

# Minutes of the 72nd SiD optimization meeting

2016-07-13

## Present:

Jim Brau  
Marty Breidenbach  
Joel Goldstein  
Richard Kriske  
Ross McCoy  
Andrew Myers  
Anne Schuetz  
Bruce Schumm  
Jan Strube  
Andy White

## Previous Work Items:

- 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:

- AHCAL (UTA)
  - Differences in # layers between the Glasgow and UTA implementations were mainly due to different layouts of the active layers + small changes to absorber thickness
  - Some minor inconsistencies in engineering drawings have been raised and have been addressed. Link to engineering drawings on the confluence: <https://confluence.slac.stanford.edu/display/SiD/SiD+Engineering>
  - Discussion of tiling the tiles on the circular disks. Square pixels with same dimensions as barrel are preferred, for reasons of simplicity and cost.
- Muons from the spoilers (DESY)
  - Slides from agenda two weeks ago.
  - Looked at muons arriving at the detector originating from the spoilers and the shielding wall.
  - Glen White supplied particles that were converted to Icio files.
  - Currently two alternative codes for computing the rates, results comparable.

- Getting more particles and particles for different layouts of the spoilers will require more work from Glen.
- Preliminary conclusions: baseline configuration has too many muons still arriving at the detector.

### New Work Items:

- 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)