

## IUPAP C4 and C11

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**CHALMERS**



Swedish  
Research  
Council

*Knut och Alice  
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Stiftelse*

- The International Union of Pure and Applied Physics (IUPAP) was established in 1922
- It currently has 60 country members
- The aims of the Union are:
  - Assist in the worldwide development of physics and promote physics as an essential tool for **development and sustainability**;
  - Engage in the strengthening and improvement of physics **education**, particularly in developing countries;
  - Increase **diversity and inclusion** in physics;
  - Foster **international cooperation** and sponsor suitable international physics meetings;
  - Promote the free circulation of scientists and the **open access** to data;
  - Enhance the vital role of **early career physicists**;
  - Strengthen the links with physicists working **outside academia** and with other scientific communities;
  - Uphold **openness, honesty and integrity** in the practice, application and promotion of physics;
  - Promote international agreements on symbols, units, nomenclature and **standards**

## Selected actions

- IUPAP endorses and sponsors international conferences and workshops
- IUPAP sponsors a number of awards for scientists at different stages of their careers
- **2022 highlight:** IUPAP promoted and led the organisation of an International Year for Basic Sciences for Sustainable Development in 2022/2023:

*"[...] While applications of technology as key elements of modern society are relatively easy to recognize, the crucial role that fundamental or basic sciences play in the process is often only poorly appreciated, if at all. [...]"*

- 40 international scientific unions, national academies, international organisations, and research organisations were involved - all led by IUPAP
- 100 national science academies, higher education organisations and scientific networks have developing programmes and activities
- 29 Nobel Prize laureates and Fields Medallists endorsed the initiative

- The Union is governed by its General Assembly
- The Council is its top executive body, supervising the activities of specialised International Commissions, Affiliated Commissions and Working Groups
- International Commissions
  - C1: Commission on Policy and Finance
  - C2: Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants
  - C3: Statistical Physics
  - **C4: Astroparticle Physics**
  - C5: Low Temperature Physics
  - C6: Biological Physics
  - C8: Semiconductors
  - C9: Magnetism
  - C10: Structure and Dynamics of Condensed Matter
  - **C11: Particles and Fields**
  - C12: Commission on Nuclear Physics
  - C13: Physics for Development
  - C14: Physics Education
  - C15: Atomic, Molecular, and Optical Physics
  - C16: Plasma Physics
  - C17: Laser Physics and Photonics
  - C18: Mathematical Physics
  - C19: Astrophysics
  - C20: Computational Physics

## C4: Astroparticle Physics

- C4 promotes the exchange of information among the members of the international scientific community in the general field of Astroparticle Physics, including
  - The nature and characteristics of the electromagnetic, particle and other radiation present in the cosmos;
  - The theory and models concerning the origin of this radiation;
  - Non-accelerator high energy physics;
  - The specialised technologies necessary in the field and their application

## C4 mandate and composition

### ■ Mandate includes:

- Initiate and support international conferences such as ICRC, ISVHECRI, TAUP, VLVnT, IDM, and TeVPA
- Promotion of free circulation of all scientists
- Award the IUPAP Young Scientist Prize in Astroparticle Physics
- Award the Homi Bhabha Medal and Prize "*to an active scientist who has made distinguished contributions in the field over an extended career*"
- Award the O'Ceallaigh Medal "*to a scientist who has made distinguished contributions to Cosmic Ray Physics*"
- To maintain liaison with other IUPAP Commissions, and make available to each General Assembly of the Union a summary of activities

### ■ Members:

- Takaaki Kajita (2021)
- Ralph Engel (2017) (2021)
- Christina M. S. Cohen (2017) (2021)
- Ilya Usoskin (2017) (2021)
- Fiorenza Donato (2017) (2021)
- Veronique Van Elewyck (2017) (2021)
- Seon-Hee Seo (2017) (2021)
- Carola Chinelatto (2021)
- Zhiguo Yao (2021)
- Pankaj Jain (2021)
- Sergei Troitsky (2021)
- **Riccardo Catena** (2021)
- Yuan-Hann Chang (2021)
- Subir Sarkar (2021)

- In 2023 IUPAP C4 will support two conferences:
  - XVIII International Conference on Topics in Astroparticle and Underground Physics 2023  
28.08. - 01.09.2023, University of Vienna
  - International Cosmic Ray Conference 2023  
26.07. - 03.08.2023, Nagoya, Japan
- The deadline to apply for support for 2024 IUPAP C4 conferences was on 1 June 2023
- Working group 10 (ApPIC) was dissolved (no longer active)
- Winners of the three IUPAP C4 prizes have been chosen and will be announced at ICRC23
- Prof. Takaaki Kajita will soon conclude his mandate as a chair of C4. Next chair elected. Name announced soon.

## C11: Particles and Fields

- C11 promotes the exchange of information among the members of the international scientific community in the general field of Particles and Fields, including
  - The theory and experiments concerned with the nature and properties of the fundamental constituents of matter and the forces acting between these constituents;
  - The accelerators, detectors and techniques used in these investigations
  - The industrial applications of relevant technologies



## C11 mandate and composition

### ■ Mandate includes:

- Initiate and support international conferences such as ICHEP, Lepton Photon, TIPP, Neutrino and IPAC
- Promotion of free circulation of all scientists
- Award the IUPAP Early Career Scientist Prize in Particles and Fields
- Convene working groups and panels such as the International Committee on Future Accelerators to provide a forum for international coordination
- To maintain liaison with other IUPAP Commissions, and make available to each General Assembly of the Union a summary of activities

### ■ Members:

- Florencia Canelli (2014) (2017) (2021)
- Azwinndini Muronga (2017) (2021)
- Young-Kee Kim (2021)
- Alexander Sorin (2017) (2021)
- Nicole Bell (2021)
- Barbara Clerbaux (2021)
- Marcelo Munhoz (2021)
- Jana Bielcikova (2021)
- Lydia Iconomidou-Fayard (2021)
- Srubabati Goswami (2017)(2021)
- Atsuko Ichikawa (2021)
- **Roman Pasechnik** (2021)
- Franz Muheim (2021)
- Isabell Melzer-Pellmann (2022)

- In 2023 IUPAP C11 will support
  - 30th International Symposium on Lepton Photon Interactions at High Energies (ISLPIHE-2023)  
17 - 21 July 2023 Melbourne, Australia
  - International Conference on Large Hadron Collider Physics (LHCP-2023)  
22 - 27 May 2023 Belgrade, Serbia
  - International Particle Accelerator Conference (IPAC-2023)  
07 - 12 May 2023 Venice, Italy
  - 26th International Conference on Computing in High Energy and Nuclear Physics  
08 -12 May 2023 Norfolk, VA, USA
  - International Beam Instrumentation Conference (IBIC-2023)  
10 -14 September 2023 Saskatoon, Saskatchewan, Canada
  
- The deadline to apply for support for 2024 IUPAP C4 conferences was on 1 June 2023
  
- C11 assigned ICHEP2024 in Prague