

Physics is a key discipline for understanding our Universe, improving the global standard of living, and solving problems confronting society. Yet, globally, the involvement of women and girls in physics continues to be limited. The Fourth IUPAP International Conference on Women in Physics, held in April 2011 in Stellenbosch, South Africa, brought together 223 women and men from 59 countries, including 36 developing countries and 20 non-members of IUPAP. Sadly, twenty IUPAP countries sent no delegates. It was the first such gathering in Africa, providing a special opportunity to stimulate networking on that continent to boost physics and expand and advance women's involvement in the growing science enterprise of developing countries. A highlight of the conference was the world-premier presentation of preliminary results from the Global Survey of Physicists, which was initiated through the resolution from the Third Conference. This Internet-based survey was administered in eight languages, and it received responses from nearly 15,000 physicists from more than 130 countries. About 25% of the respondents were female, allowing detailed analysis of educational and career pathways and experiences by gender and across various world regions and cultures. At the final conference assembly, participants unanimously endorsed the following resolutions for approval by the 27th IUPAP General Assembly in London, UK

1. To improve the effectiveness of girls' education in physics, encourage the Commission on Physics Education (C14) to collaborate with the Working Group on Women in Physics to summarize guidelines for the training of physics educators at all levels with special attention to research-based and gender-aware teaching.
2. Encourage the complete analysis of the Global Survey of Physicists and the wide dissemination through IUPAP Liaison Committees and physical societies of its results, and endorse collaborations between physicists and social scientists, to understand barriers to women's participation and advancement and to shape interventions.
3. Encourage its commissions and member countries to have a clear and transparent list of criteria for awards ensuring that women are nominated for prizes and that there are women on the selection committees for prizes and awards.
4. Request a response from each IUPAP Liaison Committee to its country's report in the Proceedings of the Fourth IUPAP International Conference on Women in Physics, including the progress of women physicists within their country and the actions taken or proposed to improve the inclusion and advancement of women in the field. The reports should be submitted to the IUPAP Working Group on Women for analysis.
5. Charge the IUPAP Working Group on Women in Physics (a) to make useful resources available globally through the Internet; (b) to analyze brief reports from country team leaders and IUPAP Liaison Committees regarding the status and progress for women in physics; (c) to organize the 5th International Conference on Women in Physics in 2014 and require IUPAP member countries to send a small delegation; and (d) to report at the 27th IUPAP General Assembly in 2011.