

Alejandro De Las Peñas Castaño

Curriculum Vitae

Kerchof Hall, 141 Cabell Dr
Office 121

Charlottesville, Virginia
P.O. Box 400317

✉ ad7ag@virginia.edu

🌐 <https://alejandrodelpc.github.io/>

Education

- 2016 **B.Sc. in Mathematics**, *Universidad Nacional Autónoma de México*, Ciudad de México, México
- 2022 **M.Sc. in Mathematics**, *University of Virginia*, Charlottesville, VA
- 2020–Now **Ph.D. candidate**, *University of Virginia*, Charlottesville, VA

Experience

Teaching

- 2014–2016 **Teaching Assistant**, *Universidad Nacional Autónoma de México*, Calculus I
Assistant to Mat. Julio César Guevara Bravo for the following courses:
SPRING 2014 Linear Algebra I
FALL 2014 Number Theory II
SPRING 2015 Analytic Number Theory
FALL 2015 Number Theory I
SPRING 2016 Analytic Geometry I
FALL 2016 Algebraic Number Theory
- 2020–2022 **Teaching Assistant**, *University of Virginia*, Charlottesville
Responsibilities:
FALL 2020 Grading for the course *MATH 1330: Basic Real Analysis*.
FALL 2020 Running a discussion session in the course *MATH 2310: Calculus III*.
SPRING 2021 Running discussion sessions in two different sections of the course *MATH 1330: Basic Real Analysis*.
FALL 2021 Main instructor in coordinated course under flipped classroom method for *MATH 1220: A survey of Calculus II*.
SPRING 2022 Main instructor in coordinated course under flipped classroom method for *MATH 1320: Calculus II*.
FALL 2022 Main instructor in coordinated course under flipped classroom method for *MATH 1220: A survey of Calculus II*
FALL 2023 Main instructor in coordinated course under flipped classroom method for *MATH 1220: A survey of Calculus II*

Miscellaneous

- Fall 2022 – **Mentor for the Directed Reading Program of UVA**, *University of Virginia*,
Fall 2024
Charlottesville
During each of the four semesters in this period, I was a mentor in the DRP program working with four different undergraduate students who were interested in advanced math topics. The projects were (in order): Lattice based Cryptography, Unique Factorization of the Integers, The Congruent Number Problem and Elliptic Curves, and Galois Theory

Talks

- “Inversion Formulas for the j -function Around Elliptic Points” – Lightning talk at *100 Years of Mock Theta Functions* Conference at Vanderbilt University, May 2022
- “Classification of Imaginary Quadratic Fields with Unique Factorization” – UVA Graduate Student Seminar, Aug 2022
- “Group Cohomology and Elementary School Arithmetic: A Nontrivial Intersection” – UVA Graduate Student Seminar, Feb 2023
- “Inversion Formulas for the j -function Around Elliptic Points” – *35th Automorphic Forms Workshop at LSU*, Baton Rouge, May 2023
- “Computing Galois Groups with Number Theory” – UVA Graduate Student Seminar, Oct 2023
- “Inversion Formulas for the j -function Around Elliptic Points” – *AMS Spring Eastern Sectional Meetings* at Howard University, Washington DC, April 2024

Publications

- [CP22] Alejandro De Las Penas Castano and Badri Vishal Pandey. Inversion formulas for the j -function around elliptic points. *Archiv der Mathematik*, 119, 2022.