

REPORT ON THE SECOND WOMEN IN PHYSICS CANADA CONFERENCE

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The second “Women in Physics Canada” (WIPC) conference took place August 1-4, 2012 at the University of British Columbia (UBC) in Vancouver. The event attracted over 110 participants from 34 universities/research institutions across Canada and the US. The conference followed the footsteps of the first WIPC conference co-organized in 2011 by the Perimeter Institute and the Institute for Quantum Computing in Waterloo, Ontario^[1]. The first conference was attended by around 60 participants, including four of the authors who, inspired by its success, decided to organize the second installment at UBC.

The under-representation of women in science, technology, engineering, and math (STEM) fields is the subject of many studies^[2,3,5] which show that several factors contribute to this imbalance. These factors include biases in hiring practices, differences in career goals and interests, balancing family and career^[2,4], implicit bias^[6] lack of institutional support, lack of supportive networks at key career transitional stages, and lack of role models. The conference aimed to address some of the above mentioned factors by setting the stage for a professional scientific conference with the addition of panel sessions and plenary talks during which issues related to gender in physics are discussed. The conference’s goals were to allow participants to present their research in a supportive environment, develop support networks they can rely on throughout their careers, learn about graduate and postdoctoral opportunities, and gain information about careers in science and technology.

In order to make the conference accessible to participants early in their careers, the registration fees were kept as low as possible (\$30-\$45 for students). Additionally, thanks to the generous support of our sponsors, we were also able to provide around 25 travel awards for students

lacking financial support to attend the conference. We had originally hoped to attract around 70 participants. We view the larger than expected turnout as reflecting the great need for such conferences to encourage and support young physicists, and especially women, in Canada.

The conference started with an informal dinner featuring ice-breaking activities designed to get participants working in small groups to get to know each other. During the next three days, conference participants attended 6 invited plenary talks, a poster session featuring over 30 contributions, 3 panel discussions, and 6 sessions of contributed talks by conference participants (a total of 42 contributed talks were presented). At the request and initiative of participants, an informal brown bag lunch was held for all those interested in having a discussion with physicists who are also mothers. The main goal of this get-together was to discuss experiences in balancing family with academic life and get information about institutional policies regarding parental and family leaves.

The invited talks ranged in topics from quantum computing to astrophysics. These lectures gave participants an overview of current research topics led by renowned female physicists. The excellent quality of all invited speakers and talks was appreciated and commented on by conference participants: “Very inspirational women working in areas different than mine. I was glad to learn something new!” (All quotes cited in this report have been gathered from the post-conference survey to which 68 participants responded.)

One particular invited talk highlighted the distinguished feature of this conference: Dr. Toni Schmader, a professor in the Department of Psychology at UBC, presented her work on how social stereotypes can undermine the interest and success of women in STEM fields, so called “stereotype threat”.

“All of the presenters and participants were incredibly helpful and encouraging. I particularly appreciated Toni’s talk about the social psychology that comes into professional work. I have often judged myself harshly in my professional work and have often been a victim of stereotype threat. Over the past few days I have thought a

SUMMARY

Over 110 female physicists participated in the Second Women in Physics Canada Conference hosted by the University of British Columbia in August 2012.



Fig. 1 Group picture in front of UBC Physics Building.

lot about the overarching themes of the conference and feel a gained confidence regarding my ability to succeed as a woman in physics.”

The contributed posters and talks given by conference participants were equally varied and of very high quality. For many students this was their first opportunity to present research results at a professional conference while at the same time providing a very supportive environment for their presentations. The poster session was held at TRIUMF (Canada’s National Laboratory for Nuclear and Particle Physics), located within the UBC campus, which also gave participants the chance to tour the impressive physics research facility.

In order to maximize the opportunities for discussion, three panel sessions were scheduled throughout the conference. The topics were chosen to have broad appeal and usefulness for young women in physics. The first panel was titled “Physics careers outside academia” and featured four women who pursued graduate studies in physics and are working (or have worked) in industry, government, and other non-academic

environments. Participants were very interested to hear about their experiences on how to make the transition from academic to non-academic environments and where to look for jobs outside academia.

“It was very cool to learn about careers in industry, as this information is not easy to come by in academia. Also, to hear about a variety of career paths from diverse women was extremely interesting and helpful.”

The second discussion panel was titled “Gender issues in physics and science” and featured senior women who have been involved in studying and improving the climate for women in physics and science. The conversation focused around current hypotheses of gender disparities in STEM fields, what is being done to improve the climate, and current institutional measures to encourage women into these fields.

The third discussion panel of the conference was titled “Transitions in academia: from undergraduate, to graduate, to postdoc, and beyond” and featured young women who have recently made such transitions. Conference participants

appreciated hearing the experience on how to balance family and career lives throughout these transitions, what a postdoc experience entails, and logistics on how job transitions work in academia.

"I found so many aspects of this conference amazingly useful, from both a practical and social perspective. The diversity of the panelists (from both research and industry, in particular) really opened my eyes to what practical options I have with the skills I've learned studying physics."

In a post-conference survey, over 80% of respondents indicated that conferences such as this one are useful towards advancing their careers in physics. In addition, they expressed hope that funding and support will continue to be provided by funding agencies and universities. They also indicated that their preferred aspects of the conference were the panel discussions, as well as the invited physics talks and the networking opportunities. As for what they would like to improve the following suggestions were the most common:

1. More panel discussions in additional topics, such as the general climate for funding of science in Canada and how to approach funding agencies.
2. More invited physics talks in a wide range of topics.
3. Active encouragement for men to participate in all aspects of the conference.

The enthusiastic feedback proves that conferences such as this one can help the next generation of physicists come together to discuss important topics both in physics research and in making physics a more inclusive field for all those interested in pursuing it. We hope that the great success of the two Women in Physics Canada conferences organized so far will pervade and continue serving the needs of the physics community.

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