

Loyola University Chicago Mathematics and Statistics Summer Newsletter, 2025

Hello Loyola Math and Stats folks! Here is our third annual newsletter. We've managed to create this three times, so it really is a tradition now. And it has been another excellent year. Enjoy!

Congratulations 2025 grads!

This was another amazing class! Here are pictures of some people after the ceremony. Gathering people together after the ceremony is difficult, but I think I got more than half of you. Which is the best I've ever managed...

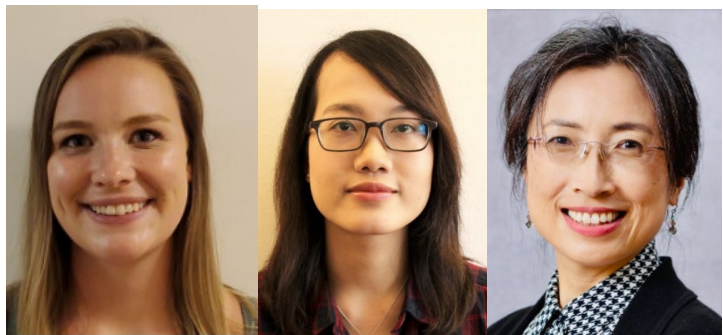


Awards and other great things. Here are some recognitions our faculty and students received this year. And I apologize to anyone we missed, I know there are other great things going on.

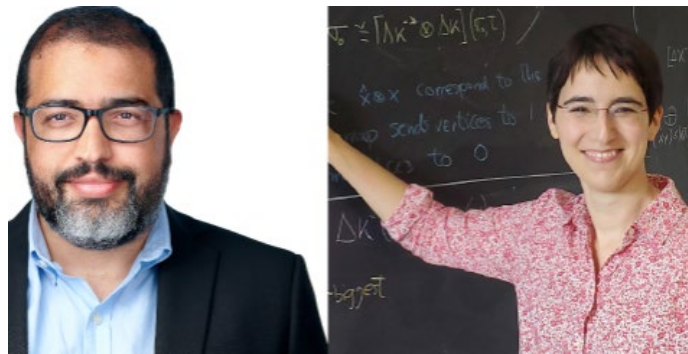
Xiang Wan was awarded an NSF LEAPS grant. This is one of the most prestigious grants that the National Science Foundation gives out to junior researchers. It will fund many activities over the next two years, including student research, seminars, our recently established Student SIAM Chapter, and travel to conferences and workshops.



Mena Whalen, Tuyen Tran and Ping Jing (SES) were awarded a grant from the Schreiber Venture Fund. The project is titled *Addressing Health Disparities Through Community Engaged Air Quality Monitoring in Chicago: Insights from Low-Cost Sensors*. The grant will provide some support for about 5 students, as well as the PIs, as they complete this important work.



Rafael González and **Carmen Rovi** were both awarded AMS-Simon's travel grants. These grants are awarded by the American Mathematical Society and will support a significant amount of travel over the next two years, allowing Drs. Gonzalez and Rovi and their students to collaborate on important research with mathematicians from around the world. It will also help support seminars within our department.



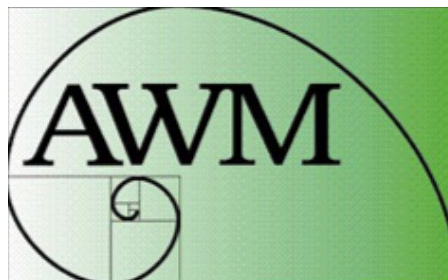
Kimberly Rusk (Public Health), Jennifer Gaucin (public health), Susan Zelisko (medical center), **Matthew Stuart**, **Mena Whalen**, **Gregory Matthews** received a Center for Health Outcomes and Informatics Research (CHOIR) award for the project *Exploring Electronic Health Data to Identify the Diagnosis of Urinary Tract Infection Differences in Postmenopausal Women Using Hormone Replacement Therapy and Women Not Receiving Hormone Replacement Treatment.*



Swarnali Banerjee, Margarat Delaney (nursing), Maria Vidal de Haymes (social work), Abha Rai (social work), George K. Thiruvathukal (computer science) received a Center for Health Outcomes and Informatics Research (CHOIR) award for the project *Culturally Responsive Intervention Incorporating Artificial Intelligence and Wearable Technology to Promote Mental Health Equity among Afghan Refugees in Chicago.*



Anne Leggett Professor Emerita in our department, received the Association for Women in Mathematics (AWM) Distinguished Service Award. This award is given to individuals who have promoted and supported women in mathematics through exceptional and sustained volunteer service to the AWM.



Cecily Bartsch, a graduating BS/MS student in our department, was awarded a fellowship in the prestigious Department of Defense National Defense Science and Engineering Graduate Fellowship program. This will be held at U. Wisconsin Madison.



Finally, here are our 2024 departmental award winners:

Driscoll Award: **Leah Boger**

Gerst Award: **Josephine Peterburs**

Mayer Award: **Isabel Renteria**

Reisel Award: **Adrian Reuschel**

Rust Award: **Joseph Dingillo**

Zajdel Award: **Gianna O'Neil**

Chair's Award: **Sage Osbourne**

VandeVelde Award: **Maggie Gonzalez**

This picture has most these folks, and a few others as well.



Summer 2025 student research

Many of our students are participating in research programs this summer! These include:

- **Will Bales** (Rataj Fellowship and Mulcahy Fellowship with Dr. Rovi)
- **Ramsay Barlow** (NC State REU, Mulcahy Fellowship with Dr. Rovi)
- **Avery Boland** (Mulcahy Fellowship with Dr. Wan)
- **Charles Clevenger** (Mulcahy Fellowship with Dr. Wan)
- **Miguel Diaz** (Mayo Clinic SURF program)
- **Wyatt Harris** (College of Arts and Sciences USRE Fellowship, with Dr. Banerjee)
- **Jake Lee** (College of Arts and Sciences USRE Fellowship, with Dr. Wan)
- **Amanda Newton** (ORISE-AFIT, Dayton OH)
- **Luke Nowlis** (College of Arts and Sciences USRE Fellowship, with Dr. Wan)
- **Delaney Ranger** (Rataj Fellowship with Dr. Wan)
- **Julia Williamson** (Rataj Fellowship with Dr. Goebel)

Apologies to anyone I left off! Many students are also doing exciting internships, getting jobs, starting grad programs... Our students are amazing!

Events and work in the community

- **Undergrad colloquium series.** We had another great year! Here are the speakers:
 - **Keigan Rice** (NORC, U Chicago): Testing data visualization design principles in a survey of U.S. adults.
 - **Aaron Lauve** (Loyola): Flow Polytopes and Integer Sequences.
 - **Natasha Sharma** (U. Texas El Paso): Sixth order phase field models capturing microstructure evolution and microemulsions.
 - **Albert Cohen** (Michigan State U.): A dynamic pythagorean exponent: Applications to baseball and structural modeling in risk management.

- **Sven Leyffer** (Argonne National Lab): Topological Design Problems and Integer Optimization. Here are some from Dr. Leyffer's talk and the dinner afterwards.



We also continued the tradition, which started last year, of having some colloquia dedicated to short talks on student research. This year the student presenters were:

- **Joey Dingillo** (Denoising Low-Dose CBCT for Head and Neck Patients with Deep Learning)
- **Maggie Gonzalez** (Ocean robots reveal the importance of Antarctic Winter Water to the - global carbon cycle)
- **Melissa Beerbower** (Lucky Sets of Fubini Rankings)
- **Sarah Riaz** (Using Permutations to Investigate the Waffle Puzzle)
- **Amanda Newton** (Spins of Intermediate Mass Black Holes in Galactic Nuclei From Black Hole–Star Collisions)
- **Anurathi Madasi** (Optical and Near-Infrared Searches for Gravitational Waves: Exploring Efficiencies)

- **Applied Stats career night.** Our Applied Statistics and data Science career fair was excellent, as always, thanks to the efforts of Tim O'Brien and our alumni panel.



- **Chicago Math teachers' circle.** The Chicago math teachers' circle ran 3 sessions at Loyola during AY2024-2025, working with groups of teachers from CPS and beyond. We also ran one session out of the Hyde Park Art Center – the first session we have run on the south side since COVID. See <https://mathcirclesofchicago.org/cmtc/>
- **Data Fest.** Data Fest ran once again, with many students. This is led by Greg Matthews. See <https://www.luc.edu/datascience/events/datafest/>.

Clubs

- **Math and stats club.** The math and stats club has been doing great things, as usual. Their volunteer tutoring continues to be more and more popular. They also ran other great events, including co-sponsoring pi-day.



- **Data Science club.** The data science club is in its second year and going very strong! They have been running weekly study/tutoring/hang out sessions in Loyola Hall and organized several speakers.
- **SIAM student chapter.** Our student chapter of SIAM (the Society for Industrial and Applied Mathematics) has been extremely active. Here is a picture from a road-trip they took to Argonne National Lab. They also went to the SIAM Great Lakes Section conference where three students (Joesph Dingillo, Ramsay Barlow and Will Bales) presented work. And they organized several seminars. Great work!



- **AWM.** Our student chapter of the Association of Women in Math are going to a conference in Madison WI this May.

New programs and Initiatives.

- **Students travel funds.** We now have a program to fund students for up to \$500 for travel to present at conferences, funded from endowment and gift funds. Six students received funding this academic year, and we expect this number to grow next year.
- **Student spotlight.** Our Academic Success Initiatives committee, chaired by Laurie Jordan, has started a student spotlight series, to highlight the achievement of students in our classes. See <https://www.luc.edu/math/mathandstatsstudentspotlight/> for the first few students spotlighted.

Featured alum. Daniella Pombo, an alumna of our department, was featured in the CAS alumni Spotlight. See <https://www.luc.edu/cas/about/newsevents/alumnispotlights/alumnispotlightdaniellapombo/>

Data Science consulting center. As of summer 2023, we have a Data Science Consulting Center, led by Greg Matthews <gmatthews1@luc.edu>. See <https://www.luc.edu/cdsc/>. Please get in touch with Greg if you have data-related projects the center could help with.

Rataj Scholarships

Thanks to the generosity of our alum Greg Rataj, we have been able to establish the Rataj Scholarship fund and have been giving scholarships to two to three students a year over the past several years. See <https://www.luc.edu/math/scholarshipopportunities/>. These funds also support some of our Undergraduate Colloquium talks and some of the student research above.

Promotions We celebrate several promotions this year!

- **Emily Peters:** Promoted to Professor
- **Matt Bourque:** Promoted to Senior Lecturer
- **Izuchukwu Eze:** Promoted to Advanced Lecturer
- **Sheila Suresh:** Promoted to Advanced Lecturer
- **Darius Wheeler:** Promoted to Advanced Lecturer

Comings and goings

Several people left in the last year:

- **Christine Haught** retired in December 2024
- **Eric Chang** left during summer 2024 to pursue other opportunities.
- **Miles Xi** left during summer 2024 to pursue other opportunities.

On the flip side, we hired several new permanent faculty members!

- **Ken Luther** (Starting Fall 2025, Lecturer in Math – and was with us AY2024-2025 as an instructor)
- **Nick Spears** (Starting Fall 2025, Lecturer in Math – and was with us AY2024-2025 as an instructor)
- **Gauree Wathodkar** (Starting Fall 2025, Lecturer in Math and Stats)
- **Kejin Wu** (Starting Fall 2025, Assistant Professor of Applied Statistics and Data Science)

Linkedin. Our department does have a linkedin page ([Loyola Mathematics and Statistics Department](#)). It has not been very active lately, but we intend to start using this page to post employment opportunities that come our way. We also hope to use this to keep in touch a little better with former students. Anyway, please connect!

Till next time!

That's all folks! Please drop us a note or come by the department if you are around. And if you have any opportunities to pass on, please send them along and I will share, hopefully using LinkedIn.

Go Ramblers!

P.S. If you want to make sure you get the newsletter next year, and you have not already done so, please join the department's alumni email list using this form:

<https://forms.office.com/Pages/ResponsePage.aspx?id=408fApwrJEiDeLvPnsWsyxOWMeTJo8dEkdFE5px60I5UQVg3REhWVFBRMEJDSIROMEhJRUIRskw4NC4u>