From the President

Report of the President to the AGM
June 4, 2018

This report summarizes the major activities of the SSC over the past year.

1. Respectful SSC: The #metoo movement has heightened awareness of sexual assault and harassment, especially in the workplace. These issues affect all professions, and statistical societies are taking steps to develop appropriate responses. I'm pleased to report that the Committee for a Respectful SSC has been formed and will be chaired by Erica Moodie. The work on a respectful SSC is as serious as it is important, and it will not be easy. But it is an opportunity for the SSC to be a society that is supportive and welcoming, professional and respectful in how our members interact with each other and broader society.

2. Fundraising: The members of the society have continued to donate generously in the past year. Donations in 2017 totaled $13,893. With all previous donations and additional donations in 2018, we are approaching a total of $60,000 raised. In March the Board approved the establishment of an endowment with $20,000 of these funds, and after an open call for proposals, three projects were funded: 1) International Data Science in Schools Project; 2) Canadian website for the International Statistical Literacy Project poster competition; 3) Enhancements to StatSpace, an online platform for statistics learning resources. Previously, fundraising contributions have supported prizes for winners of the StatCan "Telling Canada's Story in Numbers" Canada 150 contest, Census at Schools and student travel to the SSC Annual Meeting.

3. Membership in our Society is stable, with annual fluctuation due to the size of the meeting. As of last year, participants can attend the meeting as a nonmember, although this costs $20 more than the joining the SSC and then registering for the meeting.

4. Electronic Newsletter: Over the last year, Liaison has completed the transition to an electronic-only newsletter, under the leadership of Public Relations Officer Dave Campbell and with assistance from Jill Weldon, who continues to work on production. The new workflow is settling down and 6 bimonthly issues are planned for 2018-19. Larry Weldon completed his 10-year term as Editor of Liaison in December. Thank you, Larry (and Jill) for chronicling the SSC for a whole decade!

5. International issues: The SSC and its members supported statistics internationally in several ways:

- Signing a statement of support for Andreas Georgiou and his colleagues
- Signing a statement of support for the Puerto Rico Institute of Statistics
- Individual contributions supporting the legal expenses of Andreas Georgiou
- Individual donations of 1,925 statistical methods books to the library in Alexandria, Egypt

6. Financial processes: The SSC is working to improve transparency and oversight of its financial processes. Over the last year, the society has moved to requiring 2 of 3 signing officers (Treasurer, Secretary, President) for approvals and payments, refreshed its account codes for financial tracking, and is developing new policies (e.g., financial payments and travel claims). The SSC is making efforts to have more regular financial reporting (ideally quarterly) to the Board.

7. Executive Assistant: In early April, Larysa Valachko informed the SSC that she would be stepping down as Executive Assistant. Larysa played a formative role in the development of an independent SSC office as the first Executive Assistant. On behalf of the SSC, I thank Larysa for her outstanding work and wish her all the best for the future. She will be missed. Miaclaire Woodland has been serving the SSC as Executive Assistant since October 2016. She has made significant contributions to all aspects of office operations, including additional electronic services responsibilities and support of the annual meeting.

8. Sponsorships: The Society receives requests to sponsor conferences and workshops periodically. Each request is first sent to the Program Committee, which makes a recommendation to the Executive for a final decision. When support is provided, it is sometimes financial and sometimes in-kind (for example, use of the SSC logo).

- 2018 NISS Writing Workshop for Junior Researchers
- 2018 CUMC (Canadian Undergraduate Mathematics Conference)

- "Advances in Finite Mixture and Other Non-regular Models" conference to be held in China, August 12-16, 2018.

Additionally, the SSC sponsored several other activities in the past year:

- Statistics Canada 150 "Our Story in Numbers" contest
- 2018 Canada-Wide Science Fair

9. Appointments: Several SSC officers were appointed over the past year. Jason Loeppky was reappointed as Electronic Services Manager. Richard Lockhart was reappointed as SSC Executive Editor of Statistics Surveys.

The following members agreed to serve as chairs of the associated committees:

- Accreditation Services: Sunita Ghosh
- Bilingualism: François Watier
- Census at Schools: Lorna Deeth joined Alison Gibbs as co-chair
- CJS Award: Louis-Paul Rivest
- Fundraising: Mary Thompson
- Impact Award: Shelley Bull
- Lise Manchester Award: James Hanley
- Membership: Gemai Chen
- New Investigators: Nathaniel Stevens
- Research: Paul McNicholas
- Statistics Education: Sohee Kang
- Student Research Presentation Award: M'Hamed Lajmi Lakhal Chaieb
- Student Travel Grants: Saman Muthukumarana

Additionally, three ad-hoc committees were formed:

- Accreditation Task Force, chaired by Kevin Keen
- Financial Procedures, chaired by John Koval
- Respectful SSC Committee, chaired by Erica Moodie

10. Transitions: Several individuals who have served the SSC in major roles, completed their terms over the past year.

- Jack Gambino completes his three-year cycle as President-Elect, President and Past-President
- Larry Weldon completes 10 years as Editor of Liaison (first issue February 2008).
- Peter Macdonald completes 5 years as Electronic Communications Manager.

The following members completed their term as chairs of their respective committees:

- Accreditation Services: Fernando Camacho
- Bilingualism: Geneviève Lefebvre
- CJS Award: Richard Lockhart
- Fundraising: Christian Léger
- Impact Award: Rick Routledge
- Lise Manchester Award: Naomi Altman
- Membership: Mireille Schnitzer
- New Investigators: Michael McIsaac
- Research: Éric Marchand
- Statistics Education: Jeremy Balka
- Student Research Presentation Award: Duncan Murdoch
- Student Travel Grants: Lawrence MacCandless

These individuals deserve our heartfelt thanks for their excellent and invaluable service to our Society.

Conclusion

Having served as President-Elect and President, I now realize, more than ever, how many of our members give so much of their time to enable the SSC to reach its goals. It has been an honour for me to serve as the president of an organization with such devoted members.

Hugh Chipman
SSC President

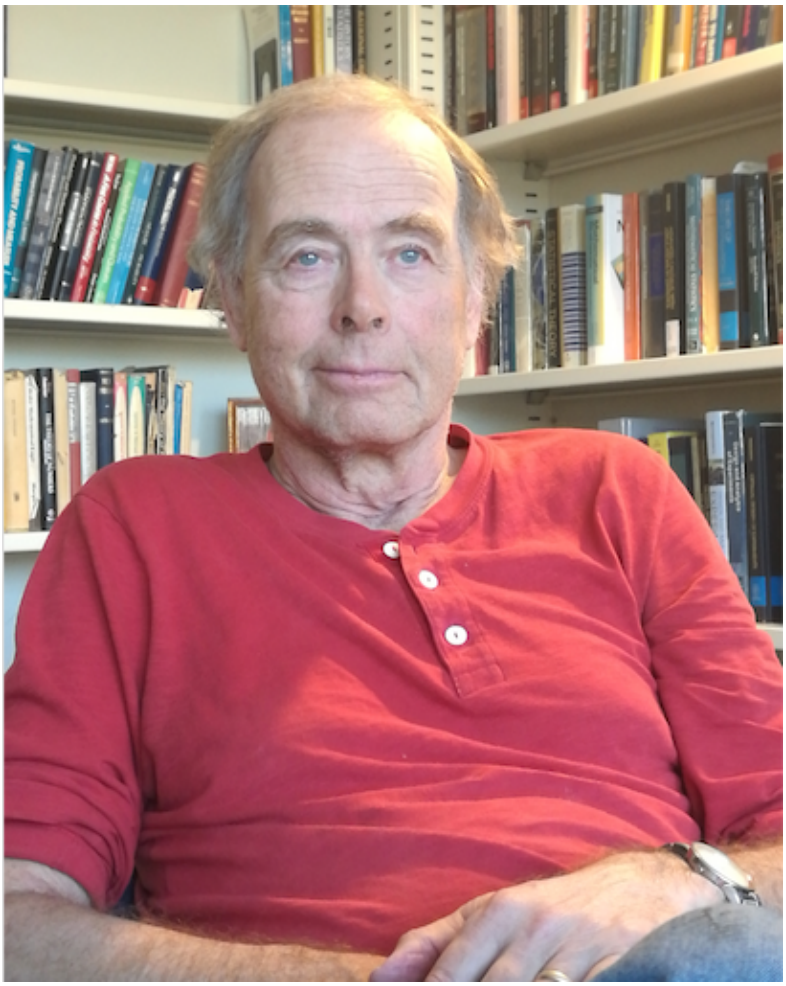
Congratulations to the 2018 SSC Award Winners

Through its activities and publications, the SSC seeks to promote the highest possible standards for statistical practice, education and research. To this end, the SSC annually recognizes the outstanding professional achievements of our colleagues. This issue of Liaison lists the recipients of the awards bestowed by the SSC at the banquet held in conjunction with the 2018 annual meeting at McGill University in Montréal. Each award is described, along with the recipients' achievements. These individuals have devoted their talents and energy to the advancement of our discipline in exceptional ways. They are models and mentors for colleagues and the next generations of statistical scientists alike.

On behalf of the Statistical Society of Canada, its Board of Directors and its entire membership, I am very pleased to offer these award winners my warmest congratulations. Thank you for all you have done to benefit our discipline!

Hugh Chipman, PhD, P.Stat.
President, Statistical Society of Canada

SSC 2018 Gold Medal Recipient



The 2018 recipient of the Gold Medal of the Statistical Society of Canada is Professor **Douglas Wiens.** The Gold Medal is awarded to a person who has made outstanding contributions to statistics, or to probability, either to mathematical developments or in applied work.

Doug Wiens is a professor in the Department of Mathematical and Statistical Sciences at the University of Alberta. He was born in Lloydminster, Saskatchewan in 1950 and grew up in Calgary. He received his BSc in Mathematics (1972), two Masters degrees - in Mathematical Logic (1974) and in Statistics (1979), and a PhD in Statistics (1982), all from the University of Calgary. As part of his work on mathematical logic, Doug helped find a Diophantine formula for the primes in connection with Hilbert's tenth problem: that is, a multivariate polynomial with the property that the positive values of this polynomial, over integer arguments, are exactly the prime numbers. Doug and his co-authors won the Lester R. Ford Award of the Mathematical Association of America in 1977 for their paper on this result. His PhD dissertation was entitled "Robust Estimation for Multivariate Location and Scale in the Presence of Asymmetry" and was supervised by John R. Collins. After receiving his PhD in 1982 Doug took a faculty position at Dalhousie University before moving to the University of Alberta in 1987.

Doug is a world leader in the areas of robust statistics and experiment design, and works at the interface of these disciplines. He and his coauthors have continued and extended work initiated by Box and Draper (1959) and Huber (1975) on robustness of design. The 'classical' optimal designs typically depend strongly on strict model assumptions for their optimality. However the true model will generally depart slightly from the experimenter's assumed model. Doug's research provides designs with high efficiency when the model is correct, but which also maintain efficiency under deviations from the model.

Doug's work is technically challenging and of both theoretical and practical importance. He has developed criteria yielding optimally robust ('minimax') designs for many practical settings, found mathematical bounds for the criteria, and explored methods for computing the designs. Some critically important contributions in design include (i) minimax designs for prediction in approximately linear regression models; (ii) minimax robust designs for estimation and extrapolation in heteroscedastic, approximately linear models; (iii) robust designs to discriminate between nonlinear, approximate regression responses; (iv) robustness of design in dose-response studies when the link function is perhaps incorrectly specified; and (v) model-robust designs for quantile regression.

Before applying concepts of robustness to design, Doug initiated a study of minimax variance M-estimation of multivariate location and scale and of robust L- and R-estimators of location, for which he received *The Canadian Journal of*

Statistics Award in 1990. More recent work has included the derivation of efficient algorithms for the computation of robust designs, and the extension of concepts of design to model-based sampling and to robust active learning.

Doug has contributed enormously to the training of highly qualified personnel, as supervisor of four postdoctoral fellows and as thesis supervisor of eight PhD students and of 27 MSc students. These students are active researchers themselves and have published papers jointly with Doug in high quality journals. Most of his former PhD students currently hold professorships at universities in Canada and abroad. Through his teaching Doug has also been a terrific mentor of young researchers.

Doug has served the statistics community nationally and internationally. He has served, and continues to serve, on various editorial boards. He has been Editor of *The Canadian Journal of Statistics* (2001-2003), and has served as associate editor and guest editor for numerous top statistical journals. He has served on NSERC Grant Selection Committees and on numerous SSC committees, and has participated in organizing conferences and workshops. His contributions to research and to the statistics community led to his election in 2005 to Fellow of the American Statistical Association.

The citation for the award reads:

"To Douglas Wiens, for his extraordinary and fundamental contributions to the fields of
robust statistics and to experimental design; for the introduction and study of influential
novel methodology leading to model-robust designs; and for his breakthrough innovations
in computation related to robustness of design."

SSC Award for Impact of Applied and Collaborative Work

The 2018 recipient of the Statistical Society of Canada Award for Impact of Applied and Collaborative Work is **Geneviève Gauthier,** Professor of Statistics in the Department of Decision Sciences at HEC Montréal. The award recognizes outstanding contributions by a member of the SSC in collaborative research and applied work, the importance of which derives primarily from its relatively recent impact on a subject area outside of the statistical sciences, on an area of application, or on an organization.

Born in Montréal, Geneviève Gauthier studied at Université du Québec à Montréal (BSc 1989, MSc 1991) and Carleton University (PhD 1996). Her Master's thesis on autoregressive models for integer-valued time series was written under the guidance of Alain Latour and her doctoral dissertation on stochastic differential equations was supervised by Don Dawson. She joined HEC Montréal in 1996, where she gradually rose through the ranks. She was promoted to full professorship in 2008, visited the University of Auckland during a sabbatical leave in 2012-13, and was Department Chair in 2013-16.

Geneviève's current research is concerned with the use of stochastic filtering techniques to fit models for dynamic latent risk factors using financial products traded on the markets. With her collaborators in finance and insurance, she developed modeling strategies for serial and cross-sectional dependence between high-frequency time series that led to a better understanding of the risk of contagion and its potentially catastrophic consequences. The filtering methods that they introduced make it possible to fit much more complex and realistic market models than ever before. For example, these methods can be used to assess firm-specific default probabilities and other risk factors such as loss given default. In contrast, the standard approach to credit risk relies on credit rating agencies, which provide only aggregate information per credit rating.

Another major challenge picked up by Geneviève stems from the fact that the pricing of financial contracts is related to an expectation with respect to a change of measure that contains parameters of its own. Traditionally these parameters were selected by minimizing the error between the theoretical and market prices. In collaborative work, Geneviève showed that a much more efficient way to select an equivalent martingale measure is to exploit high frequency option prices coupled with filtering techniques. In recent years, she also developed a sophisticated multivariate prediction model for the electricity market, whose prices yield highly non-stationary time series which exhibit both seasonality and daily spikes. The model allows electricity retailers to deploy efficient short-term hedging strategies.

Beyond her scholarly work, Geneviève has had a significant impact through training and consulting. At HEC Montréal she played a major role in shaping the financial engineering program and supervised to completion 70 graduate students, including seven doctoral students. She has also done extensive consulting for companies from the public and private sectors, e.g., helping banks to implement high-level stochastic models for the computation of capital reserves. In addition, she frequently serves as an external auditor to validate credit risk models for various financial institutions.

The excellence of Geneviève's collaborative work was recognized with the Best Paper on Derivatives Award at the 2017 Northern Finance Association conference held in Halifax and the Best Paper Award in the Accounting and Finance Section at the 2012 World Business and Economics Research Conference held in Auckland. In her private life Geneviève is a skier and an outdoor enthusiast. Her two teenagers and the family farm also keep her very busy at home.

The citation for the award reads:

"To Geneviève Gauthier, for her outstanding contributions to the promotion of innovative statistical methodologies in financial engineering, and in the training of highly qualified personnel."

SSC Distinguished Service Award

Professor **John Brewster** is the recipient of the 2018 Distinguished Service Award from the Statistical Society of Canada (SSC). This award honours an individual who has played an important and substantial role in fostering the growth and success of the Canadian statistical sciences community through leadership in the SSC.

Growing up in Vancouver, John enjoyed playing baseball, football, golf and curling and it was also during this time, while in high school, that he met and dated his future wife, Leifian. John liked mathematics when he was in high school and he recalls that, when he was graduating, he was surprised to discover that you could actually study mathematics as your main subject at university. So he enrolled at UBC and obtained a BSc in honours mathematics in 1966.

In 1967 John received an MSc in mathematics, with a focus on statistics, from the University of Toronto. He then returned to UBC, obtaining a PhD in mathematics in 1972, writing a thesis in statistical decision theory under the supervision of Jim Zidek. On graduation he accepted a faculty position in the Department of Statistics at the University of Manitoba, where he stayed for the rest of his career (with the exception of very enjoyable sabbaticals, notably to Stanford University, UBC and the University of Auckland).

During his career John taught a variety of courses, both applied and theoretical, and in 1983 he received the Dr. & Mrs. H.H. Saunderson Award for Excellence in Teaching from the University of Manitoba. John's main research interests are in experimental design, foundations of statistics and statistical decision theory and he has supervised a number of graduate students working in diverse areas of statistics. John has consulted and collaborated extensively with companies and organizations in Manitoba and has given a number of workshops on experimental design in the aerospace, agri-food, mining and semiconductor sectors. John was also Director of the Statistical Advisory Service, Director of the Institute of Industrial Mathematics and Head of the Department of Statistics. He retired at the end of 2011 and is now a Professor Emeritus.

John and Leifian have two sons, Geoff and Jamie, who both reside in Winnipeg with their families. In retirement, the Brewsters enjoy watching their grandchildren playing hockey and soccer. They also enjoy golfing and dancing (ballroom, social and country), both in Winnipeg and in southern Texas, where they now spend time in the winter as snowbirds.

John has a long history of service to the statistical profession in Canada, beginning over four decades ago. This service, in fact, predates the Statistical Society of Canada! In 1975, he was a regional representative on the Board of the Canadian Statistical Society, which later merged with the Statistical Science Association of Canada to form the SSC. John was also a regional representative on the inaugural

Board of the SSC and over the years has served an additional five terms as a regional representative on the Board.

John has taken on many prominent leadership roles in service to the profession. He served as President of the Statistical Association of Manitoba. He was also Chair of the COPSS Awards Committee and SSC's Publications Committee, Election Committee, and Awards Committee. It was during his term as President of BISS that the Isobel Loutit Invited Address was established.

During his term as Secretary, John developed the SSC Handbook, which "introduced a large degree of systemization into the operations of an expanding Society." This document has served as an invaluable resource, ensuring a measure of continuity with the yearly changes in our volunteer-driven Society. It continues to be relevant today, having in large part informed the newly-adopted SSC Operating Policies and Procedures Manual.

John made many significant contributions to the Society during his term as President-Elect/President/Past-President of the SSC (2010-2013). As President, he formed the Canadian Statistical Institute Development Committee (CSI:DC) which later led to the creation of CANSSI; he effectively mobilized the membership of the SSC to both support and get involved in the creation of a Statistical Sciences Institute in Canada. He oversaw the transition of the Census at School Canada program from Statistics Canada to the SSC; Census at School Canada continues today to serve as SSC's flagship program for engaging primary and secondary school students in statistical reasoning. John was committed to engaging and providing a formal voice for the student members of the Society and, as Past-President, he led the development of the Student and Recent Graduate Committee; he worked closely with the inaugural Chair to set forth the structure and goals of the committee, which is now responsible for the successful Canadian Statistics Student Conference.

John Brewster has been a dedicated steward of the Statistical Society of Canada for more than four decades. In the breadth of roles he has undertaken, he has made visionary and long-lasting contributions to the Society. He also cares about SSC's future and ensures that others are encouraged and prepared to serve the Society.

The citation for the award reads:

"To John Brewster, for the breadth and long history of his service to the statistical profession in Canada; for notable contributions during his term as SSC President, including his leadership in the establishment of CANSSI, his oversight of the successful transition of the Census at School Canada program to SSC, and his vision in fostering the development of the Student and Recent Graduate Committee; and for his foresight in developing the SSC Handbook, which continues to inform SSC operations today."

Lise Manchester Award

The 2018 Lise Manchester Award is conferred upon Professor **François Bellavance** of HEC Montréal. This award is given every other year by the Statistical Society of Canada (SSC) in commemoration of the late Dr Lise Manchester's abiding interest in using statistical methods to study matters of relevance to society. The award recognizes excellence in statistical research which considers problems of public interest and which is potentially useful for formation of public policy in Canada.

François Bellavance is a Professor in the Department of Decision Sciences at HEC Montréal. He is a member of the Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation (CIRRELT), the Institute for Data Valorization (IVADO), and the Québec Road Safety Research Network (RRSR), as well as an affiliate member of the Group for Research in Decision Analysis (GERAD).

Born in Montréal, François received all his statistical training at the Université de Montréal, where he completed his PhD in 1994. He became interested in applications early on. During his studies, he worked as a consultant for researchers at the Montréal Clinical Research Institute (1985-89) and was Director of the Statistical Consulting Service at Simon Fraser University from 1990 to 1993. In 1994 he was hired as a biostatistician by the Department of Clinical Epidemiology and Community Studies at St. Mary's Hospital Center in Montréal and was concurrently part-time Assistant Professor in the Department of Epidemiology and Biostatistics at McGill University. In 1998 he joined HEC Montréal and the Transportation Safety Lab at CIRRELT, where he became involved in many road safety research projects.

Over the past 25 years, François has contributed to various aspects of road safety research, including the use of cell phones while driving, seat belt use, the impact of drinking and driving laws, work-related road accidents, the adaptation of preventive messages for risky drivers, and the use of driving simulators for training new drivers. In addition, he was an active member of the Québec Task Force on Road Safety (2005-15), a group of some 40 members from all sectors of society charged with recommending road safety improvement measures to the Québec Minister of Transportation. From 2008 to 2015, he sat on the Board of Directors of the Canadian Association of Road Safety Professionals and he contributed to the creation in 2010 of the Québec Road Safety Research Network for which he served as President until 2015. His statistical research on road safety issues justified the introduction of several legislative and administrative measures that helped to improve Québec's road safety record.

Within the SSC, François chaired the Biostatistics Section (2000-01) and the Business and Industrial Statistics Section (2016-17) in addition to serving as Québec Representative for six years on the Board of Directors (1998-2000, 2005-09). He was a member of NSERC's Statistical Sciences Grant Selection Committee from 2005 to 2008.

The citation for the award reads:

"To François Bellavance, for his sustained, outstanding fundamental statistical research on road safety issues, for his determining role in improving road safety regulations and legislation in the province of Québec, and for elevating the social debate and acceptance of road safety measures through the effective communication of statistical evidence."

New Investigator Presentation Award

Société statistique du Canada
Statistical Society of Canada

At the 2018 SSC Annual Meeting the New Investigator Committee debuted the New Investigator Presentation Award for the best contributed talk given by a New Investigator (someone within 5 years of beginning their first academic appointment, and within 10 years of completing their PhD program). Entries were judged on the quality of both the presentation and the underlying research. The award consists of a certificate and a cash prize.

We are happy to announce that the 2018 recipient of the award is Félix Camirand Lemyre for his talk titled "Estimating the Distribution of Episodically Consumed Food Measured with Errors". Congratulations Félix! And an honorable mention goes to Brian Franczak for his talk titled "Cluster Analysis using Mixtures of Asymmetric Distributions".

News from McGill University

McGill

The Department of Epidemiology, Biostatistics, and Occupational Health congratulates Erica Moodie on winning the McGill Principal's Prize for Outstanding Emerging Researchers, and Paramita Saha-Chaudhuri for being awarded a Chercheur-boursier Junior 1 career award from the Fonds de recherche du Quebec – Sante.

ASA DataFest - University of Waterloo

"While challenging, DataFest 2018 was an incredibly rewarding experience that taught us about the nuances of real world data, resilience and the power of team work."

– Yuan Yuan Mandy Gu, Statistics and Pure Math Student, Winner of the 'Munich Re Best Insight' Award

Over the first weekend of May more than 100 undergraduate students spent 48 hours on the University of Waterloo campus analyzing and applying data as they competed in the 2018 ASA DataFest competition. Worldwide, more than 2000 students participate in this competition at several of the most prestigious colleges and universities.

For two consecutive days students worked around the clock to put their data analysis skills to the test with more complex data than what they would normally be exposed to in class. Once the data was analyzed, groups had only two slides and five minutes to convince the judges that the conclusions they drew from the data were deserving of one of three titles: Munich Re Best Insight, Best Use of External Data, or Best Data Visualization.

The winners of this year's competition are:

Munich Re Best Insight:
Fuhua Liu, Yuan Yuan Mandy Gu, Chen Qian and Dhron Joshi

"The experience was interesting and a very different tone to the usual hackathons we are used."

– Chen Qian, Computer Science and Statistics

Best Use of External Data:
Bingfan Liu, Liudong Li, Qidi Hu, Kevin VanDam and Wai Keat Tan

"DataFest is a challenging yet rewarding experience, that I would recommend to all undergraduate students."

– Kevin Vandam, Honours

Best Data Visualization:
Jiaqi Wang, Yu Zhang, Ankai Jie, Neil Liu, and Saksham Chatnagar

"DataFest was a hectic and fun weekend! I had an amazing time exploring the data with my teammates and learned

a lot of new things about statistical analysis and data visualization."

– Ankai Jie, Bachelor of Computer Science, Major in Data Science

This hands-on learning provides unparalleled opportunities for collaboration, creativity, and development of critical and analytic skills – but most of all, it's fun!

Included this year was an interactive panel discussion for students to gain insight into the world of data science directly from industry representatives. They shared valuable tips on hiring expectations, skills needed and future trends. ASA DataFest is a unique opportunity that gives aspiring data scientists a leg up on industry expectations after leaving the University of Waterloo. Gaining great experience and advice, students find valuable takeaways from this annual competition.

- Carlos Mendes

Data Science and Predictive Analytics Academic-Industry Partnering Forum - U Waterloo

Imagine analyzing 10 trillion data points, from a variety of sources, collected at an extremely fast rate. The data can help address business challenges companies faces every day and possibly even predict client behavior – but you're not sure where to start. How do you sift through the data that's available to you, and draw out just the information you need?

Industries we interact with every day deal with this problem regularly, including insurance, transit, financial services, retail and food services, agriculture and health care. With massive volumes of data available, the path forward to practical applications and predictive analysis is difficult to navigate. Companies need someone who can help them build a map; the kind of expertise that researchers at the University of Waterloo can provide.

"Industry and university collaboration is not something that we should just be encouraging people to do. They need to realize that we need to do it – it's not optional anymore," says Allaa Hilal, Director of Data Science and Engineering at Shopify, and Adjunct Assistant Professor at Waterloo. "We cannot wait the 10 years, or even five years, that we used to wait until the research comes from industry. We need it today. And working very closely with academia will allow us to speed the cycle of advancement, and get these innovative solutions faster into our product lines."

The organizers of the **Data Science and Predictive Analytics Academic-Industry Partnering** forum wanted to make those connections between business and research. Hosted by the Department of Statistics and Actuarial Science, University of Waterloo, on April 27, with funding provided by a Connect Grant from the Natural Sciences and

Engineering Research Council of Canada (NSERC), the event brought together 20 industry partners and 21 researchers to help foster relationships and to encourage collaboration.

“Our goal is to stimulate contact and interaction between companies and academia, and to build on a long history of success in collaborative research,” says Stefan Steiner, Chair of Waterloo’s Department of Statistics and Actuarial Science.

In the morning industry partners, including Fairfax, Loblaw Companies Ltd. and Shopify, introduced their companies and presented some of the challenges they currently face in the areas of data science and predictive analysis.

After lunch, participants engaged in speed networking – similar to speed-dating. Short one-on-one meetings allowed participants to look for the right match to collaborate on possible projects of mutual benefit.

Participants also received important information about funding opportunities for academic-industry partnerships from NSERC, Ontario Centres of Excellence (OCE), Mitacs, and the Canadian Statistical Science Institute (CANSSI). By connecting problems, experts, data and funding, the event organizers hope to open doors to collaboration on, and solutions to real-world problems, with long-term benefits not just for companies but for the researchers too.

“We’re looking to build research collaborations involving graduate students over the long term,” adds Steiner. “Seeing your research ideas flow into industry and be used in practice, for a lot of people, that’s really rewarding, and it’s a lot of fun.”

- Carlos Mendes

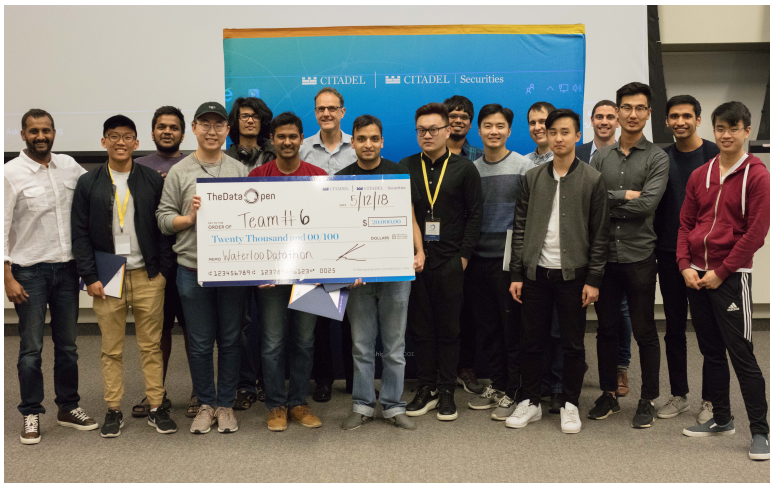
Data Open - University of Waterloo

Over 100 undergraduate and graduate students gathered in Mathematics 3, University of Waterloo, early Saturday morning to tackle large datasets at the **Data Open**, a competition that brings together the best minds in mathematics, engineering, science and technology to collaborate and compete using the world's most important data sets. Students received the data sets at 8:00 a.m. and, in teams of three to four, had until 3:30 p.m. to analyze the data, extract meaningful insights, and propose solutions to a socially impactful problem.

Similar to hackathons for software engineers, these live-action competitions use real-world data to develop and substantiate solutions, instead of building apps. After the teams completed their solution reports, students networked with Correlation One and Citadel employees, while a panel of three judges reviewed the 22 submissions.

"Our students had the opportunity to showcase their skills while modelling a meaningful, real-world problem," said Professor Stefan Steiner, chair of the Department of Statistics and Actuarial Science and a judge of the competition. "The overall quality of the submissions was outstanding. It was remarkable how much the student teams accomplished in just over seven hours."

The team in first place received $20,000, with second and third place teams each receiving $2,500.



The winners of this year's competition were all Universityof Waterloo students:

- 1st prize: **Priyank Jaini** (PhD, Computer Science), **Ankai Jie** (4A, Computer Science), **Neil Lin** (3B, Computer Science), and **Sai Praneeth Mupparapu** (MASc, Mechanical and Mechatronics)
- 2nd prize: **Patrick Zheng Li** (4B, Statistics and Actuarial Science), **Rahul Patel** (5B, Computer Science), **Simon Suo** (5B, Computer Science), and Yuchi (Richard) Zhang (4A, Computer Science)
- 3rd prize: **Ronak Pradeep** (3B, Computer Science and Combinatorics & Optimization), **Sidhant Saraogi** (4A, Computer Science), **Terry TaeWoong Um** (PhD, Electrical and Computer Science), and **Yezhi Zhang** (4B, Statistics and Actuarial Science)

In addition to the monetary prize, the winning team gains automatic entry into the final Data Open competition where they will compete against teams from schools including Harvard, MIT, Princeton and University of California, Berkeley. They also receive the opportunity to interview with Citadel and Citadel Securities.

"Datathon was a great event that exercised critical statistical thinking under time constraints," said Liu, a member of the 1st place team. "The opportunity to tackle a big

problem from a technical perspective complemented the theoretical and applied foundation that Waterloo teaches."

The competition was sponsored by Citadel and Citadel Securities in partnership with Correlation One and Waterloo's Department of Statistics and Actuarial Science. To apply, students completed a brief survey and answered a 60-minute, 15-question multiple choice assessment. Correlation One received over 500 applications for the Waterloo Datathon and invited only 110 students.

- Carlos Mendes

CANSSI News and Deadlines

CANSSI INCASS

Canadian Statistical Sciences Institute
Institut canadien des sciences statistiques

Data • Discoveries • Decisions
Données • Découvertes • Décisions

Spotlight on a CANSSI Program – Distinguished Visitor Program

Did you know that CANSSI's Distinguished Visitor Programcan help you invite a leading international scientist to your university? As part of their visit, the scientist should give a 1-hour lecture for a general audience and take time to meet with the researchers and graduate students at your university. The visit can be for a day or two or even be combined with a longer visit/trip. Previous lectures are available on

our YouTube channel. We accept applications for this program three times a year: March 31, July 31 and November 30.

New CANSSI Health Science Collaborating Centres

CANSSI is extremely pleased to welcome four new Health Science Collaborating Centres (HSCCs) to our national network. These four centres join the seven already existing HSCCs across the country. The new centres are:

Maritime Statistical and Health Sciences Collaborating Centre (MSHSCC)

MSHSCC has four Directors – Ying Zhang (Acadia University), Renjun Ma (University of New Brunswick), Bruce Smith (Dalhousie University) and Henrik Stryhn (University Prince Edward Island). The Maritimes have a very long health research history and rich research resources. There are various health organizations, medical faculties, and health research centres/networks. One advantage in the Maritime region is the well-organized and comprehensive provincial healthcare databases that motivate many evidence-based health research projects. These projects often require significant data linkage, data processing, and high quality statistical analyses and modelling procedures. Hence, in this region, there is a high demand for collaboration between health researchers and statistical scientists.

The research groups from Acadia University, Dalhousie University, University of New Brunswick and the University of Prince Edward Island have active faculty researchers and students with access to excellent facilities. Specific research outcomes range from methodological developments in areas such as pharmacoepidemiology and drug safety, patient reported research outcomes, and human genetics, to knowledge translation tools such as novel clinical decision support systems and open source statistical packages. The mission of MSHSCC is to strengthen ties among our statistical science programs and our regional/provincial health organizations. This will make our students more competitive in the employment market and build research capacity in health sciences research, leading to improvements in health care.

SFU Health Sciences and Statistics Collaborating Centre (SFU-HSSCC)

SFU-HSSCC is led by Lawrence McCandless, Joan Hu, Jinko Graham, Hui Xie, Bohdan Nosky and Brad MacNeney. This group will undertake planning activities that will leverage existing expertise, talent, resources and partnerships related to biostatistics and population and public health at Simon Fraser University. For

example, SFU has internationally recognized leaders in the field who have track records of mentoring graduate students with support of peer-reviewed funding (e.g CANSSI Collaborative Research Team Grant co-PI Joan Hu and NSERC and CIHR). Moreover, many of these researchers already collaborate with one another as demonstrated by students and joint publications in biostatistics. SFU offers a diverse suite of courses in the Faculty of Health Sciences and the Department of Statistics and Actuarial Sciences. Finally, SFU has identified Big Data approaches as a strategic priority and target for investment, including through the KEY Big Data initiative.

Montreal Health Statistics Centre (MHS)

Led by Director Yogendra Chaubey and Associate Director Simon Bacon, members of MHS include Habib Benali, Cohen-Adad, Lisa Kakinami, Jean-Marc Lina and Yan Liu. MHS brings together Concordia University, Ecole de Technologie Supérieure, Montreal Behavioural Medicine Centre, PERFORM Centre and Polytechnique Montreal.

The group at the Montreal Health Statistics Centre are a combination of internationally recognized leaders in biostatistics and theoretical statistics, and researchers focused on applying complex methodologies and statistical techniques in epidemiology/bioengineering for their health implications. Core MHS members have extensively collaborated with researchers in the health sciences. This is a testament to the members' dedication to multidisciplinary research with a focus on improving health. The objectives of the MHS are (1) to serve as the hub connecting Statistics students and faculty members with health researchers, (2) to continue to develop and expand upon existing multidisciplinary collaborations between our network members with health organizations and (3) to train Statistics students in methodologies relevant for health research. These objectives are central to the MHS mission of enhancing the education and training of their students to best prepare them for successfully entering the workforce or pursuing higher education. By focusing on ensuring students are well trained in formal coursework and supplementary training specific to biostatistics, the research quality of the MHS members and students will only continue to increase.

CANSSI Saskatchewan Health Science Collaborating Centre (CANSSI-SHSCC)

An intiative of the University of Regina and the University of Saskatchewan, the steering committee for CANSSI-SHSCC consists of Cindy Feng, Shahedul Khan,

Juxin Liu, Nathaniel Osgood, Michael Szafron and Yang Zhao. CANSSI-SHSCC's main partners include the Saskatchewan Health Authority, the Saskatchewan Centre for Patient-Oriented Research and the Canadian Center for Health and Safety in Agriculture. With expertise in big data science, methods for patient-oriented outcomes and dynamic modeling, this group will provide experiential learning environment to trainees at all levels. In addition, student poster events are planned for August 2018 and February 2019.

Mailing Lists

CANSSI offers two different mailing lists. Members of our regular mailing list receive updates about our programs and reminders of upcoming deadlines about twice a month. Write to info@canssi.ca and ask to subscribe.

Our Health Science mailing list is an interactive list where members can post their own opportunities or news items. In addition, CANSSI's Health Science Committee posts opportunities of interest to those in Statistics and Health Sciences. To subscribe, send an email to hs-subscribe@canssi.ca.

Of course, as with any mailing list, you can unsubscribe at any time.

Upcoming Deadlines

- Call for Workshop and Conference Proposals – due **June 15, 2018**
- Call for Proposals for the Distinguished Visitor Program – due **July 31, 2018**
- Call for Proposals for the Kick Start Research Program – Proposals are accepted any time.
- Support for Undergraduate Datathons – Proposals are accepted any time.
- Postdoctoral Opportunities – various due dates
- Employment Opportunities across Canada – various due dates

Results of the 2018 SSC Elections

Société statistique du Canada
Statistical Society of Canada

The SSC 2018 Election was held between April 16 and May 16, 2018. There were 1272 members eligible to vote and 427 ballots were received, a participation rate of 33.6%. Of the 145 P.Stat.-accredited members eligible to vote for the openings on the accreditation committees, 72 voted, a participation rate of 49.7%. All but two of the ballots were submitted electronically.

The following candidates were elected.

Executive Committee
[3 year terms]

President-Elect [President 2019-20; Past-President 2020-21]: Bruce Smith, Dalhousie University

Executive Secretary: Llwellyn Armstrong, Ducks Unlimited

Regional Representatives to the Board of Directors
[2-year terms]

Atlantic Provinces: Henrik Stryhn, University of Prince Edward Island

Québec: Thierry Duchesne (Université Laval), Cody Hyndman (Concordia University)

Ontario: Michael McIsaac (Queen's University), Lorna Deeth (University of Guelph)

Manitoba/Saskatchewan/Northwest Territories/Nunavut: Katherine Davies, University of Manitoba

Alberta/British Columbia/Yukon: Karen Kopciuk, University of Calgary

SECTION EXECUTIVES

Actuarial Science Section Executive
[Three-year terms]

President-Elect [President 2019-20; Past-President 2020-21]: David Landriault, University of Waterloo

Treasurer: Jean-François Bégin, Simon Fraser University

Biostatistics Section Executive
[Three-year terms]

President-Elect [President 2019-20; Past-President 2020-21]: Lei Sun, University of Toronto

Treasurer: Eleanor Pullenayegum, Child Health Evaluative Sciences, Toronto

Business and Industrial Statistics Section
[Three-year terms]

President-Elect [President 2019-20; Past-President 2020-21]: Ryan Browne, University of Waterloo

Treasurer: Alexander de Leon, University of Calgary

Probability Section Executive
[Three-year terms]

President-Elect [President 2019-20; Past-President 2020-21]: Jean Vaillancourt, HEC Montréal

Statistical Education Section Executive
[Three-year terms]

President-Elect [President 2019-20; Past-President 2020-21]: Sotorios Damouras, University of Toronto

Survey Methods Section Executive

President-Elect [President 2019-20; Past-President 2020-21]: Kim Huynh, Bank of Canada

Treasurer [2-year term]**:** Christian Nambeau, Statistics Canada

ACCREDITATION PROGRAM COMMITTEES

Accreditation Committee
[Three-year terms]




Beatrice Baribeau (Statistics Canada), Ruth Croxford (Institute of Clinical Evaluative Sciences), Alberto Nettel-Aguirre (University of Calgary), Soyean Kim (Technical

Safety BC)

Accreditation Appeals Committee

[Three-year terms]

Neil Arnason (University of Manitoba), Lennon Li (Public Health Ontario)
