

Report to the IUPAP General Assembly 2024 from Commission C4-Astroparticle Physics
for the period of October 2021 to October 2024

1) Membership of C4 during Oct. 2021 to Oct. 2024

Takaaki Kajita (chair)	Japan (2021)
Ralph Engel (vice-chair)	Germany (2017, 2021)
Christina M. S. Cohen (secretary)	USA (2017, 2021)
Ilya Usoskin	Finland (2017, 2021)
Fiorenza Donato	Italy (2017, 2021)
Veronique Van Elewyck	France (2017, 2021)
Seon-Hee Seo	South Korea (2017, 2021)
Carola Chinelatto	Brazil (2021)
Zhiguo Yao	China (2021)
Pankaj Jain	India (2021)
Sergei Troitsky	Russia (2021)
Riccardo Catena	Sweedden (2021)
Yuan-Hann Chang	Taiwan (2021)
Subir Sarkar	UK (2021)

Associate members

Ani Aprahamian	USA
Florenzia Canelli	Switzerland
Du Toit Strauss	South Africa
Imre Bartos	USA

2) IUPAP sponsored international conferences:

In the last three years, the following international conferences related to C4 under the auspices of IUPAP were held.

Type A Conference

- (i) 38th International Cosmic Ray Conference (ICRC-2023), between July 26 and Aug. 3, 2023 at Nagoya, Japan. Hybrid (onsite + online) conference with 1099 attendees

(among them, 335 female attendees and 842 from outside the host country). The C4 members served as International Advisory Committee (IAC).

Type B Conferences

- (i) 21st International Symposium on Very High Energy Cosmic Ray Interactions (ISVHECRI 2022), between May 23 and 28, 2022, India. Online conference with 118 attendees. This symposium was originally to have been held in 2020 but had to be postponed due to the COVID-19 pandemic.
- (ii) 22nd International Symposium on Very High Energy Cosmic Ray Interactions (ISVHECRI 2024), between July 8 and 12, 2024, Puerto Vallarta, Mexico. Hybrid (onsite + online) conference with 115 attendees (preliminary).

3) C4 (Astroparticle physics) meetings

During the last 3 years, the C4 Commission met 10 times (9 online and 1 hybrid). The details of the meetings are summarized here.

- (i) November 17, 2021 (Online): The previous members and current members met with an agenda devoted to the transition.
- (ii) November 22, 2021 (Online): The previous members and current members met with an agenda devoted to the transition.
- (iii) June 7, 2022 (Online): The commission discussed the IUPAP C4 endorsed conferences and initiated the discussion with the local organizing committee members of the International Cosmic Ray Conference 2023.
- (iv) September 27, 2022 (Online): Various issues related to the International Cosmic Ray Conference 2023 (ICRC2023) were discussed.
- (v) December 21, 2022 (Online): Various issues related to the International Cosmic Ray Conference 2023 (ICRC2023) were discussed.
- (vi) April 5, 2023 (Online): Various issues related to the International Cosmic Ray Conference 2023 (ICRC2023) were discussed.
- (vii) May 9, 2023 (Online): Various issues related to the International Cosmic Ray Conference 2023 (ICRC2023) were discussed.
- (viii) July 29, 2023 (Hybrid, essentially face-to-face meeting in Nagoya during ICRC2023): The commission heard the preliminary report on ICRC2023 and the preparation status for

ICRC2025. In addition, the commission discussed and decided the C4 endorsed IUPAP conferences in 2024, and the candidate location for ICRC2027.

- (ix) February 1, 2024 (Online): Discussion on the next offices and members of C4 in the next term.
- (x) July 25, 2024 (Online): The commission heard the preliminary report on ISVHECRI2024, discussed the IUPAP C4 endorsed conferences, and discussed the commission members in the next term.

4) Prizes

The C4 commission served as a committee to select the winners of several prizes: IUPAP Early Career Scientist Prizes (2 prizes), O’Ceallaigh medal and IUPAP-TIFR Homi Bhabha Award. The winners of these prizes were discussed and selected at the C4 meetings on April 5, 2023 and May 9, 2023. The prizes were awarded during the Opening Ceremony of ICRC2023, which was held on July 27, 2023.

In addition, Shakti Duggal Award and Yodh Prize were awarded during the Opening Ceremony of ICRC2023, with winners selected by independent committees.

The winners of these prizes, including the past winners, are listed at the IUPAP C4 page.

Takaaki Kajita

Chair, IUPAP C4 – Astroparticle Physics

September 6, 2024