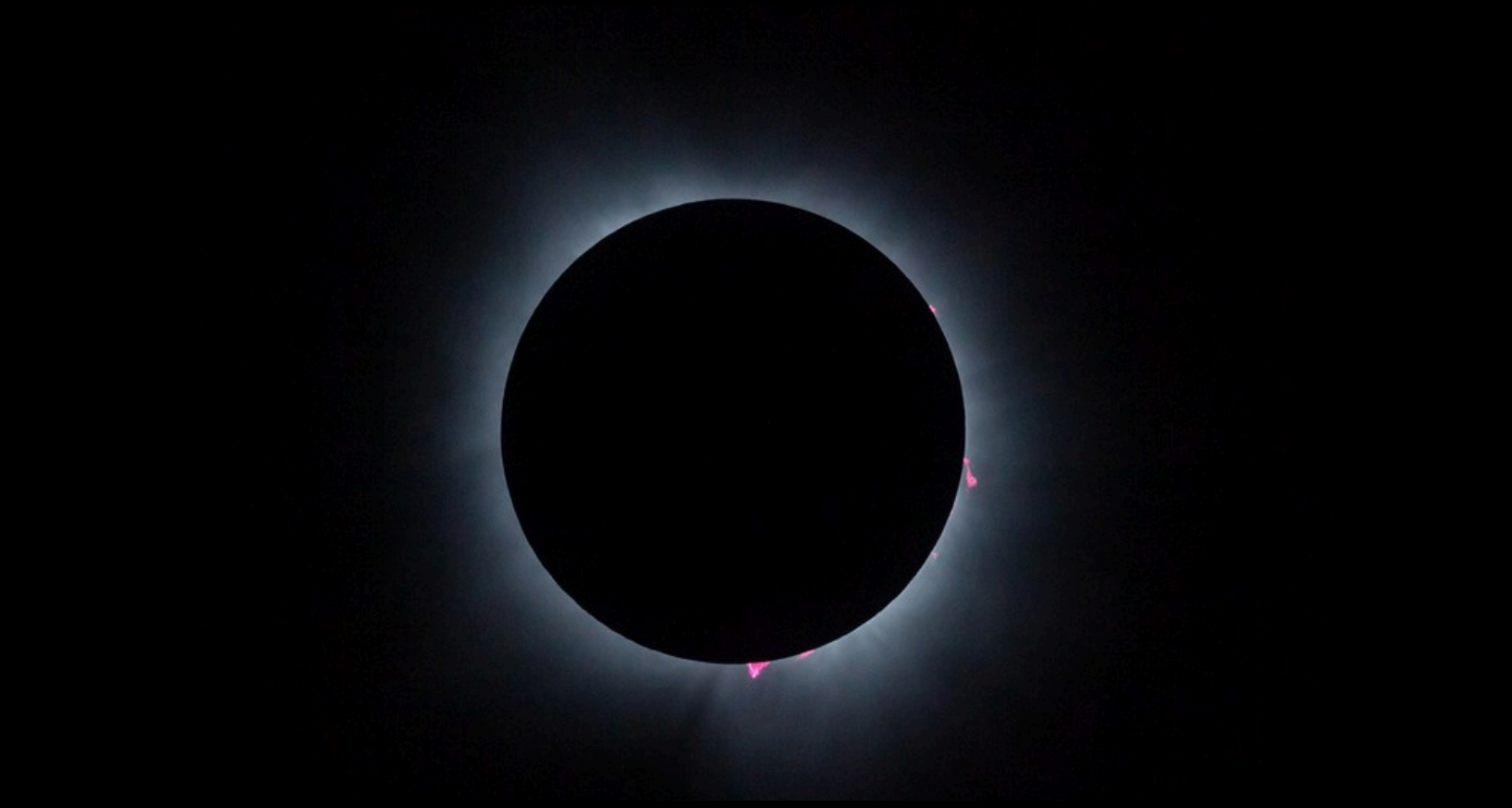
UNIVERSITY OF IOWA MATHEMATICS DEPARTMENT NEWSLETTER

THE SUMTIMES

MAY 2024



IN THIS ISSUE

COVER: THE SOLAR ECLIPSE, CAPTURED BY CASEY STONE

UNIVERSITY OF IOWA MATHEMATICS DEPARTMENT NEWSLETTER

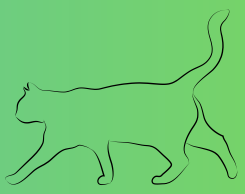
GET INVOLVED

AWM WORKSHOP FOR CV AND RESUME BUILDING

Thank you for everyone that participated in the first AWM workshop which was insightful and beneficial for many of us. This was led by Dr. Brady Krein and Morgan Wolff. We hope to work with them next semester to have two more workshops.

Sincerely,
Margarita

FUR BABIES



Paria's cat Delbar auditions to play Rose in the feline version of Titanic. We think she's definitely getting the part.

Recently adopted good boi Grammy enjoys head scritches, chimkin and napping on Nandita's freshly lint-rolled sheets.

Marc's Bean is the yin to Lentil's yang.

Here's Jose David and Kiara

*Psst. If you're a professor reading this newsletter, send us pictures of your pets!

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LIFE OUTSIDE MATH

THE SOLAR ECLIPSE

The partial solar eclipse viewing on April 8th, 2024, was quite a social event for the department. Here's how our colleagues marked the occasion.

Victoria, Nandita, Paria, Fatemeh, and Margarita at the Nowruz (Iranian new year) celebrations at the IMU.

Eddy, Garrett, Kerry and Zach play disc golf on a nice day.

Casey, Joe, and Margarita visited Widlcat Den State park for spring break

Shashank, Joe, Juan Felipe, Alisson, Victoria, Fatemeh, Margarita. Jose David and Luis at Big Grove Brewery for the Friday Night Vibes event hosted by the Graduate Student Senate.

PUZZLE TEAM

Hi! I believe the math department could form an amazing team of puzzle solvers who participate in puzzling events like the Harvard CS50X puzzle hunt, MIT Mystery Hunt, and maybe even start a puzzling event at the University of Iowa. If you'd like to join a Discord group for the same or have questions, please contact Cole (cole-hengel@uiowa.edu) or Nandita (nandita-nair@uiowa.edu).

-Nandita

MEET THE LIBRARIAN: CAROL HOLLIER

My co-editor kind of looked you up a little bit and saw that you worked in England. How did you decide to move from England to Iowa? And how is it going?

So my daughter's a medical student here at the University of Iowa, so that's why Iowa specifically and then also my husband and I are both American. We lived in the UK for about 14 years, but we're thinking, I mean we're kind of playing it by ear, but maybe moving towards retirement in the US for various reasons, mostly because of family. More family here, so.

Yeah, of course, that makes a lot of sense. Do you have only one child?

3 kids.

Lovely. So are they all in science related fields as well?

No, my son is a mathematician, so it is very helpful. Right now he is in Rwanda at the African Institute for Mathematical Sciences, but he's getting paid by Imperial College London via a grant where he's setting up a database that takes climate data and also noncommunicable diseases, public health data for sort of a pan-African project. He's about to start his PhD at John's Hopkins in biostatistics. So he's a fountain of mathematical knowledge for me, which is very helpful. And then my youngest daughter is actually studying modern languages, so she's on a different tangent.

That's amazing. That's a good mixture of topics. Can you tell me a little bit about your education as well?

So my background is in history, which is not that unusual for librarians - many librarians are either English lit or History majors. Then, I did a professional degree in librarianship and I started off being more of an 'Arts and Humanities' librarian. I've worked in academic libraries for years, but I have moved toward sciences and towards harder and harder sciences. I really like it. It's been exciting, and I'm always learning new things. But I found, in an unexpected way, that there's a lot of parallels between the way historians and the way mathematicians think about their literature and past ideas that they're dealing with. There are no barriers; in medical librarianship, you're really only looking at the most recent information - that is so not true here. The old stuff is just as important, which I find quite exciting. It's fun to find these parallels, to learn about new disciplines and how they think about information and ideas.

How did you go from learning history to wanting to be a librarian?

I always liked libraries a lot, so it was kind of a natural career path for me. I thought I'd work in public libraries, but then the work in public libraries is very different, as you can imagine, than in academic libraries and academic life. I like the intellectual elements of it.

I can really see you moving towards the harder parts and enjoying the challenge. And I know from Elise that you've been trying to get a lot of projects developed at the University of Iowa, like different workshops, and I think that's so cool.

Yeah, the reason I'm here is basically to support the mathematics department, the department of statistics and actuarial sciences, and physics and astronomy, which I think are three nicely complementary departments. The reason that I'm at the university is really to support you, the students, researchers and faculty, in your research, and I can do that in multiple ways. So having conversations about how I can do that best are really helpful to me because I can learn new things. Some people talk to me about Overleaf, which I don't really have background in yet, but I can certainly learn how to use Overleaf. But then, there is a lot I know about, like finding literature and assessing the quality of information. Librarians talk about the information ecosystem and scholarly publishing, which greatly changes. Right now, there's so much information out there, right? But there's so much of it that's really poor quality. So assessing the legitimacy of what you are looking at when you see an article, if the journal is one that you actually want to publish in – these are important decisions because there's a lot of nefarious stuff that goes on. There's a lot of scandal and corruption, and people are trying to make money off of the publishing industry. If you're not thinking about it in those terms, it is easy to fall into traps. Some predatory publishing is really obviously bad. Some less so.

Is there a resource that you really want students to know about?

I think MathSciNet is something that maybe students don't know about as much as they should, and the reason that I think that it's useful for people to know about MathSciNet is because it's a database that only has math literature in it and it's vetted, quality math literature. So, it can actually make your job a lot easier because you don't have to think about legitimacy – if you find it in there, then you only have to think about its relevance to your problem. If you're looking at InfoHawk, the quality is gonna be good, but it's gonna be interspersed with all sorts of other things and you get what we call noise – where you use a keyword to search, and it's used in a different discipline in a completely different sense – and so you get more results to look through that aren't relevant and that makes it really easy to miss some important things. If you're using Google Scholar, yes, it has great stuff in there, but it also is completely unvetted, so there's terrible stuff. It can be a really good tool for finding the full text of something you know you want, so it's not like it's bad in and of itself, but it has risks if you're just using it to look for literature in general.

So you have a lot of experience with using different software to find what you want and you know what a particular software would be useful for.

Exactly. I mean, I'm always trying to figure it out, I like to figure out what's this tool good for what are its strengths, what are its weaknesses. Yeah, like MathSciNet is best for pure math. If you're starting to get into applied mathematics, maybe you'd go to another tool like Web of Science or Scopus, there's a lot of different tools that we have available at the library. The University actually invests a lot of money in these tools through subscriptions. An important part of my job is making sure that people are aware of them and aware of their utility, and ways that they can make their lives actually easier and better. How to spend less time searching for literature so that you can think more about your own research problems.

That's awesome, thank you. Is there a project that you're working on that you're really excited about?

I have been working with my colleagues in the Sciences Library to create a new fun leisure reading collection of books that include high-quality popular sciences books and also science fiction. We are converting a really nice space on the top floor of the library to hold this collection, and so far have been working on moving books from other libraries and the library annex to this space. Over the summer we'll be able to start buying some new titles for it, too. It's been really exciting to shape the collection, and we hope that people like to browse and have fun reading the books. I think we'll have a grand opening party in the autumn, so watch out for announcements!

Oh lovely. One last question, what would you like to ask the math graduate student community?

I would like to ask the math graduate community to please let me know about anything that you think I could help with - maybe I won't be able to, but maybe I will. I'm still learning what I can best do for your department. And really, the best way that I can find this out is people asking me questions. So yeah, don't be shy. I can't promise I can give you answers, but I will certainly try.

MINI MATHEMATICIANS

We asked our graduate community to guess which people in the department the following babies grew up to become, and the contestant who made the most correct guesses in the shortest amount of time is Paria Karimi Kousalari! Which person do you think was the hardest to guess?

1 MERRICK DODGE

2 SAMUEL HOLEN

3 JAMES HAY

4 ELISE ASKELSEN

5 MARGARITA BUSTOS-GONZALEZ

6 PARIA KARIMI

7 EVELYN SMITH

8 GARRETT MASON

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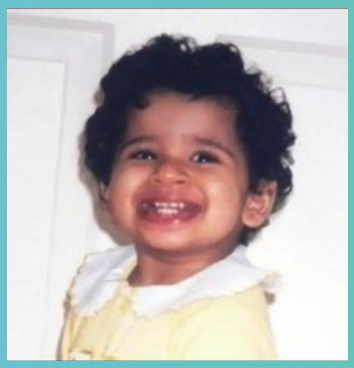
MINI MATHEMATICIANS

9 NANDITA NAIR



10 CLAIRE CHRISTIAN

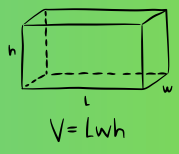
11 AMANDA MARR

12 ALISSON SERRACIN

13 CASEY STONE

14 BROOKE BURSON

15 JOE STARR



$V = lwh$

$y = mx + b$

$A = \frac{\sqrt{3}}{4}a^2$

16 JOSÉ DAVID BELTRÁN

We'd like to thank everyone (especially Amanda) for their baby picture submissions and everyone that participated. If you have recommendations for future competitions, let us know!

AND NOW, THE MEMES ✨