

WG5 Women in Physics
Report for GA Oct 2021
Summary of activities Oct '20- Sept '21
Prepared by
Dr Gillian Butcher (chair)

International Conference on Women in Physics ICWIP2021

ICWIP2021 took place online in July 2021 (postponed by a year). It was hosted by Australia, co-chaired by Dr Cathy Foley and Dr Sarah Maddison. There were over 350 delegates from 60 countries, including 4 new countries who hadn't participated in an ICWIP before.

Plenary speakers who talked about their work/research and about their careers were Petra Rudolf, Jackie Ying, Ashwa Eassa, Lisa Harvey-Smith. Results from the Gender Gap project were discussed in one plenary and followed up in more depth in the workshop on Developing Countries. Plenary panel sessions included Men as Allies, with men on the panel, and the work of IUPAP, with Michel Spiro President and Silvina Ponce Dawson, President elect, discussing how IUPAP has and continues to support women in physics. Most plenaries had pre-recorded talks which were available just before the conference began for viewing at any time and a live panel discussion.

At the heart of the conference there were five Workshops, where delegates had the opportunity to delve deeply into a topic, share experiences and look at possible solutions and resolutions to take forward. The topics were on Physics Education, Intersectionality, Data Professionalism, Entrepreneurship and Developing Countries.

Country team leaders presented posters on the status of women in physics within their country, continuing the valuable resource over time and by country by the series of ICWIP conferences. Posters on delegates' research, both physics and gender/diversity topics were also presented. The poster sessions seemed to work particularly well online with good interaction and discussion.

The local organisers put a lot of thought and effort into incorporating activities to enable networking, which is problematic with a virtual meeting. The GatherTown platform allowed delegates to move around and mingle in a virtual conference space. There were special sessions for mentoring (paired mentors and mentees) and networking with discussion tables laid out (on topics such as high/low HDI collaboration). A workshop on writing was held for professional development.

The opening session included an Acknowledgement of Country, which is an important facet of Australian life, and which delegates found particularly moving. Social activities also incorporated a flavour of the host country, and included a dance workshop (with the dancers from the Acknowledgement of Country) and viewing the Penguin Parade webcam, watching flocks of fairy penguins return to their burrows at night, at a local nature reserve.

The conference was able to call on the expertise and research of The Future of Meetings, a project set up pre-pandemic to look at online meetings and conferences. The good practice they had already identified assisted in making the virtual conference a positive experience. For example information delivery content was pre-recorded to allow discussions and interaction to maximise the benefit of the live sessions. And although time zones and accessibility to people in those regions was challenging, the start and end times were varied throughout the week so that no one time zone was disadvantaged all the time. The workshops, seen as the heart of the conference, were scheduled to be at the least inconvenient time for all. We are keen to promote the good practice for virtual conferences to make them truly accessible and inclusive.

There was clearly an advantage in hosting the conference online, with more developing countries able to attend. However to make it as accessible as possible we replaced the usual travel grants for delegates from developing countries with technology grants. We received 26 applications from 11 countries, requesting items such as subscription to higher internet speed and improved computer hardware. All eligible requests were funded. Some country teams delegates were able to meet together in one place and share resources, thus extending the reach of the grant.

The papers for the Proceedings are currently being written and collated. As in previous years, the US team obtained funding from the NSF to cover the cost of the AIP producing the Proceedings.

ISC Collaborative project on the Gender Gap in Science

Although the ISC project *A Global Approach to the Gender Gap in Mathematical and Natural Sciences: How to Measure It, How to Reduce It?* <https://gender-gap-in-science.org/> has come to the end of its 3 year period of funding, there are still biannual meetings to share the follow up work being done by the partners.

Discussions are underway with Rachel Ivie and Susan White of the AIP Statistical Research Center to perform analysis of the physics data of the joint Global Survey (2018) and compare it with the responses from the previous IUPAP Global Survey of Physicists (2010).

The Standing Committee for Gender Equality in Science (SCGES) which grew out of the Gender Gap project has set up a website gender-equality-in-science.org and taken over the Gender Gap Twitter account. The IUPAP representatives on the SCGES are the (Acting) Vice President (Gender) Gillian Butcher and IUPAP Associate Secretary General Rudzani Nemutudi.

More Unions continue to join SCGES: the current number of members is 15 with discussions underway with other organisations. Online meetings are held twice a year. The first SCGES annual report is due to be completed in October, with contributions from each member.

One of the activities of the SCGES was the preparation and dissemination of a statement on the gendered impact of COVID-19. The recommendation to encourage conference organisers to reduce fees for those impacted by the pandemic was sent to IUPAP conference organisers.

WG members

The new Chair from Oct 2021 will be Lilia Meza Montes of Mexico and Vice Chair Prajval Shastri from India. The processes for choosing a new Vice Chair and new members have been formalised in an effort to make the membership more open and transparent. A call for new members, due to be sent out imminently, aims to ensure that there is good regional representation and also to acquire /maintain various skills and expertise within the WG, such as proficiency on social media.

IAPS

Following discussions between IAPS and IUPAP, communications between WG5 and IAPS have been established with both sides keen to create mutually beneficial links. A representative of IAPS was invited to ICWIP 2021 and it is hoped that there will be a more active participation at the next ICWIP.

Upcoming Activities

The call to host the next ICWIP to be held online in 2023 was sent out mid September to IUPAP Liaisons and ICWIP country team leaders. Analysis and dissemination of the results from the Gender Gap Project continues, combined with looking at ways to follow up and act on the results.

There is a growing awareness of inequalities for physicists with other minority identities so that the debate around diversity and inclusion has broadened and encompasses intersectionality. The WG5 is keen to participate in such debate and support future conversations on broadening the support of IUPAP. However, while much has been done and some regions are showing improvements, as can be read in the country papers in ICWIP Proceedings, there is unfortunately still a need to address the disparities in gender participation in physics, as evidenced in the Global Survey. At this time it is proposed that the Working Group on Women in Physics continues as is.