



Backgroung and Optimization Session

Agenda:

- Status of PXD Background Simulation (Pit V.)
- Status of Synchrotron Radiation Simulation (Yuri S.)
- Status of PXD/SVD Digitization (Peter K.)
- Status of Tracking (Tobias S.)
- Vertexing and Event Display (Christian P.)







Plots from generator 4-vectors. Following cuts were applied:

- low transverse momentum (<beampipe): pt(Lab) > 2.25 MeV
- acceptance: 17° < θ(Lab) < 150°
- at least one electron and one positron track



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KoralW



Scaled to the data luminosity

too big

seems about right

BDK



Occupancy Simulations



 0°

Touschek LER Touschek HER BDK (two photon) BeamGas LER

BeamGas HER RBB LER RBB HER



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Radiation Dose Simulations



Radiation dose for all backgrounds



Layer 1





Andreas Moll left, need to pick up the simulation within (standard) BASF2 framework, see talk by Pit

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What is Missing ?



Most important "new" backgound: Synchrotron Radiation



- Realistic simulations need a realistic simulation of the digitizing process within the Si systems, see talk by Peter
- Performance studies (tracking, vertexing) should to be done using the standard Belle II framework and modern algorithms, see presentations by Tobias and Christian on the status
- Finally, we need a powerful event display, both for beam test (DTT) and for Belle II. Status given by Christian

Looking forward to hear about the progress in these areas.