

2008 APS April Meeting and HEDP/HEDLA Meeting

St. Louis, Missouri

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## Saturday, April 12, 2008 1:30PM - 3:18PM –

Session D6 FIP FPS: Panel Discussion: International Gender Issues in Physics Hyatt Regency St. Louis Riverfront (formerly Adam039;s Mark Hotel), Promenade D

**1:30PM D6.00001 Session Introduction** ARTHUR BIENENSTOCK, APS President, Stanford University —

**1:35PM D6.00002 Women Physicists in the European Union : how Brussels is moving toward gender equality**, GIULIA PANCHERI, INFN Frascati National Laboratories — The policies of the European Union towards gender equality in science occupation will be discussed along three aspects: 1. Current statistics recently published by the EU will be illustrated with some comparison with similar US statistics. The latest recommendations of the Helsinki group will be presented, together with the conclusions of the Women in Science meetings organized by the EU. 2. The implementation of these recommendations will be illustrated by this speaker's experience both as independent expert for Physics Research Programs for the European Commission for the last 10 years, as well as from the point of view of having been European Coordinator of three Research Networks in Theoretical Physics from 1992 until 2006: the impact of this on young women students will be described. 3. National policies enforced through the Equal Opportunity Committees will be illustrated, with the specific case of the Affirmative Actions of Italian INFN Equal Opportunity Committee and their impact on hiring and promotion of women physicists.

**2:01PM D6.00003 Keeping Women in Physics**, MEG URRY, Yale University — In the United States women constitute a steadily increasing fraction of scientists in all fields, but progress in Physics is much slower than in other fields. Utilizing the best available talent, including women, is vital to our future prosperity and security. I discuss some of the myths and realities about why the numbers of women are low, and what steps can be taken to improve the situation. I will argue that we do not so much need to, as a colleague recently suggested to me, "pull them by the hair" to get women into Physics - rather, we need to avoid pushing them out.

**2:27PM D6.00004 Women in Physics in Latin America: why so few in leadership positions?**, MARCIA BARBOSA, Universidade Federal do Rio Grande do Sul — Women are greatly under-represented in physics in Latin America. Among all sciences, physics is the field where the increase in the number of women has been particularly slow. Because of this imbalance, many bright young people do not receive the opportunity to learn about physics and to prepare themselves for a physics career, and others are discouraged from doing so. However, the problems is not only that girls are not attracted to go to physics, they few ones that decide to follow the career find difficulties in funding and in promotions. We show that women in Latin America leave physics disproportionately with each step of career advance. Moreover, we also show that in many cases the promotion process exclude women with the same abilities of men. But, why should we care about this problem? Why should women be in physics after all? Women that have a passion for physics should be able to make a living and have a successful career in this field. But, the need of gender balance in science, it is not only a equal opportunity issue. Physics need a greater participation of female researchers in order to survive. Science is changing and it is becoming more interdisciplinary. This evolution is only possible through diversity of thought and of strategies to approach problems. Therefore, excluding women more than limiting the available pool of talented people to half of humanity, we are limiting diversity. Finally, in a society where technology is becoming quite important and is governing our everyday life and where women are highly involved in the educational process, exposing women to science generates a more scientific literate public. We show that the implementation of a few affirmative action strategies bring more balance to the promotion process.

**2:53PM D6.00005 Panel Discussion** —

## Sunday, April 13, 2008 8:30AM - 10:18AM –

Session H6 DPB FIP: Impact of Major Accelerator Projects on the Development of Emergent Countries Hyatt Regency St. Louis Riverfront (formerly Adam039;s Mark Hotel), Promenade D

**8:30AM H6.00001 Indian Participation in LHC and a Glimpse of the Road Ahead**, VINOD CHANDRA SAHNI, Raja Ramanna Centre for Advanced Technology, Indore-452013 & Bhabha Atomic Research Centre, Mumbai-400085, India — Indian high energy physicists have been using overseas research facilities for a long time especially those at CERN. In 1991, Indian DAE brought such collaborations under an institutional framework and entered into a 10 year cooperation agreement with CERN, which later helped India join the LHC program with an expanded objective. Besides participating in detector development and physics studies, India agreed to contribute to accelerator construction, where RRCAT (earlier known as CAT, Indore) was the lead Indian institution. The 1991 cooperation agreement was extended for another 10 years and new protocols were added enabling Indian participation in the LHC Computing Grid Developments and, recently, to Indian involvement in hardware for CLIC Test facility 3 and LINAC-4. Successful India-CERN collaboration in accelerator construction has led to further Indian linkage to other international accelerator related projects such as FAIR and ILC. The talk will give an overview of the Indian contributions, benefits that have resulted through them, as well as a peek into collaborative programs for upcoming and also future projects.

**9:06AM H6.00002 Impact of Pohang Accelerator on Large-scale Science Programs in Korea<sup>1</sup>**, WON NAMKUNG, POSTECH — Emerging countries pursue their industrialization based mainly on technology. However, governments of these countries often encounter difficulties pursuing a fast-track approach to advanced R&D programs due to a lack of resources, especially in trained man-power. There are a few successful countries, for example, in Korea. The government R&D budget has been increased by more than five-fold in the last decade in Korea, which has stimulated a large number of trained scientists and engineers to return home to Korea. Satisfied with positive results for industrialization based on technology, the government has now begun to promote the basic science required for improving applied science and industries. At the same time, since the successful construction and operations of Pohang Light Source (PLS) initiated by POSTECH, the Korean government, and the steel company, POSCO, the Korean government has been promoting new large-scale scientific facilities for multi-disciplinary science, for example by joining the ITER tokamak project. This paper presents recent progress in and prospects for science and technology programs in Korea as an emerging country.

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**9:42AM H6.00003 The Impact of the SESAME Project on Science and Society in the Middle East**, HERMAN WINICK, SLAC/SSRL/Stanford University — SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) is a UNESCO-sponsored project that is constructing an international research laboratory, closely modeled on CERN, in Jordan ([www.sesame.org.jo](http://www.sesame.org.jo)). Ten Members of the governing Council (Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Pakistan, Palestinian Authority, and Turkey) have responsibility for the project, led by Herwig Schopper, Council President since 1999. In late 2008 Chris Llewellyn-Smith will become Council President. SESAME was initiated by a gift from Germany of the decommissioned BESSY I facility. The BESSY I 0.8 GeV injector is now being installed in the recently completed building, funded by Jordan, as components are procured for a new 133 m circumference, 2.5 GeV third-generation storage ring with 12 locations for insertion devices. Beam line equipment has been provided by laboratories in France, UK, and US. Support also comes from EU, IAEA, ICTP, Japan Society for the Promotion of Science, the US Department of Energy and State Department, and laboratories around the world. The broad scientific program includes biomedical, environmental, and archaeological programs particularly relevant to the Middle East. Five scientific workshops and six annual Users' meetings have brought together several hundred scientists from the region, along with researchers from around the world. Training programs have enabled about 100 scientists from the region to work at synchrotron radiation laboratories. These activities have already had significant impact on science and society in the Middle East, for example leading to collaborations between scientists from countries that are not particularly friendly with each other, and to national planning emphasizing synchrotron radiation research. When research starts in 2011 this impact will grow as graduate students are trained in the region in many scientific disciplines, and scientists working abroad are attracted to return.