

Accelerator Design meeting

Monday 23/09/2024, 16:00 – 17:30

(<https://indico.cern.ch/event/1458046/>)

Chair: Daniel Schulte

Speakers: Daniel Schulte and Rebecca Taylor

Participants (zoom): 29
Alexej Grudiev, Bernd Stechauner, Carmelo Barbagallo, Claudia Ahdida, Daniele Calzolari, Daniel Novelli, Daniel Schulte, David Amorim, David Neuffer, Donatella Lucchesi, Elias Métral, Fulvio Boattini, Jean-Pierre Delahaye, Jose Antonio Ferreira Somoza, Juliette Plouin, Leonard Thiele, Liang Zhang, Lisa Soubirou, Maria Rosaria Masullo, Marion Vanwelde, Massimo Casarsa, Matteo Crescenti, Nadia Pastrone, Paul Jurj, Rebecca Taylor, Siobhan Alden, Sofia Carolina Johannesson, Ursula Van Rienen.

MEETING ACTIONS: NONE

1. GENERAL NEWS, ESSPU REPORT AND RELATED DISCUSSIONS (DANIEL SCHULTE)

- LDG
 - o Chair will change in January 2025: **Mike Seidel** will take over from Dave Newbold
 - o Will review all five activities (HFM, RF, Plasma, ERL and MC)
 - o Will submit a document to ESPPU
- ESPPU
 - o Timeline from September 2024 to June 2026

- o **European Strategy Group:** represents member states, large laboratories, CERN management and invitees, e.g. Prof. Michael Tuts for the US
- o **Preparatory Group:** prepares briefing book. To be appointed by CERN Council. Two members from the Americas
- o **Strategy Secretariat: Karl Jakobs** (Strategy Secretary), Hugh Montgomery (SPC Chair), Dave Newbold (LDG Chair) and Paris Sphicas (ECFA Chair)
- Plan for ESPPU
 - o **March 2025:** deliver the 2 promised ESPPU reports
 - ⇒ **Evaluation report**, including tentative cost and power consumption scale
 - ⇒ **R&D plan**, including scenarios and timelines
 - o Present green field designs and continue to work on them
 - ⇒ International collaboration
 - ⇒ Parameters, lattice designs, component designs, beam dynamics, cost, etc.
 - ⇒ Perform example civil engineering studies
 - CERN (collider and demonstrator)
 - FNAL, the US started doing similar studies
 - ⇒ Provide dedicated parameter tables for the implementation at existing sites (FNAL, CERN, ...)
 - Scaled from green field design using existing infrastructure
 - Do not have the resources and time to make detailed designs for CERN and FNAL for ESPPU
 - o Tentative timelines provided for both long and concise report(s)
 - ⇒ **Long:** from April 2024 (when the parameter revision started) to end of March 2025 (when the report should be ready)
 - ⇒ **Concise:** from end September 2024 (when overleaf should be in place) to end of March 2025 (with the report submission)
- US progress => See Inaugural US MC meeting at FNAL on 07-09/-8/2024 (<https://indico.fnal.gov/event/64493/timetable/?view=standard>)
- Report organisation
 - o **Editorial board**
 - o Reviewers
 - o The Evaluation Report will be based on the Interim Report => Reuse the same structure but

- ⇒ Add some more detail, where beneficial
- ⇒ Add progress over last year as appropriate
- ⇒ Move unfunded R&D sections to R&D Plan
- o **Same authors as for the Interim Report**
- o **US authors welcome to help**
 - ⇒ Already helped during the Interim Report
 - ⇒ In some cases important activity in the US (e.g. physics, MAIA, etc.)
- Demonstrator strategy => **Workshop at FNAL from 30/10/24 to 01/11/24** (see <https://indico.fnal.gov/event/64984/>)
 - o RF test stand is urgent
 - o Cooling cell prototypes and test infrastructure
 - o **Low-cost, fast-track infrastructure at CERN in TT7**
 - o Longer-term, more substantial demonstrator infrastructure at FNAL, CERN or elsewhere

2. REPORT FROM THE IMCC EARLY CAREER RESEARCHERS' EVENT AT CERN ON 28/08/2024 (REBECCA TAYLOR)

- Before reporting about this event, Rebecca reported about 2 other important subjects
 - o **Parameter report**
 - ⇒ **01/10/24**: spreadsheet will be transferred to overleaf
 - ⇒ **11/10/24**: end of editing period
 - ⇒ **22/10/24**: MuCol management board
 - ⇒ **30/10/24**: EU milestone deadline
 - o **MC schematic**
 - ⇒ Community feedback still welcome
- IMCC ECR's Event on 28/08/24 with Zoom
 - o MC overview from 7 IMCC ECRs
 - o Q&A from 3 IMCC representatives
 - o Research talks from 7 external ECRs
 - o **Significant interest** (188 registrants from 38 countries and 103 institutes) **and very positive feedback**

- o New mailing list created: muoncollider-early-career@cern.ch
- o ECFA ECR upcoming events
 - ⇒ **09-11/10/24**: Town Hall meeting at ECFA workshop in Paris
 - ⇒ **14-15/11/24**: Plenary ECFA meeting at CERN

3. AOB (EVERYBODY)

- NadiaP reported about the IMCC International Collaboration Board#6 on September 16 and the ICB activities, mentioning in particular the coming ICB new chair election (whose result should be announced ~ mid October).
- Next meeting will be announced in due time.

Reported by E. Métral and D. Schulte