L O C A L   S P A C E S

Message from the Head

As you know, President Martha Piper visited the Math Department in late October. The visit consisted of a short meeting with a small number of faculty members, staff and grad students, followed by a tour of our facilities. Before the meeting began, I told her that the agenda would consist of some "bragging" followed by some "whining." I would like to review a bit of each. Let me begin with the bragging . . .

First, we are clearly one of the top (most would say among the top two, if not the top) mathematics research departments in Canada. Our research excellence has been recognized by many awards to our faculty -- just take a look at the last page of this newsletter. Martha was impressed with how well we compare, in terms of major awards, with other Canadian universities -- in particular, that "T" place in the cold, flat East.

Second, we have a vibrant graduate program: we have expanded our graduate course offerings, including a wide array of topics courses as well as core courses, and we have many opportunities for graduate students, in pure mathematics as well as interdisciplinary mathematics. Last year, we graduated five new Ph.D.'s, all of whom landed very good jobs. Martha was clearly encouraging about our graduate program expansion.

Third, we have a very strong program for Honours Math students, with a wide variety of advanced undergraduate courses. And our Putnam team consistently ranks in the top 20 across North America (we ranked 14th last year). I was all set to explain a bit about the Putnam exam, but Martha was already very much aware of it. She expressed appreciation for our high Putnam scores and for our dedicated faculty who help train the students.

Now for the whining . . .

First, I whined about funding -- in particular, some areas, such as TA base revenue, where we are inadequately funded. Then, I whined about facilities. Martha seemed more receptive to this. She asked many questions about our plans for space expansion and our efforts to improve relationships with Campus Planning and Plant Operations. I think that she understands our problems and would like to help. In fact, she showed swift action resulting in much-needed minor repairs.

To summarize, Martha's visit helped to reinforce her view of the excellence of our program and the challenges of our facilities problems. I hope that I will have much more to say about facilities solutions in the near future. Until then, let me wish you all the best for a happy holiday season and new year!

Brian Marcus

IN THIS ISSUE

Please send your questions, comments or submissions to newsletter@math.ubc.ca.

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IT'S A BOY!!
Congratulations Jim and Jenny!

Reed Frazier Bryan
Born on November 15, 2003
8 pounds 12 ounces

IT'S A GIRL!
CONGRATULATIONS MARY JO & DAVID!

Leila Burggraf
Born on November 27, 2003
8 pounds 4 ounces

Where Are They Now?
News From Our Alumni!

After completing her MSc. degree in the IAM program last winter, Eva-Marie Nosal is currently pursuing her Ph.D. studies at the School of Ocean and Earth Science and Technology in Hawaii.

Gillian Clegg is currently working as a Junior Quantitative Analyst for Powerex in Vancouver. She finished her MSc. degree Mathematical Finance under the direction of Ulrich Haussmann.

Nathan Krislock is currently teaching at the University of Winnipeg and hopes to return to school next year to pursue a Ph.D. degree. Nathan graduated in November 2002 under the direction of James Varah.

After completing her Ph.D. degree in May, Fatemah Alqallaf has returned home to teach Mathematics. She is currently an assistant professor at the university in Iran. Fatemah earned her Ph.D. degree in May under the direction of Ruben Zamar.

David Burggraf is currently working at Galdos Systems as Head of Research and Development. He was also an instructor for Math 256 for the department this term and we hope to have David continue teaching for us next term. David finished his Ph.D. degree in May under the direction of Denis Sjerve.

Xiaosang Kang is currently working as a postdoctoral fellow at the University of Toronto. He completed his Ph.D. degree under the supervision of Nassif Ghoussoub.

Colleen Robles is currently teaching at the University of Rochester in New York. She received the prestigious University Graduate Teaching Assistant Award in 2002 for excellence in teaching. Colleen finished her Ph.D. degree in May under the supervision of Richard Froese.

After completing his PhD studies, Mihail Cocos has accepted a postdoctoral fellowship at the University of Minnesota. Mihail received his degree in May under the supervision of Jingyi Chen.

Congratulations and best of luck to all our graduates!

Welcome to the Math Department!

(New Faculty) Neil Balmforth, Dan Coombs, Eric Cytrynbaum, Jimmy Feng, Alexander Holroyd, Kalle Karu, Dominik Schoetzau, Joszef Solymosi *(Visiting Professors)* Malek Absesselam, Peng Cheng, Nima Geffen, Dohan Kim *(Postdoctorals)* Martial Agueh, Gregory Berhuy, Tom Brakel, Kevin Buhr, Atife Caglar, Jaydeep Chipalkatti, Ajneet Dhillon, Ben Green, Hamideh Hamedani, David Hasler, Jae-Hun Jung, Kyungkeun Kang, Kiumars Kaveh, Friedrich Littman, Sarah Mitchell, Anca Mustata, Andrei Mustata, Nathaniel Newlands, Reza Pakzad, Chris Rowe, Jacob Shapiro, Yuri Skrynnikov Wolfgang Spitzer, Anja Sturm, Anna Talarczyk, Jianying Zhang *(New Graduate Students)* Anthony Blackman, Wan Chen, Steve Chou, Adam Clay, Florica Coman, Catherine Dupuis, Carl Gladish, Cory Goodrich, Meijiao Guan, Yujin Guo, Hui Huang, Alexandra Jilkine, Richard Kublik, George Yiu, Antoine Maillot, Matthew Morin, Robert Noble, Zhenguo Pan, Alain Prat, Katherine Wang, Stephen Wang, Roger Woodford, Li Xing, James Xu, Gavin Yang, Ekaterina Yurasovskaya

AWM Mentor Network
by Rachel Kuske, Chair
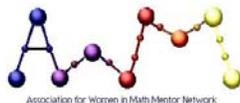
In September 2002, the Association for Women in Mathematics (AWM) Mentor Network moved to UBC. The goal of the AWM Mentor Network is to match mentors, both women and men, with girls and women who are interested in mathematics or are pursuing careers in mathematics. The network is intended to link mentors with a variety of groups: recent PhD's, graduate students, undergraduates, high school and elementary students, and teachers.

Matching mentors and mentees is based on common interests in careers in academics or industry, common research interests, balance of career and outside life, math education, or general mathematical interests. Most of the communication between the pairs is by email. Because of the broad range of requests, we are always looking for additional mentor volunteers, both men and women!

The AWM Mentor Network started officially in spring 2001. Since then there have been approximately 300 mentor/mentee pairs matched through its database, with about 150 active mentors. Mentor requests have been received from high school students through recent Ph.D.'s, with the bulk of the requests coming from undergraduate and graduate students. Most of the requests have come from within North America, but some of the requests have come from other countries, including a variety of European countries, Argentina, South Africa, India, and Australia. We also cooperate with the European Union (EU) Women in Math Mentoring Project, as well as a variety of local math mentoring organizations.

The growth of the network has been due to a variety of sources - some targeted advertising through university contacts, advisor referrals, notices on the AWM web site and in the AWM newsletter, and a very common way, word of mouth. The different mentoring styles have also "shaped" the network. In at least one case, two mentors have combined their pairs to form a joint mentor group. Some mentors with more than one mentee communicate with them both jointly and separately. Some mentor pairs have managed to meet in person. Other members take the role of both mentor and mentee, thus setting up a ``tri-mentoring" group. Frequency of contact differs among mentor pairs, but in joining the network both mentors and mentees commit to regular communication. Mentor matches have continued over lengths of time ranging from one term to several years.

Since moving to UBC, the Mentor Network has employed an office assistant, with financial support from the Faculty of Science and the Department of Mathematics. This help has been invaluable in keeping the database up-to-date, advertising, and soon improving the web site. The AWM webmaster has maintained the present on-line forms, and we have also received computer support from SWIFT at UBC. Thanks to all who have volunteered to participate in the network, especially as mentors. Future plans for expansion include a mentoring email/newsgroup for women in academic careers, expanding the network in Canada, and increasing contact with local high school groups.

To volunteer or to request a mentor, please visit the AWM Mentor Network web page at www.awm-math.org/mentornetwork.html.

Greetings from the Math Club!
by Richard Liang
Vice President - External, Math Club

It's been a busy term for us, as the current executive council has hit the ground running and we've all adjusted to our new roles. In the past few months we've had a number of good events, including some well-attended movie nights and a terrific lecture by Dr. Mike Bennett.

As well, we've had a logo contest that has given us a design for our t-shirts (coming soon!), and we are contacting graduating students with information about grad photos.

We've also made efforts to attract more math students. Our membership drive at the beginning of the year gained us a good number of new members, and we have sent out a survey to all math majors, looking for feedback and ideas.

As usual, the Math Club will be selling exam packages at the end of the term. Grad students: if you're interested in making some cash, contact us about doing some exam solutions. We look forward to another busy term!

(above) *Mary-Margaret Daisley celebrates more than 30 years of service in Math at the annual department dinner held in October. Congratulations Mary Margaret!*

Faculty Prize Winners

Ed Perkins is the recipient of the 2002-2003 CRM-Fields prize for mathematics. The award is given by the Centre de Recherches Mathématiques in Montreal and the Fields Institute in Toronto and recognizes exceptional contributions by a mathematician working in Canada. Ed is one of the world's leading probabilists and has made outstanding contributions to several areas of probability theory.

Nassif Ghoussoub was recently announced a Distinguished University Scholar, a prestigious designation recognizing exceptional members of faculty who have distinguished themselves as scholars in research and/or teaching and learning. In addition to receiving international recognition as a leader in the field of PDEs, Nassif has an outstanding record in attracting and supervising graduate students and postdoctoral fellows.
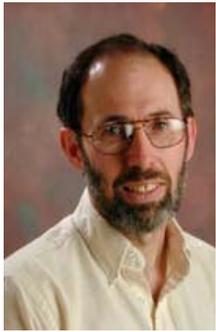
The Canadian Mathematical Society has selected Joel Feldman as the winner of the 2004 Jeffery-Williams Prize, which recognizes mathematicians who have made outstanding contributions to mathematical research. Joel has made important contributions to quantum field theory, many body theory, and the theory of infinite genus Riemann surfaces. Joel will give the 2004 Jeffery-Williams Prize Lecture at the CMS Summer Meeting, hosted by Dalhousie University, in June 2004.

Nike Vatsal is the receipient of the 2003-2004 Andre-Aisenstadt Prize which is intended to recognize and reward research achievements in mathematics by young Canadian mathematicians. Nike has made significant contributions to the study of L-functions of elliptic curves. He is well-known for his spectacular work on the uniform distribution of Heegner points. The winner is chosen by the CRM advisory committee and will be awarded to Nike at a CRM ceremony held in April 2004.
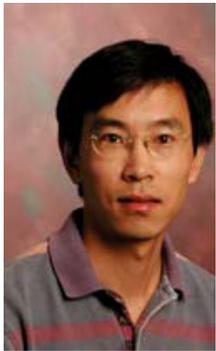
Jingyi Chen is the winner of the 2003 Coxeter-James Prize. Jingyi is an outstanding young geometric analyst who has made important contributions in the areas of harmonic maps and Yang-Mills connections. He will present the 2003 Coxeter-James Prize Lecture at the CMS Winter Meeting this month at Simon Fraser University. Jingyi is also a winner of this year's Killam Research Award.

Dominik Schoetzau has been appointed a Canada Research Chair (CRC) Tier II, awarded to exceptional emerging researchers who are acknowledged by their peers as having the potential to lead in their field. As a CRC in Numerical Analysis, Dominik is devising computational methods to be used in the simulation of problems in fluid dynamics, solid mechanics, magneto-hydrodynamics and electromagnetism.

New Directors Appointed For IAM and PIMS

Michael Ward is the newly-appointed Director of IAM. The Institute presently consists of about 80 faculty members and 40 graduate students in 14 different departments associated with the Faculties of Science, Applied Science, and Commerce and Business Administration. Michael replaces Dr. Bernie Shizgal, who finished his term in the summer.

The PIMS Board has appointed Professor Ivar Ekeland as the new Director of PIMS. As a former President of Université Paris-Dauphine, Ivar has extensive experience in leading a large multi-faceted institution and in negotiating support from different levels of government. Ivar is presently a Canada Research Chair in Mathematical Economics at UBC. Ivar replaces Nassif Ghoussoub who served as PIMS Director for seven years before completing his term in June.