

# Newsletter

College of Arts and Science

Department of Mathematics and Statistics

Summer 2026 Issue 1



*Connecting people, ideas, and discovery through mathematics and statistics*



Mathematics and Statistics are at the heart of understanding our world, from uncovering patterns and solving complex problems to making sense of data and uncertainty. Our department brings together students, faculty, staff, alumni, and partners in a shared pursuit of knowledge, innovation, and excellence. Through teaching, research, outreach, and collaboration, we foster a vibrant community where ideas flourish, discoveries are made, and future leaders are inspired. This newsletter celebrates the people, achievements, and contributions that continue to strengthen and shape our department.

BE WHAT THE WORLD NEEDS

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# Department of Mathematics and Statistics

## A Message from the Head



### Greetings from the Department of Mathematics and Statistics!

Welcome to the **inaugural edition** of the Department of Mathematics and Statistics Newsletter.

As we reflect on the past academic year, I am pleased to share many of the accomplishments and milestones that have shaped our department. Mathematics and Statistics continue to play an important role in addressing challenges in science, health, industry, technology, and society. Our faculty, students, staff, and alumni contribute to these efforts through innovative research, outstanding teaching, and meaningful community engagement.

This year, we celebrated numerous achievements across the department. Faculty members continued to advance high-quality research, secure external funding, present their work nationally and internationally, and collaborate across disciplines. We also recognized the accomplishments of our undergraduate and graduate students, who earned scholarships, awards, and research distinctions while contributing to the academic life of the department.

One of our greatest strengths is our vibrant and supportive community. The Mathematics and Statistics Student Society (MS<sup>3</sup>) organized a variety of academic and social activities that brought students together, while our colloquium series welcomed distinguished speakers and fostered intellectual

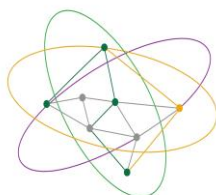
exchange across diverse areas of mathematics and statistics.

This newsletter highlights many of the people and activities that make our department such a remarkable place. Within these pages, you will find stories of student success, faculty and staff achievements, research accomplishments, and departmental events. We also take time to remember colleagues whose contributions left a lasting impact on our department and university community.

On behalf of the Department of Mathematics and Statistics, I would like to thank our faculty, staff, students, alumni, donors, and friends for your continued support and engagement. Your contributions strengthen our teaching, research, outreach, and student experience.

We hope you enjoy reading this newsletter and learning more about the people and achievements that define our department. We invite you to stay connected through our website, social media channels, seminars, and events.

**Sincerely,**  
**Dr. Shahedul Khan**  
Department Head  
Mathematics and Statistics



## Faculty Members

Abid Ali, Lecturer  
Mohamad Alwan, Lecturer  
Gary Au, Associate Professor  
Trang Bui, Assistant Professor  
Shahedul Khan, Professor  
Saima Khosa, Lecturer  
Longhai Li, Professor  
Juxin Liu, Professor  
George Patrick, Professor  
Derek Postnikoff, Lecturer  
Steven Rayan, Professor  
Ebrahim Samei, Associate Professor  
Alexey Shevyakov, Professor  
Chris Soteris, Professor  
Artur Sowa, Professor  
Raj Srinivasan, Associate Professor  
Jacek Szmigielski, Professor  
Jiun-Chau Wang, Assistant Professor  
Curtis Wendlandt, Associate Professor  
Li Xing, Associate Professor

## Professors Emeriti

Mik Bickis  
Murray Bremner  
Patrick Browne  
Franz-Viktor Kuhlmann  
John Martin  
M.J. Miket  
Ed Tymchatyn

## Staff Members

Chad Boyko, Financial Coordinator  
Amy Gerein, Office Coordinator  
Manuela Golban, Lab Coordinator  
Richard Kondra, Systems Manager  
Amos Lee, Lab Coordinator  
Wendy Lucyshyn, Awards Officer  
Anna McKenzie, Graduate Programs  
Nadine Penner, Graduate Programs

# STUDENTS FIRST

## Through curiosity, perseverance, and discovery, our students continue to shape the future of mathematics and statistics

*Our students are at the heart of our department. Through their dedication to learning, research, leadership, and community involvement, they continue to achieve excellence both inside and outside the classroom. We are proud to celebrate their accomplishments and recognize the contributions they make to our vibrant and growing Mathematics and Statistics community.*



Congratulations to **Cole David Dutchyn**, who was awarded the **2025 University Medal** in the Sciences at Fall Convocation. A graduate in Mathematics and Mathematical Physics, Cole was recognized for his outstanding academic achievements and contributions to the university

community. In a recent USask News feature, Cole reflected on his passion for making mathematics more approachable and helping students overcome the fear often associated with the subject. As an active member of the Mathematics and Statistics Student Society (MS<sup>3</sup>), he worked to foster a positive and welcoming environment for mathematics and statistics students. Cole is currently pursuing an MSc in Mathematics in our department under the supervision of **Dr. Steven Rayan**. [Read more](#)



Congratulations to **Mykyta Shvets**, a double honours graduate in Computer Science and Mathematics, who received the **2026 Haslam Medal**, the highest award presented to the most distinguished graduate of the College of Arts and Science. Mykyta was also

recognized as the top graduate in both Computer Science and Mathematics and received the **Earl of Bessborough Prize** in Science. His accomplishments reflect outstanding academic excellence, leadership, and engagement in the university community, including his contributions to the Mathematics and Statistics Student Society (MS<sup>3</sup>). [Read more](#)



Congratulations to **Shawn Samuel Carl McAdam**, who received the Graduate Thesis Award – Master's in the Physical and Engineering Sciences category at the Spring 2026 Convocation. His thesis, *Nonlinear Wave Equations: Theory, Application, Wave Breaking Dynamics, Exact Solution,*

*and Numerics*, was completed under the supervision of **Dr. Alexey Shevyakov**. This prestigious award recognizes the exceptional quality and impact of Shawn's research, as well as his outstanding scholarly achievement. We extend our sincere congratulations to Shawn and Dr. Shevyakov on this remarkable accomplishment.



Congratulations to **Gunner Bressette**, who received the **2026 Indigenous Student Achievement Award** for Academic Excellence. An Honours Mathematics student and member of the Chippewa of Kettle and Stony Point First Nation, Gunner was recognized for his

outstanding academic accomplishments and dedication to his studies. Alongside his academic pursuits, Gunner has served in the Canadian Armed Forces for more than a decade and is pursuing a degree in Mathematics as part of his goal of becoming a Communications and Electronics Engineer Officer. [Read more](#)

# Team quanTA Wins First Place at GenQ Quantum Hackathon

**Congratulations to Team quanTA**, which captured first place in one of the four challenge problems at the GenQ Quantum Hackathon, a national competition focused on developing innovative quantum solutions to real-world challenges. The award-winning team consisted of **Ahmed Mahmoud, Mahmud Azam, Jayneel Parikh, and Luis Pablo Gonzalez Dominguez**, who represented the University of Saskatchewan and the Centre for Quantum Topology and Its Applications (quanTA).

**Led and mentored by Dr. Steven Rayan**, Director of quanTA and Professor in the Department of Mathematics and Statistics, the team developed an innovative approach to energy grid management using quantum computing technologies. Their success highlights the growing strength of quantum research and student training at the University of Saskatchewan.



*We congratulate the team and Dr. Rayan on this outstanding achievement and for representing the Department of Mathematics and Statistics on the national stage.*

quanTA



# College of Arts and Science Celebrates Academic Excellence



## Most Outstanding Graduates Spring 2026 Convocation

- Mykyta Shvets, *Mathematics*
- Peng Lu, *Applied Mathematics*
- Alexander David Karlson, *Mathematical Physics*
- Guangzhi Mai, *Statistics*

## Celebrating Spring 2026 Graduates

### CERTIFICATE IN MATHEMATICAL MODELLING

- Sargun Damilola-Oluwa Adeola Adeniyi

### CERTIFICATE IN STATISTICAL METHODS

- Kenneth Arthur Duff
- Twamev Parinkumar Kalani
- Babatamilore Daniela Okunola
- Agrima Rijal
- Keith Joseph Smith
- Rubana Sreejani Syeda

### BACHELOR OF SCIENCE THREE-YEAR

- Paras Kumar, *Mathematics*
- Elliott Walter Klassen, *Mathematics*
- Noam Liliana Loyola, *Mathematics with Distinction*
- Peng Lu, *Applied Mathematics with Distinction*
- Kristen Marie Luciuk, *Mathematics with Great Distinction*
- Hongfei Mou, *Mathematics with Great Distinction*

### BACHELOR OF SCIENCE FOUR-YEAR

- Keanna Cecilia Bulger, *Mathematics*
- Charitha Konduru, *Mathematics*
- Guangzhi Mai, *Statistics with Great Distinction*
- Bryce Andrew Simonson, *Statistics*

### BACHELOR OF SCIENCE HONOURS

- Gunner Obadiah Bressette, *Mathematics with High Honours*
- Jason Main, *Mathematics with High Honours*
- Olivia Joanne Numedahl, *Mathematics with High Honours*
- Mykyta Shvets, *Computer Science and Mathematics with High Honours*

## Celebrating Fall 2025 Graduates

### CERTIFICATE IN STATISTICAL METHODS

- Shivang Kamleshbhai Bhut

### BACHELOR OF SCIENCE THREE-YEAR

- YuanYuan Chen, *Mathematics*

### BACHELOR OF SCIENCE HONOURS

- Cole David Dutchyn, *Mathematics and Mathematics Physics, with High Honours*

### MASTER OF SCIENCE

- Shawn Samuel Carl McAdam, *Mathematics*
- Carlos Andres Ballesteros Alvarez, *Mathematics*
- Dananji Shashiprabha Madushika Hettiarachchige Alias Egodage, *Statistics*

# Awards and Scholarships



**Congratulations to Linxi Li, recipient of the 2025 C.D. O'Shaughnessy Graduate Scholarship in Statistics.** Linxi is an exceptional first-year PhD student, with a 95% average in graduate coursework and notable research achievements, including a

BioTalent Canada internship and contributions to an NRC project. She has co-authored a technical report on genomic prediction in wheat and will present her work on machine learning in single-cell RNA sequencing at the WNDAR/IMS Annual Meeting in June 2025. We congratulate Linxi on this well-deserved recognition and wish her continued success in her studies and research.



**Congratulations to Jing Wang, recipient of the 2026 C.D. O'Shaughnessy Graduate Scholarship in Statistics.** Jing is an outstanding third-year PhD student. In addition to her strong performance in six graduate Statistics courses, Jing successfully completed

her PhD Candidacy Exam in 2025. She presented her PhD research at two national conferences in summer 2025 and has had two additional presentations accepted at national conferences in summer 2026. Jing will continue her PhD studies in 2026–2027, focusing on her thesis research, and we wish her continued success in her academic and research endeavors.

## HONOURS THESIS AWARDS 2025–2026

- Gunner Bressette, *Representation Rings* — Supervisor: Dr. Alex Weekes (University of Sherbrooke). Thesis Prize in Mathematics
- Alex Karlson, *Two-Peakon Dynamics in the Clifford Algebra Generalization of the Camassa–Holm Equation* — Supervisor: Dr. Jacek Szmigielski. Thesis Prize in Mathematics
- Luis Pablo Gonzalez Dominguez, *Quantum Kernel Estimation in Support Vector Machines for the Docking of 9-mer Peptides to Immune Receptors* — Supervisors: Dr. Gordon Broderick (VIDO) and Dr. Steven Rayan. Thesis Prize in Interdisciplinary Topics
- Jayneel Parikh, *From Diffusion to Fractional Diffusion: A CTRW Approach to Anomalous Transport* — Supervisor: Dr. Chijin Xiao (Physics and Engineering Physics). Thesis Prize for Communication

## TEACHING ASSISTANT AWARDS 2025

- Shawn McAdam — Graduate, Mathematics
- K.E.D.V. Prabhawi — Graduate, Statistics
- Jason Main — Undergraduate

## RICHARD BLUM AWARD IN MATHEMATICS

- Sarah James
- Levin Wiebe
- Miaoqia Wu

## SCHOLARSHIPS, PRIZES, AND BURSARIES

- Michael DeWeert — [Carman E. Miller Prize in Mathematics](#)
- Nickolas Lawrence — [Herman H. Ferns Memorial Scholarship](#)
- Olivia Numedahl — [James G. and Edith Duthie Memorial Scholarship](#)
- Noam Loyola — [Evelyn McLachlan Bligh Bursary in Mathematics](#)
- Roshin Warnakulasuriya Don — [MMI Accelerator Scholarship](#) and [SCPOR Traineeship](#)

*Congratulations to all recipients on their well-deserved recognition. Their achievements reflect the talent, dedication, and excellence of our students and contribute to the vibrant academic community within the Department of Mathematics and Statistics.*

# Mathematics and Statistics Student Society (MS<sup>3</sup>)

The Mathematics and Statistics Student Society (MS<sup>3</sup>) is an undergraduate student organization dedicated to building a strong and supportive community within the Department of Mathematics and Statistics. Serving as a bridge between students and the department, MS<sup>3</sup> provides opportunities for academic support, professional development, and social engagement. Since officially adopting the MS<sup>3</sup> name in 2018, the society has fostered lasting friendships and mentorships among students, as well as between students and faculty members.

MS<sup>3</sup> plays an important role in creating a welcoming environment for students with interests in mathematics, statistics, and related fields. Through its activities, the society encourages collaboration, curiosity, and a sense of belonging. Whether working through challenging course material, exploring new mathematical ideas, or simply spending time with fellow students, members help cultivate a vibrant and engaging departmental community.

Throughout the 2025–2026 academic year, MS<sup>3</sup> continued its tradition of offering free weekly help sessions for students from across the university and hosted a variety of events, including:

- **Game Nights:** Board games, video games, and bingo — consistently among the society's most popular and well-attended events.
- **Educational and Informational Events:** Including a graduate school information session and Putnam Competition preparation sessions led by Dr. Steven Rayan.
- **Collaborations with Other STEM Clubs:** Activities included a talent show, gingerbread decorating, Women in Science celebrations, and other community-building events.
- **Pi Day Celebration:** Organized jointly with the department, featuring the annual Pi Recitation Contest, Math/Pi-themed Jeopardy, and, of course, pizza pie for participants.
- **Graduation Banquet:** An opportunity to celebrate graduating students and reflect on another successful year for MS<sup>3</sup> and the department.



**Contact:** [ms3@ussu.ca](mailto:ms3@ussu.ca)

The society also designs and sells annual merchandise featuring mathematics- and statistics-themed graphics, jokes, and designs.

Looking ahead, MS<sup>3</sup> is excited for the 2026–2027 academic year and continues to seek enthusiastic students to fill the positions of Social Director and three Members-at-Large on its executive team.

The Department of Mathematics and Statistics is grateful for the dedication and enthusiasm of the MS<sup>3</sup> executive and volunteers, whose efforts continue to enrich the student experience and strengthen the department's welcoming and supportive culture.

# FACULTY AND STAFF SPOTLIGHT

*Our faculty and staff play an important role in the department's success. Through excellence in teaching, research, administration, mentorship, and service, they contribute to a vibrant academic community. This section highlights their achievements, accomplishments, and professional milestones, while recognizing the many ways they enrich the Department of Mathematics and Statistics. Together, they help foster an environment where scholarship, discovery, and student success can thrive.*

## Dr. Steven Rayan

The Department of Mathematics and Statistics is proud to recognize **Dr. Steven Rayan** for an exceptional year of research, leadership, and service. In 2025, Dr. Rayan was named a **College Member of the Royal Society of Canada (RSC)**, one of Canada's most prestigious academic honours. Election to the RSC College recognizes outstanding mid-career scholars whose significant contributions and accomplishments have earned recognition from their peers across Canada and beyond.

In addition to his internationally-recognized work in pure mathematics, Dr. Rayan has played a pivotal role in advancing quantum research and innovation at the University of Saskatchewan. As director of the quanTA Centre at USask, he has **led the effort to bring a quantum computer to our campus** — this will be the first university-owned quantum computer in Canada and one of the most advanced quantum information processors in the world. As principal investigator, Dr. Rayan successfully obtained **grants of 1.9M CAD from Prairies Economic Development Canada and 0.4M CAD from Innovation Saskatchewan** towards this project. This landmark achievement positions Saskatchewan at the forefront of quantum technology and establishes the University of Saskatchewan as a key participant in the rapidly evolving global quantum ecosystem. The project reflects more than two decades of Dr. Rayan's dedication to quantum science and innovation. At the announcement, he showcased



The Department extends its congratulations to Dr. Rayan on these well-deserved achievements and thanks him for his continued contributions to research, student mentorship, and the advancement of mathematics and quantum science at the University of Saskatchewan.



**Steven Rayan** is a world-leading expert in algebraic geometry, mathematical physics, and quantum science. Having received his doctorate from the University of Oxford, Dr. Rayan is Full Professor of Mathematics at the University of Saskatchewan and Director of the Centre for Quantum Topology and Its Applications (quanTA). Featured in Scientific American and other high-profile venues, he uses mathematical perspectives to unlock the full potential of quantum computing and anticipate the next phase of this potentially transformative technology.

*Department of Mathematics & Statistics*  
*University of Saskatchewan*

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RSC College

a quantum computing chip valued at more than \$1 million, which he referred to as "Canada's most expensive hockey puck", capable of processing information at speeds far beyond those of conventional computing devices. This accomplishment highlights not only the transformative potential of quantum technologies but also the central role of mathematics and statistics in shaping the future of scientific discovery and technological innovation.

Further recognition came with Dr. Rayan's appointment as **Interim Vice-Dean, Research, Scholarly and Artistic Work (RSAW) in the College of Arts and Science**, effective July 1, 2025. This appointment reflects his outstanding record of research excellence, academic leadership, and service to the university. It is also a significant milestone for the Department of Mathematics and Statistics, marking the return of a department member to the Dean's leadership team after many years. Despite the intense demands of this role, Dr. Rayan has had **14 articles accepted or published in 2025-2026** and continues to train a large cohort of graduate students and postdocs.

**Amy Gerein**

The Department of Mathematics and Statistics is pleased to welcome Amy Gerein as the department's Office Coordinator. Amy brings valuable experience to the role, having previously served as Office Coordinator in the School

for the Arts. Her expertise in academic administration, including class scheduling, meeting support, override requests, and a wide range of departmental operations, has been a tremendous asset. Since joining the department, Amy has played an important role in supporting the day-to-day activities of faculty, staff, and students, helping to ensure the smooth operation of the department. We are delighted to have Amy as part of our team and look forward to her continued contributions.

**Dr. Longhai Li**

The Department of Mathematics and Statistics congratulates Dr. Longhai Li on his continued success in securing competitive research funding and advancing interdisciplinary statistical research. Dr. Li was

awarded an NSERC Discovery Grant for the project *Prediction-based Methods for Statistical Learning and Inference in Biosciences and Epidemiology* (2026–2031), providing \$185,000 in support of his research program. The project will advance statistical learning and inference methodologies with applications in biosciences and epidemiology.

In addition, Dr. Li serves as co-principal investigator on the CANSSI Collaborative Research Team Project, *Statistical Methodologies and Computational Tools to Identify Microbial Correlates of Canadian Bee Gut Health* (2025–2028). This interdisciplinary initiative brings together researchers to develop new statistical methods and computational tools for understanding factors affecting bee health.

These projects highlight Dr. Li's leadership in statistical methodology, machine learning, and interdisciplinary research, as well as the growing impact of statistics in addressing important scientific and societal challenges.

**Dr. Trang Bui**

The Department of Mathematics and Statistics is pleased to welcome Dr. Trang Bui, who joined the department as a tenure-track Assistant Professor of Statistics. Dr. Bui's appointment strengthens the department's teaching and research capacity while

bringing expertise in several rapidly evolving areas of statistics and data science.

Prior to joining USask, Dr. Bui was a postdoctoral fellow at the University of Rochester, where she conducted research in causal inference and the integration of machine learning methods into statistical analyses. She earned her PhD in Statistics from the University of Waterloo. Her research interests include trustworthy AI, statistical geometry, experimental design, causal inference, and social networks. We are delighted to welcome Dr. Bui and look forward to her contributions to research, teaching, and graduate supervision.

**Dr. Juxin Liu**

The Department of Mathematics and Statistics congratulates Dr. Juxin Liu on receiving an NSERC Discovery Grant for the project *Advanced Statistical Methods for Compositional, High-Dimensional, and Zero-Inflated Data* (2026–2031),

with a total value of \$160,000.

Dr. Liu's research group also celebrated the success of her graduate student, Roshin Warnakulasuriya Don, who received the MMI Accelerator Scholarship (2026) for *Advancing Infectious Disease Prediction through Integrated Mechanistic and Statistical Modeling* and a SCPOR Traineeship (2026–2027) for *A New Diagnostic Tool for Assessing Health Measurement Models*. Earned under Dr. Liu's supervision, these awards reflect the strength of her research program and the department's graduate research environment.

The department congratulates Dr. Liu on these achievements and looks forward to the continued impact of her research.



#### **Dr. Derek Postnikoff**

Congratulations to Dr. Derek Postnikoff on his appointment as Member-at-Large on the Executive of the Canadian Mathematics Education Study Group (CMESG) in June 2026. This appointment reflects his ongoing contributions to

mathematics education and the broader mathematical community.

Within the department, Dr. Postnikoff has provided outstanding leadership as Chair of the Colloquium Committee, where he has played a key role in organizing colloquium talks, welcoming speakers from a variety of institutions and disciplines, and securing PIMS funding to support the colloquium series. He has also made significant contributions to departmental outreach and community-building initiatives, including the Pi Day Celebration and the University of Saskatchewan Open House. The department greatly appreciates Dr. Postnikoff's continued dedication to mathematics education, outreach, and departmental life.

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#### **Dr. Chris Soteris**

The Department of Mathematics and Statistics recognizes Dr. Chris Soteris for her contributions to research and student training during 2025–2026. Dr. Soteris was awarded an NSERC Discovery Grant for 2026–2027, providing

\$36,000 in support of her research program.

Members of her research team also received notable recognition during the year. Undergraduate student Aloysius Meier participated in the Indigenous Student Internship Program (ISIP) under Dr. Soteris's supervision from January to April 2026 and subsequently received an NSERC USRA – Indigenous award to continue this research. In addition, Dr. Soteris's postdoctoral fellow, Matthew Schmirler, was awarded an [MMI Research Accelerator Award](#) (2025–2026).

The department congratulates Dr. Soteris and her research team on these accomplishments.



#### **Dr. Alexey Shevyakov**

Congratulations to Dr. Alexey Shevyakov, whose collaborative research project was selected for funding through the 2025 France–Canada Research Fund (FCRF) competition. The project, led by Dr. Shevyakov in collaboration

with Dr. Jean-François Ganghoffer and Dr. Bishnu Acharya, was recognized as one of the outstanding proposals submitted this year. The award supports research collaboration between Canada and France and reflects the excellence and international impact of the team's research program. In addition, the project will have access to a Mitacs Globalink Research Award, creating opportunities for graduate student exchanges and strengthening research partnerships between the two countries.

The Department of Mathematics and Statistics congratulates Dr. Shevyakov and his collaborators on this achievement and wishes them continued success in their research endeavors.

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#### **Dr. Artur Sowa**

The Department of Mathematics and Statistics is pleased to recognize Dr. Artur Sowa for his contributions to research and public policy. Dr. Sowa co-authored the policy editorial [Electric Thinking and the Coming Cognitive Inflation](#) as

part of the Canadian Science Policy Centre's Editorial Series on Defence Spending and R&D, contributing to broader discussions on science, technology, and society.

In addition, Dr. Sowa, his PhD student M. Berezowski, and their international collaborator J. Fransson were recognized through a MITACS Globalink Research Award (Quantum Stream). The award highlights the department's growing engagement in quantum-related research and international collaboration.

The department congratulates Dr. Sowa and his collaborators on these achievements and appreciates his continued contributions to research and scholarly activity within the department.



### Dr. Raj Srinivasan

From January to June 2026, Dr. Raj Srinivasan visited several leading institutions in India, strengthening international research collaborations and expanding opportunities for student and faculty engagement. At SRM Institute of Science and

Technology (SRMIST), he served as a Visiting Professor, mentored more than 15 faculty members in developing research proposals, and helped initiate new research projects in epidemiological modelling, queueing networks, wind power prediction, and health monitoring.

During his visit, Dr. Srinivasan delivered keynote addresses at Vellore Institute of Technology (VIT) and presented the Third Aditya Shastri Endowment Memorial Lecture at Savitribai Phule Pune University, where he spoke on *Stochastic Models for Epidemic Processes in Open Populations with External Infections*. These activities helped advance research collaborations and further strengthen the department's international connections.



### Dr. Curtis Wendlandt

Congratulations to Dr. Curtis Wendlandt on being granted tenure and promoted to the rank of Associate Professor. This well-deserved achievement recognizes his important contributions to the

Department of Mathematics and Statistics and the University of Saskatchewan.

During 2025–2026, Dr. Wendlandt secured two Pacific Institute for the Mathematical Sciences (PIMS) grants in support of the PIMS Geometry, Algebra and Physics Seminar, which he co-organizes with Dr. Steven Rayan. He was also invited to deliver plenary lectures at prominent international conferences, including *New Perspectives in Quantum Representation Theory* and *Modern Methods in Representation Theory*.

We congratulate Dr. Wendlandt on this important career milestone and look forward to his continued contributions to research, scholarship, and the mathematical sciences community.

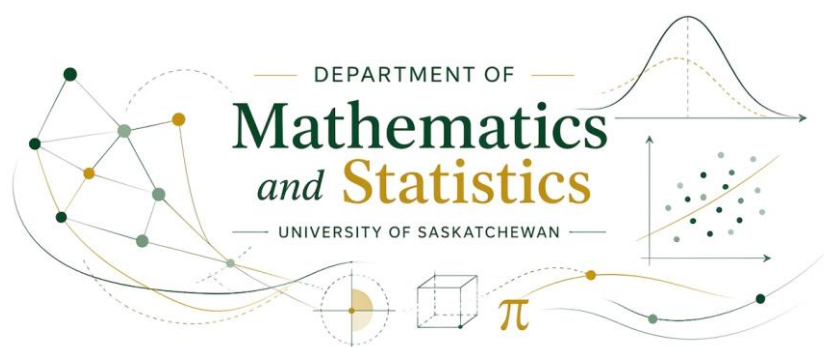
## Scholarly Publications (2025–2026)

- **Ali A**, Carbone L, and Garrett P (2026). *Eisenstein series on arithmetic quotients of rank 2 Kac–Moody groups over finite fields*. Forum Mathematicum, 38 (4), 1257-1296.
- **Ali A**, Carbone L, and Murray SH (2025). *Chevalley groups over  $\mathbb{Z}$ : a representation-theoretic approach*. European Journal of Mathematics 11, 11, 1-33.
- Zheng Li R, Virk A, Bulanov D, Zhang J, Wang E, Qin H, **Bui T**, and Allison K (2026). *Cataract and glaucoma surgery in microphthalmic, nanophthalmic, and high hyperopic eyes: a systematic review and meta-analysis*. Frontiers in Ophthalmology, 6, 1872292.
- Landsman V, Wang L, Carrillo-Garcia I, Mitani AA, Smith PM, Graubard BI, **Bui T**, and Carnide N (2026). *Correction for participation bias in nonprobability samples using multiple reference surveys*. Statistics in Medicine, 45(3–5), e70403.
- **Bui T**, Steiner SH, and Stevens NT (2026). *Genetic algorithm-based Bayesian optimal design for network experiments*. Technometrics, 68(2), 399–412.
- Ballesteros C\*, **Cheviakov A**, and Spiteri RJ (2026). *Analytical solutions for the cardiac extracellular-membrane-intracellular model*. Mathematical Methods in the Applied Sciences, 49(7), 6664-6679.
- **Gary YHA**, Lindzey N, and Tunçel L (2026). *On connections between association schemes and analyses of polyhedral and positive semidefinite lift-and-project relaxations*. Discrete Mathematics, 349(2), 114767.

\* Indicates a student or postdoctoral fellow; boldface indicates the faculty member leading the work.

- Rana M\*, **Khan SA**, and Pahwa P (2026). *Covariate measurement error in spatial analysis of count data*. Journal of Statistical Computation and Simulation, 96(11), 2657–2682.
- **Khan SA**, Li L\*, and Hossain S (2026). *Joint models for recurrent event data combining with a longitudinal internal covariate*. Communications in Statistics - Simulation and Computation, 1–20.
- Khalaj M\*, **Rayan S**, Jin L (2026). *Quantum bioinformatics: a systematic review of methods, trends, and challenges*. Briefings in Bioinformatics, 27(4), bbag383.
- Azam M\*, **Rayan S** (2026). *Moduli stacks of quiver bundles with applications to Higgs bundles*. Journal of Algebra, 708, 333–379.
- Jeffrey J, Koban M\*, **Rayan S** (2026). *Nakajima quiver bundles*. Journal of the Australian Mathematical Society, 121(1), 76–93.
- Reimer J\*, Saha P\*, Chen C, Dhar N, Byrns B, **Rayan S**, Broderick G (2026). *GPU-accelerated modeling of biological regulatory networks*. Scientific Reports, 16, 17599.
- Mahmoud A\*, Ali K\*, **Rayan S** (2026). *Systematic approach to hyperbolic quantum error correction codes*. Physical Review A, 113, 042426.
- Ikeda K\*, **Rayan S** (2026). *Quantum entanglement, stratified spaces, and topological matter: towards entanglement-sensitive Langlands data*. Reports on Progress in Physics, 89, 067601.
- Erlandsson Brisebois A\*, Broderick J\*, Khatooni Z, Wilson H, **Rayan S**, Broderick G (2025). *Identifying protein co-regulatory network logic by solving B-SAT problems through gate-based quantum computing*. 2025 IEEE International Conference on Quantum Computing and Engineering (QCE), Quantum Applications (QAPP) Track, Paper 209, Albuquerque, NM, USA, 2025, 2270–2278.
- Boulter E\*, **Rayan S** (2025). *Spectral curves without embeddings*. Comptes rendus mathématiques de la Société Royale du Canada, 47(2), 10–20.
- Mahadeo C\*, **Rayan S** (2025). *Topological recursion and variations of spectral curves for twisted Higgs bundles*. Journal of Geometry and Physics, 213, 105459.
- Druzhkov K\* and **Shevyakov A** (2026). *Invariant reduction for partial differential equations. IV: Symmetries that rescale geometric structures*. Communications in Nonlinear Science and Numerical Simulation, 163(2), 110510.
- Beaton NR\*, Ishihara K, Atapour M, Eng JW\*, Vazquez M, Shimokawa K, and **Soteros CE** (2026). *Entanglement statistics of polymers in a lattice tube and unknotting of 4-plats*. Discrete Applied Mathematics, 379, 242–271.
- Fransson J, Sanders BC, and **Sowa AP** (2026). *Macroscopically distinguishable superposition in infinitely many degrees of freedom*. International Journal of Theoretical Physics, 65(16).
- Gautam S, Rupert M\*, and **Wendlandt C** (2026). *The R-matrix formalism for quantized enveloping algebras*. Annales de l'Institut Fourier, 76(1), 169–227.
- Cao X\*, You S, Yi GY, Zhang X, and **Xing L** (2026). *Concurrent prediction of multiple survival outcomes with a refined stacking algorithm*. Journal of Computational and Graphical Statistics, 35(2), 694–703.

\* Indicates a student or postdoctoral fellow; boldface indicates the faculty member leading the work.



# DEPARTMENT HIGHLIGHTS

Throughout the year, the Department of Mathematics and Statistics hosted a variety of academic, social, and community-building events that brought together students, faculty, staff, alumni, and friends of the department. From colloquia and research presentations to celebrations and social gatherings, these events provided opportunities to learn, connect, and strengthen our vibrant departmental community.

## 2025–2026 Colloquium Series

The Department of Mathematics and Statistics continued its vibrant colloquium series during 2025–2026, welcoming speakers from a wide range of disciplines and institutions. These presentations provided opportunities for students, faculty, and members of the broader community to engage with current research and emerging ideas in mathematics and statistics.

### September 26, 2025

*Joint Colloquium with the Department of Philosophy*  
**Nicolas Fillion** (Simon Fraser University)  
*Approximation and Our Intellectual History*

### November 21, 2025

**Madeline Ward** (University of Saskatchewan)  
*Accounting for Changing Behaviour in Bayesian Epidemic Models*

### December 12, 2025

**Lamberto Rondoni** (Polytechnic University of Turin)  
*Nonequilibrium Phenomena: Fluctuation Theorems and Response to Perturbations*

### January 23, 2026

**Andrijana Burazin** (University of Toronto Mississauga)  
*Communication at the Forefront of Teaching and Learning Mathematics*

### March 20, 2026

**Zahed Khatooni** (VIDO, University of Saskatchewan)  
*Computational Immunology: A Solution to Accelerate Vaccine Design*

### June 19, 2026

**Sam Shen** (San Diego State University)  
*How to Inspire Students to Ask Creative Questions and Use AI Tools When Teaching Mathematics Effectively for the Digital Economy?*

## Pi Day Celebration

On March 13, 2026, the Department of Mathematics and Statistics celebrated Pi Day with a variety of mathematical activities and friendly competitions. A highlight of the event was the annual Pi Recitation Contest, where participants competed to memorize digits of  $\pi$ .

1st Place: **Parker Tait** — 3,241 digits  
2nd Place: **Levin Wiebe** — 133 digits  
3rd Place: **Macie Sander** — 122 digits

The event brought together students, faculty, and staff to celebrate mathematics and strengthen our departmental community.



## Graduate Student Welcome Event & BBQ

On September 12, 2025, the Department of Mathematics and Statistics welcomed new and returning graduate students to the annual Graduate Student Welcome Event & BBQ at the GSA Commons. The event brought together students, faculty, and staff for an evening of introductions, networking, and community building as the new academic year began.

Attendees heard welcoming remarks from the Department Head, the Vice-Dean Academic, and the Vice-Dean of Research, Scholarly and Artistic Work (RSAW). The Graduate Chairs in Mathematics and Statistics introduced the department's graduate programs and provided information on student resources, support services, and academic expectations. The department also formally recognized the recipients of the Teaching Assistant Awards and the C.D. O'Shaughnessy Graduate Scholarship in Statistics for their outstanding achievements, and celebrated Dr. Steven Rayan's induction into the Royal Society of Canada.

The evening concluded with a BBQ dinner and informal conversations, providing an excellent opportunity for graduate students to connect with faculty, staff, and fellow students in a welcoming and supportive environment.



## Year-End Celebration and Holiday Gathering

On December 18, 2025, the Department of Mathematics and Statistics hosted its annual Year-End Celebration and Holiday Gathering at the GSA Commons. The event brought together students, faculty, staff, alumni, Professor Emeriti, invited guests, and family members for an evening of celebration and community.

The evening featured remarks from departmental and college leadership, including the Vice-Dean Academic and the Vice-Dean of Research, Scholarly and Artistic Work (RSAW), who reflected on the year's accomplishments and shared best wishes for the holiday season. Attendees also celebrated the many achievements and contributions of students, faculty, and staff throughout the year.

The gathering concluded with a shared dinner and an opportunity to reconnect with colleagues, alumni, and friends of the department, continuing a valued tradition that strengthens the department's sense of community and collegiality.

# IN MEMORIAM

## Dr. Bill Lavery

The Department of Mathematics and Statistics was saddened by the passing of Dr. Bill Lavery on March 8, 2026. Dr. Lavery will be remembered as a distinguished statistician, dedicated educator, valued colleague, and generous mentor whose contributions to the University of Saskatchewan spanned more than five decades.

Dr. Lavery earned his BSc, MSc, and PhD from the University of Toronto and joined the University of Saskatchewan in 1972 as a visiting assistant professor in the Department of Mathematics. He quickly became an integral member of the department and was granted tenure as an associate professor in 1985.

Throughout his career, Dr. Lavery was known for his generosity, intelligence, and willingness to share his expertise. In 1977, he established the Summer Statistical Consulting Laboratory, where he volunteered hundreds of hours helping researchers design studies, analyze data, and solve statistical problems. His consulting work continued throughout his career, supporting faculty, staff, students, and researchers across a wide range of disciplines.

Dr. Lavery's impact as an educator was equally significant. He taught numerous undergraduate and graduate courses in statistics, including probability theory, statistical methods, time series analysis, multivariate analysis, and linear models. Through his supervision of many MSc students, he helped train the next generation of statisticians and researchers, guiding projects in areas such as hidden Markov models, mixture models, bootstrap methods, variance component models, and survey design. His scholarly work focused on regression and experimental design, statistical computing, and applications in fields including medicine, psychology, agriculture, sports science, and human-computer interaction. He contributed to interdisciplinary research spanning traffic accident analysis, biomedical studies, environmental science, social science, biometric identification, and speech recognition systems.

From 1993 to 1995, Dr. Lavery took a leave from the university to conduct applied research with the commercial arm of the Australian National University in Canberra, Australia. During this time, he and his wife, Rana Pudifin, balanced their professional work while raising their young family.

Through his teaching, research, mentoring, and consulting, Dr. Lavery made lasting contributions to both the Department of Mathematics and Statistics and the broader community. His dedication to statistical science, commitment to students, and generosity toward colleagues will long be remembered.

Dr. Lavery will be deeply missed by his family, friends, former students, and colleagues across the university. His legacy will continue through the many lives he touched and the countless individuals who benefited from his wisdom, kindness, and expertise.



# IN MEMORIAM

## Dr. Yvonne Cuttle

The Department of Mathematics and Statistics remembers Dr. Yvonne Cuttle, who passed away on January 2, 2026, in Saskatoon. Dr. Cuttle was a highly respected mathematician, educator, and community leader whose association with the University of Saskatchewan spanned more than four decades.

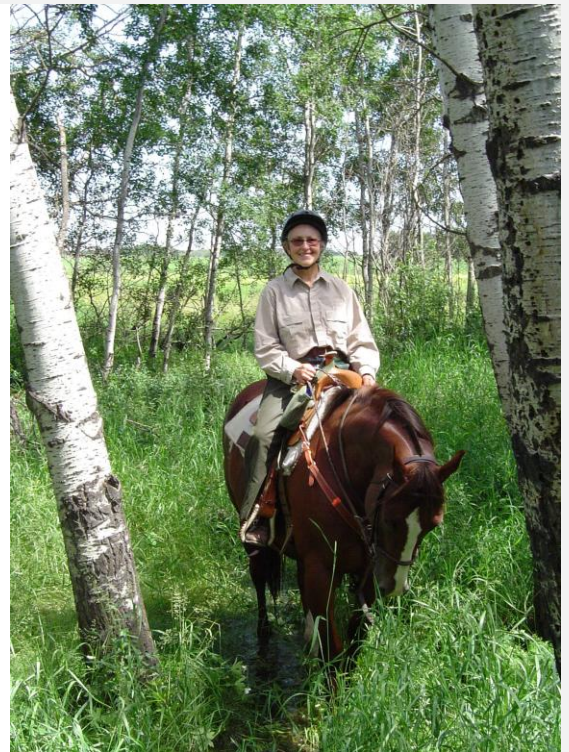
Born in Belgium on August 16, 1932, Dr. Cuttle immigrated to Canada with her parents in 1951. She earned her B.A. (1954) and M.A. (specializing in Statistics) (1956) from the Department of Mathematics at the University of British Columbia, and completed her Ph.D. in Mathematics at the University of Oregon in 1959, with a research focus in Functional Analysis.

Dr. Cuttle joined the University of Saskatchewan in 1959 as an Instructor in the Department of Mathematics and went on to build a distinguished academic career. She made significant contributions to the mathematical community through her leadership and service, including serving on the Board of Directors of the Canadian Mathematical Society (CMS), organizing the 1979 CMS Summer Meeting, and becoming the inaugural Editor-in-Chief of the CMS Notes, a position she held from 1979 to 1985.

A dedicated educator, Dr. Cuttle was widely recognized for her commitment to teaching and student success. In Spring 2000, she received the inaugural College of Arts and Science Teaching Excellence Award, a fitting recognition of her outstanding contributions to education. She retired from the University of Saskatchewan on June 30, 2000.

Dr. Cuttle's impact extended well beyond the university. She devoted many years of service to community organizations, including the Saskatoon SPCA, the Canadian Federation of University Women, the University of Saskatchewan Retirees Association, Nature Saskatchewan, and the Saskatoon Nature Society. Her dedication to volunteerism and community engagement was recognized through numerous honours, including Honorary Life Membership in the University of Saskatchewan Retirees Association in 2014 and Life Membership Recognition from the Saskatoon Nature Society in 2022.

The Department of Mathematics and Statistics is grateful for Dr. Cuttle's many years of scholarship, teaching, leadership, and service. She will be remembered for her contributions to mathematics, her commitment to education, and her lasting impact on the university and the broader community.



# IN MEMORIAM

## Dr. Andrew Bruce Carson

The Department of Mathematics and Statistics remembers Dr. Andrew Bruce Carson, who passed away on August 18, 2025, in Victoria, British Columbia, following an eight-year battle with cancer. Dr. Carson was a valued colleague, scholar, and educator whose contributions to the University of Saskatchewan spanned more than a quarter century.

Dr. Carson earned a B.Sc. (Honours) in Mathematics from Carleton University in 1966 and a Ph.D. in Mathematics

(Algebra) from the University of British Columbia in 1971. Following an NSERC Postdoctoral Fellowship at the University of Washington and the University of Hawaii, he joined the University of Saskatchewan in 1973 as an Assistant Professor of Mathematics. He was promoted to Associate Professor in 1976, to Professor in 1983, and served as Acting Head of the Department of Mathematics and Statistics in 1995. He retired from the university in 1999.

Throughout his academic career, Dr. Carson made significant contributions to mathematical research, authoring 13 refereed papers and a book, *Model Completions, Ring Representations and the Topology of the Pierce Sheaf* (1989). In addition to maintaining a full teaching load, he served on numerous committees at the departmental, university, and international levels.

Beyond mathematics, Dr. Carson was known for his passion for the outdoors and photography. An accomplished photographer and pilot, he pursued adventures that took him to some of Canada's most remote landscapes, combining his love of exploration with remarkable photographic work. Following his retirement, he continued to enjoy outdoor activities and photography alongside his wife, Catherine Begg.

The Department of Mathematics and Statistics is grateful for Dr. Carson's many years of service, scholarship, and dedication. He will be remembered with respect and appreciation by colleagues, former students, friends, and family.





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*We acknowledge that we live and work on Treaty 6 Territory and the Homeland of the Métis. We pay our respect to the First Nations and Métis ancestors of this place and reaffirm our relationship with one another.*