2020/21, selected students)

Information

- Web page
  http://www.univr.it/mathematics
- Email
  master.math@ateneo.univr.it or marco.caliari@univr.it
- Associazione Alumni Matematica Verona
  https://www.univr.it/it/i-nostri-servizi/servizi-per-laureati