

Commission C4 – Astroparticle Physics

Reporting period: October 2015 – September 2016

1. Membership

Karl-Heinz Kampert (chair)	Germany (2008, 2011, 2014)
Sunil K Gupta (co-chair)	India (2011, 2014)
Adri Burger (secretary)	South Africa (2011, 2014)
Pierre Binetruy	France (2014)
Pasquale Blasi	Italy (2014)
Zhen Cao	China (2014)
Joakim Edsjö	Sweden (2014)
Jörg Hörandel	Netherlands (2011,2014)
Michael Kachelriess	Norway (2014)
Masaki Mori	Japan (2011, 2014)
Ryan Nichol	UK (2014)
Michal Ostrowski	Poland (2011,2014)
Mikhail Panasyuk	Russia CRs (2014)
Eun-Suk Seo	USA (2011,2014)

Steve Barwick (associated)	USA
Ilya Usoskin (associated)	Finland
Albert de Roeck (associated)	Belgium
Laura Baudis (associated)	Switzerland
Elisabete de Gouveia Dal Pino (IAU inter-union)	Brazil
Mark Lester (SCOSTEP inter-union)	UK

2. C4 Meetings and proposed new officers

For economic reasons, C4 conducts face-to-face meetings only during the International Cosmic Ray Conferences, which are attended by most of the members. The last of these meetings were held in The Hague in July/August 2015. All other meetings are conducted as phone conferences. Emails serve for the rest.

A phone conference was organised on May 10, 2016 and was attended by almost all commission members. Topics of discussions included preparations for ICRC2017, setting up a program committee (ISPC) for ICRC2017, defining a list of criteria for selecting locations of future ICRCs, IUPAP Newsletter, C4 web-pages, and next C4 officers.

For the next commission period, C4 proposes Sunil Gupta as the new chair, Adri Burger as the new co-chair, and Jörg Hörandel as the new secretary.

3. C4 Related Conferences

ICRC 2017, the type A conference of C4, will be conducted in Busan (South Korea) from July 13 to 20 under leadership of Prof. Il Park. C4 will act as IAC and it has conducted a list of candidates to serve on the International Program Committee (ISPC). The ISPC will be charged with selecting oral presentations from among the about 1500 abstracts that are typically submitted to the ICRC conference.

ICRC2019 will be hosted at University of Wisconsin-Madison (USA) from July 25 to August 1, 2019. Several countries have already expressed firm interest to host the ICRC 2021 and C4 has asked them to present their proposals at the C4 meetings 2017 in Busan. The strong interests to host future ICRCs can be considered a proof for the attractiveness and high scientific quality of the ICRC. To assure a transparent selection process, C4 has formulated a document that summarizes the infrastructure requirements needed

to host an ICRC and it also comes up with a catalogue of questions to be addressed in an applicant. These guidelines were provided to the potential applicants and they were received very positively. With this predefined set of rules, it is expected that the location of ICRC2021 can be selected at ICRC2017. Keeping the conference fee low, e.g. by choosing University campuses as venue, is considered of quite some importance as will allow also young scientists to participate more easily.

There were three C4 related conferences supported and endorsed by IUPAP in 2016:

- 1) 11th International Conference on the Identification of Dark Matter (IDM2016) in Sheffield, UK [18 - 22 July 2016] organized by M. Malek and N. Spooner. A report about this conference can be found in the IUPAP Newsletter of September 2016.
- 2) 19th International Symposium on Very High Cosmic Ray Interactions (ISVHECRI 2016) in Moscow, [22-27 August 2016] organized by Nikolay Kolachevsky
- 3) 25th European Cosmic Ray Symposium (ECRS-25) in Torino, IT [5-9 September 2016]. This conference was endorsed but did not receive financial support because of being a regional conference.

Two applications were received for 2017 conferences:

- 1) International Cosmic Ray Conference (ICRC 2017) in South Korea (Type A)
- 2) TAUP 2017 (XV International Conference on Topics in Astroparticle and Underground Physics) in Canada (Type B).

Support for both conferences was recommended by C4.

4. Proceedings of previous ICRCs

Thanks to the continuous efforts of current and previous C4 members, digital copies of the proceedings of most previous ICRCs are now available via ADS, see http://ads.harvard.edu/pubs/icrc_status.html

These efforts were received extremely positively by the Astroparticle community, particularly in view of the fact that – except for the most recent past – many important results in the field of cosmic ray physics were presented in ICRC proceedings only, rather than being published in standard Journals. Access to these proceedings thus was virtually impossible and worked mostly by personal connections. Some final issues with copyrights still need to be addressed for a few early ICRCs.

5. ApPIC & C4:

Communication between ApPIC, chaired by Michel Spiro (CNRS), and C4, whose chair has become an ex-officio member of ApPIC, works out very well. The C4 chair has been integrated in all communications and was invited to the ApPIC meetings. A document about Open Data Policy and data sharing in Astroparticle Physics was provided to APIF (AstroParticle International Forum with delegates from the funding agencies, chaired by Mike Turner) and a short summary of it was communicated via the IUPAP Newsletter of March 2016. However, the relation between ApPIC and APIF remains unclear: APIF at present does not feel any need for external scientific input from ApPIC and enjoys the privacy it affords for their discussions.

6. New IUPAP / C4 Webpages:

With the support of the IUPAP office, the C4 pages are continuously updated and old material is planned to be available in an archive. This work will continue to improve in particular the collection and accessibility of previous reports and resolutions.

Karl-Heinz Kampert
Chair, IUPAP C4 – Astroparticle Physics
October 9, 2016