

# Finnish session

ECFA ECR Nordic session on future colliders

# Recap of the day

| 10:00 | → 15:10 | Young Nordic Future-Collider Day   | Lundmarksalen | Join          |  |
|-------|---------|--|---------------|---------------|--|
| 10:00 |         | <b>Welcome</b><br><b>Speakers:</b> Arnau Morancho Tarda (University of Copenhagen (DK)), Christina Dimitriadi (Uppsala University (SE), University of Bonn (DE)), Erik Wallin (Lund University), Laura Huhta (University of Jyväskylä (FI)), Magdalena Vande Voorde (KTH Royal Institute of Technology (SE)), Mikael Myllymaki (Helsinki Institute of Physics (FI)), Petja Paakkinen | 10m           |               |  |
| 10:10 |         | <b>Physics landscape and motivation</b><br><b>Speaker:</b> Matthew Philip Mccullough (CERN)  | 30m           |               |  |
| 10:40 |         | <b>Experimental overview of future colliders</b><br><b>Speaker:</b> Mogens Dam (University of Copenhagen (DK))   | 40m           |               |  |
| 11:20 |         | <b>Status and physics of EIC</b><br><b>Speaker:</b> Tuomas Lappi   | 30m           |               |  |
| 11:50 |         | <b>Report from ECFA ECR panel</b><br><b>Speaker:</b> Armin Ilg (University of Zurich)  | 20m           |               |  |
| 12:10 |         | <b>Lunch</b>   | 2h            |               |  |
| 14:10 |         | <b>Summary of activities in the Nordics</b><br><b>Speaker:</b> Magdalena Vande Voorde (KTH Royal Institute of Technology (SE))   | 20m           |               |  |
| 14:30 |         | <b>Panel discussion</b><br><b>Speakers:</b> Giulia Ripellino (Uppsala University (SE)), Henning Kirschenmann (Helsinki Institute of Physics (FI)), Mogens Dam (University of Copenhagen (DK)), Richard Brenner (Uppsala University (SE))<br><a href="#">Google doc to sub...</a>   | 40m           |               |  |
| 15:10 | → 15:30 | <b>Coffee break</b>  | 20m           | Lundmarksalen |  |

**Motivation:** Inform Early Career Researchers (ECRs) about the status of Future-Collider plans and give the ECRs in the Nordic countries a platform to actively contribute to discussions on the future landscape of particle physics

Organised by the Nordic ECR panel members of the European Committee for Future Accelerators (ECFA)

**Now:** Time for a discussion on the Finnish perspective



ECFA is advisory to CERN Management, CERN Council and its Committees

*“In the 2020 Update of the European Strategy for Particle Physics, ECFA was mandated to develop a roadmap to balance R&D efforts in Europe, to identify and describe a diversified R&D portfolio that has the largest potential to enhance performance of the particle physics programme in the near and long term.”*

News from Armin's talk: *“On 21 March 2024, the CERN Council decided to launch the process for updating the European Strategy for Particle Physics... with a view to concluding the process in June 2026.”*

- Traditionally, the European countries which are Member States of CERN participate in ECFA
- Representatives from each country
  - Plenary ECFA – decides on all ECFA activities
  - Restricted ECFA – assists running of ECFA and communication with participating countries
  - ECFA ECR panel – representing early career researchers

Two-year roles in ECR panel, extendable by up to four years.

*“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.”*

# Who are ECFA representatives of Finland?

## Plenary ECFA



Prof. Tuomas Lappi  
(since Jan. 2020)



Dr. Henning Kirschenmann  
(since Jan. 2024)

## Restricted ECFA



Prof. Panja Luukka  
(since Jan. 2024)

## ECFA ECR panel



Laura Huhta  
(since Jan. 2023)



Mikael Myllymäki  
(since Jan. 2024)

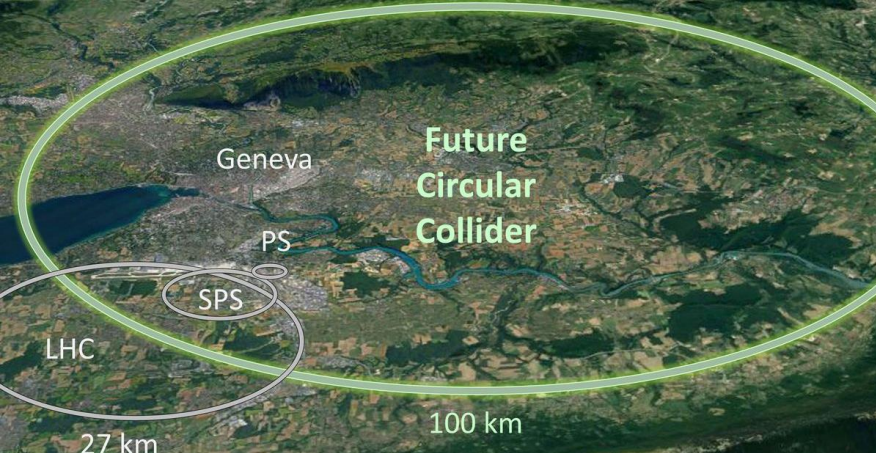


Dr. Petja Paakkinen  
(since Jan. 2023)

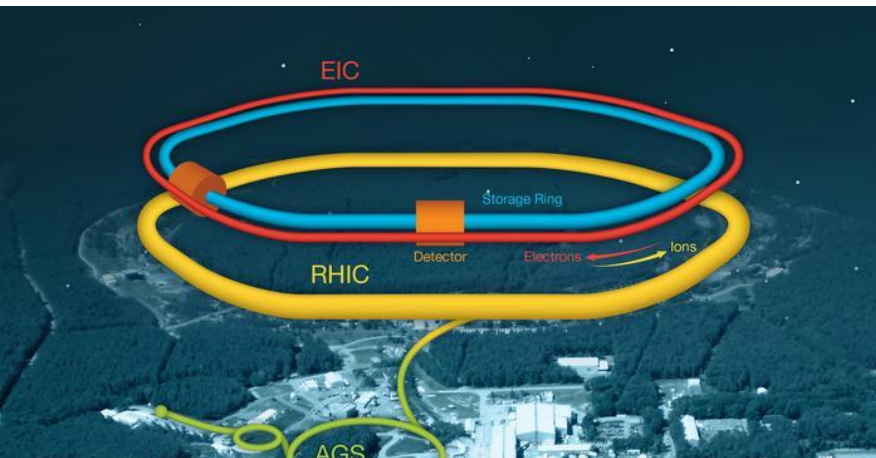
Nominated at the yearly meeting of  
the Particle Physics Division of  
Finnish Physical Society

↖ If you wish to become one!





# What is the Finnish role in future colliders?



- **FCC** – A circular e+e- collider in the first phase for precision Higgs studies and BSM exploration. Noble liquid calorimetry studies (improved granularity version over ATLAS ECAL design) for ALLEGRO (A Lepton-Lepton collider Experiment with Granular Read-Out) by **Juska Pekkanen** (CERN).
- **CLIC** – A "compact" e+e- linear collider. Long-term involvement in accelerator development, especially for RF cavities in Helsinki, by **Kenneth Österberg** etc.
- **EIC** – A machine dedicated to studying the low-level composite building blocks of matter, hadrons and nuclei. Strong theory involvement in Jyväskylä. See presentation by **Tuomas Lappi**.

# Thoughts on the panel discussion ?

- What should/could we have discussed more in the panel?

# Finland's role in FCC

- How is Finland's involvement with FCC (including funding) decided at the national level?
  - Who makes the (funding) decision in the end, Finland, CERN, ... ?
  - Do we expect the decision to be taken to a higher political level?
- Recall HIP mandate:
  - "The Helsinki Institute of Physics coordinates Finnish cooperation with the European Organization for Nuclear Research (CERN)"
- Reflections upon the early stages of LHC, EIC?
- Effect of Chinese collider CEPC?

# What is the role of young researchers in the decision-making process?

- How can young researchers get their voices heard? In ECFA through the ECR panel, but how about the national level?
- Is it easy for young researchers to allocate their time for future collider studies? Is this seen as valuable?
  - Different for theory vs. experiment? PhD student vs. Postdoc?
  - Future of ECRs working on LHC experiments (e.g. CMS, ALICE) - How to transition from these experiments to future ones when the time comes, how to prepare in advance, what kind of support is there?



# Future steps

- What kind of additional information would you need to stay informed about the decision process on future colliders?
- Was this event useful and should a similar or different event be organised in the future?
  - E.g. in connection with Physics Days / Particle Physics Day?

Link to feedback survey:



Join at [menti.com](https://menti.com)  
Use code 2918 0387