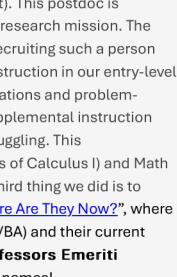




Math & Stats Fall 2023 Newsletter

Dear Friends of Mathematics & Statistics at UVM,

I hope this note finds you well. It has been another exciting year for the Department. **Prof. Rich Single** won the Kroepsch-Maurice Excellence in Teaching Award. Profs. **Chris Danforth** and **Spencer Backman** won NSF grant awards. In addition, our department was ranked in the top 14% of all Math and Math/Stat departments in the nation, according to Academic Analytics Rankings!



In the past year, the Department did many things. One thing is that we secured a Departmental Postdoc with help from Dean Schadler (the Dean's Office will cover 50% of this postdoc's cost). This postdoc is expected to make significant contributions to the Department's research mission. The first postdoc will work with **Prof. Puck Rombach**, and she is recruiting such a person right now. Another thing we did is we launched supplemental instruction in our entry-level math courses, where graders/TAs are hired to hold evening recitations and problem-solving sessions for students in those courses. We think this supplemental instruction will significantly help our students, especially those who are struggling. This supplemental instruction started with Math 1212 (Fundamentals of Calculus I) and Math 1234 (Calculus I) and will gradually expand to more courses. A third thing we did is to vastly expand the Department website on "[Our Graduates: Where Are They Now?](#)", where we added over 70 new names of our graduates (PhD, MS and BS/BA) and their current jobs (to a total about 100 names now). Special thanks go to **Professors Emeriti Richard Foote** and **Ruth Mickey** who provided most of those names!

In the past year, the Department hired six faculty members --- **Alice Patania** (Assistant Professor of Mathematics), **Mike Miller Eismeier** (Assistant Professor of Mathematics), **James Heffron** (Senior Lecturer of Mathematics), **Jeff Jewell** (Lecturer of Mathematics), **Abigail Crocker** (Associate Professor of Statistics), and **Miriam Dash** (Lecturer of Statistics). Alice and Abby are old colleagues --- they just switched from research appointments to tenure-track appointments, and the other hires are new. These hires will significantly strengthen the research and teaching capabilities of the Department. Meanwhile, **Senior Lecturer Karla Karstens** retired after 37 years of distinguished service.

In the past year, the Department admin, **Emily Cummings**, moved to CEMS Dean's Office, and we hired a new admin, **Gretchen Schissel**. The College is currently restructuring all admin services to better meet the College's and its individual departments' needs.

This newsletter will share more of our recent successes in teaching, research, and service.

I hope you enjoy this newsletter on what is happening in the Department, and on the successes of our faculty, students, and alumni! Please keep us updated with your own exciting news (you can write to me, jyang@uvm.edu, or to the Department, mathstat@uvm.edu).

Warm regards,

Jianke (Jackie) Yang
Professor and Chair, Department of Mathematics and Statistics

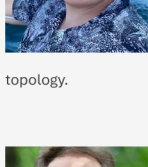
AWARDS



Professor **Rich Single** won the 2023 Kroepsch-Maurice Excellence in Teaching Award. Each year one faculty member in each of the four rank categories (Lecturer/Senior Lecturer/Clinical Instructor, Assistant Professor, Associate Professor, Professor) receives this prestigious honor.

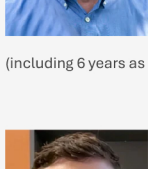
NEW HIRES

This year, we welcome the following faculty members to the Math/Stat Department:



Alice Patania
Assistant Professor of Mathematics

Alice received her PhD degree in Applied Mathematics from Politecnico di Torino (Italy) in 2017. She then spent 4 years as an Assistant Research Scientist at Indiana University Bloomington and joined UVM as a Research Assistant Professor of Mathematics in 2021. She switched to tenure-track Assistant Professor of Mathematics this fall. She is a computational topologist, developing and applying new topological approaches to study complex systems.



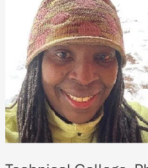
Michael Miller Eismeier
Assistant Professor of Mathematics

Mike received his PhD degree in Mathematics from UCLA in 2019. Then he spent 4 years as the Ritt Assistant Professor of Mathematics at Columbia University and joined UVM as Assistant Professor of Mathematics this fall. His research is in topology.



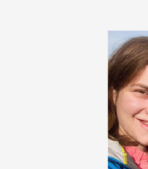
James Heffron
Senior Lecturer of Mathematics

Jim received his Ph.D. degree in mathematics from the University of Connecticut in 1986. He then spent 3 years as a Visiting Assistant Professor at Union College, and 33 years at St. Michael's College as an Assistant, Associate, and Full Professor (including 6 years as its Department Chair). His Linear Algebra textbook is widely used.



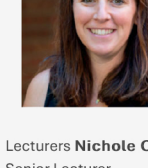
Jeffrey Jewell
Lecturer of Mathematics

Jeff received his BS (2017) and MS (2019) degrees both from UVM. He then spent a year as a graduate student at Rensselaer Polytechnic Institute and joined UVM as Lecturer of Mathematics this fall.



Abigail Crocker
Associate Professor of Statistics

Abby obtained her Ph.D. in Clinical and Translational Sciences from UVM in 2013 and joined our department as Research Assistant Professor of Statistics in 2014. She was promoted to Research Associate Professor of Statistics in 2022 and switched to tenure-track Associate Professor of Statistics this fall. Her focus is on Statistics for Social Change and using community-engaged research to address the harms of mass incarceration. She serves as the Director of Research for the National Center on Restorative Justice, which has brought a lot of national attention as well as large amounts of federal funding to UVM.

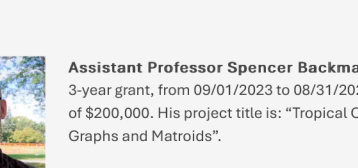


Miriam Dash
Lecturer of Statistics

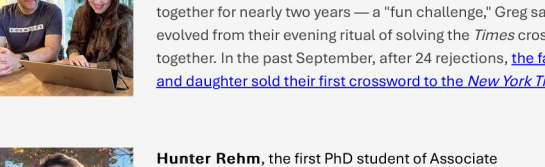
Miki received her BS degree in Political Science from Northwestern University in 1991 and MS degree in Biostatistics from UVM in 2013. She had held various academic and industry positions (such as at Community College of Vermont, Vermont Technical College, Pharmacia Inc./Pfizer Corporation and so on) before joining UVM as Lecturer of Statistics this fall.

PROMOTIONS

Congratulations to the following faculty member on the recent promotions:

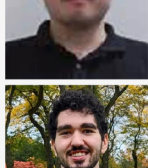


Assistant Professors of Mathematics **Puck Rombach** and **Christelle Vincent** were promoted to Associate Professor with tenure.



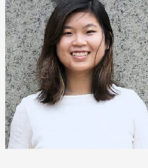
Lecturers **Nichole Caisse**, **Dan Hathaway** and **Laura Marthaler** were promoted to Senior Lecturer.

FACULTY AND STAFF NEWS

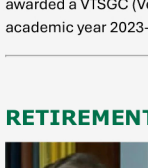


A multidisciplinary research team co-led by **Professor Chris Danforth** earned UVM a \$20 million research capacity building award, "The Science of Online Corpora, Knowledge, and Stories", from the National Science Foundation (NSF) through its Established Program to Stimulate Competitive Research (EPSCoR). The five-year Research Infrastructure Improvement (RII) Track-1 award will bolster research infrastructure at UVM and across the state.

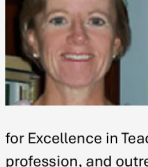
In addition, a multidisciplinary team led by **Professor Chris Danforth** received \$1M supplement from Mass Mutual this year to continue the Lived Experiences Measured Using Rings Study (LEMURS) which they started last year."



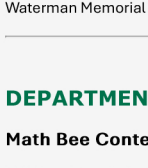
Assistant Professor Spencer Backman received a new NSF 3-year grant, from 09/01/2023 to 08/31/2026, with a total amount of \$200,000. His project title is: "Tropical Combinatorics of Graphs and Matroids".



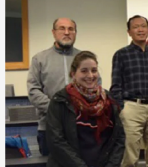
Professor Greg Warrington and his high-school daughter **Grace** create crossword puzzles worthy of the 'New York Times'. **Greg** and his daughter have been constructing crosswords together for nearly two years --- a "fun challenge," **Greg** said, that evolved from their evening ritual of the *Times* together. In the past September, after 24 rejections, [the father and daughter sold their first crossword to the New York Times](#).



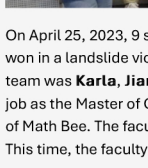
Hunter Rehm, the first PhD student of Associate Professor **Puck Rombach**, accepted a job offer as Associate Researcher for HX5 at NASA Glenn Research Center in Cleveland when he graduated last May. He will be continuing some of the work he has been doing with NASA during his PhD dissertation.



In May, **Damin Zhu** graduated with a Ph.D. in Mathematical Sciences, and Statistics track. He is the first Ph.D. student to graduate in the Statistics track in department history. He is currently a digital business analyst with KION in South Carolina. His advisor was **Professor Jeff Buzas**.



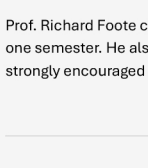
Tobias Timofeyev, a current PhD student working with **Assistant Professor Alice Patania**, has just won an NSF Graduate Research Fellowship, which is going to fund him as GRA for 3 years. His project title is "Decoding Parallel Processing in the Brain using the Connectome Edgenfunctions". This NSF Graduate Fellowship is prestigious and competitive.



Annie Zhang, a MS student supervised by Associate Professor of Mathematics **Christelle Vincent**, accepted a job offer from MIT's Lincoln Lab, doing cybersecurity research full time there, starting summer of 2023 (when she graduated from UVM).

Jemery Quail, a current PhD student of Associate Professor **Puck Rombach**, was awarded a VTSGC (Vermont Space Grant Consortium) Graduate Fellowship for the academic year 2023-24.

RETIREMENTS



Senior Lecturer **Karla Karstens** retired in May 2023, after 37 years of distinctive service in our department. Karla received her MS degree in mathematics at UVM in 1987 and was hired as a Lecturer right after. In 2004, she was among the first group of lecturers to be promoted to the newly created position of Senior Lecturer. In her 37 years at UVM, she made very important contributions to the Department's teaching and service mission. She was the recipient of the prestigious Kroepsch-Maurice Award

for Excellence in Teaching in 1999. In addition, her service to the university, the profession, and outreach was stellar. She was loved and respected by both students and faculty. She will be dearly missed. The Department held a retirement party for Karla in Waterman Memorial Lounge on May 16, 2023.

DEPARTMENT EVENTS

Math Bee Contest



On April 25, 2023, 9 students and 7 faculty participated in the Math Bee. The students won in a landslide victory over the faculty, taking the Golden Pi trophy back. The faculty team was **Karla, Jianke, Alice, Tony, Taras, and Dan Hathaway**. **Joe** did a fabulous job as the Master of Ceremony. On Nov. 14, 2023, 16 students and 4 faculty did a rematch of Math Bee. The faculty team was **Alice, Jianke, Dan Velleman, and Dan Hathaway**. This time, the faculty team won, winning the Golden Pi Trophy!

ALUMNI NEWS

Phuc Tran, an exchange undergraduate student of math major at UVM in fall 2018 from American University in Bulgaria, is now pursuing a PhD degree in mathematics at Yale University. He fondly remembers his time at UVM, writing that the semester he spent at UVM was one of his best college experiences, particularly in mathematics. He took 4 graduate-level math classes here, and said all professors always welcomed him and gave him many problems to think about. In particular, he was very impressed that

Prof. Richard Foote could present this huge topic (classification of simple groups) in just one semester. He also had personal talks with Profs. Jeff Dinitz and Richard Foote, who strongly encouraged him to pursue math further.

STAY IN TOUCH

Email mathstat@uvm.edu with your latest achievements so we may consider including them in the next newsletter. We want to hear how you're doing!

Learn more about Math & Stats at UVM!

