

C14: International Commission on Physics Education (ICPE)

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The commission continued to work proactively towards the fulfillment of its mission objectives.

Conferences Organized

ICPE 2009: Development and Innovation in Physics Education, Bangkok, Thailand, 18-24 October 2009.

This commission conference was jointly sponsored by C14 and the Asian Physics Education Network (AsPEN). A detailed report has been submitted. The proceedings are in the final stages of editing and will be published soon. Conference website is at <http://www.icp2009.net/>.

X Inter American Conference on Physics Education: Teaching of Modern Physics at Different Levels, University of Antioquia, Medellin, Colombia, 6-10 July 2009.

This conference was to be supported, in part, by IUPAP. However, some administrative difficulties related caused the funds to be held up. A detailed report has been submitted. Conference website is at http://fisica.udea.edu.co/10iacpe/index.php?option=com_content&task=view&id=6&Itemid=6.

Physics Community and Cooperation, 3rd European Physics Education Conference, University of Leicester, United Kingdom 17-21 August 2009.

These Conferences are sponsored jointly by Groupe International de Recherche sur l'Enseignement de la Physique (GIREP) and the Education Division of the European Physical Society with endorsement but no financial support from C14. The purpose of the conferences is to bring physics education researchers and developers together with the members of the physics research community from all over the world. The proceedings are available on CD. The conference website is <http://physics.le.ac.uk/girep2009/>.

Teaching and Learning Physics today: Challenges? Benefits? Reims, France, 22-27 August 2010.

The conference was a joint meeting of Groupe International de Recherche sur l'Enseignement de la Physique (GIREP), the Workshop on Multimedia in Physics Teaching and Learning and C14. The proceedings is under preparation. Website is at <http://www.univ-eims.fr/site/evenement/girep-icpe-mptl-2010-reims-international-conference/home,9402,17347.html>?

ICPE 2011: Training Physics Teachers and Education Networks, Mexico City, Mexico, 15-19 August 2011.

This commission conference was jointly sponsored by C14 and the Latin American Physics Education Network (LAPEN). The conference was originally scheduled for summer 2010. However, the organizers requested for postponement to 2011 on account of H1N1 outbreak in Mexico combined with financial concerns. The conference website is at www.icpe2011.net. The conference proceedings is planned as a special issue of the LAPEN journal available online.

Future Conferences

World Conference on Physics Education on the theme The Roles of Context, Culture and Representations in Physics Teaching & Learning, Istanbul, Turkey, 1-6 July 2012.

The commission together with GIREP and MPTL is taking the lead in organization of this conference. This is a concrete step forward in global cooperation. Envisaged as a series of conferences with a four year periodicity, we hope the initiative will bring on board all stakeholders and key international organizations. AAPT, EPS, EPS-PED, AsPEN, LAPEN, and many others have already endorsed. Modelled on the education strand of the *World Conference on Physics and Sustainable Development* supported by IUPAP-UNESCO-ICTP and SAIP, this will be a working conference with follow-up actions that presumably would carry over to the following conference. The website is active at www.wcpe.org.

XI Inter American Conference on Physics Education: Teaching of Modern Physics at Different Levels, University of Antioquia, Medellin, Colombia, 6-10 July 2013.

This conference is traditionally supported by C14 and was originally planned for July 2012. A clash of dates with the World Conference was noticed. As a gesture of solidarity, the Council for IACPE has decided to support WCPSD in 2012 and move this conference to 1-5 July 2013 when they will also celebrate 50 years of IACPE conferences.

ICPE 2013.

This will take place at Charles University, Prague, Czech Republic, in summer 2013.

PHYSWARE Educate the Educator Series of Workshops

PHYSWARE promises to be amongst the most important activities of C14. As a direct follow-up to the World Conference on Physics and Sustainable Development (WCPSD) held at Durban in 2005, the first workshop titled *PHYSWARE: A collaborative workshop on low-cost equipment and appropriate technologies that promote undergraduate-level, hands on physics education throughout the developing world* was organized at ICTP, Trieste during February 2009. Subsequently, in October 2009, IUPAP (on behalf of C14) signed a 5-year Memorandum of Understanding with ICTP to organize PHYSWARE workshops. The venue will be at ICTP Trieste and a developing country in alternate years. The MoU was endorsed by the new director of ICTP in August 2010. However, actual organization of the workshop has been delayed due to lack of funds. The ICTP has now sanctioned Euro 10000 for organization of PHSWARE during 12 to 23 November 2012 at Trieste. The funds are insufficient and it has been suggested that the venue be changed to Delhi.

Publications

ICPE Newsletter: The commission continued to publish its newsletter with regularity, twice a year, primarily in electronic form. A small number of copies are printed and distributed at conferences. Ian Johnston, Professor Emeritus, University of Sydney, continues to be the editor. Commission member Zulma Gangoso, University of Cordoba, Argentina will take charge as the editor from April 2012 issue. It is published twice a year. Issues back to 1995 are available at <http://web.phys.ksu.edu/icpe/newsletters/>.

Books: On the occasion of the 50th anniversary of the commission, celebrated at Reims, we launched the print copy of the book *Connecting Research in Physics Education with Teacher Education, Volume II*, with Matilde Vicentini and Elena Sassi as general editors. The electronic version of the book has been freely available since 2008 at the commission's website. Volume I, with Andrée Tiberghien, E. Leonard Jossem, Jorge Barojasas General Editors, along with other ICPE publications, is also available for free download at this site. Grants from IUPAP and UNESCO have enabled us to print 2000 copies in India at a reasonable cost. The book has been well received.

ICPE owns the copyrights to two books: *Niels Bohr: A Centenary Volume* edited by A. P. French and P. J. Kennedy and *Einstein: A Centenary Volume* edited by A. P. French. These volumes have some very interesting content with many chapters written by personal acquaintances of Bohr or Einstein. The commission is exploring the possibility of creating electronic versions and making these available online on the commission website. If financial assistance becomes available, the commission could print a limited edition.

ICPE Medal

ICPE Medal for the year 2010 conferred on Gunnar Tibell, Professor Emeritus at University of Uppsala, Sweden. It was awarded at ICPE 2011 in Mexico. The commission has decided to confer ICPE Medal for 2011 to *Lady Cats*, a group from Japan engaged in promoting hands-on activities;

and the medal for 2012 to Edward F Redish, University of Maryland, USA. Both medals will be presented at the WCPE 2012 at Istanbul.

IUPAP Young Scientist Prize in Physics Education

Our commission has decided to institute this prize. Research will include educational development such as development of instructional materials as well as Physics Education Research; the impact of research/ development will be judged in local contexts. R&D experiences in informal education will be considered at par with work in formal settings. There have been delays in setting up processes for selection.

Annual Meetings

In addition to being actively in contact on a regular basis via email and conference calls, the Commission members have met annually on the sidelines of various conferences organized/ supported by the commission. Formal meetings were held on (i) in October 2009 on the sidelines of ICPE 2009 in Bangkok; (ii) in August 2010 on the sidelines of the GIREP-MPTL-ICPE Conference in Reims; and (iii) in August 2011 on the sidelines of ICPE 2011 in Mexico City. All meetings were well attended. The next meeting will be in July 2012 on the sidelines of WCPE in Istanbul.

Links with other Commissions

The Chair of ICPE was special invitee at the annual meeting of C13 held in August 2009 and August 2010 at ICTP, Trieste. This gave us an opportunity to explore areas of cooperation with C13 as well as ICTP. GIREP president was invited to C14 meeting at Reims. LAPEN president is already a member of C14. Many of our members also serve on EPS-PED, ASPEN, and are active in AAPT. Hence the international linkages continue to be very strong.