

Input received from SPC members – Janusz Gluza

(these are rather technical talks, more for parallel sessions)

1. Towards complete two-loop EW e^+e^- to ZH, Qian Song/Ayres Freitas
2. Electroweak precision pseudo-observables at the e^+e^- Z-resonance peak, Johann Usovitsch
3. PySecDec and integration challenges at NNLO-EW and N3LO-EW, S.Jones/G. Heinrich

Ayres Freitas could be a keynote physics speaker for precision SM physics at FCC-ee.

There is also a nice recent publication by Gudrun Heinrich "

[Collider Physics at the Precision Frontier](https://inspirehep.net/literature/1814379)", <https://inspirehep.net/literature/1814379>

Input received from SPC members – Monica d’Onofrio

I have a couple of suggestions/comments on the topics of discussion today.

In fact, I think that the requirements about parallel sessions should be seriously discussed because I do fear that we might end up not reflecting the breadth of the community because it is hard to get an overview of the community itself. I would appreciate any insights on this, to be discussed today (Note I will have to leave at 5.30 pm for another meeting I could not postpone).

Cheers

Monica

- Proposals for keynote physics speakers

Gian Giudice could be a good choice in my view.

In general, I would suggest to identify people who had a prominent role in the preparation of the ESPP20.

- An outline of the plenary talks pertaining to individual work packages

On the physics side, I do think there should be at least a summary talk on physics and performance from each collider type.

- Any further details about requirements for parallel sessions

Parallel sessions should reflect the breath of studies from communities, inclusive of all strands of the FCC.

A good balancing between specific studies and reports should be achieved, with reports possibly covering multiple studies on-going.

My feeling is that cherry picking topics of people we might be aware of would not reflect the on-going activities and engagement of the communities. A way to go is to collect inputs beforehand, and then select one or two topics, or having the convener of the session summarising somehow the contributions. It is yet unclear to me how much time is devoted to FCC-ee / eh and hh physics studies.

Based on that, one could decide the organisation. For instance, if one afternoon is devoted to FCC-hh, we could (1) call for contributions to be stored / indicated by individual authors (2) define a set of speakers reporting on overall topics, e.g.

Higgs physics (including di-Higgs)

DM searches

Other BSM searches (prompt / long-lived - possibly separated)

Precision measurements and measurements of rare processes

Performance and requirements for detector

A similar agenda, tailored to the collider type, could be defined for ee and eh.

Input received from SPC members –Mogens and Felix

Hello Alain, Gavin,

Felix and myself had a brief discussion Friday afternoon on the Liverpool organisation.
I forward you Felix's summary.

In brief he writes that we would request three parallel sessions: i) gaseous detectors, ii) Si detectors, and iii) calorimetry.

And then, based on Felix's observation from a German future collider meeting last week, that there is no real community prepared to invest time in hardware development at this time, we came to the conclusion that we have to initiate the Detector Concept work with an effort on software and simulation.

For that Felix proposes a common Software + Detector Concepts plenary session in Liverpool.

I think we should discuss this further in a dedicated chat between Felix and myself, Gerri and Clement, and the two of you and Patrick. If you agree, I will try to set up such a meeting. This week is too busy from my side. Next week I am on vacation (official university autumn break!) but I could still meet for a couple of hours.