

Giacomo Gavelli, Ph.D.

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Research Interests

Discrete subgroups of Lie groups, (locally) symmetric spaces, hyperbolic geometry, representation theory of semisimple groups.

I am also interested in results concerning Quantum (Unique) Ergodicity.

Education

Universität Tübingen, Tübingen, Germany

Ph.D in Mathematics

Supervisor: [Anton Deitmar](#)

October 2023 - Current

Università di Bologna, Bologna, Italy

M.Sc. in Mathematics

Supervisors: Loredana Lanzani, Irina Markina

Thesis title: *Gromov-hyperbolicity of strictly pseudoconvex domains and applications*

March 2023

Università di Bologna, Bologna, Italy

B.Sc. in Mathematics

October 2020

Accepted papers

- *Benjamini–Schramm vs Plancherel convergence* (with C. Kamp). [ArXiv](#) 2024, to appear in *Documenta Mathematica*.

Talks

- *Benjamini–Schramm vs Plancherel convergence.*
Arithmetic groups, hyperbolic manifolds and computation, Institut de Mathématiques de Bordeaux, December 2024.
- *Laplace and Length Spectrum for Compact Hyperbolic Surfaces of Large Volume.*
ASK Conference 2024, University of Bologna, December 2024.

Learning Seminar Talks

- *Matrix coefficients and the pre-trace Formula.*
Oberseminar Analysis und Zahlentheorie, University of Tübingen, December 2024.
- *Quantum Ergodicity and Benjamini–Schramm convergence of Hyperbolic Surfaces.*
Oberseminar Analysis und Zahlentheorie, University of Tübingen, March 2024.
- *Various notions of Hyperbolicity and their relationship.*
Analysis and PDE seminar, Universitetet i Bergen, December 2022.

Conferences and Schools

- *Interaction between different areas of Mathematical Analysis and Probability.* ASK Conference 2024, University of Bologna, December 2024.
- *Arithmetic Groups, hyperbolic manifolds and computation.* Institut de Mathématiques de Bordeaux, December 2024.
- *Integral Structures in Geometry and Representation Theory.* University of Paderborn, September 2024.
- *Modern Aspects of Analysis on Lie Groups.* University of Göttingen, April 2024.
- *Zeta functions, dynamics and analytic number theory.* University of Göttingen, March 2024.
- *Symposium in Harmonic & Complex Analysis, Microlocal & Geometrical Analysis and Applications.* University of Bologna, January 2024.
- *Function spaces on the disk and the plane: model and De Branges spaces, recent results, extensions and applications.* Scuola Matematica Interuniversitaria, Cortona, May 2023.

Teaching

- SS25: Teaching Assistant, *Cohomology and sheaves*, held by Prof. A. Deitmar.
- WS24/25: Teaching Assistant, *Linear Algebra 1*, held by Prof. A. Deitmar.
- SS24: Organizer for the Proseminar *Harmonic Analysis*.
- SS24: Teaching Assistant, *Analysis 4*, held by Prof. I. Radloff.

Other

- Master Thesis Traineeship. UiB Bergen, Norway. 09-12/2022.
- Erasmus+ Program. UiB Bergen, Norway. 01-06/2021.