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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 *Columbia University* — Jun. 2015
Proyecta 100 Mil Grant for Research Stay at *Cornell University* — 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. Available online: https://arxiv.org/abs/2110.10936

2. P. Protter, **A. Quintos,** "Dependent Stopping times", 2021. Working paper

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, *5th Eastern Conference on Mathematical Finance*, New Brunswick, NJ, Oct. 2022.
- Columbia University, *Statistics Department Student Seminar*, New York, NY, Dec. 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, *32nd National Congress on Actuarial Sciences*, Puebla, México, Mar. 2019.

AWARDS

- 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   New York, NY
Teaching Assistant – Statistics Department   Sep. 2016 – Present

- Stochastic Processes and Applications (Graduate level)
- 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

American Association for Marriage and Family Therapy Alexandria, VA
Policy Intern Feb. 2014 – May 2014
- 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 Probability*, 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, and Mathematica
- Applications: Minitab, EViews, Microsoft Office (Access, Excel, Word, PowerPoint, Publisher)

OTHER

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