

UW-Madison, Department of Statistics  
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# ALEJANDRA QUINTOS

## EMPLOYMENT AND EDUCATION

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<b>University of Wisconsin-Madison</b> 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
<b>Universidad Nacional Autónoma de México (UNAM)</b> Visiting Professor – Instituto de Matemáticas	Mexico City, Mexico Aug. 2023 – Present
<b>Columbia University</b> 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
<b>Universidad de las Américas Puebla</b> B.S. in Actuarial Science – Valedictorian, Summa Cum Laude, GPA: 9.9/10.0	Puebla, Mexico Aug. 2010 – Jun. 2015

## FELLOWSHIPS

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<b>University of Wisconsin-Madison</b> Nellie McKay Fellowship	Madison, WI Aug. 2022
<b>Columbia University</b> Dean's Fellowship	New York, NY Sep. 2016
<b>Fulbright – COMEXUS</b> Fulbright García-Robles Fellowship for <i>Columbia University</i> Proyecto 100 Mil Grant for Research Stay at <i>Cornell University</i>	Mexico City, Mexico Jun. 2015 Jun. 2014
<b>Universidad de las Américas Puebla</b> Outstanding Student Scholarship	Puebla, Mexico Jun. 2010

## RESEARCH INTERESTS

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

## PUBLICATIONS

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1. P. Protter, **A. Quintos**, “Stopping Times Occurring Simultaneously”, *ESAIM: PS*, 28, 110-131 (2024). <https://doi.org/10.1051/ps/2024001>.
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

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- Xinta Yang (2022 – Present)

## THESIS COMMITTEE

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

## REFEREE

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

## INVITED & CONTRIBUTED TALKS

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- 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

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- 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

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### 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

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- 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

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### **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

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- 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

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

## OTHER

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