

# Valentina Astore

PHD STUDENT AT INRIA SACLAY & ÉCOLE POLYTECHNIQUE

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## Education

### PhD in Computer Science

Palaiseau, France

INRIA PARIS-SACLAY & ÉCOLE POLYTECHNIQUE

Oct. 2024 - Present

- Research Areas: Algebraic Coding Theory, Finite Fields, Finite Geometry, and applications to Cryptography.
- Supervisors: Alain Couvreur and Martino Borello.

### MSc in Mathematics, curriculum Cryptography

Trento, Italy

UNIVERSITY OF TRENTO

Sept. 2021 - March 2024

- Highly selective Master program (10 students per year, with admission test).
- Attended courses: Algebra and its applications to Cryptography and Coding Theory, Computer science, Information theory.
- Graduation grade: 110 with honour/110.

### Master's Project

Saint-Denis, France

UNIVERSITY OF PARIS 8 - LAGA

Oct. 2023 - Dec. 2023

- Topics: Coding Theory, Rank-Metric Codes, Distinguishers, Castelnuovo-Mumford Regularity.
- Supervisors: Martino Borello (University of Paris 8) and Marco Calderini (University of Trento).

### BSc in Mathematics

Trento, Italy

UNIVERSITY OF TRENTO

Sept. 2018 - Sept. 2021

- Attended courses: Algebra, Analysis, Classical Physics, Computer Science, Geometry, Probability and Statistics.
- Bachelor's project: "Paillier Cryptosystem", Supervisor: Nadir Murru (University of Trento).
- Graduation grade: 108/110.

## Teaching

### TUTORING

**Fall 2024** Foundations of Computer Science: Logic, Models, Computability and Computational Complexity.

## Research

### TALKS

**Contributed talk** at OpeRa 2024 - Open Problems on Rank-Metric Codes. 14-16 February 2024, Caserta (Italy).

Title of the talk: *Castelnuovo-Mumford Regularity in the Rank Metric*.

### COURSES

**PQCifris 2022 School on Post-Quantum Cryptography**. October 2022, Trento (Italy).

Organizers: University of Trento and De Componendis Cifris (Italian national association).

Topics: post-quantum cryptography, multivariate-based, code-based, isogeny-based, and lattice-based methods.

**De Cifris Trends in Modern Cryptography**. March 2022 - May 2022, Trento (Italy).

Organizer: De Componendis Cifris (Italian national association).

Topics: post-quantum cryptography, cloud encryption and secure multiparty computation.