

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

EDUCATION

SEP 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)
Scholarship

PUBLICATIONS

- Yu-Chang Chan, Jerónimo García-Mejía, and Matteo Migliorini, *Complete classification of the Dehn functions of Bestvina–Brady groups*.
Geometric and Functional Analysis (2026).
- Jerónimo García-Mejía, Claudio Llosa Isenrich and Gabriel Pallier *On Dehn functions of central products of nilpotent groups*.
Transactions of the American Mathematical Society (2026).
- Jerónimo García-Mejía and Antoine Goldsborough, *Random Dehn function of groups*.
Journal of Topology and Analysis (2026).

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 Unpublished.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

- OCT 2026 *TBD, Conference: LiT IV Landing in Topology*, University of Pisa (scheduled).
- SEP 2026 *TBD, Conference: Automorphisms groups in Bonn*, University of Bonn (scheduled).
- JUN/JUL 2026 *La geometría del problema de la palabra Summer School: Escuela de Teoría Geométrica de Grupos*, Instituto de Matemáticas Oaxaca, México (scheduled).
- MAY 2026 *Complete classification of the Dehn functions of Bestvina–Brady groups*, *Geometry and Topology Seminar*, University of Glasgow (scheduled).
- APR 2026 *Complete classification of the Dehn functions of Bestvina–Brady groups*, *Oberseminar Geometric Group Theory*, University of Bonn.
- JAN 2026 *Complete classification of the Dehn functions of Bestvina–Brady groups*, *Topology Seminar*, University of Oxford.
- JAN 2026 *Complete classification of the Dehn functions of Bestvina–Brady groups*, *Geometry and Topology Seminar*, University of Warwick.
- NOV 2025 *Complete classification of the Dehn functions of Bestvina–Brady groups*, *Algebra Seminar*, University of Bristol.
- MAY 2025 *Dehn functions of Bestvina–Brady groups*, *Geometric Group Theory Seminar*, University of Cambridge.
- JULY 2024 *Dehn functions of nilpotent groups*, *Geometric Group Theory Seminar*, University of Oxford.
- APR 2024 *Dehn functions of nilpotent groups*, *Research seminar Model theory and groups*, Universität Münster.
- MAR 2024 *Funciones de Dehn de grupos nilpotentes*, *Long-distance seminar in Geometric Group Theory in Mexico*.
- JAN 2024 *Dehn functions of central products of nilpotent groups*, *Geometry and Dynamics Seminar*, Université de Lille.
- OCT 2022 *The Geometry of the Word Problem*, *Baby Geometri Seminar*, University of Pisa - Scuola Normale Superiore.
- MAY 2020 *Group actions on hyperbolic spaces*, *Junior Geometry Seminar*, Heidelberg University.

CONTRIBUTED TALKS

- 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.
- FEB 2021 *Group actions, hyperbolic spaces and small cancellation*, AG Seminar Metric Geometry, Karlsruhe Institute of Technology, Karlsruhe.

CONFERENCES AND WORKSHOPS ATTENDANCE

- MAR 2026 *Topological and Homological Methods in Group Theory 2026*, Bielefeld University, Bielefeld, Germany.
- MAR 2026 *Journées Trans-Couesnon de théorie des groupes*, University of Caen, Caen, France.
- SEP 2025 *Actions on graphs and metric spaces* part of the program Operators, Graphs, Groups, Isaac Newton Institute for Mathematical Sciences, Cambridge, England.
- 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, England.
- 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, England.
- 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".*