

PIMS Final Report for CYRC

November 15, 2010

1 Title of event

The 7th annual Canadian Young Researchers Conference in Mathematics and Statistics (CYRC 2010)

2 Dates and location

May 18th to 20th, 2010, The University of Alberta

3 Type of activity

Conference. Website: math.ualberta.ca/~game/CYRC10

4 Organising committee

Primary contact

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Other organisers

Matthew Emmett	PhD Candidate, University of Alberta	memmett@math.ualberta.ca
Cody Holder	PhD Candidate, University of Alberta	holder@math.ualberta.ca
Hannah Mckenzie	PhD Candidate, University of Alberta	hmckenzie@math.ualberta.ca
Matthew Musson	PhD Candidate, University of Calgary	mmusson@math.ualberta.ca
Malcolm Roberts	PhD Candidate, University of Alberta	mroberts@math.ualberta.ca
Jeanette Wheeler	MSc Student, University of Alberta	jwheeler@math.ualberta.ca
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Rita Hei-In Wong	MSc Student, University of Alberta	rh Wong@math.ualberta.ca

5 Conference Summary

The Canadian Young Researchers Conference in Mathematics and Statistics (CYRC) is an annual event that provides a unique forum for young mathematicians across Canada to present their research and to collaborate with their peers. All young academics involved in mathematics research were invited to give a scientific talk describing their work and to attend talks on a host of current research topics in mathematics and statistics. Participants had the opportunity to build and strengthen lasting personal and professional relationships, to develop and improve their communication skills, and gained valuable experience in the environment of a scientific conference.

The intended audience of this conference was young researchers in mathematics and statistics. Conference participants had a wide variety of research interests and knowledge, and therefore all presentations were aimed at an audience with a well-developed knowledge base in mathematics and statistics, but without extensive knowledge of any particular area in mathematics and statistics.

This year the CYRC welcomed 82 participants from 10 Universities across Canada, including The University of Calgary, University of Alberta, University of British Columbia, Simon Fraser University, University of Manitoba, University of Toronto, University of Waterloo, Queens University, Universite de Montreal, Universite de Sherbrooke and Grant McEwan University. We also had representation from each targeted demographic of Undergraduates, Graduates and Post Doctoral fellows alike.

The conference ran two parallel sessions from May 18th to 20th and also featured an extremely well-received presentation by former UofA visitor Dr. Jon Jacobsen of Harvey Mudd College in California, entitled "As Flat as Possible", as well as a fascinating lecture at the conference banquet given by the famous Dr. John Mckay of Concordia University, concerning "Monstrous Moonshine", an area of mathematics that he invented.

This year the CYRC gave out six best presentation awards as a result of ties in the voting procedure. Colin Weir, Alan Silvester and Ryan Trelford from the University of Calgary all shared the prize with Serhan Tuncer from the University of Alberta for the best talk in the "pure math" session. There was also a tie in the "applied math" session, where Rita Wong from the Center for Math Biology at UofA shared the honours for best talk with Jessica Enright from the Department of Computer Science at UofA.

Over the last 7 years, CYRC has strengthened the research network in the province of Alberta between the Universities of Calgary and Alberta, especially amongst the young mathematicians and statisticians working at these institutions. The conference approximately doubled in size in 2010 relative to the previous three years, when participation stayed relatively constant between 40-50, following a peak of 82 participants in 2006. The coincidence of hosting 82 participants again in 2010 highlights the relevance of this conference to the careers of young researchers, with participation being continually encouraged and supported by a greater number of Canadian universities each year. The conference has created and fostered new research connections with several universities in Canada, particularly with the

University of British Columbia and Simon Fraser University, where the YRC is slated to be hosted in 2011 and 2012. CYRC 2010 marked the resurrection of the Young Researchers Conference as event that is poised to gain recognition, momentum and popularity within the Canadian mathematical community. Indeed, the number of projected participants at CYRC 2011 is currently 200, which the organizers plan to achieve in part by hosting the conference outside of Alberta for the first time.

6 Participants

The following table lists the names and affiliations of the participants of CYRC 2010.

Name	Affiliation
Mehsin Jabel Atteya	Al-Mustansiriyah University-College of Education, Iraq
Maryna Yaskina	Grant MacEwan University
Elaine Beltaos	Grant MacEwan University
Valdemar Tsanov	Queen's University
Arezou Zaresani	Simon Fraser University
Pinar Colak	Simon Fraser University
Akinlawon Oludotun	University of Alberta
Aaron Lim	University of Alberta
Allan Rogers	University of Alberta
Amin Jorati	University of Alberta
Andrey Novoseltsev	University of Alberta
Billy Davis	University of Alberta
Boyko Zlatev	University of Alberta
Caleb Cheek	University of Alberta
Chandana Somayaji	University of Alberta
Cody Holder	University of Alberta
Cristian Ivanescu	University of Alberta
Diana White	University of Alberta
Hannah Mckenzie	University of Alberta
Hitomi Inoue	University of Alberta
Hongjia Chen	University of Alberta
Jacqueline Smith	University of Alberta
Jaime Ashander	University of Alberta
Jane Cooper	University of Alberta
Jeanette Wheeler	University of Alberta
Jessica Enright	University of Alberta
Jiafen Gong	University of Alberta
Jonathan Miersma	University of Alberta
Juan Chimale	University of Alberta
Kun Wang	University of Alberta
Lily Gulcev	University of Alberta
Long Yu	University of Alberta
Malcolm Roberts	University of Alberta
Matthew Emmett	University of Alberta
Md. Jamil Hasan Karami	University of Alberta
Michael Joya	University of Alberta
Nancy Hernandez-Ceron	University of Alberta
Niushan Gao	University of Alberta
Qianglong Wen	University of Alberta
Quazi I. Ibrahim	University of Alberta
Rebecca de Boer	University of Alberta
Rita Wong	University of Alberta
Saeed Rahmati	University of Alberta
Serhan Tuncer	University of Alberta
Seung-Ji Ha	University of Alberta
Shahin Jabbari	University of Alberta
Silogini Thanarajah	University of Alberta
Soheila Aalami	University of Alberta
Susanna Spektor	University of Alberta

Name	Affiliation
Valerie Cheng	University of Alberta
Wei Zhao	University of Alberta
Xiaobao Tan	University of Alberta
Yu Jin	University of Alberta
Zac Friggstad	University of Alberta
Zhichun Zhai	University of Alberta
Zhisheng Shuai	University of Alberta
Zhiyong Zhang	University of Alberta
Kate Yaraee	University of Alberta
Aaron Christie UofC	University of Calgary
Alan Silvester	University of Calgary
Azamed Gezahagne	University of Calgary
Colin Weir	University of Calgary
Doug McLean	University of Calgary
Karin Arikushi	University of Calgary
Matt Musson	University of Calgary
Mobolaji Ogunsolu	University of Calgary
Ryan Trelford	University of Calgary
Syed Lavasani	University of Calgary
Illia Karabash	University of Calgary
Dessalegn Y. Melesse	University of Manitoba
Alexander Dahl	University of Toronto
Amenda Chow	University of Waterloo
Toktam Dinevari	Universite de Montreal
Jean-Phillipe Burelle	Universite de Sherbrooke
Simon Germain	Universite de Sherbrooke
Athena Nguyen	University of British Columbia
Jerome Lefebvre	University of British Columbia
Kael Dixon	University of British Columbia
Kelan Zhai	University of British Columbia
Kevin Luk	University of British Columbia
Nicole Jinn	University of British Columbia
Peter Bell	University of British Columbia

7 Budget

The following table outlines the expense budget for CYRC 2010.

Expense	Amount
Conference banquet	\$2,300
Snacks and meals for all participants	\$5,000
Refreshments (water, juice, pop, coffee, tea, ice, cookies, etc...)	\$800
Accommodation for visiting speakers	\$1,850
Conference supplies and speaker prizes	\$600
Transportation for speakers from UofC	\$650
Airport shuttles for visiting speakers	\$300
Travel and accommodation for plenary speakers	\$1,100
Total	\$12,600

The following table outlines the funding sources for CYRC 2010.

Sponsor	Amount
Mathematics of Information Technology and Complex Systems (MITACS)	\$4,000
MITACS Student Advisory Committee (SAC)	\$1,000
Alberta Informatics Circle of Research Excellence (iCORE)	\$2,000
Pacific Institute of Mathematical Sciences (PIMS) UofA	\$1,575
Research Services Office (RSO) UofA	\$2,000
Department of Mathematical & Statistical Sciences UofA	\$1,250
Industrial Support	\$775
Total	\$12,600

The \$1,575 contribution from PIMS was allocated in part to UofA conference services (\$1275) for housing our out-of town participants, and in part to Dr. Jon Jacobsen (\$300) to cover his travel expenses.

8 Measurable Outcomes

On the night of the conference banquet, Cody L. Holder of the University of Alberta, the lead organizer of the conference, conjectured that next spring's 8th annual CYRC will be hosted by a University outside of Alberta for the first time since the inception of the conference in 2004. Since that night, leaders of the mathematics and statistics graduate student associations at the PIMS universities have collaborated to form an intra-university graduate student association, with the main goal of ensuring the continued progress and success of the CYRC for many years to come. The CYRC 2011 organizing committee plans to make extensive use of the connections that this brand-new organization provides to its student leaders as a means of helping them achieve their goal of hosting over 200 students at the University of British Columbia, for the first installment of a newly-minted national conference. In addition to increasing the overall participation and the general awareness of the value that this conference has to young researchers, the move to BC serves to increase the collaborative network of each participant. Moving the conference out-of-province furthers the ultimate goal to ignite the propagation of a national conference for young researchers in mathematics and statistics, akin to the Canadian Undergraduate Math Conference (CUMC), with a permanent website, organizational support and funding provided by a national agency. The hosting of CYRC at UBC in 2011 signals a new era in the Canadian mathematical community, in which every burgeoning young mathematician or statistician who has worked at a Canadian university will know the YRC by name, and most likely will have attended one of its annual installments.