

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

SCHOLARSHIPS

2018–2020	ROSA LUXEMBURG STIFTUNG (Rosa Luxemburg Foundation) Scolarship
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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 **Geometric and Functional Analysis**.
2. Jerónimo García-Mejía, Claudio Llosa Isenrich and Gabriel Pallier *On Dehn functions of central products of nilpotent groups* (2023).
To appear in **Transactions of the American Mathematical Society**.
3. Jerónimo García-Mejía and Antoine Goldsborough, *Random Dehn function of groups*.
Journal of Topology and Analysis.

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 Unpublished.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	<i>Complete classification of the Dehn functions of Bestvina–Brady groups,</i> Algebra Seminar , University of Bristol, Bristol, United Kingdom.
MAY 2025	<i>Dehn functions of Bestvina–Brady groups</i> , Geometric Group Theory Seminar , University of Cambridge, Cambridge, United Kingdom.
JULY 2024	<i>Dehn functions of nilpotent groups</i> , Geometric Group Theory Seminar , University of Oxford, Oxford, United Kingdom.
APR. 2024	<i>Dehn functions of nilpotent groups</i> , Research seminar Model theory and groups , University of Münster, Münster, Germany.
MAR. 2024	<i>Funciones de Dehn de grupos nilpotentes</i> , Long-distance seminar in Geometric Group Theory in Mexico , Online Seminar.
JAN. 2024	<i>Dehn functions of central products of nilpotent groups</i> , Geometry and Dynamics Seminar , Université de Lille, Lille, France.
OCT. 2022	<i>The Geometry of the Word Problem</i> , Baby Geometri Seminar , University of Pisa - Scuola Normale Superiore, Pisa, Italy.
MAY 2020	<i>Group actions on hyperbolic spaces</i> , Junior Geometry Seminar , Heidelberg University, Heidelberg, Germany.

CONTRIBUTED TALKS

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

CONFERENCES AND WORKSHOPS ATTENDANCE

SEP. 2025	<i>Actions on graphs and metric spaces</i> part of the program Operators, Graphs, Groups, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.
JUL. 2025	<i>Non-positive curvature and applications</i> , Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.
JUN. 2025	<i>The William Rowan Hamilton Geometry and Topology Workshop: Celebrating Martin Bridson's 60th Birthday</i> , The Hamilton Mathematics Institute, Trinity College Dublin, Dublin, Ireland.
MAY 2025	<i>Groups and Geometry in South England</i> , University of Oxford, Oxford, England.
AUG. 2024	<i>Workshop on Profinite Rigidity</i> , Karlsruhe Institute of Technology, Karlsruhe, Germany.
APR. 2024	<i>Young Geometric Group Theory XII</i> , University of Bristol, Bristol, United Kingdom.
MAR. 2024	<i>Topological and Homological Methods in Group Theory 2024</i> , 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 Universidad Nacional Autónoma de México.

SERVICES

- AUG. 2024 *Organiser of the workshop Profinite Rigidity*, joint with the University 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"*.