europass

Mattia Puddu

Nationality: Italian **Date of birth:** 29/01/1996 **Place of birth:** Nuoro, Italy

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EDUCATION AND TRAINING

PhD Student in Mathematics

RWTH Aachen University [2025 – Current]

City: Aachen | **Country:** Germany | **Website:** http://rwth-aachen.de | **Field(s) of study:** Mathematics | **Level in EQF:** EQF level 8

The title of the Project is "Effective Difference Algebra and Difference Algebraic Groups"
(Advisors: Prof. Daniel Robertz and Prof. Annette Bachmayr)

Master's Degree

University of Pisa [09/2019 – 06/2025]

City: Pisa | **Country:** Italy | **Website:** https://www.unipi.it | **Field(s) of study:** Mathematics | **Final grade:** 110/110 summa cum laude | **Level in EQF:** EQF level 7 | **Thesis:** The Differential Galois Group of the Family of All Regular Singular Differential Equations over $\mathbb{C}(z)$ (Advisor: Prof. Tamás Szamuely; Examiner: Prof. Andrea Maffei)

Link: https://mattiapuddu25.github.io/MasterThesis.html

Bachelor's Degree

University of Pisa [09/2015 – 03/2019]

City: Pisa | **Country:** Italy | **Website:** https://www.unipi.it | **Field(s) of study:** Mathematics | **Final grade:** 110/110 summa cum laude | **Level in EQF:** EQF level 6 | **Thesis:** The Picard-Vessiot Theory — An Introduction with Applications to Fuchsian Differential Equations (Advisor: Prof. Paolo Acquistapace)

Link: https://mattiapuddu25.github.io/BachelorThesis.html

High school diploma

Scientific High School "Enrico Fermi" [09/2010 – 07/2015]

City: Nuoro | **Country:** Italy | **Website:** https://liceoferminuoro.edu.it | **Final grade:** 100/100 summa cum laude | **Level in EQF:** EQF level 4

WORK EXPERIENCE

University of Pisa - Department of Civil and Industrial Engineering – Pisa, Italy

City: Pisa | **Country:** Italy | **Business or sector:** Education

University tutor for the pre-course "Matematica 0" (coordinated by Prof. Massimo Caboara and taught by Prof. Irene Venturi)

[09/2023 – 12/2023]

1. Held weekly online meetings (via Microsoft Teams), providing targeted exercises to support students in passing the OFA tests required for admission to undergraduate programs.

University of Pisa - Department of Agricultural, Food and Agro-Environmental Sciences – Pisa, Italy

City: Pisa | **Country:** Italy | **Business or sector:** Education

University tutor for the course "Matematica e Statistica" (Bachelor's degree in Viticolture and Oenology, taught by Prof. Valentino Magnani)

[09/2022 – 12/2022]

1. Conducted the "Mathematics 0" pre-course, including preparation of exams and corresponding solutions.
2. Held weekly in-class meetings with students for problem-solving and theoretical clarifications.
3. Reviewed exam papers and solutions from midterm tests throughout the semester.
4. Supervised students during the exams mentioned above.

University of Pisa - Department of Computer Science – Pisa, Italy

City: Pisa | **Country:** Italy | **Business or sector:** Education

University tutor for the course "Algebra Lineare B" (Bachelor's degree in Computer Science, taught by Prof. Mauro Di Nasso)

[12/2021 – 07/2022]

1. Held meetings with students (mostly upon request) for problem-solving and theoretical clarifications.

University of Pisa - Department of Physics – Pisa, Italy

City: Pisa | **Country:** Italy | **Business or sector:** Education

University tutor for the course "Geometria A" (Bachelor's degree in Physics, taught by Prof. Mario Salvetti and Prof. Filippo Di Santo)

[10/2019 – 07/2020]

1. Held meetings with students (mostly upon request) for problem-solving and theoretical clarifications.
2. Corrected midterm and final exams, including the preparation of written solutions.

PROJECTS

Math Olympiads
I have always been interested in the Italian Mathematical Olympiad project. Over the years, I have compiled my solutions to the National Team Competitions held in Cesenatico into two files (available on my website). These files also include theory notes that can be used to prepare for the competitions.

Link: https://mattiapuddu25.github.io/MathOlympiads.html

SKILLS

Operative systems: Windows, MacOS, Linux, Android, iOS / Matlab / C / HTML (basic) / LaTeX (advanced)

DIGITAL SKILLS TEST RESULTS

Information and data literacy	**ADVANCED**	Level 6 / 6
Communication and collaboration	**ADVANCED**	Level 6 / 6
Digital content creation	**ADVANCED**	Level 5 / 6
Safety	**ADVANCED**	Level 6 / 6
Problem solving	**ADVANCED**	Level 6 / 6

Results from a self-assessment based on The Digital Competence Framework 2.1

ELECTIVE UNIVERSITY EXAMS

Elective University Exams

During my university studies, I successfully completed the following elective exams in addition to the mandatory courses of my degree program:

1. **Coxeter Groups** with a grade of 30/30 cum laude (taught by Prof. Michele D'Adderio and Prof. Mario Salvetti)
2. **Elements of Algebraic Geometry** with a grade of 30/30 cum laude (taught by Prof. Rita Pardini)
3. **Algebraic Geometry C** (Riemann Surfaces) with a grade of 30/30 cum laude (taught by Prof. Marco Franciosi)
4. **Algebraic Combinatorics** with a grade of 30/30 cum laude (taught by Prof. Michele D'Adderio)
5. **Analytic Number Theory A** (Entire functions; Distribution of prime numbers and Riemann Zeta function; Characters and Dirichlet L-functions) with a grade of 30/30 cum laude (taught by Prof. Giuseppe Puglisi)
6. **Group and Representations** with a grade of 30/30 cum laude (taught by Prof. Michele D'Adderio and Prof. Giovanni Gaiffi)
7. **Elements of Algebraic Topology** with a grade of 30/30 cum laude (taught by Prof. Filippo Callegaro)
8. **Elements of Complex Analysis** with a grade of 30/30 cum laude (taught by Prof. Marco Abate)
9. **Modular Forms** with a grade of 30/30 cum laude (taught by Prof. Andrea Maffei and Prof. Davide Lombardo)
10. **Lie Algebras and Lie Groups** with a grade of 30/30 cum laude (taught by Prof. Giovanni Gaiffi and Prof. Enrico Le Donne)
11. **Algebraic Number Theory 1** (Integral extensions; Dedekind domains; Ramification and inertia of primes in Galois extensions; Minkowski convex body theorem) with a grade of 28/30 (taught by Prof. Ilaria Del Corso and Prof. Roberto Dvornicich)
12. **Elementary Number Theory** with a grade of 30/30 cum laude (taught by Prof. Giuseppe Puglisi)

LANGUAGE SKILLS

Mother tongue(s): Italian/Italiano

Other language(s):

English	**Spanish/Español**
LISTENING B2 **READING** B2 **WRITING** B2	**LISTENING** B1 **READING** B1 **WRITING** B1
SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2	**SPOKEN PRODUCTION** B1 **SPOKEN INTERACTION** B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user