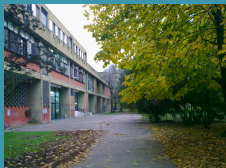


# Gender-related policies of the International Union of Pure and Applied Physics, IUPAP

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The International Union of Pure and Applied Physics (IUPAP) was created in 1922 to assist in the worldwide development of physics, to foster international cooperation in physics, and to help in the application of physics toward solving problems of concern to humanity. It now has 59 member countries.

It has an executive committee, commissions organized around physics research topics and working groups that are created temporarily to address specific problems.



The creation of the WG on Women in Physics was decided at the 1999 GA:

- to survey the present situation and report to the Council and the liaison committees.
- to suggest means to improve the situation for women in physics.



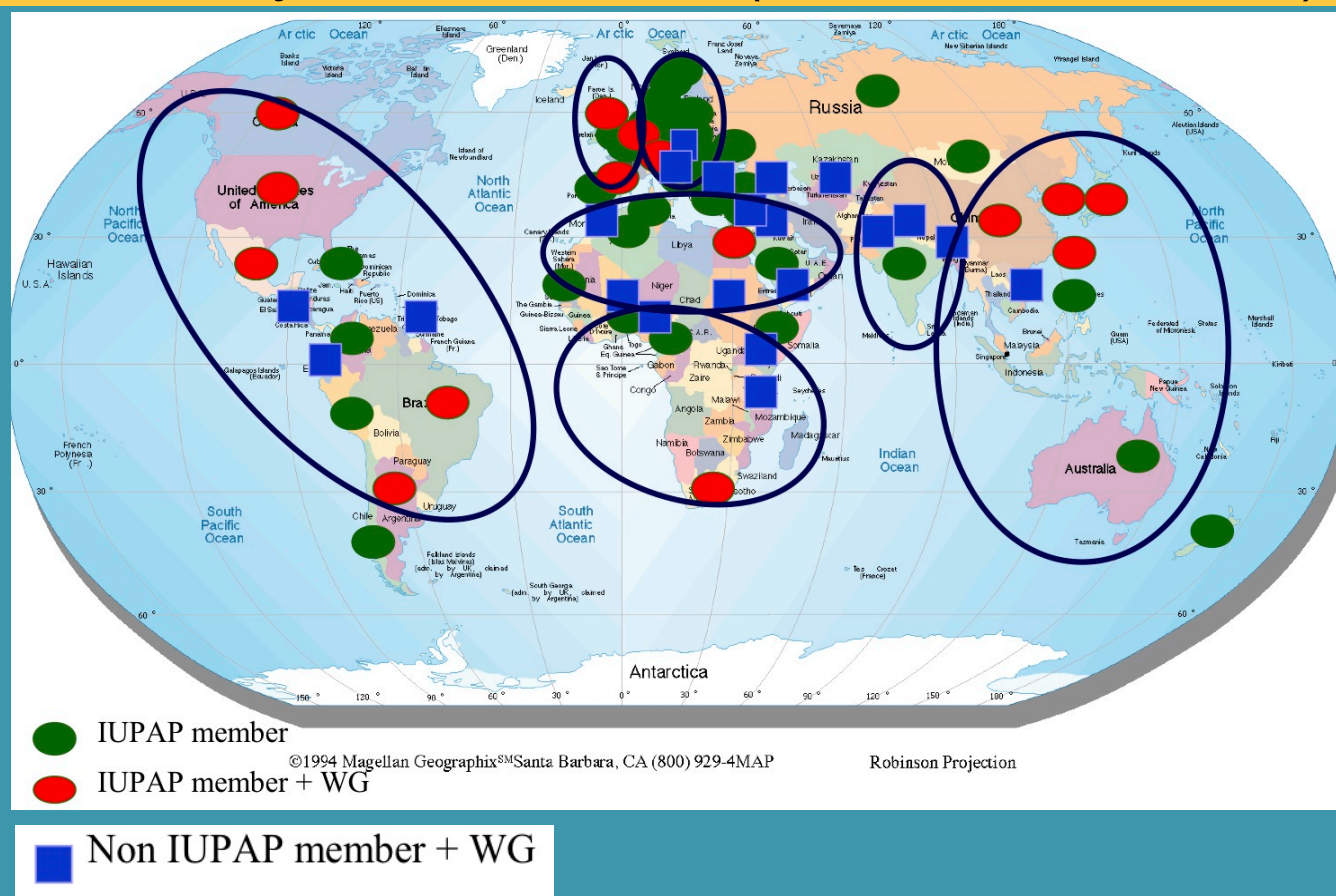
Working Group, June 2016



The creation of the Working Group led to the formation of a very large network of women physicists.

From the very beginning the activity was organized through country teams with a team leader that acts as the contact point.

We reached out to many more countries than IUPAP members. Country teams in 2007 (we have more now):



One of the first activities of the Working Group was the organization of an International Conference on Women in Physics in 2002 in Paris. It had over 300 participants from 65 countries.

It was the first time I've heard about the "old boys club".

ICWIPs have been organized once every three years since 2002.

Paris, France, 2002



Rio de Janeiro, Brazil, 2005



Seoul, South Korea, 2008



Stellenbosch, South Africa, 2011



Waterloo, Canada, 2014



Birmingham, UK, 2017



ICWIPs provide a platform where (disciplinary or regional) networks and mentoring schemes can be established. Attendance is by country team, with number limits so that all countries are equally represented. Travel grants are awarded to participants from less developed countries.

Lately, ICWIPs have six main types of activities:

- Plenary talks, most of them by women physicists to talk about their research intermixed with their personal life history.
- Country Poster Session in which each country team presents an account of their local situation
- Scientific Poster Session, for young female physicists to share their work
- Outreach activities
- Workshops on specific issues related to gender or the practice of science in general
- Final assembly where recommendations and resolutions to be presented at the IUPAP General Assembly are drafted

**Workshops have addressed (discussed!) the following topics:**

- Gender Studies and Intersectionality
- Improving the Workplace/Science Practice and Ethics
- Professional Development and Leadership
- Cultural Perception and Bias/Learning from regional differences
- Physics & Science Education/Attracting Girls into Physics
- Balancing Family and Career

**Workshop discussions lead to recommendations that are then presented to the IUPAP for their adoption. Country team members take these ideas back to their own countries too.**

**Among them, there were recommendations for the IUPAP to:**

- Include women in its commissions
- Check that women are among invited speakers and in conference committees of IUPAP funded conferences
- Require that IUPAP sponsored conferences have outreach activities that provide a gender-balanced vision of the field
- Require that women are taken into account for prizes and awards

# ICWIP17, Birmingham, UK, July 2017

It was hosted by the IOP in partnership with the Universities of Birmingham, Nottingham and Warwick.

## **Activities and numbers:**

- 212 participants representing 48 countries
- ~1/3 of the participants, primarily from less developed countries, received Travel Grants from funds raised by the IUPAP Working Group and the LOC
- Nobel Peace Laureate Malala Yousafzai spoke as a guest and interacted with delegates
- Plenary lectures were given by Dr Gabriela Gonzalez, Prof Francisca Nneke Okeke, Prof Xucun Ma, Prof Dame Athene Donald, Prof Halina Rubenstein-Dunlop, and Prof Teresa Lago
- Participants attended the award of the President's Medal of IOP to Prof Dame Jocelyn Bell Burnell and piano concert by a young performer.
- Prof Dame Julia Higgins addressed the banquet; sponsors Northrop Grumman provided a talk on the James Webb Space Telescope

## **Activities and numbers (continued):**

- An art exhibit 'Finding Space' featured photos of the delegates, in a soundscape created from sounds recorded in the research labs of female physicists
- The Waterloo Charter for Women in Physics was specifically discussed
- Continual Professional Development workshops were hosted on a new approach to engaging girls with science qualifications and careers, Unconscious Bias, and How to Get Published; and the Quantum Technology Lab hosted tours
- Several travel grant holders spent an extra day in University of Birmingham labs to foster collaboration with researchers
- Proceedings will be published, thanks to AIP.
- Information on the Gender Gap in Science Project was given

The denial of visas is an ongoing concern for the conference and for the Working Group. Seven visas were denied or delayed long enough to prevent participation. This issue has been considered when choosing Australia as the organizer of ICWIP2020.



# ICWIP17



# Welcome, Malala Yousafzai

ICWIP17

International Conference on Women in Physics

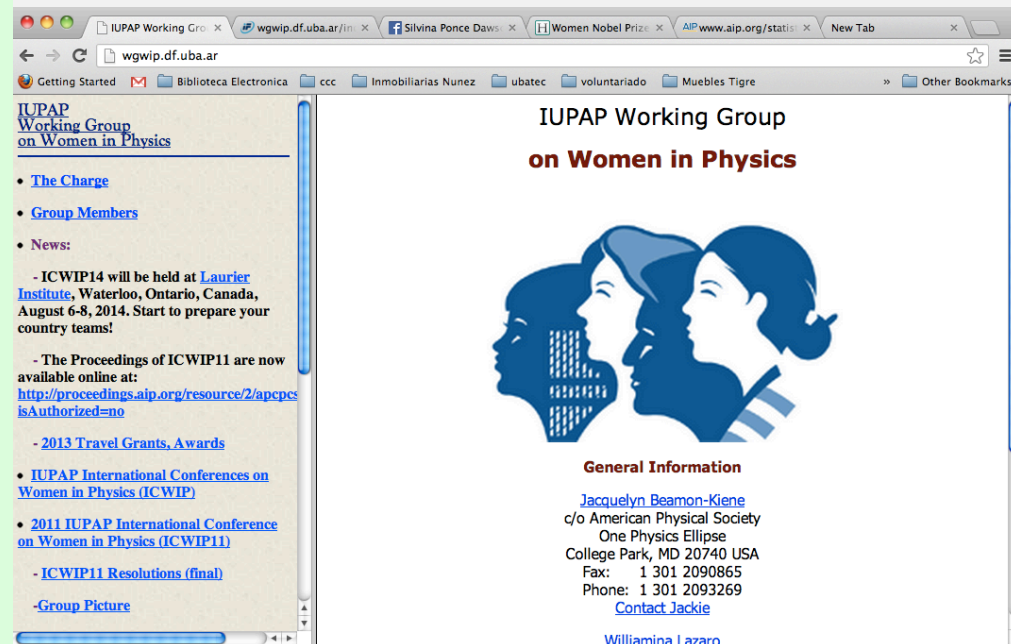
16-20 July 2017



From the conference, each team should bring to its own country ideas to put forward. It is the time for them to work.

The Working Group maintains an informative web page ([wgwip.df.uba.ar](http://wgwip.df.uba.ar)) which includes:

- List of country team members and team leaders with contact information
- Results of ICWIPs workshops and discussions
- Resolutions presented at the different IUPAP Assemblies
- Useful resources



The screenshot shows a web browser window with the URL [wgwip.df.uba.ar](http://wgwip.df.uba.ar). The page title is "IUPAP Working Group on Women in Physics". The main content area features a blue graphic of three women's profiles in silhouette, with the text "IUPAP Working Group on Women in Physics" above it. Below the graphic, there is a "General Information" section with contact details for Jacquelyn Beamon-Kiene and Williamina Lazaro. The left sidebar contains a navigation menu with links for "The Charge", "Group Members", "News", and "Group Picture". The "News" section includes announcements for ICWIP14 in 2014 and ICWIP11 proceedings.

Links to Gender Gap Project and to Survey. Survey announced.

We try to keep it up to date, but we are also women physicists doing research, having families, etc, so...

Another important activity of the Working Group has been awarding Travel Grants to women from developing and Eastern European Countries. We do it at the non-ICWIP years.

These grants serve to fund the attendance of these women at regional or international conferences and schools.

In 2012 we received 83 applications and awarded 22 grants for women from Argentina, Brazil, China, Ghana, Hungary, India, Iran, Kazakhstan, Kenya, Peru, Poland, Romania and Ukraine.

In 2013 we received 64 applications and awarded 15 grants for women from Argentina, Belarus, Brazil, Chile, Croatia, Estonia, Ghana, India, Mexico, Romania, Russia, Serbia and Uganda.

Year	2014	2015	2016	2017
Applications	108	100	30	122
Awards	48	26	23	57 (only 49 able to attend)

## International Women in Physics Day

The WG chose February 11<sup>th</sup> (the International Day of Women and Girls in Science) as the International Women in Physics Day. In 2018, the WG encouraged the participation in the campaign launched by the Organization for Women in Science for the Developing World (OWSD) portraying stories of female physicists and physics students on social networks.

We are planning to fully launch the International Women in Physics Day in 2019, the year that marks the 20<sup>th</sup> anniversary of the IUPAP General Assembly that decided on the group's creation. In preparation for this, the group is planning to open a competition for the design of a logo to identify the Day. A redesign of its web page adding new capabilities is also being planned. By then the group expects that the "Waterloo Charter", the declaration of principles that it has been working on, will be finalized and adopted by the IUPAP.

The IUPAP created the position of Gender Champion three years ago and decided that one VP would be assigned to occupy this position. The person occupying this position is elected at the GA, which is held once every three years. New Gender Champion elected in October, 2017.

### **Gender Champion-WG5 liaison**

Discussing with members of the IUPAP Working Group on Women in Physics (WG5) we decided that:

The Gender Champion will be an ex-officio member of WG5. As such, she/he will participate of the discussions and be informed about the decisions but will not have voting rights on these decisions. The Chair of WG5 will put together some Terms of Reference for WG5 that will include this definition of the liaison.

## About rules for IUPAP endorsed conferences.

**On web page until April, 2018:** *IUPAP insists that women should be represented, in reasonable proportions, as organizers, speakers, and attendees of IUPAP sponsored meetings. The presence of women on the local and international committees and as plenary and invited speakers is a condition for IUPAP sponsorship.*

**Now ammended to include that:** *the 29th General Assembly established, as a recommendation for all affiliated national institutions, that the 20% target (of female participation in conferences) be achieved. And it has been defined, [...] that meetings with female participation of less than 10% are not accepted. The organizers will have a deadline of a few weeks to make the correct corrections”.*

It is not clear yet how this will be enforced (considering difficulties in some regions to meet the target).

The reports presented by the organizers of conferences sponsored or endorsed by IUPAP contain information on the number of women.

**Conferences sponsored and endorsed in 2017 and 2018.**

***Number of conferences analyzed:*** 19

***Average number of attendees:*** 403

***Average number of female attendees:*** 76 (19%; min= 8%, C4; max= 42%, C19)

***Average number attendees giving invited papers:*** 45

***Average number of female attendees giving invited papers:*** 7 (17%; min=3.6%, C5; max=38%, C19)

***Average number of members of International Advisory Committee:*** 59

***Average number of female members of IAC:*** 15 (25%; min= 5%, C5; max=42%, C14; also, one with 4 IAC members all of them female, C13)



# Information on conferences sponsored or endorsed by IUPAP: Statistics on gender distribution.

**Data from 21 conferences in 2015** (collected by Alinka Lépine-Szily):

***Female attendees:*** mean value 18%, min 8%, max 50%.

***Female invited speakers:*** mean value 14.5%, min 4% max 27%.

***Female members of international advisory/organizing committee:*** mean value 16%, min 0%, max 39%

**Data from 35 conferences in 2016** (collected by Alinka Lépine-Szily):

***Female attendees:*** mean value 19%, min 5%, max 52%.

***Female invited speakers:*** mean value 19%, min 2% max 64% (Phys Educ Conf in Brazil).

***Female members of international advisory/organizing committee:*** mean value 16%, min 0%, max 50%

Rule for IUPAP commissions: at least 4 women in each of them (represented countries make proposals)

Rules for commission chairs?

How to keep track of the statistics?

Should we specify M or F by the names? Who decides who is female or male? Auto-perception of gender, cultural differences, etc.

**Rules for IUPAP endorsed/sponsored conferences.**

At the 2017 GA it was also decided that IUPAP sponsored conferences should have a "session" on inclusiveness in physics. We are in the process of defining what this means and will be requested.

# **Rules for IUPAP endorsed conferences.**

## **Statement about harassment**

IUPAP requires that supported conferences publish on their websites and in all publications related to the Conference a specific statement on harassment. Among other things, the statement says:

“The conference organisers will name an advisor who will consult with those who have suffered from harassment and who will suggest ways of redressing their problems, and an advisor who will counsel those accused of harassment. The conference organisers may, after due consideration, take such action they deem appropriate, including warning or expulsion from the conference without refund.”

## **Current difficulties controlling/enforcing the rule**

Right now, there is no item on the conferences report form where the organizers could inform whether there was such a problem at the conference and how they handled it.

There is no requirement either for the organizers to describe how they would manage such situations when applying for IUPAP sponsorship or endorsement. Can we add something about it in the application and report forms?

It would be good if IUPAP could give a set of guidelines (available on its web page) on how to act in these cases (particularly, how to preserve the privacy and fairness of the whole process). In that regard, the Waterloo Charter that we have drafted with the Working Group on Women in Physics which contains recommendations could be useful.

# The Waterloo Charter

A declaration of principles on inclusivity in physics +  
Guidelines to advance towards a more inclusive practice.

It was initiated at the 5th IUPAP International Conference for Women in Physics, Waterloo, Canada, August 2014.

It is based on the rubrics of the Baltimore Charter and the Pasadena Recommendations formulated by the American Astronomical Society in 1993 and 2003.

It is also shaped and guided by the principles dictated by Project Juno initiated by the Institute of Physics, UK.

Its main body contains the declaration of principles and the rationale for its need.

It is appended with a set of recommendations for key players of the physics community at all levels to implement strategies that will enable women to succeed within the existing structures of physics and allow the desired acceptance of diversity to develop fully.

During the sixth ICWIP (Birmingham, UK, in July 2017) we had a broad discussion about the Charter and agreed on a set of guidelines on how to finalize it. The new draft can be downloaded from:

[http://wgwip.df.uba.ar/Waterloo%20Charter\\_Ver7.pdf](http://wgwip.df.uba.ar/Waterloo%20Charter_Ver7.pdf)

In particular, we decided on its current structure.

We expect that the IUPAP Executive Council will approve it at its next meeting in October/November 2018.

## Publications related to the Gender Gap in Science Project.

Paper to be published in the ICWIP17 Proceedings co-authored by Gillian, Mei-Hung, Igle, Rachel, Marie-Francoise and myself.

Paper co-authored by Igle, Mei-Hung, M-F and Rachel submitted for the proceedings of the Women without Borders Conference.

Article in the February IUPAP Newsletter (about International Day & Project), authors: Gillian and myself.

Announcement of the opening of the survey in the June IUPAP Newsletter.



Thank you!