

First look at Feb 2010 production: SVT bkg



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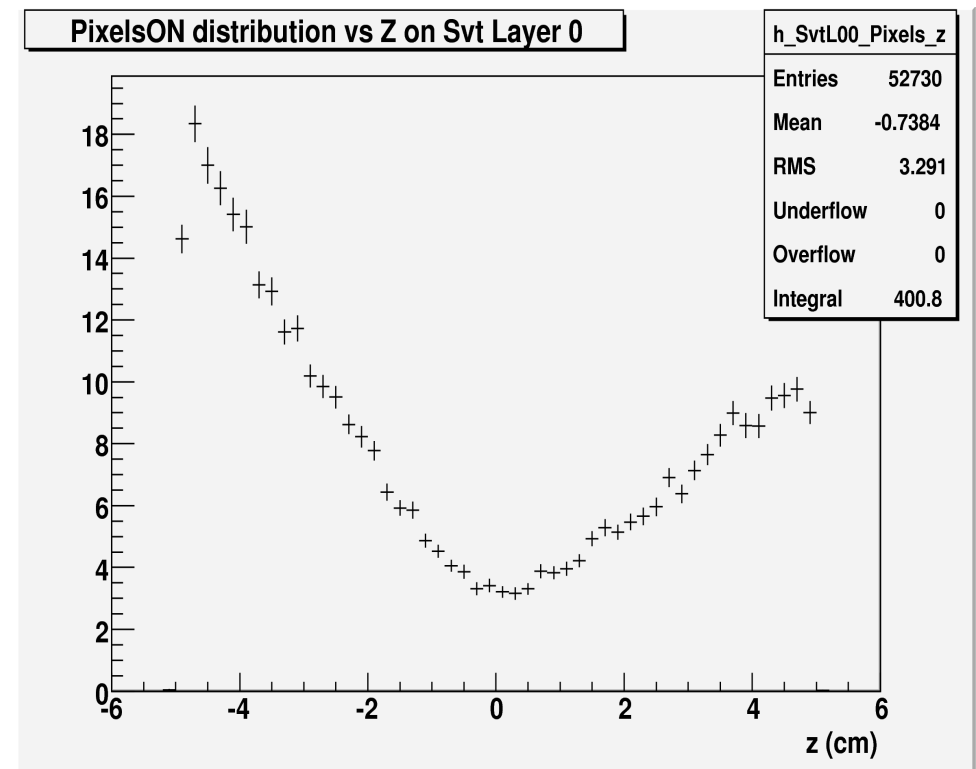
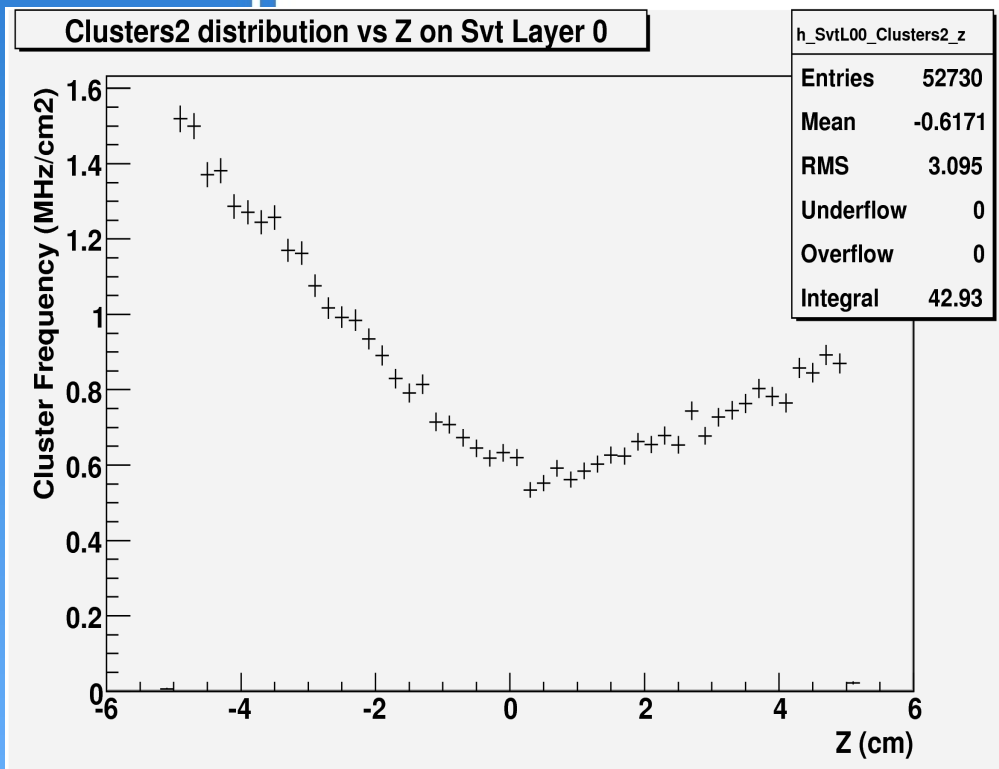
**DCH meeting
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Production configurations

- Modified geometry from previous studies:
 - Dirc added
 - Different shielding
 - 3um of gold coating inside BP instead of 10um
- 5 simulated configurations for RadBhabha:
 - Default (DeltaE 10%), 200k evts
 - Unshielded, 200k evts
 - Lower DeltaE: 1%, 200k evts
 - Lower DeltaE: 0.2%, 200k evts
 - High precision neutron tracking, 100k evts

Cluster/Pixel rates distribution: z

- Z distribution confirms that most part of the hits is not from tracks directly from IP



Hits distribution (step length, elap time)

- Overall rates are not significantly different from previous results
- No significant difference even between different configurations, less than 5%

SVT Layer	Cluster rate (kHz/cm ²)	Pixel rate (kHz/cm ²)
Layer 0	858	8016
Layer 1	62	116
Layer 2	38	71
Layer 3	15	28
Layer 4	3.4	5.4
Layer 5	2.1	3.4

2photons (aka Pairs) bkg

- I simulate again with the new geometry the 2photons bkg (40k evts)
- Again no significant change in rates
- Anyway with bug processing I tried to understand any difference using different step size

Conclusions

- Production allows us to have statistically significant plots for RadBhaBha bkg
- No significant increase in rates

Svt details

- **Bruno r353**
- Geometry:
 - Beampipe (BP): 1mm thick, Rmin 10mm
 - Gold foil inside BP: 3um
 - SVT Layer 0 is a tube, not a pin-wheel
 - SVT L0 length 10 cm, thickness 300um, Rmin 1.3cm
 - BP and L0 centered at $z = 0$