Minutes of the 66th SiD optimization meeting

16-May-2016

Present:

Tim Barklow (TB)
Marty Breidenbach (MB)
Bogdan Mishchenko (BM)
Chris Potter (CP)
Dan Protopopescu (DP)
Aidan Robson (AR)
Bruce Schumm (BS)
Anne Schütz (AS)
Marcel Stanitzki (MS)
Jan Strube (JS)
Andy White (AW)

Previous Work Items:

- Pro-forma items for background note
    - Detector description (JS)
    - Processes (TB)
- Work items for tracker calibration
    - # tracks at different collision energies (JS and TB)
    - Cosmics efficiencies, tracking efficiencies with different power pulsing modes. (MS) (some progress)
    - Alignment precision with different #tracks (JG)

Agenda and points of discussion:

There were no formal agenda items. Round table discussion:
- Background note
    - Making good progress, still a couple items missing from JS, AS, TB
- ggHadrons
    - TB, BS started iterating on how to generate sufficiently large data samples
    - First iteration was generated (TB). Includes the pt-kick for the Weizsäcker-Williams process that was absent in DBD samples.
    - Needs study to identify cuts.
- Work on full simulation model continues in Glasgow
    - Reduce the number of hard-coded values and change to relative numbers rather than independent absolute values
    - Move arithmetic to c++ driver, rather than in xml code

- ○ Code will be ready for testers soon. Changing the aspect ratio of the tracker would be a good first test.

New Work Items:

- Pro-forma items for background note
  - ○ Detector description (JS)
  - ○ Processes (TB)
- Work items for tracker calibration
  - ○ # tracks at different collision energies (JS and TB)
  - ○ Cosmics efficiencies, tracking efficiencies with different power pulsing modes. (MS)
  - ○ Alignment precision with different #tracks (JG)