

# Lessons Learned from the International Conferences on Women in Physics

Adriana Predoi-Cross

Lethbridge, Alberta, Canada



### **Talk Outline**

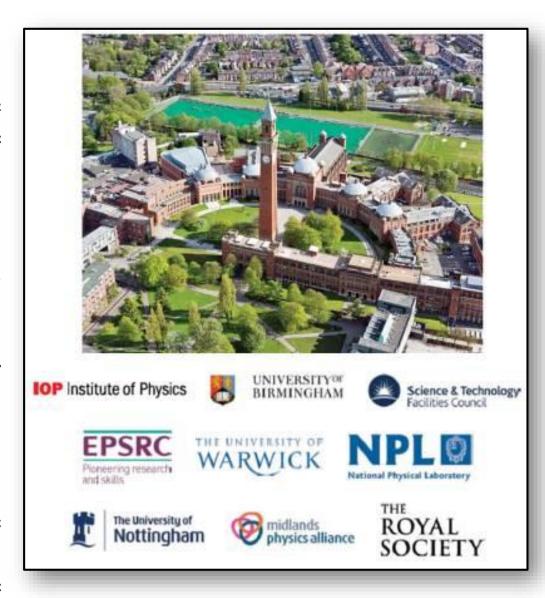
1. Highlights of the last International Conference on Women in Physics, Birmingham, UK, 2017

### 2. Canadian Women in Physics at all academic levels

- Early physics education and physics outreach activities
- The role of mentoring in increasing the participation of women in physics.
- The "two body problem" and balancing family and career
- "Women's leadership of science in a changing society"
- The role of our professional society as "agents of change and support."
- 3. Lessons learned and thoughts for the future

### The 6th International Conference on Women in Physics

- The conference was organized by the Working Group on Women in Physics (WG5) of the IUPAP, and the Institute of Physics in the UK (IOP)
- Delegates representing women in physics from over 40 countries participated in events that showcased the achievements of female physicists and increased their scientific visibility, fostered networking activities among participants, enhanced regional working groups who promote the participation of women in physics. In addition the attendees shared stories of their individual career paths.



### The 6<sup>th</sup> International Conference on Women in Physics

The conference featured outstanding presentations on research and their career journeys, from female physicists that have become the role models for our generation.

Country representatives presented brief highlights and posters about women physicists in their countries. Research posters were also presented and discussed with colleagues.

During the workshops the delegates discussed topics such as "the under-representation of women in physics, breaking gender stereotypes, conscious and unconscious bias, the gender wage gap, and attrition of women as they continue to climb the academic ladder" [1,2,3]



### The 6<sup>th</sup> International Conference on Women in Physics

Canada was represented by a diverse group of seven delegates that included faculty members, graduate and undergraduate students, and a member of WG5 (Shohini Ghose).

Team Canada @ ICWIP 2017



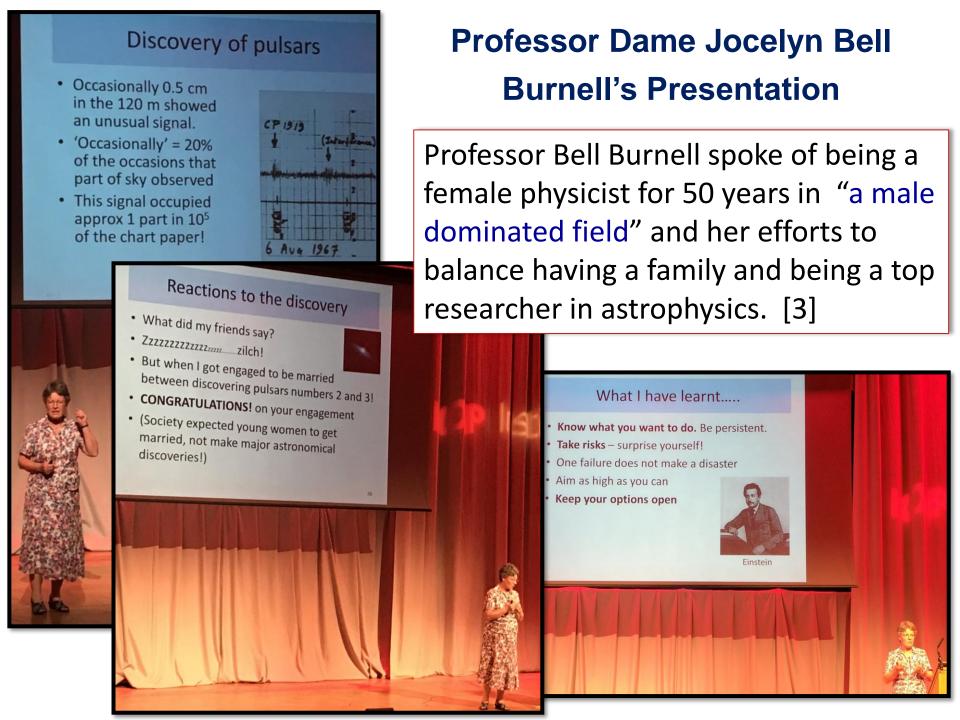
**Top row**: Erin Aucoin, , Shohini Ghose, Arundhati Dasgupta, Annum Khattak

Bottom row: Eden Hennessey, Michael Steinitz, Adriana Predoi-Cross

# Professor Dame Jocelyn Bell Burnell's was presented the Institute of Physics President's Medal

Professor Dame Jocelyn Bell Burnell, Fellow of the Royal Academy and Dame Commander of the Order of the British Empire received the IOP President's medal "for her outstanding contributions to physics through pioneering research in astronomy, most notably the discovery of the first pulsars while a Ph.D. student in Cambridge, and through her unparalleled record of leadership within community" and for being "a champion in encouraging women to study the physical sciences, noting her contribution to establishing the Athena SWAN awards for commitment to advancing the careers of women in science" [2,3].





## Professor Dame Jocelyn Bell Burnell's Presentation

Bell Burnell told the audience: "We've assumed the problem is with the women, not with the way scientific society works. Be persistent. Take risks – surprise yourself! One failure does not make a disaster. Aim as high as you can. Keep your options open. Make women braver, more willing to put in grant applications, to apply for promotion, to apply for jobs. Get a prize for the institution that's the most women friendly... and they'll compete for it!".

She ended her thought-provoking talk with a quote by Laurel Thatcher Ulrich: "Well-behaved women

seldom make history".

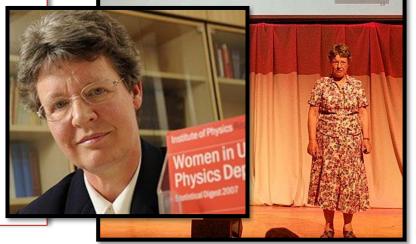
Regarding institutional changes, Prof. Bell Burnell remarked that "several UK funding agencies require a university / department to have the Athena Swan accreditation before applying for grants." (taken with permission from Ref. 3)

### Fix the women!

- Make women braver, more willing to put in grant applications, to apply for promotion, to apply for jobs.
- Special training coursed for women to address these deficiencies.
- NB Assumes the problem is with the women;
   no problem with the way science/society is run!

#### 'Institutional Change'

- Athena Swan programme setting it up how women-friendly is your university or department?
- Some UK funding agencies now require a university/department to have this accreditation before it can apply for research funds.
- CHANGE HAPPENING! ffff speak!



### **Professor Athene Donald's Presentation "Reflections on Not Fitting In"**

Professor Dame Athene Donald spoke of many 'firsts' including being the "first woman to be professor in a UK university and Master of a Cambridge college", often the only woman on scientific or policymaking committees, a trailblazer for women in physics and a "gender champion at Cambridge" [4]. She referred to herself as "a woman showing that science is a normal activity for women to do".



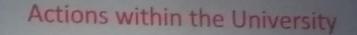
(taken with permission from Ref. 3)

"She began initiatives to support women returning from maternity leave, offered CV advice and frameworks for promotion, ran workshops on confidence and impostor syndrome [5], and helped postgrads with career advice. But with great power came great responsibility – from broadcast to print media, everyone wants Donald's comment. Today, she advises broadly, from academia to pre-19 education and even parliament and the hardest part is learning to say no to other people's requests". [4]

### **Prof. Athene Donald's advice:**

"The need for support does not go away, although the form in which is required may change"; "Friends, mentors and sponsors are all-important"; "If you hit roadblocks, you can either let them block you, knock them down, or find ways around them"; and "I believe scientists should use every opportunity to talk about science on mainstream radio as opposed to (but not instead of) specifically science programs".

(Source: Ref. 3)

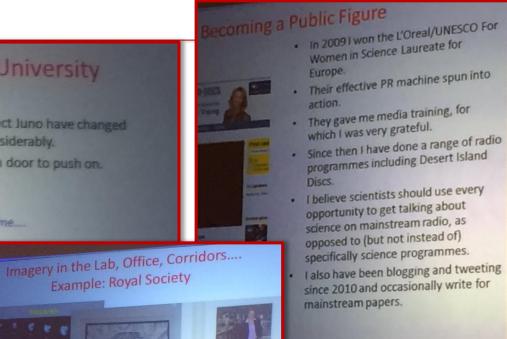


Firstly, within the UK Athena Swan and Project Juno have changed attitudes towards doing something very considerably.

That meant there was something of an open door to push on.

- Returning Carers
- CV mentoring and promotion sessions
- Workshops on confidence, impostor syndrome...
- 'Cake and Careers' sessions

Some resources were put towards he Swan applications together eg in colle practice.



### **Professor Dame Julia Higgins's Presentation**

Dame Julia Higgins is the President of the Institute of Physics. She was "the first woman to become both a Fellow of the Royal Society and of the Royal Academy of Engineering" [4] and one of the founders of the UK Athena Swan (Scientific Women's Academic Network) charter in 1999 in the UK.

Discussing the low numbers of women in physics a few decades ago, Dame Julia Higgins said:

"I had always assumed that if I looked over my shoulder there would be more following up behind, but there weren't". She added, "The best thing that I could do for women in science was to be one and to be successful."

(taken with permission from Ref. 3)



"What I find really exciting about physics is that you can be curious – you are always asking 'why' or 'how'. " (*Prof. Dame Julia Higgins, IOP website*)

#### **Professor Gabriela Gonzales's Presentation**

She is the former spokesperson for the Laser Interferometer Gravitational-Wave Observatory (LIGO) project. In order to succeed, the LIGO project pushed the sensitivity, noise level, and amount of light captured by the observatory beyond the state-of-the-art so that they could study very distant astrophysical phenomena.



Speaking of the first detection of gravitational waves Professor Gonzales told the audience: "It has been very exciting, but it's going to be even more exciting." "Lots of people think success is a big discovery" but "success is being happy in what you do". (taken with permission from Ref. 3)

### **ICWIP Workshops**

The workshops were filled with interesting discussions, hands-on exercises and demonstrations on the following topics:

- Gender Studies and Intersectionality;
- Improving the Workplace/Science Practice and Ethics;
- Professional Development and Leadership;
- Cultural Perception and Bias;
- Physics/Science Education.



Presentation by Prof. Daniela Bortoletto,
Oxford University during the workshop on
Professional Development and Leadership

Presentation by Prof. Emma Chapman, Imperial College, UK during the Workshop on Cultural Perception and Bias



# Workshop on Gender studies and intersectionality

"In this workshop, participants will learn about the research on gender studies and intersectionality in the context of science, technology, engineering, and math (STEM) with a focus on physics specifically, given gender and racial disparities are most pronounced in this discipline." [6]

Canadian team member Eden Hennessey presented an overview of gender studies and provided an introduction to the concept of intersectionality. "Across the workshop sessions, some attendees expressed concern about addressing too many identities instead of examining only gender, which is, in itself, still a prevalent issue. These conversations suggest that discussing research on intersectionality is still needed to fully communicate how different identities interact to create unique and challenging circumstances for women in physics" said Hennessey. (taken with permission from Ref. 3)



Workshop organizers/presenters



Canadian student member Anum Khattak interviewed conference delegates for the My STEM Story project – a website that features stories of women physicists from every continent.

### WHAT'S YOUR STORY?

See more @ www.mystemstory.wlu.ca

We invite you to share a story that reflects your life in physics.

Perhaps it's a memory of the first scientific concept that sparked your curiosity, or a mentor who nourished your sense of wonder.

It may be the story of a research breakthrough - or failure - and how it changed your thinking.

It could be the story of a challenge you faced as a physicist, and how you overcame it.

We welcome any story that conveys an experience or perspective that has shaped the scientist and person you have become.

Share Your Story

# Workshop on **Professional development and leadership**

In the Professional Development and Leadership workshop, a Taiwanese delegate showed that implementing best practices for grant selection, increases the possibility of women receiving grants. The workshops were summarized by the leaders, and resolutions adopted, including one which sets a number to the female speakers invited to IUPAP sponsored conferences.

(taken with permission from Ref. 3)

### Visit of Nobel Peace Prize laureate Malala Yousafzai

The conference ended with a surprise visit from the youngest ever Nobel Peace Prize laureate Malala Yousafzai, who spoke of the importance of education for young girls and the need to get young girls interested in science at an early age through joint efforts of "schools, parents and communities" [4].

She told the audience, "I decided to speak out because there was no other option. If you stay silent nothing will change". She also presented an overview of her recent "Girl Power Trip" with the Malala Fund [7].

(taken with permission from Ref. 3)







### **Recent Activities for Canadian Women in Physics**

- Physics and innovation go hand in hand and physicists are involved in many sectors of Canadian economy, with the education and health care sectors employing a larger numbers of physicists.
- Recruitment and retention efforts and a careful mentoring of new hires triggered a gradual increase in the number of women physicists in the Canadian workforce, representative of a pool of talented people with a lot of potential.
- As scientists influence the focus of research and the general development of the society, increased interactions between female physicists and those who set policies at social and technical levels.

### **Recent Activities for Canadian Women in Physics**

- Increasing numbers of female physicists are appointed to committees that fund research projects or advise governments on issues that are closely related to their field of expertise.
- It is no surprise that the improvements "are the result of interdisciplinary efforts by academic institutions working together with provincial or federal government agencies, the Canadian Association of Physicists, and organizations for the promotion of science, making use of today's communication opportunities." [3]

Foreword – Women in Physics: Gender and Diversity at Work, by Adriana Predoi-Cross, Gillian Butcher, and Shohini Ghose, Guest Editors

International Conferences on Women in Physics (ICWIP), by Gillian Butcher, Adriana Predoi-Cross, and Shohini Ghose

Is There a Land of Equality for Physicists? Results from the Global Survey of Physicists, by Rachel Ivie and Susan White

Against the Stereotype Threat, by Arundhati Dasgupta and Véronique Pierron-Bohnes

Will Mentoring Bridge the Gender Gap in Indian Science?, by Anitha Kurup

Towards Gender Equity in Physics: Gendered and Gender-neutral Interventions, by Prajval Shastri

An Eclectic Historical Perspective on Advancing Women in Physics, by Beverly Karplus Hartline, Mildred S. Dresselhaus, and Judy Franz

Girls and Physics: Four Contrasting National Situations, by Ann Marks, Cathy Foley, Adriana Predoi-Cross, and Nora Berrah

Increasing Girls' Participation in Physics: Education Research Implications for

Practice, by Marina Milner-Bolotin

Education in Brazil, by Marcia C. Barbosa

Imaginative Methods in Science Education
Dina Izadi, Nona Izadipanah, Masoud Torabi Aza

Cesar Eduardo Mora Ley

Volume 71, No. 2

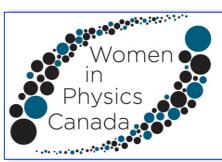
Physics in Canada La Physique au Canada

**5**th The IUPAPInternational Conference in Women in Physics took place in Waterloo, Canada in 2014, the first time on our continent. With over 90% of attendees being women, conference the celebrated the accomplishments of physicist from women

different parts of the



world.





The Women in Physics in Canada conference series started in 2011, and its sixth edition took place at the end of July 2017 at the Institute for Quantum Computing of the University of Waterloo in Waterloo.

This conference series is organized by and for women graduate students and the format consists of plenary speakers and parallel sessions for students to showcase their research. Workshops and panel discussions focused on the status of women in physics at a critical career stage when their strengths, motivations, and dedication to physics are tested are also part of the program.





**IOHN R. DUTCHER** 

Professor, Department of Physics Canada Research Chair in Soft Matter & Biological Physics Director, Nanoscience Program, University of Guelph



SHOHINI GHOSE

Professor, Physics & Computer Science Director, Centre for Women in Science, Wilfrid Laurier University



JOAN VACCARO

Associate Professor, Griffith University in Brisbane, Australia



AND MORE



- "The Canadian Conference for Undergraduate Women in Physics (CCUWiP) gathers physics students and professionals from across the country, building networks and encouraging women in science.
- This professional conference gives undergraduate participants an opportunity to take part in plenary lectures, panels, workshops, student talks and poster presentations.
- Plenary speakers will come from various areas of physics including academia, industry, education, and government. Panels will present undergraduate research opportunities, discuss graduate studies, career paths, women in science, gender bias, and mental health & LGBTQ+ issues in physics. "(taken from https://www.physics.mcmaster.ca/ccuwip/)

This conference brought together about 100 students and plenary speakers and panelists who talked about their scientific work and participated in lively discussions. This year's CCUWIP featured Nargis Mavalvala as a keynote speaker on gravitational waves, a recent major scientific discovery. [3]

## "Victoria Kaspi, neutron star researcher at McGill, wins \$1M Herzberg medal" headline of CBC news Canada



"An astrophysicist who studies exotic "zombie stars" has become the first woman to win Canada's top science prize.

Victoria Kaspi, a professor and Canada research chair at McGill University, is this year's winner of the Gerhard Herzberg Canada Gold Medal from the Natural Sciences and Engineering Research Council of Canada.

The prize, which comes with a \$1 million research grant, has been awarded annually since 1991 to recognize "sustained excellence and overall influence" of research conducted in Canada" (from http://www.cbc.ca/news/technology/herzberg-kaspi-1.3205517)

Dr. Victoria Kaspi is the first woman to receive the top recognition for scientists in Canada since 1991. Dr. Kaspi also delivered the Herzberg Memorial lecture at the Canadian Association of Physicists (CAP) Congress in 2016 and was the first woman to ever be invited to do so.

(taken with permission from Ref. 3)

# The Committee to Encourage Women in Physics of the Canadian Association of Physicists (CAP)

Active since 1983, with both male and female members, the committee:

- Works to present positive images of physics and physicists to counteract the negative stereotypes in popular culture
- Organizes panel discussions about the status of female physicists in Canada and a plenary session at the CAP annual congress.
- The most recent CAP Congress in 2017 included an interesting panel discussion on equity with Elizabeth Boston (Director of NSERC's Mathematical, Environmental and Physical Division within the Research Grants and Scholarships Directorate); Shohini Ghose (CEWIP Chair); Laura Gree n(President of American Physical Society) and Arthur McDonald (Canadian Nobel Laureate in Physics). [3]

### The Committee to Encourage Women in Physics in Canada

Although we have seen many improvements in the past two decades, the percentage of women faculty in physics in universities is, unfortunately, still stagnant at 12%. [3 and references therein]

Efforts to increase diversity in physics are evident. In 2017 CEWIP elected its first transgender chair, who is also a Professor of Physics at University of Toronto. [3]



- Other activities of CEWIP include:
- proposing female speakers for the CAP Lecture Tour
- producing a directory of women in physics in Canada
- organizes delegations to attend the International Conferences on Women in Physics

..... for more details please see www.cap.ca

# Other areas where the Canadian Association of Physicists (CAP) makes an impact

- Through its activities to minimize the socio-economic and professional gaps between women and men, CAP encourages universities to revise physics curricula and programs to include interdisciplinary studies or combined honors /dual majors (e.g. medical physics, biophysics, environmental physics...) which often encourage the participation of women. [9]
- Make the career path more predictable. Both genders suffer from the unpredictability and requirement of mobility in an academic physics career, and this can also conflict with the desire to start a family (Ivie and Guo 2005; CERN Courier, June 4, 2007 Power and prejudice: women in physics).
- Awareness of discrimination. Nobody wants to discriminate against others; the use of stereotypes and prejudice is a part of the human mind. It is therefore important to be aware of how these properties affect the way that we evaluate and treat others. Awareness of discriminating procedures have caused changes. (Source: CERN Courier, Jun 4, 2007 Power and prejudice: women in physics)

# Activities of the Canadian Association of University Teachers (CAUT)

- •The CAUT is actively ensuring that women in academia, all professional levels, are offered opportunities on par with their male colleagues.
- •Even though recent years have seen improvements in the ratio of women to men in physics in academia, a short publication of the CAUT reports that, "All women—but particularly Aboriginal and racialized women—continue to be underrepresented in senior academic ranks and are more likely to experience precarious employment" (see Ref. 4 of [3]).
- In 2017 CAUT submitted a set of recommendations to the Standing Committee on the Status of Women of the Canadian Parliament that "will improve women's economic security and leadership, not only in academia, but across all of Canadian society" (see Ref. [5] of [3]).

### **Professional Participation Rates in Canada**

- At national level, activities that contribute to lowering the occurrences of discrimination and hostile activities toward women physicists are:
- Efforts by NSERC, CAP and academic institutions to ensure transparency in selection processes for scholarships, research funding, work related positions and membership on committees.
- Increasing the number of female physics faculty members in Canadian academia (four or more).
- External critical assessment of the climate and environment for women in their physics departments. Significant progress has been made in developing a friendly, open, invigorating, welcoming climate towards women colleagues.

### Activities of National Sciences and Engineering Research Council of Canada (NSERC) to increase the representation of women in physics

### The University Faculty Awards (UFA) program

Run during 1991 to 2009 (including its predecessor WFA); 5 year program; provided incentives to universities to offer a position to a woman or minority physicist

Chairs for Women in Science and Engineering Program

Funded in 1996; 5 year program (renewable once)

- NSERC encourages grant selection referees, "to take the 'unconscious bias test'" before reviewing grant applications. [3]
- In 2017 NSERC produced a video on pioneering women in Canadian science in 2017. [3]
- Out of the 130 Canada Research Chairs appointed by NSERC by 2016, only 17% are women, a number that NSERC and science policy advisors hope to increase. [3] However, only 1 of 26 is a female Canada Excellence Research Chair.

### Early physics education in Canada

- Canadian academic institutions and non-profit organizations are making efforts to generate interest in science and physics at an early age, preferably before secondary school. Some programs run year round, while others are structured as girls-only summer camps.
- A carefully planned school curriculum or extra-curricular activities, rich hands-on demonstrations, practical examples and applications may also spark girls' interest in physics.
- Activities help female students see the connections between science and everyday life and gain confidence in their science achievement and encourage their enrollment in future science courses.

  Source: "GIRLS AND PHYSICS: FOUR CONTRASTING NATIONAL SITUATIONS"

Source: "GIRLS AND PHYSICS: FOUR CONTRASTING NATIONAL SITUATIONS" by A. MARKS, C. FOLEY, A. PREDOI-CROSS, N. BERRAH, Physics in Canada 72(2) 2015



### **Examples of Early Physics Education Programs in Canada**

- •The outreach team of the Perimeter Institute promotes the power and fun of physics to students and the public. Examples of their activities are EinsteinPlus Teacher Workshops, an International Summer School for Young Physicists and an award-winning documentary.
- •Local and Regional Science Fairs have a Science Olympics component where often the enrolment of girls exceeds that of boys.
- •In addition, scientists make visits to schools in their district and through clear language communicate their love and enjoyment of physics to students and their educators.
- •Let's Talk Science is an award winning, national, charitable organization that delivers science learning programs and services to children and teenagers.
- ➤ Girls are interested in science, and it is up to all of us to design activities to generate and maintain their interest in physics, and in science in general.



### SCIENCE POLICY AND A FEMALE SCIENCE MINISTER IN THE GOVERNMENT

- In 2015, Canada elected a new government under Prime Minister Justin Trudeau, and much to the relief of feminist observers, women comprised half of his cabinet.
- A new science ministry was created, headed by a female scientist, Hon. Kirsty Duncan. She has initiated several positive efforts to increase the number of women and indigenous people interested in science, and to remove gender biases from policies of academic institutions.



• In April 2017, Canada's Fundamental Science Review recommended, "a funding increase of \$1.3 billion for basic, nontargeted research," which among other issues will address the need for funding for individual, independent research programs. The recommendations for granting agencies related to the distribution of funds include "hard equity targets and quotas where persistent and unacceptable disparities exist."

## Her Excellency the Right Honourable Julie Payette, 29<sup>th</sup> Governor General of Canada

She urged Canadians to work together on issues such as climate change, migration and poverty. "Anyone can accomplish anything and rise to the challenge as long as they are willing to work with others, to let go of the personal agenda, to reach a higher goal and to do what is right for the common good. This is exactly what I hope my mandate as the governor general will reflect," Payette said.

Before assuming office, she was a businesswoman, former member of the Canadian Astronaut Corps, and engineer. Source:

https://en.wikipedia.org/wiki/Julie\_Payette

The opportunities to become an astronaut in Canada were far and few.







### So, should women need to win two Nobel prizes to get noticed?

No. And no, women should not have to wait another century for an equal seat at the table. No, this is not just a woman's problem as pointed out by Professor of History of Science at Stanford University, Londa Schiebinger, we must move from 'fixing the women' to 'fixing the system'. And this benefits not just women, but society as a whole, as well as the economy by potentially doubling our skilled workforce.

We have come a long way, but there are still miles to go.

Foreword – Women in Physics: Gender and Diversity at Work, by Adriana Predoi-Cross, Gillian Butcher, and Shohini Ghose, Guest Editors





### References

- 1.http://icwip2017.iopconfs.org/655144
- 2.Sarah Tesh, IOP Physics World blog, <a href="http://blog.physicsworld.com/2017/07/21/one-woman-can-change-a-lot-if-she-is-determined/">http://blog.physicsworld.com/2017/07/21/one-woman-can-change-a-lot-if-she-is-determined/</a>
- 3. Adriana Predoi-Cross, Arundhati Dasgupta, Michael Steinitz, Erin Aucoin, Annum Khattak, Eden Hennessey, Shohini Ghose, Report on the 6<sup>th</sup> International IUPAP Conference for Women in Physics, Physics in Canada 73(3) 2017.
- 4.Jessica Wade, IOP Physics World blog, <a href="http://blog.physicsworld.com/2017/07/27/great-dames-a-tribute-to-the-game-changers-at-icwip/">http://blog.physicsworld.com/2017/07/27/great-dames-a-tribute-to-the-game-changers-at-icwip/</a>
- 5.Rose Clance, P., & Imes, S. (1978). The imposter phenomenon in high achieving women: Dynamics and Therapeutic Intervention. *Psychotherapy Theory, Research and Practice, 15* (3). (<a href="http://www.paulineroseclance.com/pdf/ip\_high\_achieving\_women.pdf">http://www.paulineroseclance.com/pdf/ip\_high\_achieving\_women.pdf</a>)
- 6. http://icwip2017.iopconfs.org/655148
- 7. Malala Fund: <a href="https://www.malala.org/">https://www.malala.org/</a>
- 8. Adriana Predoi-Cross, Arundhati Dasgupta, Michael Steinitz, Erin Aucoin, Annum Khattak, Eden Hennessey, Shohini Ghose, Update on the Status of Women in Physics in Canada, Proceedings of the 6<sup>th</sup> Internation Conference on Women in Physics, American Institute of Physics, in press (2018).

# Highly equated Cosadian women may not encounter gender discrimination until they encounter the so called "maternal wall" which hinders advancement in their professional careers

e "Maternal Wall" in Canadian Academi

- professional mothers simply are unable to find the overtime hours that are often both expected and required for advancement and success in their professions
- may find themselves "mommy-tracked" both financially and on the professional advancement scale, with respect to their male counterparts
- the pay gap between mothers and women of the same age who have no children is now larger than the wage gap between men and women from the same age group
- organizations such as the Association for Research on Mothering at York University, are making efforts to find strategies to help mothers cope with the "maternal wall".



### Canadian Dual Career Couples or "the two-body problem"

- •Recent years have been marked by steady increased enrollment of women in physics graduate programs in Canada. However, we do not observe an increase at the same rate in the numbers of women in the physics workforce, in academics, industry and government laboratories.
- Possible reason: more than half of married women physicists are married to Ph.D. scientists, and securing two appropriate jobs in the same geographical region can be a challenge.
- •Candidates of either sex may reject an offer or leave a job if their spouse does not obtain satisfactory employment.

# physics makes the forld go found Balancing Family and a Career in Canada

Several programs assist:

### Paid parental leave benefits

- part of the Canadian unemployment insurance system
- and may be taken by either parent, for a newborn or adopted child for anyone with a permanent job in academia, industry or government

### Paid parental leave for students and postdocs

- NSERC may assist in making available paid maternity leave for graduate students and postdoctoral researchers
- can eliminate career gaps which tend to have a detrimental effect on securing a subsequent position or job

# phoses makes the corledge found a Career in Canada

Several programs assist:

### **Compassionate Care Leave**

for people who must be absent from work to care for a gravely ill family member

### **On-campus Child-care**

most Canadian universities have insufficient capacity to fill the campus community's childcare needs, resulting in waitlists hundreds long

### Pause of the Tenure Clock

many, but not all, Canadian universities have policies by which faculty may extend the pre-tenure period, typically by one year per pregnancy