

C13 Meeting
Day 1: 23 August 2024
Venue: Oppenheimer Room, ICTP

Welcome and introductions

Attendance in person:

Kuijuan Jin, Joe Niemela, Mmantsae **Diale** , Renee Horton, William Jo, Andreas Buchleitner, Andrea Lausi, Horacio Fernandes

Attendance on-line:

Aba Andam, Michael Steinitz, Ajith Kumar Parambath, Sekazi Mtingwa, Angie Sanchez, Samia Kaddour , David Hutchinson

A quorum was attained.

Selection of Type-D conference grants:

There were 8 conference applications to consider, with 7 of them requesting some amount of funding from IUPAP. After discussing the applications, voting was carried out for those deemed sufficiently well-proposed and appropriate for our commission. The following conferences were selected for funding:

- i) *The 8th African School on Electronic Structure Methods and Applications (ASESMA-2025)* to be held in Ghana.
- ii) *Advanced School and Workshop: StatPhys in Kigali*, to be held in Rwanda
- iii) *Bangkok School and Workshop on Cosmology*, to be held in Thailand
- iv) *First Mesoamerican Workshop on Reconfigurable X-ray Scientific Instrumentation for Cultural Heritage*, to be held in Guatemala.
- v. The commission also recommends an **no-cost endorsement of HEPNP2025, to be held in Chile (No funding was requested).**

Some notes: the ASESMA-2025 conference was highly recommended, although members of C13 objected to its inflated international scientific committee, which included Kennedy Reed who is deceased. It was not clear if this list was current or that its members knew that they were still on it.

A few general points taken up:

- i) Members suggested that we ask IUPAP to be more specific in the application questions; for instance, we don't know what the IUPAP limit is for registration cost so perhaps the application forms could include this amount as a reference, i.e. "Is the registration cost below the IUPAP limit of XXX CHF?".
- ii) We don't see the final reports and some conferences have been funded in the past so we would like the ability to see whether they have previously fulfilled what was written in their original proposals.
- iii) There was some discussion that we could produce a brief guide to running a conference for first time organizers, as a resource, or point them to other material already available.

There is a wealth of information on the internet (e.g. <https://www.cardiffmet.ac.uk/about/conferenceservices/Pages/How-to-organise-an-event.aspx>).

Group discussion: Physics for solar energy for developing countries

Mmantsae Diale presented slides on the importance of solar energy in the developing countries. Since there is a huge problem with electricity in Africa in particular, with African still very dark as compared to other continents, the teaching of Physics of solar energy should be encouraged with many conferences on the main topics like ASESMA, ASP, Optics, Statistical physics, etc., incorporating in their conferences a session to introduce solar energy lesson of about 1 hour or more to participants. Mmantsae didn't think it would be a problem to find local lecturers to do this or to provide a list of African professors, including herself, who could volunteer should the organizers wish. An overarching goal would be to aim at providing incentives for some young people to consider alternative employment as well-trained solar technicians, etc.

Group discussion: Associate member WG21 (Physics for climate change action and sustainable development): C13 members agreed that this was a good idea to have a liaison to WG21 and selected Renee Horton assuming that she would again be a member of C13 going forward.

A group discussion: Updates on LAAAMP and Possible Funding Source for LAAAMP in the future was presented by Sekazi Mtingwa.

Sekazi presented the current state of the LAAAMP project and the need to increase its funding by a factor of 2 to arrive at \$30K each year. Currently the funding partners are IUPAP, ICTP and IUCr., each giving 5k annually, and the goal is to increase that to 10K each annually.

Online experiments for the International Year of Quantum Science and Technology, presented by Horacio Fernandes.

Horacio described two experiments that could be accessed remotely by students everywhere having internet connectivity. They were relatively low cost to set up and would demonstrate principles of quantum science for the Year of Quantum Science and Technology in 2025. The committee was in favor of pursuing this line and helping Horacio with fund-raising from universities and the private sector in order to replicate and diffuse the experiment, particularly in developing countries.

Day 2 (August 24)

Venue: ICTP Oppenheimer Room

UNESCO's Decade of Science for Sustainable Development, International Day of Light,

and International Year of Quantum Science and Technology 2025-- opportunities for

C13: Joe Niemela presented an overview of the connections to the United Nations and its specialized agencies, and the critical involvement of IUPAP, touching on science communication, educational outreach in physics-related themes, and the promotion of equitable advancement of science and technology throughout the world. Discussions were centered around possible actions or statements by C13 relevant to developing countries. A specific experiment allowing remote access was previously discussed by Horacio Fernandes, and Renee Horton brought up the possibility of having a social media engagement by C13 with 12 simple and affirming statements- one per month- communicated through social media channels. It was also agreed to consider other actions that could take advantage of the global outreach efforts through multiple partners worldwide and bring C13 presence.

Women in Physics in Developing Countries, presented by Mmantsae Diale.

Mmantsae discussed some progress being made in gender equity in physics, but noted that many of the efforts to lower the barriers to careers were easier to adopt in richer countries, while developing countries are lagging behind. Mmantsae described a number of conferences that she is organizing in , including Women in Physics in Zimbabwe (24-26 July, 2024) and invitations to launch more such conferences in Rwanda, Togo, Namibia, Botswana, Zambia, Tanzania, and Uganda. Funding possibilities include a philanthropist in South Africa who has expressed interest.

Mmantsae is also using her platform of Africa Materials Research Society to address the plight of women in physics in developing countries and with Farida Fassi from Morocco, they are planning to launch women in Physics in Africa in 2025, hoping that country project will have attracted many more countries.

There was some discussion about the sharing of information with WG5 and several practical “best practices” were discussed. Some of them, such as delaying fellowships in the event of child-birth, or extending the eligibility requirements for early career awards in the case of child-rearing female scientists could be easily adopted in developing countries and were prevalent around the world, including ICTP and various institutions in China and New Zealand as reported by members. Other practices, such as child-care grants, or support for partners to go to meetings are being adopted, for instance in some institutions in New Zealand, but are probably not available in developing countries.

Future Membership

Members leaving commission 13: Kiujuan Jin, Mmantsae Diale Andreas Buchleitner, Ajith Kumar Parambath, Joe Niemela has been nominated by the Italian commission to be the next Chair, and Renee Horton has been nominated by the US commission to another term with Kiujuan Jin recommending both for respectively Chair and vice Chair. .

The date of the next meeting was fixed to be 22-23 August, 2025 at ICTP.

The meeting was adjourned at 12:00 local time.