

REPORT 2005-2008 of the C13 IUPAP COMMISSION PHYSICS FOR DEVELOPMENT

The C13 Commission has held 3 meetings in 3 years (August 2006 in Paris, August 2007 and 2008 in Trieste, hosted by ICTP), well attended (at least 10 over 13 members plus two associates members). In addition, there have been many electronic communications from the Chair or the Secretary to the members and reciprocally.

The actions of C13 over these 3 years can be summarized as follows :

- 1- New rules for IUPAP membership, for emerging or developing countries: the new rules have been actively discussed during the C13 meeting of 2006, especially with our members from developing countries. Our recommendations have been forwarded to the Council before final adoption.
- 2- New IUPAP members: several developing countries (Cameroon, Peru, Vietnam) have been approached by C13 members to become members along the new rules. Due to the efforts of Judy Franz the process has converged for Cameroon and Peru, and is still underway for Vietnam.
- 3- Links of IUPAP with other international organizations interested in promoting Physics in developing countries: the 2007 meeting of C13 in Trieste gathered representatives from **ICTP, CERN, TWAS, IOP, EPS, APS**. Plans for concerted actions and support of conferences have been made. A common action to promote “Low cost-high level technology for Physics in developing countries” is being launched with ICTP.
- 4- **Support to AIMS:** the African Institute for Mathematical Sciences (www.aims.za), training young physicists and mathematicians from both Western and Eastern Africa, has been founded in 2004 by the Universities of Cambridge, Oxford and Paris-Sud (Orsay); in 2007 a temporary funding problem arised and IUPAP could help by 10 000 US\$. Since then AIMS has fully recovered and trains each year about 60 young scientists who mainly continue for PhD's in South Africa or in Europe. A network of similar centers (AMINET) is being launched in several African countries.
- 5- We have also followed the work of various **African networks** (LAM: Laser, Atoms and Molecules; African Laser Center and NanoAfnet based in South Africa.
- 6- In **Middle East**, we follow and help the development of the Center for Mathematics and Theoretical Physics planed in Birzeit (Palestine), ECCE-Birzeit (<http://www.physik.uni-augsburg.de/ifk/ecce/>), based on a UNESCO Chair in Physics open in 2007. We also follow the progress of the Sesame project in Jordan and are ready to help when needed, probably in coordination with the IBSP programme of UNESCO (see below).
- 7- **Nobel Laureate Symposium (Lindau, Germany, July 2008) gathering young physicists with a bunch of Nobel Laureates:** « Each summer there is a meeting in Lindau, Germany that brings together Nobel Laureates and about 500 young scientists: undergraduate students, graduate students, and postdocs. Each year it focuses on a particular science, and the 2008 meeting was on physics. »
Judy Franz asked us to suggest names of young candidates from developing countries. We proposed a female student from Cameroon and a male student from South Africa. The Cameroon student has been selected and enjoyed very much the symposium.
- 8- **Cooperation of IUPAP with the new International Basic Science Programme (IBSP) of UNESCO :** being launched un 2005, the first call received too many too small applications,

IBSP wishes now to concentrate on « big » regional projects, either Networks or Centers of excellence. It is looking for partnerships, private or public, especially with international institutions, e.g. with ICTP, TWAS, CERN, IUPAC, IUPAP. A Memorandum of Understanding between IUPAP and IBSP will be proposed to the GA in Tsukuba.

- 9- **Conferences :** Last but not least, the C13 commission has been very active in promoting conferences in emerging or developing countries. In 2007 the IUPAP Council decided to create a new type of conferences (type D), possibly more regional than really international but of special value for the local development of Physics. New members countries are specially invited to propose such a conference for sponsorship.

CONFERENCES SPONSORED BY IUPAP ON BEHALF OF C13 COMMISSION (2006-2008)

2006: 3 applications, 2 sponsored conferences in 2007

Sponsored conferences or workshops: one in **Tunisia** (Second International Spectroscopy Conference, ISC2007, support 10 000 US\$) and one in **Ghana** (Optics and Laser applications in medicine and environmental monitoring for sustainable development, support 5000US\$). In addition there was a request of financial support for a workshop on Hydrogen energy at the University of Rajasthan (India), but it was not sponsored because the format and organization were not well defined.

2007: 3 applications, 3 sponsored conferences in 2008.

- in **Cameroon** : 1st YAOUNDE International College on Novel Materials and Technologies, and their impact on Energy, Environment and Sustainable Development.

Considered as the first type D conference (regional and locally very useful), it was supported by 15 000 US\$, and a real success with follow up.

- in **Cuba**: the 5th International Meeting on Photodynamics, in Havana, Cuba, fits into a series. A training school takes place just before the conference. Supported by 5000 US\$.

- in **Benin** : also 5000 US\$ were allotted to the Conference in Mathematical Physics (Fourth COPROMAPH International School) in Cotonou, October 2008.

2008: 5 applications for 2009, 4 approvals by C13 (to be discussed by Council Oct. 2008)

- in **Peru**, Andean Workshop on Spectroscopy and Congress on Spectroscopy and Applications, Lima. New type D conference, in a new member country. 15 000 US\$ proposed.

- in **Senegal** (Dakar), 2 projects:

- Second school and Workshop on X-rays in Materials (5000 US\$ proposed)

- LAM Network (Laser, Atom, Molecules) organizes a meeting each two years. This year the meeting will be held in Senegal and will be combined with a Bouchet Conference on Science and Technology. We propose about 10 000 US\$.

- in **Cuba**: International Meeting on Cosmology, Universidad Central de Las Villas, Santa Clara, Cuba, spring 2009. We propose 5000 US\$.

- in **Ghana**: conference “Physics, the Right Tool for Development in Developing Countries », in Cape Coast. Not sponsored (too broad, too vague).

For most of the conferences sponsored in 2006-2008 we received detailed reports and felt they have been really fruitful for the local physicists, in the country and in the region. C13 is happy that the number of applications is increasing and that they vary in domains and countries.