

Curriculum Vitae

Gabriel Raposo

Full Name: Gabriel C. Ramírez Raposo

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Education

PhD in Statistics.

Expected May 2026

University of California, Berkeley. Advisor: Vadim Gorin.

Master in Mathematics (M2), Mention Très Bien.

July 2020

Sorbonne Université. Advisor: Régis de la Bretèche.

Bachelor and Master in Mathematics, Maximum Distinction.

August 2019

Pontificia Universidad Católica de Chile. Advisor: Eduardo Friedman.

Papers and Preprints

6. **Random matrices and two-dimensional Gaussian fields**, (2025+) *In preparation*.
5. **Global fluctuations for standard Young tableaux**, arXiv:2507.18601 (2025+)
4. **A refinement of Pohst's inequality**, arXiv:2212.01500 (2025+)
3. **A proof of Pohst's inequality**, *Funct. Approx. Comment. Math.* **70** (2024) 71–83.
2. **The minimal Fried average entropy for higher-rank Cartan actions**, *Math. Comp.* **90** (2021), 973–978. With Eduardo Friedman and Fredrik Johansson.
1. **Filling the gap in the table of smallest regulators up to degree 7**, *J. Number Theory* **198** (2019) 381–385. With Eduardo Friedman.

Invited Research Talks

Joint Mathematical Meetings – Special Session (*Upcoming*)

January 2026

UC Berkeley Combinatorics Seminar (*Upcoming*)

October 2025

MIT Probability Seminar (*Upcoming*)

September 2025

Rényi Institute – Workshop Short Talk

June 2025

UC Berkeley Probability Seminar

November 2024

Selected Prizes and Honors

Premio Jorge Billeke (2019, Rancagua, Chile): Awarded by the Chilean Mathematical Society to the best graduate in mathematics or mathematical engineering that year.

Premio Matrícula de Honor (2017, Santiago, Chile): Award to the best GPA in Mathematics. The same year I was the student with most credits earned from all the university.

Deuxième Prix, Olympiades de mathématiques série S (2012, Paris, France): Second Prize given by the French Minister of Education at French Mathematical Olympiad.

Other Selected Talks

Dimers Seminar, UC Berkeley, *Dimer model on the triangular lattice*

2025

Graduate Seminar, Universidad de Talca, *On random partitions*

2024

Graduate Combinatorics Seminar, UC Berkeley, *Jucys–Murphy elements*

2023

Graduate Probability Seminar, UC Berkeley, *Large deviations on dense graphs*

2022

Model Theory Seminar, PUC, <i>Forcing: Boole Algebras</i>	2021
Learning Seminar on Homotopy Theory, Sorbonne, <i>Model Categories</i>	2020
Graduate Seminar, PUC, <i>Nevanlinna Theory and Diophantine Approximation</i>	2019
Santiago Number Theory and Algebra Seminar, <i>Lower Bounds for Regulators</i>	2018
Number Theory Seminar, PUC, <i>Elliptic Curves and Squares of Magic Squares</i>	2017

Teaching

Instructor: Introduction to Probability Theory (2022) at **UW-Madison**.

Teaching Assistant: Graduate Probability Theory I (2025, 2023), Graduate Probability Theory II (2025), Concepts of Probability (2024, 2023), Probability for Master students (2024) at **UC Berkeley**. Linear Algebra (2022, 2021), Graduate Algebra II (2021), Discrete Mathematics (2021), Differential Equations & Linear Algebra (2021) and Single Variable Calculus (2020) at **UW-Madison**. Multivariate Calculus (2019), Group Theory & Ring Theory (2019), Number Theory (2018), Field Theory & Galois Theory (2018), Measure Theory (2018, 2017), Topology & Analysis (2017), Foundations of Mathematics (2017, 2016) and Olympiad Combinatorics (2016) at **PUC**. Complex analysis (2018) at **UChile**.

Outreach & Service

(Co)Organizer of Dimers seminar at UC Berkeley	2024–Now
Direct Reading Program Mentor at UC Berkeley	2022–2025
Statistics Undergraduate Mentor at UC Berkeley	2023
Direct Reading Program Mentor at UW-Madison	2020–2022
(Co)Organizer of the Model Theory Seminar at PUC	2017–2020
Organizer and founder of the undergraduate math seminar at PUC	2017–2019
Problem Solver for Math Olympiad Problems Book	2018
(Co)Organizer and (co)founder of the Club de Matemática at PUC	2017–2018
Academic Advisor Student representative (Consejero Académico) at PUC	2016–2018
Trainer of Chilean Team for the International Mathematical Olympiad	2016–2017
Math Tutor Volunteer for low-income students at PreU Popular Eloísa Díaz	2015–2017

Selected Meetings Attended

School and Workshop on IPS and RM (Budapest, 2025), Integrable Probability Summer School (Virginia, 2024), IPAM Workshops II & IV (Los Angeles, 2024), Conference on Dimers (New York, 2023), Summer School on Random Matrix (Ohio, 2023), MSRI Sparsity of Algebraic Points (Berkeley, 2021), PCMI Motivic Homotopy Theory (Princeton, 2021), CIMPA-ICTP Arithmetic, Groups and Analysis III (Argentina, 2019).

Other information

Computer Languages: Python, $\text{\LaTeX}$.

Natural Languages: French, Spanish (Native), English (Fluent).