News & Events

A Report on the Discussion Meeting on Gender gap in Physics organized by the IPA GIPWG

A Gender in Physics Working Group (GIPWG), constituted under the Indian Physics Association in 2017, aims to provide a platform to address various issues related to gender parity in physics profession in the country. The current members of this group are Dr. Prajval Shastri (Chairperson), Dr. Suchetana Chatterjee, Dr. Srubabati Goswami, Dr. Reshmi Leskshmi, Dr. Tanusri Saha-Dasgupta and Dr. Vandana Nanal.

The first meeting of this group “Pressing for Progress: A Discussion Meeting on The Gender Gap in Physics” (https://www.icts.res.in/discussion-meeting/gapphysics2018) was held on 22nd March, 2018 at the International Centre for Theoretical Sciences (TIFR), Bangalore. The meeting aimed to address the following questions:

- What is the nature and extent of gender inequity in the physics profession?
- Why should practicing physicists care?
- What has been done so far?
- What is the way forward?

The discussion meeting was aimed primarily at physics researchers, teachers and other physics professionals, as well as students of physics at the college level and above, but was open to all interested audiences. About 50 people participated in the event and another 40 people viewed the video of the proceedings live-streamed on YouTube, and since then the video has had over 750 views. Most of the members of the GIPWG and its Advisory Panel were present in person or via remote link. There were presentations by all the members of the working group on different topics. The list of speakers and panelists were:

- Rama Govindarajan (ICTS), Prajval Shastri (IIT), Resmi Lekshmi (IIST), Suchetana Chatterjee (Presidency University), Suratna Das (IIT Kanpur), Tanusri Saha-Dasgupta (IACS), Srubabati Goswami (PRL), Anitha Kurup (NIAS), Maitri Gopalakrishna (Farivarthan Counselling, Training and Research Centre), Rohini Godbole (IISc), Shobhana Narasimhan (JNCASR), Bindu Bambah (University of Hyderabad), Sulabha Kulkarni (C-MET, Pune), Neelima Gupte (IIT Madras), Shubashree Desikan (The Hindu).

The programme started with welcome and introduction by the Dr. Rama Gobindrajan, Dean ICTS. She mentioned that it was a pleasant coincidence that 22nd March would have been 98th birthday of the Japanese Geochemist Katsuko Saruhasi, had she been alive. She was the first woman to obtain a Ph.D. degree in Chemistry from the University of Tokyo in 1957 and was the first woman to be elected to the Science Council of Japan. She started the Society of Japanese women scientists and worked on the mission of getting the equal recognition for women’s contribution to science as that of men’s.
Dr. Prajwal Shastri gave an overview on the gender gap in physics and explained the rationale behind the genesis of the GIPWG group in India. She read out messages from Dr. Dinakar Kanjilal, IPA president and from Dr. Gillian Butcher, Chair -IUPAP Working Group 5 on women in physics. The message from Dr. Vandana Nanal, who represented IPA in the GIPWG, on the role of IPA was read out by Dr. Shastri. She mentioned that the advisory panel, who played a major role in the formation of GIPWG, also initiated the publication of special issues of three major journals in India, namely, Physics News, Resonance and Current Science; edited and authored by women scientists (March 2017). One of the main reasons for the special issue being the fact that the fraction of invited articles by women authors in these journals was very small (about 10%). The need for more women representatives in decision making positions in IPA and inclusion of more women in various activities, for instance in Raman Lectures, was highlighted. Dr. Suchetana Chatterjee spoke on diversity and inclusion in physics. She emphasized on the correlations between selection procedure and skewed gender ratio in Indian research Institutes. Dr. Suratna Das shared her experiences in International Conference in Women in Physics (ICWIP) and her experiences as a female scientist on gender stereotyping and unconscious bias.

Gender discrimination and sexual harassment in academia and the limitations of addressing these via institutional mechanisms were discussed at length in presentations by Dr. Srubabati Goswami and Dr. Tanushree Saha Dasgupta. The need for combating these and creating an atmosphere of zero tolerance for sexual harassment in Indian Universities and institutes were emphasized. Dr. Anitha Kurup, a social scientist, remarked on the culture of science institutions which is sometimes hostile to women. She emphasized on the need of closer interaction between scientists and social scientists to address the gender gap in science. She also stressed on the importance of including men in these discussions. Dr. Moitri Gopalkrishna emphasized the use of drama and role of body language in addressing gender issues.

Dr. Reshmi Lekshmi presented the summary of the 6th International Conference On Women in Physics, held in the University of Birmingham from July 16th to 20th, 2017. This series of conferences were launched in 2002 by IUPAP with a purpose to understand and improve the worldwide status of women in the physics profession. In these conferences, each country is represented by a team. There were ~200 delegates from different parts of the world with a common motive to represent the status of women physicists of their country and the team India, in the 2017
conference, consisted of Dr. R. Lekshmi (team leader), Dr. S. Goswami, Dr. U. Sinha, Dr. S. Chatterjee, Dr. S. Das, Dr. P Shastri. Dr. Reshmi discussed the conference paper presented by the team India on gender issues in physics, detailing the gender statistics in various academic institutes from Ph.D. to leadership positions. It described the various measures and events organized in India in the past three years to promote gender equity. Dr. Shastri co-organized the workshop on gender studies and intersectionality.

The highlights of the conference were the country-wise statistical evidences that present the fact of women being severely under-represented in Physics. The Conference prominently focused on the stereotypes, conscious and unconscious bias, mid-career drop-outs, inequality in pay and delayed progressions in the professional career of women physicists. There were also success stories and good practices that were shared to promote the participation of women in physics and provide networking opportunities to build a strong, diverse and inclusive worldwide physics community. Noteworthy among these are the Juno project and Athena Swan Program in UK. The aim of Project Juno is to recognize and reward physics departments, schools, institutes and organizations that can demonstrate that they have taken steps to address gender equality in physics and to encourage better practice for all staff. The Athena SWAN Charter is an evaluation and accreditation program, running for over a decade in the UK, with tremendous success in enhancing gender equity for STEMM. Australia has implemented this through Science in Australian Gender Equity programme. The members of the team India participated in various workshops on the topics – improving the workplace/science practice and ethics, professional development and leadership, cultural perception and bias, unconscious bias and its negative impact in promoting diversity in workplace.

The science highlights of the conference included plenary talks by Maria Teresa Lago on Astronomy, Halina Rubinsztein-Dunlop on quantum technology, Francisca Nneka Okeke on magnetosperheic physics, Gabriela González on Observation of Gravitational Waves, Athene Donald on biological physics. The speakers also highlighted their journey and message as successful women scientists. The IOP president’s medal was conferred on Prof. Jocelyn Bell during the meeting and the team India members got an opportunity to interact with her. The team India members also interacted with Malala Yousafzai who emphasized on the importance of education for girls at all levels.

Other members of the team India, present in the discussion meeting, also shared their experiences in the ICWIP conference. The conference was an eye opener in many sense and re-energized the delegates to keep working hard towards making physics a more ventured profession for women.

After the presentations there was a panel discussion, in which the panelists expressed their thoughts on various gender related issues as well as answered questions from audiences in an interactive session. There was a vibrant discussion with very active audience participation. It was strongly felt that implicit, unconscious and unintended gender biases could inflict our recruitment processes in multiple ways and at multiple levels. There was concern expressed that institutions do not appear to have effective mechanisms to deal with sexual harassment which needs to be given serious thought. It was clear that many such discussions are required with a wider forum, and replicating the international conferences at a regional level may be desirable.

Panel discussion during the Discussion meeting on “The Gender Gap in Physics” at ICTS, Bangalore

The GIPWG plans to organize a National Conference on Women in Physics (NCWIP) following the ICWIP conferences, that have been successful in bringing issues related to women’s participations in physics at the forefront. It is expected that such a conference will give women in physics profession in India a platform to voice their concerns.

A global gender gap survey encompassing mathematical, computing and natural sciences were circulated to
scientists and researchers of all age groups in India. This effort was co-ordinated in India by Dr. Shastri as member of the Women in Physics working group of IUPAP. Other ongoing and planned activities of GIPWG include collecting statistics on women’s representation at various levels, promoting good practices, drafting model policies to address sexual harassment etc.

At the end, let us remember the quote by Ban Ki-Moon "Achieving gender equality requires the engagement of women and men, girls and boys. It is everyone's responsibility."

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Sruababati Goswami and Vandana Nanal on behalf of GIPWG

Email suggestions/contact us: gipwg.ipa@gmail.com