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ALEJANDRA QUINTOS

EMPLOYMENT AND EDUCATION

University of Wisconsin-Madison

Assistant Professor – Department of Statistics

Affiliate – Data Science Institute

Affiliate – Latin American, Caribbean, and Iberian Studies Program

Madison, WI

Aug. 2022 – Present

Apr. 2023 – Present

Dec. 2022 – Present

Universidad Nacional Autónoma de México (UNAM)

Visiting Professor – Instituto de Matemáticas

Mexico City, Mexico

Aug. 2023 – Present

Columbia University

Ph.D. in Statistics – Advisor: Philip Protter

M.Phil. in Statistics

M.A. in Statistics

New York, NY

Sep. 2016 – Jul. 2022

Sep. 2016 – Feb. 2020

Sep. 2016 – May 2018

Universidad de las Américas Puebla

B.S. in Actuarial Science – Valedictorian, Summa Cum Laude, GPA: 9.9/10.0

Puebla, Mexico

Aug. 2010 – Jun. 2015

FELLOWSHIPS

University of Wisconsin-Madison

Nellie McKay Fellowship

Madison, WI

Aug. 2022

Columbia University

Dean's Fellowship

New York, NY

Sep. 2016

Fulbright – COMEXUS

Fulbright García-Robles Fellowship for *Columbia University*

Proyecto 100 Mil Grant for Research Stay at *Cornell University*

Mexico City, Mexico

Jun. 2015

Jun. 2014

Universidad de las Américas Puebla

Outstanding Student Scholarship

Puebla, Mexico

Jun. 2010

RESEARCH INTERESTS

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

PUBLICATIONS

1. P. Protter, **A. Quintos**, “Stopping Times Occurring Simultaneously”, *ESAIM: PS*, 28, 110-131 (2024). <https://doi.org/10.1051/ps/202400>.
2. R. Jarrow, P. Protter, **A. Quintos**, “Computing the Probability of a Financial Market Failure: A New Measure of Systemic Risk”, *Annals of Operations Research*, (2022). <https://doi.org/10.1007/s10479-022-05146-9>

3. P. Protter, **A. Quintos**, “Optimal group size in microlending”, *Annals of Finance*, 18, 121–132 (2022).
<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*.

PHD MENTORING

- Xinta Yang (2022 – Present)

THESIS COMMITTEE

- Yongjoon Kim (UW-Madison - Statistics)
- Youngsun Kim (UW-Madison - Actuarial Science, Risk Management, and Insurance)

REFEREE

- NSF Review Panelist (2 panels), 2023 - Division of Mathematical Sciences
- SIAM Journal on Financial Mathematics (SIFIN)
- Annals of Operations Research (ANOR)

INVITED & CONTRIBUTED TALKS

- Casa Matemática Oaxaca (CMO), *6th Meeting of Mexican Mathematicians in the World*, Oaxaca, Mexico, May, 2024.
- Universidad Popular Autónoma del Estado de Puebla, *Mathematical Modeling Seminar*, Puebla, Mexico, November, 2023.
- Sociedad Matemática Mexicana, *National Congress*, San Luis Potosí, Mexico, Oct. 2023.
- Universidad de las Américas Puebla, *Actuarial Science Colloquium*, Puebla, Mexico, Oct. 2023.
- Universidad Nacional Autónoma de México (UNAM), *Probability and Stochastic Processes Seminar*, Mexico City, Mexico, Aug. 2023.
- Latin American Society of Probability and Mathematical Statistics, *Latin American Congress of Probability and Mathematical Statistics (CLAPEM)*, São Paulo, Brazil, Jul. 2023.
- Princeton University, *Stochastic Control & Financial Engineering*, Princeton, NJ, Jun. 2023.
- University of Waterloo, *Young Talents in Actuarial Science and Quantitative Finance*, Waterloo, Ontario, Canada, Apr. 2023.
- Purdue University, *Research Colloquium-Department of Statistics*, West Lafayette, IN, Feb. 2023.
- Rutgers University, *Women in Mathematical Finance*, New Brunswick, NJ, Jun. 2023.
- Queen’s University, *Department of Mathematics and Statistics Colloquium*, Kingston, Ontario, Canada, Feb. 2023.
- Rutgers University, *6th Eastern Conference on Mathematical Finance*, New Brunswick, NJ, Oct. 2022.

- University of Wisconsin-Madison, *Mathematics Colloquium*, Madison, WI, Sep. 2022.
- Institute of Mathematical Statistics, *2022 IMS Annual Meeting*, London, England, Jun. 2022. (Chair of Risk, Insurance, and Finance Session)
- Columbia University, *Minghui Yu Memorial Conference*, New York, NY, May 2022.
- Purdue University, *Probability Seminar*, West Lafayette, IN, Apr. 2022.
- Columbia University, *2022 Graduate Research Symposium of Women in Science*, New York, NY, Apr. 2022.
- New York University, *Brooklyn Quant Experience Lecture Series*, Brooklyn, NY, Feb. 2022.
- Rice University, *Department of Statistics Seminar*, Houston, TX, Feb. 2022
- New York University, *Department of Technology, Operations, and Statistics Seminar*, New York, NY, Feb. 2022
- Cornell University, *School of Operations Research and Information Engineering Seminar*, Ithaca, NY, Feb. 2022
- Carnegie Mellon University, *Department of Statistics and Data Science*, Pittsburgh, PA, Jan. 2022.
- University of California, Riverside, *Department of Statistics Seminar*, Riverside, CA, Jan. 2022.
- University of Wisconsin-Madison, *Department of Statistics Seminar*, Madison, WI, Jan. 2022.
- University of Minnesota-Twin Cities, *School of Statistics Seminar*, Minneapolis, MN, Dec. 2022.
- Federal Reserve Bank of Philadelphia, *Young Scholars Conference on Machine Learning in Economics and Finance*, Philadelphia, PA, Dec. 2021.
- Columbia University, *Department of Statistics 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, *Howard Levene Outstanding Teaching Award*, May 2022.
- Columbia University, *Presidential Award for Outstanding Teaching by a Graduate Student Instructor*, Finalist, Feb. 2022.
- 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

University of Wisconsin-Madison

Assistant Professor – Department of Statistics

Madison, WI
Aug. 2022 – Present

- Stochastic Processes in Finance (STAT 992) - Topics class for Ph.D. students
- Introduction to Statistical Inference (STAT 610)
- Introduction to Theory and Methods of Mathematical Statistics I (STAT 312)
- Introduction to Statistical Methods (STAT 301)

Columbia University

Teaching Assistant – Department of Statistics

New York, NY
Sep. 2016 – May 2022

- 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 – Department of Mathematics

Sep. 2021 – Dec. 2021

- 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

- Panelist, *Panel Discussion for Beginning Researchers, Seminar on Stochastic Processes*, Rice University, Houston, TX, Mar. 2024.
- Panelist, *Mexican Mathematics in North America, National Congress*, Sociedad Matemática Mexicana, San Luis Potosí, Mexico, Oct. 2023.
- Speaker, *Celebrating Latinx voices in STEM*, University of Wisconsin-Madison, Madison, WI, Oct. 2023.
- Speaker, *2023 STAR (Summer Training for Aspiring Researchers)*, Department of Statistics, Columbia University, New York, NY, Jun. 2023.

- Speaker, *The International Day of Women and Girls in Science*, Engineering School, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico, Feb. 2023.
- Member, *Committee on Diversity, Equity and Inclusion*, Department of Statistics, Columbia University, New York, NY, Sep. 2021 – Jul. 2022.
- Co-organizer, *Networking Meetings for Women*, Department of Statistics, Columbia University, New York, NY, Jan. 2020 – Jul. 2022.
- Speaker, *2022 STAR (Summer Training for Aspiring Researchers)*, Department of Statistics, Columbia University, New York, NY, Jun. 2022.
- Speaker, *Finding Strength in the Numbers: Growing Up Stories*, Women in Mathematics and Statistics, Columbia University, New York, NY, Apr. 2022
- Department of Statistics Representative, *The 2021 SACNAS National Diversity in STEM*, Digital Conference, Oct. 2021.
- Speaker, *Ph.D. Information Session for M.A. Students*, Department of Statistics, 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

Compliance Analyst – Anti-Money Laundering

Puebla, Mexico
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

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

Ithaca, NY
Jun. 2014 – Aug. 2014

- Conducted research on new regulations in the Mexican insurance market.

American Association for Marriage and Family Therapy

Policy Intern

Alexandria, VA
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: 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, MATLAB.
- Applications: Minitab, EViews, Microsoft Office (Access, Excel, Word, PowerPoint, Publisher).

OTHER

- Languages: Spanish, English.
- Hobbies: Marathon running, swimming, hiking, crocheting.