

RESEARCH INTERESTS

Mathematics. Algebraic geometry. Moduli spaces. Algebraic stacks. Geometric Invariant Theory. Enumerative invariants.

EDUCATION

DPhil in Mathematics

University of Oxford

Supervised by Prof. Frances Kirwan and Prof. Fabian Haiden

2020-
2024 (expected)

Research visit

Cornell University

Worked with Prof. Daniel Halpern-Leistner

Funded by the Brettschneider Fund

August 2022-
December 2022

Part III of the Mathematical Tripos (MASt)

University of Cambridge

Funded by “La Caixa” Foundation

Merit

2019-2020

Erasmus year

Université Paris-Sud and École Normale Supérieure - Ulm

End-of-degree dissertation: *Le groupe de Galois absolu de $C(t)$* , supervised by Prof.

Olivier Wittenberg

2018-2019

Degree in Mathematics (four-year-long programme)

University of Zaragoza

Extraordinary prize. Graduated top of year.

Average grade: 9.32 out of 10.

2015-2019

RESEARCH OUTPUT

1. *Relative étale slices and cohomology of moduli spaces* (joint with Mark Andrea de Cataldo and Andrés Fernández Herrero). Preprint. [Link](#).
2. Appendix to *Stability Conditions in Geometric Invariant Theory*, by Ruadhaí Dervan. Preprint. [Link](#).
3. *Refined Harder-Narasimhan filtrations in moduli theory*. Preprint. [Link](#).

TALKS

- University of Edinburgh (October 2023).
- University of Glasgow (October 2023).
- Vector Bundles on Algebraic Curves conference in Essen (August 2023).
- Oxford Algebraic Geometry seminar (April 2023).
- University of Southern Denmark (June 2023).

TEACHING

- Tutor for C3.5 Lie Groups (Oxford, Michaelmas Term 2023).
- Revision classes for Part C2.3 Representation theory of Semisimple Lie Algebras (Oxford, Trinity Term 2023).

- Tutor for B3.3 Algebraic Curves (Oxford, Hilary Term 2022).
- TA for C3.4 Algebraic Geometry (Oxford, Michaelmas Term 2021).
- TA for C2.6 Scheme Theory (Oxford, Hilary Term 2021).
- TA for C2.7 Category Theory (Oxford, Michaelmas Term 2020).

SELECTED AWARDS

- La Caixa Foundation Scholarship: Postgraduate studies in Europe (2019-2020).
- Scholarship Severo Ochoa – ICMAT: Introduction to Research 2019.
- International Mathematics Competition for University Students: Second Prize (2018) and Third Prize (2017).
- 51 Spanish Mathematical Olympiad, National Round: Bronze Medal (2015).
- 51 Spanish Mathematical Olympiad, Aragón Round: First Prize (2015) and Second Prize (2014).

CONFERENCES ATTENDED

- Vector Bundles on Algebraic Curves, (VBAC), University of Duisburg-Essen (August 2023).
- Cohomological Hall algebras and Vertex algebras, Isle of Skye (April 2023).
- Quivers, Clusters, Moduli and Stability, University of Oxford (January 2023).
- AGNES, University of Massachusetts (November 2022).
- Route 81 conference on Commutative Algebra and Algebraic Geometry, Queen's University (September 2022).
- Vector Bundles on Algebraic Curves, University of Warwick (July 2022).
- Geometry and Arithmetic of Moduli Spaces, Scuola Normale Superiore (July 2022).
- Moduli Spaces and Stability Conditions, Levico Terme (July 2022).
- GAeL (June 2022).
- Invariants in Algebraic Geometry, Dijon (May 2022).
- Arithmetic and Geometry of Varieties with trivial canonical bundle, Oslo (December 2021).
- Summer school in derived and triangulated categories, Wuppertal (September 2021).
- GAeL, online (July 2021).
- JAE School of Mathematics, ICMAT (2017 and 2019).

ORGANISATION

- Junior Geometry Seminar, University of Oxford, organiser (2021-2022).

OTHERS

- Degree in the Professional Music Conservatory of Zaragoza, Specialised in piano (2011-2017).
- Chetham's International Summer School and Festival for Pianists (2017).
- Volunteer at Club Excursionista del Salvador, mountaineering club for children. (2014-2018).

LANGUAGES

- Spanish: Native speaker.
- English: Fluent.
- French: Fluent.