Andrés Ignacio Riveros Valdevenito

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EDUCATION

PhD in Statistics, Columbia University.

September 2020 – Expected May 2026. Advised by: M. Nutz & P. Protter.

Masters in Engineering Sciences, minor Applied Mathematics, Universidad de Chile

March 2019 – June 2020. Advised by: J. San Martín. Maximum Distinction, best graduate.

Professional Degree of Mathematical Engineer, Universidad de Chile

March 2014 – June 2020. Maximum Distinction.

Bachelor's Degree in Engineering Sciences in Mathematics, Universidad de Chile

March 2014 – December 2018. With Distinction.

TEACHING

Teaching Assistant Courses at Columbia University:

- *Stochastic Methods in Finance STAT GR4265 (Fall 2025),*
- *PhD Probability II STAT GR6302 (Spring 2024, Spring 2025),*
- *PhD Probability I STAT GR6301 (Fall 2023, Fall 2024),*
- *Probability STAT S4203/W5203 (Summer 2023),*
- *Introduction to Statistics with Calculus STAT S1201/W1201 (Summer 2022, Spring 2023),*
- *Linear Regression Models STAT S4205/S5205 (Fall 2022),*
- *Introduction to Statistics STAT W1101 (Spring 2022, Fall & Spring 2021),*
- *Introduction to Statistical Reasoning STAT W1001 (Summer 2021, Fall 2020),*
- *Probability Qualifying Exam Review Session Teacher (Summer 2023, 2024, 2025),*
- *Core Competency Exam Review Session Teacher (Spring 2024).*

Teaching Assistant at Universidad de Chile, Physics and Mathematics Faculty (FCFM):

- *Supervisor of Entire Core Courses of Mathematics (2019,2020,2021),*
- *Stochastic Calculus MA5402 (Spring 2018, 2019),*
- *Markov Processes MA4401 (Fall 2018),*
- *Introduction to Calculus MA1001 (Fall 2017),*
- *Linear Algebra MA1102 (Spring 2016): Grader & Test Supervisor,*
- *Introduction to Calculus MA1001 (Fall 2016): Grader & Test Supervisor.*

HONORS & AWARDS

- *ANID (CONICYT) Excellence Scholarship for National Science Master's Degree Students, Chile, 2019.*

WORK & RESEARCH EXPERIENCE

- **Visiting Researcher**
    - *Department of Applied Mathematics, Universidad de Granada. Invited by professor Alejandro Gárriz to work on Optimal Transport problems, June 2025.*
- **Research Intern**
    - *Centre of Mathematical Modelling (CMM), Universidad de Chile, under investigator and assistant professor Joaquín Fontbona, January 2019.*
    - *Assarlab, Faculty of Medicine, Universidad de Chile, under assistant professor Rodrigo Assar, January 2017.*
- **Analytics Intern**
    - *Super intendency of Banks and Financial Institutions (SBIF, now Financial Market Commission, CMF), Chile, under Patricio Jaramillo, director of the area of modelling and methodology, January 2018.*

PUBLICATIONS

5. *A. González-Sans, M. Nutz & A. Riveros Valdevenito. Linear Convergence of Gradient Descent for Quadratically Regularized Optimal Transport. Preprint arXiv:2509.08547, 2025.*
4. *A. González-Sans, M. Nutz & A. Riveros Valdevenito. Monotonicity in Quadratically Regularized Linear Programs. SIAM Journal on Optimization, Vol 35, Nº2, pp 1419-1437, 2025.*
3. *P. Protter & A. Riveros Valdevenito. Markov Jump Times and their Cox Construction. Annals of Operations Research, 2024.*
2. *M. Nutz & A. Riveros Valdevenito. On the Guyon-Lekeufack Volatility Model. Finance & Stochastics, Vol 28, Nº4, pp 1203-1223, 2024.*
1. *A. Riveros Valdevenito. Propiedad de Martingala, Volatilidad Estocástica & Burbujas Financieras, Master's thesis, 2020. Available in the repository of Universidad de Chile.*

INVITED & CONTRIBUTING TALKS

- *IV Workshop on Stochastic Analysis and Optimization, applied to economics, finance, energy and insurance, Puerto Natales, Chile, December 2025.*
- *24th Northeastern Probability Seminar, CUNY, November 2025.*
- *9th Eastern Conference in Mathematical Finance (Poster), CMU, October 2025.*
- *Probability Seminar, FCFM, Universidad de Chile, August 2025.*
- *Young Researchers Seminar, Universidad de Granada, June 2025.*
- *Minghui Conference, Columbia University, April 2025.*
- *Statistics and Optimal Transport Workshop (Poster), Columbia University, March 2025.*
- *Statistics Student Seminar, Columbia University, January 2025.*
- *23rd Northeastern Probability Seminar, Columbia University, November 2024.*
- *Minghui Conference, Columbia University, April 2024.*
- *22nd Northeastern Probability Seminar, NYU, November 2023.*
- *Minghui Conference, Columbia University, April 2023.*
- *Oxford Statistics Student Seminar, June 2020.*

REFEREE

- *Finance & Stochastics.*

TECHNICAL SKILLS

- *Proficient in: Matlab, SciLab, Python, R, Java, Unix, SQL, Visual Basic, Latex, MS Office.*
- *Special Programming Experience: AMPL, BOCOP, FreeFem, STATA, Stan.*

MISCELLANEOUS

- *Fluent in English and Spanish, basic level French.*