


# 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


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### Scholarships

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

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Languages     Native speaker of Italian, fluent in English (C1), basic knowledge of French (A2) and German (A1).

Coding     Python, SageMath, C++, SQL,  $\text{\LaTeX}$ , ...

Misc.     Academic research, teaching.