

Association for Women in Mathematics Turns 50 *We Speak: Inspiring Women in Math Speaker Series*

(From the AWM website) In honor of the Association for Women in Mathematics' (AWM's) 50th Anniversary, on the final Friday of each month of 2021, the AWM will feature a woman who has made a difference from the landscape of the mathematical science. Each speaker will give a 30-40 minute about their research, critical issues in mathematics, mathematics education, their career journey, or any other topic of their choosing, followed by a Q&A session. Math talks will be accessible for advanced undergraduate students.



Professor Erika Camacho

The first talk of the series will be **Friday, January 29 at 4:00pm** by **Professor Erika Camacho** of **Arizona State University** and the **National Science Foundation**.

Title: The role of cone metabolism in mitigating blindness

For an abstract of the talk, a biography of the speaker, and to register for this Zoom meeting, go to

<https://awm-math.org/50th-anniversary/we-speak-series/>

Summer Research Experiences for Undergraduates (REUs) in Math

Are you interested in learning new mathematics and trying your hand at mathematical research, and getting paid for it? Then consider applying for one of the many National Science Foundation sponsored Research Experiences for Undergraduates (REUs). These are small summer programs that last 6-8 weeks, hosted by several universities and colleges around the United States. This summer, some will be held remotely, and others might be held at the host university. The range of research fields covered by different REUs is wide, including algebra, computational mathematics, differential geometry, discrete math, knot theory, mathematical biology, and many more. There is definitely something for everyone!

Who should apply? Math majors, typically in their junior or sophomore year, though some programs accept applications from current seniors. Most applicants to REUs are considering going to graduate school in math and would like to see what math research is about. Most REUs require participants to be US citizens or permanent residents. In terms of coursework, most programs require participants to have at least had multivariable calculus through Math 117, a course similar to Math 199, and/or a course beyond Math 199 that requires proof-writing.

What are the options and how does one apply? The primary site listing REUs, their descriptions, the application requirements, etc., is hosted by the American Mathematical Society (AMS):

<http://www.ams.org/programs/students/emp-reu>.

Act soon! Most of the application deadlines to REUs are in February or early March.

What now? Go to the AMS website, browse through the different programs, and get excited by the opportunities. Also, feel free to contact **Professor Jeff Hatley** (hatleyj@union.edu), the math department's REU contact to discuss the different programs and your options.

Problem of the Newsletter: January 25, 2021

A solution to last week's problem has been posted at the math newsletter sites in Bailey Hall.

This week's problem: You roll three standard dice. After rolling them, you may choose a subset of the dice (possibly all three, possibly empty) to reroll. You win if the sum of the three dice is exactly 7. Optimizing your chance to win, what is the probability that you choose to reroll exactly two dice?

Send solutions to **Professor Paul Friedman** (friedmap@union.edu) by noon, Friday, January 29.