

Early Career Researchers - summary from FIN ECFA ECR's

**Particle physics
days 2024**

Laura Huhta, Mikael Myllymäki, Petja Paakkinen (JYU/HEL)

email: laura.maria.huhta@cern.ch, mikael.myllymaki@cern.ch,
petja.k.m.paakkinen@jyu.fi

What is the ECFA ECR panel?

“The objective of the ECFA **Early-Career Researcher (ECR)**[†] panel is for its members to discuss all aspects that contribute in a broad sense to the future of the research field of particle physics. In its advisory role to ECFA, the panel reports to ECFA on a regular basis.”

Two-year roles in ECR panel, extendable by up to four years. Three members per country.

ECR panelists in Finland:



Laura Huhta (ALICE)
Jan. 2023 - 2025



Mikael Myllymäki (CMS)
Jan. 2024 -



Dr. Petja Paakkinen (theory)
Jan. 2023 - Summer 2025
(Hanna Lempiäinen to replace Petja Paakkinen)

Nominated at the yearly meeting of
the Particle Physics Division of
Finnish Physical Society



If you wish to become one!

[†]: Non-permanent position or <10 years after PhD

EPPSU timeline and structure



9 topical WGs:

- EW/Higgs Physics
- Strong Interaction
- Flavor Physics
- BSM
- Neutrino Physics and Cosmic Messengers
- DM and Dark Sector
- Accelerator Science and Technology
- Instrumentation
- Computing

1 ECR scientific secretary for each WG

→ ECFA ECR panel submitted list of nominations

- Anyone can submit input to the strategy (31st of March)
 - Future collider communities, ECFA countries, collaborations, ...
 - **And Early Career Researchers (ECRs) → White Paper**
 - **Focus on topics relevant to ECRs, not covered in topical WGs**

Process towards ECR White Paper input to EPPSU

Initiated by ECFA ECR panel, but **Open to all European* ECRs**

- ◆ **September 2024: Preparatory Meetings for the EPPSU Input**
 - Discuss the process and explore initial ideas on potential topics to address
- ◆ **October 10th, 2024: ECR session @ [3rd ECFA Workshop in Paris](#)**
 - Engage the ECR community and encourage contributions to the ECR White Paper
 - Identify *key topics* for the White Paper
 - Establish *Working Groups* to address the most important issues
 - **Outcome:** ECRs need *stable funding* and *career certainty* for their professional growth, a *timely decision* on future colliders and a focus on *sustainability*
- ◆ **Oct-Nov 2024:** 2-3 meetings per WG since the event in Paris

*: Focus on ECRs employed in European institutes, but input beyond Europe appreciated

Process towards ECR White Paper input to EPPSU

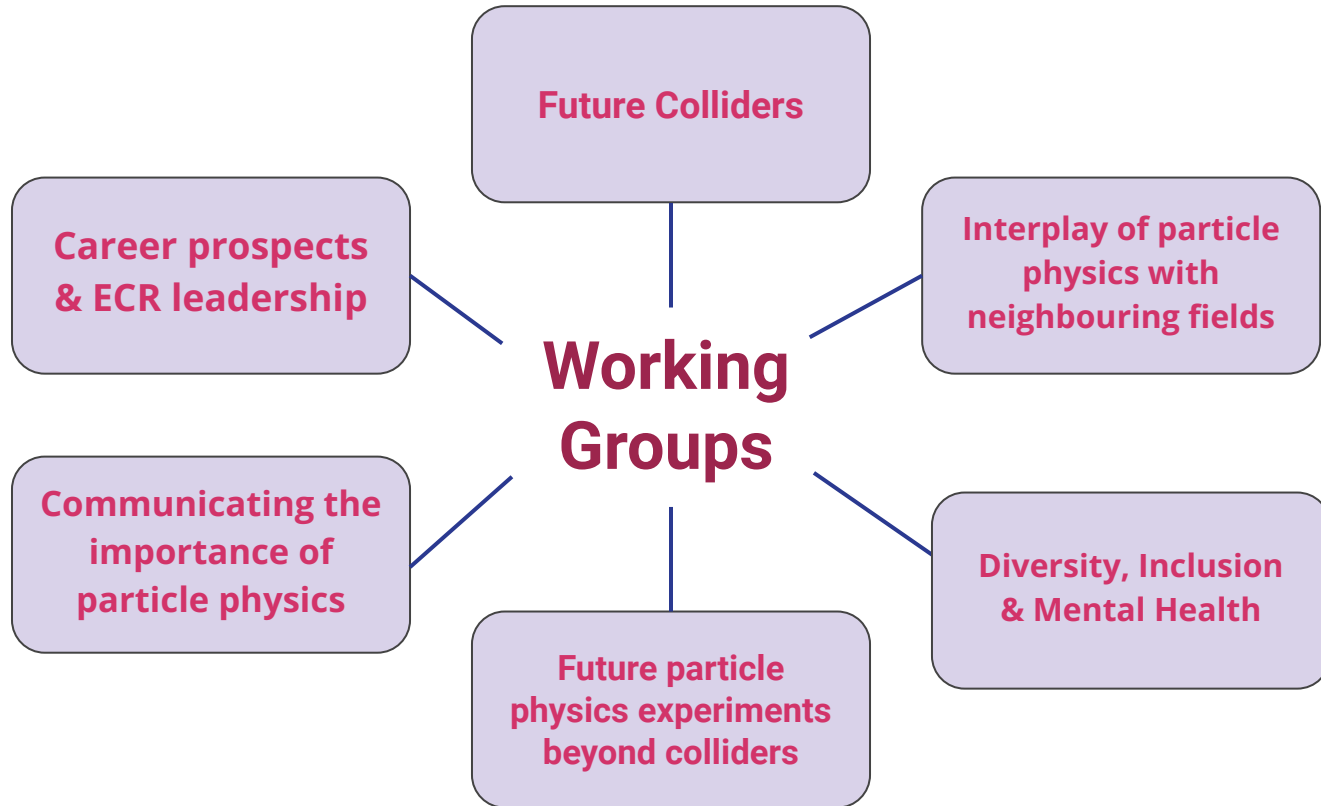
❖ **Nov 14th, 2024: ECR Workshop on EPPSU @ CERN** adjacent to the 115th Plenary ECFA meeting

- Introductions from Individual WGs, Draft Statements presentation and subsequent discussions
- Parallel sessions for each WG
- Discussion about scope of WG and next steps
- An informal discussion open to all ECRs

Up to 35 people at CERN, 56 people on Zoom



Process towards ECR White Paper input to EPPSU



Roadmap for White Paper Completion

- ◆ **Ongoing:** online WG meetings throughout the process
- ◆ **Mid-December 2024:** Draft of the White Paper sections by WGs, led by WG conveners
- ◆ **End of January 2025:** Completion of the first overall White Paper draft by WG conveners
- ◆ **Mid-February 2025:** Consolidation of the first draft by all WGs, one-day symposium/workshop open to all ECRs, Feedback from External Advisors (Snowmass ECRs, previous ECFA ECRs, some selected seniors)
- ◆ **Mid-March 2025:** Endorsement of the White Paper by the ECFA ECR panel and submission to EPPSU

How can you contribute?

- All discussions are taking place in the *ECRs for EPPSU 2024* [Mattermost channel](#)
- Join eppsu-ecr@cern.ch and the [channel](#)
- Fill out upcoming **surveys**

Every voice matters!

Group discussions on strategy

- ❖ Aim to also make ECRs' voice heard in the discussion (enhancing democratic & inclusive process)
- ❖ In our table, discussion includes themes specifically related to ECRs / career development
- ❖ We will provide input for ECR White Paper focusing on the **Career prospects & ECR leadership** and **Diversity, Inclusion and Mental health** Working groups (Laura as a convener in these)

Thanks for your attention!

Topics for group discussions

Career

- **Appealing Career Paths** by providing clearer paths to permanent positions and enhancing job security
- **Training for Versatile Skills** relevant to both academic and industry roles
- **Career Insights for Undergraduates:** Provide statistics for informed PhD decisions
- **Ease of Transition** for engineers and technical experts into HEP
- **Relocation Considerations** for temporary roles and support mobility challenges
- **Mentorship by Senior Academics** to guide ECR career development
- **Dedicated Time** to pursue projects beyond main duties

“ECRs need **stable funding** and **career certainty** for their professional growth, a **timely decision on future colliders** and a **focus on sustainability**”

ECR Leadership and Funding

- **Inclusive Decision-Making:** Engage ECRs in key decisions and major events
- **Motivate ECRs:** How to get ECRs to participate in decision making?
- **Acknowledge** ECR contributions and **involve them** in ESPPU preparations
- **Dedicated Funding** for ECRs activities

European Particle Physics Strategy Update

ECR input

The aim is to develop a visionary and actionable plan that greatly advances knowledge in fundamental physics through the realisation of **CERN's next flagship project**. This plan should:

- Promote and value international collaboration
- Ensure Europe's continued leadership in fundamental physics
- The Strategy update should identify the *preferred option for the next collider*
- It should also outline prioritised *alternative options* to be pursued if the preferred plan proves infeasible or non-competitive.
- Additionally, the Strategy should consider *research beyond colliders*, emphasising interdisciplinary and diverse experimental approaches

Overview of Working Groups

◆ Future Colliders

Conveners: Armin Ilg, Axel Gallen, Emanuela Musumeci, Krzysztof Mękała, Leonhard Reichenbach, Ulrich Einhaus

- **Input on Selection Criteria:** Define essential criteria for selecting a future collider
- **Proposal ranking:** Query preference of collider proposals and related questions
- **Significance:** Emphasise the importance of a future collider
- **Process transparency:** Advocate for a transparent selection and decision-making process

◆ Future particle physics experiments beyond colliders

Conveners: Alexander Burgman, Elizabeth Long, Marvin Pfaff, Erik Wallin

- **Prominent role:** Ensure non-collider experiments remain significant in Europe's particle physics agenda
- **ECR community forum to:**
 - Strengthen coherence and provide a collective voice for the community
 - Foster collaboration among non-collider projects

Overview of Working Groups

◆ Communicating The Importance of Particle Physics

Conveners: Abdelhamid Haddad, Jan-Hendrik Arling

- **Valued Communication Skills:** Communication skills are as important as technical expertise in the field
- **Mentorship Program** linking senior researchers down-to high school students
- **Raising Awareness** of current work and future projects
- **Broad Outreach:** target audiences from university students to the general public

◆ Interplay of particle physics with neighbouring fields

Conveners: Abdelhamid Haddad, Alexander Burgman

- **Cross-Disciplinary Exchange:** diverse interactions to foster progress in particle physics
- **Support for Experts** transitioning between disciplines
- Facilitate **Cross-Field Idea and Tech Exchange**
- **Collaboration:** Emphasize cross-disciplinary efforts on shared research questions

Overview of Working Groups

◆ Career prospects and ECR leadership

Conveners: Christina Dimitriadi, Laura Huhta, Jan Klamka, Emanuela Musumeci

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Overview of Working Groups

◆ Diversity, Inclusion & Mental Health

Conveners: Laura Huhta, Elena Pompa Pacchi and Arnau Morancho Tarda

New WG since 14.11. so topics still TBD !