Rodrigo De Pool

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Academic positions

University of Notre Dame — Indiana, USA
Postdoctoral Research Associate — 2025 - 2028

Instituto de Ciencias Matemáticas (ICMAT) — Madrid, Spain
Ph.D. in Geometry and Algebra — 2021 - 2025

- Advisor: Prof. Javier Aramayona
- Research area: Mapping class groups

Education

Universidad Autónoma de Madrid — Madrid, Spain
Master in Mathematics and Applications — 2020 - 2021

- Master thesis: Modular groups and arc complexes
- GPA: 9.64/10

Universidad Autónoma de Madrid — Madrid, Spain
Double degree in Mathematics and Computer Science — 2015 - 2020

- Final year project for Mathematics: Classification of surfaces
- GPA: 9.30/10

Publications

1. Homomorphisms between pure mapping class groups.
   Advances in Mathematics (2025).
2. Non-planar ends are continuously unforgettable.
   Joint with J. Aramayona, R. Skipper, J. Tao, N. G. Vlamis and X. Wu.
   International Mathematics Research Notices (2025).
3. Braided multitwists.
   Algebraic and Geometric Topology (2025).
4. Finite rigid sets of the non-separating curve complex.
   Forum Mathematicum (2022).
5. Matching arc complexes: Connectedness and hyperbolicity.
   Joint with J. Aramayona and A. Fernández.
   Expositiones Mathematicae (2021).

Preprints

1. Holomorphic maps between moduli spaces II.
   Joint with J. Souto.
   In arXiv:2412.01257 (2024).

Research stays

Institut de recherche mathématique de Rennes (Rennes, France).
Collaborating with professor Juan Souto. — April 2024 - June 2024

Awards, Fellowships, Grants

Society of Science Fellowship. University of Notre Dame. — 2025 - 2028
FPI predoctoral contract. Spanish Ministry of Science and Innovation. — 2021 - 2025
JAE Intro SOMdM Grant. Research scholarship awarded by ICMAT. — 2020 - 2021
Excellence scholarships. Awarded yearly by the Community of Madrid. — 2015 - 2020

Contributed talks

Rigidity results for the mapping class group.
University of Notre Dame, 23 September 2025.

Resultados de rigidez del grupo modular.
Instituto de Ciencias Matemáticas, 22 May 2025.

Braided elements homomorphisms in the mapping class group.
Universidad Nacional Autónoma de México, 28 October 2024.

Homomorphisms between mapping class groups.
Universidad Complutense de Madrid, 23 September 2024.

Holomorphic rigidity of moduli space.
Institut de recherche mathématique de Rennes, 24 June 2024.

Mapping class groups, braided elements and homomorphisms.
Institut de recherche mathématique de Rennes, 19 June 2024.

Braided multitwists in the mapping class group.
Instituto de Ciencias Matemáticas, 5 December 2023.

Finite rigid sets of the non-separating curve complex.
Institut Henri Poincaré, June 2022.

On the hyperbolicity of arc complexes and some of their relatives.
Instituto de Ciencias Matemáticas, 9 December 2021.

Seminars and Colloquia

Finite rigidity of non-separating curve complexes.
Universidad de León, 5 December 2023.

Introduction to geometric group theory.
Universidad Autónoma de Madrid, 14 December 2022.

The symplectic representation of the mapping class group.
Instituto de Ciencias Matemáticas, 2 December 2022.

The curve complex.
Instituto de Ciencias Matemáticas, 24 May 2022.

Teaching experience

Instructor for **Calculus B**.
University of Notre Dame. Spring term of 2025/26

Problem sessions for **Mathematical Analysis**.
Mathematics, Universidad Autónoma de Madrid. 1st term of 2024/25

Problem sessions for **Linear Algebra**.
Data Science and Engineering, Universidad Autónoma de Madrid. 1st term of 2023/24

Problem sessions for **Mathematics**.
Enviromental Science, Universidad Autónoma de Madrid. 1st term of 2022/23

Teacher in the **'Pequeño instituto matemático'** (PIM).
PIM is a weekly activity organized by the ICMAT where high school students discuss olympiad like problems. 2022 - 2024

Conference organization

Co-organizer of the *Graduate school on Geometric Group Theory and Low-dimensional Topology* (ICMAT). May 2022