



# Gilles Felber

**Research** Analytic number theory, automorphic forms, L-functions, spectral theory, trace interests formulae, Siegel modular forms, restriction problems, exponential sums

#### **Employment**

- 2024 2026 **Postdoctoral Researcher**, Alfréd Rényi Institute of Mathematics, in the group of Péter Maga
- 2021 2024 **Ph.D. in Mathematics**, University of Bonn & Max Plank Institut for Mathematics, supervised by Prof. Dr. Valentin Blomer
- Feb. May **Research stay in Paris**, *Université Sorbonne Paris Nord (Paris 13)*, hosted by 2023 Prof. Dr. Farrell Brumley, GlobalMathExchange program

#### Education

- 2018 2020 Mathematics Master, Swiss Federal Institute of Technology in Zürich (ETHZ)
- 2014 2017 Mathematics Bachelor, Swiss Federal Institute of Technology in Lausanne (EPFL)
- 2011 2014 **High School Diploma**, *Denis-de-Rougemont High School*, Neuchâtel Mention good

### Projects and articles

- PhD Thesis Restriction Norms for Siegel Modular Forms, supervised by Prof. Dr. V. Blomer, University of Bonn
  - Article A Restriction Norm Problem for Siegel Modular Forms, supervised by Prof. Dr. V. Blomer, University of Bonn, preprint: arXiv:2308.13493
- Master Thesis The sphere packing problem in dimensions 8 and 24, supervised by Prof. Dr. Ö. Imamoglu, ETHZ
  - Semester The Mordell-Weil theorem and the Birch and Swinnerton-Dyer conjecture, Paper supervised by Prof. Dr. E. Kowalski, ETHZ
  - Bachelor Le théorème de densité de Chebotarev, supervised by Dr. R. M. Nunes and Thesis Prof. Dr. P. Michel, EPFL
    Translation: the Chebotarev density theorem
  - High School **Étude des pavages du plan par la théorie des groupes**, supervised by Dr. A. Thesis Gournay as part of the scientific vocations program (PROVOC), Neuchâtel University Translation: study of the tessellations of the plane by the group theory

## Talks given

- Sept. 2025 Analytic Number Theory and Automorphic Forms, conference, Lille
- Sept. 2025 International Workshop on Automorphic Forms, workshop, SwissMAP Research Station, Les Diablerets
- Nov. 2024 Number Theory Seminar, seminar, Korea Institute for Advanced Study
- Oct. 2024 Automorphic Forms Seminar, seminar, Alfréd Rényi Institute of Mathematics

Aug. 2024 Automorphic Forms in Budapest, conference, Alfréd Rényi Institute of Mathematics, speed talk May 2024 Number Theory Seminar, seminar, University of Cologne Jan. 2024 Drafting Workshop in Discrete Mathematics and Probability 2024, workshop, Alfréd Rényi Institute of Mathematics Dec. 2023 Number Theory Seminar, online seminar, University of Copenhagen Sept. 2023 Young Number Theorists, conference, Max Planck Institut for Mathematics, speed talk June 2023 ArStAFANT Workshop, conference, EPFL, Lausanne May 2022 ENTR seminar, online seminar, Technical University of Darmstadt Teaching Summer 2025 Complex functions, Budapest semesters in mathematics Winter 2022 Analytic number theory, tutor, Prof. Dr. V. Blomer, University of Bonn Summer 2022 Algebra I, tutor, Prof. Dr. V. Blomer, University of Bonn 2016 – 2017 Mathematics and physics, tutor, EPFL Tutoring training workshop Other activities May 2023 Analysis of Automorphic Forms and L-Functions in Higher Rank, seminar, Oberwolfach Research Institute for Mathematics May 2023 Group Actions and Harmonic Analysis in Number Theory, workshop, Oberwolfach Research Institute for Mathematics Video conference assistant March 2022 FANTASY - Young Scholars in the Analytic Theory of Numbers and Automorphic Forms, conference, University of Bonn, co-organized with E. Assing, J. Li, B. Michels and R. Toma May – Aug. Harmonic Analysis and Analytic Number Theory, trimester program, Haus-2021 dorff Research Institute for Mathematics, Bonn 2014 Swiss Mathematics Olympiads, bronze medal 2010 – 2020 International competition for mathematical and logical games (FSJM), participation in several Swiss finals

## Languages

French Mother tongue

English Fluent, writing and speaking

German Fluent, writing and speaking. C1 certificate