SVT Timing and cluster multiplicities with new SVX thresholds

M.Rescigno

SVT meeting

11/12/02

Introduction and Announcements

- Experts talking about raising strip threshold to ease L3 bandwidth limitation and improve L2 speed in the last month…
- On Oct 29th SVXII threshold were raised from 7 to 9 counts
- Last goodrun with silicon and lower threshold: 153447
- First goodrun with silicon and higher threshold:153460
- What did this change buy to SVT?

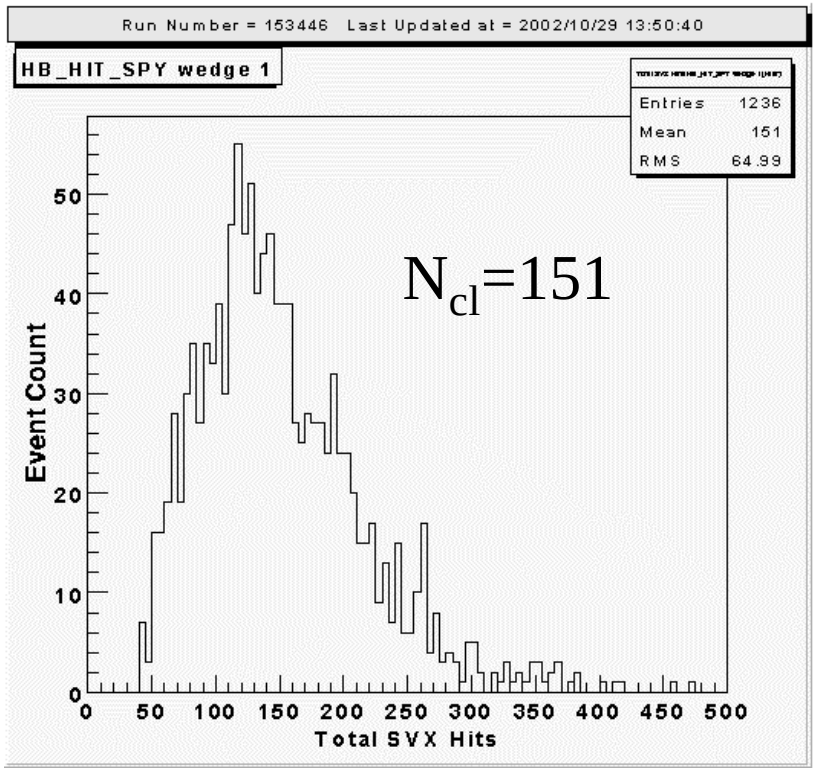
RUN configuration

- Choose two significant run with the different SVXII threshold
- Same mapset
- Similar instataneous luminosity
- Similar integrated ladder list

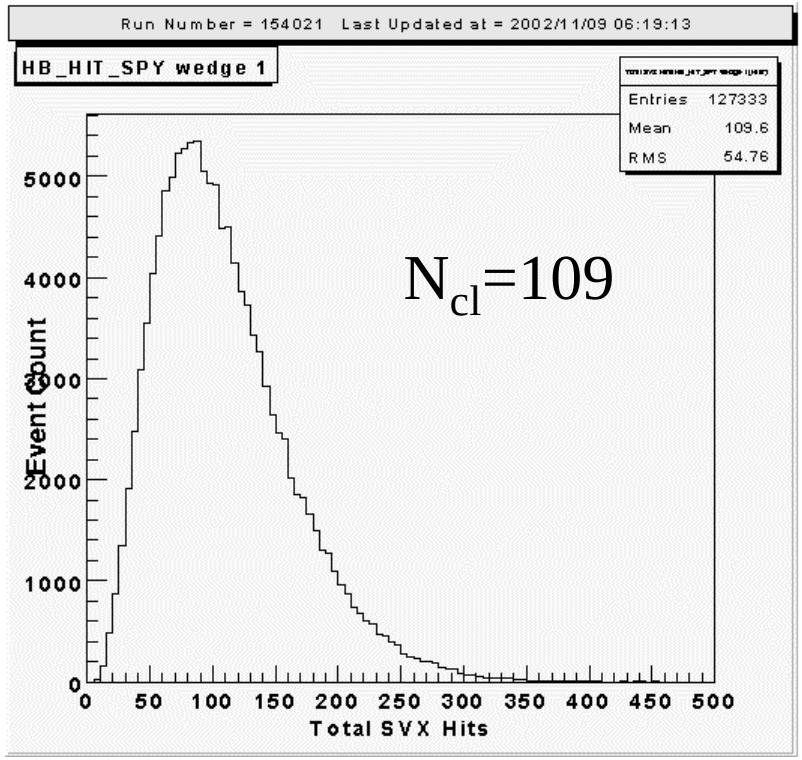
	RUN 153446	RUN 154021
Date	10/29	11/08
Inst. Lum.	33 – 30 E30	35 - 22 E30
Physics Table	103[2,194,329]	103[2,194,329]
Mapset	Offline_10030_20021028…	Offline_10030_20021028…
L1 accept	41 M	180 M

Number of clusters in W01

RUN 153446

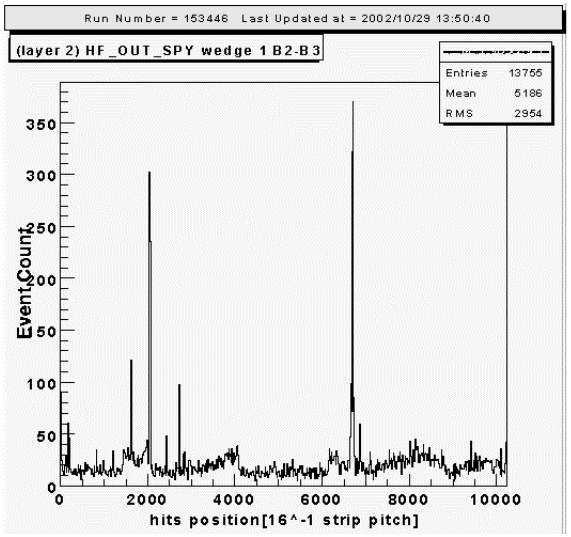


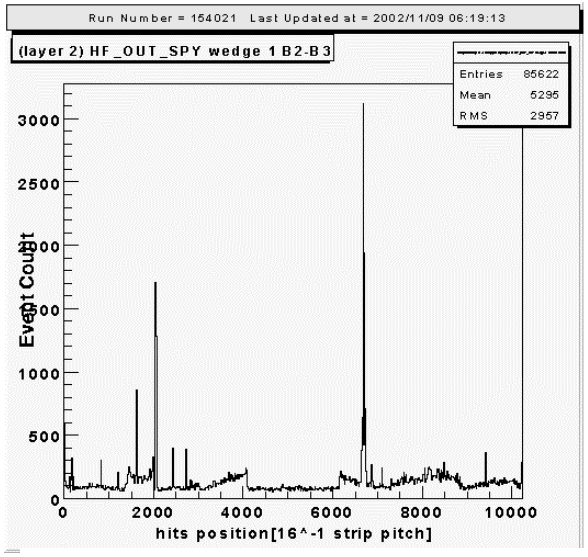
RUN 154021



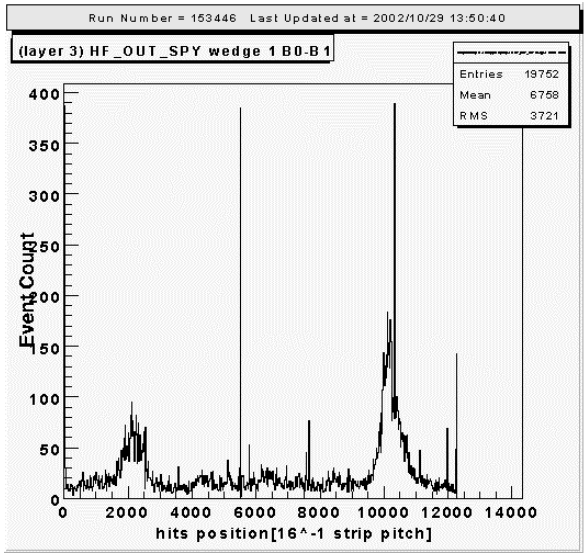
clusters coordinate in W01

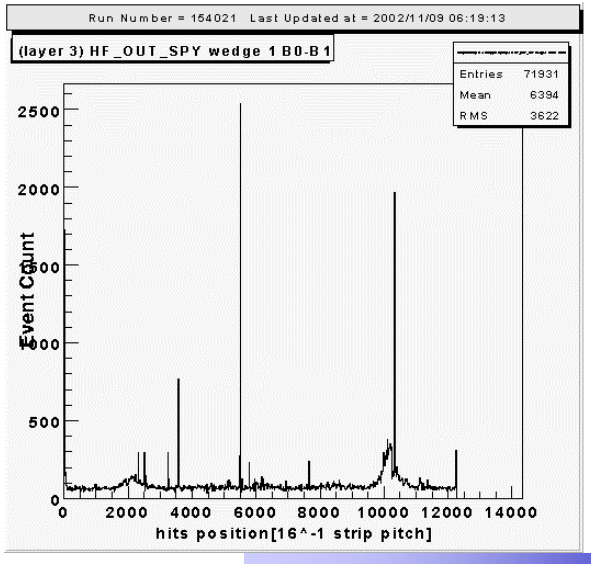
RUN 153446





RUN 154021

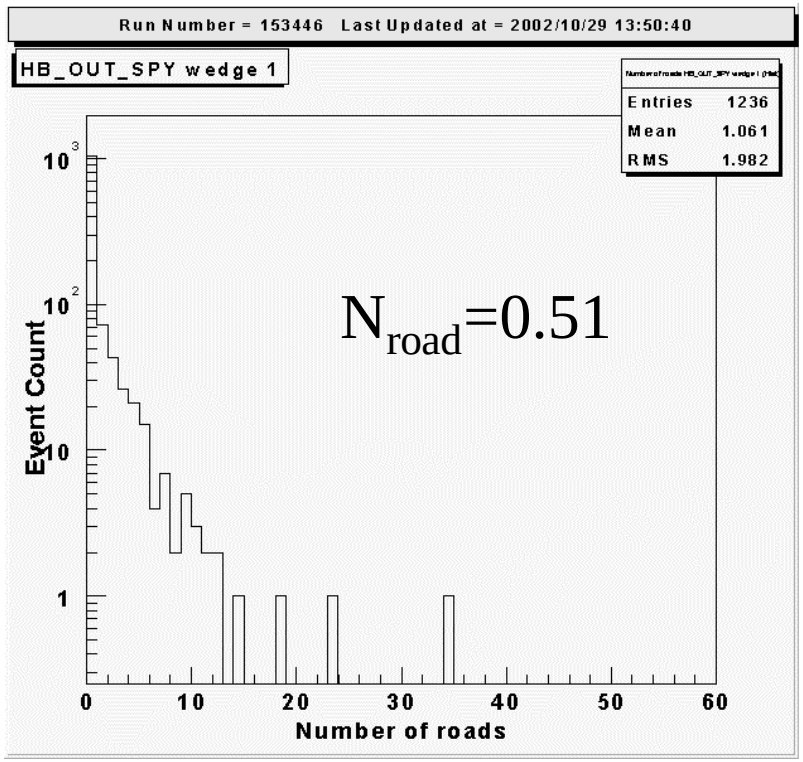


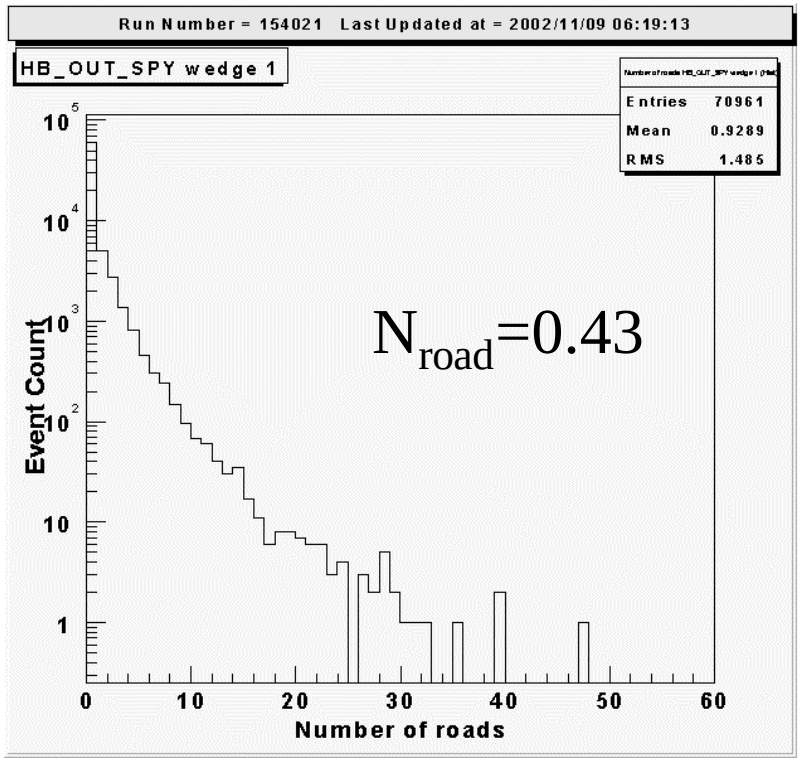


Number of roads from W1

RUN 153446

RUN 154021

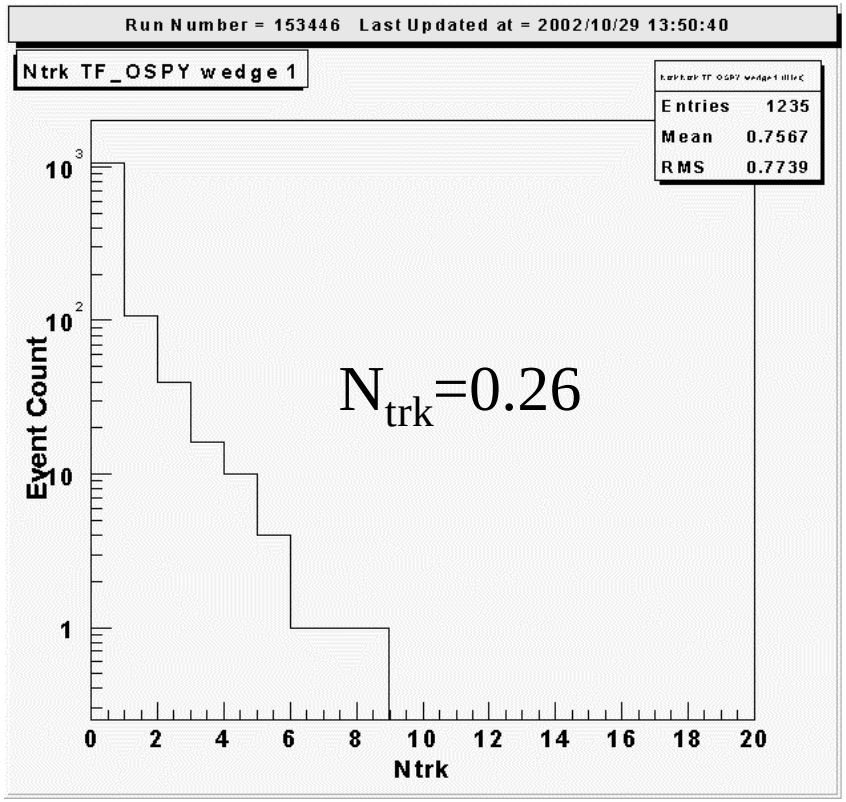


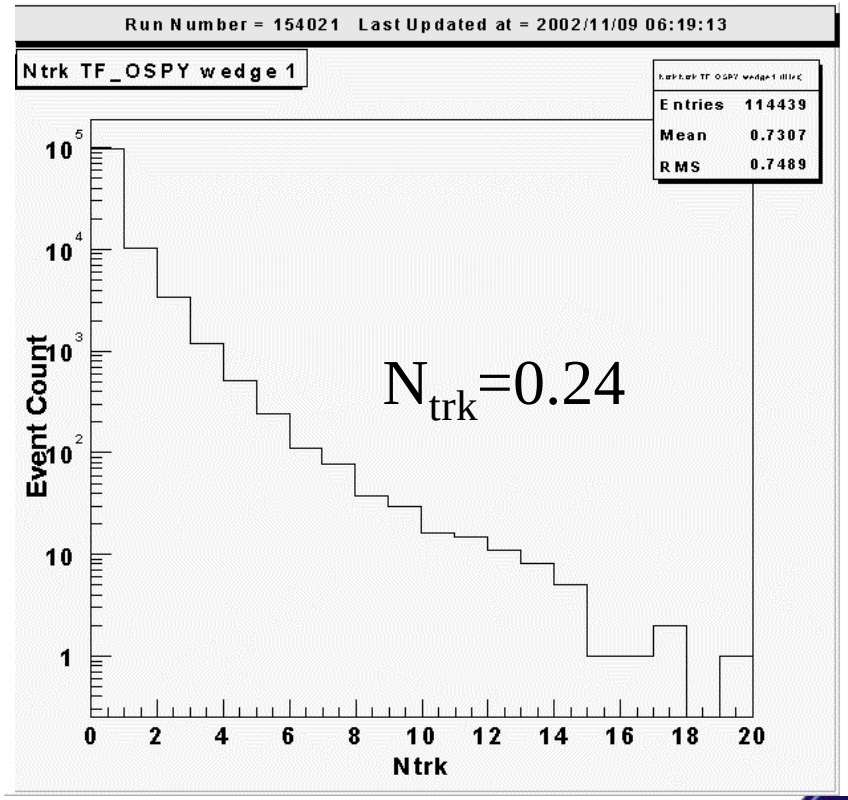


Number of tracks from W1

RUN 153446

RUN 154021





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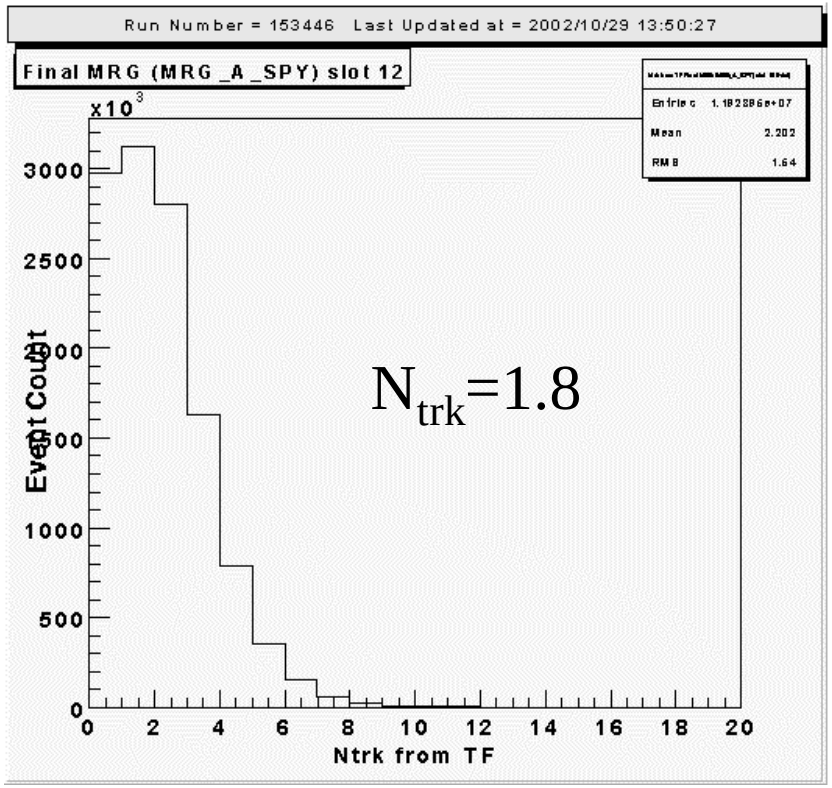
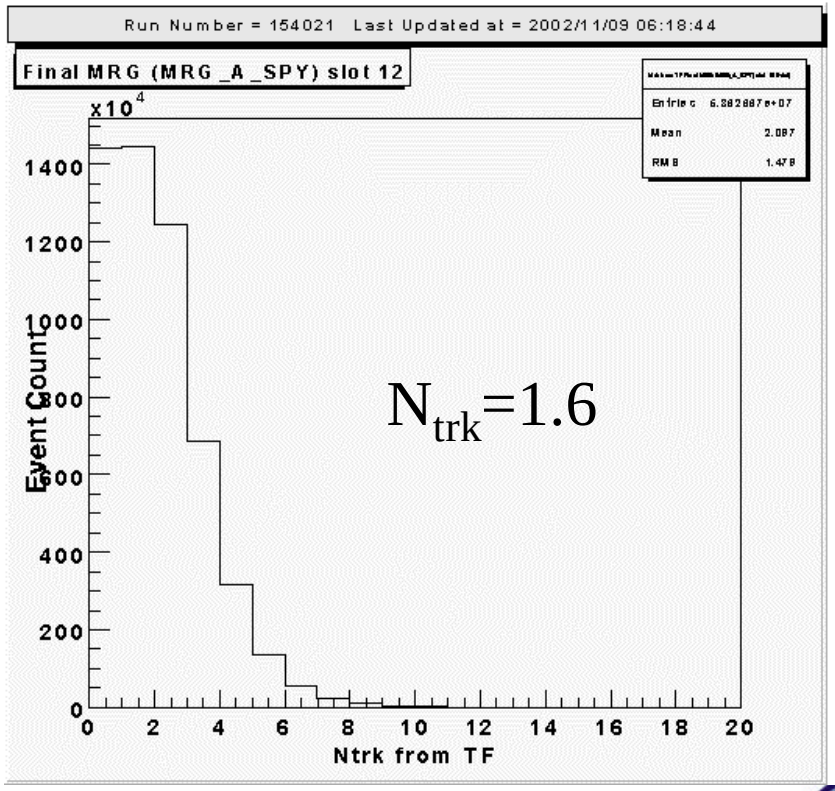
Number of tracks all wedges

RUN 153446

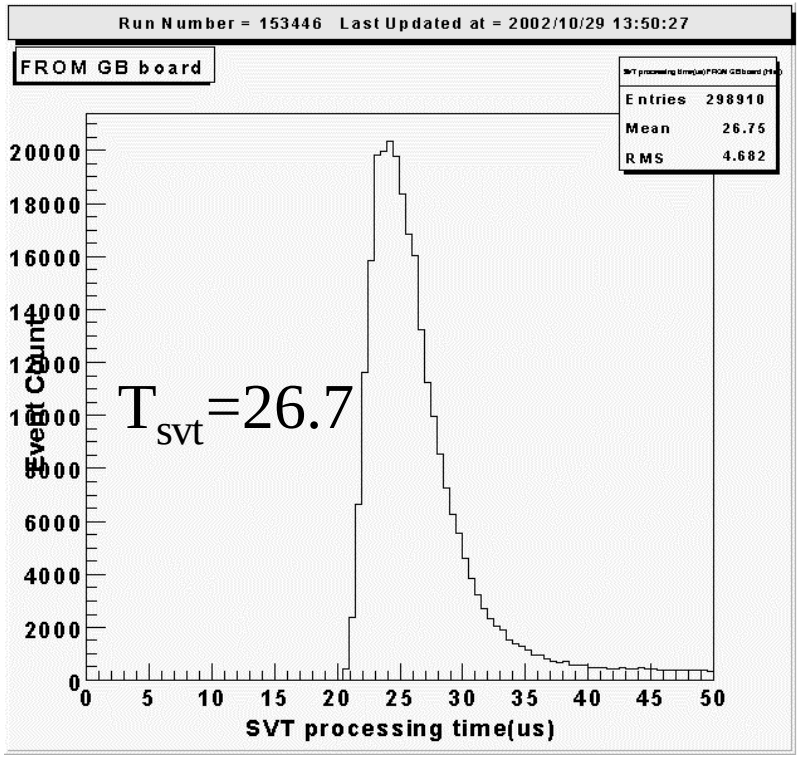
RUN 154021



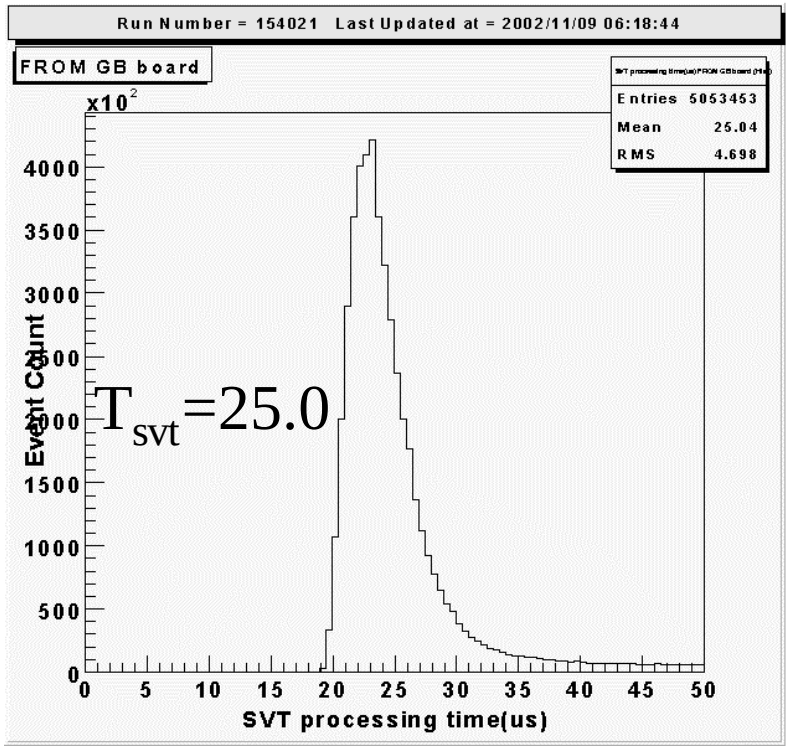


SVT timing

RUN 153446



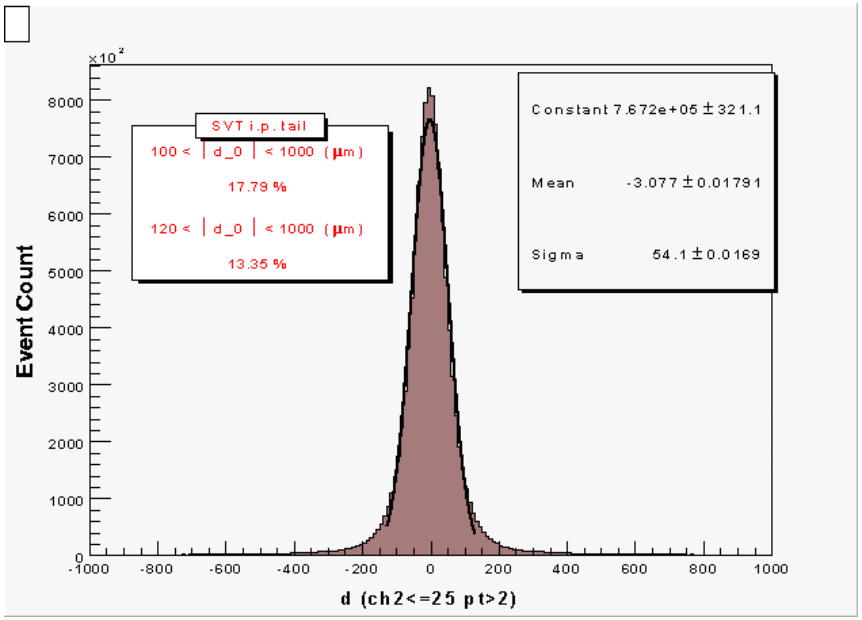
RUN 154021



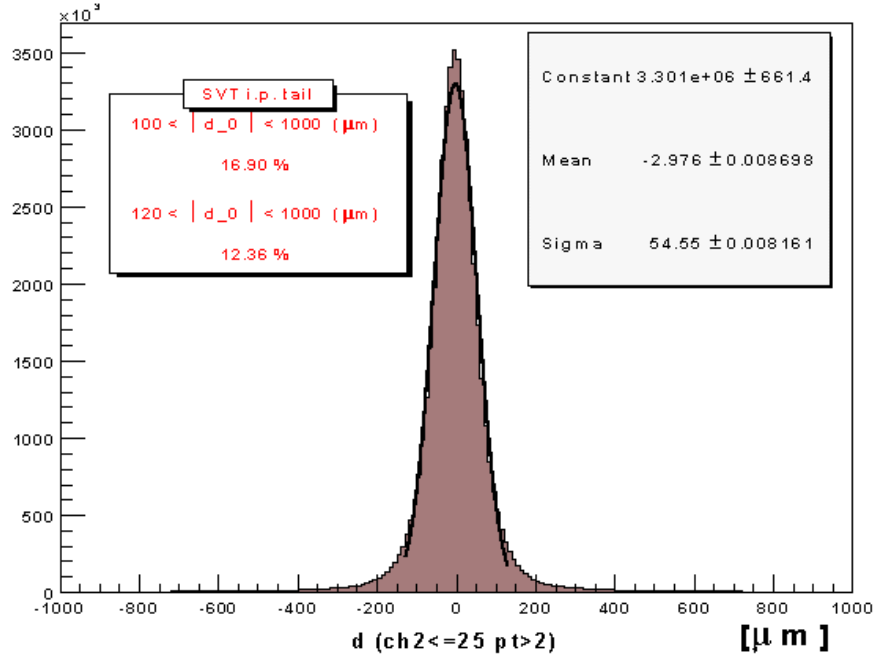
Reduction consistent with an average of 40 cluster less per event out of the HFinders (40*33 nsec ≅ 1.3 μs)

Beam profile

RUN 153446



RUN 154021



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Summary

- Shaved off ~2 usec
- Noise patterns in HF coordinate change as expected
- Nclusters and Nroads down
- Ntracks ~ same

	RUN 153446	RUN 154021	(New-Old) /Old
Ncluster/Wedge	151	109	-28 %
Nroad/Wedge	0.51	0.43	-16 %
Ntrack/Wedge	0.26	0.24	-8%
Ntrack(SVTD)	1.8	1.6	-11%
T_{SVT} (usec)	26.7	25.0	-6%
i.p. tail %	13.3 %	12.3 %	-8%

Check efficiency on new data underway…