

FastSim V0.3.0 Dch Occupancy Studies with Bhwide July 27, 2011

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Bhwide Bugfix

- Problem: Generated angles exceed the specified lab angle cuts, cross-sections don't match expected values
- Solution: Implement CMS rotation before boosting to lab
 - Missing rotation was not a serious problem until ~2 years ago when beam directions in FastSim were switched

Bhwide Bugfix



Changes to Occupancy Rates (Baseline)

Before

After



Plot now includes max cell occupancy
Changes only significant for low-angle scattering

Changes to Occupancy Rates (Baseline)

Before

After



Average Cell Occupancy Percentage per Dch Wire Layer

(Baseline Configuration, Shielded)



Improved Cell Occupancy Plots

Drift Chamber Cell Occupancy Percentages

(Baseline Configuration, Unshielded)



- Each layer can contain different number of cells
- Note rise in occupancy as cells/layer drops off, wasn't visible in previous plots

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www.physics.mcgill.ca/~swerskyd/swersky_BAD_July27.pdf