

**Report to the IUPAP Council & Commission Chairs Meeting  
Rio de Janeiro, 21/22 October 2012  
Commission C4 – Cosmic Rays**

20 October 2012

**Members:**

C4 has appointed three new associate members: S. Barwick (representing the neutrino community), A. van den Berg (CR), and G. Bertone (Dark Matter). Cross representatives are F. Aharonian (IAU), H. Aihara (C11 chair), and T. Padmanabhan (C19 chair).

**Meetings:**

C4 holds its formal meetings on the occasion of the International Cosmic Ray Conference ICRC, our major conference held every two years. The next meetings will be in July 2013 in Rio de Janeiro at the time of the 33<sup>rd</sup> ICRC.

**Supported Conferences:**

2012 is the 100 year centennial of the discovery of cosmic rays by Victor F. Hess. Numerous cosmic ray articles have been published in many prestigious journals, e.g.

Special volume in EPJH on cosmic rays:

[http://epjh.edpsciences.org/index.php?option=com\\_toc&task=topic&id=109](http://epjh.edpsciences.org/index.php?option=com_toc&task=topic&id=109)

Royal Society, Science Exhibition and Lecture, London 2012:

<http://sse.royalsociety.org/2012/exhibits/cosmic-100/>

<http://royalsociety.org/events/2012/cosmic-rays/>

Coverage in New York Times:

[http://www.nytimes.com/2012/08/07/science/space/when-victor-hess-discovered-cosmic-rays-in-a-hydrogen-balloon.html?\\_r=0](http://www.nytimes.com/2012/08/07/science/space/when-victor-hess-discovered-cosmic-rays-in-a-hydrogen-balloon.html?_r=0)

The following centennial anniversary meetings took place (\* co-sponsored by IUPAP):

100 Years of Cosmic Particles, organized by The University of Innsbruck, Tyrol & The Victor F. Hess Society, Poellau, Styria, 1-3 May 2012 in Innsbruck, Tyrol and 3-5 May 2012 in Poellau, Styria.

<http://www.uibk.ac.at/astro/victorfhess2012/>

Centenary Symposium 2012: Discovery of Cosmic Rays, University of Denver, Denver, CO 80208, 26-28 June 2012.

<https://portfolio.du.edu/pc/port?portfolio=CR2012>

39th COSPAR Scientific Assembly

\*Event E1.15 Cosmic Ray Origins: Viktor Hess Centennial Anniversary

Mysore, India, 14-22 July 2012.

<http://www.cospar2012india.org/Default.aspx>

\*100 Years Cosmic Ray Physics - Anniversary of the V.F. Hess Discovery, Bad Saarow/Pieskow, Germany (the place where Hess landed with his balloon on 7 Aug 1912 after his discovery), 6-8 August 2012.

<https://indico.desy.de/conferenceDisplay.py?confId=4213>

\*International Symposium on very high energy cosmic ray interactions, Berlin, August 2012.

<https://indico.desy.de/conferenceDisplay.py?confId=4594>

**Restructuring:**

In its ambition to take into account the new developments in the field, C4 considers and realizes the following measures:

- to maintain and strengthen the attractiveness of the ICRC. Inclusion of all astroparticle physics branches is anticipated, in particular dark matter and neutrino astrophysics. A "Scientific Program Committee" consisting of a few active and well respected scientists for each of the various subtopics (gamma rays, neutrinos, cosmic rays, dark matter, SH) will ensure the scientific quality of accepted oral presentations.
- to rename C4 to "Commission on Astroparticle Physics".

**C4/APPIC:**

In appreciation of all circumstances C4 members considered themselves not to be the right body to assume responsibility for the given mandate. Instead, C4 suggests establishing a panel of influential experts of worldwide recognition with adequate representation of major experimental facilities and science agencies. A list of potential candidates is presently being compiled by C4. We suggest the candidates to be contacted by the IUPAP chair.

**Next major event:**

33<sup>rd</sup> International Cosmic Ray Conference ("The Astroparticle Conference"), 2–9 July 2013, Rio de Janeiro (main organizer: Ronald Cintra Shellard, CBPF)

<http://www.cbpf.br/~icrc2013>

TAUP 2013: Topics in Astroparticle and Underground Physics, Asilomar, California, 9-13 September 2013

<http://www.taup-conference.to.infn.it/taup2013.html>

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