

end-of-year review 2015

Anne and Marcel @ DESY

- Pair background simulation with GuineaPig
 - Files for three full trains (3936 bunches) on Grid
 - Conversion tool
 - Confluence page
- SLIC simulation: ~2500 bunches for
 - sidloi3
 - sidloi3 – anti-DID
 - sidloi3 – realigned IR
 - sidloi3 – realigned IR – circle cutout
 - sidloi3 – realigned IR – wedge cutout
 - sidloi3 – realigned IR – anti-DID

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- Analysis of pair background in SiD calorimeter cells:
 - Occupancy
 - Hit distribution
 - Origin of pair background particles
- Neutron background from ILC beam dumps:
 - FLUKA
 - First successes in modelling extraction line lattice parts

Prospects for 2016

Anne and Marcel @ DESY

- Expand analysis:
 - All subdetectors (calorimeters and trackers)
 - Comparison of different SiD geometries
 - Distribution of hit time, origin of background particles
 - Background sources:
 - Pair background
 - $\gamma\gamma \rightarrow$ hadrons
 - Bhabha
 - Neutrons
 - Muons
- Neutron background from ILC beam dumps, FLUKA
- Muon flyers from muon spoilers:
 - Effect on occupancy, tracker efficiency, ParticleFlow?

Prospects for 2016

Anne and Marcel @ DESY

- Detector geometry with higher granularity
- 1 TeV background studies:
 - React to news from LHC (750 GeV peak in ATLAS and CMS)
- Summer student (SiD project)
- Advertisement for new Master/PhD students

MERRY
CHRISTMAS
AND A
HAPPY
NEW YEAR

