Master Degree in Mathematics
University of Verona

http://www.univr.it/mathematics

Department (of excellence) of Computer Science

2020/21
(80% on site, 100% on line)
Why mathematics?

Professional environments requiring strong mathematics skills:

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

http://www.univr.it/mathematics
Modelling Week 2016, Verona

ECMI modelling week 2021, Saint-Petersburg, Russia

ECMI modelling week 2022, Verona

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Master Degree in Mathematics @ UNIVR.IT
Why in English?

- The official language of science is English
- More opportunities for studying/research/job both in Italy and abroad (a lot of webinars online, nowadays)
- CLIL: English as mandatory teaching language in high school classes (C1 level required)
- Highly qualified international teaching staff
### Department of Computer Science (Verona)

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

- **Mathematics**
  - **Percentage of graduates with at least 12 ECTS abroad**
    - 2018: 29.41
    - 2017: 45.45
    - 2016: 35.71
  - **Percentage of students who obtained the Bachelor abroad**
    - 2018: 29.03
    - 2017: 23.53
    - 2016: 18.75

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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

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Job opportunities: alumni (employment rate 2019: 100%)

- Fabio 2019, PhD in Mathematics, Universities of Trento and Verona
- Mauro, 2018, post-doc Technische 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
- Algebra
Curricula and tracks

**Curricula**

**Common foundational courses**
- Differential geometry
- Functional analysis
- Analytical mechanics
- Algebra

**Curriculum Mathematics for education - core courses**
- Mathematical logic
- Mathematics teaching and workshop
- Mathematical methods for computer science
- Physics Education Laboratory

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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

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Elective courses: main tracks and tutors

- **Education** (foundations, modern physics, physics education laboratory, PF24, geology, teaching): Sisto Baldo
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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 (joint PhD)
IV. courses within Erasmus+ mobility program
Further activities

- 1 semester (or 2) of mobility experience abroad (Erasmus+ & UniVR Worldwide programs — more than 25 programs)
- Presentation of agreements to students: December/January
- Deadline for first semester abroad: June/July
- Deadline for second semester abroad: October/November
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- soft skills (Matlab, Scilab, C/C++, FreeFem++, Clawpack, Python, R, SageMath, foreign languages)
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- Internships and schools
  (http://profs.scienze.univr.it/mathematics/internship)
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- Final project (also abroad within Erasmus+ program)
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- Final project (also abroad within Erasmus+ program)
- 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
  marco.caliari@univr.it

- Associazione Alumni Matematica Verona
  https://www.univr.it/it/i-nostri-servizi/servizi-per-laureati
  http://www.almathverona.it/index_it.html