Jerónimo García-Mejía

Personal Data

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RESEARCH INTERESTS:	Geometric Group Theory and Geometric Topology.

Academic Positions

OCT. 2025 – PRESENT	UNIVERSITY OF WARWICK
	Research Fellow
	Mathematical Institute
	Postdoctoral Mentor: Ric Wade
DEC. 2024 – OCT. 2025	UNIVERSITY OF OXFORD
	Postdoctoral Research Associate
	Mathematical Institute
	Postdoctoral Mentor: Ric Wade

Education

SEPT. 2024	KARLSRUHE INSTITUTE OF TECHNOLOGY
	PhD in Mathematics
	Thesis: *Dehn functions of groups with filiform subgroups*
	Advisor: Jun.-Prof. Claudio Llosa Isenrich
AUG. 2020	UNIVERSITY OF BONN
	M.Sc. in Mathematics
	Thesis: *Group actions on hyperbolic spaces*
	Advisor: Prof. Ursula Hamenstädt
APR. 2018	UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO
	B.Sc. in Mathematics
	Thesis: *Construction of classifying spaces* (in Spanish)
	Advisor: Prof. Carlos Prieto

Scholarships

2018–2020	ROSA LUXEMBURG STIFTUNG (Rosa Luxemburg Foundation)
	Scolarship

Publications

1. Yu-Chang Chan, Jerónimo García-Mejía, and Matteo Migliorini, *Complete classification of the Dehn functions of Bestvina–Brady groups* (2025).
   To appear in **GAFA**.

2. Jerónimo García-Mejía, Claudio Llosa Isenrich and Gabriel Pallier *On Dehn functions of central products of nilpotent groups* (2023).
   To appear in **Trans. Amer. Math. Soc.**

3. Jerónimo García-Mejía and Antoine Goldsborough, *Random Dehn function of groups.*
   J. Topol. Anal.

Other work containing original research

- *Dehn functions of groups with filiform subgroups.*
  PhD thesis, Karlsruhe Institute of Technology.

- *Group actions on hyperbolic spaces.*
  Master thesis, University of Bonn. Unpublished.

Invited talks

Nov. 2025	*Complete classification of the Dehn functions of Bestvina–Brady groups*, Algebra Seminar, University of Bristol, Bristol, United Kingdom.
May 2025	*Dehn functions of Bestvina–Brady groups*, Geometric Group Theory Seminar, University of Cambridge, Cambridge, United Kigndom.
July 2024	*Dehn functions of nilpotent groups*, Geometric Group Theory Seminar, University of Oxford, Oxford, United Kingdom.
Apr. 2024	*Dehn functions of nilpotent groups*, Research seminar Model theory and groups, University of Münster, Münster, Germany.
Mar. 2024	*Funciones de Dehn de grupos nilpotentes*, Long-distance seminar in Geometric Group Theory in Mexico, Online Seminar.
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

May 2023	*Lightning Talk*, Conference Geometry of subgroups, Thematic program on Geometric Group Theory, Centre de Recherches Mathématiques, Montréal, Canada.
Feb. 2023	*Lightning Talk*, Young Geometric Group Theory XI, Münster, Germany.
Feb. 2021	*Group actions, hyperbolic spaces and small cancellation*, AG Seminar Metric Geometry, Karlsruhe Institute of Technology, Karlsruhe, Germany.

Conferences and workshops attendance

Sep. 2025	*Actions on graphs and metric spaces* part of the program Operators, Graphs, Groups, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.
Jul. 2025	*Non-positive curvature and applications*, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.
Jun. 2025	*The William Rowan Hamilton Geometry and Topology Workshop: Celebrating Martin Bridson's 60th Birthday*, The Hamilton Mathematics Institute, Trinity College Dublin, Dublin, Ireland.
May 2025	*Groups and Geometry in South England*, University of Oxford, Oxford, England.
Aug. 2024	*Workshop on Profinite Rigidity*, Karlsruhe Institute of Technology, Karlsruhe, Germany.
Apr. 2024	*Young Geometric Group Theory XII*, University of Bristol, Bristol, United Kingdom.
Mar. 2024	*Topological and Homological Methods in Group Theory 2024*, Bielefeld University, Bielefeld, Germany.

Jun. 2023	*Cube complexes and combinatorial group theory* part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
Jun. 2023	*Groups around 3-manifolds* part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
May 2023	*Geometry of subgroups* part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
Feb. 2023	*Young Geometric Group Theory XI*, Münster University, Münster, Germany.
Jul. 2022	*Metric Geometry and Geometric Analysis*, MSRI-Oxford Summer Graduate School, Oxford University, Oxford, United Kingdom.
Jun. 2022	*Hyperbolic groups and their generalisations*, Institut Henri Poincaré, Paris, France.
Mar. 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.

Extended visits

Oct. 2025 – Jan. 2026	UNIVERSITY OF OXFORD, MATHEMATICAL INSTITUTE Academic visitor
Sep. 2025	ISAAC NEWTON INSTITUTE Semester program *Operators, Graphs, Groups*
May – Jun. 2023	CENTRE DE RECHERCHES MATHÉMATIQUES Thematic program on *Geometric group theory*

Teaching experience

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

Winter 2021/22	*Elementare Geometrie (Elementary Geometry)*, Bachelor course in German at the Karlsruhe Institute of Technology.
Summer 2021	*Geometric Group Theory*, Master course in English at the Karlsruhe Institute of Technology.
Winter 2020/21	*Proseminar Geometrie: Knotentheorie (Knot theory)*, Bachelor Seminar in German at the Karlsruhe Institute of Technology.
Winter 2017/18	*Analytical Geometry I* and *Topology I*, Bachelor courses in Spanish at the Universidad Nacional Autónoma de México.

Services

Aug. 2024	*Organiser of the workshop Profinite Rigidity*, joint with the Universiy of Münster, Regensburg University, and the Karlsruhe Institute of Technology, Karlsruhe, Germany.
Apr. 2022	*Organiser of the RTG "Asymptotic Invariants and Limits of Groups and Spaces" Seminar: Group (co)homology* joint with the Karlsruhe Institute of Technology and Heidelberg University, Germany.
Oct. 2021 – Sep. 2022	*Speaker of the RTG "Asymptotic Invariants and Limits of Groups and Spaces".*