

JERÓNIMO GARCÍA-MEJÍA

PERSONAL DATA

EMAIL: jeronimo.garcia-mejia@warwick.ac.uk
WEBSITE: jeronimomaths.github.io
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)
Scholarship

PUBLICATIONS

- 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**.
- 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**.
- 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 Unpublished.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 *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 Kingdom.
- 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	<i>Cube complexes and combinatorial group theory</i> part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
JUN. 2023	<i>Groups around 3-manifolds</i> part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
MAY 2023	<i>Geometry of subgroups</i> part of the Thematic program on Geometric group theory, Centre de Recherches Mathématiques, Montréal, Canada.
FEB. 2023	<i>Young Geometric Group Theory XI</i> , Münster University, Münster, Germany.
JUL. 2022	<i>Metric Geometry and Geometric Analysis</i> , MSRI-Oxford Summer Graduate School, Oxford University, Oxford, United Kingdom.
JUN. 2022	<i>Hyperbolic groups and their generalisations</i> , Institut Henri Poincaré, Paris, France.
MAR. 2022	<i>Topological and Homological Methods in Group Theory 2022</i> , Bielefeld University, Bielefeld, Germany.
FEB. 2022	<i>Workshop on Finiteness properties</i> , 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 <i>Operators, Graphs, Groups</i>
MAY – JUN. 2023	CENTRE DE RECHERCHES MATHÉMATIQUES Thematic program on <i>Geometric group theory</i>

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

SERVICES

AUG. 2024	<i>Organiser of the workshop Profinite Rigidity</i> , joint with the University of Münster, Regensburg University, and the Karlsruhe Institute of Technology, Karlsruhe, Germany.
APR. 2022	<i>Organiser of the RTG "Asymptotic Invariants and Limits of Groups and Spaces" Seminar: Group (co)homology</i> joint with the Karlsruhe Institute of Technology and Heidelberg University, Germany.
OCT. 2021 – SEP. 2022	<i>Speaker of the RTG "Asymptotic Invariants and Limits of Groups and Spaces"</i> .