SUMMER 2021

DEPARTMENT OF
MATHEMATICS

MATH TIMES NEWSLETTER

U of I partners with other universities to form math and statistics institute

National Science Foundation awards $15.5 million for partnership of four Illinois universities

The National Science Foundation (NSF) has awarded $15.5 million to four universities in Illinois, including the University of Illinois Urbana-Champaign, to create an institute to bring powerful mathematical ideas to bear on key contemporary scientific and technological challenges.

People gather to hear the Altgeld Chimes ringers play a special Juneteenth concert titled "Amplify Their Voices: A Celebration of BIPOC Musicians." | Fred Zwicky, UI Public Affairs

Researchers at the new Institute for Mathematical and Statistical Innovation (IMSI), to be hosted by the University of Chicago, will build a platform that accelerates the translation of applied mathematical and statistical techniques into solutions for urgent scientific and societal problems. Many of these problems arise naturally in a range of fields already being studied across the four partner institutions, including climate change, health care, quantum information theory, artificial intelligence, data science, economics, and materials science.

In addition to the University of Illinois Urbana-Champaign, IMSI will include a collaborative group of mathematicians and statisticians from the University of Chicago, Northwestern University, and the University of Illinois at Chicago. The $15.5 million grant will be provided by NSF over five years.

"The IMSI project is a powerful investment by the National Science Foundation in four great universities and in the state of Illinois," said Matt Ando, associate dean for life and physical sciences at the College of LAS, who played a key role in forming the institute. "It puts the state and these universities in a position of national leadership in bringing mathematical and statistical research to bear on pressing societal challenges and in training the next generation of mathematicians and statisticians to collaborate with their colleagues across the academy and in business, industry, and government."

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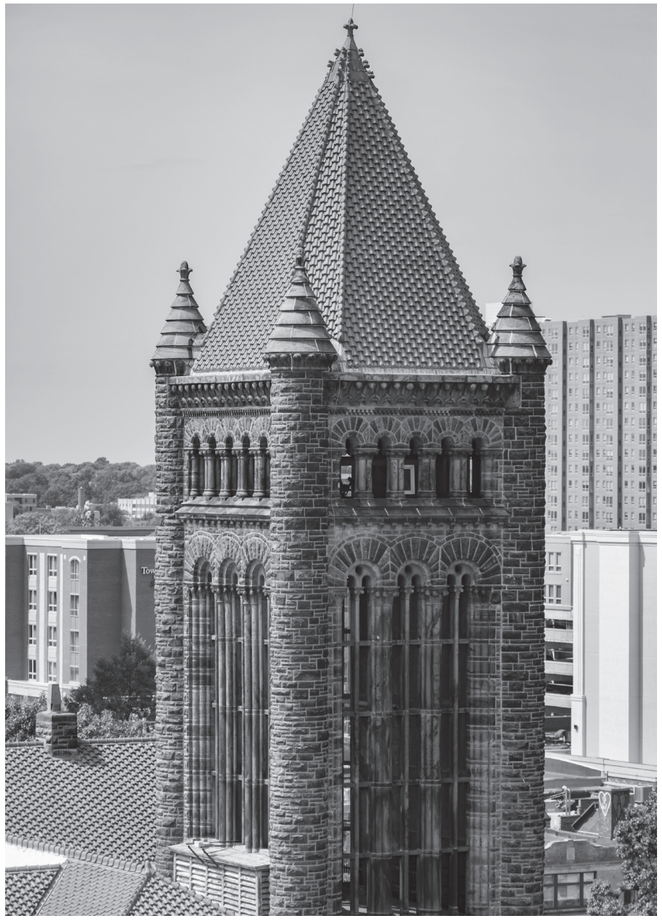

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Dear friends,

Summer 2021 marks the 30th anniversary of the first issue of Math Times, and the past academic year has certainly been a memorable one. COVID-imposed restrictions forced us to reimagine and redesign all aspects of our department's daily activity. Despite these challenges, we have tremendous accomplishments to celebrate.

The theme of this issue of Math Times is "making an impact." We're enthusiastic about the recent launch of the Institute for Mathematical and Statistical Innovation. IMSI has the potential to position the state of Illinois as a leading national center for translational and applied research in the mathematical and statistical sciences, and our department is a key contributor to this new institute. With several new regional graduate internship programs coming online this year, our department continues to be a national pioneer in the training of mathematics PhDs for jobs across a wide range of non-academic sectors. And finally, as this issue goes to press, the first-ever fully online International Congress on Insurance: Mathematics and Economics opens its (virtual) doors. Hosted by a multinational organizing committee spanning three continents, this extraordinary event speaks to the global impact of our department's highly regarded Actuarial Science Program.

Current and former members of our department continue to be recognized at the highest level for their contributions to, and impact on, the mathematics profession. I'm also pleased to recognize in this issue the recipients of the Department of Mathematics 2021 Impact Awards. This one-time award program recognizes individuals or groups of individuals for work which substantially improved the welfare of others since the start of the COVID pandemic.

I hope you also enjoy reading compelling stories of the impact made by our alumni in their respective walks of life and in a variety of careers. Please consider nominating a fellow classmate or a former student for one of our departmental alumni awards.

My term as department chair concludes this summer, and next year's Math Times will feature a new face on this welcome page. I've truly enjoyed the opportunity to share the department's news and current events over the past several years in this publication. Best wishes for a safe and relaxing summer, and keep in touch: we'd love to hear from you!

Jeremy Tyson
Professor and Chair
Department of Mathematics

U of I partners with other universities to form math and statistics institute

Continued from page 1

The current complex environment of science and engineering research involves a deep interaction of multiple disciplines to address scientific problems. These interactions, which are often at very large scales, need sophisticated mathematical and statistical approaches that underpin solutions to the scientific problems. While enabling these applied mathematical approaches, IMSI will benefit from the institutional strengths of each of its university partners in the mathematical sciences as well as in the particular application areas of science, technology, economics, and policy, drawing from the deep programmatic expertise of a network of centers and research groups.

Ando said that the effort to bring IMSI to campus benefitted from support across the campus. Faculty and staff in LAS, the Grainger College of Engineering, and the Carl R. Woese Institute for Genomic Biology contributed valuable ideas. The Office of Proposal Development and the staff of the Discovery Partners Institute provided essential on-going support, and the leadership of the campus provided invaluable advice and support at multiple critical junctures throughout the development of the proposal.

"The project builds on the leadership of the University of Illinois at Urbana-Champaign and of the College of Liberal Arts and Sciences," Ando said. "The university's outstanding record of success with interdisciplinary institutes, such as the Beckman Institute and the Carl R. Woese Institute for Genomic Biology, and the innovative record of the departments of Mathematics and Statistics in workforce development, in collaboration with the University of Illinois Research Park, were important strengths of the proposal."

Doug Simpson, professor of statistics, has been named associate director of IMSI. Kevin Corlette, professor of mathematics at the University of Chicago and inaugural director of IMSI, said that there are many ways in which the mathematical sciences can help society come to grips with the massive growth in the amount of available data describing complex systems, as well as with the complex uses of computing now used to extract meaning from these data.

"These include methods for evaluating the quality of data sets, simplification of models to improve their predictive power and their ability to provide insight into underlying principles, and new approaches to estimating the uncertainty of results predicted by models," he said. "IMSI will be a vehicle for sustained engagement between mathematical scientists and researchers in a wide range of disciplines on these kinds of questions."

IMSI will operate through a partnership among the four research universities. The University of Illinois at Urbana-Champaign and the University of Illinois at Chicago both bring unique and deep expertise in a range of math and engineering disciplines and extend the institute's reach to a much broader population of students. The University of Chicago will leverage the world-class academic resources on campus, its affiliations with Argonne National Laboratory, Fermilab, and the Marine Biological Laboratory, and its physical proximity to the Toyota Technological Institute. Northwestern's strengths in both theoretical and applied sciences will boost the Institute's intellectual and vocational reach.

IMSI will bring together researchers in application areas from across the nation and around the globe. Scientific activity will include workshops and long programs, typically a quarter (10 weeks) in length. Research activity will be organized around themes that will evolve over time, with an initial focus on data and information, climate science, health care, material science, quantum computing and information, and uncertainty quantification.

There will also be a sustained focus on communication with researchers in other fields, and in educating the public about the broad utility of mathematics and statistics to everyday problems and social issues. IMSI will sponsor outreach and workforce development programs aimed at K-12 students, teachers, undergraduates, and graduate students to introduce participants to career opportunities in mathematics and statistics, especially those from communities traditionally underrepresented in the sciences.

"The influence of mathematical sciences on our daily lives is all around us and far-reaching," said Juan C. Meza, division director of mathematical sciences at the NSF. "This program represents an investment in interdisciplinary connections across fields of science, and with impacts across sectors like computing, engineering, and health." ▪ *LAS News and the University of Chicago*

Learn more about the Institute for Mathematical and Statistical Innovation (IMSI) at imsi.institute.

Commencement 2021

After a week-long celebration that included both individual in-person Stage Crossing experiences and an online celebration featuring a virtual conferral of degrees, we welcome the newest members of the alumni family.

More than 7,000 graduates from the classes of 2020 and 2021 participated in individual Stage Crossing experiences. Additionally, more than 900 graduates from the Departments of Mathematics and Statistics were honored during this year's virtual convocation program. ▪

View the virtual 2021 Departments of Mathematics and Statistics Convocation ceremony and download a copy of the program at **math.illinois.edu/convocation**.

Stepping up

Key leadership changes will take place this fall

Several department-level leadership changes will go into effect at the start of the Fall 2021 semester.

Starting in August 2021, Professor Yuliy Baryshnikov will serve as the director of graduate studies. As a member of the leadership team for the PI4 workforce grant, Baryshnikov is well-positioned to maintain our department's national reputation in employment outcomes for PhD graduates across a wide range of academic and non-academic careers. He is also actively involved in other international partnerships promoting the interaction of mathematics with industry. He will step into the role following Professor Lee DeVille, who has served as director for the past four years.

Also in August, Professor Susan Tolman will serve as the director of the Illinois Geometry Lab (IGL). She brings to the position substantial experience in departmental administration, familiarity with the IGL, and a commitment to innovative approaches to the instruction, training, and mentoring of undergraduate students in mathematics. Tolman served as interim director of Undergraduate Studies in Spring 2020 and was part of the organizing committee for the 2019 Graduate Research Opportunities for Women conference hosted by the department. She also previously mentored IGL projects in Spring 2017 and Fall 2018. She will step into the role following Professor Philipp Hieronymi, who has served as director since 2018.

Additionally, a new chair of the department and a new dean for the College of Liberal Arts & Sciences are expected to be announced this summer. Look for more information on these important department and college-level announcements in upcoming issues of Math Monthly, the department's monthly alumni and friends e-newsletter. ▪

Yuliy Baryshnikov

[Director of Graduate Studies]

Susan Tolman

[Illinois Geometry Lab Director]

STAY CONNECTED WITH UIUC MATHEMATICS!

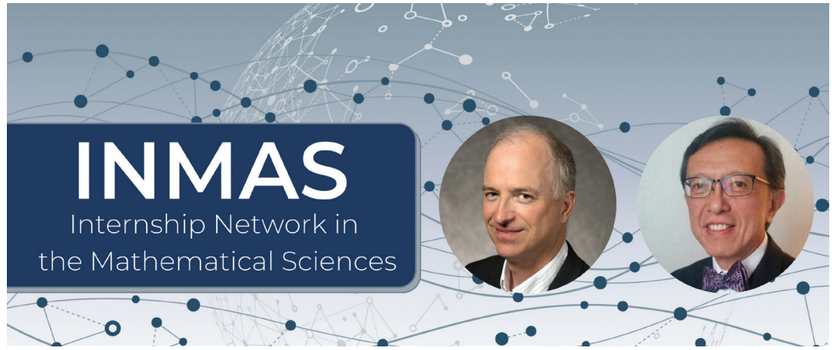
Like us on **Facebook** to get the latest news and learn about upcoming events.
bit.ly/uiucFBmath

Join our **LinkedIn networking group** and make connections with your fellow #ILLINOIS mathematics alums from around the world.
bit.ly/ILmath

Check out our **YouTube channel** where you'll find a variety of videos about the department.
bit.ly/il-math-yt

Moved recently? New job? Update your contact information and share your news:
bit.ly/update-my-las-info

Regional Internship Networks in the Mathematical Sciences launched by University of Illinois and Johns Hopkins University



Mathematical sciences departments prepare PhD students primarily for careers in academia. Due to a substantial growth in PhD programs across the U.S., the number of PhDs produced (around 2000 in 2019) is now much greater than the number of tenure-eligible jobs available (around 750 in 2018). Many students realize belatedly after a few years in postdoctoral positions that careers in business, industry and government (BIG) would offer better opportunities.

Richard Laugesen, professor of mathematics at University of Illinois Urbana-Champaign, and Fadil Santosa, head of applied mathematics and statistics at Johns Hopkins University, recognized this vast need to provide training and career experiences to graduate students that prepare them for mathematically meaningful career paths in BIG. At the same time, they saw the potential impact of mathematics to elevate the capabilities of small-to-medium sized companies.

Thus, Inmas – the Internship Network in the Mathematical Sciences – was conceived.

The vision is to create regional networks of mathematical sciences departments that provide training and internship experiences to prepare students for BIG careers. The funding of up to $4 million over five years from the National Science Foundation's (NSF) Division of Mathematical Sciences will create two networks: one anchored at the University of Illinois and one at Johns Hopkins University. These hubs will connect with nodes, which are nearby institutions having sizable PhD production. The Math Alliance – a nation-wide mentoring network for underrepresented or underserved students in the mathematical sciences – will participate as a virtual node.

The network will organize systematic training programs on technical and professional skills to prepare students for productive internships in BIG. Students will be carefully matched with internship projects, which are created through the efforts of specialist project developers.

This project will also simultaneously strengthen the competitiveness and effectiveness of BIG organizations. Interns will create new research and development tools that lead to greater efficiency, productivity, and profitability. Problems arising from industry can find their way back into the classroom and initiate new research topics in mathematics and statistics. Students will be impacted not only educationally, but personally as these internships have the potential to change the direction of many graduate students' lives. Finally, engagement of students from underrepresented groups increases diversity in BIG and opens doors toward high-ranking positions for students, where they may also serve as role models.

"This program will meet the critical need for training the next generation of mathematical scientists and data analysts in business, industry, and government," says Dr. Juan C. Meza, director for the NSF Division of Mathematical Sciences. "In addition, the program also helps small to mid-sized companies by providing them with mathematical expertise to enhance their competitiveness."

Laugesen and Santosa are optimistic that this project will bring greater appreciation of the power of the mathematical sciences, especially at small-to-medium-sized organizations. "We hope Inmas will bring about a culture change in universities towards stronger and mutually beneficial engagement with BIG, and we look forward to the day when graduate career paths from the mathematical sciences to industry and government are visible, valued and viable." ▪

Thank you for your service

Three members of the Department of Mathematics retired this year. Best wishes on your next adventures, Kay, Paula, and Lou!

KAY DALY

Kay Daly retired from the Department of Mathematics in March 2021 after more than 30 years of service in the department. Daly joined the department in 1990 as a receptionist, and soon moved to the Office of Undergraduate Studies, where she spent 28 years of her career and retired as office administrator. Among her contributions to the department, Daly began managing the department's homegrown online gradebook in 1992. She also served as convocation coordinator for the Departments of Mathematics and Statistics since May 2000 and department leader of the Campus Charitable Fund Drive, an annual charitable giving campaign for UIUC employees, since 2002. While she is looking forward to her new adventures in retirement, Daly says she will miss everyone she worked with over the years, "especially our great undergraduate advising staff and wonderful directors!"

PAULA LUESSE

Paula Luesse joined the Department of Mathematics in July 2012. As the office support specialist in the Main Office, she served as the initial contact for those who visit the office. Among her many duties, Luesse also maintained the inventory of office and classroom supplies, provided faculty with LaTeX support, distributed department keys, provided adminstrative support for New Student and Winter Convocation and the Math Graduate Student Tutors program, coordinated faculty and staff photo sessions, maintained various department contact and distribution lists, and assist with the Faculty Senate election. She received the Exceptional Merit Award in Mathematics for Non-Instructional Staff in 2018. Following her retirement in June, she is looking forward to spending leisurely time with family and friends, kayaking, enjoying time at the lake, gardening, birdwatching, and traveling. "I will miss working with the faculty, staff, and students in the department," says Luesse. "I have fond memories of working in a friendly and caring department where I enjoyed going to work."

LOU VAN DEN DRES

Lou van den Dries joined the department in 1986. He was an invited ICM speaker in 1990 and 2018, has been a correspondent of the Royal Dutch Academy of Sciences since 1993, and he has been a professor in the Center for Advanced Study at the University of Illinois Urbana-Champaign since 1998. Most recently, he presented the Tarski Lecture at the University of California at Berkeley in spring 2017. He received both the Karp Prize and the Shoenfield Prize from the Association for Symbolic Logic in 2018. He retires this summer after 35 years with UIUC's Department of Mathematics. ▪

SAVE THE DATE FOR HOMECOMING 2021:
CLOSE OR APART, WE'RE ILLINI AT HEART | OCT. 4-9, 2021

Learn more about this year's plans, events, and updates on the university's Homecoming website, **homecoming.illinois.edu**.

UIUC is awarded CAE designation again

After a thorough review, the Society of Actuaries (SOA) has designated the University of Illinois Urbana-Champaign a Center of Actuarial Excellence (CAE), the highest level of recognition the SOA offers universities, for a second consecutive five-year term. In addition to fulfilling the criteria pertaining to curriculum coverage, faculty composition, graduates' success, research contributions and the program's connection to industry, the CAE evaluation committee highlighted the commendable role the Illinois Risk Lab plays in helping students assimilate theoretical concepts through hands-on applications. The program will continue to foster a fruitful synergy between academia and the industry through continuous upgrading of curricula to equip its graduates with needed skills in future actuarial roles.

CAE Center of Actuarial Excellence
SOCIETY OF ACTUARIES

The continuing designation will run through June 30, 2026. ▪

Lerman among Illinois students honored with Goldwater scholarships

Four University of Illinois Urbana-Champaign students, including Department of Mathematics sophomore Ariel Lerman, were awarded Barry M. Goldwater scholarships for their potential to contribute to the advancement of research in the natural sciences, mathematics or engineering.

The Barry M. Goldwater Scholarship and Excellence in Education Program was established by Congress in 1986 to honor Goldwater, who served 30 years in the U.S. Senate. The program encourages the continued development of highly qualified scientists, mathematicians and engineers by awarding scholarships to college sophomores and juniors from the U.S. who intend to pursue doctorates. The scholarship provides recipients $7,500 annually toward undergraduate tuition, fees, books or room and board.

This year's 410 scholars were selected from among the 1,256 mathematics, science and engineering students nominated by colleges and universities nationwide. "All four of our campus nominees were selected, which places the University of Illinois in a select group," said David Schug, the director of the National and International Scholarships Program at Illinois. "Less than 20 institutions in the country garnered such success among their endorsed candidates. Further, it's telling that our diverse recipients hail from the colleges of Agricultural, Consumer and Environmental Sciences; Engineering; and Liberal Arts & Sciences."

Lerman, a sophomore from Urbana, began taking upper-level mathematics courses and physics at the University of Illinois while in high school. He has since finished the undergraduate course requirements for mathematics majors, completed four graduate-level mathematics courses and is currently enrolled in three additional graduate classes this semester. Simultaneously, Lerman has conducted research with Vadim Zharnitsky, a professor of mathematics, on the dynamics of billiards, and with Jorge Noronha, an associate professor of nuclear physics, on nonrelativistic fluid dynamics.

Lerman's work has resulted in multiple presentations, including an upcoming presentation at the American Physical Society, as well as a submitted first-author publication to a national mathematics journal. At Illinois, Lerman earned the 2020 Elsie Thomas Fraser Award as the top freshman or sophomore in his department, and the 2021 Salma Wanna Memorial Award for exceptional performance in mathematics. Lerman plans to conduct research in dynamical systems and partial differential equations, and their applications in physics. ▪ *UIUC News Bureau*

New Faces

Meet the newest members of the Department of Mathematics. These new hires reflect those who joined the department from August 2020 to June 2021.

TENURE-SYSTEM FACULTY

Oanh Nguyen
Assistant professor
Oanh Nguyen joined the department in August 2020. She earned a PhD in mathematics from Yale University in 2017. Her research areas of interest are in probability and combinatorics, and she recently received an NSF grant in support of her research.

Zhiyu "Frank" Quan
Assistant professor, Actuarial Science Program
Frank Quan joined the Actuarial Science Program in August 2020. He was previously a research and development data scientist with one of the leading InsurTech firms, Carpe Data. He received his PhD in actuarial science from the University of Connecticut in 2019 and his master's degree in applied mathematics from Michigan State University in 2014. Quan also serves as faculty advisor for the Illinois Risk Lab.

Jesse Thorner
Assistant professor
Jesse Thorner joined the Department of Mathematics in August 2020. He earned a bachelor's degree from Duke University in 2009 and went on to complete a master's degree at Wake Forest University in 2013. Thorner completed his PhD at Emory University in 2016. His research interests include number theory (L-functions, primes, elliptic curves, modular forms, automorphic forms, number fields, arithmetic quantum chaos) and analysis (spectral theory, Fourier analysis, complex analysis, approximation theory).

Felix Leditzky
Assistant professor
Felix Leditzky joined the Department of Mathematics in January 2021. He earned degrees in both mathematics and physics at the University of Vienna before completing his PhD from the University of Cambridge in 2017. His research area of interest include Quantum information theory, in particular studying quantum channel coding problems and multipartite entanglement using tools from group theory, representation theory, and optimization theory. When not in the classroom or working on his research, Leditzky enjoys all things music (including playing the guitar and listening to all genres of music), reading, traveling, slowly improving his cooking, and watching and playing sports.

POSTDOCTORAL FACULTY

Joey Palmer
J.L. Doob Research Assistant Professor
Joey Palmer joined the Department of Mathematics in August 2020. He earned both a bachelor's degree in mathematics and bachelor's degree in physics from Truman State University in 2011. He went on to complete a master's degree in mathematics from Washington University in 2013 and earned his PhD in mathematics from the University of California San Diego in 2016. Symplectic geometry, integrable systems, symplectic and Hamiltonian group actions, and Floer theory are among his research areas of interest.

Avery St. Dizier
NSF Postdoc
Avery St. Dizier joined the Department of Mathematics as a NSF postdoc in August 2020. He earned a bachelor's degree in mathematics from Louisana State University in 2015. He went on to attend Cornell University, where he completed his master's degree in mathematics in 2018 and his PhD in mathematics in 2020. His research interests are in the areas of algebraic combinatorics, Schubert Polynomials, and polytopes.

Mao Li
J.L. Doob Research Assistant Professor
Mao Li joined the Department of Mathematics as a J.L. Doob Research Assistant Professor in January 2021. He earned his PhD from the University of Wisconsin-Madison in 2019. His research areas of interest include algebraic geometry, Higgs bundles, D modules, and geometric Langlands conjecture.

INSTRUCTORS

Claudia Freiji
Instructor, Actuarial Science Program
Claudia Freiji joined in August 2020 as an instructor, actuarial advisor, and coordinator of the Illinois Risk Lab (IRisk Lab). Claudia received her MSc. in Applied Statistics from Ohio State University in 1991, and her MS in Financial Economics from the University of London. Claudia brings over 20 years of experience as a lecturer and academic advisor.

STAFF

Kaitlin Burgess
Academic advisor, Undergraduate Studies
Kaitlin Burgess joined the Department of Mathematics as an academic advisor for the Office of Undergraduate Studies in June 2021. Before coming to UIUC, Burgess served as an adjunct instructor at the College of DuPage Waubonsee Community College, and Triton College. Burgess completed her bachelor's degree in mathematics from North Central College in 2014 and her master's degree in mathematics from Northern Illinois University in 2017.

Paul Serafini
Academic program specialist, Actuarial Science Program
Currently based in Canada, Paul Serafini earned a bachelor's degree in mathematics, majoring in actuarial science, from the University of Waterloo in 1995. He is a Fellow of both the Society of Actuaries and Canadian Institute of Actuaries and has over 25 years of experience in the financial services industry in various sectors and disciplines. Among his duties as academic program specialist, he serves as the university liaison for the Actuarial Science Advisory Board.

Staci Walker
Office manager, Undergraduate Studies
Staci Walker returned to the Department of Mathematics in March 2021 to serve as the office manger for the Office of Undergraduate Studies, where she previously worked as an office support specialist from March 2019 to May 2020. In addition to her administrative role managing the undergraduate office, Walker also oversees the Departments of Mathematics and Statistics Convocation, coordinating all the efforts leading up to and during the ceremony. Walker earned a bachelor's degree in journalism/graphic design from Indiana University in May 1991 and a master's degree in organizational leadership from Lincoln Christian University in 2014.

Lukas Leisman
Visiting internship project developer, Inmas
Luke Leisman joined the department as the new project developer for the Internship Network in the Mathematical Sciences (Inmas) in June 2021. As project developer, Leisman works with a wide range of companies and other organizations to create new internship opportunities for graduate students in the mathematical sciences, serving as a liaison between industry and academia. Leisman comes from Valparaiso University, where he was an assistant professor in Physics and Astronomy, studying radio waves from extreme galaxies, using a range of mathematical and data analysis techniques. Before working at Valpo, he received his BS from Calvin University, and his PhD from Cornell University. When he's not working on astronomy or math, Luke enjoys kayaking, reading, playing the violin, and hanging out with friends.

Coming soon

We look forward to welcoming these up and comers to the Department of Mathematics during the 2021-22 academic year.

TENURE FACULTY

Xiaochen Jing
Assistant professor, Actuarial Science Program
August 2021

POSTDOCTORAL FACULTY

Roy Araiza
J.L. Doob Research Assistant Professor
August 2021

Meng Guo
J.L. Doob Research Assistant Professor
August 2021

Elizabeth Kelley
RTG Postdoc
August 2021

Kunjakanan Nath
J.L. Doob Research Assistant Professor
August 2021

Isabelle Shankar
J.L. Doob Research Assistant Professor
January 2022

Florian Zeiser
J.L. Doob Research Assistant Professor
January 2022

INSTRUCTORS

Theresa Dobbs
Instructor
August 2021

Jenny Srikant
Instructor
August 2021

Milliman Mentorship Program
Students of Color

Milliman is committed to promoting a high degree of diversity and inclusion within the actuarial field. With that, we are pleased to launch an actuarial mentorship program for students of underrepresented minorities (Black, Latino, Native American) at the University of Illinois. Through a series of meetings with their own mentor—a practicing actuary at Milliman—students will be able to learn about the field and what it takes to start a job that consistently ranks as one of the top careers in the nation.

In addition to learning from a mentor, students will be offered financial aid in order to help cover the costs of studying for and taking their first actuarial exam.

This program is currently targeted towards students of color, early in their college career, who may be interested in a STEM-oriented career. Interested candidates can apply to become a mentee at **go.math.illinois.edu/MillimanMentorship**.

The key benefits are:

- Financial support to cover exam sitting fees for your first SOA exam
- Financial support to pay for study materials or study course
- Pairing with a mentor who is an actuary at Milliman. This person will offer advice about the actuarial profession and encouragement as you prepare for your exam.

Applications are due August 30, 2021. The Milliman volunteers are looking forward to mentoring you!

Actuarial Science Program | Department of Mathematics
College of Liberal Arts & Sciences

math.illinois.edu/actuarial-science

Milliman

Partnership provides new mentorship opportunity for underrepresented students

In May, the Department of Mathematics and Milliman, a global independent risk management, benefits and technology firm, launched a new actuarial mentorship program for students of underrepresented minorities at the University of Illinois. This mentorship opportunity will allow students to learn about the field from a practicing actuary at Milliman through a series of meetings. In addition to learning from a mentor, students accepted into the program will be offered financial aid to help cover the costs of their first actuarial exam, including both financial support of prep materials and exam sitting fees. These exams are critical steps along the path to becoming an actuary and are often required by employers for both internships and full-time job offers.

This program, which will run through May 15, 2022, is currently targeted towards students of color, early in their college career, who may be interested in a career in science, technology, engineering, and/or mathematics.

"The initiative will greatly help to attract students of color and raise awareness and visibility of our program among prospective students," said Professor Runhuan Feng, director of the UIUC Actuarial Science Program. "We are very excited about this new partnership with Milliman, which has a long tradition and history of advancing social causes."

Founded in 1947, Milliman is committed to promoting a high degree of diversity and inclusion within the actuarial field. The program strives to increase the diversity of ethnicity and racial backgrounds, which reflects the growing trends in the actuarial profession. ▪

Learn more about the Milliman Mentorship Program at bit.ly/uiuc-milliman-mentor and on page 12.

NEWS FROM THE Illinois Journal of Mathematics

The first two issues of Volume 65 (April and June, 2021) of the Illinois Journal of Mathematics (IJM) have been published and are available online at Project Euclid at projecteuclid.org/journals/illinois-journal-of-mathematics. The remaining two issues of Volume 65 will be published in September and December.

With the assistance of its publishing partner, Duke University Press, IJM is now publishing articles online ahead of print. On average, articles are available online about two months ahead of the cover dates Advance articles are available at projecteuclid.org/info/euclid.ijm.

Print-plus-online subscriptions to IJM are available to institutions and to individuals. For prices or to subscribe, please contact Duke University Press (subscriptions@dukeupress.edu).

IJM EDITOR ELECTED TO NAS

IJM editorial board member Gigliola Staffilani was recently elected to the National Academy of Sciences. She has served on the IJM board since 2012.

Staffilani, the Abby Rockefeller Mauzé Professor of Mathematics at MIT, is a mathematical analyst whose research focuses on dispersive nonlinear partial differential equations. She is one of 59 new members who are women, the most elected to the NAS in a single year. She is a member of the Massachusetts Academy of Sciences, the American Academy of Arts and Sciences, and the National Academy of Sciences. Staffilani received a Guggenheim Fellowship and a Simons Fellowship in Mathematics and is a fellow of the American Mathematical Society.

NEW EDITORIAL BOARD MEMBER

IJM welcomes Felix Leditzky to its editorial board. He joined the faculty of the Mathematics Department at Illinois in early 2021 and had previously been on the faculty at the University of Waterloo. Leditzky's research interests are mathematical and computational aspects of quantum information theory. ▪

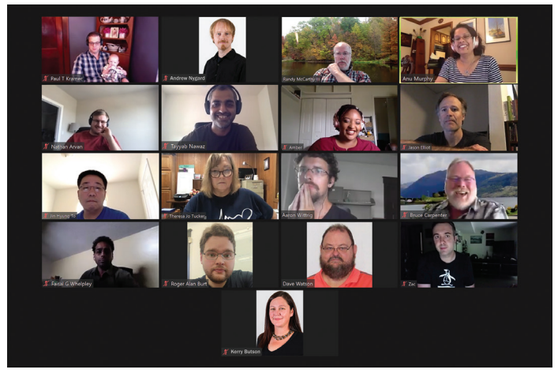
NEWS FROM NetMath

SUMMER SEMESTER COURSES

NetMath is excited to announce that we will be offering Math 257: Linear Algebra with Computational Applications for the first time during Summer 2021. Our Math 257 course uses material created by Philipp Hieronymi and the College of Engineering, and will be NetMath's first time offering a programming-based online course intended for students working in groups. NetMath instructors and instructional designers have been working hard to ensure that the student experience in the course remains faithful to what was intended by the course creators. We look forward to working with the Mathematics Department to develop more courses that incorporate these and other pedagogical strategies that will be effective for online students.

UHL SCHOLARSHIP AWARD FOR 2020-01

Funded through an endowment from Professor Jerry Uhl, the NetMath Jerry Uhl Scholarship is awarded to high school students. The scholarship covers tuition and fees for up to two NetMath courses. Award recipients are selected by committee on the basis of academic potential, financial need, and mathematical interest. Winners of the 2020–21 Jerry Uhl Scholarship are: Cara Chang & Justin Chen (Fremd High School), Nathra Ramrajvel & Ziyin Wang (Naperville Central High School), and Andrew Tobin (Palatine High School). We are currently accepting applications for the 2021-22 Uhl Scholarship.



An image from the virtual NetMath staff retreat in September 2020.

IN RECOGNITION OF EXCELLENCE

Amber Holmes received the 2021 NetMath Award for Outstanding Service.

Fall 2020 Mentor Awards were given to Edward Guo (Outstanding Grading Pool Performance), Alex Morris (Excellent Mentor Thoughts), Jimmy Tambakos (Outstanding New Mentor), Maxwell Altman (Most Positive Student Reviews), Trish Mata (Outstanding Response Time), and Alex Lim (Excellent Comments in Development Hour Activities). Stephanie Klajbor-Goderich was recognized for Exemplary Performance by an Academic Hourly.

Spring 2021 Mentor Awards were given to Hannah Rienton (Outstanding Perseverance), Alex Morris (Exemplary Communication with Students), Sohini Roy (Most Positive Student Reviews), Ben Kelleher (Outstanding Grading Feedback), and Kayla Sarantakos (Excellent Overall Performance). ▪

Dicks receives 2021 Bateman Fellowship

Robert Dicks was named the 2021 Paul T. Bateman Fellow in Number Theory. Dicks is a fourth year graduate student working in number theory under the supervision of Scott Ahlgren.

Dicks has submitted three research papers; two of these have been accepted by the International Journal of Number Theory and Proceedings of the American Mathematical Society. His research to date involves a generalization of a classical theorem of Ogg about Weierstrass points on modular curves, as well as congruences for half-integral and integral weight modular forms. Currently he is working on a project which involves using modular Galois representations to study families of congruences for half-integral weight modular forms.

In the past year, Dicks also supervised an Illinois Geometry Lab (IGL) project and worked as an assistant at the Arizona Winter School. Additonally, his research has been highlighted on Matrix's new YouTube channel. Watch the series and subscribe to the channel at bit.ly/yt-matrix.

The Paul T. Bateman Fellowship in Number Theory is awarded to a graduate student actively working on research and writing his/her thesis in number theory at the University of Illinois Urbana-Champaign. ▪

Things we love

OUR INFLUENTIAL FACULTY BEING RECOGNIZED

Professor Emeritus Bruce Berndt was named one of the ten most influential mathematicians today by AcademicInfluence.com. Among his many recognitions, Berndt received the Steele Prize for Mathematical Exposition from the American Mathematical Society in 1996. Berndt retired from the department in 2019 after 52 years of service.

Learn more at bit.ly/influential-math2020. ▪

MATHEMATICS GRADUATE STUDENT NAMED SEMIFINALIST IN 2021 STUDENT IMAGE OF RESEARCH COMPETITION

Department of Mathematics graduate student Emily Shinkle was named a Graduate Student Image of Research semifinalist.

Image of Research is an annual multidisciplinary competition celebrating the diversity and breadth of graduate student research at the University of Illinois Urbana-Champaign. It is organized by the Scholarly Commons of the University Library, the Graduate College, and supported by a generous gift from the Division of Intercollegiate Athletics.

The semifinalists were chosen by an interdisciplinary panel who judged entries on 1) connection between image, text, and research, 2) originality, and 3) visual impact.

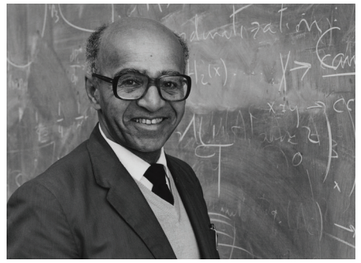
Learn more at bit.ly/2021gire. ▪

MATHEMATICS GRADUATES HARD AT WORK

About 90 percent of new LAS alumni are securing jobs (including military service), continuing education, or volunteer/service positions, according to the Illini Success initiative, a university-wide effort to better understand the early career paths of new alumni.

Among the statistics detailed within the report, the average starting salary of new alumni grew significantly during the past year for several LAS categories, including mathematics and statistics, which grew from $77,523 in 2018-19 to $79,590 in 2019-20, the highest in the college. ▪

THE DAVID H. BLACKWELL SUMMER SCHOLARS PROGRAM



Alumnus David Blackwell (BA, '38, MA, '39, PhD, '41, mathematics) overcame insurmountable odds to become an influential contributor to the world of mathematics and statistics. His remarkable life would culminate with 12 honorary doctorates and numerous awards, honors, and leadership roles throughout his career.

Named in his honor, the new David H. Blackwell Summer Scholars Program, hosted by the Illinois Departments of Statistics and Mathematics, is designed to increase the access and equity in the pipeline for graduate degrees in statistics, data science, and mathematics. The six-week program is open to rising junior and senior undergraduate students in the mathematical sciences who are interested in learning more about statistics, data science, and mathematics.

Learn more at bit.ly/uiuc-bssp. ▪

Mathematics Newsletter

University of Illinois at Urbana-Champaign — Spring 1991

Letter from the Chair

This is the first issue of a newsletter which will be published once each semester and sent to our former Ph.D. students. In it we will bring you news of what is happening on the Urbana campus, in particular news of the mathematics department and its faculty, and will try to keep you up to date on any changes. We will also print news from our alumni.

It gives me great pleasure that a former student, Gene Golub of Stanford University, will be awarded an honorary degree, the Doctor of Science, at the University of Illinois Commencement in Urbana-Champaign, May 12. He will also be the speaker at the Department of Mathematics Convocation Ceremony at 4:30 pm that afternoon at Krannert Center for the Performing Arts.

With the appointment of Wolfgang Haken, who joins Donald Burkholder and Michio Suzuki, there are now three mathematicians who are UI Center for Advanced Study Professors. Earl Berkson was appointed to the Center for the year and Zhong-jin Ruan for one term.

Three of our colleagues have retired this academic year. We will miss Professors Robert Ash, Robert Battle, and Frank Knight and wish them the best in their retirement.

I also have to announce the death of Professor Harold Bentinger. To the great regret of his colleagues and students, he died suddenly while swimming on June 25, 1990.

Due to the state's financial deficit our faculty and teaching assistant numbers have not kept up with increasing enrollment. We have tried not to cap courses but in some cases this has proved a burden on both our faculty and on the students who find themselves in extremely large classes. Department members are trying to find the most effective ways to use our teaching hours.

The intellectual exitement and vitality in the department, which I hope you remember as an important feature of your time here, continues apace. The weekly calendar shows an amazing variety of seminars, colloquia and special lectures. The Commons Room and the halls of our buildings are full of excited talk about theorems proved and hoped for. This is a lively place, full of people dedicated to mathematics, and no amount of budget stress can really diminish that.

Let us hear from you. We are eager to know and let others know where you are and what you are doing.

Ward Henson

MATH TIMES CELEBRATING 30 YEARS

The department's flagship publication made its debut in spring 1991 and it has since been a staple for delivering news, updates, and more to students, alumni, friends, faculty, and staff of the Department of Mathematics. Although the look has changed quite a bit over the years, it has become a beloved and important historical archive of the department.

Check out all the past issues of Math Times on our online archive at math.illinois.edu/mathtimes. ▪

SAMPERTON RECEIVED NSF EAGER GRANT

J.L. Doob Research Assistant Professor Eric Samperton was awarded an EAGER (Early-concept Grants for Exploratory Research) grant from the National Science Foundation (NSF). His project, "Detecting knottedness with quantum computers," investigates the extent to which quantum computers might solve problems in topology more efficiently than classical computers.

Learn more at bit.ly/uiuc20math-eager. ▪

UIUC unites with three universities to host first virtual IME Congress

In response to the ongoing COVID-19 pandemic, the global actuarial community united virtually this summer for the 24th International Congress on Insurance: Mathematics and Economics. In the spirit of coming together as one, this event was jointly hosted by the University of Illinois Urbana-Champaign, the Pennsylvania State University, Ulm University, and the University of New South Wales (UNSW Sydney).

The International Congress on Insurance: Mathematics and Economics (IME) is the largest international meeting dedicated to exploring current trends and research in actuarial science and the insurance and finance industries. The conference fosters academic and industry exchange on broad range of topics such as life-insurance, non-life insurance, data science, asset and risk management, valuation, financial modeling and emerging risks.

"Cohosting the most influential actuarial science congress with three other leading actuarial programs is a once-in-a-lifetime experience," said Zhongyi Yuan, organizing committee co-chair from Penn State. "I was excited and honored to work with the colleagues from UIUC, Ulm University, and UNSW Sydney, who keep impressing me with their creativity and enthusiasm for this event."

This was the first major international insurance research conference hosted by the Department of Mathematics and the University of Illinois.

"Hosting the 24th International Congress on Insurance: Mathematics and Economics greatly raised the awareness and the profile of our department and actuarial science program in the global community," said Professor Runhuan Feng, director of the actuarial science program at the University of Illinois and lead chair of the IME organizing committee. "UIUC has long had a strong educational program in actuarial science. This conference brought focus to our commensurately successful research program and rising reputation as a center of excellence in actuarial research at the world stage."

Additionally, this was the first IME Congress held virtually and by cross-continental universities. To ensure maximum accessibility for participants from all time zones around the globe, the conference was held over the course of five days, July 5-9, 2021. Presentations at the conference were recorded and made available to the public through Actuview, an online streaming platform established by the German Actuarial Association.

This virtual conference also commemorated the 40th year of publications of Insurance: Mathematics and Economics, which has become one of the top-ranked international academic journals in insurance research.

UIUC has also been selected as the onsite host of the 27th IME in 2024. Additionally, the university will also host the 57th Actuarial Research Conference (ARC) in 2022. ▪

Machine learning helps spot gait problems in individuals with multiple sclerosis

Monitoring the progression of multiple sclerosis-related gait issues can be challenging in adults over 50 years old, requiring a clinician to differentiate between problems related to MS and other age-related issues. To address this problem, researchers are integrating gait data and machine learning to advance the tools used to monitor and predict disease progression.

A new study of this approach, led by University of Illinois Urbana-Champaign graduate student Rachneet Kaur, kinesiology and community health professor Manuel Hernandez and industrial and enterprise engineering and mathematics professor Richard Sowers, is published in the journal Institute of Electrical and Electronics Engineers Transactions on Biomedical Engineering.

Multiple sclerosis can present itself in many ways in the approximately 2 million people that it affects globally, and walking problems are a common symptom. About half of the patients need walking assistance within 15 years of onset, the study reports.

Researchers Manuel Hernandez, left, Rachneet Kaur and Richard Sowers have developed a machine-learning algorithm that could help doctors spot gait problems in people with multiple sclerosis and determine if they are a result of the disease or healthy aging. | L. Brian Stauffer, UI Public Affairs

"We wanted to get a sense of the interactions between aging and concurrent MS disease-related changes, and whether we can also differentiate between the two in older adults with MS," Hernandez said. "Machine-learning techniques seem to work particularly well at spotting complex hidden changes in performance. We hypothesized that these analysis techniques might also be useful in predicting sudden gait changes in persons with MS."

Using an instrumented treadmill, the team collected gait data – normalized for body size and demographics – from 20 adults with MS and 20 age-, weight-, height- and gender-matched older adults without MS. The participants walked at a comfortable pace for up to 75 seconds while specialized software captured gait events, corresponding ground reaction forces and center-of-pressure positions during each walk. The team extracted each participant's characteristic spatial, temporal and kinetic features in their strides to examine variations in gait during each trial.

Changes in various gait features, including a data feature called the butterfly diagram, helped the team detect differences in gait patterns between participants. The diagram gains its name from the repeated center-of-pressure trajectory for multiple continuous strides during a subject's walk and is associated with critical neurological functions, the study reports.

"We study the effectiveness of a gait dynamics-based machine-learning framework to classify strides of older persons with MS from healthy controls to generalize across different walking tasks and over new subjects," Kaur said. "This proposed methodology is an advancement toward developing an assessment marker for medical professionals to predict older people with MS who are likely to have a worsening of symptoms in the near term.

Future studies can provide more thorough examinations to manage the study's small cohort size, Sowers said.

"Biomechanical systems, such as walking, are poorly modeled systems, making it difficult to spot problems in a clinical setting," Sowers said. "In this study, we are trying to extract conclusions from data sets that include many measurements of each individual, but a small number of individuals. The results of this study make significant headway in the area of clinical machine learning-based disease-prediction strategies." ▪ *Lois Yoksoulian*

Old chair reveals how Altgeld Hall was once the campus seat

Architects discover items hinting at the landmark building's presidential past

When you spend a year and a half immersed in a place, as Karla Smalley has in Altgeld Hall, you start to develop a sense for the significant details. One day not long ago the architect was drawn to an old chair on the building's third floor that seemed out of place, yet oddly familiar.

Smalley is an associate principal and architect at Bailey Edward, a firm hired by campus to help renovate Altgeld Hall while preserving the building's colorful history. Her work is part of the Altgeld and Illini Halls Building Project, which was launched to renovate Altgeld Hall and replace its neighbor across Wright Street with a new building to improve and modernize spaces in data science and other mathematical sciences.

Smalley was studying the building's decorative paint and windows when it occurred to her where she'd seen that old leather chair: the historical archives.

"When you look at those photos for a year and a half, they sort of become engrained in your mind," she said. So she went back to the archival photos, and sure enough, there was the chair in black and white, in the office of former University of Illinois President Andrew Draper, who'd served from 1894-1904.

Smalley determined that the leather chair was an original feature of the presidential office suite when it was located in the then-new Altgeld Hall (then called the University Library), which opened in 1897. There were other chairs like it in historical photos, but this was the only one that remains in the building. Today it sits next to a professor's desk in what used to be the president's private office.

The old chair is a clue to Altgeld Hall's past. In the building's early days it functioned not as just the campus library but the center of university operations. Along with the presidential suite, the building housed operations for the Board of Trustees, bursar, and registrar, among others.

Today, the space where Smalley found the chair—located on the north side of the building facing the Alma Mater—is the undergraduate office for the Department of Mathematics. The former greeting area for the president's office is still a greeting area, but instead of officials and politicians, it's the welcome point for students looking for help and advising.

In the same space along that north side is the Board of Trustees' former waiting room, now occupied by academic advisors. Part of the board's former meeting room is now occupied by Alison Champion, associate director of undergraduate studies.

The history of the space isn't lost on its current occupants. Champion said that they enjoy some impressive architectural features that aren't typical in a normal office.

"The most wonderful features of our space include a lovely set of window seats in (Room) 313, which is where students wait before their advisor appointments in non-COVID times, inside the area that looks like a smaller tower on the outside of Altgeld," she said. "(There are) two fireplaces with ornate wood coverings—but they're blocked off to keep out the bat visitor that we had once—and of course the view of the Alma Mater. The fireplaces are the real showpiece."

According to historical documents, what's now the undergraduate office served as the presidential suite from 1897 through the early 1900s. After President Draper departed in 1904, the space was occupied by President Edmund James (who served from 1904-1920). By 1915, James—along with the Board of Trustees, registrar, and other administrators—had relocated to what's now Henry Administration Building.

In all, Altgeld Hall has undergone four renovations (with the fifth one getting underway) and shifted in purpose from the library and administration building to the School of Law and the Department of Mathematics. And yet that chair and other furniture items around the building have remained in place. Smalley, for example, located a grandfather clock, a library table, and several paintings and photos that were present when the building opened in 1897.

"It's almost been like a treasure hunt," Smalley said, of her search for original items.

As for the old chair itself, it sits in the office of Randy McCarthy, professor and director of undergraduate studies in the Department of Mathematics. He acquired it back in 2005 from the department chair—the head of the department, that is—who'd had it since at least 1994.

Clouds move across the horizon over Altgeld Hall. | UI Public Affairs

The chair's journey before that is a mystery, though it currently sits just a few feet from where it first appeared in historical photos. McCarthy knows that the original president's desk that accompanied the chair is now in Henry Administration Building.

McCarthy has long been intrigued by the building's history, ever since he heard that a colleague worked in an office that still had the bursar's old money safe. Years ago he learned the history of his own office from a historian, and now McCarthy has his students sit in the chair when they come in for advising.

Occasionally, McCarthy said, he humors them with the story behind the chair and his own office. Every other Friday some 120 years ago, he said, as faculty and staff lined up in the hallway to be paid at the bursar's office, the president would open the door of his office to meet them. ▪ *Dave Evensen*

In April, the College of Liberal Arts & Sciences hosted a maxed-out alumni & friends webinar, "Preserving the Stories Past of Altgeld Hall." This panel discussion, moderated by alumna Susan Morisato, explored how the hidden history of Altgeld Hall is being recaptured through restoration work and remarkable discoveries and featured Professor Sheldon Katz, special advisor to the dean for the Altgeld Hall renovation, and Robin Whitehurst and Karla Smalley from Bailey Edward. Missed it live? Watch the recording at **bit.ly/2021-04LASonTap**.

Department & LAS Awards 2020-21

In April, more than 50 students, faculty, staff, and alumni were honored during the Department of Mathematics virtual awards program. Congratulations to this year's recipients!

FACULTY AWARDS

Michael V. Colla Prize for Mathematics Related to Medicine
Zoi Rapti

NON-INSTRUCTIONAL AWARDS

Exceptional Merit Award in Mathematics for Non-Instructional Staff
Brock Martin

NetMath Award for Outstanding Service
Amber Holmes

GRADUATE AWARDS & FELLOWSHIPS

David G. Bourgin Mathematics Fellowship
Vaibhav Karve

Kuo-Tsai Chen Prize in Mathematics
Hadrian Quan

Wolfgang Haken Prize in Geometry and Topology
Elizabeth Tatum

Dr. Lois M. Lackner Mathematics Fellowship
Emily Shinkle

Irving Reiner Memorial Prize
Hsin-Po Wang

State Farm Actuarial Science Scholarship
Churui Li

Philippe Tondeur Dissertation Prize
William Balderrama

Waldemar J., Barbara G., and Juliette Alexandra Trjitzinsky Fellowship
Xiaolong Han
Yifan Jing
Hadrian Quan

UNDERGRADUATE AWARDS & SCHOLARSHIPS

H. Roy Brahana Prize
David Brewster

Most Outstanding Major in Actuarial Science
Yuling Wu

Most Outstanding Major in Mathematics
Jinghui Yang

Most Outstanding Major in Mathematics and Computer Science
Guangkuo Liu

Most Outstanding Major in Teaching of Mathematics
Benjamin Candee

Salma Wanna Memorial Award
Ariel Lerman

Elizabeth R. Bennett Scholarship
Yu Jun Loo

Actuarial Science Alumni Scholarship
Philip Song

Josephine Chanler Scholarship in Mathematics
Suchetan Dontha

Vincent O. Greene Scholarship in Mathematics
Katrina Schideman

IMC Trading Mathematics Scholarship
Claire Song

Illinois Mathematics Excellence Scholarship
Garrett Credi

Dr. Lois M. Lackner Mathematics Scholarship
Daria Chudnovsky

Northwestern Mutual Scholarship
Anna Schulz
Stuart Seputro
Minwoo Sung

Danyel Graves Larsen

2021 Alumni Humanitarian Award

Danyel Graves Larsen of Oregon, Ill., has been named the recipient of the 2021 Alumni Humanitarian Award for her excellence and impact in the field of mathematics education.

For more than 15 years, Larsen has been cultivating the advancement of mathematics through education. After graduating from UIUC in 2004, she began teaching high school mathematics at Hiawatha Community Unit School District for three years before joining the Oregon Community School District in 2007.

Larsen's impact on the students of Oregon Community School District has been tremendous since she joined the district. Prior to her coming to the district as a high school math teacher, Oregon High School (OHS) was scoring below average student achievement in the area of mathematics for schools of its size and demographics. Almost immediately, Larsen's efforts served to change the course of education in mathematics for all OHS students. Within her first year, she was named department chair, and under her leadership, OHS dramatically changed its curriculum and course sequencing to better serve the needs of the students and community.

Currently, Larsen serves as National Board certification coordinator for the Oregon Community Unit School District and is also a candidate cohort facilitator for the National Board Resource Center at Illinois State University.

Among her numerous recognitions, Larsen has received the Lee Yunker Mathematics Leadership Award from the Illinois Council of Teachers of Mathematics and been named an Exemplary Nominee for the Association for Supervision and Curriculum Development Outstanding Young Educator Award. In 2015, she earned a Those Who Excel Certificate of Meritorious Service Award from the Illinois State Board of Education and has twice been named a state finalist for the Presidential Award for Excellence in Mathematics and Science Teaching in 2015 and 2017.

Additionally, Larsen holds membership in several professional organizations, including the National Council of Teachers of Mathematics, the Association for Supervision and Curriculum Development and the Illinois Council of Teachers of Mathematics. She also served on the Illinois Education Associations Teacher Leaders and National Board Outreach Committee.

Larsen graduated with a bachelor's degree in mathematics from UIUC in 2004. She later completed a master's degree in mathematics with a specialization in education from Northern Illinois University. She and her husband, Adam, have two sons. ▪

Michael Stillman

2021 Outstanding Achievement Award

Dr. Michael Stillman of Ithaca, N.Y, has been named a recipient of the 2021 Outstanding Achievement Award for his outstanding professional career and significant contributions in computational algebraic geometry and commutative algebra.

In 1983, Stillman began work with David Bayer on the Macaulay computer algebra system. Named after English mathematician Francis Sowerby Macaulay, the Macaulay system showed that it was possible to solve actual problems in algebraic geometry using Gröbner basis techniques. The package became widely used by researchers, and Stillman and Bayer continued to improve the system until 1993. To get beyond several limitations in the design, Stillman began work on the Macaulay2 system with UIUC Professor Emeritus Daniel Grayson in 1993. Macaulay2 remains in active development and has been cited in over 2000 articles. In 2019, Stillman received the Richard D. Jenks Memorial Prize for Excellence in Software Engineering Applied to Computer Algebra for the revolutionary Macaulay and Macaulay2 computer algebra systems.

Additionally, Stillman had a major impact on the understanding of the Hilbert scheme; his paper reputedly is among the top cited papers on the subject. In 2015, he was selected as a fellow of the American Mathematical Society for his work in symbolic computation.

Following two postdoctoral research fellowships at Brandeis University and Massachusetts Institute of Technology (MIT), Stillman joined the mathematics faculty at Cornell University in 1987 as an assistant professor, where he currently serves as a professor of mathematics. He has advised 11 PhD dissertations, has published over 55 mathematical papers, and has been involved with numerous workshops and outreach activities targeted at graduate students and postdocs. He was recognized for his teaching as one of the top 10 professors at Cornell by Business Insider in 2013. He received the Stephen and Margery Russell Distinguished Teaching Award from Cornell in 2013 and has twice received the Cornell Department of Mathematics Senior Faculty Teaching Award in 2002 and 2016.

Stillman graduated with a bachelor's degree in mathematics from UIUC in 1978 before completing his PhD in mathematics from Harvard University in 1983. He was named the recipient of the department's prestigious H. Roy Brahana Prize in 1978. In Stillman's nomination letter, the late Professor Emeritus Graham Evans, wrote "I am not aware of any other of our students, especially undergraduates, whose work has had such an effect on their field." ▪

Alison Reddy

[LAS Academic Professional Award]

REDDY RECEIVES 2020-21 LAS AP AWARD

Seven staff and academic professionals were recognized for outstanding contributions to the College of Liberal Arts & Sciences in 2020-21, including Alison Reddy, director of mathematics placement and coordinator of quantitative reasoning courses in the Department of Mathematics. Reddy has been named a recipient of the LAS Academic Professional Award.

Reddy leads a team of math instructors who are selected to work with incoming first-generation students and carefully designs courses to provide a rigorous yet welcoming and dynamic environment for students. Wrote one colleague, "Alison is clearly influencing the way math instruction and teaching should be delivered at Illinois."

Reddy and the other 2020-21 recipients were honored during a virtual ceremony in March. ▪

UNDERGRADUATE AWARDS & SCHOLARSHIPS (Continued)

Susan C. Morisato Mathematics Scholarship
Anna Schulz

Ruth V. Shaff and Genevie I. Andrews Mathematics Scholarship
Connie Chen

Bradley M. and Karen A. Smith Scholarship
Eric Bayer
James Hynes
Evelyn Lai

Milliman Actuarial Science Scholarship
Tina Guo

State Farm Actuarial Science Scholarship
Matthew Jalnos
Filip Klapacz
Evan March
Priyesh Patel
Alexander Valkanas
Brendan Watson
Andy Wang
Henry Wu
Jesse Yan

UNDERGRADUATE MATH CONTESTS

2020 U of I Freshman Math Contest
First place: Dinglong Wang
Second place: Aaron Cho

2020 U of I Mock Putnam Contest
First place: Pavle Vuksanovic
Second place: Dinglong Wang
Third place: Alexander Ristich

2021 U of I Undergraduate Math Contest
First place: Pavle Vuksanovic
Second place: Alexander Ristich

ILLINOIS GEOMETRY LAB AWARDS

Susan C. Morisato IGL Scholarship
Nachiketa Adhikari
Jenna Zomback

IGL Research Award
"Firefighters on Graphs"
Graduate student team leader: ***Bob Krueger***
Undergraduate students: ***Tongyun Huang, Andy Lee, Mose Mizrahi, Abdullah Nooraldeen, Casey Wheaton-Werle***
Faculty mentor: ***Sean English***

View the recording of the 2021 virtual department awards program, including remarks from our 2020 and 2021 alumni awards recipients, at **bit.ly/math21deptawards**.

Judy Leavitt Walker

2021 Outstanding Achievement Award

Dr. Judy Leavitt Walker of Lincoln, Neb., has been named a recipient of the 2021 Outstanding Achievement Award for her outstanding professional career and her leadership and contributions to the advancement of mathematics and inclusion.

Walker currently serves as the Aaron Douglas Professor of Mathematics and associate vice chancellor for faculty and academic affairs at the University of Nebraska–Lincoln (UNL). On the national level, Walker serves as a trustee of the American Mathematical Society (AMS) and is currently serving as chair of the AMS Board of Trustees.

Additionally, Walker co-founded the Nebraska Conference for Undergraduate Women in Mathematics (NCUWM), a national conference for undergraduate students in mathematics with a focus on women. The NWCUM won the AMS Programs that Make a Difference Award in 2013.

Walker holds professional memberships in AMS, the American Association for the Advancement of Science (AAAS), the Association for Women in Mathematics (AWM) and the Mathematical Association of America (MAA), and it was noted by one of her nominators that she is one of the few individuals that could be called up to serve in leadership roles in each of the AMS, MAA, and AWM. She was named a fellow of AMS in 2012, and in 2019, she was named a fellow of AWM.

Among her numerous recognitions and honors, Walker received the MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics in 2006, the AWM Louise Hay Award for Contributions to Mathematics Education in 2016 and the UNL Outstanding Teaching and Instructional Creativity Award in 2014. She was also selected as MAA George Pólya Lecturer from 2009-2011 and has been awarded more than 20 grants, including a National Science Foundation (NSF) INCLUDES grant which conducted research to study and document the effectiveness of several long-running programs that enabled and encouraged women to participate in mathematics. She has published more than 30 publications and has served as an invited lecturer nearly 100 times.

Walker completed both a master's degree and a PhD from University of Illinois Urbana-Champaign. She received the department's Irving Reiner Memorial Award in 1996. Before attending UIUC, she graduated with honors from University of Michigan with a bachelor's degree in mathematics in 1990. She and her husband, Mark Walker (PhD '96, mathematics), Willa Cather Professor of Mathematics at UNL, have two children: Madeline and Becca. ▪

The Department of Mathematics Impact Award recognizes faculty, staff, and graduate students in the Department of Mathematics for work which has substantially improved the welfare of members of our community since the start of the COVID-19 pandemic. Thank you to these individuals and groups for their innovation that helped our students to succeed and thrive throughout the past year.

NATHAN ARVAN

IT specialist, NetMath Program

As IT specialist for the NetMath Program, Nathan Arvan is responsible for maintaining and enhancing the user-friendliness of multiple aspects of the NetMath IT infrastructure. These include most of our administrative and studentfacing apparatus, including the Nexus record application. When the pandemic hit last spring, we had one week to transition from paper-based exams, designed to be taken in-person with proctors, to a fully online format. He was tasked with building the online exam system, and he was able to set up a mechanism that was functional, flexible, and met the needs of our program at a critical juncture. The online exam system was made available to students free of charge, and allowed them to complete their NetMath course with minimal interruption to their original timeline. Last fall as the pandemic continued to adversely affect our students, NetMath made the decision to grant an automatic, free extension to every student currently registered in a NetMath course. Again, Arvan was a key contributor in ensuring a smooth rollout of the extensions, from sending email notifications to all affected students to automated entry of the new extended end course date in every Nexus student record. In both instances, we were able to pivot and meet the needs of our students at a difficult time, thanks largely to his efforts.

EMILY HEATH, GRACE MCCOURT, MINA NAHVI

Graduate Student Mentoring Program

Recognizing the unique challenges of starting graduate school remotely during the pandemic, graduate students Emily Heath, Grace McCourt, and Mina Nahvi saw an opportunity for the department to welcome its incoming students by providing them with peer mentors. As organizers of the Graduate Student Mentoring Program, they recruited 31 returning students and paired 37 incoming students in the Math and Actuarial Science programs with mentors. Each mentor met with their mentee over Zoom several times throughout the fall semester in addition to checking in over email. The mentors were provided with suggestions for topics to discuss with their mentees, from managing teaching responsibilities and finding an advisor to joining the AWM or IGL and exploring Champaign-Urbana (as much as possible during the pandemic). Mentors were encouraged to introduce their mentee to other graduate students to expand their support network, especially to include students with similar research interests or hobbies. In a survey collected at the end of the semester, the response from both returning and incoming students was overwhelmingly positive, and the program is expected to run again next year.

JENNIFER MCNEILLY

Director, Math Merit Workshop
Instructor

As director of the Math Merit Workshop, Jennifer McNeilly has gone above and beyond to keep lines of communication open between Merit students, TAs, and herself. By hosting regular Merit TA zoom meetings, she's been able to facilitate an exchange of ideas that allow us to share what works and what we're still working on, while also checking in on our well-being. She also has been quick to respond in a kind and empathetic manner when we have concerns about our students' well-being, whether this involves checking in with the students via email or zoom, recommending resources, or helping TAs advocate on their behalf. Teaching online is a struggle at the best of times, but McNeilly's efforts to alleviate the struggle and amplify the best of times have been absolutely invaluable in the time of COVID.

SUMMER 2020 SIM CAMP STAFF

The organizers, instructors, assistant instructors, and support faculty and staff conducted successful virtual programs for students in 8th-12th grades during the COVID shutdown last summer. They completely restructured the program in order to continue to provide the experience for the students, gaining useful skills and knowledge for themselves in creating the experience. They prepared supply packets for the participants to be distributed through a curbside pickup at the Assembly Hall. When there was civil unrest on the days surrounding this event, they adjusted again and shipped the packets to the campers. It would have been easy to cancel the program many times throughout the process, but they persevered and provided the opportunity to the middle and high school students who gained from the camp. Overcoming all of the challenges they faced provided growth for the organizers, instructors and assistant instructors, as they shared their enthusiasm for mathematics with the younger students. ▪

NEWS FROM THE
Mathematics Development Advisory Board

The 11th annual meeting of the Mathematics Development Advisory Board (MDAB) was held virtually on Oct. 9, 2020, by Zoom. The 12 alumni forming the MDAB provide important guidance to the department for its ongoing efforts. The switch to a remote venue required some adjustments to the usual on-campus meeting format. However, all worked smoothly, except that the board had to forego lunch, refreshments, and other in-person social activities.

The annual meeting included an update on the department's activities, new initiatives, and aspirations. Detailed descriptions of the department's and campus's response to the pandemic were provided, together with a report on new large National Science Foundation (NSF) grants, hiring, and student data. For the second consecutive year, the most significant planned activity discussed by the board was the rehabilitation of Altgeld Hall and the replacement of Illini Hall with a new and larger building.

The board's advice and actions have helped the department chart its course and achieve its goals over time. Most of the work of the MDAB is done by four committees, which meet by Zoom throughout the year: the Marketing and Solicitation Strategy Committee, the Alumni Engagement Committee, the Student Experience Committee, and the Scholarships Committee. ▪

Mathematics Development Advisory Board 2020-21

Katy Crafton Fluet, Menlo Park, Calif.
Greig Woodring, Chesterfield, Mo.
Bonita (Bonnie) Mampe, McLean, Va.
Steve Cox, Champaign, Ill.
Howard Aizenstein, Pittsburgh, Pa.
Matt Byron, St. Louis, Mo.
Meghan Galiardi, Albuquerque, N.M.
Mary Lynn Reed, Rochester, N.Y.
George Akst, Annandale, Va.
Jerome (Jerry) Casey, Bloomington, Minn.
William (Bill) Perry, Dallas, Texas
William (Bill) Schwegler, Cedar Rapids, Iowa

Learn more about MDAB at math.illinois.edu/mdab.

Last October, we celebrated the power of LAS innovation and the amazing impact of the people in the College of Liberal Arts & Sciences during the inaugural LAS Impact. Save the date for this fall's celebration, slated for Oct. 25-29, 2021.

LAS Impact

View the recordings from LAS Impact 2020, including the Altgeld Chimes Centennial Concert and "Celebrating a Campus Landmark: The History and Impact of Altgeld Hall," at **go.las.illinois.edu/LASImpact2020.**

Alumni Notes

Robert Purvy (BS '72) wrote "Inventing the Future," a novel about the revolutionary development of the Xerox Star. His second post-UIUC job, Purvy worked as an engineer for the Xerox Star, which has been created as the first commercial personal computer to incorporate technologies that have since become standard in PCs.

Marta Civil (PhD '90) is a 2021 recipient of the National Council of Teachers of Mathematics (NCTM) Lifetime Achievement Award. The award honors NCTM members who have exhibited a lifetime of achievement in mathematics education at the national level. Civil is the Roy F. Graesser Endowed Professor at the University of Arizona, where she holds appointments in the department of mathematics, the department of mathematics education, and the department of teaching, learning, and sociocultural studies.

Evan Glazer (BS '93, MS '94) has been named the fifth president of the Illinois Mathematics and Science Academy (IMSA). He currently serves as the head of school for Avenues: The World School in New York, a grades N-12 independent school with 1,700 students and five schools.

Jonathan Hayward (MS '98) released his book, "Orthodox Theology and Technology: A Profoundly Gifted Autobiography" in December 2020. It was reviewed by the Midwest Book Review in April. Learn more at cjshayward.com.

Atul Dixit (Ph.D '12) has been awarded the 2021 Gábor Szegö Prize. This prize is awarded every two years by the SIAM Activity Group on Orthogonal Polynomials and Special Functions (SIAG/OPSF) and is awarded to an early-career researcher for outstanding research contributions within 10 years of obtaining a Ph.D. An assistant professor of mathematics at Indian Institute of Technology Gandhinagar, Dixit is also a co-organizer of the Special Functions and Number Theory seminar.

Eliana Duarte (Ph.D. '17) was awarded a grant by the Portuguese national funding agency for science and technology FCT (Fundação para Ciência e a Tecnologia), one of five acclaimed fellowships in the field of mathematics and computer science. For the next six years, she will work as a junior researcher at the Center for Mathematics at the University of Porto. Currently, Duarte is a postdoctoral researcher at the Otto-von-Guericke Universität Magdeburg.

Share your alumni news!

Have news you would like to share with your fellow alums in an upcoming issue of Math Monthly, our alumni & friends e-newsletter, and/or the next issue of Math Times? Submit your items using our online form at **bit.ly/uiucmath-alum-news**.

Each year, the Department of Mathematics recognizes exceptional alumni who have made significant contributions through outstanding professional achievement in academia, research, and industry.

Nominations for the 2022 UIUC Department of Mathematics Alumni Awards are now open:

- Outstanding Achievement Award
- Outstanding Recent Alumni
- Alumni Humanitarian Award
- Actuarial Science Alumni of the Year Award

For more information and to submit your nomination online, visit **math.illinois.edu/alumni-awards**.

The deadline for 2021 nominations is **Monday, Nov. 15, 2021**.

Remembering

Professor Emeritus Graham Evans

Professor Emeritus Graham Evans passed away on March 20, 2021. Evans joined the department in 1972 and retired in 2004. While a member of the department, he served as managing editor of the Illinois Journal of Mathematics (1994-98) and as director of undergraduate studies (2000-04).

His research was centered on commutative rings and the study of free resolutions of modules. He spent the early part of his research collaborating on a series of articles with David Eisenbud and wrote with several others while at Illinois—principally Phillip Griffith. In the mid 1970s, he worked with then UIUC undergraduate Michael Stillman (BA '78) on a computer program to create free resolutions. This was substantially improved by Stillman, David Bayer, Professor Emeritus Daniel Grayson, and others to become Macaulay 2.

Four students completed their PhD's under his direction. Evans received an Alfred P. Sloan Foundation Fellowship in 1975-76 that he spent at Institut des Hautes Études Scientifiques (IHES) in Paris. In 2001, he received the Campus Award for Excellence in Advising Undergraduate Students. ▪

Since his passing, several members of the UIUC Mathematics family and members of the mathematics community have sent us their memories of Professor Evans, sharing how impactful he was on their lives. At right are some highlights of the incredible messages we have received. See more on his memorial page at **math.illinois.edu/graham-evans**.

"I had Graham Evans for an undergrad class Math 305, A Teacher's Course, which basically meant that the teacher could teach anything he wanted. One of the lessons in that course that I remembered was Graham Evans playing the cello during class to demonstrate the mathematics of music. I've been a high school mathematics teacher since graduating from UIUC. Every time I encounter an exceptional math student who happens to also excel at music, I am reminded of how math and music are intertwined and Graham playing the cello."

Candice Sagliano
BS, '00, mathematics

"Graham Evans was my undergraduate mentor and had a profound impact on me. I met him through the Campus Honors Program soon after I arrived on campus in 1995. From the day I met him, Graham was incredibly welcoming. He did everything he could, big and small, to make a nervous and anxious young mathematician more comfortable. It is no coincidence that I asked Mike Stillman, another of Graham's mentees, to be my adviser in graduate school, and I know both of us feel a great debt to Graham. We try to emulate the remarkable example Graham set for us."

Chris Francisco
BS, '99, mathematics and economics

"It's hard to overstate how much I have benefited from the generosity of E. Graham Evans Jr., who went out of his way time and time again to create special opportunities for me as a teenager growing up in central Illinois. We first met on a college visit sometime in 2001, during which I met with him in his office in his capacity as director of undergraduate studies. At that point, I had fond memories of UIUC from the Illinois state math competitions, but I had no real connection with the university. Much to my surprise, he stayed in touch and offered to use some department funding earmarked for student travel to send me to the Nebraska Conference for Undergraduate Women in my senior year of high school. More incredibly, he invited me to participate as some sort of unofficial satellite to an REU program taking place at UIUC in the summer of 2002. At the end of the summer, Graham also arranged for me to give a talk at UIUC about my Intel Science Talent Search research project, and he recruited people to actually show up, which was a particular thrill.

"When Graham retired, he gave me his entire math library, which was an incredible bounty to receive as a PhD student. I gave a few books away but kept most of them, and they still form a substantial part of my collection."

Emily Riehl
Associate professor of mathematics, Johns Hopkins University

"Graham was one of my closest friends in grad school. He and Kay were already married then—I think they had been childhood sweethearts––and I remember being very impressed by their snug little apartment.

"Graham was a student of Kaplansky, and I followed all of Kap's marvelous lectures too. We both developed a fascination with free resolutions from this exposure. Graham wrote the notes for Richard Swan's course in K-theory—I enjoyed learning the basics from them later. Graham took a Postdoc at MIT and I followed to Brandeis, nearby. There we continued our friendship and collaborated on basic elements (arising from Swan's work) and on set-theoretic complete intersections—the latter resulting in the paper for which (I believe) I was given tenure at Brandeis.

"Graham went on to a career at UIUC, while I stayed at Brandeis, but we continued many interactions and parallels. For example, Graham's undergraduate student Mike Stillman wrote an early program to compute syzygies, while Buchsbaum and I employed an undergraduate, Ray Zibman, for the same purpose (none of us knew about Groebner bases, so the programs were only heuristic; Schreyer's algorithm and the work of Bayer and Stillman on Macaulay lay, unsuspected, in the future.)

"Graham and I both spent the year 1975–76 at the I.H.E.S, outside of Paris, supported by Sloan Fellowships. He was already obsessed with (but making no progress on) the 'Syzygy Problem'—the conjecture that a non-free n-th syzygy of finite projective dimension must have rank at least n. It took a long time, but his persistence paid off: he and his Urbana colleague Phillip Griffith published their proof in the Annals of Math in 1981. Their London Math Society book, published a few years later, has a nice exposition of the whole area. The paper continues to be influential: it already has 65 citations, 11 new ones in papers appearing in the last 5 years alone.

"At Urbana, Graham and Kay continued to nurture many students, one of whom, Hara Charalambous, came to me as a postdoc and is now chair of mathematics in Thessaloniki. In addition to his PhD students, listed at the math genealogy site, there was a succession of undergraduates who enjoyed the welcoming warmth of that household, including Mike Stillman and, much more recently, Emily Riehl. I believe that Kay, an accomplished seamstress, even sewed wedding dresses for some of them! Graham was an excellent and enthusiastic cook—for example, he made the first and only "Christmas goose" that I ever tasted. He was active in teaching non-mathematicians at Urbana, too: he once told me about a course he gave regularly, in which, on the first day, he would say: 'Don't be afraid! Now reach out and touch the computer.' I can hear him saying it …"

David Eisenbud
Director of the Mathematical Sciences Research Institute, University of California, Berkeley

Remembering a strong community - and a rigorous mathematician

Alumni Bill and Linda Perry honor a former professor and Altgeld Hall

For Bill and Linda Perry, Altgeld Hall is about mathematics—and so much more.

The couple arrived at U of I in fall 1967; Bill had a graduate assistantship in mathematics and Linda had a teaching position at Urbana High School. The May 1967 mathematics graduates of 500-student Park College in Parkville, Missouri, arrived in awe of 30,000-student University of Illinois. Bill (PhD, '72, mathematics) and Linda (MS, '71, mathematics) knew they would need to find a small, connected community at Illinois, and they did.

The mathematics faculty and staff were welcoming and supportive. "From the moment we arrived, we felt accepted and valued," said Bill and Linda, in a joint recollection provided to LAS. And when Bill was accepted as a doctoral student by professor T.W. Ting of the Department of Mathematics that feeling of acceptance deepened.

Bill and Linda's gratitude for their experience at Illinois led them to make a donation to the Campaign for Altgeld and Illini Halls, which is supporting the renovation Altgeld Hall and the construction of a new building on the site of Illini Hall.

The couple recall how, in August 1967, they loaded their belongings into a U-Haul trailer, hooked it up to the Chevy, and drove from Kansas City to Urbana.

"About a week before we left we found out we had an apartment in Orchard Downs," Bill said. "That was good news because as yet we had not found a place to live. The greatest benefit of getting an apartment in the Downs was that we met couples there who are still our friends today."

After getting moved in, Bill went to check in at the Department of Mathematics.

"I'll never forget Altgeld Hall," Bill said. "My first teaching assistant office was there, I spent many hours in the Altgeld library, had several classes there, made grad student friends there, and found the faculty and staff to be very friendly and helpful. Professor Ting, my thesis advisor had his office in Altgeld."

Bill added: "After I became Ting's student I spent a lot of time in his office and remember with fondness those times working with him. He was a stickler for rigor, extremely hard working, and a great advisor. In addition, he and his wife, Eutrice, invited us to their home several times for dinner, making us feel very special."

The overall experience deeply influenced Linda and Bill.

"As you can see from what we did with the rest of our lives, we have spent it all in university communities,"

Bill and Linda Perry | Photo provided.

Linda said. "So clearly we had a great experience at the University of Illinois, which made us want to continue being with educational institutions."

Bill was president of Eastern Illinois University from 2007 to 2015 and was professor of mathematics at Texas A&M University in College Station, where he also eventually served in administrative roles, from 1971 to 2007. Linda is senior lecturer emeritus of accounting at Texas A&M, where she taught from 1983 to 2007, and she was a lecturer at Eastern Illinois University from 2008 to 2009.

When Bill and Linda heard about the campaign to renovate Altgeld Hall, they decided to give back as a token of their appreciation for finding a caring community in the Department of Mathematics, especially because of Professor Ting.

"Professor Ting enabled me, and by extension, Linda, to have wonderful, fulfilling careers in higher education," Bill said. "Linda and I are grateful that we could make a gift to honor him as part of the Altgeld Hall renovation." ▪

Kimberly Belser

As chair of the newly formed Alumni Engagement Committee within the Mathematics Development Advisory Board (MDAB), Bill is excited to connect with fellow math alumni and share ways alums can stay involved with the department. Learn more about Bill's experience and ways you can engage with the department at bit.ly/mdab-message.

We count on the generosity of alumni and friends to support students as they embark on earning a world-class education and to fund faculty members as they conduct world changing research and train students. **Your investment makes a difference.**

❑ Yes! I believe in the importance of excellence in mathematics and wish to show my support!

$_____ **Mathematics Partnership Fund** (332346 default)
Your gift to the Partnership Fund will have the widest impact as it supports a range of activities including student awards and travel, distinguished lecturers, the recruitment of excellent faculty, and alumni events.

$_____ **Actuarial Science Fund** (330225)
Support Actuarial Science through scholarships, fellowships, graderships, and faculty support.

$_____ **Illinois Mathematics Excellence Scholarship Fund** (341016)
Scholarships enable the most promising admitted undergraduate mathematics students to pursue their education at Illinois.

$_____ **Mathematics Graduate Student Support Fund** (339209)
Supports the enrichment of educational opportunities for graduate students.

$_____ **Mathematics Research Experience Endowment Fund** (772913)
Support research experiences for graduate and undergraduate students.

$_____ **John E. & Rebecca S. Wetzel Undergraduate Endowment Fund** (776209)
Supports the enrichment of educational opportunities for undergraduate students.

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If you would like more information about giving to the Department of Mathematics, please contact Evan Tammen, associate director of development, College of Liberal Arts & Sciences, 217.300.5114, etammen2@illinois.edu.

math.illinois.edu/giving

You will receive a receipt issued by the University of Illinois Foundation. Your gift is deductible as allowed by law. Thank you!

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The University of Illinois is embarking on a project to restore and renovate Altgeld Hall and replace its neighbor across Wright Street, Illini Hall, with a new building. Funds from the state, campus, and private donors will support the projected $192 million cost of the project.

An investment in these spaces will directly benefit thousands of students and faculty members. The renovation of Altgeld and a new Illini Hall will provide students and faculty collaborative spaces that are essential for learning and discovery in the 21st century and make both buildings accessible to all students.

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