

# Giacomo Hermes Ferraro

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## Employment

Jan. 2025 – Dec. 2025 (exp.)

■ **Ruprecht-Karls-Universität Heidelberg.**

Post-Doctoral Researcher.

Mentor: Gebhard Böckle.

## Education

Nov. 2021 – Dec. 2024

■ **Ph.D. in Mathematics,**

Università La Sapienza, Roma.

Thesis: *Functional identities of certain zeta-like functions associated to Drinfeld A-modules.*

Advisor: Federico Pellarin.

Sep. 2016 – Sep. 2021

■ **Diploma di Licenza** in Mathematics (M.Sc. equivalent),

Scuola Normale Superiore, Pisa.

Final grade: 100/100 e lode.

May 2019 – Sep. 2021

■ **Laurea Magistrale** in Mathematics (M.Sc. equivalent),

Università di Pisa.

Thesis: *Hochster's Direct Summand Theorem.*

Advisor: Tamás Szamuely.

Final grade: 110/110 e lode.

Sep. 2016 – May 2019

■ **Laurea Triennale** in Mathematics (B.Sc. equivalent),

Università di Pisa.

Thesis: *Il principio locale-globale e il teorema di Hasse Minkowski.*

Advisor: Davide Lombardo.

Final grade: 110/110 e lode.

Sep. 2011 – Jul. 2016

■ **Diploma di Maturità Scientifica** (High School Diploma),

Liceo Scientifico P.S. Mancini, Avellino.

Final grade: 100/100 e lode.

## Publications and preprints

■ *A duality result about special functions for Drinfeld modules of arbitrary rank.*

Accepted for publication in **Research of the Mathematical Sciences**.

■ *A class of functional identities associated to curves over finite fields.*

Submitted.

## Talks

Nov. 2024

■ *A generalization of Pellarin's identity to Drinfeld modules of arbitrary rank.*

NCTS Number Theory Seminar (online),

**National Center for Theoretical Sciences**, Taipei, Taiwan.

Aug. 2024

■ *Anderson eigenvectors and dual Anderson eigenvectors.*

Online learning seminar on the topic of 'special functions',

**Penn State University**, State College, Pennsylvania, USA.

## Talks (continued)

- Jul. 2024     ■ *A duality result about special functions in Drinfeld modules of arbitrary rank.*  
Second UMI-AMS International Joint Meeting,  
**Università degli Studi di Palermo**, Palermo, Italy
- Nov. 2023    ■ *A rationality result regarding Pellarin L-functions and special functions.*  
TAMU Number Theory Seminar,  
**Texas A&M University**, College Station, Texas, USA.
- Jun. 2023    ■ *The quest for a functional equation for L-functions in Drinfeld theory.*  
YAMS Seminar,  
**Università La Sapienza**, Roma, Italy.
- May 2023    ■ *The quest for a functional equation for L-functions in Drinfeld theory.*  
BabyG Seminar,  
**Università degli Studi di Pisa**, Pisa, Italy.

## Congresses and conferences attended

- 23–26 Jul. 2024    ■ Second UMI-AMS Joint Meeting, Palermo.
- 17–19 Apr. 2024    ■ The 8th mini symposium of the Roman Number Theory Association, Rome.
- 18–22 Sep. 2023    ■ Modular curves and Galois representations, Zagreb.
- 4–6 May 2023    ■ The 7th mini symposium of the Roman Number Theory Association, Rome.
- 20–24 Feb. 2023    ■ Geometry, Algebra and Combinatorics of Moduli Spaces and Configurations V, Dobbiaco.
- 18–22 Jul. 2022    ■ AMS-EMS-SMF International Meeting, Grenoble.

## Teaching activity

### University

- 2022    ■ Tutor for students of the course "Elementi di Analisi Reale".  
Employer: **Università degli Studi di Roma, Mathematics Department**.  
Supervisors: Emanuele Spadaro, Eugenio Montefusco.
- 2021    ■ Assistant for the correction and evaluation of written exams of the course "Analisi Matematica A".  
Employer: **Università degli Studi di Pisa, Physics Department**.  
Supervisor: Ferruccio Colombini.
- 2020    ■ Tutor for students of the course "Aritmetica".  
Employer: **Università degli Studi di Pisa, Mathematics Department**.  
Supervisor: Ilaria Del Corso.

### Mathematical Olympiad

- 2020 – Ongoing    ■ Pro bono private tutor for high school students in my hometown who qualified for the Italian Mathematical Olympiad.
- 2019    ■ Teacher of a mini course aimed at the preparation of students to the local stage of the Italian Mathematical Olympiad.  
Employer: **Unione Matematica Italiana**.

## Awards and scholarships

### Scolarships

- 2016-2021  Full scholarship. **Scuola Normale Superiore.**

### Recreational Mathematics and Physics Contests

- 2017, 2022  Championnat de Jeux Mathématiques.  
First place in the national competition. Awarded by Università Bocconi.
- 2016  Balkan Mathematical Olympiad.  
Silver Medal.
- 2014–2016  Olimpiadi Italiane della Matematica.  
Gold Medal (2014), Silver Medal (2015), Gold Medal (2016).
-  Campionati Italiani di Fisica.  
Qualified (2014), Bronze Medal (2015), Silver Medal (2016).

## Skills

- Languages  Native speaker of Italian, fluent in English (C1), basic knowledge of French (A2) and German (A1).
- Coding  Python, SageMath, C++, SQL, L<sup>A</sup>T<sub>E</sub>X, ...
- Misc.  Academic research, teaching.