

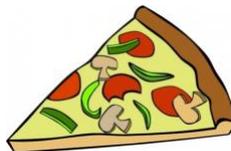
UNDERGRADUATE MATH SEMINAR

The next math seminar of the term will be

DATE: **THURSDAY, September 21**

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

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



Professor Keith Conrad

In this seminar, **Professor Keith Conrad**, a number theorist in the math department at the University of Connecticut, will present the following talk.

Title: Applications of Divergence of the Harmonic Series

Abstract: The harmonic series is the sum of all reciprocals $1 + 1/2 + 1/3 + 1/4 + \dots$, and a famous counterintuitive result in calculus is that the harmonic series diverges even though its general term tends to 0. This role for the harmonic series is often the only way students see the harmonic series appear in math classes. However, the divergence of the harmonic series turns out to have applications to topics in math besides calculus and to events in your daily experience. By the end of this talk you will see several reasons that the divergence of the harmonic series should be intuitively reasonable.

Math Students: Become a Member of the MAA ... for FREE

The Mathematical Association of America (MAA) “is the world’s largest community of mathematicians, students, and enthusiasts. [It] further[s] the understanding of our world through mathematics because mathematics drives society and shapes our lives” (from www.maa.org).

The Union College math department is a Departmental Member of the MAA. As part of this membership, we may enroll its math students for MAA membership ... at no cost to the student! “Students receive considerable benefits and access to a wealth of information about careers in mathematics, mathematical education, and research; significant discounts on meetings, books, and merchandise; and membership in [our] local MAA section” (from www.maa.org). Included with this is access to the electronic versions of many fantastic math journals published by the MAA.

If you would like to become a member of the MAA through the Union College math department, please email **Professor Joy Wang** (wangj@union.edu) with subject JOIN THE MAA.

What in the World? Where in the World? On a Bench?

During a Union College mathematician’s travels this summer, they stumbled across and sat upon the park bench to the right. The inscription is a famous(?) formula. What is this? Where is this? The answer will be revealed in next week’s newsletter!



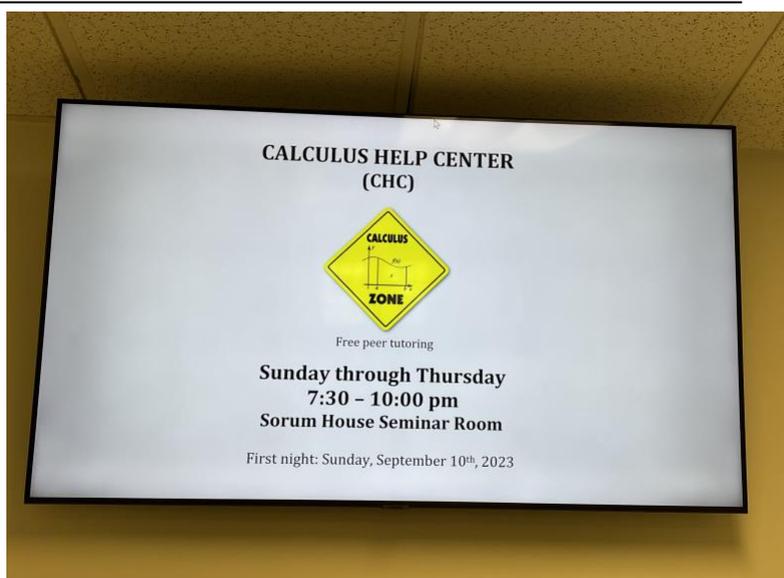
Some Math Faculty Summer Highlights

- **Professor Rylan Gajek-Leonard** went to Ottawa, Canada, where he gave a talk entitled "Iwasawa Invariants of Nonordinary Modular Forms" for the Canadian Mathematical Society. He also travelled to Cambridge, England, to attend a conference on Iwasawa theory at the University of Cambridge.
- **Professor Jeff Hatley** taught a precalculus course in this summer's AOP session. Additionally, he also went to Walt Disney World!

Check-out the Fancy New Display in Bailey Hall

The math department received a present from the college over the summer that we hope will benefit the entire math community: a giant new monitor that is mounted on the wall on the first floor of Bailey Hall. The department plans to use this to display to inform passers-by of ongoing activities, upcoming events, and other items that are of interest, fun, etc.

Do you have ideas for content to be displayed? Let **Professor Jenn Qian** (qianj@union.edu) know!



Putnam Exam Preparation

Do you enjoy creative problem solving in math? Do you enjoy participating in fun academic competitions?

If you answered YES to the above, join the **Putnam Exam Preparation (PEP) Squad!**

The William Lowell Putnam Mathematical Competition, aka, The Putnam Exam, is an annual contest for undergraduate students across the United States and Canada. Participants in the contest spend 6 hours (in two sittings, a morning session and an afternoon session) trying to solve 12 problems. Problems on the "exam" are generally *quite challenging*, but not specialized. In other words, they are accessible to students who may or may not have taken advanced courses.

If you are interested in participating or in finding out more about the Putnam Exam, stay tuned to the announcements in the math newsletter, on the Bailey display screen, and attend Math Club meetings!

Math Club

To be put onto the Math Club's mailing list, scan the QR code and then provide your name and email address.



Calculus Help Center: free calculus tutoring!

The math department runs a Calculus Help Center (CHC) that offers **free, drop-in, tutoring** in calculus courses through Math 117. It is Sunday through Thursday, 7:30-10:00pm in the Sorum House seminar room.