

UNDERGRADUATE MATH SEMINAR

The next math seminar is

DATE: THURSDAY, May 14

Time & 12:30 – Refreshments in Bailey 204

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



Jared Kettinger

Title: Fixed Points and From Fundamental Theorems to Quantum Algorithms: Factorization in the Integers, Complex Numbers, and Everything in Between

Abstract: What comes to mind when you hear the word "factorization"? Perhaps you think of breaking down a quadratic polynomial into linear ones or factoring integers into prime numbers. Paradoxically, the factorization of integers can be both trivial and wonderfully complex. In this talk, we explore the broad applications of factorization theory, from Fermat's Last Theorem to the development of modern cryptography. We will then take a trip through the complex numbers and see how viewing the integers in this broader context is not only incredibly fascinating but can tell us a great deal about the integers themselves. Between the Fundamental Theorem of Arithmetic and Galois number fields, you will never see factorization in the same light again.

Special Interdisciplinary Math Talk by Alumnus, Nikhil Srivastava '05
Tuesday, May 19, 5:30 PM in the Nott Memorial

As part of an annual Distinguished Lecture Series in Interdisciplinary Mathematics, Computer Science and Engineering supported by an NSF LEAPS-MPS grant, the award-winning and highly acclaimed mathematician and computer scientist, **Professor Nikhil Srivastava** from the **University of California, Berkeley** and member of the **Union class of 2005**, will present a talk entitled



Professor Nikhil Srivastava

The Uncanny Valley of Proof

The talk will discuss how AI has evolved from struggling at middle school math to solving research-level math problems, and perhaps what lies ahead. For more information, look around campus for the posters advertising the talk.

Talha Khan '26 Awarded Math Department's Resch Prize

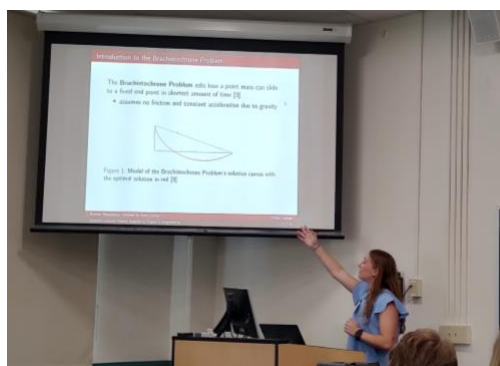
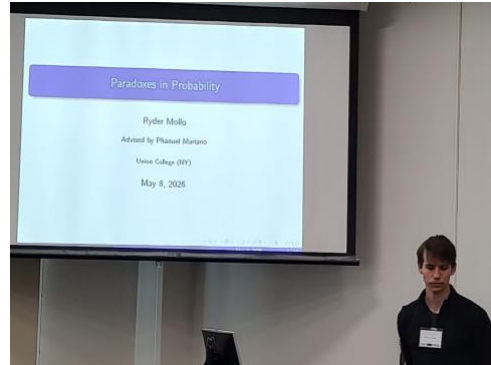
The annual **Martin Terry Resch Prize** is awarded to "the senior who shows the greatest promise for advanced study in pure or applied mathematics." This year, the math department gave this award to **Talha Khan**. Please join the Math Department in congratulating Talha!

Hunter Gould '26 Takes Top Prize at RIT Math Contest

On April 11, four Union students, **Nolan Blake**, **Hunter Gould**, **Jonah Sagarin**, and **Gavin Sandberg** participated in Rochester Institute of Technology's 10th College Math Competition. On this exam, modelled after the national Putnam Competition, students are given three hours in which to (attempt to) solve four challenging questions. Union's competitors did very well! Jonah placed fourth and Hunter earned himself first place (and some \$!). Congratulations!

Scenes from the Steinmetz Symposium

On Friday, May 8, five students, **Henry Howe**, **Sarah Lehan-Allen**, **Ryder Mollo**, **Samantha Picciotti**, and **Brooke Rosenshine** (clockwise from top left) presented their work in the Mathematics session. The topics in their research included abstract algebra, linear algebra, probability theory, mathematical modeling of the spread of disease, and control theory applied to engineering. Performing the research and then preparing (and giving!) a presentation takes a lot of work. When you see these fearless five, join the math department in giving them hearty congratulations!



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) 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.

ReUnion Weekend, Friday, May 15, 4:00 – 5:00pm

Math Department Reception: Bailey 204 (Math Common Room)

Enjoy a casual reception and light refreshments with alumni who majored in math.