

Statistics and Actuarial Science Simon Fraser University

Newsletter (long) 2010-03-31



A human histogram of some of the Departmental family taken in late 2009.
Can you spot some of the “outliers”?

Welcome to the 2010-03-31 edition of the Department of Statistics and Actuarial Science Newsletter. Our Department continues to be among the leading departments for Statistics and Actuarial Science in Canada. Inside you will find information on Department Events that have taken place in 2008 and 2009. We hope this helps you maintain connections with the Department.

Be sure to send us an up-to-date email address or “friend us” on facebook at <http://www.facebook.com/pages/Burnaby-BC/SFU-Department-of-Statistics-and-Actuarial-Science/104222189609838>. Your email address will not be released to others and will only be used for purposes such as sending out our newsletters.

Table of Contents:

Future Data Points	4
45th Actuarial Research Conference at SFU in 2010	4
American Stat Association Meets in Vancouver in 2010.....	4
New Departmental Website Launched:.....	4
Department now on Facebook.....	4
Structural Relationships	5
Some Words from the Chair	5
From the Department Manager.....	6
News from the Statistical Society of Canada	7
News from Actuarial Science	7
News from the Consulting Service	7
News from the Statistics Workshop.....	8
News from the Surrey Campus.....	9
News from the Undergraduate Student caucus.....	9
News from the graduate student caucus.....	10
Revamping of our graduate program	11
Departmental Seminars 2008/2009.....	11
News clippings about our Department.....	12
2010-03-21 Curlers second in club tournament.....	12
2009-11-02 Dean elected fellow of American Association for the Advancement of Science..	12
2009-09-01 Strizhkova awarded CD Nelson Graduate Scholarship.....	13
2009-06-02 Routledge receives SSC Impact Award	13
2009-06-02 Challenger and Huston receive best Student Paper award.....	13
2009-06-02 Cao named AusCan Scholar by the SSC.....	13
2009-06-02 Zhang wins Governor General Silver Medal.....	14
2009-06-03 Fourth Joint Stats/Math Departmental Picnic.....	15
2009-05-08 Tang named Fellow of the Institute for Mathematical Sciences	15
2008-09-13 Bonner wins Best Student Presentation at SSC 2008	15
2008-08-04 Loughin named Fellow of the American Stat Association.....	15
2008-07-05 Challenger wins best paper award at International Stat. Ecology Conference.....	16
2008-03-13 SFU Conference to celebrate Michael Stephen's 80th Birthday.....	16
2008-02-15 Article by Routledge and co-authors covered in Vancouver Sun.....	17
Additions to the Departmental Family.....	18
Future alumni:.....	18
New M.Sc and Ph.D. Alumni.....	18
New Undergraduate Alumni.....	20
2008 Statistics and Actuarial Science Awards	22
April Allen Memorial Undergraduate Scholarship.....	22
Watson Wyatt Scholarship	24
Pacific Blue Cross Scholarship.....	25
R. Bruce Coles Memorial Scholarship.....	26
Statistical Society of Canada Award.....	27
Statistics and Actuarial Science Endowment Awards	29
Department of Statistics & Actuarial Science Awards Reception.....	31

2009 Statistics and Actuarial Science Awards	33
April Allen Memorial Undergraduate Scholarship.....	33
Watson Wyatt Scholarship	36
Pacific Blue Cross Scholarship.....	37
R. Bruce Coles Memorial Scholarship.....	38
Statistical Society of Canada Award.....	39
Department of Statistics & Actuarial Science Awards Reception.....	41
Outliers.....	43
The LoveList:.....	43
“The job statistician will become the "sexiest" around.”	43
χ^2 test used to detect election fraud.....	43
Some faculty are working far too hard.....	44

Comments and Suggestions are always welcome. Please feel free to send us an email with queries or questions. Editors: Carl Schwarz (cschwarz@stat.sfu.ca) and Cary Tsai (cltsai@stat.sfu.ca)

This and past issues of the newsletters can be found at <http://www.stat.sfu.ca/about/newsletters>

Future Data Points

For Today's Graduate, Just One Word: Statistics – New York Times, 2009-08-06.

In case you missed it, the New York Times had an interesting article on the growth in positions for Statisticians.

“The rising stature of statisticians,, is a byproduct of the recent explosion of digital data. ... The new breed of statisticians tackle that problem. They use powerful computers and sophisticated mathematical models to hunt for meaningful patterns and insights in vast troves of data. The applications are as diverse as improving Internet search and online advertising, culling gene sequencing information for cancer research and analyzing sensor and location data to optimize the handling of food shipments.”

You can read the entire article at:

<http://www.nytimes.com/2009/08/06/technology/06stats.html#>

45th Actuarial Research Conference at SFU in 2010

SFU is proud to host the 45th Actuarial Research Conference on July 26-28, 2010. The ARC is the most important conference in North America for academics and graduate students. It is open to all areas of actuarial practice and promotes education, research and interaction with industry. The year 2010 also marks the 20th anniversary of our actuarial program. More details available at: <http://www.stat.sfu.ca/events/arc>

American Stat Association Meets in Vancouver in 2010.

The largest meeting of statisticians in the world is coming to Vancouver on **July 31 - August 5, 2010** at the Vancouver Convention Centre in downtown Vancouver. Full details are available at <http://www.amstat.org/meetings/jsm/2010/index.cfm>. We hope to see many of our department's alumni and friends at the convention. Be sure to come up to visit the Department on Burnaby mountain during your visit.

New Departmental Website Launched:

The Department has recently launched a new website (<http://www.stat.sfu.ca/>) that features several of our alumni in the rotating pictures slide show. Check it out!

Department now on Facebook.

The Department has recently launched a Facebook site to help keep in touch with Departmental Alumni and Friends. Visit us at: <http://www.facebook.com/pages/Burnaby-BC/SFU-Department-of-Statistics-and-Actuarial-Science/104222189609838>

Structural Relationships

Some Words from the Chair



Greetings to members, alumni and friends of our Department. I feel very lucky to be in our Department which continues to be one of the highly ranked Departments across Canada. Our success is due to our high quality faculty and staff and to the hard work and achievements of our alumni and students.

This newsletter is a chance for us to showcase our accomplishments. Several faculty members have been elected fellows of the American Statistical Association, the Institute of Mathematical Statistics, and the American Academy for the Advancement of Science or have received national awards from societies. Our graduate students have won best paper competitions at the SSC and other meetings. And we continue to attract high quality students with many NSERC and other scholarships.

Our alumni family is increasing - there are now over 600 alumni from our Department. We would also like to hear about the accomplishments of our alumni - just drop us a line or join us on Facebook (yes, we've joined the 19th century).

I hope to see many of our alumni at two upcoming events in Vancouver. First, in late July, the Department is hosting the 45th Actuarial Research Conference (<http://www.stat.sfu.ca/events/arc>), the most important conference in North America for academics and graduate students in Actuarial Science. It promotes education, research and interaction with industry. The year 2010 also marks the 20th anniversary of our actuarial program. Planning is underway for a celebration to coincide with the ARC.

Then in early August, the annual Joint Statistical Meeting (<http://www.amstat.org/meetings/jsm.cfm>) is being held in downtown Vancouver. This meeting is organized by the American Statistical Association and sponsored as well by the Institute of Mathematical Statistics, the Eastern and Western North American Regions of the International Biometrics Society and by the Statistical Society of Canada. This is the premier meeting for statisticians; I expect more than 5000 in attendance. There are many invited sessions where renowned statisticians talk about the use of statistics in exciting areas of research and public policy.

Finally I want to let you know that 2011 is the tenth anniversary of the founding of this department and we are looking forward to celebrating!

From the Department Manager



There have been many changes in the Department of Statistics and Actuarial Science since my last letter.

In the Fall Semester 2009 we said one last good-bye to submitting final grades on paper grade rosters; online grade submission became mandatory.

At about the same time the online submission of travel claims became available.

In the next few months the new online Expense Report and Cash Advance forms will become mandatory. More information about these changes is available at:

http://www.sfu.ca/finance/payment_services/tex/. Training workshops for all users will be organized in March. More is to be heard on this topic soon.

If you need more information or help with the new ways of submitting grades or travel claims, Charlene, Kelly, and I will be happy to assist.

In 2009 our departmental website <http://www.stat.sfu.ca/> was completely redesigned. The new website looks much better than the old one; it is very easy to navigate and it contains several new features. One of those new features is “Alumni and Student Profiles”. Please take a look to find out where some of our alumni are now and what they are doing.

One of the challenges that we have been facing for years is how to solve the problem of office space. Recently we were able to commit one office for our visiting faculty. Our thanks go to Steven Thompson whose willingness to move to another office made this possible.

We have also been promised additional office space in the TASC2 building. This is part of the section previously occupied by MITACS and currently being used by the Department of Chemistry. The new space should be available to us after the renovation of the Department of Chemistry is completed. We will still probably need to use the West Mall space for our sessional instructors and the IRMACS Centre for graduate students and long-term visitors.

Another change that affects the faculty and staff is the new computing support platform. The technician is still available at stattech@sfu.ca to respond to trouble calls, and is able to diagnose and solve intermediate level technical problems. For more sophisticated issues a message is to be sent to 'gripe@fas.sfu.ca'.

Next year will be a very special year for our Department. We will mark the 10th anniversary of the formation of the Department of Statistics and Actuarial Science at Simon Fraser University! I would like to invite your ideas and suggestions for how we should celebrate our highly successful first decade. I hope that each of you will find way to contribute to and participate in our anniversary.

On average we are a much younger Department since babies appeared in the lives of many of our members, which makes them younger (therefore all of us)!

Finally, I would like to remind you about our Tea Time. This is a great opportunity for all us to share our experiences and opinions in a friendly and informal atmosphere. Since the schedule varies from term to term, please call us (778.782.3803) to check when we gather.

News from the Statistical Society of Canada

The Statistical Society of Canada (<http://www.ssc.ca>) offers two levels of accreditation, the Professional Statistician (P.Stat.) and the Associate Statistician (A.Stat.). The qualification of A.Stat. is intended to indicate that the holder has completed a course of study equivalent to a major or honours degree in statistics, or in exceptional instances, has otherwise demonstrated an advanced understanding of statistical theory and its application. The qualification of P.Stat. is intended to indicate that the holder has the necessary academic qualifications and a minimum of six years of professional experience in the application of statistics. Several members of the Department have been awarded the P.Stat. designation (**Dean , Routledge, Schwarz**). [Unfortunately, it is difficult to tell if any of our Alumni have been awarded the P.Stat. or A.Stat designation – sorry.] As well, the **degree program in Statistics** at SFU has been accredited by the SSC as meeting the educational requirements for the A.Stat. designation.

News from Actuarial Science



SFU is proud to host the 45th Actuarial Research Conference on July 26-28, 2010.

The ARC is the most important conference in North America for academics and graduate students. It is open to all areas of actuarial practice and promotes education, research and interaction with industry. The year 2010 also marks the 20th anniversary of our actuarial program. Planning is underway for a celebration to coincide with the ARC. More details are available at <http://www.stat.sfu.ca/events/arc>.

News from the Consulting Service



The Statistical Consulting Service continues its success despite challenging economic times. The goals of the Statistical Consulting Service are to provide expert statistical advice to individuals involved in data-based research projects, to promote links between the statistical education program at SFU and individuals involved in data-based research, and to improve the quality of both data-based research and the teaching of graduate students in Statistics. The service has also been a valuable asset to graduate students, giving them hands on consulting experience and ties to local industry.

The service operates on a cost recovery basis and approximately 50 % of the revenues come from teaching initiatives at SFU, including graduate level statistical consulting courses Stat 811 and Stat 812.

Some recent projects include work with the Idaho Department of Fish and Game studying the movement of white sturgeon in a section of the Kootenay river over the period of 1994-2007, estimating the number of northern pike in MilleLacs Minnesota, and work with the Department of Fisheries and Oceans examining the effects of pressure, temperature and age of eggs on the frequencies of rare fertile fish in experiments designed to sterilize populations of animals.

There was large increase in the number internal consulting projects at SFU last year with students and faculty members seeking statistical advice from the Departments of Education, Criminology, SIAT, Political Science, and Archaeology.

News from the Statistics Workshop



For the past two semesters there has been a significant rise in the number of students using the Statistics Workshop. The norm for the Winter and Spring semesters is about 650 students each. These students usually come from 3 or 4 of our lower division courses. For each of the two most recent semesters we have serviced nearly 1,100 students who are enrolled in seven courses. It is gratifying to see the increase in the number of students who think Statistics is a useful discipline!

In both semesters a few of these students were enrolled in the two courses given at the Surrey campus and some of these students used the Workshop hours that we provided in the Work Learning Centre in Surrey. One of the reasons for the large enrollments is the 'Quantitative/Breadth -Science' designation given to the Stat 100 course created by Larry Weldon. The recession may also have contributed to the increased enrollment. The forecasted enrollment in the next couple of semesters look about the same so we will be busier than usual in the workshop!

News from the Surrey Campus



Life is great in Surrey! Tom Loughin (right above) and Dave Campbell (left above) report that enrolments in all Stat service courses are up as the campus grows to meet demands south of the Fraser. The Faculty of Science will soon be moving to brand new office space on the second floor of the “Podium” in the Central City complex. This long-awaited move will be a boon to teaching other sciences as Science at Surrey we will finally have lab space of its own and will no longer have to send students to Burnaby for labs. On the down side, we will no longer be having lunches with a 14th-floor view of Mount Baker.

Tom Loughin reports that the Management and Systems Science enjoyed visits from several MSSC alumni in the Fall as speakers for the MSSC Seminar. Chris Smith (currently at ICBC), Sam Shi (Corinex Communications), and Frank Vandenberg (IBM) delivered interesting and diverse talks to the students about their experiences in the working world.

Tom also reports that demand for Statistical Consulting services on the Surrey Campus continues to grow.

If you haven’t seen the “new” SFU at Surrey, stop by when you’re in the area. Tom or Dave will be glad to show you around.

In summer 2009, SFU hosted the Workshop on Statistical Methods for Dynamic System Models at Harbour centre as a satellite meeting to the SSC. The workshop goal was to meet the growing demand for research and collaboration between statisticians and dynamic systems modelers through a mixture of presentations about new statistical methods, novel applications of dynamic systems and areas in need of further collaborations. The workshop, organized by Dave Campbell, Jiguo Cao, Giles Hooker (Cornell), Subhash Lele (Alberta) and Jim Ramsay (McGill) was a high demand event, with registration selling out more than a month in advance. Sixty participants, from 8 countries attended the three day workshop. The organizers wish to thank the Department of Statistics and Actuarial Science for it's support and thank PIMS, MITACS and SFU for their generous sponsorship.

News from the Undergraduate Student caucus

Statistics and Actuarial Science Student Association (SASSA <http://www.sfu.ca/sassa/>) is an organizational body in our department but works independently by students’ voices. The purpose of the student association is to help students to acquire everything they need to enjoy a vivid university life at SFU. We understand that our department has offered very competitive programs and students have strived hard to achieve their career goals. This is why we are here to plan events to bring students together. The SASSA team has not only tried the best to provide students with helps on career services by organizing workshops and purchasing study manuals,

but also hosting social events to create a strong bond within the department. This year, we have organized internal gatherings, video games night and workshop events for our students. These events have great outcomes and encouraging feedbacks from students. In order to create a stronger unity, we have hired designers to create a new logo for SASSA and we will create our department T-shirts for everyone from our department. The SASSA committee hopes that the SASSA team spirit can go on forever.

News from the graduate student caucus

The Department of Statistics and Actuarial Science student caucus is proud to say that we have had a very busy and successful year. We are reaching new heights of participation in the caucus amongst the students and the additional effort and contribution is being reflected through the organized events.

We started with the math/stat annual picnic which by all accounts was a great afternoon. Subsequently, the 2009 Halloween party had an excellent turnout rate with lots of fun shared amongst the students. The party consisted of video games in the IRMACS theatre coupled with pizza and refreshments, all of which helped promote a good socializing between the graduate students. Also, the response from this year's Christmas party was overwhelmingly positive. All of the students who attended expressed an appreciation for the potluck lunch with the games and gift exchange activities.



The semi-annual SFU/UBC joint graduate student seminar continues to grow in popularity amongst the graduate students, and we are pleased to report that participation is at an all-time high. We were pleased to have a faculty member from both institutions give a talk on their own topic of interest; Professor Steve Thompson spoke of some of his personal experiences from sampling in research and statistics, and Professor Rollin Brant discussed methods of how to establish interpersonal relationships with other researchers. We were also very fortunate to have six excellent graduate students give talks about their own research; contributions were made by Matt Pratola, Saman Muthukumarana, and Kelly Burket from SFU and Lei Hua, Mike Danilov, and Corinne Riddel from UBC.

More information, abstracts and photos from the seminar can be found at <http://www.sfu.ca/~jtg3/sfuubc2009.html>

The students have thoroughly enjoyed the meet the speaker events (whether it be in the lunchroom, conference room, or campus pub), benefitting from conversing with the speaker about their experiences in academia and/or workforce, as well as their statistical “dirty laundry”. The graduate student caucus is proud to report that the majority of speakers have happily acknowledged that the department of statistics at SFU appears to be the first to offer such a rewarding opportunity for their students.

At this time, the students are looking forward to seeing as many faculty members participate in the Faculty Research Seminars as possible, in order to gain some familiarity in the research interests of their (potential) supervisors. We look forward to seeing you there!

Revamping of our graduate program



The Graduate Studies committee of our Department (chaired by Derek Bingham) has recently tabled a set of proposals to modify our graduate program in our Department. The proposed program will include a more consistent set of courses offered each year along with a Biostatistics stream. Details on both proposals are available at http://www.stat.sfu.ca/~cschwarz/Graduate_program_proposal.pdf.

Comments and suggestions from our alumni and friends of the Department are welcome. Please send them to dbingham@stat.sfu.ca.

Departmental Seminars 2008/2009

The Departmental Seminar series continues to bring interesting speakers on a wide variety of topics. A full listing is available at: <http://www.stat.sfu.ca/research/seminars>. If you are interested in getting announcements about upcoming seminars, please contact the Department to be added to the *stat-sem* email list.

News clippings about our Department.

2010-03-21 Curlers second in club tournament



The department curling team struggled through 3/4 of the season, but when the pressure was on they started a terrific run nearly won them a club championship at the Cloverdale Curling Club. After winning only 2 games out of their first 16, the team -- lead Dave Campbell, second Marie Loughin, third Derek Bingham, and skip Tom Loughin, with Gary Parker as spare -- reeled off a streak of 6 straight wins including two wins in the year-end tournament that landed them in the finals. No one in the club was more stunned by this unexpected run at glory than the team itself, who credited their new-found success to the recruitment of Quatchi as their mascot. Despite being brought back down to earth in the finals by a team that could actually curl, the team closed out the season with an enthusiasm and vigour rarely seen among statisticians, and they look forward to the start of curling again next September.

PHOTOS: 1. Team MVP, Quatchi, shows off after another fine shot. 2. Tom slides out of the hack as Tara Campbell (L) and Derek Bingham (R) wait to sweep HARD!

2009-11-02 Dean elected fellow of American Association for the Advancement of Science



The American Association for the Advancement of Science named Charmaine Dean as a new fellow. The award was conferred in February 2010.

2009-09-01 Strizhkova awarded CD Nelson Graduate Scholarship.

Congratulations to Olga Strizhkova on her award of the CD Nelson Graduate scholarship for the 2009-2010 academic year.

2009-06-02 Routledge receives SSC Impact Award



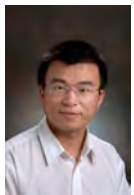
The Statistical Society of Canada (SSC) announced in summer 2009 that the recipient of the SSC Award for Impact of Applied and Collaborative Work is Professor Rick Routledge of Simon Fraser University. This award recognizes outstanding contributions by SSC members in collaborative research and applications to a specific field outside of statistics. The citation for the award read: “To Rick Routledge, in recognition of his research on stochastic modeling, sampling and inference techniques for population ecology, for his research on the ecology of fish populations and for the major impact his work on Pacific salmon has had on aquatic science and public policy.” The formal announcement is at http://www.ssc.ca/main/about/awards/awards2009_e.html#impact

2009-06-02 Challenger and Huston receive best Student Paper award



Congratulations to two of our graduate students, Wendell Challenger and Carolyn Huston on receiving an award at the 2009 for the best student paper at the 2009 SSC conference. Wendell’s presentation was on Occupancy modelling with multiple states and multiple seasons, while Carolyn’s presentation was on Spatial CAR models and compositional data.

2009-06-02 Cao named AusCan Scholar by the SSC



Jiguo Cao was named as the AusCan Scholar by the Statistical Society of Canada at the this years annual meeting. This award supports travel to Australia by the scholar to meet and work with statisticians down under. Full details available at: http://www.ssc.ca/main/about/auscan_e.html

2009-06-02 Zhang wins Governor General Silver Medal



Congratulations to Yi (Joyce) Zhang on winning the Governor General's silver medal at the June 2009 convocation for her work in Actuarial Science.

If Yi (Joyce) Zhang can manage risk the way she manages time she'll be one crack actuary. During her four years in SFU's Faculty of Science, where she majored in the notoriously rigorous actuarial science program, Zhang maintained a near-perfect 4.22 cumulative grade-point average.

And the Governor General's silver medallist achieved her impressive scholastic record while tutoring other students in statistics workshops and fulfilling her duties as a teaching assistant for two semesters.

She also wrote the first four Society of Actuaries professional exams in just over a year—a feat almost unheard of, according to her professors. What's more, she was the first and only SFU student ever to complete the Fundamentals of Actuarial Practice Exam even before graduating.

Clearly, Zhang has bragging rights, but she's no show-off: "I admit it takes quite a bit of time and energy to maintain a high CGPA, especially while doing the SOA exams," she says. "But you have to develop good study and work habits and be diligent."

Actually, there's something pretty basic behind Zhang's achievements: a love of learning. She counts among her favorite SFU memories the lectures and academic discussions with classmates.

She says she'll also remember fondly her experiences as a TA: "I think teaching is also learning. The students often raised some difficult questions, which drove me to think deeper and really get to the roots of a question. I'm convinced this helped me get a better understanding of the whole science."

Armed with that understanding, Zhang says she wants to continue her studies at graduate school before heading into financial investment and risk management.

Wherever she ends up, you can bet she'll squeeze as much learning out of her career as she did out of her studies.

Full details at: http://www.sfu.ca/sfunews/news/story_05290901.shtml

Zhang wins Governor General Silver Medal

2009-06-03 Fourth Joint Stats/Math Departmental Picnic



Fine weather and good food were on the order at the annual joint and Math and Stats Departmental Picnic in June 2009

More pictures are available at:

http://www.stat.sfu.ca/news/mastpicnic4_pix

2009-05-08 Tang named Fellow of the Institute for Mathematical Sciences



Boxin Tang was named a Fellow of the Institute for Mathematical Sciences at the IMS annual meeting. The citation for Boxin reads “For seminal contributions to construction and optimality theory of combinatorial design and for dedication in editorial service.”

2008-09-13 Bonner wins Best Student Presentation at SSC 2008



Congratulations to Simon Bonner on winning the Best Student Presentation at SSC 2008 for his talk on Hierarchical Bayesian Modelling of Two-Stage Capture-Recapture Experiments.

2008-08-04 Loughin named Fellow of the American Stat Association.



Tom Loughin was named a Fellow of the American Statistical Association at the 2008 summer’s Joint Statistical Meetings (JSM) in Denver 2008. Tom earned his BS at Rensselaer Polytechnic Institute, his MS at the University of North Carolina, and his PhD at Iowa State University. The citation for Tom’s honor reads “For outstanding teaching, research, consulting, and editorial service; for effective promotion of the field of statistics to a wide variety of audiences; for leadership in and service to the profession.”

2008-07-05 Challenger wins best paper award at International Stat. Ecology Conference



Congratulations to Wendell Challenger on the award for the Best Student paper at the International Statistical Ecology Conference in St. Andrew's, Scotland. His presentation was entitled "Optimal designs for the multinomial mixture model: a power analysis."

2008-03-13 SFU Conference to celebrate Michael Stephen's 80th Birthday.



Simon Fraser University held a conference on Statistical Distributions and Models: Assessment and Applications dedicated to the areas of Model Assessment, Goodness-of-Fit and Directional Data, all areas of specialization of Professor Michael Stephens of Simon Fraser (third from left in above photo) whose 80th birthday was celebrated at the conference dinner. The opening talk, given by Professor David Brillinger of the University of California at Berkeley, was a PIMS

Distinguished Lecture; it was titled "A unified approach to modelling trajectories" and described the use of stochastic gradient systems for modelling particles in motion. The ideas were applied to movements of animals such as elk, deer and seals and to the movement of ball in a soccer game.

Other speakers were: Louis-Paul Rivest, Université Laval, gave a talk entitled A directional model for the determination of the anatomical axes of the ankle joint in which data consisting of a sequence of rotation matrices were analyzed to determine the axes of rotation of the foot relative to the shank; Jerry Lawless, University of Waterloo, spoke on Some Challenges in Assessing Goodness of Fit and provided a thoughtful review of open problems in the area of goodness-of-fit; Richard Lockhart, Simon Fraser University, whose talk was simply titled Michael and me gave a largely historical talk touching on Michael Stephens' work and personal history; John Spinelli, B.C. Cancer Research Centre, reviewed work on problems of assessing models for discrete data such as commonly arise in large epidemiological studies in a talk titled Goodness-of-fit for Discrete Data; Federico O'Reilly, Universidad Nacional Autónoma de México, spoke on recent work on the development of exact tests of models by conditioning on sufficient statistics, and on methods to implement such tests, including Markov Chain Monte

Carlo, in his talk: Avoiding Asymptotics in Goodness-of-Fit; John Petkau, University of British Columbia, discussed the measurement and evaluation of the progression of multiple sclerosis using the Extended Disability Status Scale in Stage III clinical trials and presented new methods to make more effective use of the longitudinal data arising in such trials. His talk in Multiple Sclerosis Clinical Trials; presentation on an important topic simultaneous equations.

Reflecting Professor Stephens' strong commitment to mentoring young researchers, the conference was preceded by a meeting on the Thursday morning for new researchers in the Pacific Northwest, organized by Laura Cowen of the University of Victoria and Matias Salibian-Barrera from the University of British Columbia. Seventeen new researchers from the region attended. It featured a round table discussion devoted to providing guidance to the Statistical Society of Canada as to how that society might better serve new researchers, general discussion on the needs of new researchers in BC, on research and publishing, on teaching resources, on how to create professional links with industry, on ways to connect and be mentored by a senior researcher, and on ways new researchers in the region might more easily interact. Researchers found the meeting to be very useful, and the large turn-out reflected and emphasized the need for these sorts of networking activities. The conference on Statistical Distributions and Models attracted 150 attendees including participants from universities and agencies throughout Canada, and from the USA, Spain and Mexico.

2008-02-15 Article by Routledge and co-authors covered in Vancouver Sun



The sea lice are spreading. Is the government noticing? Sea lice infestations affecting wild salmon smolts that migrate past fish farms have been found in yet another region of British Columbia's remote coast. "Sea lice infestations of wild juvenile fish in Pacific Canada extends beyond juvenile pink and chum salmon in the Broughton Archipelago to juvenile pink, chum and sockeye salmon, as well as larval herring in the Discovery

Islands," scientists say in a paper to be published in April by the North American Journal of Fisheries Management. The islands are about 200 kilometres from Vancouver at the northwest end of the Strait of Georgia. Authors are Martin Krkosek of the Centre for Mathematical Biology at the University of Alberta, Rich Routledge from the Department of Statistics and Actuarial Science at Simon Fraser University and biologist Alexandra Morton, who operates a research station at Simoom Sound off northern Vancouver Island. More details at:

<http://www.canada.com/vancouversun/columnists/story.html?id=287669bb-3f10-48b3-a74e-6bfbeb9a5b72>.

Additions to the Departmental Family

Future alumni:



Congratulations to Brad McNeney and Jinko Graham on their new baby girl Else McNeney who arrived Aug 12, 2008, weighing 8lbs 13oz. Many thanks to everyone in the department for your cards and well wishes! From the beginning, our Else has been able to give as good as she got, especially to her big brothers (Kaz and Hugh) whenever they stop doting on her.

Latest Alumni

Congratulations to our latest graduate and undergraduate alumni joining the Departments “family” in 2008 and 2009.



New M.Sc and Ph.D. Alumni.

Copies of all the theses are available at: <http://www.stat.sfu.ca/people/alumni>. This type of interdisciplinary work is a hallmark of our program in Applied Statistics at Simon Fraser University.

Term	Student	Thesis Title	Degree	Supervisor
2009-3	Zhang, Ting (Iris)	Integer-Valued Autoregressive Processes with Dynamic Heterogeneity and their Applications in Automobile Insurance	M.Sc.	Y. Lu
2009-3	Falkenberg, Jillian	Assessing Longevity Risk with Generalized Linear Array Models	M.Sc.	G. Parker
2009-3	Min, Jeong	A statistical method for high-	M.Sc.	J. Graham

	Eu	throughput screening of predicted orthologs		B.McNeney
2009-3	Goh, Joslin	Optimal Fractional Factorial Split-plot Designs for Model Selection	M.Sc.	D. Bingham
2009-3	Qu, Conghui (Flora)	Multiple Hypothesis Testing Procedures with Applications to Epidemiologic Studies	M.Sc.	J. Graham J. Spinelli
2009-3	Zhao, Lihui	Multi-state Processes with Duration-dependent Transition Intensities: Statistical Methods and Applications	Ph.D.	J. Hu
2009-2	Wu, Donghong	Searching for Optimal Orthogonal Arrays for Estimating Main Effects and Some Specified Two-factor Interactions	M.Sc.	B. Tang
2009-2	Chen, Jingyu (Jayla)	The Discounted Penalty Function and the Distribution of The Total Dividend Payments in a Multi-threshold Markovian Risk Model	M.Sc.	Y. Lu
2009-2	Ma, Suli	Analyses of Physician Visits From Childhood and Adolescent Cancer Survivors	M.Sc.	J. Hu
2009-2	Sayre, Eric	Variable-Weighted Ultrametric Optimization for Mixed-Type Data: Continuous, Ordinal, Nominal, Binary Symmetric and Binary Asymmetric	Ph.D.	L. Weldon R. Lockhart
2009-2	Wong, Vivien	Bayesian Clustering for Synchronized Diving	M.Sc.	T. Swartz
2009-2	Jiang, Qifeng	On Fitting A Mixture of Two von Mises Distributions, with Applications	M.Sc.	M. Stephens R. Lockhart
2009-1	Kim, Soyeon	Imputation based on local likelihood density estimation for interval censored survival data with application to tree mortality in British Columbia	M.Sc.	C. Dean L. Zeng
2008-3	Bonner, Simon	Heterogeneity in Capture-Recapture: Bayesian Methods to Balance Realism and Model Complexity	Ph.D.	C. Schwarz
2008-3	Lin, Luyao	Multivariate Stochastic Analysis of a Combination Hybrid Pension Plan	M.Sc.	G. Parker
2008-2	Dai, Yunfeng (Eric)	Prediction of graft-versus-host disease based on analysis of peripheral blood mononuclear cell data	M.Sc.	J. Hu
2008-2	Qian, Wei	Goodness-of-fit: a comparison of parametric bootstrap and exact conditional tests.	M.Sc.	R. Lockhart
2008-2	Vincent, Kyle	Design variations in adaptive web sampling	M.Sc.	S. Thompson

2008-1	Lin, Chunfang Devon	New Developments In Designs For Computer Experiments And Physical Experiments	Ph.D.	B. Tang
2008-1	Wu, Huanhuan	Statistical Inference For Minimum Inhibitory Concentration Data	M.Sc.	C. Schwarz
2008-1	Li, Feng	Ruin Problem In Retirement Under Stochastic Return Rate And Mortality Rate And Its Applications	M.Sc.	G. Parker

New Undergraduate Alumni

October	2009	B.Sc/STAT	Chan, Man Tat
October	2009	B.Sc/ACSC	Chen, Yu-Chen Vivian
October	2009	B.Sc/STAT	DeAlwis, Dinush
October	2009	B.Sc/ACSC	Grewal, Arvinder Singh
October	2009	B.Sc/ACSC	Lee, Jessica Anne
October	2009	B.Sc/STAT	Li, Pei
October	2009	B.Sc/ASCS	Liu, Qian
October	2009	B.Sc/ACSC	Lu, Yang
October	2009	B.Sc/SCSC	Patidar, Jesal Deepak
October	2009	B.Sc/ACSC	Sheng, Xiaokang
October	2009	B.Sc/STAT	Wang, Huan-Chieh
October	2009	B.Sc/ACSC	Wu, Wen Liang
October	2009	B.Sc/STAT	Yu, Miao
June	2009	B.Sc/ACSC	Chen, Kailiang
June	2009	B.Sc/STAT	Deng, Nan
June	2009	B.Sc/STAT	Gomes, Christopher
June	2009	B.Sc/ACSC	Lee, Christine
June	2009	B.Sc/ACSC/STAT	Lee, JJ
June	2009	B.Sc/ACSC	Lu, Shuo
June	2009	B.Sc/ACSC	Lu, Yang
June	2009	B.Sc/ACSC	Mah, Justin
June	2009	B.Sc/ACSC	Neilson, Brad
June	2009	B.Sc/ACSC	Park, Yi Jeong
June	2009	B.Sc/STAT	Su, Rong
June	2009	B.Sc/ACSC	Wong, Keith Kai Hei
June	2009	B.Sc/STAT	Xi, Connie
June	2009	B.Sc/ACSC	Yang, Nuo
June	2009	B.Sc/ACSC	Yang, Shuo
June	2009	B.Sc/ACSC	Yu, Man Yiu Bobby
June	2009	B.Sc/ACSC	Zhang, Mark
June	2009	B.Sc/STAT	Chou, Hsin-Yuan Denny
June	2009	B.Sc/ACSC	Feng, Alex
June	2009	B.Sc/STAT	Hon, Chun Hung Kenneth

June	2009	B.Sc/STAT	Kim, Bora
June	2009	B.Sc/STAT	Loo, Darryl Tiko
June	2009	B.Sc/ACSC	Zhang, Yi
June	2009	B.Sc/STAT	Zhou, Chen
October	2008	B.Sc/ACSC	Ahrabian, Taraneh
October	2008	B.Sc/STAT	Kwon, Eunsook Winnie
October	2008	AcMa Certificate	Lee, Jeonghee
October	2008	B.Sc/STAT	Lee, Yuet Ying
October	2008	B.Sc/STAT	Liu, Pang Chieh
October	2008	B.Sc/STAT	Wu, Tiankuang Tim
October	2008	AcMa Certificate	Xu, Zhujun
October	2008	B.Sc/ACSC	Yan, Jinhuang
October	2008	B.Sc/ACSC	Zhang, Jian
October	2008	B.Sc/ACSC	Zhu, Zhaoqing
June	2008	B.Sc/ACSC	Ang, Jervyn
June	2008	B.Sc/ACSC	Cao, Qian Vivian
June	2008	B.Sc/STAT	Chan, Hiu Ying (Jeannie)
June	2008	B.Sc/ACSC	Hu, De (Robbin)
June	2008	B.Sc/ACSC	Kowalik, John
June	2008	B.Sc/ACSC	Kristensen, Melissa
June	2008	B.Sc/STAT	Lee, Clement
June	2008	B.Sc/STAT	Leung, Siu Chi
June	2008	B.Sc/ACSC	Li, Rong
June	2008	B.Sc/STAT	Meng, Yinlai
June	2008	B.Sc/ACSC	Musani, Jamil
June	2008	B.Sc/STAT	Ng, Margaret
June	2008	B.Sc/STAT	Pajaron, Cristho
June	2008	B.Sc/ACSC	Shen, Lei
June	2008	B.Sc/STAT	Shen, Ting
June	2008	B.Sc/STAT	Wong, Kai Chun
June	2008	B.Sc/ACSC	Yen, Vicky
June	2008	B.Sc/ACSC	Zhang, Cheko Bin
June	2008	B.Sc/ACSC	Zhong, Jia Hua
June	2008	B.Sc/STAT	Cheung, Wing Ching Wendy
June	2008	B.Sc/ACSC	Chiang, Raymond
June	2008	B.Sc/ACSC	Gao, Feng

2008 Statistics and Actuarial Science Awards

The Department of Statistics and Actuarial Science is pleased to honor its students, staff, and faculty every year during our Annual Awards Reception. A full copy of all of the award winners is available on our web site at

<http://www.stat.sfu.ca/people/awards/>

The Department has 6 major awards:

- The April Allen Memorial Undergraduate Scholarship for students with high standing in Actuarial Science established by T.A. Townley & Associates to honor the spirit of April Allen.
- The Watson Wyatt Scholarship for students with high standing in Actuarial Science established by the Watson Wyatt Company.
- The Pacific Blue Cross Scholarship for students with high standing in Actuarial Science established by Pacific Blue Cross.
- R. Bruce Coles Memorial Scholarship in Actuarial Science.
- The Statistical Society of Canada (SSC) award.
- The Statistics and Actuarial Science Endowment Awards (three awards) funded by earnings on our departmental endowment fund.

April Allen Memorial Undergraduate Scholarship

This scholarship is awarded annually to students within their first year of being admitted into one of the Actuarial Sciences programs who demonstrate excellence in academic performance and exhibit potential for success in the actuarial science field. Preference is given to students who have personally been affected by cancer and/or have demonstrated leadership and/or service to an organization involved in cancer research and care. It was established by D.A. Townley & Associates to honor the spirit of April Allen.

(Joe) Kuan Chiao Wang writes:

I am very honoured to be the recipient of the April Allen Memorial Scholarship this year. Two years ago, as I was on highway 97 toward Fort Nelson with my partner, I could not imagine that I would be the actuarial science student I am today.

I used to work as an insurance associate in American Income Life Canada, which promotes the insurance coverage designed specifically for union members and their families. In order to serve all the union members across the province of B.C., I often needed to travel with my colleagues to different cities that I have never heard of.

During those trips, I had experience struggling with the heavy blizzards on the highway. Furthermore, I had met people with all kinds of jobs: doctors, plumbers, lumber camp loggers, truck drivers, etc. More importantly, they all faced different situations in their daily lives: single, married, single parent, or big family. For me, it especially opened my eyes, when our family immigrated to Canada for only a few years, the circle of people we interacted with was relatively limited. I have met families interested in health coverage for their children but could not afford the premium. I have also met families that lost their provider who had no insurance, and the family had to face serious financial burdens immediately. I realized the mortality tables were not just numbers, but they can impact people's lives. Insurance is more than calculating the premiums and possible net present values for an annuity; more importantly it offers peace of mind. I feel fortunate that I am able to study actuarial science now. Not only because I like problem solving, but also I know I can help many people who I might not have a chance to meet.

Furthermore, I was a volunteer nurse assistant in the emergency registration department of Jen-Ai municipal Hospital, Taipei, Taiwan, and my main duty was to measure and record the blood pressure, ear temperature and pulse rate when the patients visited the ER. In case that where the nurses were too busy, I was responsible to provide help with miscellaneous tasks, such as transferring patients from ER to the other departments.

While I have completed several classes in actuarial science and statistics, I have also passed Society of Actuary (SOA) exams P, and completed the economics courses that satisfy the SOA's Validation of Education Experience (VEE) course requirements. Now during my spare time, I have been tutoring students for first and second year mathematics, chemistry and physics as my part-time job. I am planning to take exam FM and MLC this year. In addition, I hope that in the future I will be able to excel at the knowledge Ms. Sanders, Dr. Tsai and Dr. Parker passed on to me and enjoy my journey as an actuary.

Xiaokang Sheng writes:

I have been studying at Simon Fraser University for more than one year. This is my fourth term and is also the first term that I was officially accepted into the Actuarial Science program. I'm really excited about being a member of this team.

I'm a second degree student. I finished my first degree at Nankai University in China and majored in Information and Numerical Science. The first time I heard the word "actuary" was in a Financial Market class in Nankai. The professor introduced this new concept to us and told us a lot of information about how to become an actuary. After that class I was very interested in actuarial science. I began to think of my future plans, especially my career and talked to that professor in person. He gave me more details about taking the SOA exams and suggested that I continue my study abroad.

After becoming more informed about actuarial science, I found that being an actuary is a fantastic job that totally matched my interests and expectations. I have been strongly interested in mathematics since primary school and I am pretty good at it. To be an actuary can also give me various choices, because actuaries can not only assess the risk of events occurring and help create policies that minimize risk by exercising their knowledge of mathematics, statistics, accounting, organization and analysis, but also can play an important role in other areas such as finance, investment management, economics, and demography.

Using the mathematics knowledge I had gained, I was able to handle the first two SOA exams, but I needed more professional knowledge to challenge the upper level tests. Ultimately, I decided to come to Canada to pursue my dream. I found that SFU is the only university to offer an actuarial science program in Vancouver. Last Spring I got admitted to SFU and began to take STAT, BUS and ECON courses to meet the VEE requirements. I have continued to maintain an excellent academic record during the last three terms.

This term I began to take ACMA courses. Compared with other courses I took before, they are more difficult and challenging. I need to put more effort in those courses. According to my performance in the previous terms, I am really confident of my further study in actuarial science. I am planning to take more SOA exams before I graduate from SFU. I hope to complete my Bachelor's degree over the next year.

Watson Wyatt Scholarship

This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

(Joyce) Yi Zhang writes:

I am a fourth year undergraduate student, majoring in Actuarial Science at SFU and expect to graduate by the end of 2008.

I started my study at SFU in Jan. 2004. I surprisedly found that there are so many academic programs and courses at SFU for students to choose. However, at the very beginning, I was simply not sure which subject and program I should choose as my major. I liked Mathematics very much in both my junior and senior high school's studies and always got good grades. Therefore, having a rough idea that I should choose a program, which is closely related to Mathematics but also applicable in our daily life, I selected most of my courses in Math and Statistics.

The first time I heard about Actuarial Science was when a friend of mine showed me the website of "be an actuary.org" and the words "career without boundaries" aroused my interest

immediately. So I could not help looking into it in more details. The more I searched, the more I felt interested in it. And I finally realized that Actuarial Science was just what I was looking for. However, at first, I felt a little bit hesitant applying for the Actuarial Program, because I had heard that the Actuarial Science Program at SFU is quite good, but very competitive. Particularly its ACMA courses are very challenging and difficult to learn. But still, my great interest in the subject pushed me forward. So I started to fill out all the required courses of the Actuarial Science Program. Even though some of the courses proved to be very difficult and tough, and sometimes even left me feeling frustrated, I still strove for further progress and the best result possible.

In the spring semester 2006, I was accepted into the Actuarial Major Program with outstanding academic achievements. The Actuarial Science study has proved to be very challenging, fascinating and very fruitful to me. I really enjoy the academic discussions about material and difficult problems in Actuarial courses and Statistics, which I should say benefited me a great deal. Along with my studies, I am starting to have a clearer picture of how it is like to work as an actuary and I have found my interest in this profession increasing day by day.

I did an 8-month coop term with Mercer Human Resource Consulting in the year 2007 and now I am doing a 4-month coop at Manulife in their Toronto office. All the coop terms are very valuable to me, because they enable me to integrate my academic study with practical experience in the business and industry. Of course, I know Actuarial Science is by no means an easy major, it needs great diligence and devotion. And there is still quite a lot of work for me to do to become a qualified actuary. However, I firmly believe that as long as I continue to study and work hard, I shall reach my career goal one day in the future.

Pacific Blue Cross Scholarship

One Pacific Blue Cross Scholarship in Actuarial Science will be made available, based on academic merit, to a 3rd or 4th year student with a declared major in Actuarial Science.

Shuo Lu writes:

After two years in Langara College and two years in Simon Fraser University, I have just completed all the credits needed to graduate. Being awarded the Pacific Blue Cross Scholarship is a great achievement for me and am greatly motivated to continue on my path of becoming an actuary. I would like to thank the people at Pacific Blue Cross for their generous support.

I'm so glad that I made the decision of pursuing a career in actuarial science when I first transferred to SFU. I've had a great experience in the past two years. I've been enjoying challenging myself by those tough but interesting ACMA courses and discussing actuarial science problems with my classmates. Although sometimes I felt frustrated, I still strove for best results possible and I successfully maintained a high level GPA.

Now with four SOA exams, I'm seeking a co-op opportunity to put into practice theories I've spent years learning. I know that there is a long way ahead of me before being a qualified actuary and I will be facing a lot of difficulties, but I'm confident that with hard work I will finally reach my goal.

R. Bruce Coles Memorial Scholarship

This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

Vicky Yen writes:

I first heard about actuarial science from my uncle, who is an actuary working for ING in Asia. At that time, I was still a freshman in the Faculty of Science at the University of British Columbia. Exhausted from hours of tedious chemistry labs, physics experiments, and molecular structures, I realized that my interest was not in the field of science. Thus, I began pursuing a more suitable and expedient career goal. With my uncle's informative and encouraging suggestions as well as my research into the field, I have decided that I wish to become an actuary.

After completing my first year in UBC, I applied for a transfer to Simon Fraser University to study actuarial science. Although learning that the actuarial science program was very competitive, I was determined to give it a try since I knew that this career would be very suitable for me.

I am currently a fourth year student in the Actuarial Science program in SFU and I am graduating in the spring of 2008. Upon completion of my degree, I plan on working in a financial institution, where I can contribute my knowledge to help analyze the potential risks and profit gains from a business investment. Putting my innovative ideas to use, I can also help create financial tools that enable the company to compete with other financial firms. I have confidence that with my positive attitude and motivation, I can become a successful actuary in the future.

(James) Zhujun Xu writes:

To be honest, I had planned to be a professional poker player prior to my actuarial study. Undoubtedly, knowledge of statistics is the key to winning, which drove me to visit our department two years ago. However, I immediately changed my mind after being caught by the introduction to actuarial science. Intuition told me, an actuary might be my dreaming career.

Before I took ACMA 210, the first course in the SFU actuarial science program, I was told by a few friends that actuarial science was very challenging and better spend more time studying. Meanwhile, since I didn't have enough life savings, I had to either work or get a student loan to finance my study. Due to lack of confidence, I decided to temporarily keep my full-time job to see how far I could go.

Right after I started, I found that the competition for this program was very high and the courses were demanding as well, particularly the ACMA courses. However, I also realized that the ACMA program is exactly what I had been looking for. The professors also made the courses interesting and lively. Even though I have been busy with working and studying in the past four semesters, I really enjoyed learning STAT, ACMA and BUS courses.

Happily, my hard work paid off. Currently, I am working as an actuarial co-op student at Sun Life Financial, applying the solid knowledge and skills built up at SFU to the real world. I've successfully passed the SOA exams P, FM and MLC. I will be sitting both MFE and exam C in the coming May, probably FAP afterwards. An actuary is by no means an easy career, but I am motivated and determined to be successful in the near future.

At last, I would express my appreciation to the staff and faculty members in our department for their generous support during my study.

Statistical Society of Canada Award

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC. The SSC is a national organization representing statisticians from across Canada. Its mission is to encourage the development and use of statistics and probability.

To achieve this, the Statistical Society of Canada:

- helps to develop a public awareness of the value of statistical thinking and the importance of statistics and statisticians in Canadian society;
- works to ensure that decisions affecting Canadian society are based on appropriate data and valid statistical interpretation;
- promotes the highest possible standards for statistical education and practice in Canada;
- promotes the development of statistical methodology;
- promotes a sense of community among all statisticians in Canada;
- provides a forum for the exchange of ideas between theoreticians and practitioners of statistics.

This award was generously endowed by the Statistical Society of Canada using proceeds of the net revenue from the SSC Annual Meeting held at Simon Fraser University in 2001.

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC.

Jervyn Ang writes:

I was born in Singapore, but I moved to Canada nine years ago at the age of ten. At this time, I was already extremely interested in Mathematics and wanted to study it a lot more. This held true while I went through secondary school.

Having completed Mathematics 12 at age fourteen, I was anxious to learn more Mathematics as I continued my schooling. I considered pursuing a degree in various subject areas, but I eventually narrowed down my choices for post-secondary education. Having been advised on many occasions against doing pure Mathematics in favor of practicality, I set my sights on pursuing a degree in Actuarial Science. This led me to the program at Simon Fraser University.

At SFU, I took some courses in Economics, Statistics, and Mathematics, and my interest in these subjects grew. Being at or near the top of all my classes, I thought I would end up breezing right through my University career. This idea changed while I took ACMA-210; and after that, ACMA-320 and ACMA-315.

Even combining my proficiency in Mathematics and Statistics, the challenge of these courses surprised me quite a bit. I found my performances not nearly as stellar as they were in my previous courses. However, I did not allow myself to get discouraged.

My desire to learn, fascination with the subject, together with my determination to succeed, eventually allowed me to learn a tremendous amount from my Actuarial Mathematics and Statistical courses. I gained a deep understanding of various topics in Actuarial Science and Statistics, and I knew I wanted to one day work as a consultant or as a researcher in either of these fields.

Finding myself wanting to try my hand in research, I spent the summer of 2007 as a research assistant in computer experiments after having been awarded an NSERC USRA. The experience has taught me a lot about research, and has positively affected my decision to pursue a masters' degree in Statistics.

Now, I am in my final semester of my undergraduate degree and I look forward to graduating just before my 20th birthday. I wish to thank my parents, who have been very supportive of my decisions and allowed me the independence that I needed to thrive. I am also extremely grateful to my professors for all the challenging and fascinating courses that they have taught and for

their continued support as I continue my academic career. With this, I am confident that I will learn enough to succeed in a job as a consultant, or in any other job in Statistics or Actuarial Science.

Statistics and Actuarial Science Endowment Awards

Yinlai Meng – Roger Yang – Phillip Jang

These awards are presented to students in the major/honor program with high academic standing.

Yinlai Meng writes:

Before I stepped into SFU to study statistics, I worked as a high school math teacher for five years and then as a market research and analyzer for three years. After immigrating to this beautiful and peaceful country, I decided to pursue a more successful career and happier life. I found Statistics a good study choice which is able to combine my previous academic foundation and various working experience perfectly.

I started my statistics study in the Department of Statistics and Actuarial Science at SFU in January 2006. The first term was difficult and the two 300 level courses required lots of review of my previous math and probability knowledge. But on the other hand, this term helps me refresh my knowledge and prepare well for future study. I always keep communicating and discussing with the professors and TAs about the academic questions and their extension to the real world and got lots of invaluable ideas, comments and suggestions from them. I did very well for each course I took during that year and was admitted into the statistics major after the first term. At the same time, I started to apply for Co-op and planned to get some ideas about the application of statistics in the real world.

My first Co-op term is 2007 spring at a human resource management company as a research assistant. I was so happy that I have a chance to support the famous “50 Best Employer Survey Study” and learned how the survey is revised, collected, conducted, analyzed and published.

My second Co-op job is 2007 winter at a lung cancer research organization in Vancouver. I assisted the data analysis manager to get the data from its database and perform data and image analysis. I also compile data from multiple databases or other sources. The most valuable experience is programming and developing software tools for analyzing data. Based on this job, I gained experience with statistics in experimental testing and the experimental process. No doubt, this job makes me more familiar with experimental research and leads me to the right career field I like.

I go back to school and take two 400 level courses this term with the rough picture of how statistics is used in the real world which I got from my last two jobs. I feel different when I study, more insightful and more confident. I still work for my last employer part time to keep my exploration of the application of my knowledge and keep learning more practical skills as well.

Now I try to explain some statistical results from the newspaper to people on the bus with simple words and to tell them how wonderful and valuable my statistical job is.

Phillip Jang writes:

Ever since I was young, I've had a fascination with numbers, and a strong obsession with scoring high. I was always a step ahead of my peers when it came to virtually anything in school, as I enjoyed the satisfaction of conquering challenges, competition, and of reaching that 100%. Although math was the pinnacle of my abilities, I did not know what kind of job I could find doing math, and was thinking of going into either the natural sciences, which I also excelled at and found fascinating; or business, which I found neither interesting nor challenging, but did provide good jobs.

My first exposure to actuarial science came from my high school counselor who told me of a hot job on the market involving lots of math. At that time I still thought I would be going to UBC to take physics or chemistry, or going into accounting since I was "good with numbers," but the more I learned about actuarial science, the more it caught my eye. Thanks to my high school's career preparation program, and to Westcoast Actuaries Inc. who were kind enough to give me a preview of what actuaries do, I was convinced that actuarial science was the way to go.

After taking my first few courses in actuarial mathematics, I can say with assurance that this is the correct program for me. I took ACMA 210 in the fall of 2007, I was shocked to see how scientific this field is, using every mathematical tool we've learned from the quadratic formula and geometric series to Newton's Method and Taylor series. The following semester, I took ACMA 320, which was far harder than any course I've ever taken, where even A students were failing midterms in that class. I have never been so challenged by a math course before, but also never so inspired.

I would like to give thanks to my family and friends for all their support, the Statistics and Actuarial Science Department for all their help, and to my professors for passing on their knowledge and for caring for their students. I've learned so much in the actuarial science program, and met so many great people. There are still many more challenges that await me, and my drive to take them on has never been stronger. Bring it on!

Department of Statistics & Actuarial Science Awards Reception

12:30 p.m., April 8, 2008, Halpern Centre #114

Undergraduate Awards

Undergraduate Open Scholarships:

Jervyn Ang 1077, 1081
Qian Cao 1081
Shu Man Chan 1081
Raymond Chiang 1077
Phillip Jang 1074, 1077, 1081
John Kowalik 1081
Rong Li 1074
Shuo Lu 1077, 1081
Tim Luo 1074, 1077, 1081
Yifan Xu 1074, 1077, 1081
Jinhuang Yan 1081
Roger Yang 1074, 1077, 1081
Vicky Yen 1074, 1077, 1081
Ying Yuan 1081
Yi Zhang (Joyce) 1077, 1081
Yuchen Zhang 1081
Wei Zhao 1077, 1081

Alumni Scholarship & Bursary Endowment Fund:

Jervyn Ang 1077, 1081
Raymond Chiang 1077
John Kowalik 1081
Shuo Lu 1077, 1081
Yifan Xu 1074, 1077
Yuchen Zhang 1081
Wei Zhao 1077, 1081

The Gordon M Shrum Scholarship:

Ping-Teng Lin 1074, 1077, 1081
Henry Liu 1077, 1081
Brad Neilson 1077, 1081
John Than 1074, 1081
Tommy Yip 1077, 1081

The Summit Entrance Scholarship:

Yejun Song 1077, 1081
SiCong Yan 1077, 1081

Ken & Su Jang Scholarship for Women in Science:

Yi Zhang 1077

April Allen Memorial Undergraduate Scholarship

Kuan Chiao Wang (Joe)
Xiaokang Sheng

R. Bruce Coles Memorial Scholarship:

Vicky Yen
Zhujun Xu (James)

Pacific Blue Cross Scholarship:

Shuo Lu

SSC Endowment Award:

Jervyn Ang

Statistics & Actuarial Science Endowment Award for excellent achievement in the Majors & Honors program:

Yinlai Meng
Roger Yang
Phillip Jang

Watson Wyatt Scholarship in Actuarial Science:

Yi Zhang (Joyce)



Graduate Awards

Michael Smith Foundation for Health Research Trainee Award:

Eric Sayre
Kelly Burkett
Jean Shin

CIHR Doctoral Research Award:

Kelly Burkett

Pacific Century Graduate Scholarship:

Jorge Rodriguez

NSERC Industrial Postgraduate Scholarship:

Carolyn Huston

NSERC PGS M Scholarship:

Wei Qian
Kyle Vincent

CONACyT Graduate Scholarship:

Elizabeth Juarez Colunga

Postdoctoral Fellowships:

Doug Woolford
Laurie Ainsworth

Special Graduate Entrance Scholarship:

Jillian Falkenberg
Jorge Rodriguez

President's PH.D. Research Stipend:

Simon Bonner
Chunfang Lin

MSc Graduate Fellowship:

Luyao Lin
Suli Ma

ACCELERATE BC Internship Showcase – Award Winner:

Simon Bonner

Second Prize for the Outstanding Poster Presentation at the Joint Statistical Meeting 2007:

Matt Pratola

Faculty Awards

Jack Youden Prize:

Derek Bingham
Crystal Linkletter

2007 Alumni Achievement Medal University of Waterloo

Charmaine Dean

Elected as a Fellow of the American Statistical Association:

Charmaine Dean

2009 Statistics and Actuarial Science Awards

The Department of Statistics and Actuarial Science is pleased to honor its students, staff, and faculty every year during our Annual Awards Reception. A full copy of all of the award winners is available on our web site at <http://www.stat.sfu.ca/people/awards/>

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- The Statistical Society of Canada (SSC) award.
- The Statistics and Actuarial Science Endowment Awards (three awards) funded by earnings on our departmental endowment fund.

April Allen Memorial Undergraduate Scholarship

Yingying Chen & Tommy Yip

This scholarship is awarded annually to students within their first year of being admitted into one of the Actuarial Sciences programs who demonstrate excellence in academic performance and exhibit potential for success in the actuarial science field. Preference is given to students who have personally been affected by cancer and/or have demonstrated leadership and/or service to an organization involved in cancer research and care. It was established by D.A. Townley & Associates to honor the spirit of April Allen.

Yingying Chen writes:

This is my second term studying at SFU. Fortunately, I was accepted into the Actuarial Science Program and I greatly anticipate being a member of this team. Cancer has affected my life personally, as I watched my grandfather, now deceased, whose never-give-up spirit encourages me forever.

My grandfather fought off cancer bravely for almost four years. During this time, he faced his problem with optimism no matter how bad it was. I remember the first time he had to have an operation to surgically remove cancerous tissue, he was already 80 years old. It was very dangerous for him to have such a major surgery. Everyone in my family was worried about him, however, my grandfather comforted us and even made jokes to us. After the surgery, he was very weak and was not allowed to eat and drink for three days. Despite everything, he still maintained a good mood and encouraged us to have confidence in him. His positive attitude to difficulties gave me the strength to not fear hard situations. From this I developed a positive attitude towards difficulties and solving problems, instead of dwelling on how unlucky I might be.

Not only did my grandfather's positive attitude affect me, but his never-give-up spirit also impressed me. After being told his cancer came back again, he accepted a second surgery without any hesitation, even though he knew the success rate was only 50%. During that time, I was frustrated by the fact that I could not study actuarial science abroad. He sensed my disappointment, and on the night before he had the operation, he drew me close to his bed. He encouraged me not to give up my dream if it was really where my passion was. He said, "You are young and still have a lot of time to pursue your dream. Go and get it. Never give it up so easily..." Even now, I still bring the scene back to my memory. His words will always be encouraging to me.

Although my grandfather showed a good mood publicly, I still could feel his pain and suffering. It affected me emotionally. Because he was already in his eighties when first diagnosed as having cancer, his body couldn't handle the side effects of the treatments. Most of the time he couldn't fall asleep at night, the pain was so bad. I saw his suffering and felt useless to help. I was afraid, frustrated and depressed, as was my family. We tried many treatments, got many doctors' opinions. We did a lot of research, but his cancer still worsened day by day. As he grew weaker, we all wanted to accompany him as much as we could because we knew he didn't have much time left. During the last couple of months of his life, my mom went to the hospital to care for him several times a day. The treatments were painful not only for my grandfather but also for my family. We had to hide our fear from him. I still remember when my grandfather started a new cycle of the treatment, all of us had to pretend to be confident. However, in our hearts, we were so anxious, wondering if he would be gone at any time during the treatment.

The cost of the treatments were very expensive. It could cost a family's whole life's savings. I remember during that time, my mom always calculated income and planned expenses carefully, eliminating all unnecessary costs. Now looking back, I can see that not only my grandfather, but also my family, went through the cancer. Because of the impact of my grandfather's death, I became aware of the real meaning of being an actuary and the importance of insurance to people. Cancer is a long-term disease, and many patients are not cured easily. Thus, as soon as a person is diagnosed with cancer, the life of his or her whole family will be changed.

They also need to look for money to afford expensive treatments. During these times, a good life insurance plan can offer them security and confidence by providing needed financial

support. Thus, to me, being an actuary means helping people cope with their troubles instead of having their problems crush them.

I still have a long way to go to becoming an actuary but with my grandfather's encouragement, I will hold on till I achieve this goal. I hope in the future, I will be able to apply the knowledge Dr. Parker and Dr. Tsai passed on to me and become an effective actuary.

Tommy Yip writes:

My name is Tommy Yip and I am honoured to be a recipient of the April Allen Memorial Scholarship. I am starting my third year at Simon Fraser University and I have completed my first year of actuarial science courses. It has been my goal to enter SFU's prestigious Actuarial Science Program since I was in grade nine after I first heard about the possibilities of a career as an actuary. With the ambition of one day becoming an actuary, I strengthened my mathematical background all throughout high school, while in the mean time researched more into this profession.

As I browse through the internet in search of more information about actuarial science, I realized that not only do actuaries enjoy math, but the majority of them possess solid communication skills. With the desire to enrich my social skills, I have been establishing programs for youth with disabilities and work with social workers in my community since grade ten. Through volunteering, I have become more comfortable in working with others, and the interaction experiences I acquired have aided me with school and my interpersonal relationships. In my community involvement activities, I usually tend to focus in helping high school teenagers in developing their leadership skills and their various assets. Recently, I wrote a proposal and founded a community project called *Citizens of Change*; it is a ten week program involving around thirteen youth from my local high schools. My project is funded by the Millennium Excellence Grant Program and is jointly supported by Cedar Cottage Neighbourhood House, a non-profit organization. In the program, I was in the position to facilitate and to lead the youth into planning activities which could help or enrich the community. The group decided to investigate the pervasive issue of homelessness and for this cause, the group did a bottle drive and collected about 1200 cans and bottles to raise money for the food bank; they also spent a day going to the food bank to help out with distributing the food. As well, social workers were invited to speak and to provide a better understanding to the group of the issue in our immediate city. Some, in hope to raise more awareness, later went on to a march for homelessness. Working with others is a huge part of me.

I would describe the Actuarial Science program at SFU as a tribe. In a small program with around 20 to 25 students admitted each year, it fosters an environment in which everyone would quickly become familiar with each other. In such an environment, a variety of groups are formed. There are those who learn best in a group, and there are also those who learn better on their own but enjoy meeting up to discuss. I believe I am of the former. What I found most enjoyable when working with others are the teamwork and team spirit that arise in overcoming challenges. I find it exciting to discuss and dissect with others the course material, the exam questions the professor may give, and sometimes even life in general. I feel that this is incredible because I have never been exposed to such a concentrated group of people who are all so immensely capable. Not to mention that we all share a sense of humour for statistical jokes.

I sincerely appreciate the wealth of intelligence that envelops me in this program. I think it is truly wonderful how the actuarial science program is set up and organized because the

atmosphere formed from this group of academic ‘outliers’ is not of competitiveness, instead, it is closer to the form of brotherhood—the feeling of belonging. Though everyone came from a different background, they respect each other; furthermore, each individual views another as equal—there exists a form of trust. I think it is because we realize the similarity in each of ourselves—the passion for learning. I must acknowledge that the capability and the approachability of the staffs in the program play an important role in fostering such a respectable environment.

Finally, it has been a great pleasure to receive the opportunity to share my thoughts. Thank you.

Watson Wyatt Scholarship

This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

Xiaokang Sheng writes:

I am a senior Actuarial Science student at Simon Fraser University. This will be my second degree. I received a Math degree at Nankai University in China. The first time I heard the word “actuary” was during a Financial Market class in Nankai. Prof. Zhang introduced this new concept to us and gave us information about how to become an actuary. After that class I was very interested in this field and talked to Prof. Zhang in person. He gave me more details about taking professional exams and suggested that I continue my study abroad.

After collecting more information about actuarial science I found that being an actuary is a fantastic job that totally matched my interests and expectations. Being an actuary can give me various choices in my future career as actuaries can not only determine the price and reserves of insurance products by exercising their knowledge of mathematics, statistics, finance and analysis, but actuarial skills are transferable to any industry or job that requires financial or risk modeling and management. This profession has consistently been rated as one of the top five jobs in the United States.

During my two years of study at Simon Fraser University, I took almost all the actuarial science courses and some useful business and statistics courses. I passed three SOA exams and plan to write more in the future. I have been admitted to the Actuarial Science Masters program at the University of Waterloo. I am very excited about doing research in this fascinating area.

I appreciate the generosity and support from Watson Wyatt and all valuable help and advice that I have received from the professors and advisor in Statistics and Actuarial Science Department at SFU.

Pacific Blue Cross Scholarship

One Pacific Blue Cross Scholarship in Actuarial Science will be made available, based on academic merit, to a 3rd or 4th year student with a declared major in Actuarial Science.

Phillip Jang writes:

I am currently in my third year at Simon Fraser University majoring in Actuarial Science with a minor in Mathematics. The minor in math is for enriching my learning experience, and use down the line for graduate school if I should ever need to go. I have so far completed the first two exams from the Society of Actuaries (P and FM) in 2008, and plan to take exam MLC this May.

I came across the actuarial career late in high school when my counselor introduced me to the subject. Thinking the career was a good fit for my skills, I decided to go to Simon Fraser University to give it a try. The deeper I went into the Actuarial Science program, the more I was intrigued to become an actuary. I would like to thank the people of Pacific Blue Cross for their generous sponsorship of my education. I am able to better progress with my education without worrying about my current financial situation.

The year 2008 was a profoundly challenging and colourful experience which began with Gary Parker's infamous ACMA 320 in the spring, which alone required well over 100 hours of study to minimally grasp concepts; and ended with my representation of the Statistics and Actuarial Science department on the Putnam Mathematics Competition (A 12-question 6-hour undergraduate math exam with a usual median score of 0 or 1 points out of 120) in December. I managed to solve two questions on the exam, scoring 20 points and placing 619 out of 3627. In between the two terms, I took courses to finish my VEE requirements, and using my knowledge of interest theory from exam FM material, I tutored students in my finance class. Compared to my perfect 4.33 for courses taken in 2007, my CGPA as of fall 2008 rests at a modest 4.22 as a result of the difficulty of the year.

I have spent this term doing a COOP placement at Westcoast Actuaries Inc., which is a consulting company specializing in Individual Pension Plans, a type of defined benefit plan. It is very interesting to see the applications and implementations of what I studied and to get a glimpse at the role of the actuary. Seeing pension plans live, rather than through a book has made me better appreciate what I have studied.

I would like to thank my friends, my family, and the people of Simon Fraser University for all of their support, and my professors for sharing their knowledge and fascinating experiences. It is an honour to be considered for the Pacific Blue Cross Scholarship, and I give my fullest gratitude to my sponsors at Pacific Blue Cross. I look forward to all the challenges that lie ahead, and I am ready to continue giving it my all. Bring it on!

R. Bruce Coles Memorial Scholarship

This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

Christine Lee writes:

Whenever I mentioned that my two older sisters also studied in Actuarial Science in SFU, almost everyone would think that mathematics was my family's genetic strength. However, my interest in the actuarial science field was dramatically enhanced when I took my first fundamental Actuarial Science course, ACMA 210. After a solid start from ACMA 210, what followed was the most challenging course I have ever taken, ACMA 320. Frankly, I was panicked during the first midterm, but I knew it could happen from the moment I decided to be an actuary. I must commit to this field and face the challenges. At the end, it turned out to be an impressing and promising result.

Education has always been an important aspect of my life. With my keen enthusiasm in this field, I have passed the SOA Exam P, FM, MLC and MFE. My pursuit for educational excellence has also helped me achieve the high grade in various actuarial and statistics classes.

Although education plays a significant role in my life, I considered practical experiences to be just as important. In the past two years, I have been working as a co-op student at four prominent Actuarial companies in Toronto. My employment experience includes working at Mercer and Towers Perrin, where I worked in the Health and Benefits department and Retirement department, respectively. I also worked in the Affinity Markets Valuation team at Manulife Financial and the Actuarial Consulting Group at Sun Life Financial. Finally, I was employed as a statistics workshop teaching assistant and marker in summer 2007. During the fall 2008, I worked as a teaching assistant and marker for ACMA 210. Although it was a busy semester, because I was taking five core courses at the same time, I enjoyed helping and assisting students who faced the same challenges as I did two years ago.

The main goal throughout my educational endeavours is to keep learning to learn well. Upon the completion of my Actuarial Science undergraduate degree, I would like to pursue a Masters degree in this area. It is my pleasure to be selected as a recipient of the R. Bruce Coles Memorial Scholarship. This award gives me a strength to face future challenges. I am confident that my actuarial knowledge, extensive job experience, strong academic background and commitment to this career will lead me to a successful future as an actuary.

(Tracey) Ying Yuan writes:

I first heard about Actuarial Science from a friend majoring in Statistics. She described Actuarial Science as the most challenging major in SFU which triggered my curiosity. So I took ACMA 210, the introductory course for Actuarial Science, and enjoyed the course. To be honest, actuarial science isn't easy for me. I have to study harder than ever, but the sense of accomplishment is worth the hard work.

Currently I'm working at UBC iCapture Centre with the Canadian Obstructive Lung Disease Research as a research assistant. I use my background in statistics to analyze research questionnaire and spirometry data to determine the prevalence of chronic obstructive pulmonary disease in Canada.

I have passed SOA exams P, FM, MFE during the last year and took MLE in May, 2009. I plan to work in the insurance industry and pursue a career as an actuary after my graduation. In my last year of my undergraduate study, I look forward to applying my knowledge and skills to the real world after graduation.

Statistical Society of Canada Award

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC. The SSC is a national organization representing statisticians from across Canada. Its mission is to encourage the development and use of statistics and probability.

To achieve this, the Statistical Society of Canada:

- helps to develop a public awareness of the value of statistical thinking and the importance of statistics and statisticians in Canadian society;
- works to ensure that decisions affecting Canadian society are based on appropriate data and valid statistical interpretation;
- promotes the highest possible standards for statistical education and practice in Canada;
- promotes the development of statistical methodology;
- promotes a sense of community among all statisticians in Canada;
- provides a forum for the exchange of ideas between theoreticians and practitioners of statistics.

This award was generously endowed by the Statistical Society of Canada using proceeds of the net revenue from the SSC Annual Meeting held at Simon Fraser University in 2001.

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC.

Jing Cai writes:

Thank you for selecting me as the recipient of the Department of Statistics and Actuarial Science Award. I am very happy and honored to receive this award.

Ever since I was a child, I have always been fascinated by numbers. After I graduated with my first degree (which was not related to math at all) and worked for a couple of years, I realized I am more interested in working with data. Data always amazes me with its possibility to reveal so much information. After my immigration to Canada I was finally able to step into the world of statistics. I took all the statistics courses and advanced math courses offered at Langara College and obtained impressive grades. Because of this, I received the Ernest E. Livesey Memorial Mathematics Scholarship in 2007. Further, the knowledge I gained enhanced my decision in working in the field of statistics.

I transferred to SFU in 2007 to work on my big dream. Although not sure what exactly Actuarial Science was, I took STAT 330, 350 and ACMA 210. These courses opened my eyes. I never thought about applying what I had learned to real life cases could be so much fun. How much money I can borrow now for buying a house? How did ICBC calculate my insurance? I helped my parents to understand 'study' reports in newspapers could be misleading without revealing their assumptions. I helped my friends understand what the role of insurance in an investment is. I found it extremely fascinating to use my knowledge to help people around me.

I am taking STAT 402, 410 and ACMA 320, 315 this semester to gain deeper understanding in both Statistics and Actuarial Science. Starting from summer this year, I am planning to apply to be a TA or become a tutor. I would like to help more people understand data and enjoy using data to improve their work or life.



Department of Statistics & Actuarial Science Awards Reception

2009

Undergraduate Awards

Undergraduate Open Scholarships:

Yanxun Bao 1084, 1087, 1091
Phillip Jang 1084, 1087, 1091
Emmanuel Krebs 1091
Jiayang Li 1091
Ruobing Li 1084, 1087, 1091
Kuan Lu 1091
Yang Lu 1087, 1091
Yunbo Lu 1084, 1087, 1091
Tim Luo 1084, 1087, 1091
Amy McConnell 1084, 1087, 1091
Yejun Song 1084
Yifan Xu 1087, 1091
SiCong Yan 1084
Roger Yang 1087
(Tracey) Ying Yuan 1084, 1087
(Joyce) Yi Zhang 1084, 1087
Yuchen Zhang 1087, 1091
Wei Zhao 1091

Alumni Scholarship & Bursary Endowment Fund:

Yuanxun Bao 1087, 1091
Jing Cai 1087 1091
Tim Luo 1087, 1091
(Vicky) Jiaying Weng 1084
Roger Yang 1087
Yuchen Zhang 1087, 1091

Governor General Silver Medal in Actuarial Science:

(Joyce) Yi Zhang

Beverley Raymond Scholarship in Biological Science or Environmental Studies:

Amy McConnell

Faculty of Business Administration Alumni Bursaries:

Roger Yang

Joe & Mary Merchant Scholarship

Yuanxun Bao

Ken & Su Jang Scholarship for Women in Science:

(Joyce) Yi Zhang

April Allen Memorial Undergraduate Scholarship:

Yingying Chen
Tommy Yip

R. Bruce Coles Memorial Scholarship:

Christine Lee
(Tracey) Ying Yuan

Pacific Blue Cross Scholarship:

Phillip Jang

SSC Endowment Award:

Jing Cai

Watson Wyatt Scholarship in Actuarial Science:

Xiaokang Sheng



Graduate Awards

Faculty of Science Teaching Assistant Award:

Ryan Lekivetz

Michael Smith Foundation for Health Research Trainee Award:

Kelly Burkett

Eric Sayre

Jean Shin

Pacific Century Graduate Scholarship:

Barbara Sanders

President's PH.D. Research Stipend:

Lihui Zhao

Kelly Burkett

Wendell Challenger

Carolyn Huston

Elizabeth Juarez

Cindy Feng

Special Graduate Entrance Scholarship:

Jervyn Ang

Caroll Co

Barbara Sanders

NSERC PGS M Scholarship:

Jillian Falkenberg

NSERC PGS D Scholarship:

Jean Shin

Ryan Lekivetz

NSERC CGS M Scholarship:

Jervyn Ang

Barbara Sanders

MSc Graduate Fellowship:

Jingyu Chen 1084

Joslin Goh 1084, 1091

Lingzhi Jiang 1084

Qifeng Jiang 1091

Zhong (Joan) Wan 1084

Vivien Wong 1084, 1091

Donghong Wu 1084

Ting (Iris) Zhang 1084

PhD Graduate Fellowship:

Lihui Zhao

Winner of Student Presentation Competition at the International Statistical Ecology Conference 2008:

Wendell Challenger

Best Student Presentation at the Statistical Society of Canada Meeting 2008:

Simon Bonner

Best Student Presentation at the Statistical Society of Canada Meeting 2009:

Wendell Challenger

Carolyn Huston

Faculty Awards

Elected Fellow of the American Statistical Association:

Tom Loughin

Elected Fellow of the Institute of Mathematical Statistics:

Boxin Tang

Named AusCan Scholar for 2009 by the Statistical Society of Canada:

Jiguo Cao

Outliers

The LoveList:

The Playhouse Theatre recently featured the *LoveList* by Canadian playwright Norm Foster. The main character is 50 year old statistician whose friend presents him with a unique birthday present. What do you get a friend for a 50th birthday present? Well, if you're a guy, you buy him a "love list." Bill is to put pen to paper and come up with a list of ten qualities that define the perfect woman and according to the Gypsy where Leon made this dubious purchase, she will appear. After much collaboration the list is complete and much to their surprise, she appears. Bill's world is turned upside down as he learns more about himself, perfection and the pursuit of happiness. Plenty laughs and many "inside" jokes that only statisticians in the audience will appreciate. If you have a chance, I would recommend that you take in the play (Carl Schwarz).

"The job statistician will become the "sexiest" around."

February 27th issue of Economist has a special 14 page section on the "The Data Deluge and how to handle it." This is very nice review of why statisticians are necessary to deal with the current deluge of data. "Data, data everywhere ... and a new kind of professional has emerged, the data scientist, who combines the skills of software programmer, statistician, and storyteller/artist to extract the nuggets of gold hidden under mountains of data. Hal Varian, Google's chief economist, predicts that the job statistician will become the "sexiest" around. Data, he explains, are widely available; what is scarce is the ability of extract wisdom from them."

χ^2 test used to detect election fraud.

The Washington Post described how the familiar χ^2 -test for proportions was used to provide evidence of election fraud in the 2009 Iranian elections (<http://www.washingtonpost.com/wp-dyn/content/article/2009/06/20/AR2009062000004.html>). It is very difficult for people to generate truly random digits. The authors looked at the distribution of the final digit in the reported number of votes cast in that election and found an excess of 7's and a deficit of 5's ($p = .04$). They also looked at the frequency of the second and last digits and found evidence of non-randomness. "The probability that a fair election would produce both too few non-adjacent digits and the suspicious deviations in last-digit frequencies described earlier is less than .005."

Some faculty are working far too hard.

Some of the faculty took their work with them on their latest vacations.



[Hey, I'm one of the editors, so I can put anything I want into the newsletter!]