

Present: Marcel Stanitzki, Marcel Vos, André Sailer, Marco Battaglia, Erik van der Kraaij, Lucie Linssen, Steve Worm, Alex Kluge, Markus Keil, Carlos Mariñas, Dieter Schlatter, Christian Grefe.

Agenda: <http://indico.cern.ch/conferenceDisplay.py?confId=91521>

1. Introduction - Lucie Linssen
2. Performance required by the physics - Marco Battaglia
3. Characteristics of the SiD vertex detector - Marcel Stanitzki
4. Characteristics of the ILD vertex detector - Marcel Vos

Two initial lists of vertex detector requirements have been presented. There are the physics performance requirements and the technology target figures. Within the technology list many parameters depend on each other. This will be part of the WG's studies.

Concerning the hit density: as this has changed by large factors in previous years, it is agreed that a safety margin here is important, say 5-10x.

We need to stay near 0.1% X0 per layer concerning total material. That is, including support. For comparison: an equivalent for this total value is 100 micrometer Si. The LHC has ~300microm Si.-sensors (i.e. excluding support).

5. Discussion

* Should we (for now) consider designs which are independent of ILD or SiD concept?

- in the forward region (<30degree) the TPC is out of reach anyway, and the difference between ILD and SiD is minimal.

* Long /very long barrel: With the larger radius of the beam pipe at CLIC, the vertex barrel must have either very long barrel, or less angular coverage. Yet ladders cannot get too long (< 12.5cm).

- With beam background creating mini-curlers, disks are more useful.

>> It's agreed that for now we consider vertex detector designs independent of ILD / SiD concepts. Two designs are to be explored: a (very) long barrel, or a short barrel+disks.

6. Following meetings

- The next meeting will be 6th May, on low mass mechanical aspects & power dissipation. Possible speakers: A. Kluge, M. Keil, J. Goldstein, W. Cooper, C. Mariñas.
- 20th May the topic will be on time-stamping technologies.
- The 4th meeting is maintained for 17th June.