

Gilles Felber

✉ felber@mpim-bonn.mpg.de

🌐 gillesfelber.ch

Nationality: Swiss

14.10.1995



Research interests Analytic number theory, Automorphic forms, L -functions, Spectral theory of arithmetic manifolds, Siegel modular forms, Sub-convexity problems, Restriction norms

Education

- 2021 – 2024 **PhD in Mathematics**, *University of Bonn & Max-Planck Institut for Mathematics*, supervised by Prof. Dr. Valentin Blomer
- Feb. – May 2023 **Research stay in Paris**, *Université Sorbonne Paris Nord (Paris 13)*, hosted by Prof. Dr. Farrell Brumley, GlobalMathExchange program
- 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 **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 Paper **The Mordell-Weil theorem and the Birch and Swinnerton-Dyer conjecture**, supervised by Prof. Dr. E. Kowalski, ETHZ
- Bachelor Thesis **Le théorème de densité de Chebotarev**, supervised by Dr. R. M. Nunes and Prof. Dr. P. Michel, EPFL
Translation: the Chebotarev density theorem
- High School Thesis **Étude des pavages du plan par la théorie des groupes**, supervised by Dr. A. Gournay as part of the scientific vocations program (PROVOC), Neuchâtel University
Translation: study of the tessellations of the plane by the group theory

Teaching

- Winter 2022 **Analytic number theory**, tutoring, Prof. Dr. V. Blomer, University of Bonn
- Summer 2022 **Algebra I**, tutoring, Prof. Dr. V. Blomer, University of Bonn
- 2016 – 2017 **Mathematics and physic tutoring**, EPFL
Tutoring training workshop

Visited conferences and talks given

- May 2024 **Number Theory Seminar**, seminar, University of Cologne
Talk given
- Dec. 2023 **Number Theory Seminar**, online seminar, University of Copenhagen
Talk given: A restriction norm problem for Siegel modular forms
- Oct. 2023 **Panorama of Mathematics II**, conference, University of Bonn

- Sept. 2023 **Young Number Theorists**, *conference*, Max-Planck Institut for Mathematics
Speed talk given: Arithmetic Quantum Unique Ergodicity
- June 2023 **ArStAFANT Workshop**, *conference*, EPFL, Lausanne
Talk given: L^2 -restriction norm of Siegel modular forms
- 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
- Sept. 2022 **Number Theory Days**, *conference*, EPFL, Lausanne
- Aug. 2022 **Automorphic Forms Summer School**, *summer school*, Rényi Institute, Budapest
- Aug. 2022 **Masterclass: Relative trace formulae**, *summer school*, University of Copenhagen
- June 2022 **Die Riemannsche Vermutung**, *public conference*, Landesmuseum Bonn
- June 2022 **59th Seminar Aachen-Bonn-Köln-Lille on Automorphic Forms**, *conference*,
University of Bonn
- May 2022 **ENTR seminar**, *online seminar*, Technical University of Darmstadt
Talk given: A restriction norm on Siegel modular forms
- Sept. 2021 **Women in automorphic forms**, *conference*, University of Bielefeld
- May – Aug. 2021 **Harmonic Analysis and Analytic Number Theory**, *trimester program*, Haus-
dorff Research Institute for Mathematics, Bonn
- Oct. 2019 **Number Theory Days**, *conference*, ETH, Zurich
- Sept. 2019 **Topics in Rational and Integral Points**, *summer school*, Basel University
- Feb. 2019 **Super Strong Approximation in Groups**, *summer school*, Hebrew University of
Jerusalem

Other mathematics activities

- Winter 2023 **Equidistribution: the modern ergodic method**, *learning seminar*, Max-Planck
Institut, organized with E. Assing and R. Toma
- March 2022 **FANTASY - Young Scholars in the Analytic Theory of Numbers and
Automorphic Forms**, *conference*, University of Bonn, organized with E. Assing, J.
Li, B. Michels and R. Toma
- 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. B2.1 certificate, ongoing C1 lecture

Civilian service in Switzerland

- 2020 **Supervision and animations at the adventure field of Pierrefleur**, *Fundation
for socio-cultural animation in Lausanne*, Lausanne
- 2020 **Collaboration in the maintenance of nature conservation**, *Office for the
protection of nature of the canton Zürich*, Pfäffikon
- 2018 **Archaeological digs technician**, *State of Jura - archaeology and paleontology
section of the office of culture*, Delémont and St-Ursanne

- 2017 – 2018 **Market gardener's helper**, *Fribourg detention facility*, Sugiez
- 2015 **Mason's helper**, *Association for the protection of dry stone walls*, Le Noirmont