Andres Fernandez Herrero
Curriculum Vitae

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Personal and contact information

Full name **Andres Fernandez Herrero**.
Nationality **Spanish**.
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Employment

2022-present **Ritt Assistant Professor (postdoc)**, *Columbia University (USA)*.

Education

2016-2022 **PhD in Mathematics**, *Cornell University (USA)*, Degree earned May 2022.
Thesis commitee: Nicolas Templier (Chair), Daniel Halpern-Leistner, Dan Barbasch.

2012-2016 **B.A. in Mathematics (Summa Cum Laude)**, *University of San Diego (USA)*.

Scholarships and Awards

2022 **Hutchinson Fellowship**, *Cornell University*.
2018 **Eleanor Norton York Award**, *Cornell University*.
2016-2017 **Graduate Fellowship**, *Cornell University*.
2012-2016 **Alcala Scholarship**, *University of San Diego*.
2015 **Highest Honors**, *Budapest Semesters in Mathematics*.

Preprints

2022 **Geometry of the logarithmic Hodge moduli space**, *with M.A. de Cataldo and an appendix joint with S. Zhang*, `https://arxiv.org/abs/2211.06754`.

2022 **On automorphisms of semistable G-bundles with decorations**, `https://arxiv.org/abs/2202.13360`.

2021 **The moduli stack of principal ρ-sheaves**, *with T. L. Gómez and A. Zamora*, `https://arxiv.org/abs/2107.03918`.

2021 **Moduli spaces of sheaves via affine Grassmannians**, *with D. Halpern-Leistner and T. Jones*, https://arxiv.org/abs/2107.02172.

2021 **Harder-Narasimhan stratification for the moduli stack of parabolic vector bundles**, https://arxiv.org/abs/2101.08871.

2020 **Classification of affine normal SL(2) varieties with a dense open orbit**, *with R. Horruitiner*, https://arxiv.org/abs/2012.02815.

2020 **On the quasicompactness of the moduli stack of logarithmic G-connections over a curve**, https://arxiv.org/abs/2002.11832.

2020 **Reduction theory of connections over the formal punctured disc**, https://arxiv.org/abs/2003.00008.

Publications

2016 **An Inequality about Hölder Conjugate Numbers**, *with A. Stan*, Journal of Mathematical Inequalities, Volume 10, Number 4. 1093-1104

Teaching Experience

Fall 2022, Spring 2023 **Instructor**, *Columbia University*, Calculus II.

Fall 2021 **Instructor**, *Cornell University*, Calculus II.

Fall 2020 **Teaching Assistant**, *Cornell University*, Differential Equations for Engineers.

Spring 2020, Fall 2018, Fall 2017 **Teaching Assistant**, *Cornell University*, Multivariable Calculus for Engineers.

Spring 2019 **Grader**, *Cornell University*. Algebra II

Spring 2018 **Grader**, *Cornell University*. Complex Analysis

Invited talks

December 2022 **University of Pennsylvania**, *Math-Physics joint seminar.*. Gauged Gromov-Witten theory via affine grassmannians.

August 2022 **SwissMAP research station in Les Diablerets**, *Workshop: Gauged maps, vortices and their moduli spaces.*. Compatifications of the moduli of vector bundles on stable curves.

May 2022 **University of Washington**, *Algebraic Geometry Seminar*. Intrinsic construction of moduli spaces via affine Grassmannians.

March 2022 **Princeton University**, *Algebraic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

March 2022 **University of Georgia**, *Algebraic Geometry Seminar (virtual).*
Intrinsic construction of moduli spaces via affine Grassmannians.

February 2022 **Columbia University**, *Algebraic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

February 2022 **University of Utah**, *Algebraic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

February 2022 **Stony Brook University**, *Algebraic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

January 2022 **UC Santa Barbara**, *Seminar on Geometry and Arithmetic (virtual).*
Intrinsic construction of moduli spaces via affine Grassmannians.

January 2022 **Ohio State University**, *Arithmetic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

January 2022 **University of Michigan**, *Algebraic Geometry Seminar.*
Intrinsic construction of moduli spaces via affine Grassmannians.

November 2021 **Pennsylvania State University**, *Algebra and Number Theory Seminar (virtual).*
Moduli of sheaves via affine Grassmannians.

October 2021 **University of Pennsylvania**, *Math-Physics joint seminar.*
Moduli of sheaves via affine Grassmannians

October 2021 **Univesity of Notre Dame**, Algebraic geometry and commutative algebra seminar.
Moduli of sheaves via affine Grassmannians.

June 2021 **ICMAT**, *Geometry Seminar (virtual).*
Moduli of sheaves via affine Grassmannians.

April 2021 **UMass Boston**, *Department colloqium (virtual).*
On the boundedness of logarithmic G-connections

Organization

Spring 2023 **Informal Algebraic Geometry Seminar (Co-organizer)**, *Columbia University.*
Minimal Model Program.

Fall 2022 **Informal Algebraic Geometry Seminar (Co-organizer)**, *Columbia University.*
Vector bundles methods and Brill-Noether theory

Spring 2022 **Graduate Student Algebraic Geometry learning seminar (Organizer)**, *Cornell University.*
Moduli of curves.

Outreach and expository talks

November 2022 **Undegraduate Mathematical Society Lecture**, *Columbia University*.

September 2022 **Graduate Student Colloqium Talk**, *Columbia University*.
Moduli of vector bundles on curves and related moduli problems.