# Department of Mathematics

**September 14, 2020**

## Welcome from/to the Math Department Newsletter

A hearty welcome to the new members of the Union community, whether you are on campus or studying remotely this term! And, of course, welcome back to all other faithful readers of the math newsletter.

The math department publishes a weekly newsletter to inform its readership about events in the math department (for example, seminars, math club activities, math contests), resources and opportunities for students interested in math (for example, Research Experiences for Undergraduates (REUs), internships, and jobs suited for math students) and news from the greater mathematical community. The newsletter is distributed via email and is also posted on the math department's website, https://www.union.edu/mathematics under the Activities tab. A direct link is

https://www.union.edu/mathematics/newsletters

If you would like to contribute to the newsletter, or you have ideas for the newsletter, or you would like to be added to our mailing list, please email **Professor Paul Friedman** at friedmap@union.edu.

## Calculus Help Center – open for business!

The math department runs a Calculus Help Center (CHC) that offers ***free, drop-in, tutoring***, staffed by helpful, friendly, and calculus-skilled Union undergraduates, for its calculus courses through Math 117. The CHC will be open **Sunday, Tuesday, and Thursday nights, 7:30-10:00pm** (NY time). Due to the college-wide restriction on face-to-face peer tutoring, the CHC will be operating online through Zoom! The Zoom link can be found on the CHC's webpage on math department's website, https://www.union.edu/mathematics under the For Students tab. A direct link to the CHC page, with the Zoom link, is

https://www.union.edu/mathematics/calculus-help-center

## Meet the New Math Faculty

This year, the math department is overjoyed to welcome three new mathematicians, **Professors Louisa Catalano, Gregory Malen,** and **Phanuel Mariano.** Each of them has written an article to introduce themselves to the Union math community.

From Professor Catalano: *I am absolutely thrilled to be joining Union College!*

Professor Louisa Catalano

*I grew up just outside of Cleveland OH, and I didn't go too far for my education. My B.A. is from the College of Wooster in Wooster OH (a small liberal arts school similar to Union), and my graduate degrees are from John Carroll University and Kent State University, both of which are within an hour of Cleveland.*

*Although I was born and raised (and educated) in Ohio, I'm no stranger to New York/New England. I've spent almost all my summers visiting family in Vermont and Massachusetts, so I'm excited to be living in the area.*

*My research is in the area of noncommutative algebra. My main focus has been functional identities and linear preserver problems, but I am also interested in radical theory. I am especially looking forward to doing research with Union students. I also love teaching and helping students in any way I can.*

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*Outside of academia, I enjoy playing board games and watching movies with my husband, Tomas. I also sporadically get interested in a variety of topics like watercolor painting, makeup, and Macgyvering broken things.*

From Professor Malen:

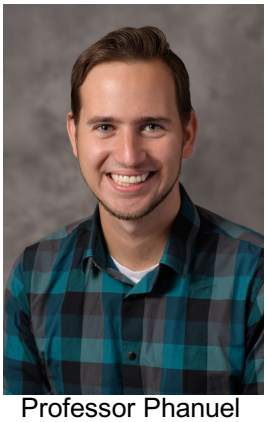
Professor Gregory Malen

*I'm incredibly excited to be joining Union College this fall! Originally hailing from the mean streets of (quiet, suburban) Chicago, I got my bachelor's degree at Wesleyan University, where I double majored in mathematics and theatre. I then spent two years working in New York City as a lighting designer and technician for theatre and dance productions, before heading back to the Midwest to pursue my Ph.D. in mathematics at The Ohio State University. After earning my degree, I did a semester as a research fellow at the Institute for Computational and Experimental Research in Mathematics (ICERM) at Brown University, and then three years as a postdoctoral fellow at Duke University before arriving here.*

*My research is in topological combinatorics, with a primary focus on topological thresholds in random simplicial complexes. At its core, I'm interested in understanding the dichotomy between average and extremal properties in these structures. Much of this area is in fact very concrete, and it really straddles the boundary between pure and applied math, so it's a great place for people with diverse backgrounds and interests to come together and collaborate.*

*Outside of math, I love to play soccer and basketball and I'm a huge sports fan. I also play chess and most classic card games, I'm a bit of a film nerd, and I enjoy the way that dimmable light switches make me feel like I'm still doing theatre.*

From Professor Mariano:



Professor Phanuel Mariano

*I'm very excited to be joining the faculty at Union College. I'm originally from Rio de Janeiro, Brazil. When I was nine years old my family and I moved to the U.S. I received my B.A. in math from Western Connecticut State University and my Ph.D. in math from the University of Connecticut. After finishing my Ph.D., I was a postdoc at Purdue University and then a faculty member at the University of New Haven.*

*My research interests are in the intersection of probability theory, partial differential equations, and sub-Riemannian geometry. I study inequalities related to stochastic processes that live in curved spaces. A stochastic process can model real life phenomena such as the value of a stock price, the random motion of a molecule and the movement of certain species. I also enjoy working with students on research projects. I encourage all students to come talk to me about any math they might be interested in.*

*Besides math, I've played the drum set for most of life and almost majored in it in college. I am also an avid sports fan. I've had season tickets for the UConn women's basketball team for the past 6 years now. Looking forward to supporting the Union Dutchmen and Dutchwomen when it is safe to do so again.*

## Class of 2020: Stay in Touch

Recent graduates – we would love to keep in touch! To continue receiving the Math Newsletter, please update your email address with **Joanne Higgins** (higginsj@union.edu) or **Professor Paul Friedman** (friedmap@union.edu).