Karlsruher Institut für Technologie Karlsruhe, Germany jeronimo.garcia@kit.edu https://jeronimomaths.github.io

# Jerónimo García-Mejía

### Education

2020-current **Ph.D. Candidate in Mathematics**, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany, Expected in July 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

2018 B.Sc. in Mathematics (Grade 9.3 out of 10), Universidad Nacional Autónoma de México (UNAM), Mexico City, Mexico.

de Mexico (UNAM), Mexico City, Mexico.

Thesis: Constructions of Classifying Spaces (in Spanish) Supervisor: Prof. Carlos Prieto.

# Awards and Scolarships

2022- current 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.

### Scientific Talks

May 2023 *Lightning Talk*, Conference Geometry of subgroups, Thematic program on Geometric Group Theory, Centre de Recherches Mathématiques, Montréal.

February 2023 Lightning Talk, Young Geometric Group Theory XI, Münster, Germany.

October 2022 *The Geometry of the Word Problem*, Baby Geometri Seminar, University of Pisa - Scuola Normale Superiore, Pisa, Italy.

January 2022 Bestvina-Brady Morse theory, GCD Seminar, Karlsruhe Institute of Technology, Karlsruhe, Germany.

February 2021 Group actions, hyperbolic spaces and small cancellation, AG Seminar Metric Geometry, Karlsruhe Institute of Technology, Karlsruhe, Germany.

May 2020 *Group actions on hyperbolic spaces*, Junior Geometry Seminar, Heidelberg University, Heidelberg, Germany.

### Preprints

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

# Other work containing original research

2020 Group actions on hyperbolic spaces, Master Thesis, University of Bonn, Unpublished.

# 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, (Bacherlor'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.
- October 2021 Speaker of the RTG "Asymptotic Invariants and Limits of Groups and Spaces", KIT September 2022 and Heidelberg University, Germany.

# Conference attendance

- 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.
- February 2023 Young Geometric Group Theory XI, WWU Münster, Münster, Germany.
  - July 2022 MSRI-Oxford Summer Graduate School "Metric Geometry and Geometric Analysis", Oxford University, Oxford, Great Britain.
  - 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.
- February 2022 *Workshop on Finiteness properties*, Karlsruhe Institute of Technology, Karlsruhe, Germany.

### Languages

Spanish Mother tongue

English 102 TOEFL-iBT

German B1 Goethe-Zertifikat