Minutes of the 21st SiD optimization meeting

5-February-2015

Present:

Marty Breidenbach (MB)
Joel Goldstein (JG)
Aidan Robson (AR)
Bruce Schumm (BS)
Tom Markiewicz (TM)
Marcel Stanitzki (MS)
Jan Strube (JS)

Agenda and Points of discussion:

1. First look at different scintillator variants
    a. plots of differently sized tiles indicate that the performance increases with smaller tiles, but no significant improvement beyond 1 cm^2
    b. relative difference between thicker and thinner tiles needs to be checked. The shown difference is unexpectedly large.
        - Should be checked by looking at the SimCalorimeterHit or with single particles. Could be related to a threshold not being set correctly.
    c. the degradation of the RPC simulation at higher energies is hypothesized to be due to overlap between showers from different particles
        - should be checked
    d. Next steps:
        - check detectors into svn
        - make single particle plots available for the different detectors, preferably on confluence.
        - investigate relative difference in performance between the thick and thin scintillators
        - check performance with noise, taken from CALICE
2. Organization of the Confluence Space
    a. Discussion at January SiD meeting showed the desire for a fresh start for our wiki pages. The current SiD confluence space has been identified as a suitable candidate for this fresh start.
    b. Editors are needed to keep encouraging people to publish material and to help organize the documentation. Aidan Robson

kindly volunteered. Norman Graf had volunteered as editor at the SiD meeting.

3. Any other business:
    a. Studies of Forward Occupancy (BS)
        - Currently in the process of extracting the low xs processes and produce 10 bunch trains worth of luminosity.
        - Needs to take into account different luminosities. correction factor for gamma gamma luminosity can be inferred from, e.g. http://agenda.linearcollider.org/event/6000/session/35/contribution/60/material/slides/1.pdf
        - Correct values for egamma luminosities should be obtained from the generators group.