

Aitor Iribar López - Curriculum Vitae

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Education

2022-2026 **PhD in Mathematics**, *ETH Zurich*. Advisor Rahul Pandharipande

2021-2022 **MSc in Advanced Mathematics** (Part C), *University of Oxford*

2017-2021 **Degree in Mathematics**, *Complutense University of Madrid*

Positions

2026- **SNF Mobility Postdoc**, *Leiden University*. Supervisor David Holmes

Papers and preprints

- (1) The fifteenth cohomology of moduli spaces of stable curves,
with Amy Bradford, Andreas Kretschmer and Hannah Larson
arXiv:2610.14337, 2026.
- (2) Weight decomposition for toroidal abelian fibrations,
with Younghun Bae, Jeremy Feusi and Sam Molcho
arXiv:2608.14337, 2026.
- (3) Noether-Lefschetz cycles on the moduli space of abelian varieties,
Forum of Mathematics, Pi 14, e2, 2026.
arXiv:2411.09910.
- (4) Torelli loci, product cycles, and the homomorphism conjecture for $\mathcal{A}_g$,
with Samir Canning, Lycka Drakengren, Jeremy Feusi, Daniel Holmes,
Denis Nesterov, Dragos Oprea, Rahul Pandharipande, Johannes Schmitt
and Zheming Sun
arXiv:2601.04353, 2026.
- (5) The Euler characteristic of $\mathcal{A}_g$ via Hodge integrals,
Algebraic Geometry 12 (6), 813–822, 2025.
arXiv:2410.00245.
- (6) The integral Chow ring of $\mathcal{R}_2$,
with Alessio Cela
Annali della Scuola Normale Superiore di Pisa, Classe di Scienze,
published online 6 October 2025.
arXiv:2406.07309.
- (7) Gromov-Witten theory of $\mathrm{Hilb}^n(\mathbb{C}^2)$ and Noether-Lefschetz theory of $\mathcal{A}_g$,
with Rahul Pandharipande and Hsian-Hua Tseng
arXiv:2506.12438, 2025.
- (8) Genus 0 logarithmic and tropical fixed-domain counts for Hirzebruch surfaces,
with Alessio Cela
Journal of the London Mathematical Society 109 (4), e12892, 2024.
arXiv:2309.14947.

Invited Research Visits

Jun. 2025 Oberwolfach Workshop: Recent trends in algebraic geometry.

Invited Conference Talks

- Jul. 2026** Beijing–Hangzhou–Zurich Moduli Workshop.
- May 2026** Summer school on moduli spaces, virtual invariants and shifted symplectic structures.
- Feb. 2026** Moduli in Heidelberg.
- Feb. 2026** Abelian varieties and their moduli in Barcelona.
- Jun. 2025** Oberwolfach Workshop: Recent trends in algebraic Geometry
- May 2024** Curves, abelian varieties, and their moduli in Berlin.

Invited Seminar Talks

- Jul. 2026** Algebraic Geometry and Moduli Seminar, *ETH Zürich*.
- Jul. 2026** Yonsei Geometry Seminar, *Yonsei University*.
- Nov. 2025** Algebra, Geometry and Number Theory Seminar, *Leiden University*.
- Nov. 2025** Algebraic Geometry Seminar, *Utrecht University*.
- May 2025** Algebraic Geometry Seminar, *University of Cambridge*.
- Apr. 2025** Seminari di Algebra e Geometria, *La Sapienza University*.
- Mar. 2025** MaPhyAG Seminar, *Complutense University of Madrid*.
- May 2024** Seminario de Algebra, Geometria y Topologia, *Complutense University of Madrid*.
- Apr. 2024** Algebraic Geometry and Moduli Seminar, *ETH Zürich*.
- Mar. 2024** Algebraic Geometry and Moduli Seminar, *ETH Zürich*.

Teaching experience

- Fall 2020** Teaching Assistant, Basic Mathematics. Complutense University of Madrid.
- Fall 2022** Teaching Assistant, Mathematics for Architecture students. ETH Zürich.
- Fall 2023** Teaching Assistant, Algebraic Topology I. ETH Zürich.
- Fall 2024** Teaching Assistant, Commutative Algebra. ETH Zürich.
- Spring 2025** Teaching Assistant, Algebraic Geometry. ETH Zürich.

Community service

- Fall 2024** Lecturer, Commutative Algebra online course for LATAM students, ICTP.

Honors and Awards

- *Beca de excelencia de la Comunidad de Madrid 2018, 2019*, a scholarship for university students with excellent academic performance.
- *Beca de colaboración UCM, 2020*, a scholarship awarded to complete my Bachelor's thesis.
- *SNF Mobility Postdoc*, a 100,000 CHF scholarship awarded for postdoctoral studies in Leiden University.

Last update: October 2026