

Minutes of the 44th SiD optimization meeting

27-Aug-2015

Present:

Marty Breidenbach (MB)

Joel Goldstein (JG)

Luc d'Hautuille (LH)

Christopher Milke (CM)

Bruce Schumm (BS)

Anne Schütz (AS)

Marcel Stanitzki (MS)

Jan Strube (JS)

Andy White (AW)

Last week's Work Items:

- Re-make the MIP response plots in units of MIPs to compare with DESY plots. Poisson statistics of how many SiPM pixels fire might still have to be implemented. (JS)
- Send scripts to JG to get students set up (JS) ← DONE
- Contact ILD experts to help with validation (JS) ← DONE, mentioned that GuineaPig has been validated, no mention of how this was done, no recommendation how to validate that we are using it correctly...

Agenda and points of discussion:

1. Santa Cruz
 - a. new student (Luc) coming on board. Christopher to bring up to speed
 - b. Plans for LCWS: studies to determine the KPIX buffer depth, Studies of the vtx occupancy
 - c. TDR Table 3.1 with values for the total energy of the pairs, their average number,... should be cross-checked against the simulated files
2. DESY
 - a. Have uploaded 1312 BX of pair events to the grid (JS copied also to lxplus)
 - b. Validation of the pairs is ongoing, should be good enough to first order. To compare conversion to stdhep with conversion to slcio, use --seed to set the random seed; -d doesn't work.
 - c. Planning for LCWS: Studying different configurations for the beam optics (with input from Glen White), Evaluating the readiness of tools to start studies of neutrons from the beam dump.
3. Bristol

a. Student looking at LCFIPlus performance

New Work Items:

- Re-make the MIP response plots in units of MIPs to compare with DESY plots. Poisson statistics of how many SiPM pixels fire might still have to be implemented. (JS)
- Compare running slic with an infinitely small tracking volume and with a cylindrical tracking volume, where the volume overlaps partly with the lumical. (LH+CM)
- Simulate a few events with some reasonable cuts for Bristol to take a first look.