

# **ECR Forum on Future Colliders**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Review of Physics Landscape

*Monday 25 April 2022 11:05 (15 minutes)*

**Presenter:** VESTERINEN, Mika Anton (University of Warwick (GB))

**Session Classification:** Physics Opportunities and Existing Anomalies

Contribution ID: 2

Type: **not specified**

## Discussion Session

*Monday 25 April 2022 11:20 (40 minutes)*

- We do not want to discuss the details of current physics results.
- Given a blank cheque and assuming appropriate technology, what would we build first?
- Do we agree with the priorities of the current / nominal road map (Euro Strategy Doc)?
- What future physics scenarios could we find ourselves in, in the next 5, 10, 20 years and what does this mean for the best approach to future colliders?
- What do we build if we see nothing BSM anywhere?

**Session Classification:** Physics Opportunities and Existing Anomalies

Contribution ID: 3

Type: **not specified**

## Accelerators Talk

*Monday 25 April 2022 12:00 (15 minutes)*

**Presenter:** NEVAY, Laurie (Royal Holloway University of London)

**Session Classification:** Accelerator and Detector Technologies

Contribution ID: 4

Type: **not specified**

## Accelerators Urgent Questions

*Monday 25 April 2022 12:15 (5 minutes)*

**Session Classification:** Accelerator and Detector Technologies

Contribution ID: 5

Type: **not specified**

## Detectors Talk

*Monday 25 April 2022 12:20 (15 minutes)*

**Presenter:** DOPKE, Jens (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Accelerator and Detector Technologies

Contribution ID: 6

Type: **not specified**

## Detectors Urgent Questions

*Monday 25 April 2022 12:35 (5 minutes)*

**Session Classification:** Accelerator and Detector Technologies

Contribution ID: 7

Type: **not specified**

## Lessons from the LHC and the Funding Landscape

*Monday 25 April 2022 14:00 (15 minutes)*

**Presenter:** PARKER, Andy (University of Cambridge (GB))

**Session Classification:** Facilitating a Future Collider



Contribution ID: 8

Type: **not specified**

## Funding landscape discussion

*Monday 25 April 2022 14:15 (45 minutes)*

- How do we build a competitive funding model that does not directly take resources from other essential STFC activities?
- What are the differences in the field / funding landscape / CERN budget between the LHC development and now?
- How do we secure funding and ensure sufficient variety / diversity / importance that it is hard to cut in the future?
- What can be learnt from previous successes (e.g. LHC) and challenges (e.g. ILC)?
- How are collaborations built and is this model still suitable in the future?

**Session Classification:** Facilitating a Future Collider

Contribution ID: 9

Type: **not specified**

## Perspective from ECR working on R&D

*Monday 25 April 2022 15:00 (15 minutes)*

**Presenter:** SAWYER, Craig (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Opportunities and Challenges for ECRs

Contribution ID: **10**

Type: **not specified**

## Career Prospects Discussion

*Monday 25 April 2022 15:15 (45 minutes)*

- How sustainable is it to do small fractions of time on future R&D?
- How risky is it to commit to a career in future R&D?
- What is the best strategy as a community (many people giving small fractions of time - fewer people giving larger fractions) and as an individual (how do I get a permanent position)?
- How straightforward is it to start performing R&D / transition from data analysis?

**Session Classification:** Opportunities and Challenges for ECRs

Contribution ID: 11

Type: **not specified**

## Technologies Discussion

*Monday 25 April 2022 12:40 (20 minutes)*

- We do not want to discuss details of current technology issues.
- What collider options are there and what weighting do people give them in terms of importance - FCC (ee+eh+hh?), linear collider, muon collider - are there others?
- What technology advances are critical to achieve the scenarios agreed above? ECFA R&D Roadmap (<https://cds.cern.ch/record/2784893>).
- What particular R&D areas is the UK community best placed to make progress on (we cannot do everything)?
- What is the likelihood of technology advances being realised on an appropriate time scale?
- How much R&D - both in terms of FTE and funding is required to achieve this?
- Are there other prohibiting factors aside from financial?

**Session Classification:** Accelerator and Detector Technologies