

## UNDERGRADUATE MATH SEMINAR

The next, and final, math seminar of the term is

**DATE:** THURSDAY, May 28

**Time &** 12:30 – Refreshments in Bailey 204

**Location:** 12:50 – 1:45 Seminar in Bailey 207



Professor Isabelle Beaudry

In this seminar, **Professor Isabelle Beaudry**, a statistician at **Mount Holyoke College** will present the following talk.

**Title:** Social Network Sampling: How to Study the “Invisible” Populations

**Abstract:** Imagine trying to conduct a survey without even having a list of who belongs to the population. How could you get a sample? Most standard sampling methods assume researchers can randomly select from such a list. However, the real world is not always that cooperative. For example, public health organizations rarely have such lists for groups most vulnerable to HIV. Specialized sampling methods leveraging social connections have been developed to access these hard-to-reach groups. This talk discusses the unique challenges of network sampling and statistical tools for analyzing these complex data.

## Two Math Department Faculty Promoted Mariano Granted Tenure, Gasparovic to Become Full Professor

It is with pride and pleasure that the Math Department is able to announce that **Professor Phaniel Mariano** has passed the arduous tenure review process and the Board of Trustees has approved his promotion to the rank of Associate Professor. Additionally, after her years of excellence in teaching, research, and service to Union College, **Professor Ellen Gasparovic** will be promoted to the rank of Full Professor. These promotions become effective this fall term.

- Professor Mariano is a probabilist who joined Union 2020. His research focuses on using probabilistic tools to solve problems of analysis in a geometric setting. At Union he has developed courses in probability, financial mathematics, and statistics. He also spearheaded the development of the Financial and Actuarial minor.
- Professor Gasparovic is an applied topologist who uses techniques from algebraic and differential topology that are inspired by questions in image analysis and high-dimensional data analysis. Her teaching covers almost the entire math curriculum and includes the development of the gen-ed course “Mathematics and Democracy” with Political Science Professor Zoe Oxley.



Professor  
Phaniel Mariano



Professor  
Ellen Gasparovic

## My HRUMC Experience, by Talha Khan '26

Hello! On Saturday, the 25th of April, I attended the HRUMC for the third consecutive year. The conference was held at Vassar College in Poughkeepsie, NY, and I had the honor of presenting my math research. Thankfully, I was presenting my research in the morning session, so I got done with my responsibilities early on. This allowed me to spend the rest of the day attending talks that I found interesting. My presentation was titled "Locally Associated Orders in Real Quadratic Number Fields", which is a niche area within Abstract Algebra. Sessions were divided by the branch of Mathematics they were categorized under. The Abstract Algebra session had other folks who were interested in

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this area, so it was nice interacting with them; at a small liberal arts college, you do not frequently interact with people focusing on a specific topic in Math. The keynote speaker delivered a great presentation about topological time series analysis, and I was quite fascinated to find out about the breadth of applications it has. During the lunch break, there were also two panels: one on applying to graduate school and summer opportunities, and the other on Careers/Life After a Math Major. Being a senior, I chose to attend the latter. I got to meet and hear from several Vassar alumni who were Math majors and are now in many different careers, ranging from Actuarial Science and Consulting to healthcare. This just highlights to me how applicable and versatile a degree in mathematics is, quite contrary to common perceptions about the utility of majoring in Math. Overall, it was a great day of Math talks, and I enjoyed meeting so many bright minds who shared my love for the subject.

## ReUnion – a ReConnection!

On Friday, May 15, the Math Department welcomed back many alums during Union's ReUnion weekend. Graduates from the classes of 1976 through 2025 were well represented in Bailey Hall, where good conversation, good memories (and good food) were shared.



## Fall Term Calculus Help Center Tutoring Positions Available – Apply Now!

The Math Department is now accepting applications for vacant **Calculus Help Center (CHC) tutoring positions**. Tutors in the fall work in the CHC one fixed night per week, Sunday through Thursday, from 7:30-10:00pm.

Qualifications: Calculus through Math 115 with grades of no less than A-. Preference will be given to students who

- have also completed Math 117 (with a grade  $\geq$  A-),
- are declared math majors,
- are considering becoming a math teacher or pursuing graduate work in mathematics, and
- have other tutoring experience (not necessary, though).

**CHC Tutoring  
Application Deadline:**

**Tuesday, June 2 at NOON**

To apply for a position, send an email to Professor Paul Friedman ([friedmap@union.edu](mailto:friedmap@union.edu)) expressing your interest, listing your mathematical background, including coursework (term, professor, and grade) and tutoring experience (if any), and discussing why you think you would be a good tutor.