

## **C11 Report to IUPAP Commission Chairs and Executive Committee**

*September 2017*

*Juan Fuster, Chair IUPAP-C11 Commission*

### **C11 Officers:**

**Chair:** Juan Fuster (2014) (2011), Spain

**Vice-Chair:** Heidi Schellman (2014)(2011), USA

**Secretary:** Soo-Bong Kim (2014)(2011), Korea

### **C11 Members:**

Martin Schnabl (2014) Czech Republic

Zhizhong Xing (2014) China

Amol Dighe I(2014) India

Dezső Horváth (2014) Hungary

Mark Lancaster (2011) United Kingdom

Mihoko Nojiri (2014) Japan

Vladimir Kekelidze (2011) Russian Federation

Raymond Volkas (2014) Australia

Sergio Novaes (2011) Brazil

Johan Rathsman (2014) Sweden

Florencia Canelli (2014) Switzerland

### **C11 Associate Members:**

Karl-Heinz Kampert (C4)

Eugenio Nappi (C12)

### **C11 Observers:**

Kok Khoo Phua, Secretary General IUPAP

### **Activities:**

#### **Introduction:**

In 2017 the C11 commission held three meetings, two of them were by video-conference and one on-site August 9<sup>th</sup> during the XXVIII International Symposium on Lepton Photon Interactions at High Energies (LP) in Guangzhou (China). The agenda of the meeting is available at: <https://indico.cern.ch/event/656949/>. Discussion material and presentations are also accessible at this location. At this meeting, the commission reviewed recently IUPAP-sponsored conferences, discussed the upcoming conferences seeking for sponsorship and reviewed the progress on upcoming conferences. Cooperation with the International committee for Future Accelerators (ICFA) develops well. Specific issues as the request to create a crossed neutrino panel under C11 and C4 and C12 was also discussed.

Reports from sponsored conferences in 2016-2017 and recommendations for future conferences:

- ***The 38<sup>th</sup> International Conference on High Energy Physics (ICHEP 2016) in Chicago, August 3-9 2016*** (Chair: Young-Kee Kim). Main conference in High Energy Physics. The conference was very successful in attendance, organization and quality of the talks. The number of contributions received was 1600. About 600 talks and 500 posters were presented at the conference. A rich programme of dissemination activities also took place during the conference in particular the public talk on gravitational waves by Barry Barish. Gender issues were very well balanced as 50% of conveners and 37% of the plenary speakers were women. Number of attendees was 1430 from 51 countries, being 20% students, 21% postdoc, 20% women, 52% from Americas. A total of 175 grants were given, mainly for students.
- **XXVIII International Symposium on Lepton Photon Interactions at High Energies (LP) in Guangzhou (China) 7-12 August (chair Wei Wang)** There were 61 talks, 3 last minute emergencies with travel leading to 1 talk being remote, 1 rescheduled, 1 cancellation. Preliminary numbers for people who had arrived, the estimate was 184. Visas went quite smoothly. A public lecture was given by Yifang Wang (IHEP director) in both Chinese and English and there were also popular science activities at the Guangzhou Science Center associated with the conference. 63 posters were presented. 12 were highlighted with 5 minute talks. Six prizes were given by the selection committee at the end of the conference. Of the participants 124 were from China, US 23, Japan 15, Germany 10 rest smaller. 40 students were among the participants.

Seven requests were received asking for IUPAP sponsorship in 2018. The prioritized list of recommended conferences as agreed by C11 is:

**Category A:**

1. International Conference on High Energy Physics (ICHEP 2018).

**Category B:**

2. XXVIII Conference on Neutrino Physics and Astrophysics (Neutrino 2018).
3. LHC Physics (LHCP) Conference.
4. Computing in High Energy and Nuclear Physics.

## Category C:

5. History of the Neutrino.
6. The XXIV International Baldin Seminar on High Energy Physics Problems "Relativistic Nuclear Physics and Quantum Chromodynamics".
7. 10-th International Workshop on Ring Imaging Cherenkov Counters.

Future upcoming conferences under C11 supervision in 2018 and beyond are:

- 2018, The 38<sup>th</sup> International Conference on High Energy Physics (ICHEP 2018) in Seoul (Korea). Presented by Prof. Unki Yang.
- 2019 XXIX International Symposium on Lepton Photon Interactions at High Energies (LP) in Toronto (Canada). Presented by Prof. William Trischuk.
- 2020, The 39<sup>th</sup> International Conference on High Energy Physics (ICHEP 2018) in Prague (Czech Republic). Prof. Zdenek Dolezal.
- .

Reports of their preparation were presented (see contributions at <https://indico.cern.ch/event/656949/>). No major concerns were noticed by the committee in their preparation of these conferences. The organization of these conferences is in fact well controlled by the organizers and C11 expressed their positive view on this. C11 acknowledged the effort being made by the organizers of the Lepton-Photon 2019 in Toronto to find new formats of the conference which can help to increase the participation. Their initiatives were seen positively and supported.

At the meeting C11 also received expressions of intent for future conferences. KK Phua suggests Singapore for Lepton Photon in 2021 and Fabrice Retiere for TIPP in Vancouver in 2020. No decision is needed yet so they were encouraged to come to ICHEP in Seoul.

## ICFA

ICFA and C11 cooperation performs very well. Both ICFA and C11 chairs have attended the ICFA and C11 meetings, mutually and there is a fluid communication between the two committees. During the meeting at Guangzhou Joachim Mnich (present ICFA chair) informed C11 on the following topics:

- E. Alvarez from Argentina has become a new ICFA member,
- ICFA is reviewing the structure of their 8 existing panels and have renewed a mandate for the Linear Collider Board,
- the ICFA seminar is held every 3 years. Next one is happening this year in Ottawa, Ontario, Canada, Nov 6-9 2017,
- next ICFA meeting will be in Chicago, March 9th,10 2018,
- Geoff Taylor of the University of Melbourne was elected as their new chair.

## Neutrino Panel

Ken Long reported on the ICFA neutrino working group and a request to broaden the effort beyond accelerator based neutrino physics through a panel under the auspices of C11 with participation from C4 and C12.

The ICFA panel was very active and had several town halls. They produced several studies, including a paper on the complementarity of HyperK and LBNF (1501.03918)

The Neutrino Roadmap report has been released as 1704.08181 on the arxiv.

The suggestion is for C11 to work with other commissions to set up a neutrino working group or panel that will span accelerator based neutrino physics, non-accelerator and neutrino astrophysics as a coherent strategy on all fronts as needed.

During the closed session C11 discussed this initiative. The creation of this new panel was well received and comments were all positive. Therefore, ***C11 supports the creation of a new Neutrino panel, to continue ICFA work and work to gain the support of the associated commissions for particle astrophysics and nuclear physics.***

Actions were taken and contacts with other Commissions were already initiated through our associated members from C4 and C12.