Giacomo Hermes Ferraro

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Employment

Starting Nov. 2025

Texas A&M University.

Visiting Assistant Professor

Jan. 2025 - present

Ruprecht-Karls-Universität Heidelberg.

Post-Doctoral Researcher. Mentor: Gebhard Böckle.

Education

2021 - 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.

2016 – 2021

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

Scuola Normale Superiore, Pisa.

Final grade: 100/100 e lode.

2019 - 2021

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

Università di Pisa.

Thesis: The Direct Summand Theorem.

Advisor: Tamás Szamuely. Final grade: 110/110 e lode.

2016 - 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.

2011 – 2016

■ Diploma di Maturità Scientifica (High School Diploma),

Liceo Scientifico P.S. Mancini, Avellino.

Final grade: 100/100 e lode.

Publications and preprints

Published Articles

1

G. H. Ferraro, "A duality result about special functions for Drinfeld modules of arbitrary rank," *Res Math Sci*, vol. 12, 2 2025. ODI: 10.1007/s40687-025-00506-w.

Submitted Articles

2

G. H. Ferraro, "A class of functional identities associated to curves over finite fields," 2022. O DOI: 10.48550/arxiv.2212.07823.

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.

Talks (continued)

Aug. 2024 Anderson eigenvectors and dual Anderson eigenvectors.

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

Penn State University, State College, Pennsylvania, USA.

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, Dob-

18–22 Jul. 2022 AMS-EMS-SMF International Meeting, Grenoble.

Teaching activity

University

Tutor for students of the course "Elementi di Analisi Reale".

Employer: Università degli Studi di Roma, Mathematics Department.

Supervisors: Emanuele Spadaro, Eugenio Montefusco.

Assistant for the correction and evaluation of written exams of the course "Analisi Matematica A".

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.

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, Land ETEX, ...

Misc. Academic research, teaching.