



C14 Commission on Physics Education – ICPE – established 1960

**Report submitted October 2025
by Manjula Devi Sharma (C14 Chair)**

Report prepared by

C14 Commission on Physics Education – 2025 to 2027

Chair	Manjula Sharma	The University of Sydney, Australia
Vice-Chair	Angela Fösel	Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany
Secretary	Cristiano Mattos	University of São Paulo, Brazil
Member	Nam-Hwa Kang	Korea National University of Education, Cheongju, South Korea
Member	Arun Kumar Grover	Panjab University, India
Member	Marián Kireš	University of Pavol Jozef Šafárik, Košice, Slovak Republic
Member	Anna Danielsson	Stockholm University, Sweden
Member	Marisa Michellini	University of Udine, Italy
Member	Sachiko Tosa	Niigata University, Japan
Member	Monika Stachura	TRIUMF, Vancouver, Canada
Member	Andreas Müller	University of Geneva, Switzerland
Member	Nicolas Labrosse	University of Glasgow, UK
Member	Geraldine L. Cochran	The Ohio State University, USA
Member	Cecilia Stari	Universidad de la República, Uruguay
Assoc. Member, Ed. Newsletter	Elizabeth Jane Angstmann	University of New South Wales, Australia
Assoc. Member, WG5 Rep	Farida Fassi	Mohammed V University in Rabat, Morocco
Assoc. Member	César Eduardo Mora Ley	Instituto Politécnico Nacional, Mexico
Outgoing Chair (Observer)	Tetyana Antimirova	Toronto Metropolitan University, Canada

Introduction

This document is a report of the main activities towards the end of 2024 capturing the work of the 2021 to 2024 Commission led by Tetyana Antimirova and the work until October 2025 of the 2025 to 2027 Commission. The points covered in this report are:

1. Meetings and C14 Commission business
2. ICPE Newsletters
3. C14 ICPE Medal
4. Conferences
5. Collaborating with other Commissions within IUPAP
6. Website and Zenodo
7. Looking forward

C14 Commission on Physics Education – International Commission on Physics Education (ICPE)

1. Meetings and C14 Commission business

- Current C14 Commission has held three virtual meetings. The Zoom meetings were held on February 15, May 27, and July 29, 2025.
- We are using the group email: IUPAP-C14-Members@cern.ch <iupap-c14-members@cern.ch>
- To ensure continuity between the Commissions, transfer of materials is in process and Professor Tetyana continues as an observer.



2. ICPE Newsletters

- The decision has been made to publish 2 issues per year.
- ICPE Newsletter Number 78 is projected for publication in November 2025.
- ICPE Newsletter Number 77, May 2025 has been published introducing Commissioners for the term 2025-2027.
- ICPE Newsletter Number 76, November 2024 summarised achievements of the 2021-2024 term.

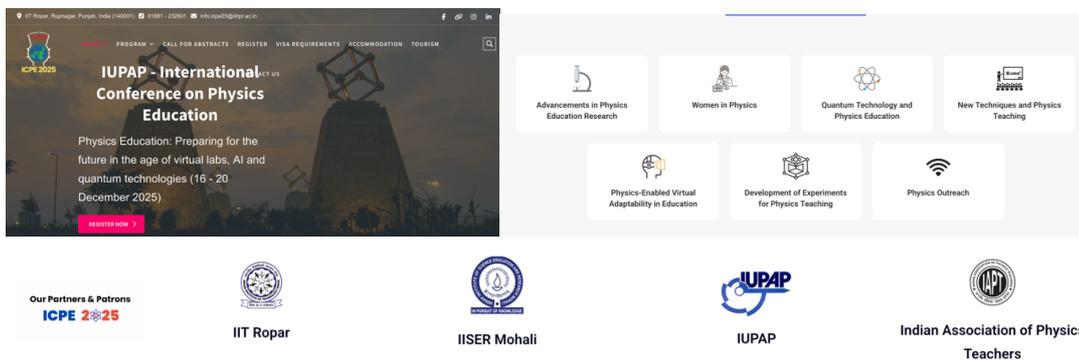
3. C14 ICPE Medal

- A call for nominations had been made for 2021 and 2022 ICPE Medals. However, only one nominee met the criteria. Consequently, the 2021 ICPE Medal was awarded to Dr Paula Heron (Professor of Physics at the University of Washington, Seattle, USA) on August 27 2024 during the 4th WCPE in Kraków, Poland. Prof. Heron delivered the keynote lecture titled: *'Does How We Teach Match How Students Learn? The Evolving Relationships Among Theory, Experiment, and Teaching Practice in PER'*.
- The ICPE Medal for 2022 was not awarded.
- A call for nominations was made for 2023 and 2024 ICPE Medals with the committee voting for the following medal awards to be presented at ICPE 2025 in Ropar, India.
 - 2023 – Prof. Dr. Pornrat Wattanakasiwich, Chiangmai University, Thailand
 - 2024 – Prof. Dr. David Sokoloff, Emeritus at the University of Oregon, USA
- A call for nominations for the 2025 ICPE Medal will be announced soon.

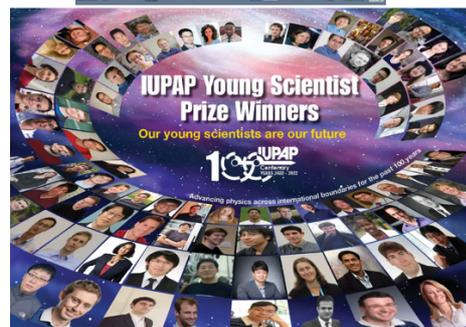
C14 Commission on Physics Education – International Commission on Physics Education (ICPE)

4. Conferences

- Sponsored by IUPAP:* The flagship International Conference on Physics Education is being organised at Ropar, India under the direction of Arun Grover, C14 Member from India. The dates are 16th - 20th December 2025. To date, 184 abstracts have been received and 39 speakers invited. The 2023 and 2024 ICPE Medals will be awarded with recipients delivering Keynote Addresses. The Opening Address will be delivered by Prof Ajay Kumar Sood, Principal Scientific Advisor to the Government of India. President-Designate of IUPAP, Professor Sunil Gupta will provide a Keynote Address.



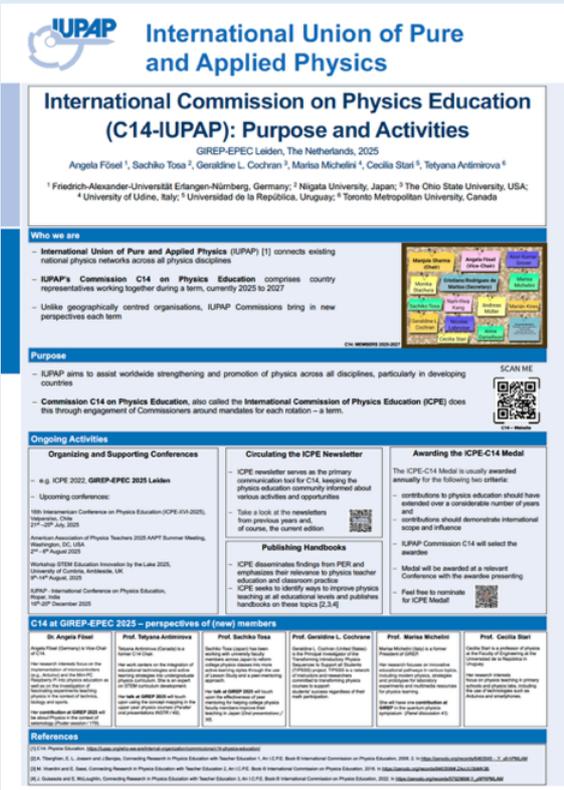
- Sponsored by IUPAP:* C14 was well represented at the 16th Interamerican Conference on Physics Education (ICPE-XVI-2025), Valparaíso, Chile, 21st –25th July 2025. Past Chair Professor Roberto Nardi was a prominent organiser and advocate for IUPAP and C14. Chair Manjula Sharma presented a plenary lecture titled ‘*Rigour, relevance and reflection in physics education*’.



IUPAP – Sponsor of the XVI CIAEF

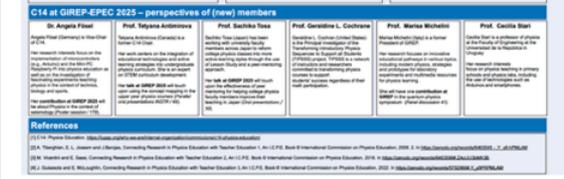
C14 Commission on Physics Education – International Commission on Physics Education (ICPE)

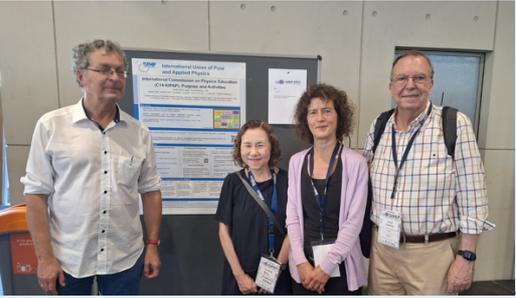
- C14 members presented a poster on the work of the commission at the GIREP-EPEC 2025 Conference, Leiden, The Netherlands, held from 30th June to 4th July 2025. The poster was a prototype representing the work of IUPAP and of C14, with the hope that similar posters can be deployed at other conferences.





David Sokoloff, Sachiko Tosa, Angela Fösel, Andreas Müller (with two colleagues), Rosaria Lena (from the group of Nic Labrosse), César Mora and Jenaro Guisasola.





Andreas Müller, Sachiko Tosa, Angela Fösel and Jenaro Guisasola with the poster.

- *Sponsored by IUPAP*: The 4th World Conference on Physics Education (ICPE-2024) was held from 26 to 30 August 2024 in Lojasiewiczza, Krakow, Poland. C14 was well represented, presenting a symposium showcasing IUPAP and C14.
 - A paper co-authored by Commissioners is in press:
Global Perspectives on Physics Education: Approaches from ICPE-IUPAP C14 Community, E J Angstmann, T Antimirova, A Fösel, J Guisasola, E McLoughlin and M D Sharma
- Opportunistically, C14 members noted the work of IUPAP and C14 while participating in the below conferences:
 - Manjula Sharma

Invited plenary at the Australian Institute of Physics Congress in Melbourne (December 2024)



C14 Commission on Physics Education – International Commission on Physics Education (ICPE)

- Manjula Sharma

Invited plenary at the New Zealand Institute of Physics Congress in Auckland (July 2025)



- Marisa Michelini

The conference on the teaching of chemistry and physics was held in Rome on 4-5 September 25 and organized by the Fondazione dei Lincei in collaboration with the Italian coordination of research in didactics and history of physics (CooFIS08), the Italian Society of Chemistry (SCI-DD), the Association for the teaching of physics (AIF) and endorsed by C14-IUPAP. Numerous participants were on site and remotely. The following issues were discussed, with a chemistry and a physics report on each: the role of models and modelling for learning, interdisciplinarity in science teaching, the role and nature of representations, history in science teaching, science education in kindergartens and primary schools. An afternoon was dedicated to teaching/learning quantum physics, and a Round Table was held on European projects based on interdisciplinary proposals for active learning in low secondary schools. It had a wide echo throughout the national press.

- Marisa Michelini

Invited talk shared with the cooperating group in [XLV National Congress of the Italian Society for the History of Physics and Astronomy \(9-12 September 2025\): Home · INDICO - INAF \(Indico\)](#)



- Marisa Michelini

Invited talk in 111 Congress of Italian Physical Society in Palermo 21-26/9/25 [Informazioni generali - 111° Congresso Nazionale](#)



- The below conferences have been recommended for endorsement by IUPAP

- Nicolas Labrosse

"STEM Education Innovation by the Lake" UK, August 2025. Organised by Andrea Jimenez Dalmaroni, on behalf of the Institute of Physics Higher Education Group



5. Collaborating with other Commissions within IUPAP

- IUPAP Pacific Island Nations Physics Summit and UNESCO Bootcamp is scheduled for 17 to 21 November 2025 in Nadi, Fiji Islands. It is being organised by IUPAP Working Group 21: Physics for Climate Change Action and Sustainable Development (Secretary, Irvy (Igle) Gledhill). Chairs of C13 (Joseph Niemela) and C14 (Manjula Sharma) are participating. From C14, Monika Stachura (TRIUMF, Vancouver, Canada) is participating virtually. This strategic gathering brings together C13, C14 and WG21.

- Report by Farida Fassi

Report to C14 Commission

- A joint proposal has been developed to establish **Youth@STEM4SF** as a new project under IUPAP. The initiative aims to strengthen youth engagement in science, technology, engineering, and mathematics for sustainable futures, in alignment with IUPAP's mission to promote international cooperation in physics.
- The proposal has been prepared collaboratively with contributions from:
 - WG16 (Physics for Development): Barbora Bruant and Chris Rossel
 - C14 (Physics Education): Monika Stachura and Farida Fassi

C14 Commission on Physics Education – International Commission on Physics Education (ICPE)

- In its first phase, the project will be implemented with the leadership of WG16 and C14. The framework remains open to collaboration with other IUPAP commissions and working groups in future phases, ensuring inclusivity and broad participation across the union.
- The immediate priority is to seek formal approval of the Youth@STEM4SF proposal at the upcoming meetings of the IUPAP Executive Committee and the General Assembly.
- **Next steps:**
 - Secure approval by the IUPAP Executive Committee and General Assembly.
 - Define the project's governance and implementation framework under IUPAP.
 - Expand collaboration opportunities with other IUPAP commissions and external partners.

6. Website and Zenodo

- Maintaining the current website is an issue. The C14 Newsletter links have been populated by gambling sites.
- While C14 website links had been updated to be correct by a sub-committee from the last term, somehow, they have changed and need to be redone.

7. Looking forward C14 has setup Working Groups listed below.

- Marketing and Communications WG (Angela Fösel, Nicolas Labrosse, Elizabeth Angstrom, Nam-Hwa Kang, Anna Danielsson):
 - Focus on website updates, newsletter strategy, and enhancing the visibility of the IUPAP Medal.
 - Identify challenges in expanding newsletter reach due to a lack of access to attendee lists from co-hosted conferences.
- Teacher Education Book WG (Cecilia Stari, Marisa Michelini, Marián Kireš, César Mora):
 - Prepare editorial plan, call for chapters, and timeline.
 - Aim to ensure global representation, including contributions from Latin America, Africa, and Asia.
 - Proposal to publish with Springer's "Challenges in Physics Education" series at no cost was considered promising.
 - Marisa Michelini

As for the ICPE Book we did a first brainstorming of ideas and now we share a discussion sheet for the editorial plan of a volume on **Research based experiences of Teacher education & Teacher professional development, by Working Group of C14 on Teacher Education**: Cecilia Stari, Marián Kireš, Marisa Michelini, César Mora. I have consulted Springer and there is a willingness to publish the volume for us free of charge in the series Challenges on Physics Education: we obviously have to submit a precise proposal.
- Special Projects WG (Monika Stachura, Farida, Andreas Müller):
 - Farida Fassi

Youth@STEM4SF project proposal has been developed and will be submitted for approval at the upcoming meetings of the **IUPAP Executive Committee** and the **GA** – see point 5 above
- History of C14 WG (Manjula Sharma, Tetyana Antimirova, Cristiano Mattos, Arun Grover):
 - To produce a written history of ICPE/C14, drawing on archival documents, newsletters, and testimonies of senior members.
 - There is a need for an artifact (article or report) to preserve institutional memory.