#### From the President



Although a warm spring in Montreal seems distant as I write this in mid-January, the SSC 2018 meeting (June 3 - 6) will be here before we know it. Local arrangements co-chairs Russ Steele and Andrea Benedetti of McGill University will host what is sure to be an enjoyable and well-attended meeting. For the first time in over a decade, there will be a job fair. Program chair Matias Salibian-Barrera is assembling an interesting scientific program. He anticipates a record number of sessions.

For the second year, our membership renewal form includes the option to **donate to the SSC.** As of 16 January, 64 members have made donations with their membership renewals. Thank you for your generosity and support of the SSC. It's possible to donate at any time, and as a charitable organization, the society issues tax receipts for donations.

The **fundraising committee**, chaired by **Mary Thompson**, has called for proposals for advancing the goals of the SSC to promote statistics and probability to students and educators, and to help students and young researchers develop careers in the statistical sciences. After the January 31 deadline, the committee will use your donations to fund the best proposals.

The election committee, chaired by past-president **Jack Gambino** has been busy assembling a full **slate of candidates.** These include executive positions, regional representatives to the Board and members of the accreditation committee. Be sure to vote between April 15 and May 15.

The SSC's statement on **implicit bias (pdf) for award nomination and selection** is now online. It's important that the award selection process recognize the

achievements of a diverse group that reflects the breadth of the Society membership and of the profession. Although developed with awards in mind, similar principles can be considered when selecting individuals in other contexts, such as election to the Board.

Although most appointments are made in the summer, I want to mention that **Richard Lockhart** has been reappointed as the **SSC Editor of** *Statistics Surveys*. The journal publishes review articles and is jointly sponsored by the IMS, ASA, Bernoulli Society and the SSC. There have also been two "retirements": **Larry Weldon** recently finished his term as *Liaison* Editor. His wife **Jill Weldon**continues to be involved in production of the online version of *Liaison*. **Peter MacDonald** ended his term as Electronic Communications Manager in December. Thank you, Richard, Larry, Jill and Peter for your dedicated service in these roles.

Our website continues to grow and evolve. In the past year, this has mostly been incremental steps, rather than the wholesale redesign launched in 2016. A recent addition is the database of accredited statisticians, which you can use to confirm who holds a P.Stat. or an A.Stat. Also recently reinstated is a listing of all SSC Case Studies since 1996. The SSC's Executive Assitant, Miaclaire Woodland, is actively involved in web development and keeping web content accurate and up-to-date. Peter MacDonald continues to assist in the curation and improvement of web pages, especially those of historical significance.



On January 10, a statement of support for Andreas Georgiou and his colleagues was released, with signatures from 40 organizations (including the SSC) and 651 individuals. That number is still growing. To learn more, and to add your signature, see <a href="https://www.tinyurl.com/SupportGeorgiou">www.tinyurl.com/SupportGeorgiou</a>. The preamble at that URL reads (in part): "As head of the Hellenic Statistical Authority (ELSTAT) from 2010 to 2015, Andreas Georgiou is widely credited with producing the first round of reliable financial statistics in accordance with EU standards. Indeed, statistics produced under his leadership were accepted and published by Eurostat without reservation for five consecutive years. Yet, he and two of his ELSTAT colleagues have faced numerous legal proceedings for their ELSTAT so "call on Greek authorities to drop its prosecutions of Dr."

work." The signatories "call on Greek authorities to drop its prosecutions of Dr. Georgiou and his colleagues, exonerate them of past convictions, and drop ongoing investigations relating to their official ELSTAT work."

Please spread the word of this statement! #AndreasGeorgiou.

## SSC 2018 - The 46th Annual Meeting of the Statistical Society of Canada



The 46<sup>th</sup> Annual Meeting of the Statistical Society of Canada (SSC 2018) will be held at the McGill University, Montreal, Québec from June 3 to June 6, 2018. As in the last few years, the **Canadian Statistics Students Conference** will take place on the Saturday (**June 2**) before the Annual Meeting, also at **McGill University**. The SSC 2018 Local Arrangements Chairs, **Russell Steele** and **Andrea Benedetti** of McGill University and the Program Chair, **Matias Salibian-Barrera** of The University of British Columbia have organized an exciting conference. A first look at the events and sessions is now available.







#### **About the University and Conference Location**

McGill University, home to 40000 students, was founded in 1821. McGill's alumni includes 12 Nobel laureates, 144 Rhodes Scholars, five astronauts and three Canadian prime ministers. There are two main groups of statisticians at McGill: those based in the department of Mathematics and Statistics (located on the lower campus in Burnside Hall) and those based in the department of Epidemiology, Biostatistics & Occupational Health (located in Purvis Hall on the upper campus). There are also several statisticians located in other departments, such as economics, psychology and management.

The conference will be hosted on and about the University's main campus in downtown Montreal.

#### **Social Events**

Again following established tradition, the Meeting will open with a **reception** on Sunday evening in the La Grande Place of the Complexe Desjardins, a 15- minute walk from McGill University, and easily accessible by metro.

The **banquet** will be held in the same location on Tuesday evening.

The **Student BBQ** will be held on Monday evening at a local park.

#### **Local Attractions**

Montreal is a great city to visit. There are many museums, great shopping in its underground city, fantastic restaurants and an exciting nightlife, and many other things to see and do. Check out www.mtl.org to see all the possibilities!

Montreal is a city of festivals during the summer months and early June is no exception – the Chamber Music Festival runs June 1-17 and the Go Bike Montreal Festival runs May 27-June 3, among others.

#### **Transportation**

Montreal is easily accessible by direct flights from most major Canadian airports. Pierre Trudeau International airport is conveniently located. A public bus connects the airport to downtown via bus (45 min, \$10). A taxi will cost \$40. Montreal is a very walkable city, with great public transportation and a bike rental program.

#### Accommodations

Blocks of rooms are available at hotels located in downtown Montreal, as well as at the residences of McGill University. There are many options at varying prices and distances from McGill University. See <a href="https://ssc.ca/en/meeting/2018-annual-">https://ssc.ca/en/meeting/2018-annual-</a>

meeting/lodging-2018-annual-meeting for a list of options.

More detailed information with links to accommodation, travel and social events, as well as registration and the scientific program are available from the conference website. We look forward to seeing everyone in Montreal!

#### **OVERVIEW OF THE SCIENTIFIC PROGRAM**

A number of workshops organized by the Sections of the Society will run concurrently on Sunday, June 3<sup>rd</sup>. The first plenary session starts Monday morning with the Presidential Invited Address, this year by Yoshua Bengio. That evening there is the Welcome Reception. The scientific program features both Committee- and Section-sponsored invited sessions, sessions with contributed papers and posters, as well as Case Studies Competition.

#### **WORKSHOPS**

Five workshops are organized for Sunday, June 3<sup>rd</sup>. For a detailed description of these training activities, which are open to all meeting registrants including students, see Workshops on the meeting website <a href="https://ssc.ca/en/meeting/annual/2018/workshops">https://ssc.ca/en/meeting/annual/2018/workshops</a>.

#### **Biostatistics Workshop**

**Title**: Causal questions and principled answers: a guide through the landscape for practising statisticians

**Taught by**: The Causal Inference Topic Group of the STRATOS (STRengthening Analytical Thinking for Observational Studies) Initiative, including Els Goetghebeur (Ghent University, Belgium), Saskia le Cessie (Leiden University, Netherlands), and Erica Moodie (McGill University, Montreal)

#### **Business and Industrial Statistics Workshop**

Title: Deep Learning

**Speaker**: Laurent Charlin (HEC Montreal), Mike Pieper (MILA, Montreal Institute for Learning Algorithms, University of Montreal), Arsène Tchango (MILA) and Margaux Luck (MILA)

#### **Probability Workshop**

**Title**: Introduction to Monte Carlo Methods **Speaker**: Aaron Smith, University of Ottawa

#### **Statistical Education Workshop**

Title: Teaching Modern Statistics and Data Science with R/RStudio

Speaker: Nicholas Horton, Amherst College

#### **Survey Methods Workshop**

Title: Statistical Modeling in Survey Sampling: Some Solutions to Ever Increasing

Demand for Reliable Data

Speaker: Gauri S. Datta, University of Georgia and US Census Bureau

#### **INVITED ADDRESSES**



**SSC Presidential Invited Address:** Yoshua Bengio, University of Montreal



**SSC Gold Medal Address:** Richard Cook, University of Waterloo

#### SSC 2017 Impact Award Address:

Carl Schwarz, Simon Fraser University.





**SSC 2016 Impact Award Address:** Jim Hanley, McGill University



 ${\bf Business\ and\ Industrial\ Statistics\ -\ Isobel\ Lout it\ Invited\ Address:}$ 

Karen Kafadar, University of Virginia

#### **Statistical Education Presidential Invited Address:**

Nicholas Horton, Amherst College





**Survey Methods - Presidential Invited Address Session:** Jiming Jiang, UC Davis

#### **COMMITTEE-SPONSORED INVITED SESSIONS**

COMMITTEE	TITLE	ORGANIZER	
New	Recent Research of New Investigators in Statistics Across Canada	Hua Shen	University of Calgary
Investigators	nvestigators  NSERC, CIHR  and Beyond:  Securing  Funding as a  New Investigator	Audrey Béliveau	University of British Columbia
Women in Statistics	Analyses of Big/Large Health	Joan Hu	Simon Fraser University

	Data: Challenges and Strategies		
CANSSI PDF showcase	Showcase of Recent Work by CANSSI Postdoctoral Fellows	Aaron Smith	University of Ottawa
CANSSI Data Science	Statistical Research and Applications in Data Science	Jean-Francois Plante	HEC Montreal
CANSSI Health Science	CIHR and statistical science (panel session)	Mary E. Thompson	University of Waterloo
ICSA - Canada Chapter (International Chinese Statistical Association)	New Inferential Procedures for Data with Complex Structures	Changbao Wu	University of Waterloo
Accreditation Committee	Mentorship	Kevin Keen	The University of Northern British Columbia

#### **SECTION-SPONSORED INVITED SESSIONS**

<b>SECTION</b>	TITLE	ORGANIZER	
	High-dimensional statistics and high-frequency data analysis in finance	Tony Wirjanto	University of Waterloo
ACTUARIAL SCIENCE	Measurement of Risks and Tail Events	Mélina Mailhot	Concordia University
	Machine Learning and Actuarial Science	Etienne Marceau	Laval University
	Graduate Student Research in Actuarial Science	David Landriault	University of Waterloo
BIOSTATISTICS	Machine Learning in Biology & Medicine	Rob Deardon	University of Calgary
	New Statistical Methods in Complex Genetic Trait Studies	Fabrice Larribe	University of Quebec at Montreal
	Causal Inference and Missing Data Methods for the Analysis of Treatment Effects in Clustered Data	Mireille Schnitzer	University of Montreal
	Recent	Michael	University of

	Developments in Personalized Medicine and Dynamic Treatment Regimes	Wallace	Waterloo
	Isobel Loutit Invited Address	Shirley E. Mills	Carleton University
BUSINESS AND	Making connections with industry: Resources and advice	John Braun	The University of British Columbia
INDUSTRIAL STATISTICS	CJS issue on Big Data	Jean-Francois Plante	HEC Montreal
	Randomized Control Trials and Evidence-based Decision-making in Government	Lehana Thabane	McMaster University
PROBABILITY	Limit Order Book	Anatoliy Swischuk	University of Calgary
	Distribution-free testing for discrete distributions	Priscilla Greenwood	The University of British Columbia
	Probabilistic Aspects of	N. Balakrishnan	McMaster University

	Reliability Theory and Applications		
	Limit theorems in change-point analysis	Yuliya Martsynyuk	University of Manitoba
	Showcase: Technology in the Classroom	Jim Stallard	University of Calgary
	Teaching statistics to graduate students in the health and social sciences	Nicholas Mitsakakis	University of Toronto
STATISTICAL EDUCATION	Canadian Scholarship of Teaching and Learning (SoTL) in Statistics	Bethany White	University of Toronto
	Presidential Invited Address - " Big ideas to help statistics students learn to 'think with data' "	Bruce Dunham	The University of British Columbia
SURVEY METHODS	New Inferential Procedures for Complex Survey Data	Changbao Wu	University of Waterloo
	New Developments	Mahmoud	University of

in Small Area Estimation	Torabi	Manitoba
Combining Data from Probability and Non- Probability Samples	Wesley Yung	Statistics Canada
Presidential	Mahmoud	University of

**Survey Methods Section Program for SSC 2018** 



#### **Survey Methods Section Program for SSC 2018**

The Survey Methods Section (SMS) is pleased once again to be directly involved in the SSC annual meeting by offering a full-day workshop, a presidential invited address, three invited sessions and several contributed sessions. We would like to encourage our members and others interested in survey methods to attend. In addition, the section is sponsoring an award for the best student presentation in the field of Survey Methodology. Students who are presenting at the annual meeting are encouraged to submit their paper to the SMS. You could win a \$300 award! Visit our website for more information.

Here are some details on the SMS program for the 2018 SSC annual meeting:

For the 2018 SSC meeting in Montreal, Survey Methods Section will organize three invited sessions, one Presidential Invited Address session, and one workshop. Details of activities are below:

# **WORKSHOP** – Statistical Modeling in Survey Sampling: Some Solutions to Ever Increasing Demand for Reliable Data

Organizer: Mahmoud Torabi, University of Manitoba

Speaker: Gauri S. Datta, University of Georgia and US Census Bureau

In recent years, demand for reliable small area estimates has greatly increased worldwide due to, among other things, their growing use in formulating policies and programs and the allocation of government funds, regional planning, small area business decisions and similar applications. Traditional area-specific direct estimators may not provide acceptable precision for small areas because sample sizes in small areas are seldom large enough. This makes it necessary to "borrow strength" across

related areas through indirect estimators based on implicit or explicit linking models, using auxiliary information such as recent census data and current administrative data. Methods based on explicit linking models are now widely accepted. The need to provide reliable small area statistics has led to considerable methodological developments in the past 25 years or so on model-based indirect estimation that "borrows strength" from related areas and thus increases the "effective" sample sizes in the small areas.

In this workshop, we will concentrate on recent developments for small area estimation that are based on area and unit levels models. We will illustrate these results via examples published in the literature, or that are based on Canadian data available at Statistics Canada. We will also demonstrate how these results can be obtained using statistical software for small area estimation.

#### PRESIDENTIAL INVITED ADDRESS

Measures of Uncertainty for Complex Inference in Surveys

Organizer: Mahmoud Torabi, University of Manitoba

Speaker: Jiming Jiang, University of California

#### **INVITED SESSIONS**

#### **SESSION 1: New Inferential Procedures for Complex Survey Data**

Organizers: David Haziza, University of Montreal and Changbao Wu, University of Waterloo

- Puying Zhao, University of Waterloo
- Sixia Chen, University of Oklahoma
- Kelly McConville, Swarthmore College

#### **SESSION 2: New Developments in Small Area Estimation**

Organizer: Mahmoud Torabi, University of Manitoba

- Andrew Lawson, Medical University of South Carolina
- Louis-Paul Rivest, Université Laval
- Snigdhansu Chatterjee, University of Minnesota

#### **SESSION 3: Combining Data from Probability and Non-Probability Samples**

Organizer: Wesley Yung, Statistics Canada

- Jae Kwang Kim, Iowa State University

- Golshid Chatrchi, Statistics Canada
- Li-Chun Zhang, University of Southampton

#### 2018 Case Studies in Data Analysis Competition



The Case Studies in Data Analysis Competition will be held during the Annual Meeting at McGill University. The case studies are intended to provide enthusiastic teams of graduate and senior undergraduate students with the opportunity to apply their knowledge to the analysis of real-life datasets. Each participating team will choose to analyze one of the two case studies described below. Each team should identify a faculty member to support its members as they develop their analytic approach and final presentation. Team members will work together to analyze their data, and then present a poster summarizing their methods and analysis results at the Annual Meeting.

Further information about the case studies is available on the Annual Meeting website. Teams interested in participating in the competition must register by **May 2**, **2018** by e-mailing the Chair of the Case Studies in Data Analysis Committee, Dr. Lisa Lix (lisa.lix@umanitoba.ca).

# Case Study 1: Does survey design information matter? Assessing the impact on population estimates of hypertension in Canada

Teams that select this case study will use synthetic data from the Canadian Health Measures Survey to assess the impact of using and not using survey design information when producing estimates of hypertension from this unique national health survey.

#### Case Study 2: What predicts the popularity of TED Talks?

Teams that select this case study will use data from the TED website to investigate characteristics that contribute to the popularity of motivational and inspirational talks on a variety of topics. This case study will require the use of a variety of tools to develop measures from text-based data and to analyze these data.

#### **Criteria for Evaluating Case Study Entries**

The Committee of the Award for Case Studies in Data Analysis will consider such attributes as innovation, technical clarity, and cohesiveness of the analysis and presentation of results in choosing a winning team for each competition. The Committee reserves the right to decline to make an award for each case study if the number of entries is insufficient.

#### Second Announcement of Job Fair at the 2018 SSC Annual Meeting



You are invited to participate in the Job Fair that will be held in conjunction with the 2018 SSC Annual Meeting in Montreal as either a **Job Seeker** or an **Employer**.

Job Seekers will have free participation in the Job Fair with SSC Annual Meeting registration, prior registration in the Job Fair, and adherence to Job Fair guidelines. Interviews will be scheduled from Sunday, June 2nd to Wednesday, June 6th. Please confidentially register with the Job Fair Organizer, Judy-Anne Chapman by Friday, May 11, 2018, by sending a cover letter and your resume, along with time restrictions on availability for onsite interviews. You will receive an identification interview number known only to the Job Fair organizers. Your personal

materials will be maintained confidentially, and transferred to participating Job Fair employers in block by Judy-Anne [P.Stat.]. **There is an embargo on applicants contacting employers prior to the meeting.** Please address any questions to Judy-Anne (jachapma@aol.com). You will receive an applicant blinded interview schedule by Saturday, May 26th with participant identification numbers and interviewing employers.

**Employers** will be charged \$400 to receive a package of resume materials; this amount will be reduced to \$300 for SSC Institutional Members or Employers with at least one SSC Accredited Statistician (P.Stat. or A.Stat.). The charge is per employer for any number of jobs. Employers will be able to have private on site interviews with their choice of applicants. Employers are asked to register participation with Judy-Anne Chapman, PhD, P.Stat. (jachapma@aol.com) with job description(s), Job Fair contact, and name, title, and email address of individual who the SSC Office will invoice according to the above employer classification. There is an embargo on employers contacting job applicants prior to the meeting. Please address any questions to Judy-Anne (jachapma@aol.com). Employers will receive a package of applicant materials by Sunday, May 13th, and are asked to return applicant names with identification numbers of those you wish to interview as well as days for which interviewer(s) will be on site to interview by Thursday, May 24th. You will receive an applicant blinded interview schedule by Saturday, May 26th with participant identification numbers and interviewing employers. The Job Fair is a service provided by the SSC and SSC Accreditation Committee, with assistance from the ASSQ. Job Fair organizers will extensively advertise this event to increase participation by both job seekers and prospective employers. We aim for successful facilitation of job recruitments that will lead to future on site Job Fairs in conjunction with SSC Meetings.

Judy-Anne Chapman (2018 Job Fair Coordinator, SSC Committee on Membership, jachapma@aol.com),
Bouchra Nasri (ASSQ representative)
Gabrielle Simoneau (Local Arrangements Committee representative)
Nicholas Beck (Local Arrangements Committee representative)

#### **Student Research Presentation Awards**



Awards will be given at the 2018 SSC Annual Meeting at McGill University for research presentations made by students. Awards will be given for oral and poster presentations. Entries will be judged on the quality of both the presentation and the underlying research. The awards consist of a certificate and a cash prize.

To be eligible for this award, a student must not have defended her/his thesis nor completed her/his final degree requirements by December 31, 2017.

In 2018, entrants will choose to enter one of four separate competitions:

- The Probability Section Student Research Presentation Awardcompetition will judge presentations on the probabilistic aspects of the work as well as the general criteria. The cash prize is \$500.
- The Business and Industrial Statistics Student Research Presentation Award competition will judge business and industrial aspects of the work as well as the general criteria. The cash prize is \$500.
- The Actuarial Science Student Research Presentation Award competition will judge presentations on theory and applications in actuarial science as well as the general criteria. The cash prize is \$100.
- The general Student Research Presentation Award competition will judge presentations on the general criteria. The cash prize is \$500.

#### To enter, the student must:

- Submit the abstract of the contributed paper or poster through the meeting website;
- Indicate at time of submission of the abstract in the space provided on the meeting website which competition is being entered;
- Have her/his supervisor or department confirm student status as of December 31, 2017, by email to: student-award-submissions@ssc.ca no later than **February 15, 2018**;

• Submit a short summary of the research, no longer than four pages (including references), by email to student-award-submissions@ssc.ca no later than March 15, 2017.

#### (New!) Only for the general Student Research Presentation Award

**competition.** Summaries submitted by the students for the oral presentation will be assessed by experts. The assessment of summaries will be based upon the following criteria: Relevance/Importance of research/application (30%), Rigor, assessment, and novelty of proposed solution (40%) and Quality of presentation (30%). A maximum of 18 presentations will be selected for the competition at the SSC annual meeting. Presenters whose summaries have not been selected will be invited to make standard contributed presentations. The presenters will be notified by April 15 2018 as to whether their summaries have been selected.

Presentations based on joint work with a senior colleague such as a supervisor are eligible, as long as the student presents the work. Joint presentations between two or more students are eligible. Past winners in each competition are not eligible for the same competition, but may enter the other ones. All presenters are required to register for the meeting at the time of abstract submission. The presenters are also responsible for their travel expenses to attend the meeting.

#### **New Investigator Presentation Award at SSC 2018**



Debuting at the 2018 SSC Annual Meeting is the **New Investigator Presentation Award** for contributed talks given by New Investigators. Entries will be judged on the quality of both the presentation and the underlying research. The award consists of a certificate and a cash prize.

To be eligible for the award the presenter must be within 5 years of beginning their first academic appointment, and within 10 years of completing their PhD program. Presentations based on joint work with a collaborator who does not fit the definition of a New Investigator are eligible, as long as the New Investigator presents the work.

To enter, the New Investigator must:

- Submit the abstract of the contributed talk through the meeting website
- Indicate at the time of submission of the abstract in the space provided on the meeting website that they wish to be considered for the award;
- Email to sscnewinvest@ssc.ca the date they obtained their PhD and the date they began their first academic appointment, so that their eligibility can be confirmed.

Thank you in advance for your interest!

Nathaniel Stevens Chair, New Investigators Committee

## Special issue on Big Data and the Statistical Sciences: Guest Editor's Introduction



The era of Big Data is well underway. It presents, on the one hand, clear challenges to the discipline of statistics and to statisticians and, on the other hand, many opportunities for statistical scientists. We statisticians are challenged to show our leadership in what is clearly our traditional domain: data. At the same time Big Data offers many opportunities for statistical scientists to push science, technology, and engineering forward and to show that the basic ideas of our field remain relevant, nay critically important, in this new era.

Current chatter around the meaning of Big Data shows that the terms "statistician" and "data scientist" are widely used, outside the community to which I belong, to apply to a much wider group than that community. Essentially every discipline has data; with those data come discipline- specific data scientists. Techniques and jargon develop independently of work in other fields. More importantly for the readership of The Canadian Journal of Statistics those techniques often ignore the more

encompassing, general work of statisticians such as we. We understand well that the basic ideas underlying our study of data analytic techniques apply in all sorts of contexts and that lessons learned in one context have important value in other contexts in entirely different disciplines.

This issue of The Canadian Journal of Statistics is therefore dedicated to Big Data and the Statistical Sciences and to highlighting both the value of classical statistical thought in approaching novel large-scale data problems and the challenges facing the professional statistical community. In this issue you will see that these classical statistical ideas continue to have a crucial role to play in keeping data analysis honest, efficient, and effective. You will see opportunities for new statistical methodology built on old statistical ideas across a wide spectrum of applications. You will see that huge new computing resources do not put an end to the need for careful modelling, for honest assessment of uncertainty, or for good experimental design.

We have here both review articles and methodological proposals. Some are Bayesian in view, some are frequentist, and some are clearly both. We cover experimental design, Official Statistics, modern genetics, on-line methods, Markov Chain Monte Carlo, functional data, graphical models, dimension reduction, local methods, model selection, post-selection inference, high-dimensional limit theory, and many more ideas. I want in the remainder of this introduction to highlight a few of those ideas, draw some connections to the challenges I have mentioned, and perhaps point out places where our community has particular obligations.

Mary Thompson looks at the impact of Big Data on Official Statistics in a wide ranging review. She articulates many ways in which our ability to collect more data with much greater complexity and to fit much larger models will change the way agencies like Statistics Canada do their work. For instance, some concepts are traditionally defined in terms which suit the way they are measured more than the underlying idea; access to larger and timelier data sources may change this balance. As another example, most statistical agencies are moving rapidly to augment, or replace, traditional survey data with administrative data and to use the paradata gathered automatically as part of electronic data collection methods; statisticians will need to cope with data quality issues in the administrative data, at least, because those data were not gathered for the statistical agency's purpose. Thompson considers carefully the impact of continuous or rolling data collection and discusses the future use of visualization in Official Statistics before concluding with an important list of research topics needing attention from statisticians. The topics show clearly that one

impact of Big Data is positive for statisticians: there are many new and serious problems squarely situated within our field.

We are in the midst of a biological revolution in which gene sequencing and related techniques have transformed the way we seek to understand diseases and other biological processes. Shelley Bull, Irene Andrulis, and Andrew Paterson consider Molecular and Genetic Epidemiologyand use two multidisciplinary collaborations (one in breast cancer and one in diabetes) to illustrate the interplay between multiple studies and multiple techniques, both experimental and statistical, in building an understanding of a particular disease. The authors demonstrate that there are continued roles for classical statistical ideas once these are stepped-up to work in more complex situations. At the same time they highlight the need for statistical ideas which cope with model misspecification, high-dimensional parameter spaces, and the associated impact of model selection on inference.

One approach to this last problem is illustrated by Jonathan Taylor and Robert Tibshirani who consider post-selection inference for penalized likelihood models. In the Gaussian case there is now a body of work by Taylor, Tibshirani, and co-authors showing how to make exact, conditional inferences. The approach competes with the high-dimensional limit theory built on modern empirical process techniques which provides unconditional but approximate inferences. In the paper at hand, Taylor and Tibshirani extend these conditional inference ideas to general likelihood contexts with LASSO penalty structures.

The competing high-dimensional limit theory approach occurs in many forms. One of these forms appears in the contribution of Dennis Cook and Liliana Forzani. The focus here is on dimension reduction via partial least squares regression. The paper illustrates the recently established view of asymptotic analysis in which a sequence of models of varying dimensions and therefore varying true parameter values is considered. Assumptions necessarily apply to the true parameter values, and the resulting approximations can be good only in parts of the parameter space. In the Big Data context this is the only way forward.

The technical component of Cook and Forzani is preceded by an introduction which I hope will be widely read. It throws down an important list of challenges to our community and highlights some very negative views of our discipline from beyond our community. We need to face up to these criticisms and seek the sort of self-awareness which will let us understand their source.

Dimension reduction is also a component of Bing Li's paper, which sets out a vision of a unified paradigm for the statistical analysis of Big Data. Studying a variety of contexts including both multivariate and functional settings using both linear and nonlinear models, Li explores the role of linear operators in statistical analysis. Five particular operators on Hilbert spaces are considered carefully, and the ideas are illustrated through the case of sufficient dimension reduction. An important feature of the paper is the structured discussion of "functional data analysis" on the one hand and "kernel learning" on the other.

The competition among ideas for data analysis is sharply highlighted by the changing jargon of our discipline. Beyond the changing names for the practitioners highlighted above we have the change in names for techniques, with older statistical jargon often being replaced or modified by machine learning jargon. Rui Nie, Douglas Wiens, and Zhichun Zhai consider active learningand explore the relation of this idea to the traditional statistical field of optimal experimental design. They demonstrate clearly that classical statistical ideas remain important in this Big Data context. The goal is regression: modelling the impact of predictors on a response. In this paper the predictors used in training are drawn from a different density than they would be when used in test data. On the basis of the training data some parametric regression model will be estimated and then used to predict responses at unobserved values of the covariates. The paper focuses on the impact of bias arising from mis-specification of the parametric model and shows how optimal design ideas can be used to control the impact of that bias. The paper highlights, I think, a crucial issue in the Big Data era. Historically it has been common to feel comfortable assuming that bias is small compared to sampling variability. In huge data sets, however, where sampling variability is negligible, bias will not be negligible at least by comparison and often, I would argue, not negligible at all.

Statisticians have long understood that bias is a concept relative to a data structure and a model. In an iid sampling context the addition of a new predictor to a regression changes the model and the parameters. Chun Wang, Ming-Hui Chen, Jing Wu, Jun Yan, Yuping Zhang, and Elizabeth Schifano study an on-line inference problem. They consider data which arrive in a stream but where the set of predictor variables available may grow from time to time. With new predictors in hand one wants to use the new data without abandoning what one has learned from the old data. The inferential target is dynamic but the approach here shows that there is plenty of scope for classical statistical ideas to increase the efficiency with which data are used in dynamic contexts.

The competition between Bayesian and frequentist approaches to statistics does not seem to have been settled by the advent of the Big Data era. On the one hand, high-dimensional regression and network modelling have attracted a very considerable amount of attention in the form of frequency theory approaches. On the other hand, many have argued that only Bayesian methods can really work in complex settings. It seems possible that a pragmatic consensus is emerging in which many are willing to try whatever method seems most convenient for the problem at hand.

On the Bayesian end of things in this number is the paper by Reihaneh Entezari, Radu Craiu, and Jeffrey Rosenthal, which looks at the problem of Markov Chain Monte Carlo in settings where the computation needs to be parallelized to make statistical inference feasible. The authors show us how to run separate chains on each of several portions of the data, inflating the likelihoods for each portion. The resulting set of approximate posteriors is then combined to form a single approximation to the full posterior. A binomial example shows that careful partitioning of the full data set can sometimes make the approximation very good indeed, and a Bayesian regression example shows that the method improves usefully on earlier partitioning efforts. Finally the method is applied to Bayesian Regression Trees, a central Big Data tool.

Another Bayesian view which highlights the interplay between the two schools of inference is provided by the paper by Qiong Li, Xin Gao, and He le ne Massam studying "coloured graphical Gaussian models." Here we have a high-dimensional multivariate normal sample and are interested in structured inference for the precision matrix of this multivariate normal law; the adjectives "coloured" and "graphical" describe particular structure imposed on this matrix. The high-dimensional setting makes computation hard; the authors present a method for local analysis which uses the graph structure to distribute the computational problem. They go on to provide a frequency theory analysis of the behaviour of the resulting Bayesian estimators in both the fixed dimension and growing dimension regimes.

I believe that this issue of The Canadian Journal of Statistics highlights the kinds of contributions statisticians are making to Big Data. We are showing people that statistical ideas remain relevant in the face of massive, complex, dynamic data. But we are also seeing that we need to make progress quickly to adapt those ideas to the contexts before other, more ad hoc, techniques fully occupy the field.

Richard Lockhart, (2018) 'Special issue on Big Data and the Statistical Sciences: Guest Editor's Introduction', Canadian Journal of Statistics, 46(1), March 2018,

doi:10.1002/cjs.11350

#### CSSC 2018 - Canadian Statistics Student Conference



The sixth annual Canadian Statistics Student Conference (CSSC) will take place on Saturday, June 2nd, 2018 at McGill University, Montreal, QC, the day before the Statistical Society of Canada Annual Meeting opens. Organized by co-chairs Janie Coulombe and Katherine Daignault, this conference is all about bringing students and recent graduates together, engaging them through research presentations, skills development sessions, workshops, talks on various statistical topics, and networking opportunities.



For the sixth edition of the CSSC, we are very proud to present an invited keynote speech by Professor James Hanley, winner of the 2016 SSC Award for Impact of Applied and Collaborative Work. This year's conference will also feature poster and oral presentations from students, a computational **R workshop** on reproducible research by Sahir Bhatnagar, PhD student in biostatistics at McGill University, an informative career session where invited statisticians will be representing several different domains and a session on mental health and skills for surviving graduate studies.

The conference will offer various networking opportunities.

During the lunch students will have the chance to visit sponsor booths and discuss studies or job opportunities. At the end of the conference a wine and cheese event will be held where students can interact and enjoy a relaxing time together. A night out in Montreal is planned at the very end of the day, to enjoy the beauties of the city.

Several prizes will be awarded during the conference, including the CMS-SMC Undergraduate Poster Competition Awards, a prize that encourages undergraduate students to present a project of their own, with the help of a supervisor. This year, as the conference is held in Montreal, we want to provide the opportunity for participants to present their talk in either French or English. A prize will be drawn among the participants who submitted abstracts in both official languages. As in other years, awards will be offered for the Best Posters and the Best Oral Presentations of the CSSC. Finally, every participant who submits an abstract for the CSSC is eligible to win a travel supplement of up to \$750.

For more information, we encourage students, recent graduates and mentors to visit the CSSC website: https://ssc.ca/en/meeting/sixth-annual-canadian-statistics-student-conference or to contact the organizing committee of the CSSC 2018 at ssc.student.conference@gmail.com.

To submit an abstract for the CSSC, we invite students and recent graduates to go to the website link above where they can find more information. The deadline for submission is March 1st, 2018. All presenters are required to register for the CSSC prior to submitting an abstract. Registration for the CSSC is done through the main registration site for the SSC Annual Meeting, although participants do not need to register for the SSC Annual Meeting to attend the Canadian Statistics Student Conference. To participate in the travel awards competition, students and recent graduate can check the intended box on the abstract submission form.

We are looking forward to see you there!

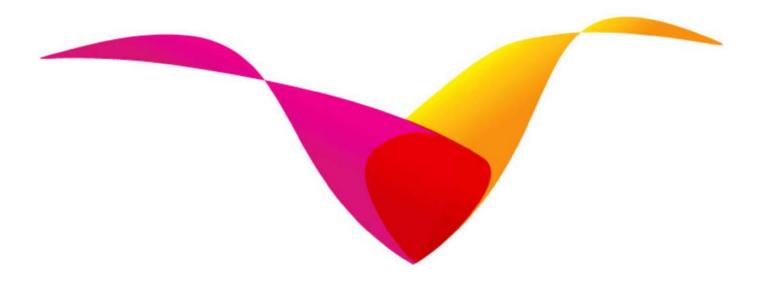




Janie Coulombe, Co-présidente CCÉS 2018

Katherine Daignault, Co-présidente CCÉS 2018

2018 SSC Elections



# Société Statistical statistique Society du Canada of Canada

In compliance with the SSC By-Laws, the Election Committee is publishing a list of candidates for positions on the Executive and Board of Directors that will become vacant on July 1, 2018. In addition, candidates for positions on the Executives of the Sections, and for positions on the Accreditation and Accreditation Appeals Committees are also provided. The biographical sketches for all candidates follow. Electronic voting will commence on or before April 16th.

#### MEMBERS OF THE EXECUTIVE COMMITTEE

(Three-year Terms)

#### **PRESIDENT**

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



Bruce Smith is a Professor in the Department of Mathematics and Statistics at Dalhousie University. He has BSc degrees in Animal Biology and Statistics, an MSc in Statistics from the University of Calgary, and a PhD in Biostatistics from the University of California, Berkeley. He has been at Dalhousie since 1988 where he has served as Director of the Division of Statistics and Chair of the Department of Mathematics and Statistics. He has served as an Associate Editor of *CJS* and was the Program Chair for the 2002 SSC meeting at McMaster University. Bruce's research interests include time series methods with application to sea level modeling, and estimation of quantitative genetic parameters with incomplete pedigree.

#### **EXECUTIVE SECRETARY**

#### Llwellyn Armstrong, Ducks Unlimited



Llwellyn Armstrong is the statistician for the Institute for Wetland and Waterfowl Research within Ducks Unlimited Canada. She consults with staff and students on research study design, statistical analyses and reporting. She obtained her MSc in Statistics from the University of Manitoba and for six years was the primary consultant for the Statistical Advisory Service at the University of Manitoba. Llwellyn has previously served as Regional Representative for Manitoba-Saskatchewan-NWT-Nunavut (2012-2014) and during that time was chair of the Strategic Planning Committee. She has been Executive Secretary for SSC since 2015.

#### REGIONAL REPRESENTATIVES ON THE BOARD OF DIRECTORS

(Two-Year Terms)

#### ATLANTIC PROVINCES

(One To Be Elected)

Candemir Cigsar, Memorial University of Newfoundland



Candemir Cigsar is an Assistant Professor of Statistics in the Department of Mathematics and Statistics at Memorial University. He received his PhD from the University of Waterloo in 2010. After a postdoctoral period in Toronto and working as a biostatistician in the Princess Margaret Cancer Centre, he joined the faculty of Memorial University in June 2013. Candemir's current research interests lie in event history analysis pertaining to analysis of time-to-events, analysis of recurrent events, and multi-state modeling. The intrinsic motivation for his scholarly interests has been statistical issues arising from different disciplines

such as medicine, public health, genetics and industry. Candemir has publications in scientific journals including *Annals of Applied Statistics*, *Technometrics* and *Genetic Epidemiology*.

#### Henrik Stryhn, University of Prince Edward Island



Henrik Stryhn is a Professor in Biostatistics at the Atlantic Veterinary College (AVC), University of Prince Edward Island. He came to AVC in 2001 from his native Denmark where he received his MSc in mathematical statistics (Univ. Copenhagen, 1988) and PhD (former Royal Veterinary and Agricultural Univ. Copenhagen, 1994). His main research interest lies in statistical modelling of hierarchically structured data, specifically within the Centre for Veterinary Epidemiological Research at AVC and involving also outreach activities in veterinary epidemiology through applied statistics courses and editorial work. He currently sits on the board of AARMS (Atlantic Association for Research in the Mathematical Sciences) and has been active in collaborative projects within the Maritimes. Since 2016 he has been one of the two SSC Board members from the Atlantic Region, and in the past he served on the Board of the Danish Society for Theoretical Statistics (1999-2003).

QUEBEC
(Two To Be Elected)

#### Thierry Duchesne, Université Laval



Thierry Duchesne has been a professor in the Department of Mathematics and Statistics at Laval University since January 2003. He obtained his PhD in statistics from the University of Waterloo in 1999, after which he worked for over three years as an assistant professor in the Department of Statistics at the University of Toronto. He has held the P.Stat. denomination since 2006. His research interests are centred around the computational aspects of regression models of all types and on their application to ecology, actuarial science and epidemiology. He has served the SSC in several ways. He was first treasurer of the Business and Industrial Statistics Section from 2003 to 2009. He also served two terms as Quebec representative on the Board of Directors of the Society from 2004 to 2008. He participated in the work of the Publications committee from 2010 to 2014 and he chaired the Local Organizing Committee of the Society's annual meeting in Quebec City in 2010. He still serves the Canadian statistical community today, as chair of the Industrial Innovation Committee of CANSSI, as member of the Editorial Board of *Liaison* and as member of NSERC's Evaluation Group 1508.

#### Cody Hyndman, Concordia University



Cody Hyndman is an Associate Professor in the Department of Mathematics and Statistics at Concordia University. After completing his PhD in Statistics at the University of Waterloo in 2005, he was a post-doctoral fellow at the University of Calgary from 2005 to 2006, joined Concordia as an Assistant Professor in 2006, and was appointed Chair of the Department of Mathematics and Statistics in July 2017. His research focuses mainly on stochastic methods in finance, forward-backward stochastic differential equations, and stochastic filtering. He is a member of the Probability Section and the Actuarial Science Section of the SSC and has organized invited paper sessions at the SSC Meetings in 2012 and 2016. Cody is currently serving as a Guest Editor of a special issue of *The Canadian Journal of Statistics (CJS)* on "Stochastic Models, Statistics, and Finance."

Marc Simard, Institut national de santé publique du Québec (INSPQ)



Marc Simard has been a Biostatistician at the Québec Institute of Public Health since 2001. He received his BSc degree in Statistics from Laval University and his master's degree in public health from the University of Montréal. He is the statistical methodologist in populational chronic disease surveillance and collaborator at the Statistical Consulting Services of the Office of Population Health Study and Information (BIESP). He collaborates with university researchers and is actively involved as teaching assistant in the Faculty of Medicine of Laval University. He has been an SSC member since early in his career and is currently a Quebec regional representative on the Board of directors. He would like to renew his mandate on the Board as he has always been concerned to represent the interests of all statisticians including those working in public organizations.

ONTARIO (Two To Be Elected)

Lorna Deeth, University of Guelph



Lorna Deeth is an Assistant Professor in the Department of Mathematics and Statistics at the University of Guelph. Her research interests are in the areas of infectious disease modelling, environmental effects monitoring, and ecotoxicity models. She is currently co-chair of the Census at School Committee,

previously serving for two years as a committee member. Lorna has been a member of the SSC since 2008, is a member of the Laurentian chapter of the Society of Environmental Toxicology and Chemistry (SETAC), and serves on the editorial board for *Veterinary Pathology*.

#### Michael McIsaac, Queen's University



Michael McIsaac received his BSc in Honours Mathematics from UPEI (2007), and his MMath (2008) and PhD (2013) in Statistics from the University of Waterloo. He has been on faculty at Queen's University in Kingston since 2013, where he is the Program Director for the MSc Biostatistics program that operates jointly between the Department of Mathematics and Statistics and the Department of Public Health Sciences. Michael's main research interests are in the development of efficient two-phase study designs and statistical methods for the analysis of incomplete data. He is also interested in statistical education and pedagogy, and earned a Certificate in University Teaching from Waterloo's Centre for Teaching Excellence. Michael has served as a member (2014-2017) and Chair (2016-2017) of the SSC's New Investigators Committee, as a member of ENAR's Council for Emerging and New Statisticians (2014-2017) and as a member of CENS' steering committee (2015-2017). Michael is looking forward to even greater involvement with the SSC.

#### Xu (Sunny) Wang, Wilfrid Laurier University



Xu (Sunny) Wang is an associate professor in the Department of Mathematics at Wilfrid Laurier University. Prior to joining Laurier, Sunny spent seven years (2009-2016) as an assistant and later associate professor in the Department of Mathematics, Statistics and Computer Science at St. Francis Xavier University (Nova Scotia, Canada), where she received the University Outstanding Teaching Award in 2016. Sunny received both BSc in Applied Mathematics and MSc in Statistics from Tianjin University (China), and PhD in Statistics from the University of Waterloo (Canada). Sunny's research focuses on developing statistical learning and data mining tools for drug discovery data, and high dimensional financial time series data. Sunny has been involved with the SSC since early in her career. She was the local representative of SSC at St. Francis Xavier University (2009-2016), and served on the SSC Education Committee (2011-2012) and the SSC Finance Committee (2015-2017). Currently, she is serving as treasurer and executive member of the Statistical Education Section (2013-2018) and as a member of the Case Study Award Committee (2013-2018).

MANITOBA - SASKATCHEWAN - NORTHWEST TERRITORIES - NUNAVUT (One To Be Elected)

#### Katherine Davies, University of Manitoba



Katherine Davies is an Associate Professor in the Department of Statistics at the University of Manitoba, where she joined as an Assistant Professor in 2008. Prior to moving to Winnipeg, she lived in Ontario, completing both an Honours BSc and MSc degrees from McMaster University, and a PhD from the University of Western Ontario. Katherine's current research interests include order statistics, censoring methodologies and censored data analysis. She is an active researcher and supervisor of graduate students. A member of the SSC since her graduate studies, she has served on the Committee on New Investigators, the Committee on Women in Statistics, as the SSC representative to the Caucus on Women in Statistics and on the SSC's Board of Directors. She is also a member of the American Statistical Association and the International Indian Statistical Association.

Cindy Feng, University of Saskatchewan



Cindy Feng has been an Assistant Professor of Biostatistics at the School of Public Health of the University of Saskatchewan since 2012. She received her MSc and PhD degrees in Statistics at the Simon Fraser University. Her primary research interest is in developing statistical models for analyzing data with complex correlation structures in which repeated measurements, hierarchical clustering, multiple outcome types and spatially correlated data may occur. Cindy is a recipient of an NSERC discovery grant to develop statistical models for modeling spatially and temporally correlated data. She has also served as the grant reviewer for various funding agencies, including NSERC, CIHR and MITACS, etc. Cindy has endeavored to develop her theoretical and methodological expertise in statistics and she has published peer-reviewed articles in statistical journals, such as Biometrics, Environmetrics, Statistics in Medicine, Statistics and Computing, Journal of Statistical Computation and Simulation and Journal of Applied Statistics. She has a deep desire to bridge the gap between statistical methods and practice through pursuing methodological development and application of statistical methods in public health, which has led her to developing partnerships with many researchers from various disciplines, i.e. medicine, psychology, biology and sociology. These collaborations have led to about 30 peer-reviewed journal publications in the past five years. Cindy has been an active participant as an invited speaker and session organizer at SSC conferences and she is very grateful and honored to be nominated and looking forward to making contributions in strengthening the ties and expanding the impact of SSC with the Manitoba - Saskatchewan - N.W.T. -Nunavut Region.

ALBERTA - BRITISH COLUMBIA - YUKON (One To Be Elected)

Karen Kopciuk, University of Calgary



Karen Kopciuk is a Research Scientist in the Department of Cancer Epidemiology and Prevention Research, Alberta Health Services and an Associate Adjunct Professor in the Departments of Oncology and Mathematics and Statistics at the University of Calgary (UC). She is a full member of two UC Research Institutes - Charbonneau Cancer Institute and O'Brien Institute for Public Health. She obtained her MMath and PhD degrees from the University of Waterloo and was a post-doctoral fellow at the Samuel Lunenfeld Research Institute where she worked in the area of statistical genetics. Her research interests include feature selection methods for high dimensional genetic and molecular data for ordinal and survival responses, disease risk estimation in families who carry a mutated gene, and microsimulation modelling of complex interventions and time-dependent risk factors in disease processes in large populations. Karen is currently serving as the Regional Representative for Alberta/British Columbia/Yukon and has previously served as the President, Secretary and Liaison of the SSC Biostatistics Section as well as on the SSC Elections Committee.

Jason Loeppky, University of British Columbia, Okanagan



Jason Loeppky is an Associate Professor of Statistics at The University of British Columbia's Okanagan campus. He received his PhD in 2004 from Simon Fraser University and is an Accredited statistician (P.Stat., 2013). He has served as the SSC Electronic Services Manager and as Chair of the Electronic Services Development Committee since 2015 and previously served as BISS Secretary, Chair of the Student Travel Awards Committee and a member of the New Investigators Committee. His research interests include design and analysis of physical and computer experiments, methodology for complex models and applications in engineering and biology. He is the recent recipient of the prestigious NSERC Discovery Accelerator supplement.

#### SECTION EXECUTIVES

ACTUARIAL SCIENCE SECTION EXECUTIVE (Three-year terms; 2018-21)

PRESIDENT-ELECT
[President, 2018-19; Past President, 2019-20] **David Landriault**, University of Waterloo



David Landriault is a Professor in the Department of Statistics and Actuarial Science at the University of Waterloo. David currently holds a Tier-II Canada Research Chair in Insurance Risk Processes. Before joining the Department of Statistics and Actuarial Science at Waterloo (first as a postdoctoral fellow (2005-2006) and later as a faculty (2006-now), David received a PhD in Mathematics from Laval University in 2005. His areas of research expertise include ruin theory, insurance risk processes and stochastic control problems in insurance and finance. He is an Associate Editor of *Insurance: Mathematics and Economics*, and the Associate Chair for Actuarial Science in the Department of Statistics and Actuarial Science at the University of Waterloo. As for his professional qualification, David is a Fellow of both the Canadian Institute of Actuaries and the Society of Actuaries. David has served on various committees within these two professional organizations.

TREASURER
Jean-François Bégin, Simon Fraser University



Jean-François Bégin joined the Department of Statistics and Actuarial Science at Simon Fraser University as an Assistant Professor this year. Prior to coming to SFU, Jean-François graduated from HEC Montréal where he earned a PhD in financial engineering under the supervision of Professor Geneviève Gauthier. His main research interests include financial modelling, risk management, financial econometrics, filtering methods, and credit risk. He is also a fellow of the Society of Actuaries (FSA) and an Associate of the Canadian Institute of Actuaries (ACIA).

#### BIOSTATISTICS SECTION EXECUTIVE

(Three-year terms; 2018-21)

# PRESIDENT-ELECT [President, 2019-20; Past President, 2020-21] Lei Sun, University of Toronto



Lei Sun is a Professor of Statistics and Biostatistics at the University of Toronto. She studied mathematics at Fudan University and obtained her PhD in statistics from the University of Chicago in 2001. Since then she has been a faculty member at the Division of Biostatistics at the Dalla Lana School of Public Health at

the University of Toronto, and since 2014, a member of the Department of Statistical Sciences. Her research focuses on statistical genetics and genomics and is funded by NSERC and CIHR. Lei-Sun is the 2017 recipient of the CRM-SSC Prize in Statistics.

TREASURER
Eleanor Pullenayegum, Child Health Evaluative Sciences, Toronto



Eleanor's career began at the University of Cambridge in England, where she worked as a consulting statistician in the Department of Public Health and Primary Care after finishing her degree in mathematics. Having confirmed her enthusiasm for biostatistics, she moved to Canada to do her doctoral work at the University of Toronto, followed by postdoctoral work at the University of Waterloo. She has been on faculty at McMaster University (2007-2013) and now works as a Scientist at the Hospital for Sick Children and as Associate Professor at the University of Toronto. Her research interests include statistical methods for health economics and methods for longitudinal data, in particular the case where the observation schedule is stochastic and potentially informative. Having benefitted from the SSC as a way to share ideas and connect with colleagues, she looks forward to the opportunity to support its work.

**BUSINESS AND INDUSTRIAL STATISTICS SECTION EXECUTIVE** (Three-year terms; 2018-21)

# PRESIDENT-ELECT [President, 2019-20; Past President, 2020-21] Ryan Browne, University of Waterloo



Ryan Browne is an Assistant Professor in the Department of Statistics and Actuarial Science. Ryan has received three degrees in statistics from the University of Waterloo; BMath 2004, MMath 2006 and PhD 2009. Based on his PhD work, Ryan was awarded the 2011 W.J. Youden Award in Interlaboratory Testing by the American Statistical Association. Ryan's current research focus is model-based clustering and classification. He received the 2015 Chikio Hayashi Award for Young Researchers given by the International Federation of Classification Societies. Ryan is looking forward to working for and with the SSC.

### TREASURER Alexander de Leon, University of Calgary



Alex R. de Leon is an Associate Professor in the Department of Mathematics and Statistics at the University of Calgary. Originally from the Philippines, he obtained his BSc and MSc, both in Statistics, from the School of Statistics of the University of the Philippines. After a research studentship at Tokyo University of Science, he completed his PhD in Statistics in 2002 at the University of Alberta. His research interests include methods for analyzing correlated data, mixed data analysis, pseudo- and composite likelihood methods, copula modeling, assessment of diagnostic tests, and statistical problems in medicine, particularly in ophthalmology.

#### PROBABILITY SECTION EXECUTIVE

(Three-year terms; 2018-21)

# PRESIDENT-ELECT [President, 2019-20; Past President, 2020-21] Jean Vaillancourt, HEC Montréal



Jean Vaillancourt is an Affiliated Professor at HEC Montreal. Prior to his current appointment, he was Associate Dean of sciences in Sherbrooke, then Dean of research at the Université du Québec en Outaouais (UQO) and finally President of UQO for ten years. After receiving a PhD in mathematics from Carleton University, he served the scientific community as a member of several decisional bodies, among them the boards of directors of the Statistical Society of Canada (1997-2001) and of the Institute of Materials and Advanced Mechanics in Le Mans (France, 2005-2015), as well as on numerous committees at the Natural Sciences and Engineering Research Council of Canada (NSERC), notably as Chair of the Mathematics and Statistics Group (2003-2006) and Chair of the NSERC André-Hamer and Howard-Alper Prizes (2006). He was also Local Arrangements Chair for the annual conference of the International Federation of Automatic Control (2004). Current research endeavors include theoretical studies of random media as well as knowledge discovery in social media databases.

#### STATISTICAL EDUCATION SECTION EXECUTIVE

(Three-year terms; 2018-21)

## PRESIDENT-ELECT

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



Sotirios Damouras is an Assistant Professor, Teaching Stream in the Department of Computer and Mathematical Sciences at the University of Toronto Scarborough. He holds a PhD in Statistics from Carnegie Mellon University (2008) and an MSc in Financial Mathematics from the University of Warwick (2003), having done research in time series and financial econometrics. He has served as a member of the SSC Statistics Education Committee (2016-2019) and is particularly interested in undergraduate statistics curricula.

#### SURVEY METHODS SECTION EXECUTIVE

# PRESIDENT-ELECT [President, 2019-20; Past President, 2020-21] Kim Huynh, Bank of Canada



Kim P. Huynh is a Senior Research Adviser in the Currency Department at the Bank of Canada and an Adjunct Research Professor in Economics at Carleton University. He earned his BA (Honours) Co-Op from the University of Calgary, MA at the University of British Columbia, and PhD at Queen's University, all in economics. Kim specializes in the economic analysis of complex survey data. He uses tools from discrete-choice modeling and functional data analysis. Kim is interested in facilitating research interactions between economists, statisticians, and data scientists.

TREASURER (Two-year term; 2018-20 Christian Nambeau, Statistics Canada



Christian Olivier Nambeu holds a BA in Mathematics and a MA in Statistics from University of Montreal. His research interests include treatment of nonresponse, estimation methods in surveys and the use of administrative data in the production of official statistics. He works as a survey statistician at Statistics Canada. He is currently assigned to the Social Survey Methods Division and part of his duties is to provide methodology support to the Demography Division on the internal and international migration components. Since 2012 he has been the editor of the proceedings of the SSC Survey Methods Section.

#### ACCREDITATION PROGRAM COMMITTEES

(Three-year terms; 2018-21)

#### **ACCREDITATION COMMITTEE**

(Four to be elected)

#### Jeff Bakal, University of Alberta



Jeff Bakal is the lead biostatistician at the Health Research Methods and Analytics group at Alberta Health Services, and associate director of the Strategy for Patient Oriented Research (SPOR) data platform. In these roles he has been working in collaboration with a variety of clinical researchers on the use of both linked administrative health care data and clinical data for research into a variety of healthcare and health services research. Areas of focus have included: novel methodology for time-to-event data, clinical trial recruitment from administrative data, and the methodology and analysis of studies spanning many areas of medicine.

#### Beatrice Baribeau, Statistics Canada



Beatrice Baribeau, P.Stat., is a survey methodologist chief working on Household Surveys at Statistics Canada. She has a Bachelor's degree in Statistics from the University of Waterloo. She has an interest in weighting and estimation as well as in applied research relating to nonresponse bias and adjustments. She enjoys bringing a human element to the field of survey methodology, particularly in working with non-statisticians. She currently leads a section that provides the methodology services for Statistics Canada's General Social Survey and other various household and military surveys. Beatrice was a part of the Accreditation Taskforce.

#### **Ruth Croxford.** Institute of Clinical Evaluative Sciences



Ruth Croxford, P.Stat., is a Research Methodologist at the Institute for Clinical Evaluative Sciences (ICES), a not-for-profit health services research institute. She has worked at ICES since 1996, providing statistical support for health services research covering a broad range of clinical areas, as well as lecturing in biostatistics and clinical epidemiology at the University of Toronto. Ruth was first elected as a member of the Accreditation Committee of the SSC in 2015, and she is also a member of the executive of The Applied Biostatistics Association (TABA) and past president of the executive of the SAS Health Users Group. She holds a Master's degree in Statistics from the University of Toronto, and a Master's degree in Computer Science from Queen's University, Kingston, Ontario.

#### Soyean Kim, Technical Safety BC



Soyean Kim is a technical leader with over 14 years of industry experience who is currently working as the Leader of Research and Analytics at Technical Safety British Columbia. Her passion is to make a difference by combining data, algorithms and people. She believes in advocating statistics as a profession to make greater impact on the community of BC. She is an active member of the data science community in Vancouver and has coached many students and directed reports throughout her career. Prior to Technical Safety BC, she was the Rate Design Manager at FortisBC (formerly Terasen Gas). Her broad industry background also includes working as an associate in the Advisory Practice of PricewaterhouseCoopers (PWC), where she was a member of the Statistics and Economics Consulting Group. During her consulting tenure, she has assisted clients across many different domains such as Boeing and the Ministry of Health. Prior to joining PWC, Soyean was an analyst with the Department of Analytical Studies at SFU. She is a professional statistician (P.Stat.T) and has a Master's degree in Statistics from Simon Fraser University. Outside work, Soyean loves to spend time with her two children who are active in sports.

#### **Alberto Nettel-Aguirre**, University of Calgary



Alberto Nettel-Aguirre, P.Stat, is an Associate Professor and the statistician for the Research Methods Team in the Paediatrics Department at the University of Calgary (joint with Community Health Sciences). After his BSc in Applied Math at Instituto Tecnologico Autonomo de Mexico, he worked for ACNielsen in Mexico. He immigrated to Calgary for his MSc and PhD from the Department of Mathematics and Statistics at the University of Calgary. He held a one-year postdoctoral fellowship at Acadia under Hugh Chipman's mentoring on large graph data and data mining. His research interests include social network analysis applications to population level interventions, biostatistics applications to child health outcomes research and formulation diagnostics for patterns of missing data. He has participated in several grants as part of multidisciplinary teams in child health. He received his P.Stat. from the SSC in 2007. Alberto has participated in CIHR RCT and other local (ACH Foundation) grants committee. He served for five years on

the Health Research Ethics Board of Alberta Community Health Committee (AIHS) and is the current Biostatistics Section secretary and member of the Accreditation Committee.

## ACCREDITATION APPEALS COMMITTEE (Two to be elected)

Neil Arnason, University of Manitoba



Neil Arnason, PhD, P.Stat. is a senior scholar at the University of Manitoba. He retired in 2011 after a 41-year career in teaching, research and consulting in the Computer Science Department at the University of Manitoba. His research and consulting were primarily in statistical ecology and fish and wildlife population assessment and the development of methods and software for estimation of animal population demographic parameters. As a senior scholar at the University, Neil has continued work on Caribou, anadromous fish stocks, and other species with Federal and Provincial partners. He has been a regional representative to the SSC Board (in the 1990s), chaired the Biostatistics Section (1998-9), and was involved early in the SSC accreditation program. He served on the Initial Accreditation Committee (2004-06) and was the third chair of the Accreditation Committee (2008-10).

### Yogendra Chaubey, Concordia University



Yogendra P. Chaubey holds the position of Professor in the Department of Mathematics and Statistics. Yogendra served the department of mathematics as Chair frrom 2005-14 and 2016-17. His current area of research is on non-parametric functional estimation which is funded by a discovery grant from NSERC. He has been quite active in promoting Statistics through membership in various capacities of several statistical associations: Secretary, Montreal Chapter of ASA, 1983-1984; 1st Vice President, Montreal Chapter of ASA, 1984-85; President, Statistical Society of Montreal, 2000-01; SSC Board Member (Quebec Rep) 2002-04; 2004-06; 2011-12; Vice President, Forum for Interdisciplinary Mathematics (FIM) 2005; Editor, SSC *Liaison*, 2004-06; Member, Committee on Career Development, ASA, 2005-07. He has served as an organizer of academic sessions for several scholarly conferences, notably those held at Concordia University in 1991, 2001 and 2011.

#### Lennon Li, Public Health Ontario



Lennon Li is a biostatistical specialist in the Informatics department of Public Health Ontario (PHO), where he practises statistical methods with public health applications and develops customized methods and tools for population health monitoring and routine surveillance. Lennon has a PhD in biostatistics from University of Toronto with specialization in spatial statistics and is a Professional Statistician (P.Stat.) accredited by the SSC. He is also an assistant professor with the Biostatistics program at DLSPH at UofT. Lennon is interested in data science and enjoys developing interactive analytical tools that integrates data, methods, visualization as well as content expertise of users to improve research and practice.

#### THE SSC ELECTION COMMITTEE 2017-18

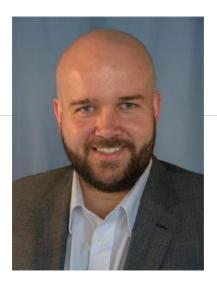
Jack Gambino, Chair and SSC Past-President Sylvia Esterby, UBC Okanagan Christian Genest, McGill University Cyntha Struthers, University of Waterloo François Bellavance, HEC Montréal Sheldon Lin, University of Toronto Neal Madras, York University Matthias Schonlau, University of Waterloo Jim Stallard, University of Calgary Grace Yi, University of Waterloo

#### **News from McMaster**



At a ceremony in Winnipeg last November, our colleague Paul McNicholas was inducted into the latest cohort of the College of New Scholars, Artists and Scientists of the Royal Society of Canada.

The College of New Scholars, Artists and Scientists is Canada's first national system of multidisciplinary recognition for the emerging generation of Canadian intellectual leadership. It comprises a fourth entity (along with the current three Academies) within the Royal Society of Canada. The Members of the College are Canadians and Permanent Residents who, at an early stage in their career, have demonstrated a high



level of achievement. The criteria for election is excellence, and membership is for seven years.

News from the University of Waterloo





It is with great pleasure that the Department of Statistics and Actuarial Science at the University of Waterloo welcomes Assistant Professor Audrey Beliveau as of January 1st 2018.

**BELIVEAU**, **Audrey** (*PhD 2016*, *Simon Fraser University*) comes to us from a Post-Doctoral position at the University of British Columbia. Her research interests include survey sampling, meta-analysis and applications in ecology and epidemiology. More specifically she has a number of interdisciplinary research collaborations with fisheries biologists. With her interest and experience with applications and her research focus, Audrey complements the department's existing strength in biostatistics and greatly expands our

scope for ecology related statistical research.



## Canadian Statistical Sciences Institute Institut canadien des sciences statistiques

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#### Collaborative Research Teams

We are pleased to announce support for three new Collaborative Research Teams:



Statistical Methods for Challenging Problems in Public Health Microbiology, with team leaders Leonid Chindelevitch, SFU and Alexandre Bouchard-Côté, UBC and partners at Centre Hospitalier Universitaire Sainte-Justine, Western U, U de Montréal, and SFU;



Spatial Modeling of Infectious Diseases: Environment and Health, with team leader Mahmoud Torabi, U Manitoba, and partners at U Waterloo, U Saskatchewan, U Calgary, U Alberta, Public Health Agency of Canada and U de Montréal;



Towards Sustainable Fisheries: State Space Assessment Models for Complex Fisheries and Biological Data, with team leader Joanna Mills Flemming, Dalhousie, and partners at UBC, U Geneva, DTU Denmark, U Laval, Fisheries and Oceans Canada, and Galway-Mayo Institute of Technology.

The competition for CRTs was very robust this year, and we are pleased with the high quality of the proposals. We look forward to continuing to build collaborative research programs with statistical leadership.

## **CANSSI's Strategic Plan**

CANSSI has been focussing on strategic planning over the past several months, and a draft strategic plan is now available to all our stakeholders for their comments and suggestions. We are eager to hear your thoughts on how CANSSI can continue to evolve and grow over the next several years. Please send any comments to info@canssi.ca.

## **CANSSI Annual General Meeting**

Our Annual General Meeting will take place on **Saturday**, **June 2**, **2018** in Montreal; as usual just preceding the SSC Annual Meeting. During the SSC meeting, CANSSI will sponsor three invited paper sessions, including a "PDF Showcase", a session on Statistical Research and Applications in Data Science, and a health sciences panel. In addition the Industrial Innovation Committee will present a BISS-sponsored session.

#### **CANSSI Data Science Committee**

Our newly established Data Science Committee, chaired by Jean-François Plante, submitted its first report to the Board in November. This gives a helpful overview of the relationship between statistics and data science, and a number of suggestions for CANSSI to develop its data science efforts. They emphasize in particular that part of the research agenda in data science belongs to statistics, and we should take control of it. Concrete suggestions to enable this included sessions on data science at statistical meetings, interface conferences and workshops, summer schools and other training, nurturing links with industry, and proposing funding programs that are designed to promote data science. Feel free to send your ideas to Jean-François Plante or Nancy Reid at any time.

#### **CANSSI Health Science Committee**

The Health Science Committee, chaired by Mary Thompson, has been very actively engaging our network of Health Science Collaborating Centres. Mary and Nancy have also been in touch with leadership at CIHR and NSERC to discuss collaborative activities. CANSSI is also pleased to announce our new health science mailing list (hs@canssi.ca), created to discuss issues, advertise conferences or workshops, or post employment offers related to both Health Sciences and Statistics. It's similar to the SSC mailing lists in that subscribers can post to the list and non-subscriber posts must be approved before they'll be sent. To subscribe to this new list, send an email to hsrequest@canssi.ca.

#### **CANSSI Deadlines**

Upcoming deadlines are always available at canssi.ca. The following programs have deadlines coming up soon:

- Call for Proposals for the Distinguished Visitor Program due March 31, 2018
- Call for Collaborative Research Team Project LOIs due April 30, 2018
- Call for Proposals for the Kick Start Research Program Proposals are accepted any time.
- Support for Undergraduate Datathons Proposals are accepted any time.

CANSSI also maintains pages with employment opportunities at our member institutions and postdoctoral opportunities across the country. Feel free to send us your posts any time!

## 2017 Best Student Paper Award of the Survey Methods Section

The Survey Methods Section is pleased to announce that **Shixiao Zhang** from University of Waterloo has won the 2017 best student paper award of \$300 for his paper co-authored with Peisong Han from University of Michigan and Changbao Wu from University of Waterloo. The winning paper is entitled "A unified empirical likelihood approach to testing MCAR and subsequent estimation". This award was

open to all students who presented at the 2017 Annual Meeting of the Society in the area of survey methods. All papers submitted to the Proceedings of the Survey Methods Section can be found on the web page of the Survey Methods Section: https://ssc.ca/en/about/sections-regions/survey-methods/proceedings-survey-methods-section

Here is the abstract of the winning paper:

For estimation with missing data, a crucial step is to determine if the data are missing completely at random (MCAR), in which case a complete-case analysis would suffice. Most existing tests for MCAR do not provide a method for subsequent estimation once the MCAR is rejected. In the setting of estimating the means of some response variables that are subject to missingness, we propose a unified approach to testing MCAR and the subsequent estimation. Upon rejecting MCAR, the same set of weights used for testing can then be used for estimation. The resulting estimators are consistent if the missingness of each response variable depends only on a set of fully observed auxiliary variables and the true outcome regression model is among the user specified functions for deriving the weights. The proposed procedure is based on the calibration idea from survey sampling literature and the empirical likelihood theory. Simulation results show that the proposed strategy performs well for both testing and subsequent estimation.

## **AARMS Workshop**









**AARMS Workshop** 

## **Statistical Learning and Health Data Analytics**

On October 15, 2017 the University of New Brunswick Fredericton hosted an Atlantic Association for Research in the Mathematical Sciences (AARMS) Workshop on Statistical Learning and Health Data Analytics, as a post-event of the annual Science Atlantic Mathematics, Statistics and Computer Science Conference. The workshop

was organized by an AARMS Collaborative Research Group, Statistical Learning for Dependent Data under the administration of Ying Zhang, Acadia University. Statistical research in the Maritime region was promoted through numerous talks by researchers in the field of statistical learning and health data analytics. The workshop also provided students with a training opportunity in this high-demand multidisciplinary field.

The workshop had a great turn-out of undergraduate students, graduate students, faculty, professionals and speakers, participating in discussions on statistical learning and health data analytics:

- Hugh Chipman (SSC President; Acadia University) presented an overview of statistical learning methods that are essential in learning from data.
- Ted McDonald (Director, NB Institution for Research, Data and Training; University of New Brunswick) and Samuel Stewart (Director, Health Data Nova Scotia; Dalhousie University) discussed recent developments in data driven health research in New Brunswick and Nova Scotia.
- A Maritime Health Science Collaborating Centre was proposed by Ying Zhang and Anja Haltner (Acadia University) to promote research in health through collaborations among researchers in academia and health industries.
- Further statistical learning methods with applications in medicine were presented by Amy Wu (York University), Hong Gu (Dalhousie University) and Renjun Ma (University of New Brunswick), including topics on graph-based change-point tests for high dimensional data, statistical learning methods in emergency diagnosis and human microbiome analysis, and the analysis of dependent data with various correlation structures.

The workshop was proudly sponsored by Science Atlantic, Atlantic Association for Research in the Mathematical Sciences, Canadian Statistical Sciences Institute Health Science Collaborating Centres and UNB Fredericton.

Anja Haltner, Acadia University

## **News from Western University**



The School of Mathematical and Statistical Sciences at Western, which comprises the departments of Mathematics, Applied Mathematics and Statistical and Actuarial Sciences, as well as a research unit, was officially inaugurated on July 1, 2017, and Matt Davison who has spearheaded its creation was appointed its Director.



Professor Davison received his PhD degree in Applied Mathematics from Western in 1995. Prior to joining Western, he worked at Deutsche Bank from 1997 to 1999 and was a postdoctoral researcher in theoretical physiology at the University of Bern from 1995 to 1997. He is a leader in Applied Quantitative Finance with a strong international reputation in Energy Finance. His career embodies interdisciplinarity with research interests that encompass the optimal control of energy assets, pricing options on carbon markets, the economic analysis of green energy sources and of the stability of reinsurance markets, quantitative risk management, pricing and hedging options, and applied operations research.

Matt Davison held a Tier 2 Canada Research Chair in Quantitative Finance from 2006 to 2016 and he is also a lifetime Fellow of the Fields Institute. He chaired the Department of Statistical and Actuarial Sciences from 2014 to 2017 and occupied the position of Acting Chair of the Department of Applied Mathematics from 2015 to 2017. As Director of the School of Mathematical and Statistical Sciences, he will build on the cordial relationships existing between its constituting departments as well as with other Western departments and faculties with a view to capturing and fostering innovative research and teaching opportunities in Statistics, Actuarial Science, Financial Modelling, and Pure and Applied Mathematics. Therewith, the clout afforded by this recently established administrative structure ought to bolster existing links and facilitate the development of new relationships with government and industry.

Submitted by Serge B. Provost

**SORA Business Analytics Seminar series** 



The SORA (Southern Ontario Regional Association of the SSC) Business Analytics Seminar series started the year off with "The Future of Data Science" in Toronto on January 16th, 2018. The sold-out event featured panelists Ceni Babaoglu (Senior Data Analytics Associate at Ryerson University), Neil Bartlett (SVP Enterprise Information at RBC), Sarah Siu (Business Intelligence, Shopify), Emma Warrillow (Chief DiGGer, Data Insight Group Inc.) and Ozge Yeloglu (Chief Data Scientist, Customer Success Unit at Microsoft Canada). The discussion featured advice for those considering a career in the field, and answered questions like "Are data science bootcamps replacing graduate degrees to get people into the field quickly?". For answers, please check out the video of the event available online at https://www.youtube.com/watch? v=yRtwHcRMNp0.

Thanks go to Alison Burnham for organizing this event, as well as sponsors: RBC, Environics, Bond Brand Loyalty, Data Insight Group and the organizing committee - Peter Giansante, Emma Warrilow, Song Wang, Katie Tingley, Amy Liu, Wendy Lou, Richard Boire, Tracey Jarosz, Mark Chuchra, Wafa Irtiza, Chris Osborne and Eric Cai.

The SORA Business Analytics Seminar has a mission of sharing case studies, best practices and techniques for practitioners and students. The series will continue with additional events this year. Please see the SORA-TABA webpage

- http://sorataba.org/business-analytics-seminar/- for information. Stay tuned!

## International Conference on Advances in Finite Mixture and Other Nonregular Models



The International Conference on Advances in Finite Mixture and Other Non-regular Models will be held at Guangxi Normal University, China from August 12-16, 2018. The conference will be held in recognition of the recent growth and significant development in the theory and applications of finite mixture models. It aims to provide a platform for international researchers in this area to exchange new ideas and discuss challenges. Online registration will close on **March 31**<sup>st</sup> and space is limited. Check the website for further information: http://www.math.gxnu.edu.cn/conf2018/.

Looking forward to seeing you in Guilin!

Jiahua Chen

## **McGill University - Assistant Professor Position**

Tenure-track Faculty Position, McGill University
Open to rank of Assistant Professor
Canada Research Chair Tier 2 in Statistical Pain Genomics

## Position in Faculty of Medicine - Department of Anesthesia

The Canada Research Chair is also open to internal candidates who already hold a tenure-track or tenured faculty position at McGill University.

## **Position description**

The Faculty of Medicine invite applications for a tenure-track position at the rank of Assistant Professor in the field of Pain Genomics, from candidates with expertise in statistical genetics and/or bioinformatics as applied to complex human traits, and an interest in their application to pain research. McGill University is one of the world's top-ranking universities. Our academics engage in outstanding research, teaching and learning and service to the community. The Faculty of Medicine is a Canadian and international leader in research, teaching and service. The position is linked with the Alan Edwards Centre for Research on Pain at McGill University, the McGill University and Génome Québec Innovation Centre, and the Canada Excellence Research Chair (CERC) in Human Pain Genetics. Pain and genomic research at McGill University are priorities for which it has an exceptional record of achievement.

If the successful candidate satisfies the specific eligibility conditions of the program, the candidate may be supported by the University for Nomination to a Tier 2 Canada Research Chair (CRC) in Statistical Pain Genomics, which provides protected time for research within a full-time academic appointment.

Tier 2 Chairs are for emerging researchers (individuals who are no more than 10 years from having earned their highest degree). However, career interruptions (e.g. maternity or parental leave, extended sick leave, clinical training, family care, etc.) may be taken into consideration using the <u>Tier 2 justification process</u> to review the candidate's eligibility. Potential applicants who are more than 10 years from their highest degree with career interruptions may contact the institution to have their

eligibility reviewed through the Tier 2 justification process.

The eligibility conditions for the CRC chairs are described at http://www.chairs-chaires.gc.ca/program-programme/nomination-mise\_en\_can....

#### **Job Duties**

The candidate is to be actively involved in all aspects of McGill's academic mission. The successful candidate is expected to develop and contribute to a research program in one of the above fields of study and to contribute to undergraduate and graduate teaching in one or more department within the Faculty of Medicine. Responsibilities will include research, teaching and administrative work to support these activities.

## **Qualifications and Education requirements**

The ideal candidate must hold a PhD and an active research program in a relevant field.

Candidates who do not satisfy the CRC eligibility criteria for a Tier 2 chair are nonetheless invited to apply for the position.

#### **JOB DETAILS**

Job Type: Tenure-track

**Rank:** Assistant Professor

**Salary:** Salary will be commensurate with qualifications and experience

**Posting period:** Please submit your application by April 2nd 2018.

#### **APPLICATION PROCESS**

Applications must be submitted on-line at:

http://www.mcgill.ca/medicine-academic/positionsavailable

## The following supporting documents are required:

- a cover letter & curriculum vitae
- statement of research and teaching interests
- the names and contact information of three referees, with one of the referees being the doctoral supervisor.

Internal applicants to the Canada Research Chair need to submit a recent curriculum vitae and a statement of research interests aligned with the designated subject area for the chair.

## **COMMITMENT TO EQUITY AND DIVERSITY**

McGill University hires on the basis of merit and is strongly committed to equity and diversity within its community. We especially welcome applications from visible minority group members, women, Indigenous persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to productively engage with diverse communities. We encourage members of equity-seeking groups to self-identify within their letter of intent in their application. Persons with disabilities who anticipate needing accommodations for any part of the application and hiring process may contact, in confidence, Professor Angela Campbell, Associate Provost (Equity and Academic Policies) at (514) 398-1660 or at Angela.Campbell@mcgill.ca. Associate Provost Campbell can also answer questions related to equity, diversity and inclusion, or privacy concerns the candidate may have related to self-identifying. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

## **Western University - Assistant Professor Position**

WESTERN UNIVERSITY

Limited Term Faculty Position

Department of Epidemiology and Biostatistics

The Department of E<sub>pidemiolog</sub>y and Biostatistics, within the Schulich School of Medicine & Dentistry at Western University, invites applications for a full-time three-

year Limited Term faculty position at the rank of Assistant Professor in the area of Biostatistics.

Candidates must have a PhD in Statistics or Biostatistics and relevant experience in biostatistics and have at least 2 years of postdoctoral experience. Qualifications for the position also include evidence of research productivity (peer-reviewed publications) and a strong commitment to excellence in teaching. The successful candidate will have potential or proven ability to obtain internal and external grants for independent research in Biostatistics, and to contribute to the building of successful research projects and programs in population and public health, in health services and policy, or in clinical research. Furthermore, the candidate must have excellent interpersonal, organizational and communication skills, and be able to work effectively to promote collaborative inter-disciplinary initiatives. Salary for this position will be commensurate with qualifications and experience.

The successful candidate will be expected to teach Biostatistics courses at the undergraduate and graduate levels. Responsibilities of this position will also include supervision of research trainees at the undergraduate and graduate levels. Active participation in research projects and on committees within the Department of Epidemiology and Biostatistics or on behalf of the Department will also be expected.

Western is one of Canada's leading research-intensive universities, and the Schulich School of Medicine & Dentistry has a long history of excellence in basic biomedical, applied and clinical research. Western has a full range of academic and professional programs for over 37,000 undergraduate and graduate students. The Department of Epidemiology and Biostatistics offers an Honors Specialization and Major Module at the undergraduate level and our graduate offerings include a research-intensive PhD program as well as a thesis-based MSc program. Additional information about the Department of Epidemiology and Biostatistics can be found online at: http://www.schulich.uwo.ca/epibio/

The university campus is in London, with a metropolitan census of approximately 530,000, located midway between Toronto and Detroit. London boasts an international airport, galleries, theatre, music and sporting events and is located close to several lakes and facilities for outdoor activities (www.goodmovelondon.ca). Western's Recruitment and Retention Office is available to assist in the transition of successful applicants and their families to the university and city.

Please send a detailed Curriculum Vitae, a brief description of research interests and teaching experience, and the names of three academic referees. Your full application to this position must also include the form available

here: http://www.uwo.ca/facultyrelations/faculty/Application-FullTime-Faculty-...

Dr. Saverio Stranges, MD, PhD, FAHA
Professor and Chair
Department of Epidemiology and Biostatistics
Schulich School of Medicine & Dentistry
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Review of applications will begin after **March 1, 2018** and will continue to be accepted until the position is filled. Start date will be negotiated with the successful applicant.

Positions are subject to budget approval. Applicants should have fluent written and oral communication skills in English. The University invites applications from all qualified individuals. Western is committed to employment equity and diversity in the workplace and welcomes applications from women, members of racialized groups/visible minorities, Aboriginal persons, persons with disabilities, persons of any sexual orientation, and persons of any gender identity or gender expression.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Accommodations are available for applicants with disabilities throughout the recruitment process. If you require accommodations for interviews or other meetings, please contact Angela DeCandido, Manager, at adecandi@uwo.ca phone 519-661-2111 ext. 86255.

## University of Waterloo - Two Lecturer Positions in Statistics and Actuarial Science

The Department of Statistics and Actuarial Science in the Faculty of Mathematics at the University of Waterloo invites applications for two definite-term lecturer positions. These appointments have an initial

term of three years (renewable) with an expected start date of September 1, 2018. Candidates must possess a graduate degree in an area of actuarial or statistical sciences. Professional actuarial qualifications and experience would be a distinct asset. Applicants must have excellent communication skills, a strong commitment to undergraduate education, and ideally at least one year of teaching experience in statistics or actuarial science. Duties will include teaching six courses per year and service/administrative work within the University.

The University of Waterloo is one of Canada's leading universities with more than 30,000 full and part-time students in undergraduate and graduate programs. The Department of Statistics and Actuarial Science is one of the top academic units for the statistical and actuarial sciences in the world and is home to more than 40 research active full-time faculty. It offers a vibrant research environment for a wide range of areas and benefits from close relationships with several research groups on campus. The Department is also home to about 900 undergraduate students and over 150 graduate students in programs including Actuarial Science, Statistics and Biostatistics.

Interested individuals should apply using MathJobs (www.mathjobs.org/jobs). Applications should include a cover letter, a curriculum vitae, a teaching statement and teaching evaluation summaries (if available). In addition, applicants should arrange to have at least three reference letters submitted on their behalf. We will review complete applications on an ongoing basis and accept applications until the positions are filled, with applications received by **March 1, 2018** receiving full consideration. The salary offered will be commensurate with qualifications and experience. The salary range for this position is \$70,000 to \$100,000. Negotiations beyond this salary range will be considered for exceptionally qualified candidates.

Please address any inquiries to:

Stefan Steiner, Chair
Department of Statistics and Actuarial Science
University of Waterloo
200 University Avenue West
Waterloo ON N2L 3G1, CANADA
sas-chair@uwaterloo.ca

The University of Waterloo respects, appreciates and encourages diversity and is committed to accessibility for persons with disabilities. We welcome applications from all qualified individuals including women, members of visible minorities, Aboriginal peoples and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority in the recruitment process.

Three reasons to apply: http://uwaterloo.ca/fauw/why.

## 1,925 Canadian Statistical Methods Books donated to the Library in Alexandria, Egypt



Many thanks to all the donors for all these wonderful texts for the Bibliotheca Alexandrina. There were 43 individual donors, a number contributing their own collections as a legacy, plus 6 groups/departments from 15 organizations – primarily statistics departments. There were 73 boxes picked up for shipment at McDougall Scientific (organized by the Library in Alexandria) and four boxes shipped directly from the annual SSC meeting at the University of Manitoba for a total of 77 boxes, or approximately 1,925 books (average of 25 books per box) from Canadian statisticians. The first boxes arrived at McDougall in March from Simon Fraser and the last ones were October 1, 2017 from McMaster – so all this in six months and from sea to sea-Victoria BC to Wolfville NS. The SSC membership network was pivotal in spreading the word and sending reminders.

The books were picked up from McDougall in Toronto on October 6 and were shipped to Halifax for loading onto the ocean vessel ITEA/7374. They sailed from Halifax on October 17 and arrived in Antwerp, Belgium - which is the second largest



seaport in Europe, after Rotterdam. There they were joined by the American donated books, coordinated by Ron Laporte of Pittsburg. The American shipment was 2,402 kg and the Canadian shipment 1231 kg – approximately 2:1 compared to a 10:1 population ratio. The Americans had shipped boxes last year as well – at least twice the amount as this year.

November 05, 2017 the books were loaded at Antwerp onto the ocean vessel MONTE ALEGRE and shipped to Alexandria, Egypt where they were met by the library staff of the Bibliotheca Alexandrina to be processed and put into the collection. But their journey continues. There is a recognition that there are many duplicate texts in the collection – usually the most popular teaching texts. Work is underway, led by Ron Laporte, to investigate how these duplicates can be shared with scholars across the continent. Shipping is very expensive in Africa so options like setting up interlibrary loans and using WHO coordinating offices are being explored. The Bibliotheca Alexandrina already houses a rich repository of digital material in the 'Research Methods Library of Alexandria' and would like to continue to add digital texts through networks like the Creative Commons – where the authors get a copyright release for published texts (according to Ron).

Canadian statisticians have shown how generous they can be in wanting to increase statistical literacy in the emerging countries. SSC is open for suggestions on how we can continue to nurture this concept of sharing our wealth of statistical knowledge internationally.