

Message from the Chair

ATM Lau



I would like to extend a warm welcome to our new academic staff, support staff, graduate students, post-doctoral fellows and visitors to the Department.

This year our graduate enrollment has jumped to 120 from 110 in 2000-02. There are 34 new graduate students from Canada, Ghana, India, Korea, Mexico, P.R. China, Bangladesh, Czech Republic, Peru, Romania and the USA. I would like to thank Yau Shu Wong and his committee for the great recruitment effort.

I would like to congratulate Wieslaw Krawcewicz who will be honored in the upcoming ASTech awards/prize ceremony in Edmonton on October 18, 2002. His efforts in promoting mathematics among high schools through the magazine, "Pi in the Sky", was selected to receive the "Excellence in Science and Technology Public Awareness Prize". Thanks to K.C. Carrière and her committee for preparing the nomination for this award.

Congratulations to Gordon Swaters who was appointed as VP of AASUA.

Welcome back to Herb Freedman. Herb was working as an Associate Dean (Research) with the Faculty of Science.

Thank you to Guangjun Cao and all the graduate students and colleagues for coordinating the annual B-B-Q held at Hawreluk Park. The B-B-Q was wonderfully organized and well attended. The next social event of the Department will be the Christmas Party which will be held at the Fantasyland Hotel, West Edmonton Mall on Friday, November 29, 2002.

Wishing you all a wonderful academic year.



W. Krawcewicz—ASTech Award Winner

Inside this issue:

Under Graduate Studies	2
Associate Chair of Research	3
Graduate Studies	3
PIMS	4
AMI	4
Centre for Math Biology	5
Math Fair	5
Biostatistics Research Group	6
Colloquia and Seminars	6
4th Annual PIMS Summer School ..	7
Filtering Conference	7
Americas V Conference	8
North-South Meeting	8
ESSO/CMS Camp	9
Bulletin Board	9
ICM 2002	10

Associate Chair of Undergraduate Studies

B.N. Allison

"Welcome back to classes"

Welcome back to classes for Fall 2002-2003.

If you have been reading the local newspapers, you will certainly have noticed that the university has an increased enrollment this year. In particular, in mathematics and statistics courses the enrollment is up 13% in first year courses and 9.7% overall. It is great to have the opportunity to teach more students, but this has created challenges for instructors. Even though extra sections of first year courses have been added, our average section size is up over last year. We hope to be able to reverse this trend to some extent next year.

Last May was a great year for graduation in our Specialization and Honours programs. We graduated 35 students higher than in any recent year. As a result, the current number in our programs

is down slightly from last year (from 124 to 119), but this will very likely change next year when we attract some of the many new students that have arrived on campus into our programs.

It was a good summer for undergraduate research in our department. This summer the following students worked on NSERC Student Research Grants:

Andrew Hammerlindl, Sam Hillier, Remkes Koiistra, Richard Kublick, Julia Renouf, Steven Semenjuk, Richard Van-Weelden, Stephen Wasylishen and Kerianne Yewchuk.

This is an excellent program that is coordinated by John Bowman and the Honours Committee.



Associate Chair of Research

K.C. Carrière

We've had a lot of work to do at the beginning of the 2002-2003 academic year, as we had to meet a September 1 deadline for various awards. One of them was already paid off. We received the excellent news this fall: our nomination of Professor Wieslaw Krawcewicz's Pi in the Sky magazine for an ASTech Prize was successful. Congratulations, Professor Krawcewicz! Professor Krawcewicz wishes to thank all those who supported the high school mathematics magazine, including the associate editors, authors and readers. I hope for the continued success of this magazine, which will surely reflect positively on all of us.

As we approached another busy time, preparing the NSERC and SSHRC grant applications, our highly dependable assistant, Rachel Schofield, told us that she was leaving to take on a permanent position elsewhere at the university. While wishing Rachel all the best, we found ourselves scrambling yet again this year. Fortunately, we met the highly organized Kirsten Gill, who has demonstrated exceptional skill in getting around all the small bumps in the NSERC web forms. Thank you, Kirsten, for your patience in answering each and every one of our questions. We appreciate you very much!



Associate Chair of Graduate Studies

Y.S. Wong

We would like to welcome all graduate students for this exciting new year.

Thirty-four new graduate students joined us this Fall, and our total enrollment has reached 120. This number was our target stated in the previous five-year plan, and we have now reached our target early.

During a recent survey in the mathematics and statistics graduate programs in other Canadian universities, it seems that the largest graduate enrollment is at Waterloo with 134 students from three departments in Pure Math, Applied Math, Statistics and Actuarial Science. We are in second position but should rank first if the enrollment is based on a single department.

I am very pleased to report that the quality of our graduate students is strong. This year, two students were awarded the Izaak Walton Killam Memorial Scholarships, one student with the Alberta Ingenuity Scholarship, one student with a Province of Alberta Graduate Fellowship and two students with dissertation Fellowships. Our new graduate students are quite successful in major UofA scholarship competitions, and we have four F. S. Chia Ph.D. Scholarships and one Master's Thesis-based Scholarship. Our graduate students have also demonstrated the quality of our programs: two of our recent Ph.D. students have been awarded NSERC Postdoctoral Research Fellowships. The names of the award recipients are listed separately.

Many of our graduate students have participated in national and international workshops and conferences last summer,

and the quality of their work has been acknowledged. I would like to especially mention that Claudia Caia presented a paper at the 12th Annual Conference of the CFD Society of Canada, and her paper was among 12 that were selected for publication in the International Journal of Computational Fluid Dynamics. Cristina Popescu won the Jefferson Goblet Award granted by the American Institute of Aeronautics and Astronautics for one of the most outstanding student papers presented at the 43rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Material Conference. Gustavo Carrero won the poster prize at the MITACS Annual General Meeting.

The Department will establish the Dr. Josephine M. Mitchell Graduate Research Prize and Dr. Josephine M. Mitchell Graduate Scholarships this year, and we hope this will further increase the quality of our graduate programs. The purpose of these awards is to attract and retain strong graduate students. I would like to thank Dr. Jim Muldowney for drafting the proposals for these awards.

I would like to share some good news regarding a former graduate student. Dr. Maria Klawe who obtained her B.Sc. degree (1974) in Mathematics and her Ph.D. degree (1977) in Mathematics in the Department of Mathematics will be moving to Princeton University as the Dean of Engineering beginning January 2003. Dr. Klawe is finishing up her term as Dean of Science at the University of British Columbia.

Finally, we wish our graduate students a successful and productive year in their 2002-03 graduate programs.

2002 Graduate Student Association Representatives:

Kathleen Dohan Selly Kane
Wenxiang Liu Ovidiu Voitcu

2002 Graduate Student Teaching Award Recipients

Lynn Dover Monica Ilie
Stephen Sullivan Cynthia Yau

2002 NSERC PGSA Recipient

Sam Hillier

2002 NSERC PDF Recipients

Razvan Anisca
Liping Liu

New F.S. Chia recipients

Xinghua Deng Raluca Eftimie
Jan Rychtar Qian Wang

U of A Master's Scholarship recipients

Shawn Desaulniers

Alberta Ingenuity Award

Derek Postnikoff

2002 Killam Scholarship Recipients

Kathleen Dohan
Christina Popescu

2002 Province of Alberta Scholarship Recipient:

Jeong-Yup Lee

34 new incoming graduate students

120 graduate students overall.



PIMS News

J. Muldowney, U of A Site Director

Postdocs: Welcome to **Chuong van Tran** who has just joined the department to begin postdoctoral work with John Bowman. Chuong completed his PhD research on 2D Navier-Stokes turbulence at U of Toronto with TG Shepherd.

Continuing PIMS postdoctoral fellows are **Wen Chen** with RQ Jia and Bin Han, **Christina Cobbold** with Mark Lewis and **Roman Vershynin** with Nicole Tomczak-Jaegermann.

Pi in the Sky: The current issue of the magazine is the excellent product that we have now come to expect from this award-winning team. Check it out for yourself at <http://ua-mirror.pims.math.ca/pi/> or pick up a copy from the PIMS office in CAB 449.

Math Fairs: Ted Lewis produced *the math fair booklet* and it was printed by PIMS earlier this year; it promises to be an excellent resource for this exciting endeavor. Math Fairs is a very quiet but exciting success story with every one over-subscribed. Ted, along with Andy Liu, will host 650 children (mainly elementary, some junior high) at the next

Math Fair in Dinwoodie Lounge in SUB on Tuesday November 5, 9:30 AM-2:30 PM. Do drop in to see it and prepare to be amazed.

Summer 2002: PIMS-supported activities here included The First Mathematical Biology Summer School
The Fourth Fluid Dynamics Summer School
The Fifth Americas Conference on Differential Equations and Nonlinear Dynamics
Filtering Conference Math Camp

Upcoming: Along with UofC, the department will once again host the PIMS Graduate Information Week, January 7-11, 2003. This is our third round of hosting the information week where invited senior math undergraduates from across the nation come to learn of opportunities for graduate studies at the PIMS universities. Department members put on terrific efforts on the two previous occasions that we hosted so we are looking forward to a successful recruitment event.

Applied Mathematics Institute (AMI)

J.W. Macki, Director

The Applied Mathematics Institute enjoyed seeing its support of several conferences noted during the Spring and Summer. This included the MITACS conference run by Mike Kouritzin, the Fluid Dynamics Summer School, the 5th American Conference on Differential Equations and Nonlinear Dynamics, and the annual meeting of the Canadian Applied and Industrial Mathematics Society (held in Calgary).

Dana McCallum has been busy getting ready to send out the first volumes of the Canadian Applied Mathematics Quarterly to be printed in Edmonton. She has cleaned up the mess in the subscription list which we received from the Rocky Mountain Mathematics Consortium, and prepared the address labels and shrink wrap. These first back volumes should be arriving from the printer any day.

We are also expecting the first two numbers for 2002 to arrive from the Canadian Math Society Technical Editors in Winnipeg, which will then be sent over

to Quality Color Press for printing. Things have been slower than expected, we are still waiting for the 2 remaining back numbers to be tech edited in Tempe, Arizona (the last to be done by the Rocky Mountain Mathematics Consortium). I hope by the new year we will be close to on time with subsequent issues.

The intention is to celebrate the first issues of CAMQ printed here with a wine and cheese and special meeting of the membership of the AMI, probably in November. At this time, I will ask the membership to strike a nomination committee for the next director, and in addition I will recommend that a small committee be formed to choose the path of development for the AMI. It is now clear that the AMI has a role to play, but it must also efficiently coordinate with MITACS and PIMS. This is certainly easy to arrange, once we decide on how to do it. Certainly industrial liaison and joint graduate degrees are two areas that need to be explored.

We are in the process of arranging a November presentation on PIMS and the AMI for the top people at Syncrude. This is the kind of liaison work that can make this department much more visible to industry in Alberta.



The IIP program is slowly growing from infancy under the capable care of Shirley Mitchell in the PIMS office. I am hoping that this year we can place 3-5 strong students in industrial internships.

Centre for Mathematical Biology

R. Bechtel

The Centre for Mathematical Biology has completed our first year of operation. The focus of the Centre is on research across the disciplines of Mathematics and Biology and on research between departments and institutions. Over the previous year we had almost thirty visitors from other universities.

The Centre is directed by Mark Lewis. Continuing postdocs are Christina Cobbold, Frithjof Lutscher, and Annemarie Pielaat. We are very happy to have added Marjorie Wonham to our research group as a new postdoc. Marjorie completed her Ph.D. at the University of Washington and this year was awarded the Izaak Walton Killam Memorial Postdoctoral Fellowship. She is working in the area of biological invasions. We also have Leeza Pachepshy, from the University of California, Santa Barbara, as a visiting postdoc from September to December of this year. She is working on mathematical models for stream ecosystems.

We are very fortunate to have added

Alex Potapov as a research associate for the upcoming year. Alex was previously at the University of Lethbridge. He is working on nonlinear dynamical systems and has become a valuable asset to our research group.

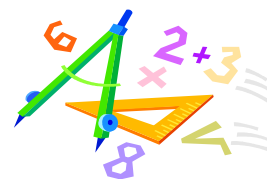
Gustavo Carrero is continuing his Ph.D. here in the department of Mathematical and Statistical Sciences. Tom Robbins is continuing his Ph.D. as a visiting student from Utah this year and we also welcome new graduate students Jung Min Lee (Mathematical and Statistical Sciences), Tomas de Camino Beck (Biological Sciences), Chris Jerde (interdisciplinary Biology and Mathematics), and Amy Hurford (Biological Sciences).

From May 11-19, 2002 we offered the 1st PIMS annual Mathematical Biology Summer Workshop entitled "Mathematics of Biological Systems". Our aim was to introduce undergraduate mathematics students to mathematical modeling and analysis applied to real biological systems. We had 26 successful applicants attend from 14 different

Universities across Canada and the United States. Instructors were Gerda de Vries, Thomas Hillen, Mark Lewis, and Michael Li.

Thank you to our many volunteers who also helped out during the Workshop. A special thank you to our summer student Andrew Beltaos, who put in an incredible effort for the workshop.

We are continuing our Mathematical Biology Seminar again this year. The seminars are held every Monday in CAB 657 and all who are interested are invited to join us. Students are encouraged to enroll in the seminar to receive one credit. For information on our seminars, please visit our website at <http://www.math.ualberta.ca/~mathbio/events.html>.



PIMS/U OF A Math Fair

T. Lewis



Andy Liu

Six hundred elementary and junior high students from over twenty schools will visit the PIMS / U of A Math Fair on Tuesday November 5. The fair is presented by the Math 160 students of Venera Hrimiuc and Ted Lewis, and will be held in Dinwoodie Lounge in the Student Union Building from 09:30-12:00 and from 13:00-15:30. At the same time, in the other half of Dinwoodie, A.Liu is running a problem solving session for the children.

You are invited to drop by and try the puzzles and problems, or just to observe how PIMS and our department is changing attitudes about mathematics among our schools and future teachers.



Students taking part in the Math Fair



Ted Lewis

Biostatistics Research Group

K.C. Carrière

On August 22, two senior and founding members of the Biostatistics Research Group's Training Consulting Centre (TCC) were pleasantly surprised to be presented with the first-ever "best consultant of the year" awards at a lunch held in CAB657. Xiaoming Sheng (PhD, 2002, and soon to join the University of Utah as an assistant professor) had been invited to be a guest at the regular monthly meeting, while Alexander de Leon (PhD, 2002, and now an assistant professor at the University of Calgary) had come to Edmonton to finalize the submission of his thesis. Neither recipient knew in advance that this award was to be given.

This new awards program provides a plaque with the inscription, "Best Consultant: For Excellence in Consulting and Mentoring" and a \$500 cash prize.

It has come about because students have told us that they believe strongly in the benefits of the TCC and have therefore asked for more formal recognition of their involvement.

Each year, all TCC observers will be asked to submit their vote for the best student consultant (role models) from among those they have observed in consulting sessions. Although plans are to give one award each year, two awards were given this year to mark the second anniversary of the TCC.

The reasons the observers gave in selecting Alex and Xiaoming as the Best role model consultants are summarized as follows.

The best consultant is a person who:

- cares about observers' opinions and seeks active participation from them

- is friendly towards everyone
- is patient enough to help clients meet their needs
- is knowledgeable and well-trained in theory
- has a broad background
- follows up with clients after a session to make sure the problem is solved and the client is satisfied with the solution.

We would be remiss if we didn't also mention the other consultants in addition to the two award recipients, as they are all dedicated to the activities of the TCC. This new award is not so much a competition among TCC participants, but a way of fostering and improving learning experiences for everyone involved.

The TCC now has over 25 members, including student consultants and observers. The Centre has grown so much that its monthly meetings are now being held in a classroom instead of in the boardrooms that were originally used.

Colloquia and Seminars

E. Gombay

We are trying to establish a connection with the University of Calgary Colloquium Series and exchange speakers.

This is possible only if sponsors can be found for the expense of travel to and from the two cities. If you have research type connections in Calgary, you can help by inviting speakers in your area. Any suggestions to implement this are welcome. We had one talk in September: Professor Peter Loeb of the University of Illinois, visiting Eric Talvila.

Upcoming Colloquium Talks

Vladimir Chernousov invited by A. Pianzola. Noriko Yui invited by J. Lewis

Gilles Godefroy invited by V. Zizler

Atanu Biswas invited by K.C. Carrière



Colloquium Speakers in Calgary

October 24/02 - P. Zvengrowski

October 31/02 - R. Nowakowski (Guy)

November 7/02 - N. Sauer

November 14/02 - M. Baaz (Zach Philosophy)

November 21/02 - L. Bates

November 28/02 - A. Bogdanov (Blais, Geomatics)

December 6/02 - B. Watson (Binding)

Fourth Annual PIMS Fluid Dynamics Summer School

B. Sutherland

This year the Fourth Annual PIMS Fluid Dynamics Summer School ran from July 28 to August 9, 2002. The summer school was fully attended by eighteen participants from Canada, England, Germany, and the United States.

Core lectures were given by:

- John Bowman (Turbulence Modelling),
- Andrew Bush (Climate Modelling),
- Peter Mineev (Computational Fluid Dynamics),
- Bryant Moodie (Wave Theory),
- Bruce Sutherland (Stratified Flows), and
- Paul Myers (Physical Oceanography)

We were fortunate to have four invited speakers:

John Allen of the University of Oregon spoke on “Coastal Oceanography”; John Bush of the M.I.T. spoke on Geophysical Plumes”; Jean-Luc Guermond of L.I.M.S.I., University of Paris, Orsay spoke on “Large Eddy Simulations”, and Peter Rhines of the University of Washington spoke on “Overturning Circulations in the Oceans and Atmospheres” and “Mountainous Flows in Rotating Fluids: Vorticity Dynamics, Form Drag and Induced Circulation”.

Each day the participants were given hands on experience running research-level numerical codes and they performed laboratory experiments. Both the simulations and experiments were designed to complement the lectures and so help students develop an intuition for fluid dynamics phenomena, how they are mathematically modelled, and how reliable approximate solutions can be.



Filtering Theory and Applications 2002

M. Kouritzin

The International Conference on Filtering Theory and Applications was successfully held at the University of Alberta in Edmonton from July 25-27 and was concluded in Jasper, Alberta from July 28-30, 2002. This meeting was organized by Robert Elliott, Michael Kouritzin, Tom Kurtz and Hongwei Long with assistance from Shirley Mitchell. The main goal of the meeting was to bring current problems and theory together, benefiting all researchers, especially those new to filtering theory. The four keynote speakers were: G. Kallianpur (University of North Carolina), T. Duncan (University of Kansas), Nicole El Karoui (Ecole Polytechnique), and Nick Duffield (AT & T). They are outstanding experts in their fields. Nearly 50 researchers from five continents presented their recent and most exciting research accomplishment in

Since the conference was designed to be a combination of science and scenery, we organized sightseeing events such as Edmonton Queen cruise, Maligne Canyon and Lake hike, and the Miette Hot Spring swim. People continuing on to the IMS meeting in Banff also enjoyed the Columbia Ice fields and many other sites on the Ice field Parkway. People enjoyed very much the conference as well as the world famous attractions of Alberta. We gratefully acknowledge financial support from PIMS, MITACS, MITACS-PINTS, the University of Alberta, and the Applied Math Institute of the University of Alberta that made the conference possible and successful.

Americas V Conference, July 7-12, 2002

M. Li

The biennial Americas Conference series has served as a major venue for developing and maintaining communication and scholarly exchange among research groups in the field of differential equations and nonlinear dynamics in South and North America. The previous four meetings were held in Taxco, Mexico (1994), Aguas de Lindoa, Brazil (1996), Atlanta, USA (1998) and Mérida, Venezuela (2000).

The 5th Americas Conference was dedicated to Professor Shui-Nee Chow of Georgia Institute of Technology, one of the founders and a driving force of the Americas Conferences series, and a world-renowned leader in dynamical systems, for the occasion of his 60th birthday.

More than 120 mathematicians and graduate students, including 93 speakers from 15 countries, have participated the conference. The Americas V also marked the first major Canadian participation in this prestigious international research event.

At the conference, the G. J. Butler Prize was awarded to top

poster presentations by graduate students at a Americas university. Posters presented by Mr. Horacio Gomez-Acevedo of the University of Alberta and Mr. German Crue of the University of Sao Paulo of Brazil was selected by a panel of three Scientific Committee members to share the \$1000 prize. All posters was refereed and published on the website of the PIMS Poster Session on the Web during the conference.

In addition to a major conference grant (\$20,000) from the National Science Foundation (US), the Americas V also received funding from the University of Alberta, National Programs Committee, PIMS, and the Applied Mathematics Institute (U of A). The organizers also want to give their sincere thanks to Rachel, Jennifer and Scott at the general office, Shirley and Lisa at the PIMS U of A office for their tireless work for the conference, and to the following graduate students: Horacio Gomez-Acevedo, Greg Belostokski, Huamei Yin, Tingting Shu, Lingling Ma, and Wenxiang Liu for their help during the conference.

The Second North-South Meeting

M. Li



This year, on April 27 and 28, our department hosted the Second North-South Meeting of mathematics departments in the Province. The meeting started off on Saturday with 9 research talks in the afternoon by speakers from Edmonton, Calgary and Lethbridge, followed by a banquet at the Faculty club. On Sunday morning, four parallel panel discussions were held on north-south research collaborations, curriculum development in Engineering mathematics, research involvement of college mathematicians, and incorporating math fairs into undergraduate curriculum. A number of initiatives were proposed at these panel discussions (see a separate report).

Approximately 80 mathematicians from 10 campuses across the Province (Edmonton, Calgary, Lethbridge, NAIT, Grant MacEwan, Red Deer, Grand Prairie Augustana Concordia, Mount-Royal) have participated the event. The large presence and active involvement of our colleagues from colleges is one of the successes of the event.

Next year's meeting will be hosted and coordinated by our colleagues in Calgary.

The event was sponsored by the Dean of Science (U of A), our Department, the Applied Mathematics Institute, and U of A PIMS site.

The ESSO/CMS Alberta Camp

T. Lewis

Each year, ESSO and CMS sponsor a national and several regional math camps. The Alberta Math camp alternates between the U of A and U of C. This is the second time that it was held at the U of A. In addition to ESSO and CMS, the event is sponsored by the Faculty of Science, by PIMS, by the Edmonton Public School Board, and by the Mathematical Council of the Alberta Teachers Association. The camp organizers were Ted Lewis and Andy Liu.

The camp is intended for student from grades 7 to grade 10. It opened on August 17 and closed on August 24. Twenty-four campers from Alberta and two campers from outside the province stayed in the Lister Hall Residence Complex for its duration. There were also three day students from Edmonton who attended.

The morning program consisted of a three-hour workshop centered on a lecture. On Sunday, Prof. Andy Liu gave a lecture on Coding. On Monday, Prof. Hans Brungs gave a lecture on the History of Mathematics. On Tuesday, Prof. Edit Gombay gave a lecture on Probability. On Wednesday, Prof. Sudarshan Sehgal gave a lecture on Number Theory. On Thursday, Prof. Dragos Hrimiuc gave a lecture on Diophantine Equations. On Friday, Prof. Volker Runde

gave a lecture on the Banach-Tarski Paradox.

The afternoon program was a mixture of academic and extra-curricular activities. On Sunday, the students wrote a three-hour contest. On Monday, the camp visited the Odysium, the former Edmonton Space Science Centre. On Tuesday, the students were divided into groups for a team contest. On Wednesday, the camp visited a cornfield maze just outside Edmonton. On Thursday, Prof. Andy Liu offered an exhibition of part of his puzzle collection. On Friday, the well-known magician, Jon Charles, gave a special performance at the camp.

The evenings were largely spent in the residence for social activities. The students were supervised by Mr. Gilbert Lee and Mrs. Joyce Pon, the mother of one of the campers. On Wednesday, after the cornfield maze, the camp visited West Edmonton Mall. On Thursday, the students had an eat-in consisting mainly of pizzas.

On Friday, a banquet was held at the China Palace Seafood Restaurant.



Bulletin Board

Welcome

New Faculty Members

P. Balka, Faculty Lecturer

X. Chen, Geometry

H. Oh, Statistics

J. Xiong, Statistics

and

Sessionals/Post Doctoral Fellows:

R. Anisca T. Chen

F. Dai C. Hao

K. Kim T. Marinov

P. Mohanty A. Potapov

L. Pachepsky B. Rai

H. Tandra M. Wonham



We are sad to say good bye to Christine Fischer. After 27 years Christine has decided to make a career change. We'd like to thank Christine for all of her hard work and dedication and wish her well as a new chapter in her life unfolds.

Newly Weds

Congratulations to

Benjamin Baird and Cheyanne
Cristina Popescu and Calin Anton
Gustavo Carrero and Nury
Guofeng Zhang and Mingming Zhan



International Congress of Mathematicians in Beijing

H. Kunzle

Several department members attended the International Congress of Mathematicians in Beijing this summer. For me this was the first

occasion to travel to this vast country, and since last April I asked the future Newsletter Editor for some advice about travel arrangements

he asked me later to report some of my impressions.

Overall the organization for the probably between five or six thousand participants was quite impressive. I do not remember anything that did not go off according to the plan.

We arrived on Monday evening, August 20, after having participated in a six-day pre-congress tour that had shown us three interesting parts of China, Shanghai, Guilin and Xian. Registration went smoothly. We got our name tags and were classified by ribbons, red for invited speakers, blue for the ordinary guys, and yellow for accompanying persons. Without these nobody was allowed into the convention centre, but with them one had access to all facilities from e-mail to free bus rides in the city. Security was quite high. There were policemen everywhere, but they were extremely friendly. At our hotel they greeted us with smiles every morning and evening and seemed happy to turn the revolving door for us.

The next day was still reserved for registration and for ceremonies. In the afternoon an impressive fleet of busses took all the participants to the Great Hall of the People at Tiananmen Square where the opening session was held. This was in the traditional format with speeches by various dignitaries from the International Mathematical Union and the government. Among them the 90 year old geometer Shiing-shen Chern was on the podium and gave a short speech. For the first time, apparently, in the history of these congresses a head of state took part in the ceremonies. The president of China, Jiang Zemin, helped presenting the Fields medals and the Nevanlinna prize but did not make a speech. Also following tradition, there was a second part of the session, after a short break and without the politicians, that consisted of talks explaining the achievements of the Fields medal winners. These ceremonies were followed by a banquet, also in the Great Hall of the People.

The actual mathematical sessions began on Wednesday morning with the invited talk by Laurent Lafforgue. Possibly by coincidence, he had been scheduled as the first plenary speaker and had also received a Fields medal the day before. (The second Fields medal winner, Vladimir Voevodsky was not a plenary speaker,

but a special talk in the evening was arranged for him to explain his work that earned him the medal. Lafforgue, being a Frenchman, preceded his talk by some comments regretting that the only language at such congresses was English. He was nevertheless pragmatic enough to speak in English anyway. But he expressed his protest by showing the transparencies in French and Chinese only.

There were three one-hour plenary talks each morning between Wednesday August 21 and the following Tuesday with no scientific activity on Sunday. (Unfortunately I missed the last two lectures on mathematical physics by Ludwig Faddeev and Edward Witten on Wednesday, Aug. 28, because I had to make travel arrangements long before the programme was announced and there were no more seats available on flights out of Beijing on Aug. 29.) In the afternoons there were three to four parallel sessions of invited 45 minute talks as well as numerous short communications (15 minutes) and poster sessions. My impression was that these short sessions were not very effective and not very well attended as there was too much else going on at the same time. Poster sessions attracted even less attention. They occupied just a small part of the big hall that contained computers for e-mail etc. In fact, a suggestion was made in the daily newsletter that perhaps 15-minute sessions should be eliminated altogether and replaced by poster sessions that could be arranged in a more attractive way. As expected, the quality of talks, plenary and invited 45-minutes, differed widely. Even some plenary talks were probably comprehensible only to a very small part of the audience, some others were very good, in the sense that also a non-expert of the field could really learn something. An unusual feature was that on registration we received two fat volumes with the full written versions of all the 45-minute invited talks. That could be helpful when trying to select what talks to listen to. The plenary talks will be written up and sent to us in another volume probably much later. Clearly, these people were too important to be coerced to mail in a manuscript several weeks in advance.

A number of public lectures by international celebrities had been arranged in the evenings (Stephen Hawking before the congress, John Nash and Ed Witten).

Having read the biography of Nash I was interested in seeing the man in person. He was introduced as the only mathematicians who received a Nobel prize, was highly acclaimed

by the large audience, and received many flower bouquets after his talk. The talk itself was less spectacular. It was a recycled version of a talk in 1966 on a game theory problem read off an old typescript that was projected on the screen.

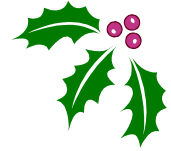
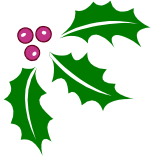
There were some other special activities like on the history of Chinese mathematics. I attended one on electronic publishing which was quite interesting. Many of the proposals made there came from an IMU committee and have also been reported, for example, in the AMS Notices. One proposal was that all mathematics departments and institutes should have a standardized (secondary) web page that can be searched systematically by indexing services.

During the congress there was an extensive programme of sightseeing excursions for accompanying persons (and mathematicians needing a break). I skipped one whole day of talks to visit the Great Wall, a less than two-hour bus trip from Beijing. In addition to these normally day-long bus tours, which were offered at a reasonable price, many free "footloose tours" within Beijing were being offered.

One evening, as part of the entertainment for conference participants and to give them some idea of Chinese culture, a variety show was offered on the stage of the main conference hall. It started off with a choir made up of academics and researchers from local universities and research institutes singing a number of European songs in English, German and French. This was followed by a tenor's rendition of various Chinese songs, some great dancing by members of a local dance group, an all too brief introduction to Chinese acrobatics, and a 25 minute introduction to Chinese opera. All in all, it was a well-balanced and highly entertaining show.

There was also a special performance for the ICM members at the Beijing opera on Sunday evening. This was also quite an experience for us who were only familiar with European operas, most of all the very amazing flawlessly presented acrobatics.

Altogether attendance at ICM2002 was a very satisfying experience both mathematically and culturally. Even Air Canada did not cause too many inconveniences this time (just one day delay in getting our luggage to Shanghai at the beginning of the trip).



Department of Mathematical and Statistical Sciences

Holiday Gathering

Please join us for an evening of food and fellowship

And yes, some entertainment and dancing as well.

Friday, November 29, 2002

Fantasyland Hotel

West Edmonton Mall

Banquet Room #6

Cash Bar opens at 6:00

Dinner commences at 7:00 p.m.

Prize draws will follow dinner

Music and Dancing to follow 9:00 – 1:00 a.m.

Ticket Prices:

\$18.00 per person for academic and retired staff and their guests

\$12.50 per person for sessionals, postdoctoral fellows, graduate students, support staff and their guests

Note: Tickets are to be paid for in cash only and will be given out upon receipt of payment. They will be available from Karen Schaapman in the Mathematical and Statistical Sciences General Office, CAB 632.

We have seating for 150 so get your tickets early to avoid disappointment!!

Deadline for purchasing tickets is November 22, 2002.

HOPE TO SEE YOU THERE!!



**Mathematical & Statistical
Sciences Newsletter**

*For information on how to get your articles into this publica-
tion please contact:*

Michael Li

Phone: 492-2032

Any comments about this publication or
its contents are greatly appreciated.

We're on the Web!
www.math.ualberta.ca/newsletter.html

On the Lighter Side

Top Ten Excuses For Not Doing Homework

1. I accidentally divided by zero and my paper burst into flames.
2. Isaac Newton's birthday.
3. I could only get arbitrarily close to my textbook. I couldn't actually reach it.
4. I have the proof, but there isn't room to write it in this margin.
5. I was watching the World Series and got tied up trying to prove that it converged.
6. I have a solar powered calculator and it was cloudy.
7. I locked the paper in my trunk but a four-dimensional dog got in and ate it.
8. I couldn't figure out whether i am the square of negative one or i is the square root of negative one.
9. I took time out to snack on a doughnut and a cup of coffee.
10. I spent the rest of the night trying to figure which one to dunk.



A son says to his father:

“Gee dad, thanks for helping me with my math homework, now the teacher thinks I’m retarded.”

