

SuperB SVT

Update on QED Background in Trieste

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May 2011 Pairs Production

Features:

- $\Delta t \sim 203 \mu\text{s}$
- Same magnetic field configuration, solenoidal field around IP region, not limited
- No Wedge in layer 4 & 5

December 2011 Pairs Production

Features:

- $\Delta t \sim 372 \mu\text{s}$
- Same magnetic field configuration, solenoidal field around IP region but limited in z (± 20 cm from IP)
- No Wedge in layer 4 & 5

January 2012 Pairs Production

Features:

- $\Delta t \sim 377 \mu\text{s}$
- Same magnetic field configuration, solenoidal field around IP region but limited in z (± 40 cm from IP)
- No Wedge in layer 4 & 5

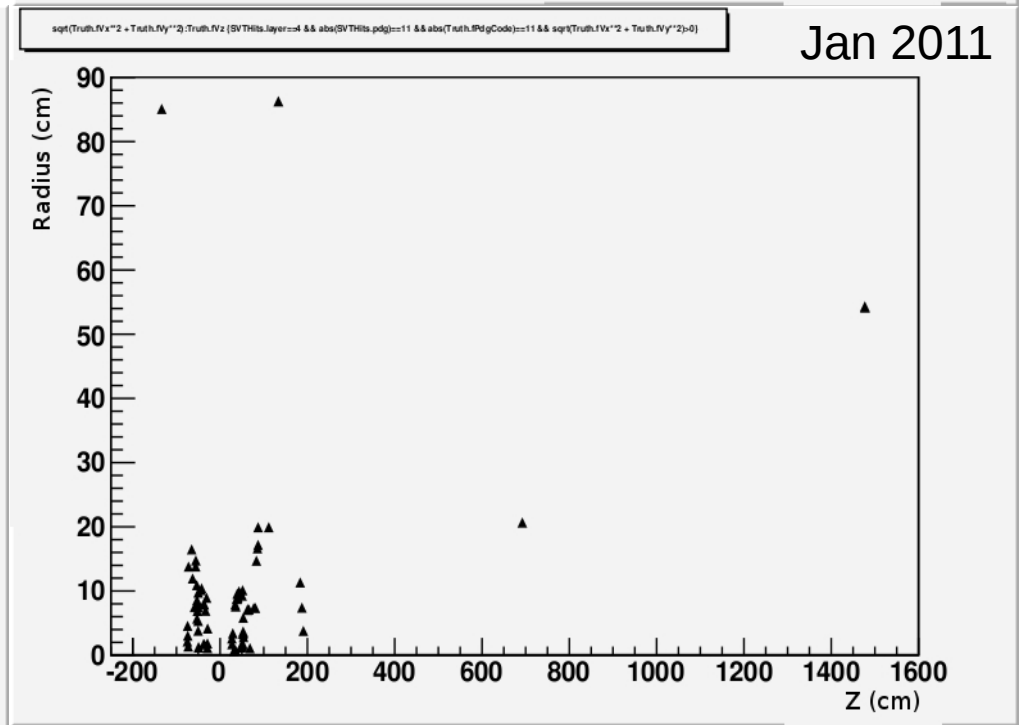
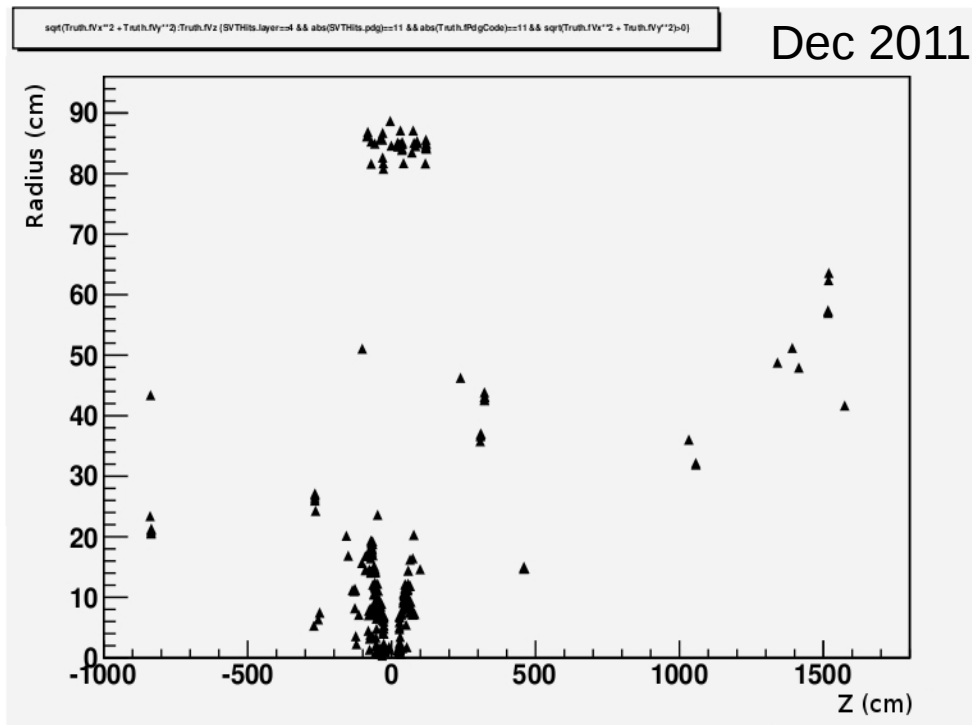
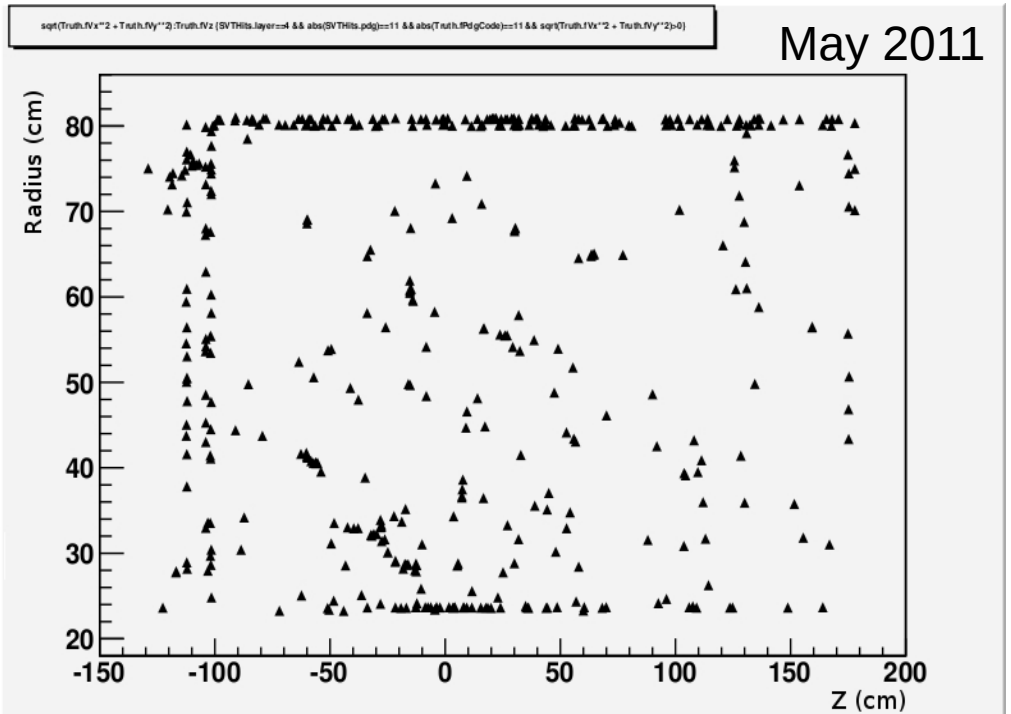
Comparison of average QED strip rate, May 2011, December 2011, January 2012 Production

Layer	Pitch ϕ (-45) μm	2011 May Strip ϕ (-45) Rate (Mhz/cm ²)	2011 Dec Strip ϕ (-45) Rate (Mhz/cm ²)	2012 Jan Strip ϕ (-45) Rate (Mhz/cm ²)	Pitch Z (+45) μm	2011 May Strip Z (+45) Rate (Mhz/cm ²)	2011 Dec Strip Z (+45) Rate (Mhz/cm ²)	2012 Jan Strip Z (+45) Rate (Mhz/cm ²)
0	50	25.71	29.92	30.25	50	25.71	29.92	30.18
1	50	1.61	1.90	1.88	100	0.93	1.08	1.06
2	55	0.73	0.87	0.86	100	0.40	0.53	0.48
3	55	0.19	0.49	0.26	100	0.12	0.41	0.16
4	100	0.0070	0.0214	0.0124	210	0.0036	0.0167	0.0070
5	100	0.0047	0.0111	0.0081	210	0.0024	0.0067	0.0050

Montecarlo Truth Plots in QED event

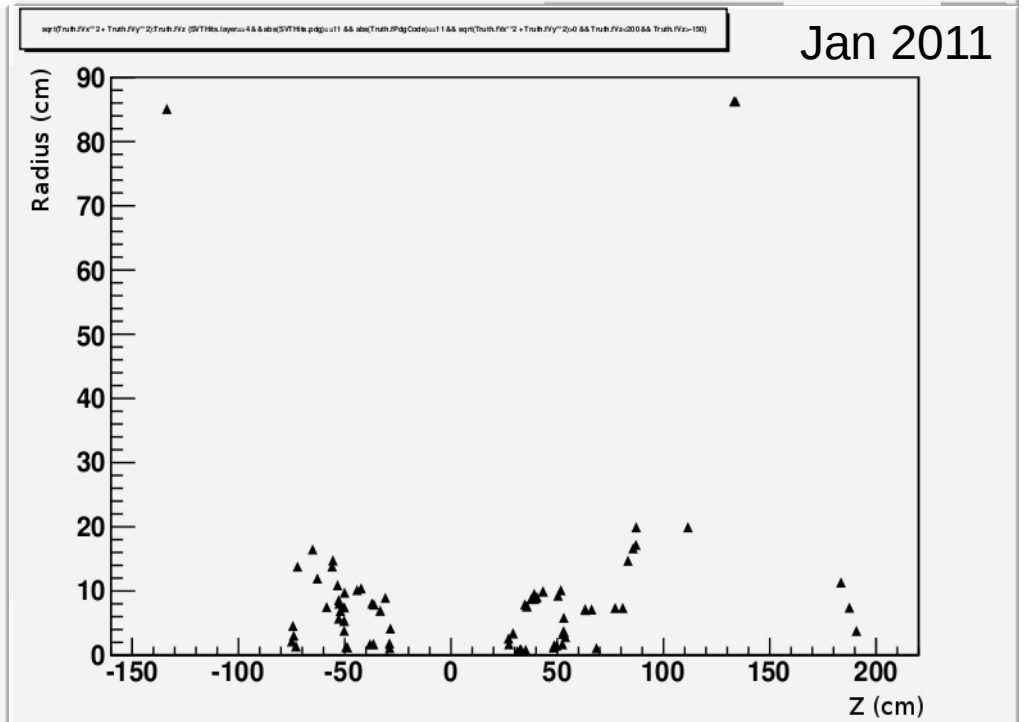
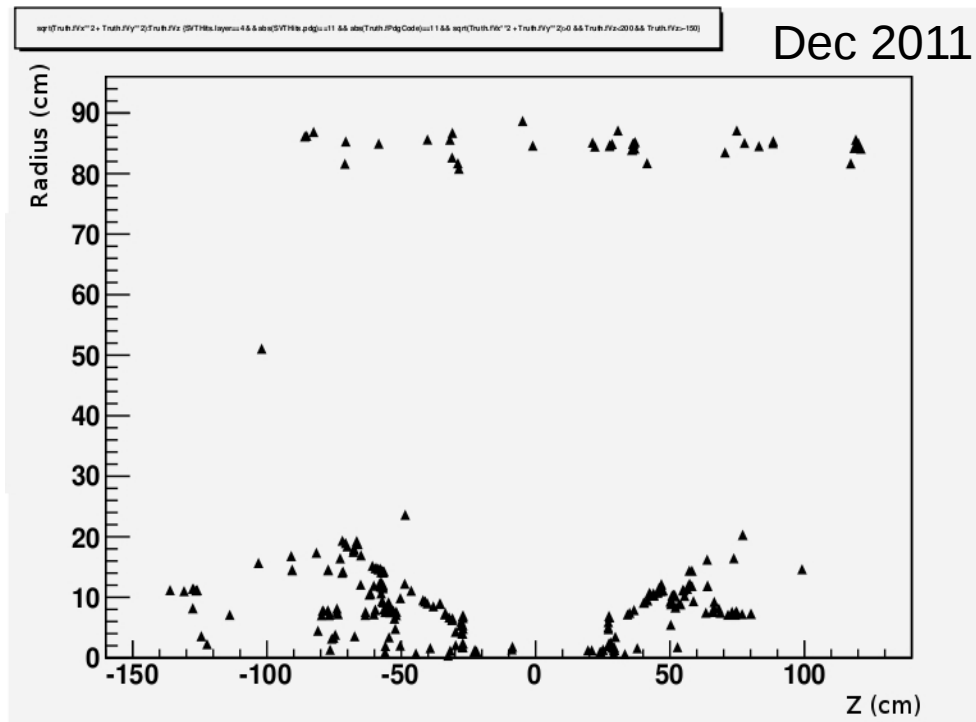
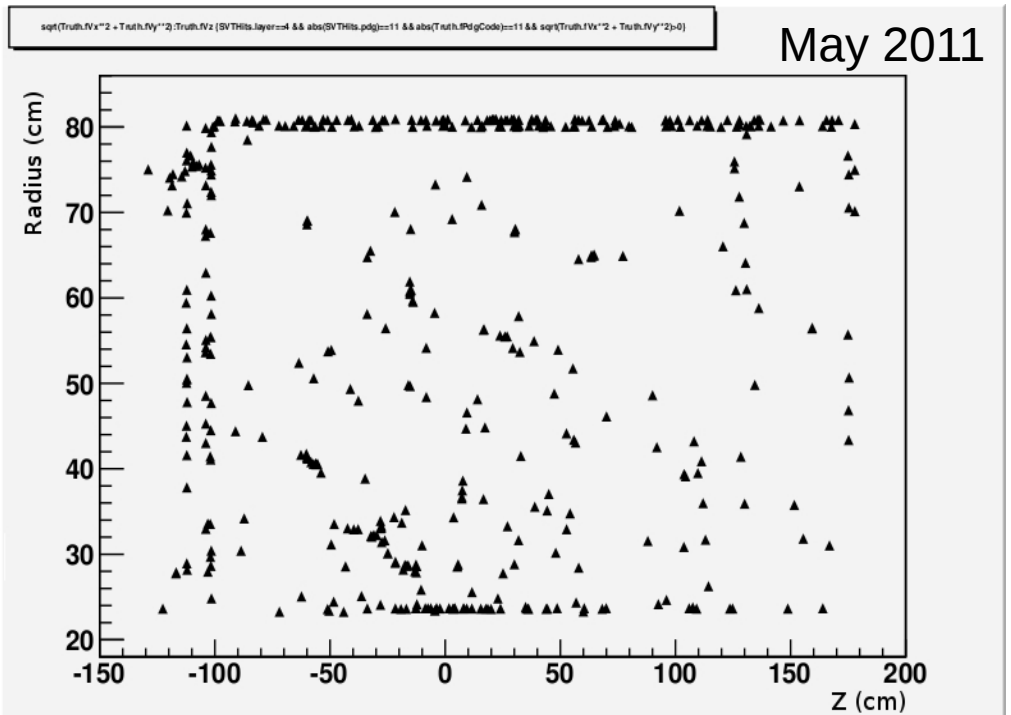
Montecarlo Truth Plots in QED event

- Radius vs Z plot for QED event in layer 4, included wedge
- The entire 2011 May Production, but only one Bruno file for 2011 December and 2012 January Production



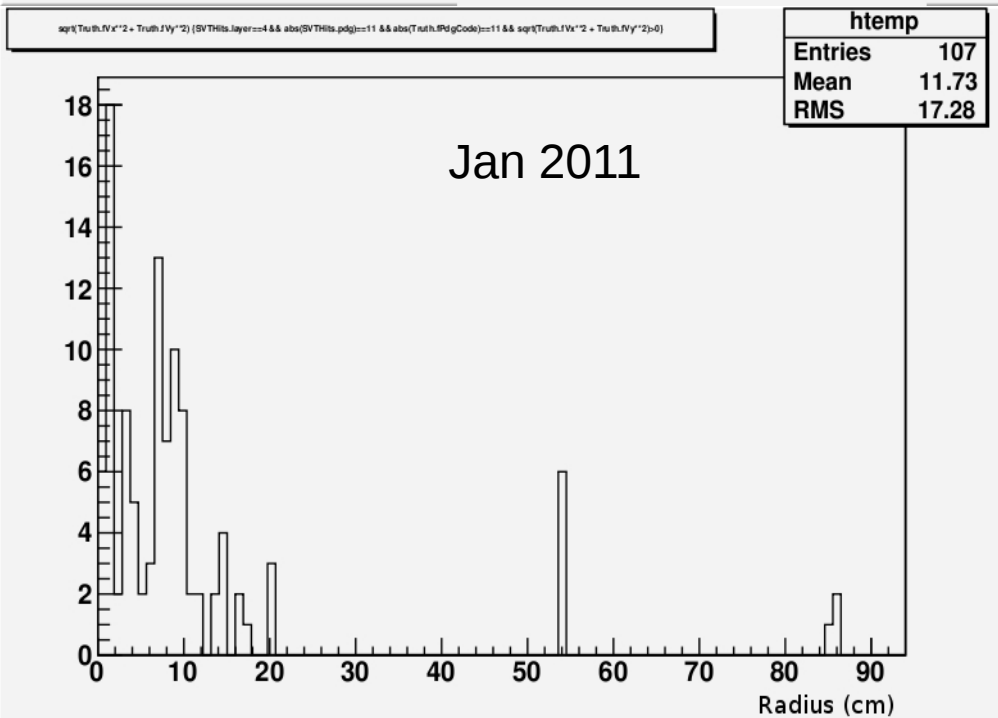
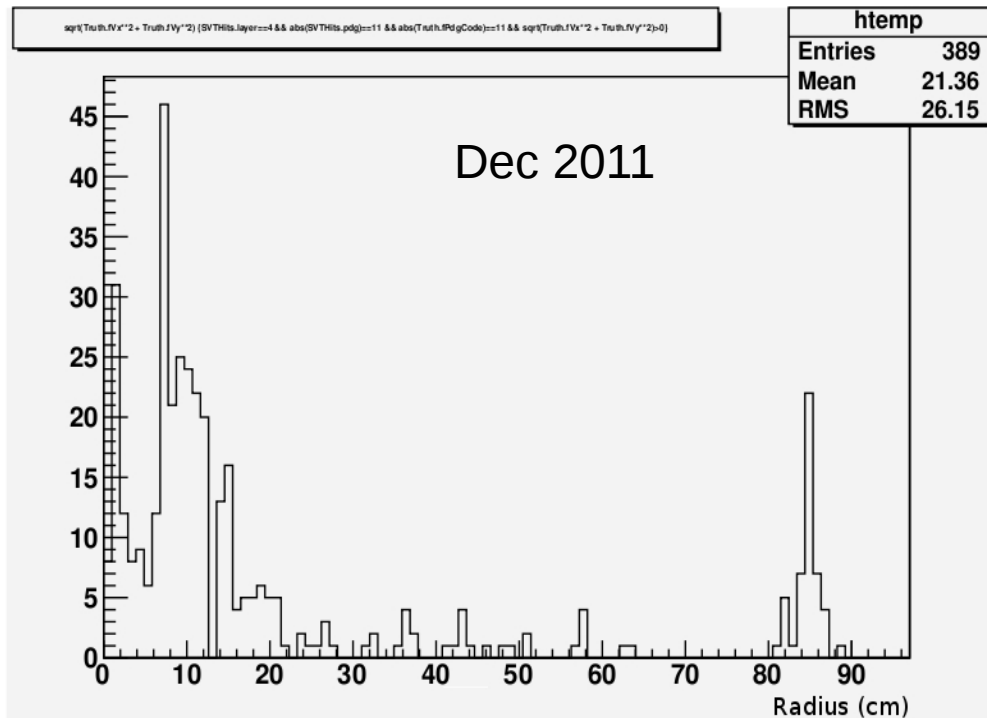
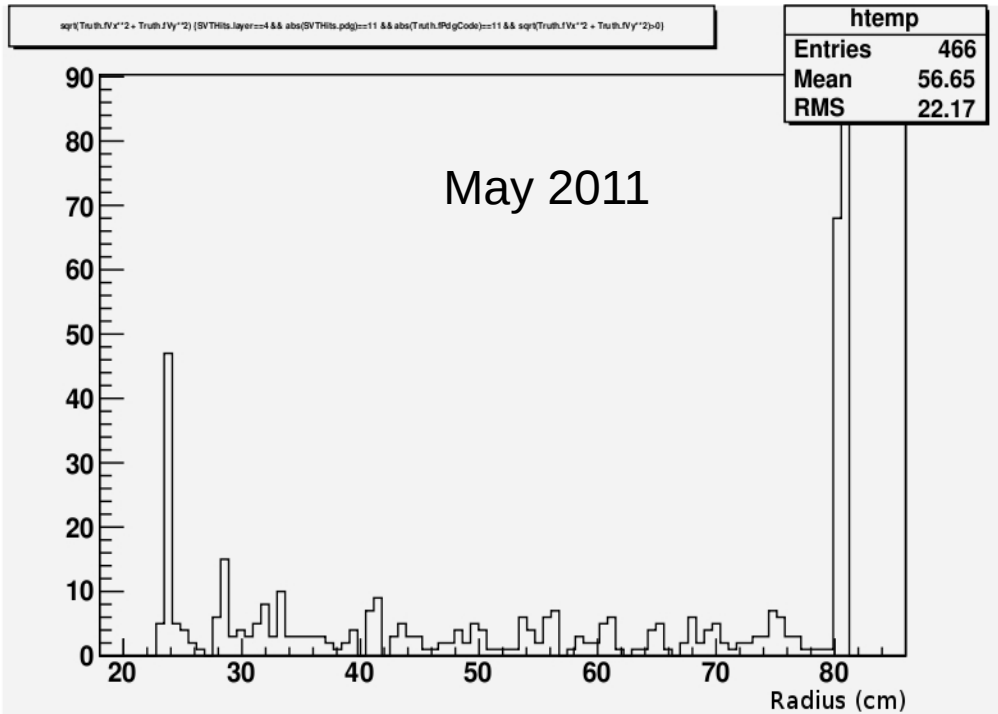
Montecarlo Truth Plots in QED event

- Radius vs Z plot for QED event in layer 4, included wedge
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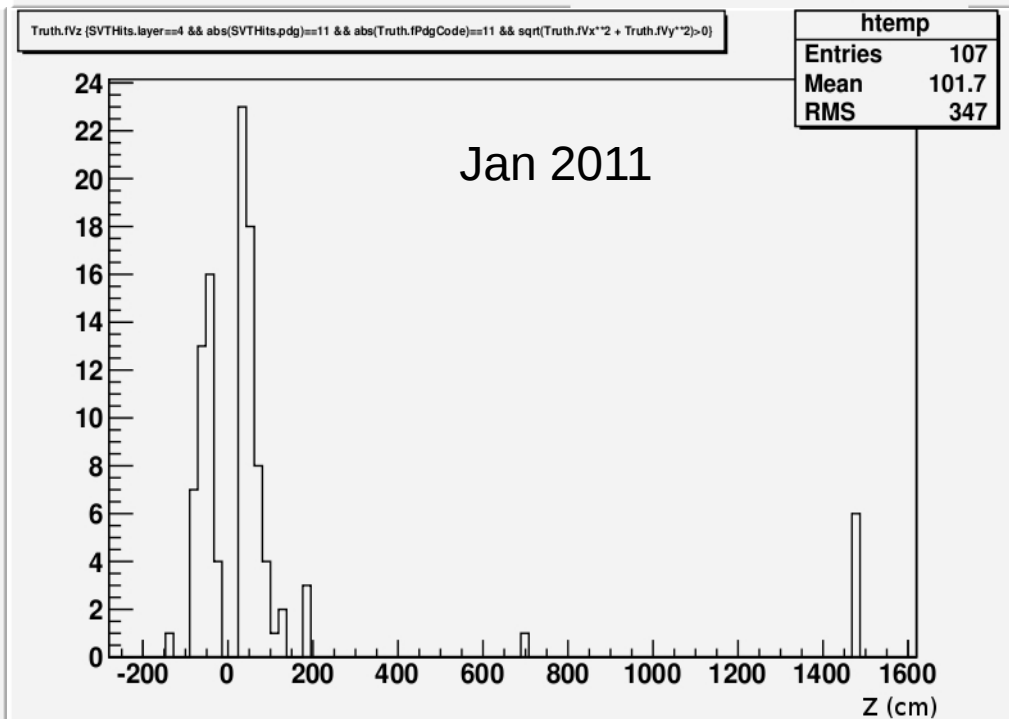
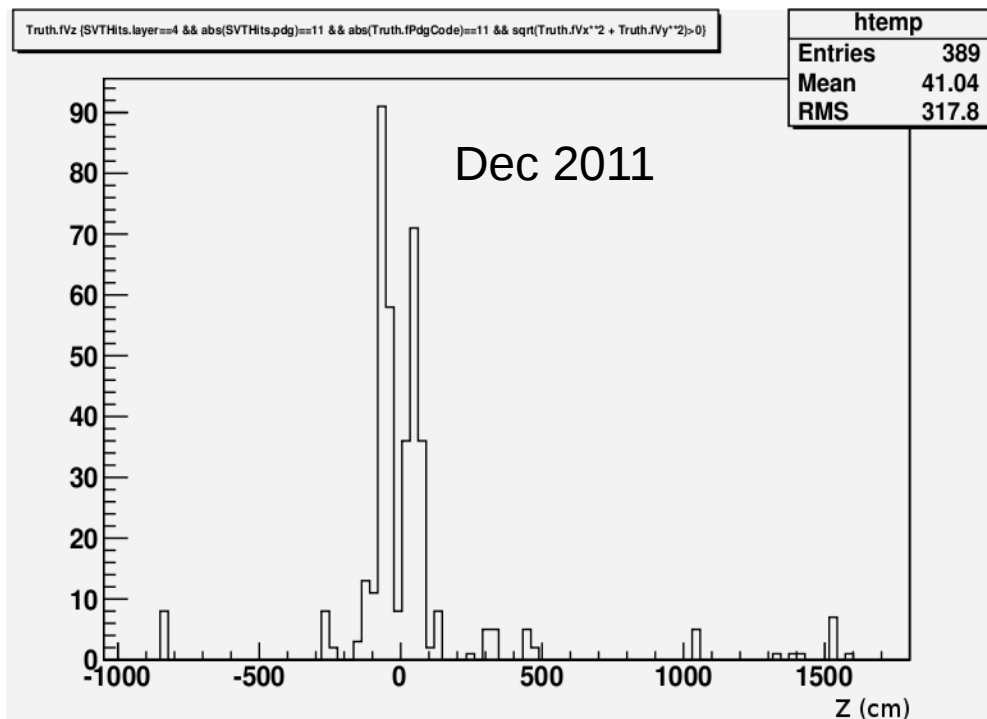
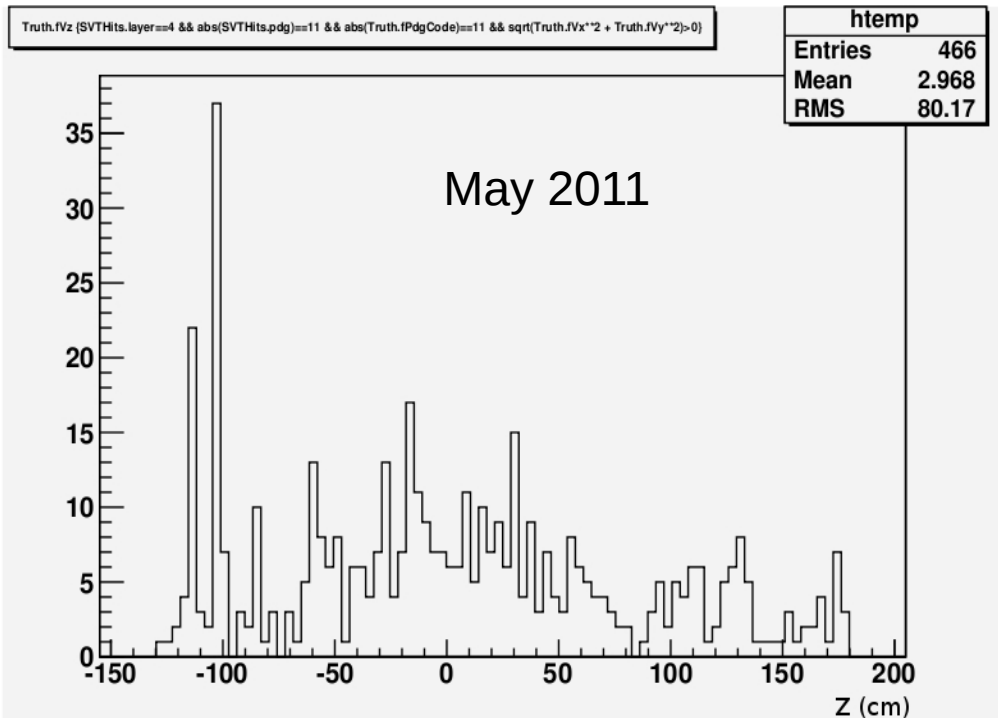
Montecarlo Truth Plots in QED event

- Radius Distribution for QED event in layer 4, included wedge
- The entire 2011 May Production, but only one Bruno file for 2011 December and 2012 January Production



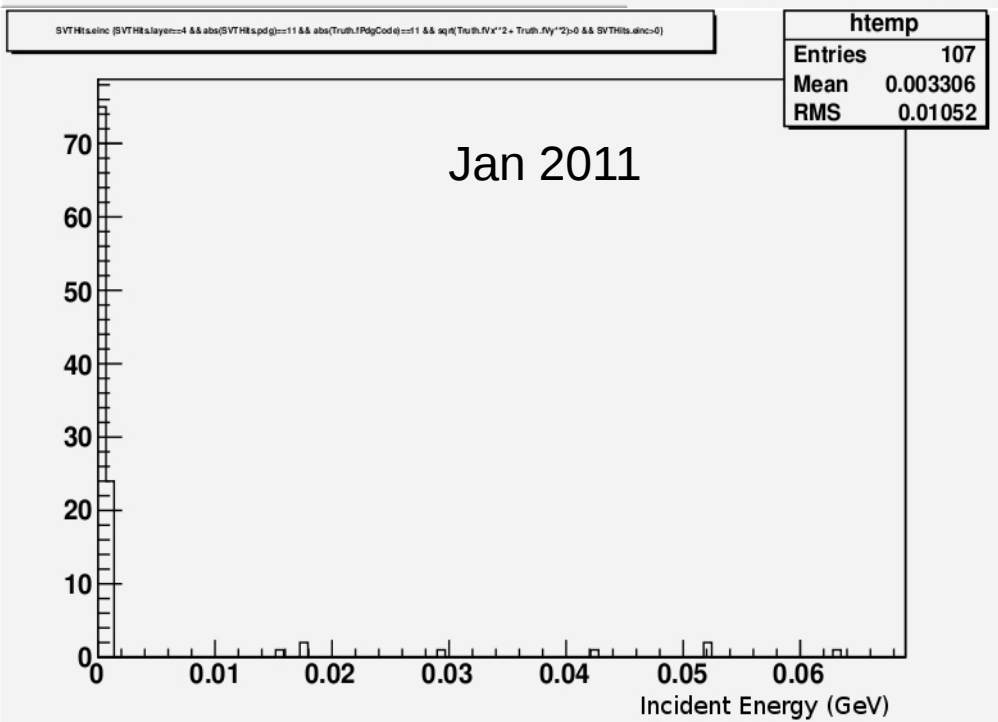
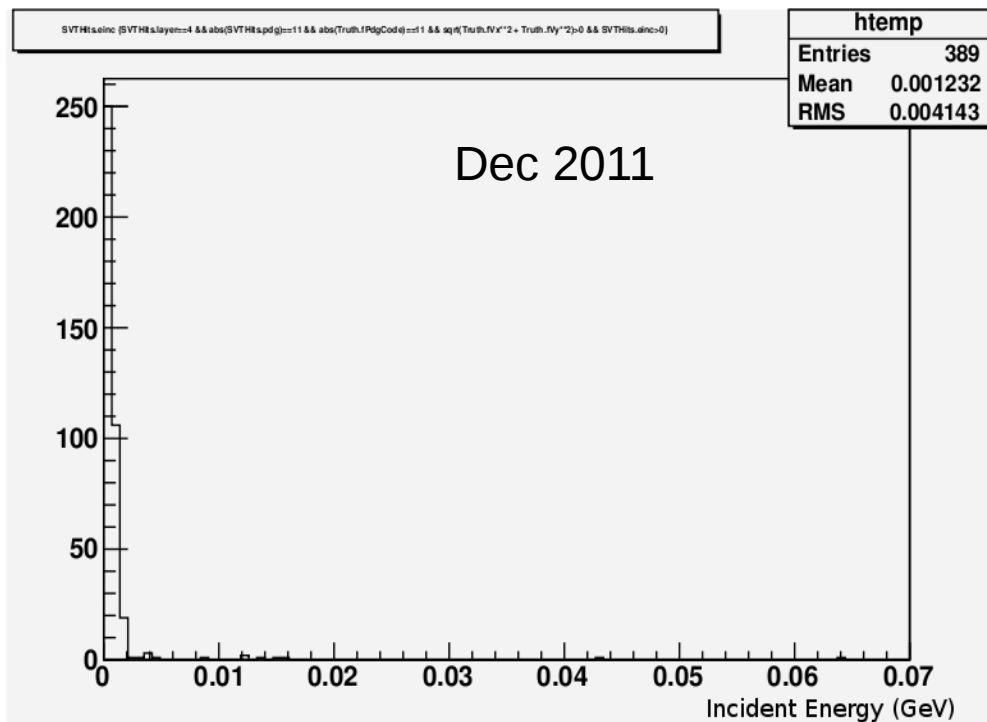
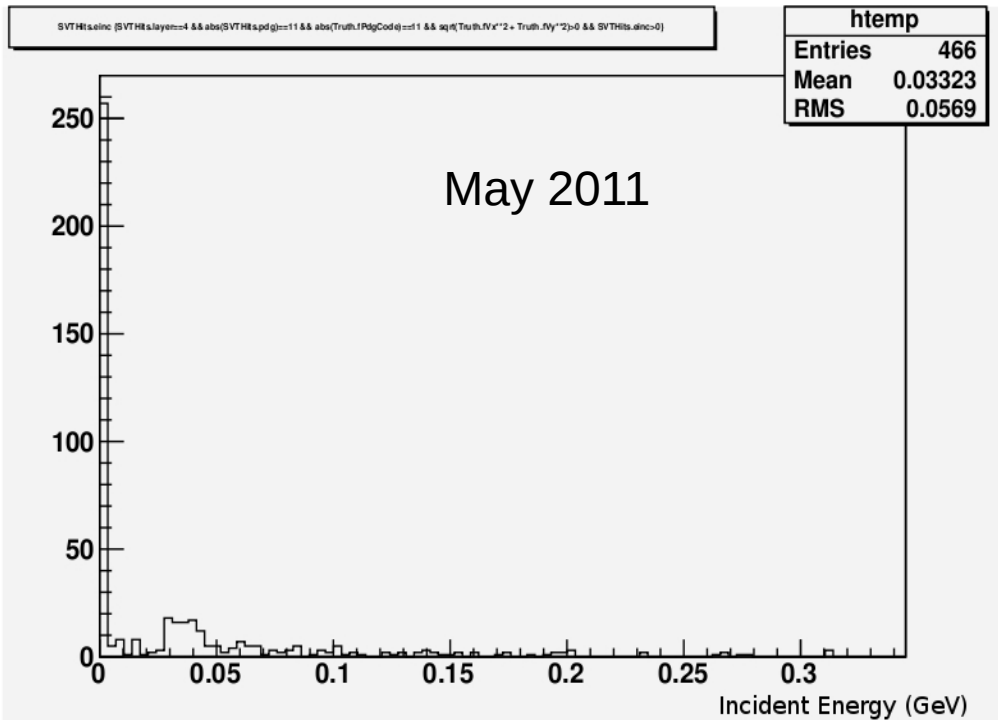
Montecarlo Truth Plots in QED event

- Coordinate Z Distribution for QED event in layer 4, included wedge
- The entire 2011 May Production, but only one Bruno file for 2011 December and 2012 January Production



Montecarlo Truth Plots in QED event

- Incident Energy Distribution for QED event in layer 4, included wedge
- The entire 2011 May Production, but only one Bruno file for 2011 December and 2012 January Production



Backup

Hot topics

- Deposited energy 0