

ALEJANDRA QUINTOS

EDUCATION

Columbia University	New York, NY
Ph.D. in Statistics – Advisor: Philip Protter	Sep. 2016 – May 2022 (expected)
M.Phil. in Statistics	Sep. 2016 – Feb. 2020
M.A. in Statistics	Sep. 2016 – May 2018
Universidad de las Américas Puebla	Puebla, Mexico
B.S. in Actuarial Science – Valedictorian, Summa Cum Laude, GPA: 9.9/10.0	Aug. 2010 – Jun. 2015

FELLOWSHIPS

Columbia University	New York, NY
Dean’s Fellowship	Sep. 2016
Fulbright – COMEXUS	Mexico City, Mexico
Fulbright García-Robles Fellowship for <i>Columbia University</i>	Jun. 2015
Proyecta 100 Mil Grant for Research Stay at <i>Cornell University</i>	Jun. 2014
Universidad de las Américas Puebla	Puebla, Mexico
Outstanding Student Scholarship	Jun. 2010

RESEARCH INTERESTS

Probability Theory, Applied Probability Theory, Stochastic Processes, Mathematical Finance, Credit Risk Theory, Microfinance, Statistics, Machine Learning.

PUBLICATIONS

1. R. Jarrow, P. Protter, **A. Quintos**, “Computing the Probability of a Financial Market Failure: A New Measure of Systemic Risk”, 2021. *Submitted to Annals of Operations Research*. Available online: <https://arxiv.org/abs/2110.10936>
2. P. Protter, **A. Quintos**, “Dependent Stopping Times”, 2021. *Submitted to Stochastic Processes and their Applications*. Available online: <https://arxiv.org/abs/2111.09458>
3. P. Protter, **A. Quintos**, “Optimal group size in microlending”, *Annals of Finance*, 2021. <https://doi.org/10.1007/s10436-020-00382-0>
4. **A. Quintos**, G. Romero-Meléndez, “Fractal modeling of poverty indicators in the state of Puebla”, Universidad de las Américas Puebla, 2014. Available upon request.
5. **A. Quintos**, “New Regulation in the Mexican Insurance Market”, SC Johnson Graduate School of Management at Cornell University, 2014. Available upon request.

REFeree

SIAM Journal on Financial Mathematics (SIFIN)

INVITED & CONTRIBUTED TALKS

- Rutgers University, *6th Eastern Conference on Mathematical Finance*, New Brunswick, NJ, Oct. 2022.
- Purdue University, *Probability Seminar*, West Lafayette, IN, April, 2022.
- New York University, *Brooklyn Quant Experience Lecture Series*, Brooklyn, NY, Feb. 2022.
- Federal Reserve Bank of Philadelphia, *Young Scholars Conference on Machine Learning in Economics and Finance*, Philadelphia, PA, Dec. 2021.
- Columbia University, *Statistics Department Student Seminar*, New York, NY, Dec. 2021.
- CUNY, *20th Northeast Probability Seminar*, New York, NY, Nov. 2021.
- Columbia University, *Stochastic Processes and Applications*, Invited lecturer, New York, NY, Sep. 2021.
- Columbia University, *Research and Diversity – Graduate Student Panel*, New York, NY, Sep. 2021.
- Columbia University, *Undergraduate Research Experiences in Mathematical Modeling*, New York, NY, Jun. 2021.
- Universidad de las Américas Puebla, *32nd National Congress on Actuarial Sciences*, Puebla, México, Apr. 2021.
- Columbia University, *Minghui Yu Memorial Conference*, New York, NY, Mar. 2021.
- Columbia University, *Minghui Yu Memorial Conference*, New York, NY, Apr. 2019.
- Universidad de las Américas Puebla, *30th National Congress on Actuarial Sciences*, Puebla, México, Mar. 2019.

AWARDS

- Columbia University, *3-Minute Thesis (3MT) Competition*, Audience Choice Award, Feb. 2022.
- Columbia University, *Presidential Award for Outstanding Teaching by a Graduate Student Instructor*, Finalist, Feb. 2021.
- Universidad Popular Autónoma de Puebla, *Probability and Statistics Olympiad*, 1st place, Nov. 2014.
- Universidad de las Américas Puebla, *UDLAP Scholar (Highest GPA in Sciences School)*, Oct. 2014.
- Consejo de Ciencia y Tecnología del Estado de Puebla, *Tercer Encuentro Estatal de Jóvenes Investigadores (State Research Competition)*, 2nd place, Oct. 2014.
- Universidad Popular Autónoma de Puebla, *Probability and Statistics Olympiad*, 1st place, Nov. 2013.
- Universidad Popular Autónoma de Puebla, *Probability and Statistics Olympiad*, 1st place, Nov. 2012.

TEACHING & MENTORING

Columbia University

Teaching Assistant – Statistics Department

- Stochastic Processes and Applications (Graduate level)

New York, NY

Sep. 2016 – Present

- Elementary Stochastic Processes (Undergraduate level)
- Probability (Graduate level)
- Statistical Inference (Graduate level)
- Calculus-based Introduction to Statistics (Undergraduate level)
- Applied Linear Regression Analysis (Undergraduate level)

Directed Reading Program Mentor – Mathematics Department

Sep. 2021 – Present

- Read and discuss probability research articles with an undergraduate student

Research Mentor – Undergraduate Research Experiences in Mathematical Modeling

Jun. 2021 – Aug. 2021

- Supervised 2 teams of 3 undergraduate students on interdisciplinary research projects:
 - Alzheimer's brain in a network diffusion model
 - Discrete-event market simulation of the Figgie card game
- Helped mentees to understand methods of research and scholarship
- Trained students in mathematical and statistical skills

LEADERSHIP & OUTREACH

- Member, *Committee on Diversity, Equity and Inclusion*, Statistics Department, Columbia University, New York, NY, Sep. 2021 – Present.
- Co-organizer, *Networking Meetings for Women*, Statistics Department, Columbia University, New York, NY, Jan. 2020 – Present.
- Statistics Department Representative, *The 2021 SACNAS National Diversity in STEM*, Digital Conference, Oct. 2021.
- Speaker, *Ph.D. Information Session for M.A. Students*, Statistics Department, Columbia University, New York, NY, Oct. 2021.
- Host & Co-organizer, *Women in STEM Panel*, Undergraduate Research Experiences in Mathematical Modeling, Columbia University, New York, NY, Aug. 2021.
- Member, *Healthy Living Civic Engagement Project*, The Washington Center for Internships and Academic Seminars, Washington, DC, Feb. 2014 – May 2014.
- Mentor, *High School Finance Course*, Auxiliémos La Familia (non-profit organization), Puebla, Mexico, Aug. 2013 – Jan. 2014.

PROFESSIONAL EXPERIENCE

Citigroup – Banamex

Puebla, Mexico

Compliance Analyst – Anti Money Laundering

Jun. 2015 – Sep. 2015

- Developed novel risk models to detect and report activities linked to money laundering

Cornell University – SC Johnson Graduate School of Management

Ithaca, NY

Research Intern – Advisors: Prof. Lourdes Casanova and Richard Coyle

Jun. 2014 – Aug. 2014

- Conducted research on new regulation in the Mexican insurance market

- Estimated the organization's pure premiums and assisted them in Congress Meetings on Capitol Hill

CERTIFICATIONS & PROGRAMS

- Society of Actuaries, *Exam P: Probability*, Jan. 2014.
- Society of Actuaries, *Exam FM: Financial Mathematics*, Aug. 2013.
- The Washington Center for Internships and Academic Seminars, *Business and Global Trade Program*, Washington, DC, Jan. 2014 – May 2014.
- The Anglo Mexican Foundation, *Teacher Training Course – English language teaching methodology*, Puebla, Mexico, Aug. 2009 – May 2010.

SKILLS

- Programming: R, LaTeX, VBA, C#, Python, Mathematica
- Applications: Minitab, EViews, Microsoft Office (Access, Excel, Word, PowerPoint, Publisher)

OTHER

- Languages: Spanish (native), English (near-native fluency)
- Hobbies: Marathon running, swimming, hiking