

Drift Chamber Occupancy Studies Using Bhwide Bhabha Monte Carlo Generator- Bugfix Updates

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McGill University

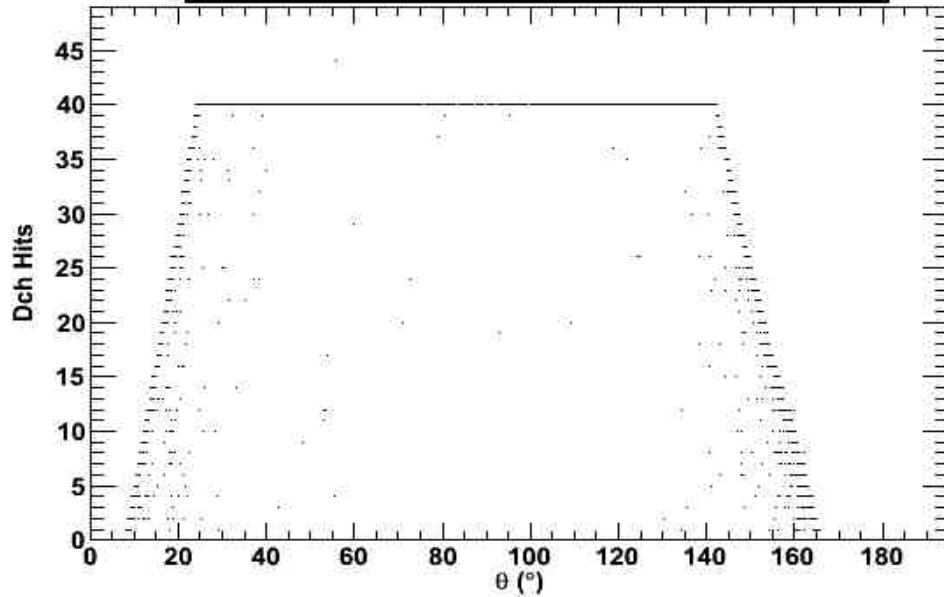
Updates

- Updated to FastSim V0.2.1 + trunk of PacSim package
- Dch corners bug appears to be fixed now, but David Brown says code will eventually need to be rewritten
- After bugfix, occupancy rate on first few wire layers rises substantially ($\sim 100\text{kHz}$ or more)
- See April 26 presentation on Indico for more information

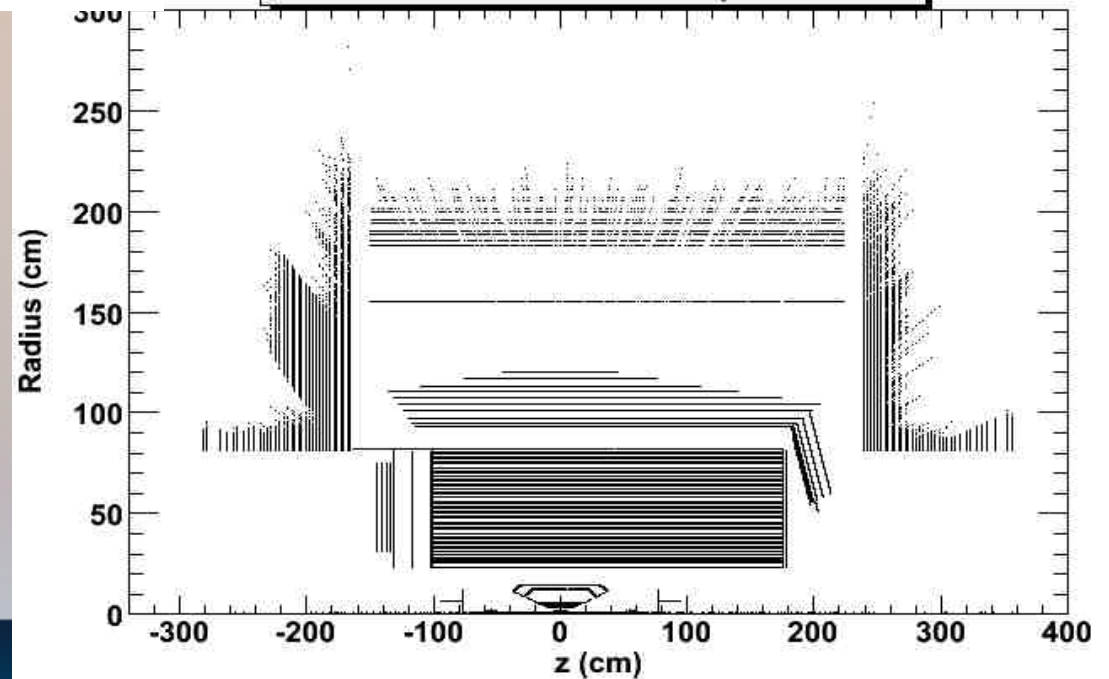
(<http://agenda.infn.it/materialDisplay.py?contribId=6&materialId=slides&confId=2569>)

Baseline Geometry: Bugfix Results

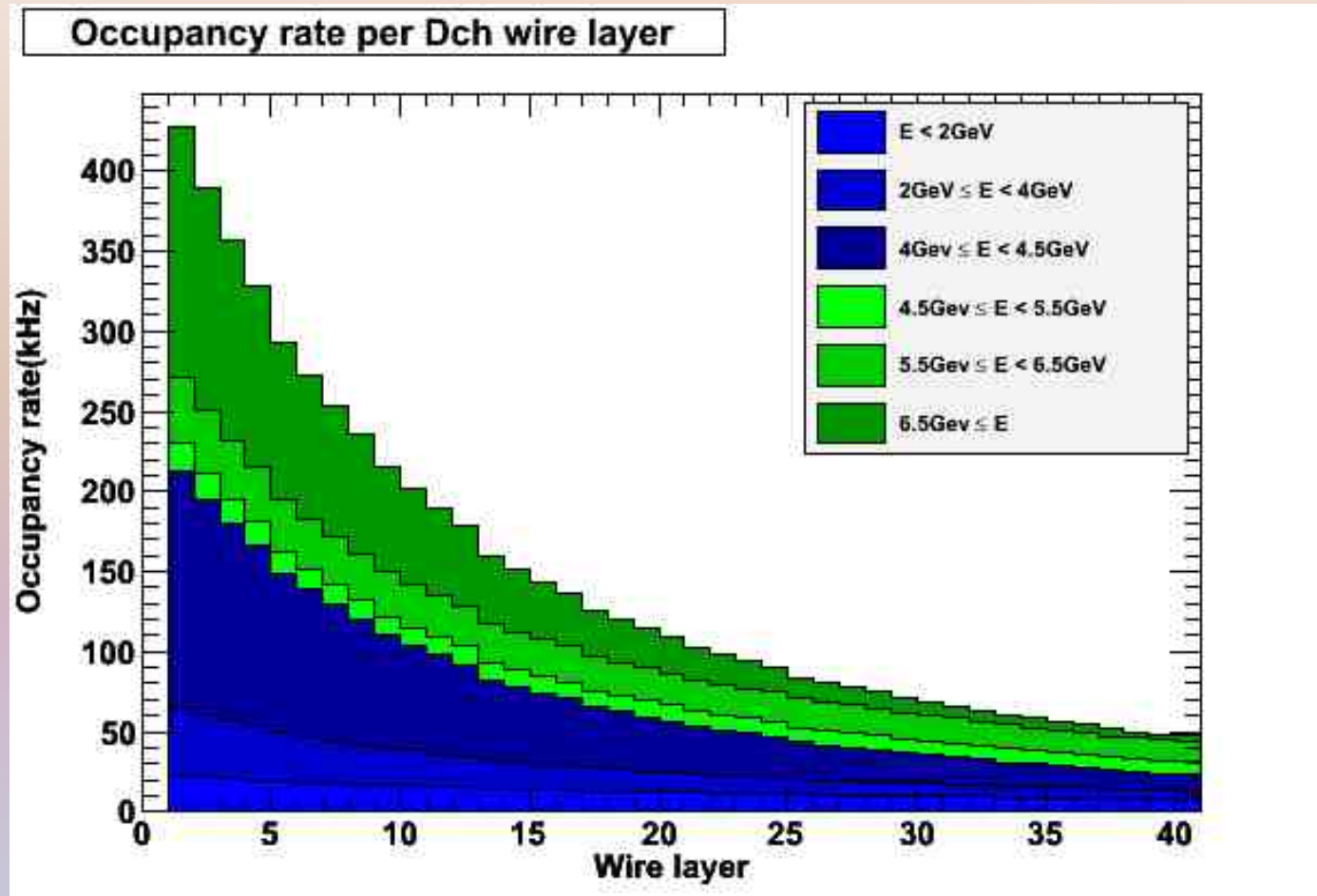
Number of Dch Hits vs. θ



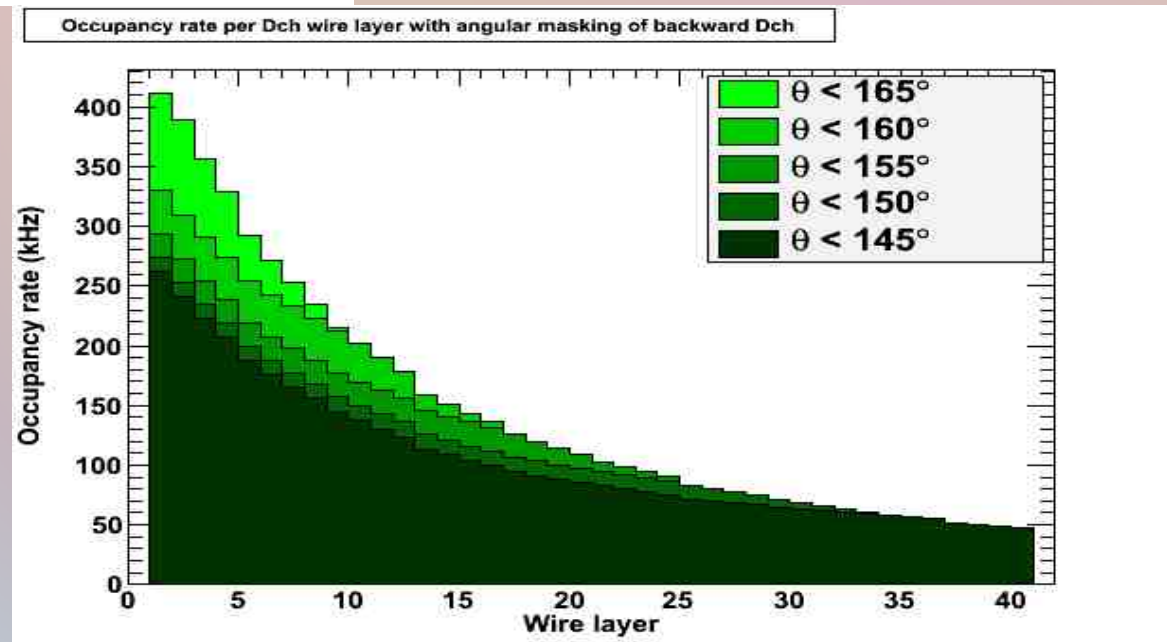
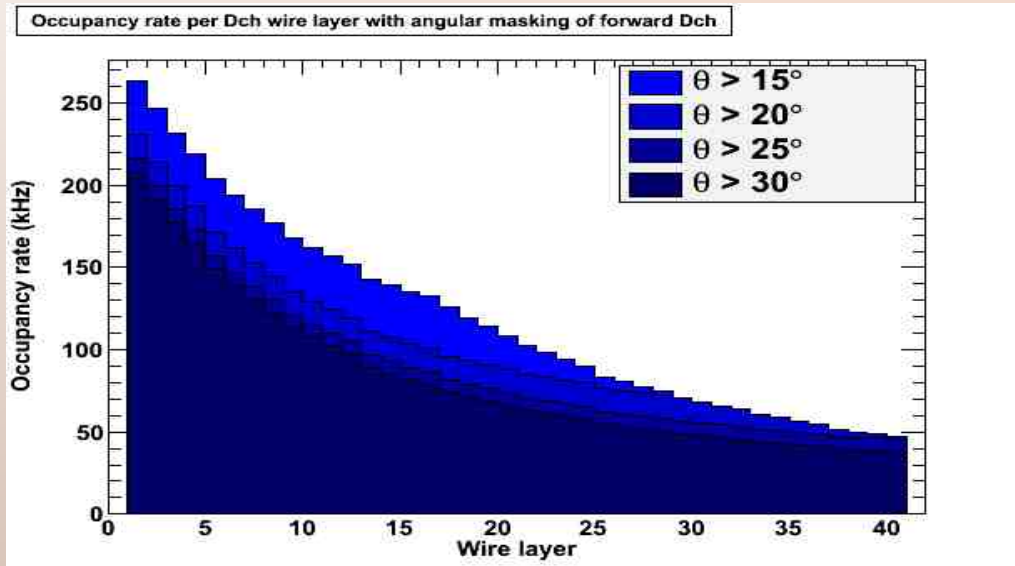
Simhits in the radial-z plane



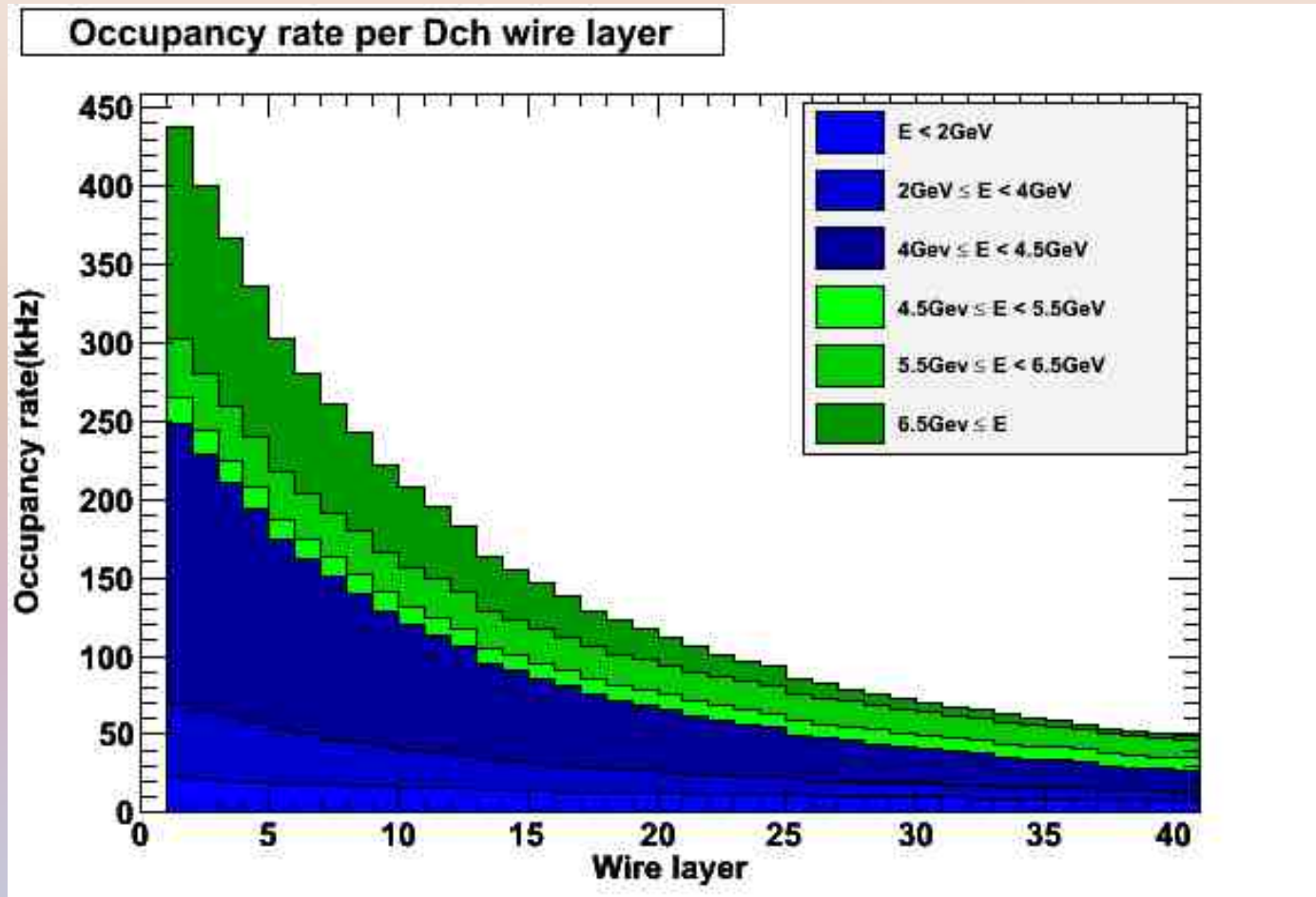
Baseline Geometry: Occupancy Rates



Baseline Geometry: Angular Cuts

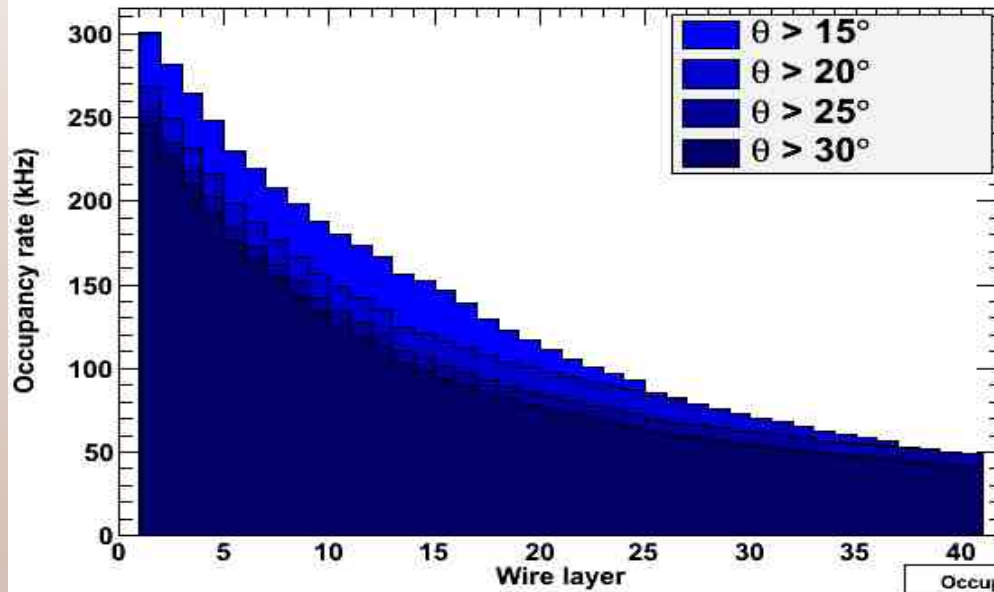


Baseline_+10IP Geometry: Occupancy Rates

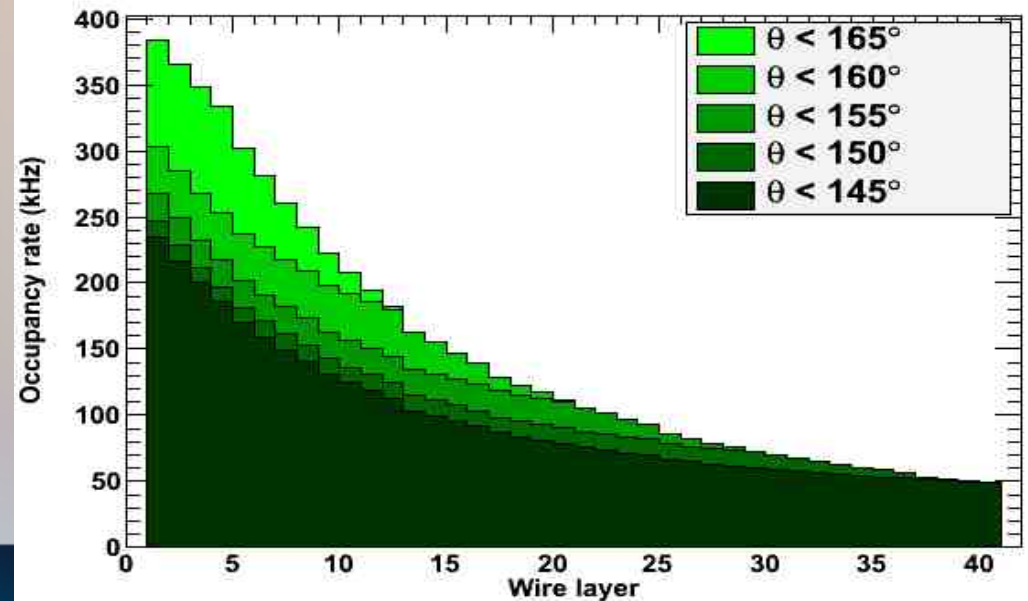


Baseline_+10IP Geometry: Angular Cuts

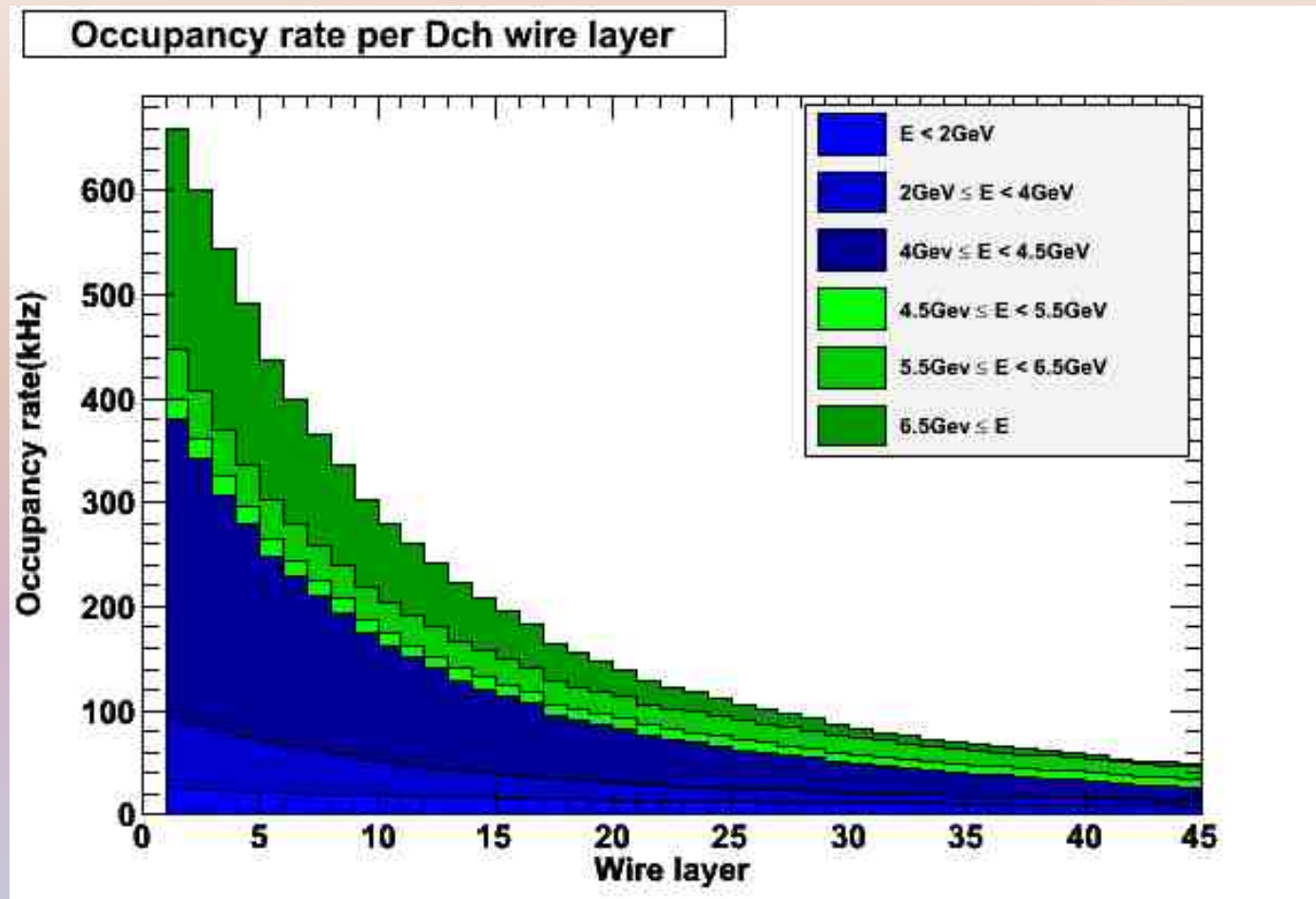
Occupancy rate per Dch wire layer with angular masking of forward Dch



Occupancy rate per Dch wire layer with angular masking of backward Dch

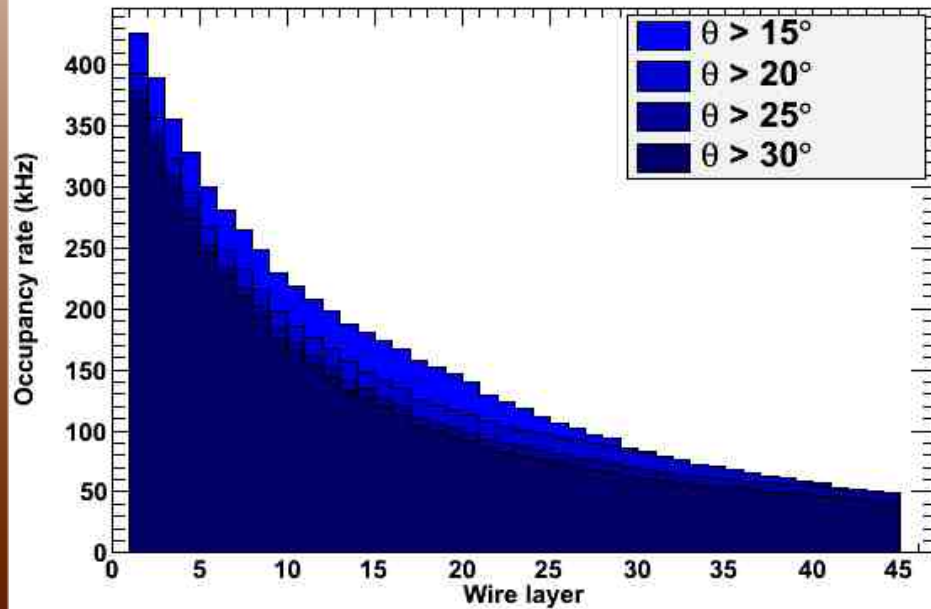


Baseline_+10IP_11SL Geometry: Occupancy Rates

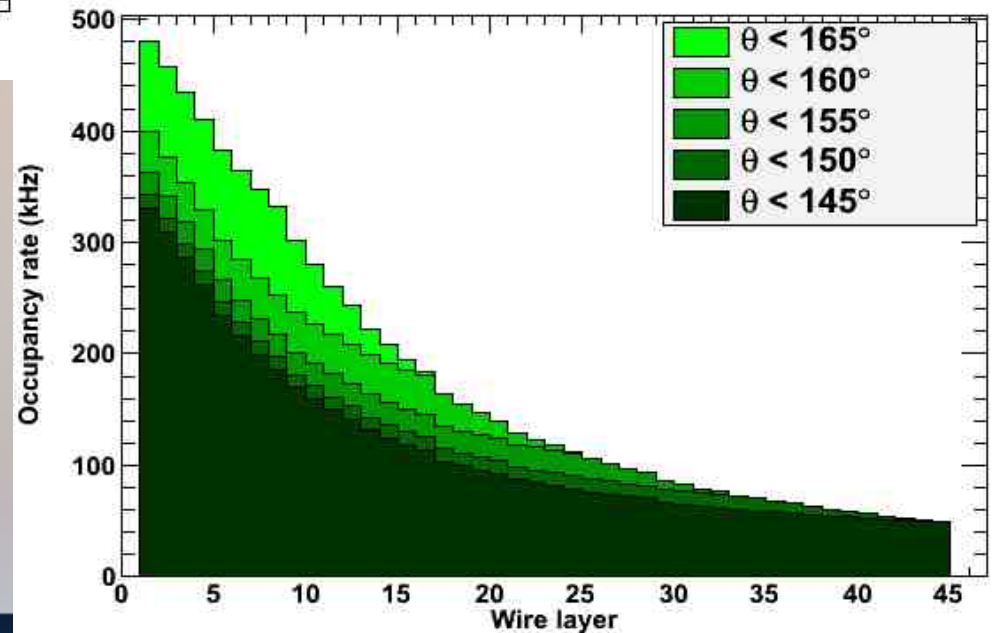


Baseline_+10IP_11SL Geometry: Angular Cuts

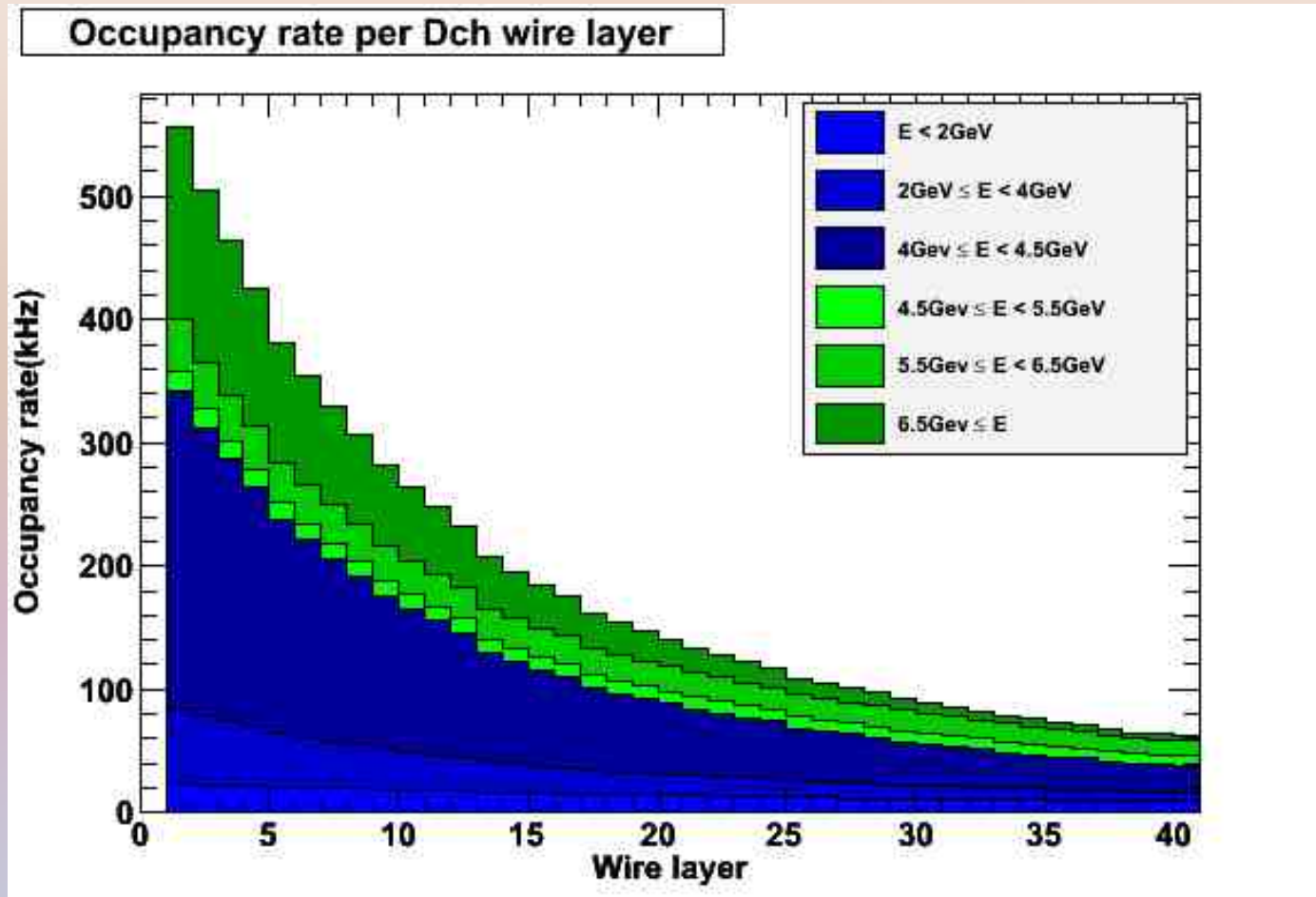
Occupancy rate per Dch wire layer with angular masking of forward Dch



Occupancy rate per Dch wire layer with angular masking of backward Dch

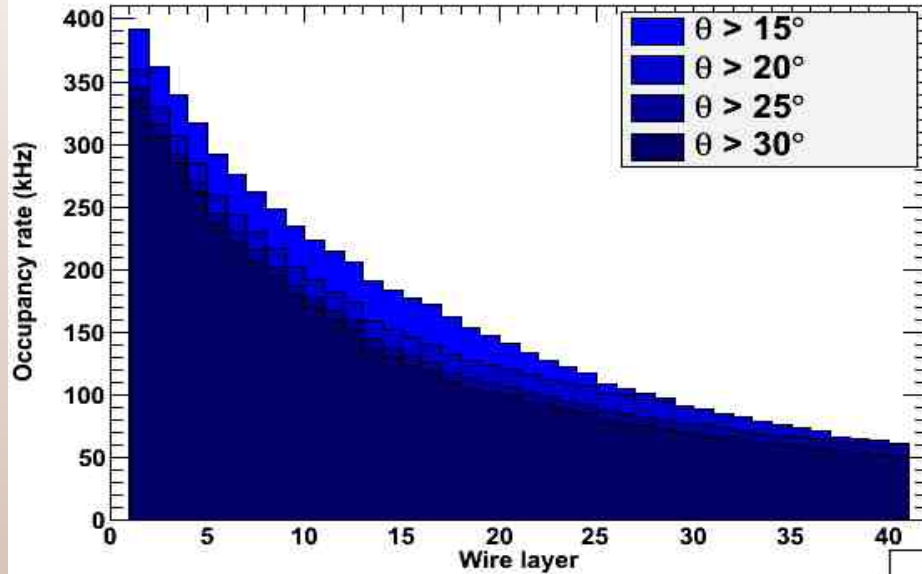


Longbwd Geometry: Occupancy Rates

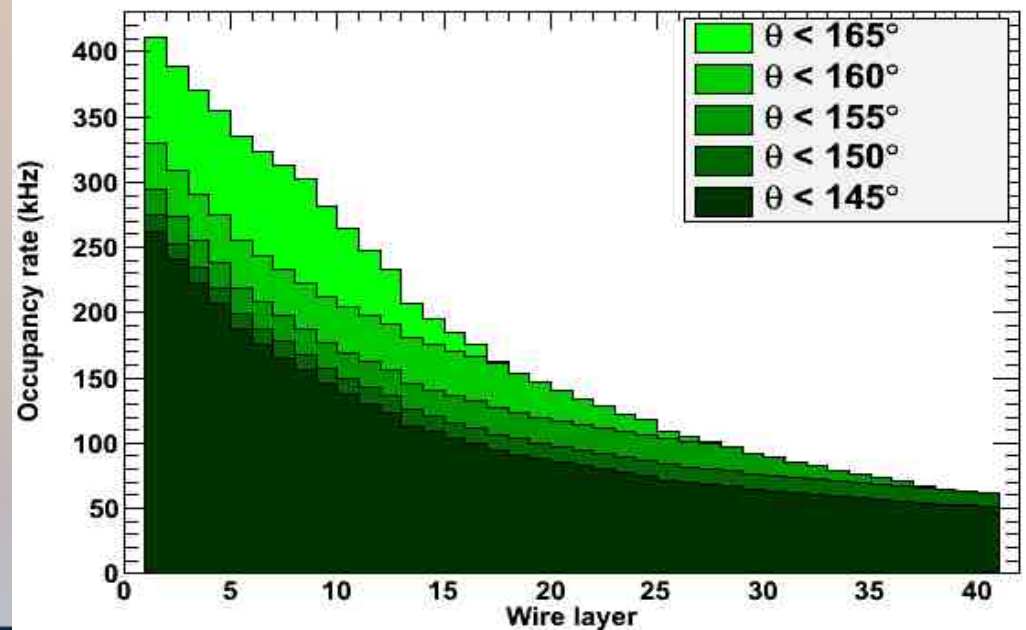


Longbwd Geometry: Angular Cuts

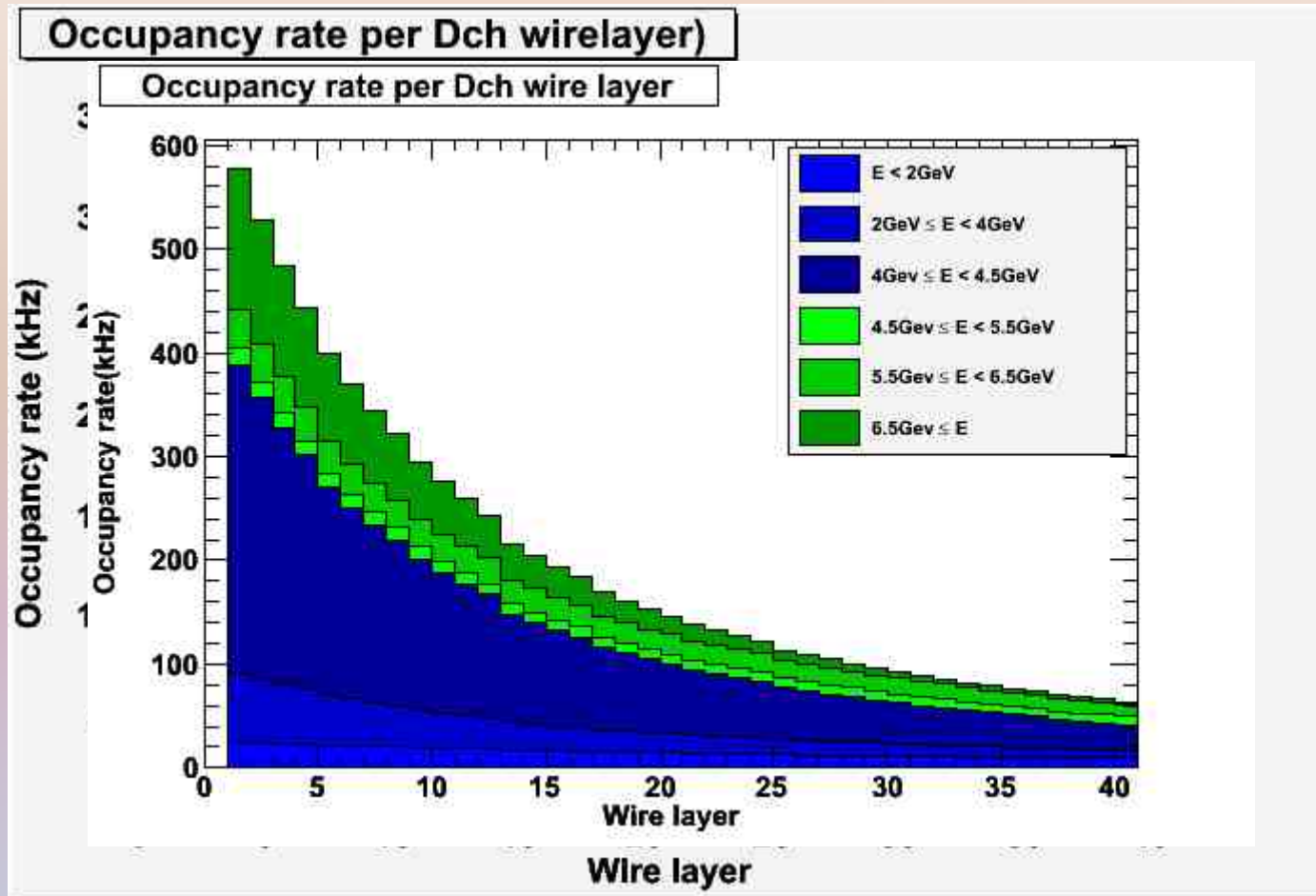
Occupancy rate per Dch wire layer with angular masking of forward Dch



Occupancy rate per Dch wire layer with angular masking of backward Dch

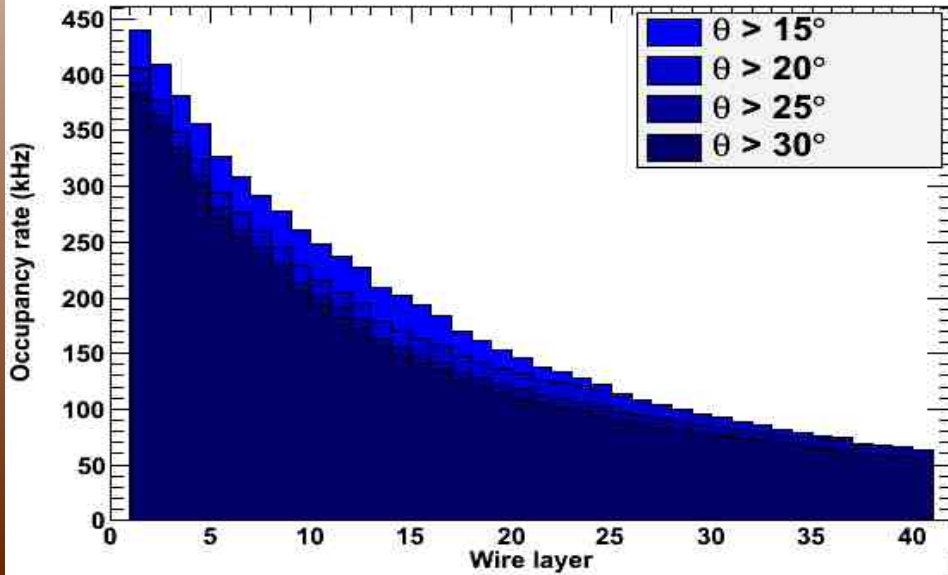


Longbwd_+10IP Geometry: Occupancy Rates

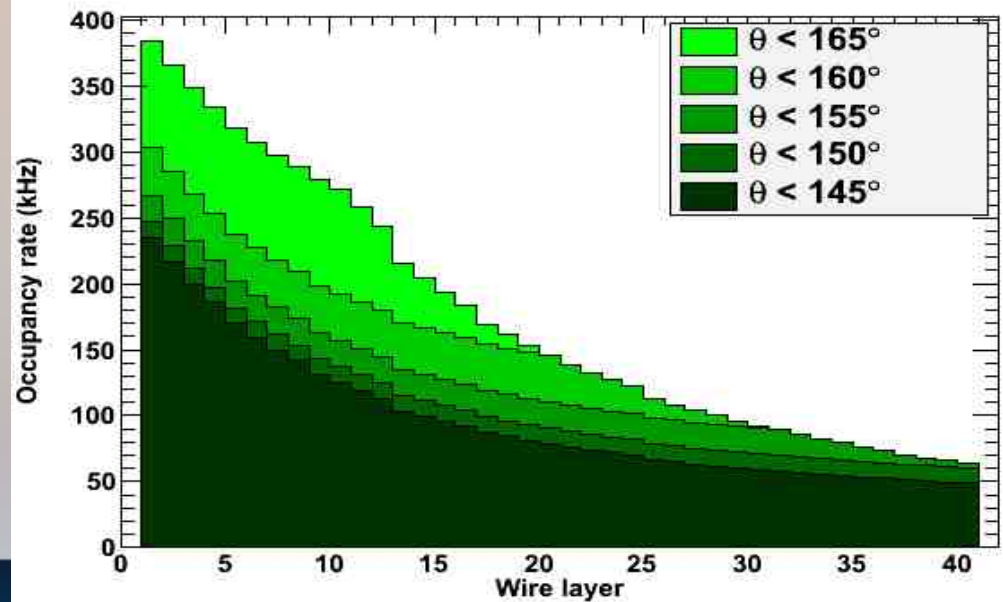


Longbwd_+10IP Geometry: Angular Cuts

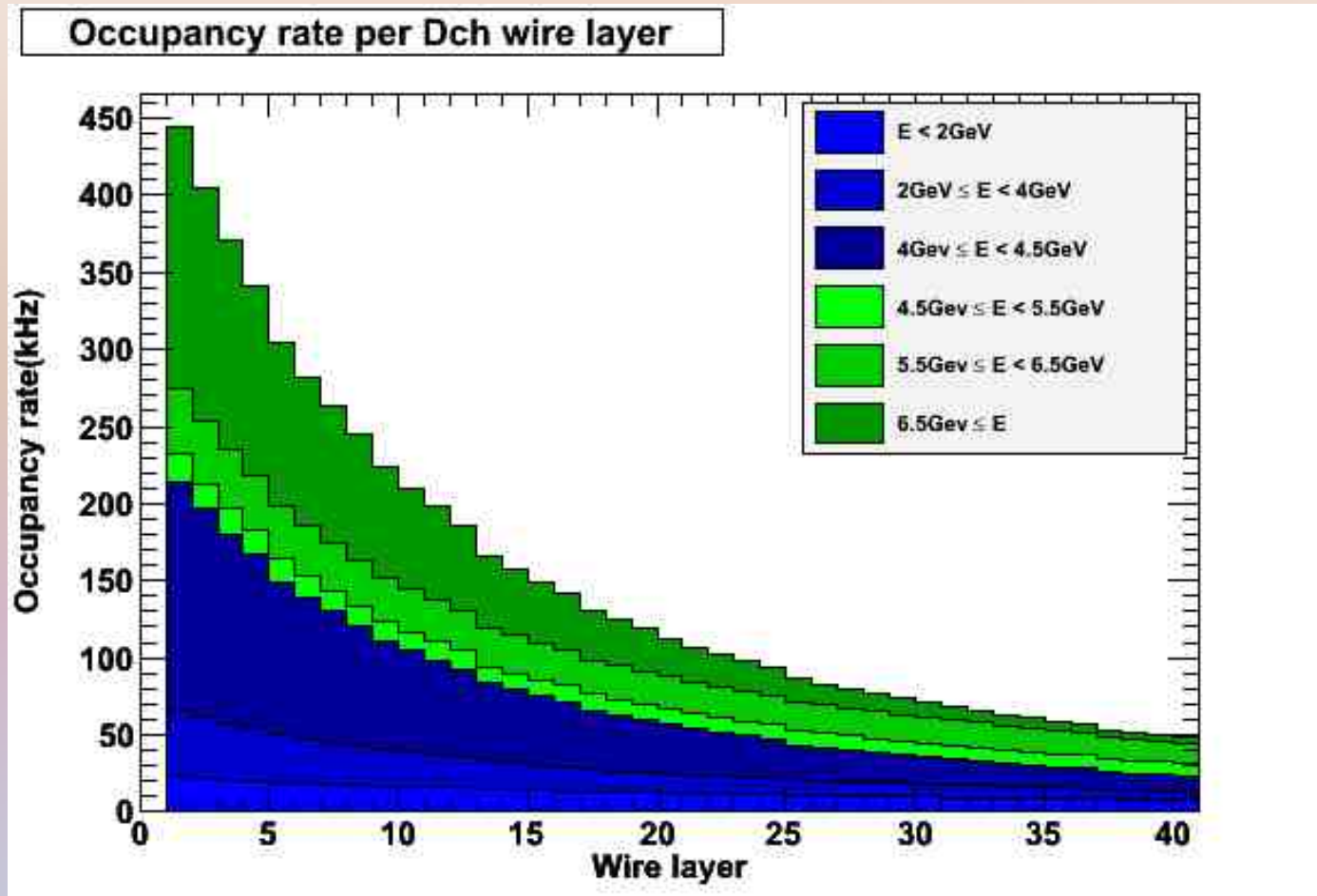
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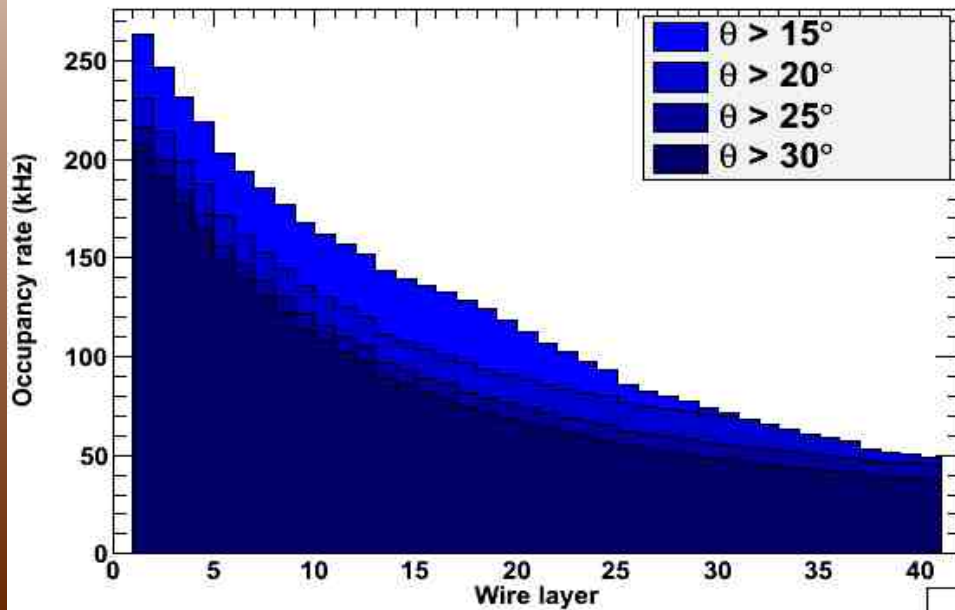


Longfwd Geometry: Occupancy Rates

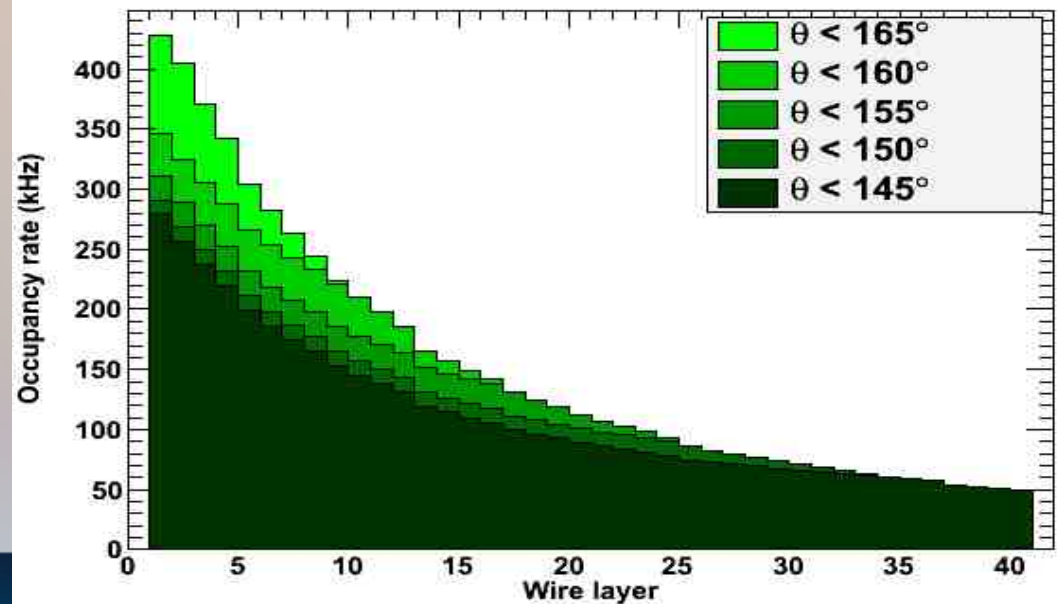


Longfwd Geometry: Angular Cuts

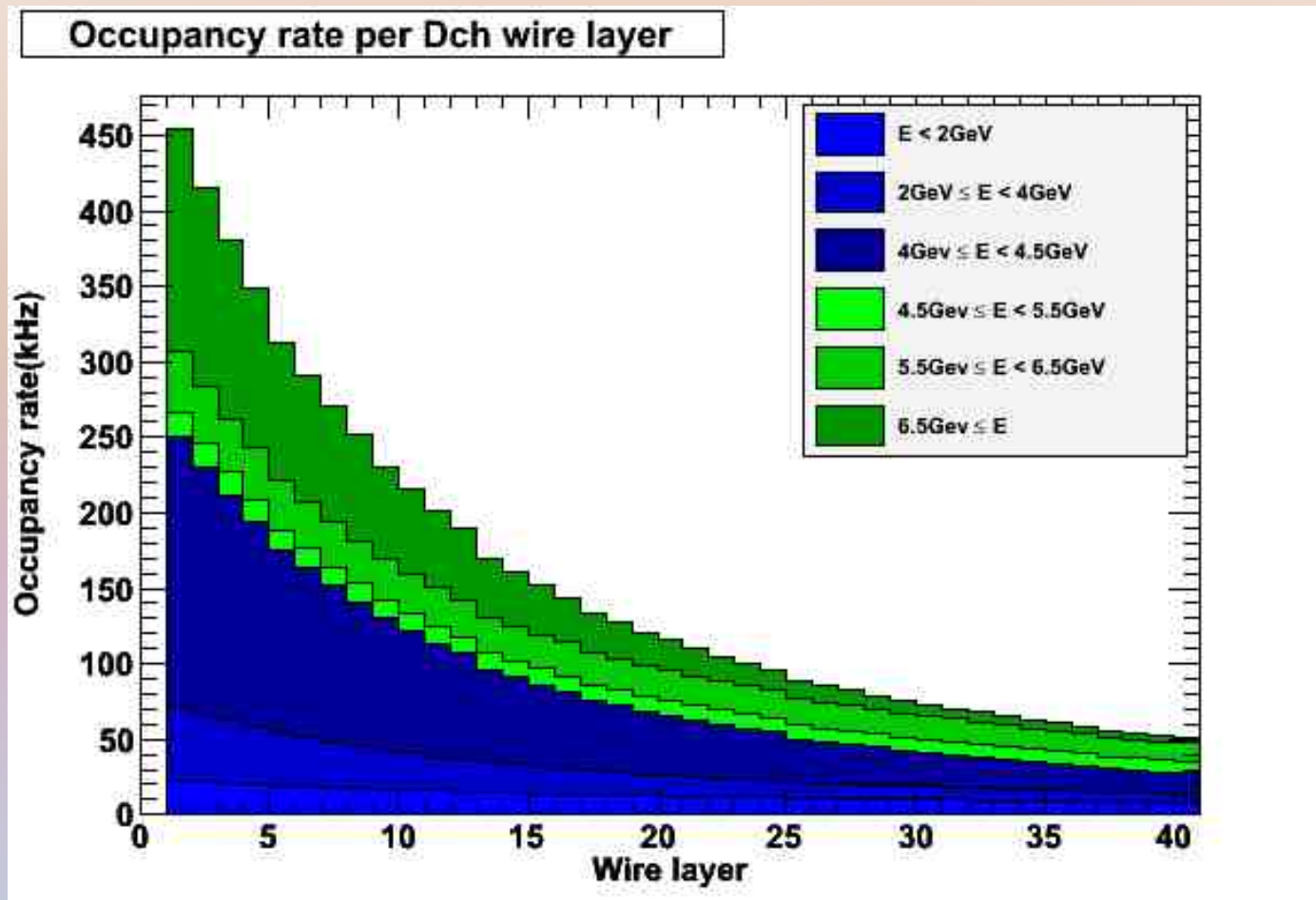
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Occupancy rate per Dch wire layer with angular masking of backward Dch

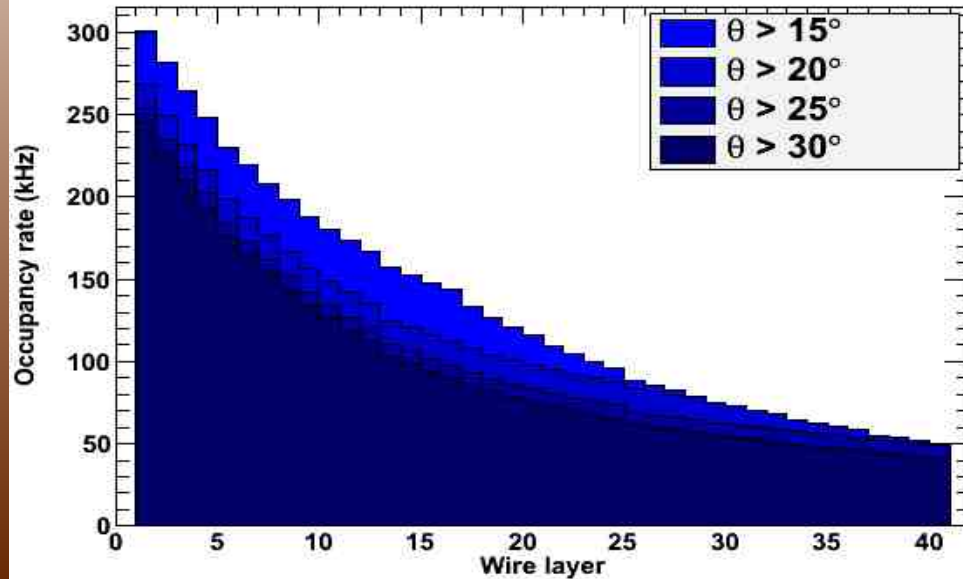


Longfwd_+10IP Geometry: Occupancy Rates

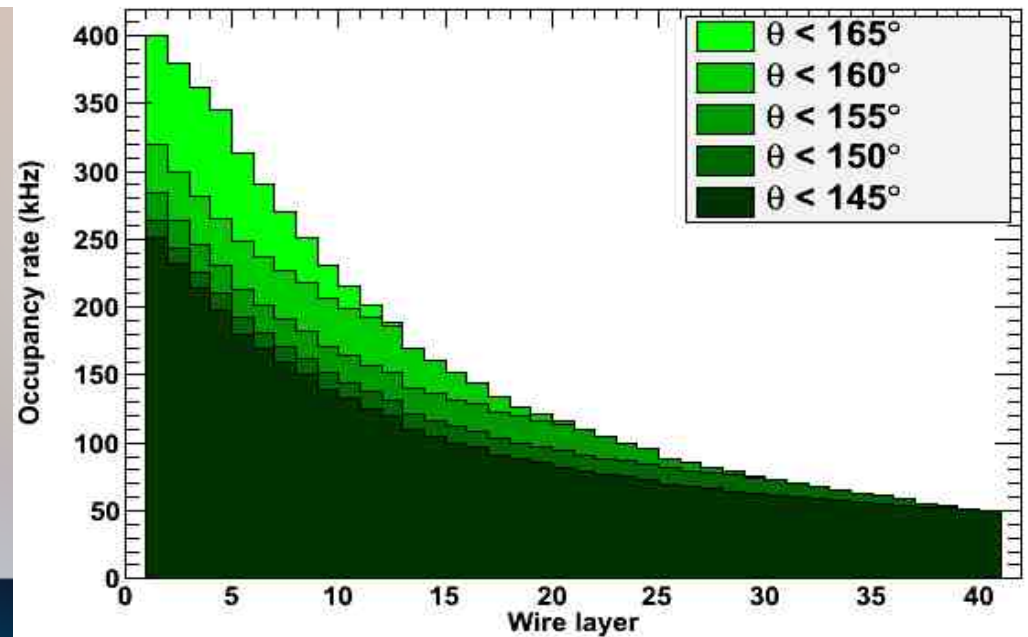


Longfwd_+10IP Geometry: Angular Cuts

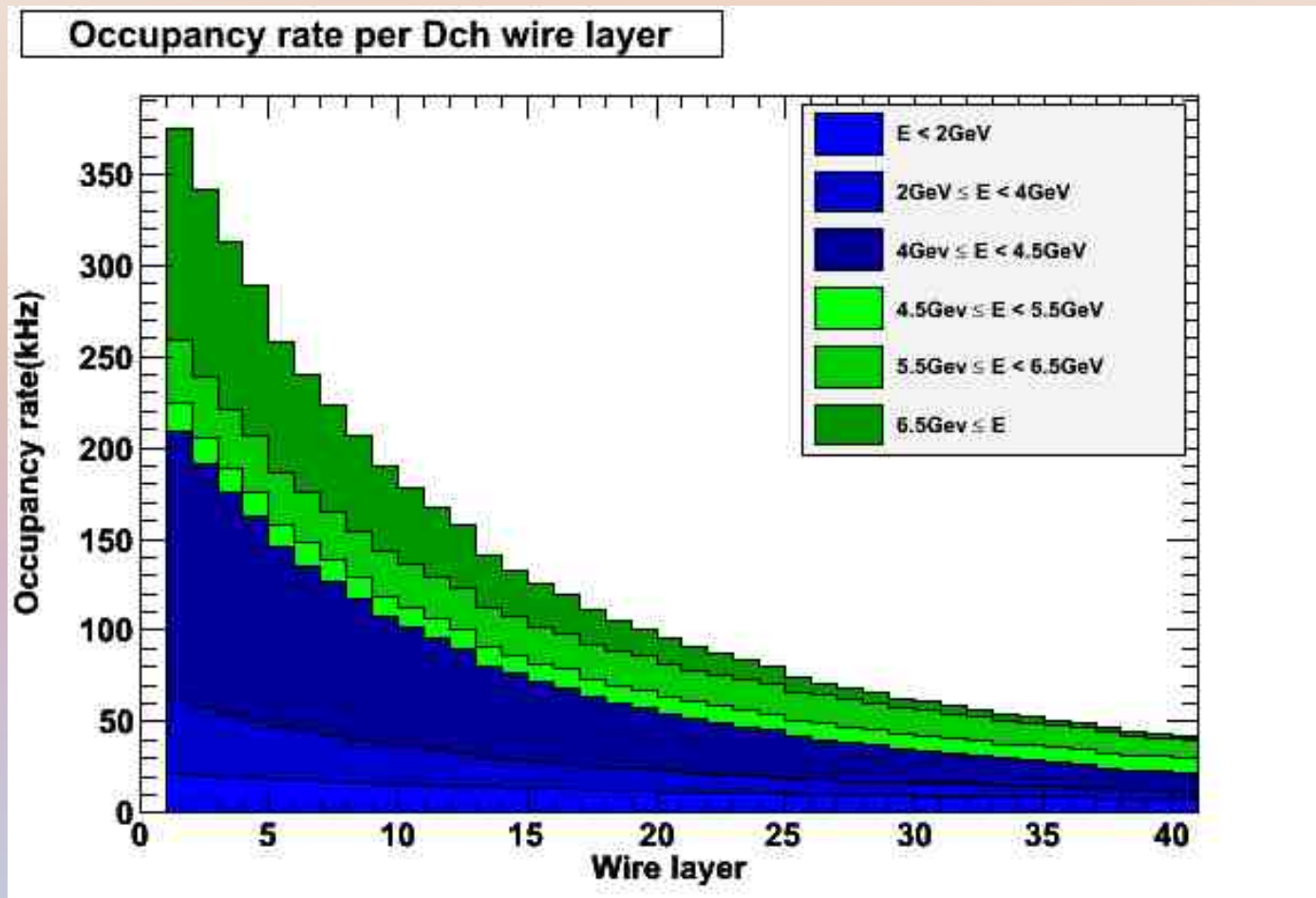
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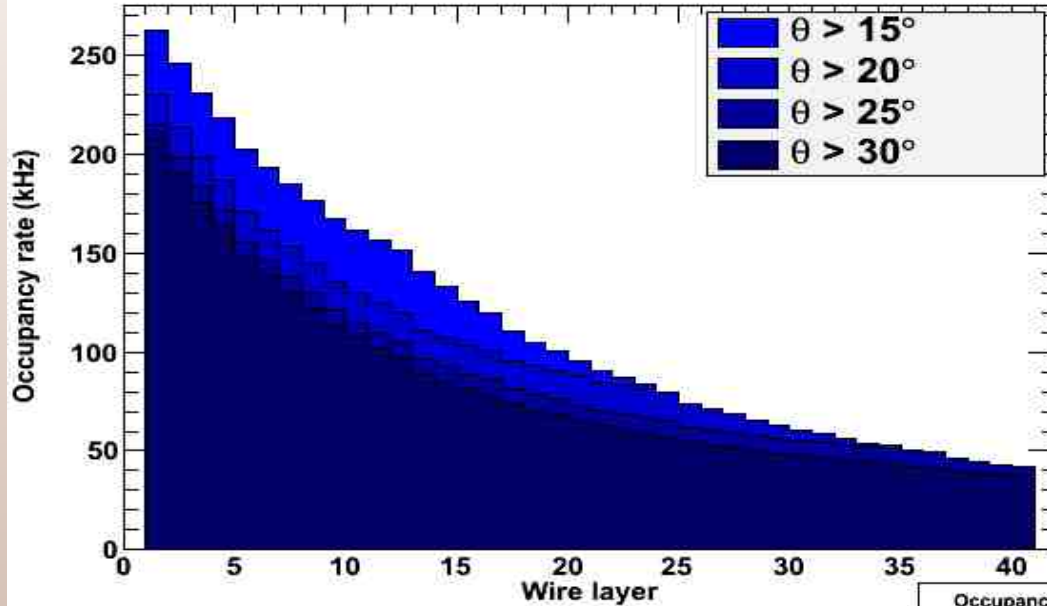


Shortfwd Geometry: Occupancy Rates

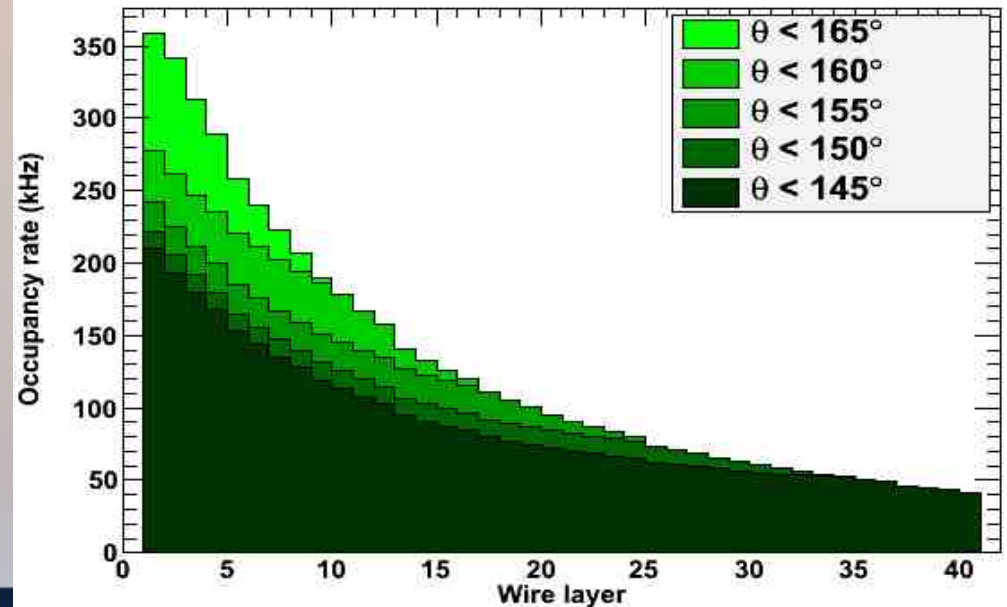


Shortfwd Geometry: Angular Cuts

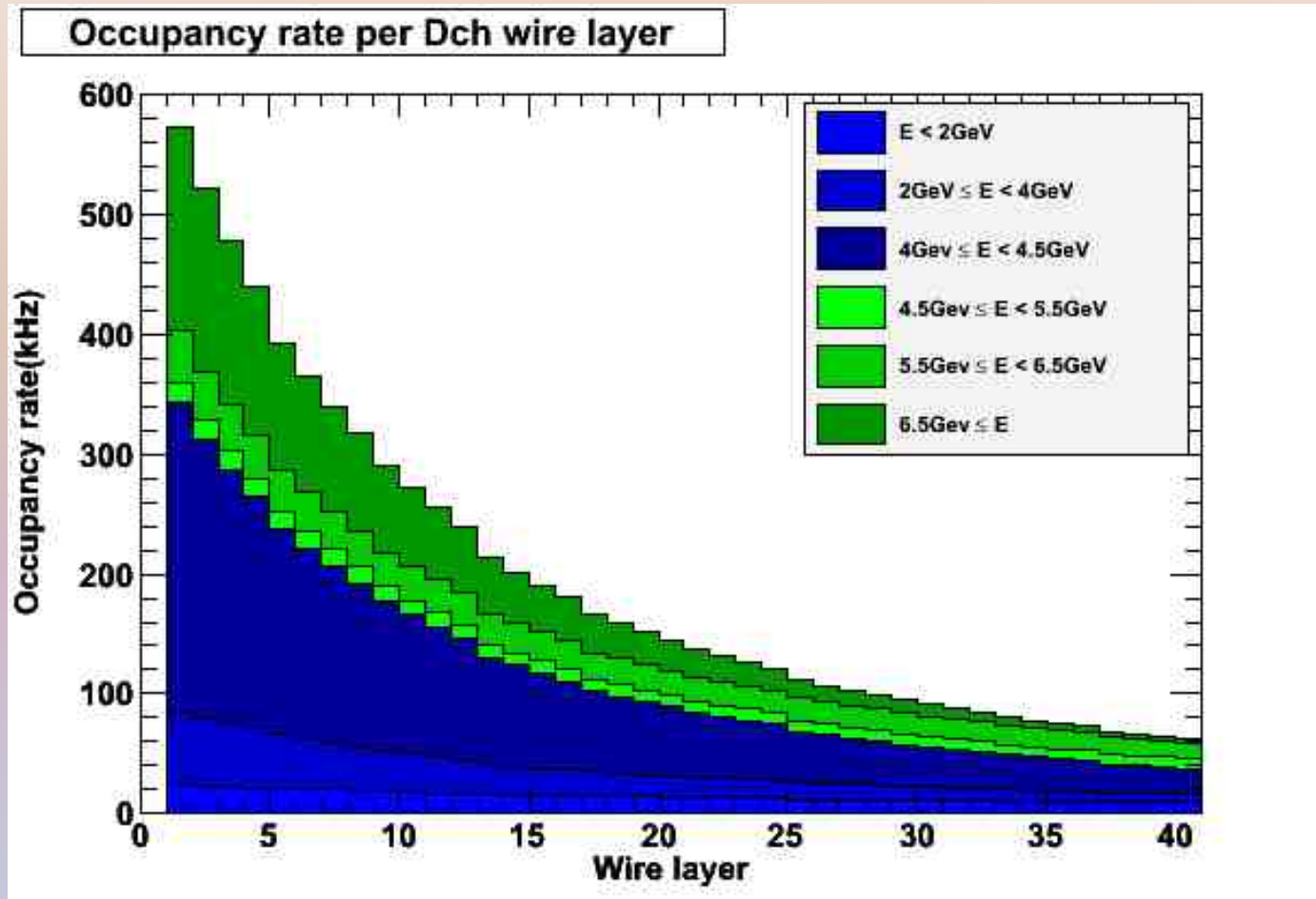
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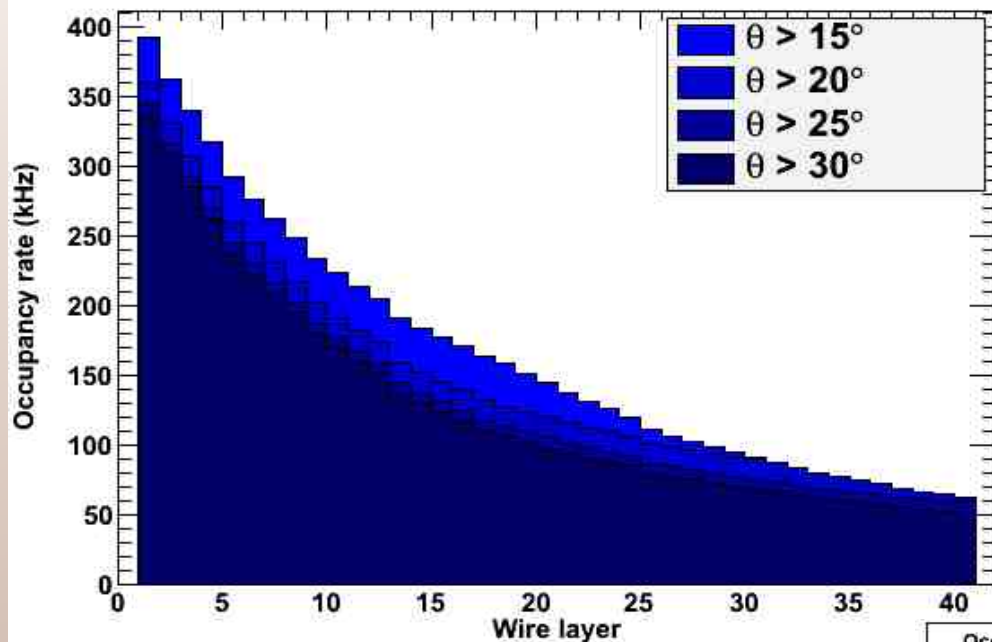


Longbwdfwd Geometry: Occupancy Rates

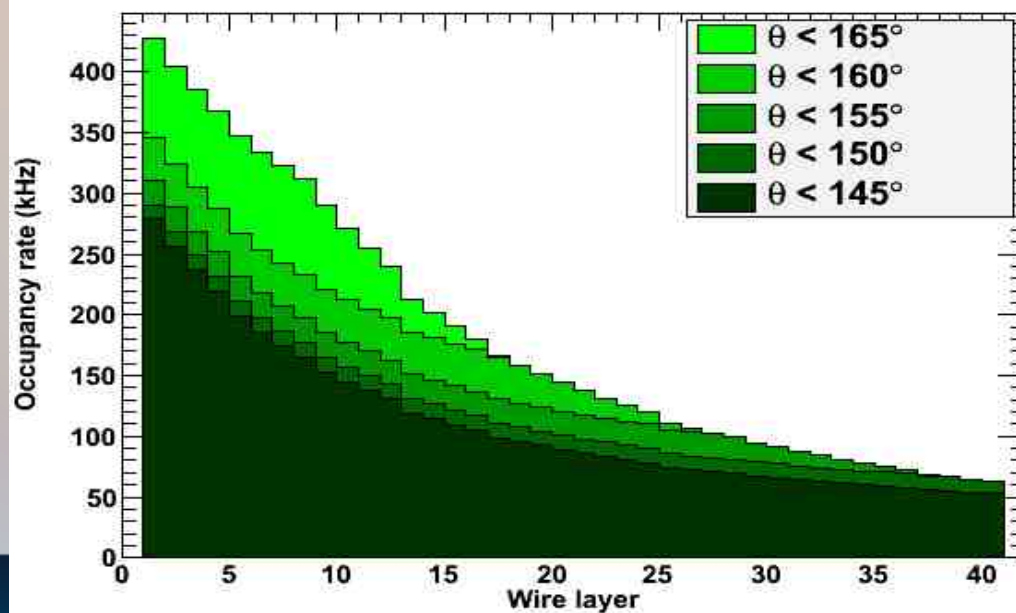


Longbwdfwd Geometry: Angular Cuts

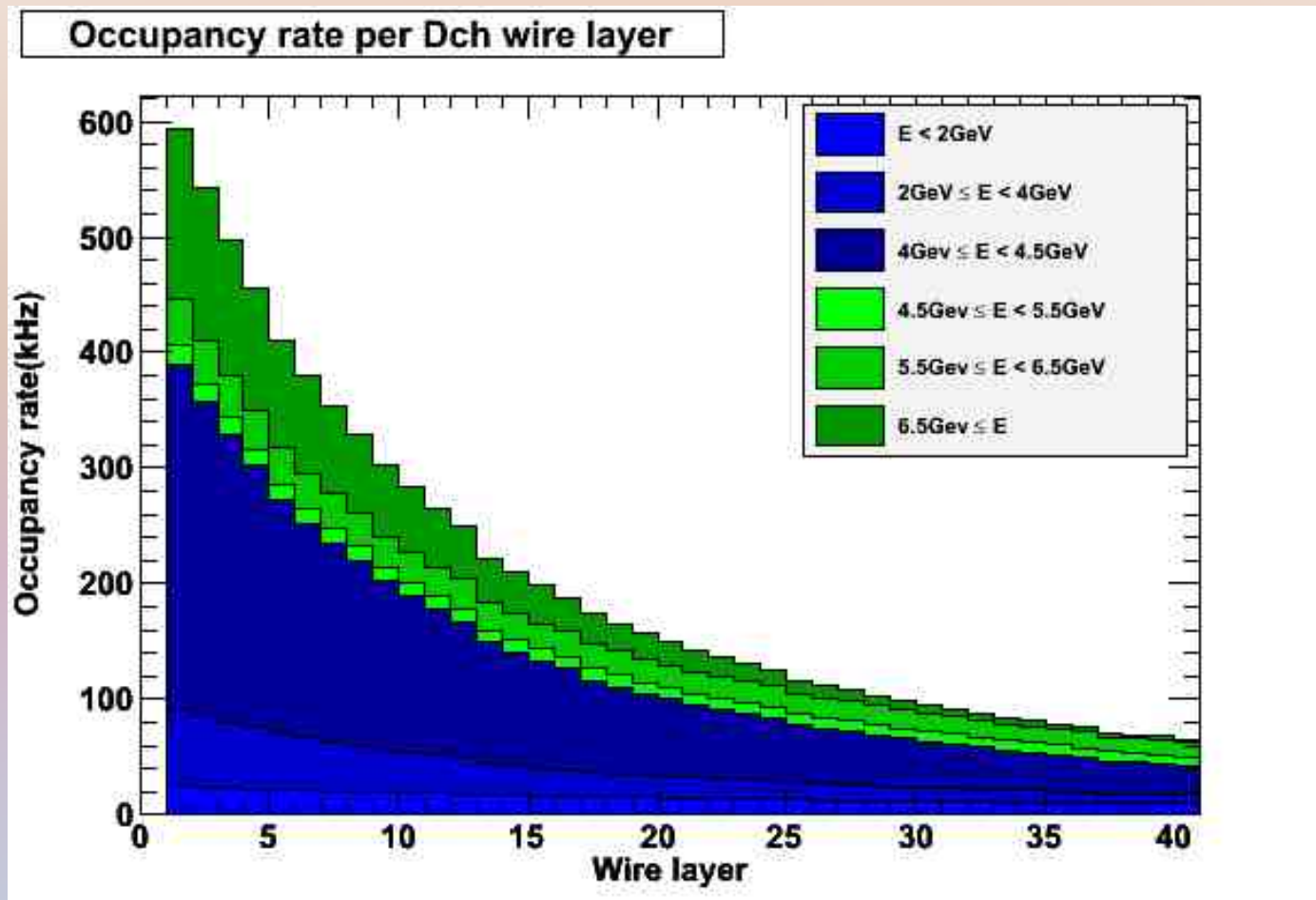
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Occupancy rate per Dch wire layer with angular masking of backward Dch

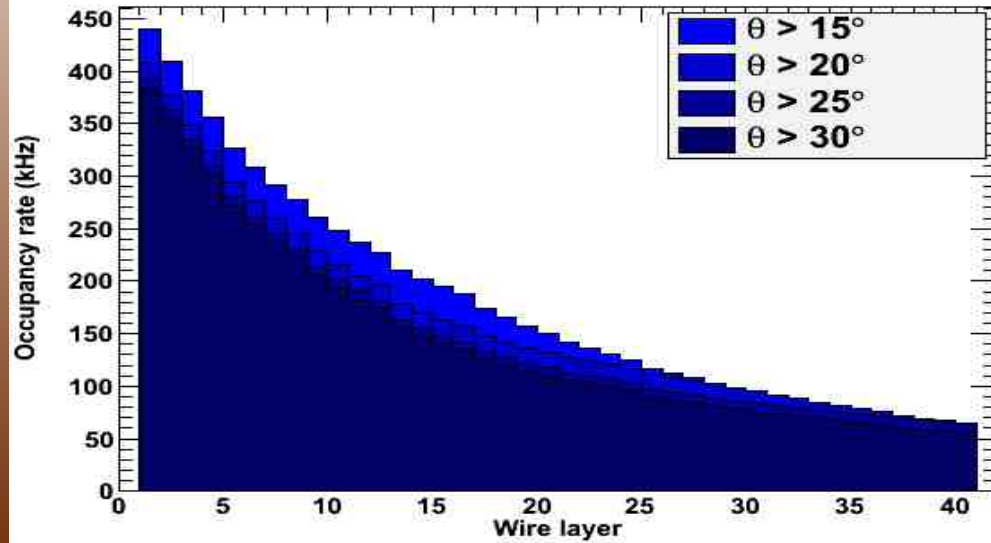


Longbwdfwd_+10IP Geometry: Occupancy Rates



Longbwd fwd_+10IP Geometry: Angular Cuts

Occupancy rate per Dch wire layer with angular masking of forward Dch



Occupancy rate per Dch wire layer with angular masking of backward Dch

