

Jerónimo García-Mejía

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<https://jeronimomaths.github.io>

Education

- Expected September 2024 **Ph.D. Candidate in Mathematics**, *Karlsruhe Institute of Technology (KIT)*, Karlsruhe, Germany, Expected in September 2024.
Supervisor: Jun.-Prof. Claudio Llosa Isenrich
- 2020 **M.Sc. in Mathematics (Grade 1.8)**, *University of Bonn*, Bonn, Germany.
Thesis: *Group actions on hyperbolic spaces (Grade 1.0)*
Supervisor: Prof. Dr. Ursula Hamenstädt
Second examiner: Dr. Grigori Avramidi
- 2018 **B.Sc. in Mathematics (Grade 9.3 out of 10)**, *Universidad Nacional Autónoma de México (UNAM)*, Mexico City, Mexico.
Thesis: *Constructions of Classifying Spaces* (in Spanish)
Supervisor: Prof. Carlos Prieto.
Second examiners: Prof. Marcelo Aguilar and Prof. Omar Antolín Camarena

Awards and Scholarships

- 2022–2024 Ph.D. Scholarship from the Research Training Group (RTG) "Asymptotic Invariants and Limits of Groups and Spaces", *funded by the DFG (German Research Association)*, KIT.
- 2018–2020 Scholarship from the Rosa Luxemburg Stiftung, *Germany*.

Publications and Preprints

- [1] J. García-Mejía, C. Llosa Isenrich, and G. Pallier. On the Dehn functions of central products of nilpotent groups, October 2023. **arXiv:2310.11144** [Submitted].

Other work containing original research

Group actions on hyperbolic spaces, Master Thesis, University of Bonn, Unpublished.

Invited Talks

- April 2024 ***Dehn functions of nilpotent groups***, Research seminar *Model theory and groups*, Münster, Germany.
- March 2024 ***Funciones de Dehn de grupos nilpotentes (in Spanish)***, Long-distance seminar in *Geometric Group Theory in Mexico*, Online Seminar, Mexico.
- Jan. 2024 ***Dehn functions of central products of nilpotent groups***, *Geometry and Dynamics Seminar*, Université de Lille, Lille, France.
- Oct. 2022 ***The Geometry of the Word Problem***, *Baby Geometri Seminar*, University of Pisa - Scuola Normale Superiore, Pisa, Italy.
- May 2020 ***Group actions on hyperbolic spaces***, *Junior Geometry Seminar*, Heidelberg University, Heidelberg, Germany.

Contributed Talks

- Dec. 2022 ***Dehn functions of central products of nilpotent groups***, AG Seminar: Topology and Geometric Group Theory, Karlsruhe Institute of Technology, Karlsruhe, Germany.
- May 2023 ***Lightning Talk***, Conference Geometry of subgroups, Thematic program on Geometric Group Theory, Centre de Recherches Mathématiques, Montréal.
- Feb. 2023 ***Lightning Talk***, Young Geometric Group Theory XI, Münster, Germany.
- Jan. 2022 ***Bestvina-Brady Morse theory***, GCD Seminar, Karlsruhe Institute of Technology, Karlsruhe, Germany.
- Feb. 2021 ***Group actions, hyperbolic spaces and small cancellation***, AG Seminar Metric Geometry, Karlsruhe Institute of Technology, Karlsruhe, Germany.

Teaching Experience

My teaching experience covers preparing exercise-sheets, presenting solutions in front of the class, and grading. All of this in Spanish, English, and German.

Teacher's Assistant at the KIT

- Winter 2021/22 *Elementare Geometrie (Elementary Geometry)*, Bachelor course in German.
- Summer 2021 *Geometric Group Theory*, Master course in English.
- Winter 2020/21 *Proseminar Geometrie: Knotentheorie (Knot theory)*, Bachelor Seminar in German.

Teacher's Assistant at UNAM

- Winter 2017 *Analytical Geometry I and Topology I*, (Bachelor's courses in Spanish).

Service

- April 2022 Organizer of the RTG "Asymptotic Invariants and Limits of Groups and Spaces" Seminar: *Group (co)homology, KIT and Heidelberg University*, Germany.
- Oct. 2021 - Sept. 2022 Speaker of the RTG "Asymptotic Invariants and Limits of Groups and Spaces", *KIT and Heidelberg University*, Germany.

Conference attendance

- April 2024 ***Young Geometric Group Theory XII***, University of Bristol, Bristol, United Kingdom.
- March 2024 ***Topological and Homological Methods in Group Theory 2024***, Bielefeld University, Bielefeld, Germany.
- June 2023 ***Cube complexes and combinatorial group theory***, Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal.
- June 2023 ***Groups around 3-manifolds***, Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal.
- May 2023 ***Geometry of subgroups***, Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal.
- Feb. 2023 ***Young Geometric Group Theory XI***, WWU Münster, Münster, Germany.
- July 2022 ***"Metric Geometry and Geometric Analysis"***, MSRI-Oxford Summer Graduate School, Oxford University, Oxford, United Kingdom.
- June 2022 ***Hyperbolic groups and their generalizations***, Institut Henri Poincaré, Paris, France.

March 2022 *Topological and Homological Methods in Group Theory 2022*, Bielefeld University, Bielefeld, Germany.

Feb. 2022 *Workshop on Finiteness properties*, Karlsruhe Institute of Technology, Karlsruhe, Germany.

Languages

Spanish Mother tongue

English 102 TOEFL-iBT

German B1 Goethe-Zertifikat