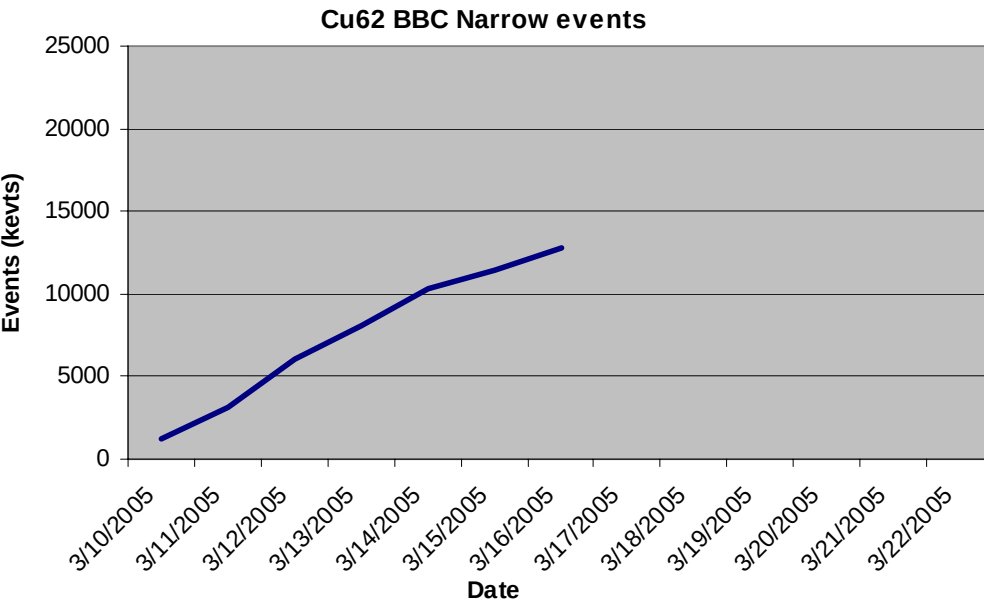
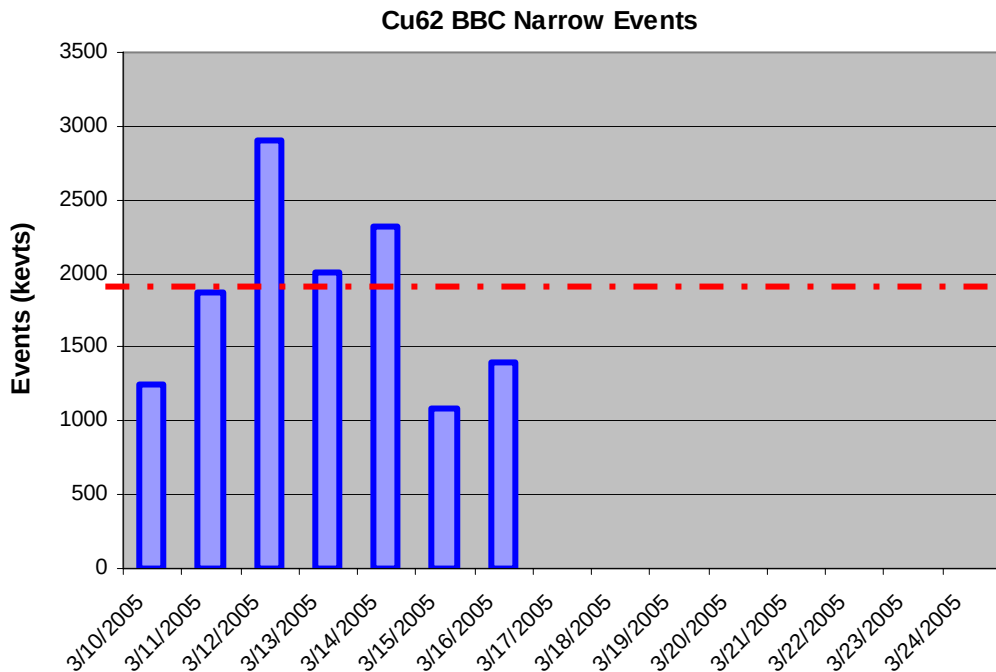


STAR 62 GeV CuCu Event totals (as of 3/16/05, noon)

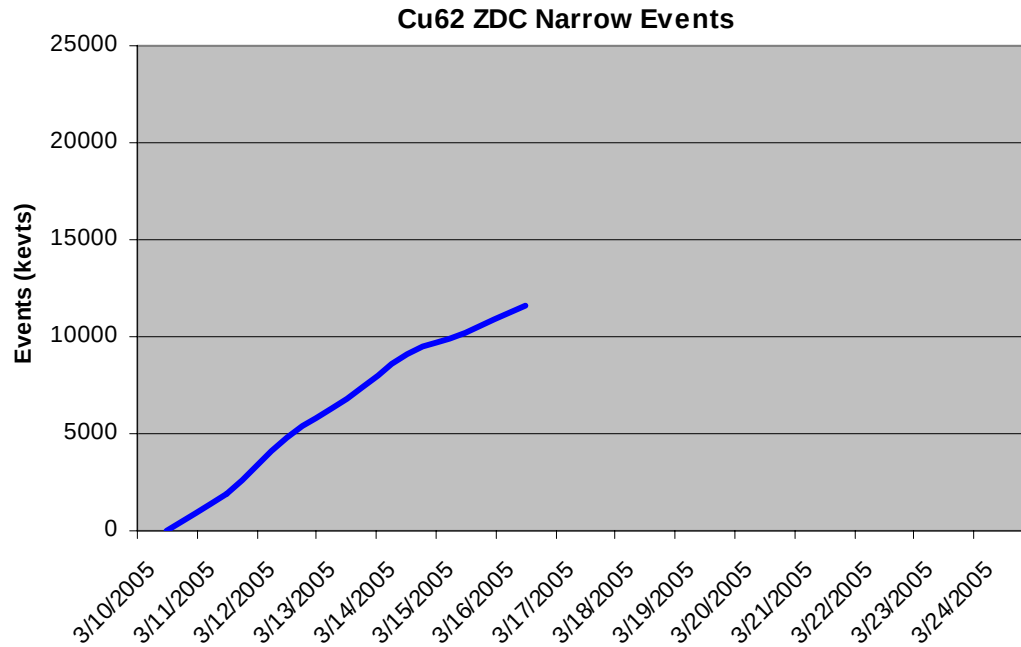


- Total: 12.830 Mevts of BBC Narrow
- **Goal > 20 Mevts.**
- BBC Narrow Trigger has been operational for 6 full days. The “run” average number of mb events per day is ~ 1.9 Mevts/day (N.B. Evts taken today not included).

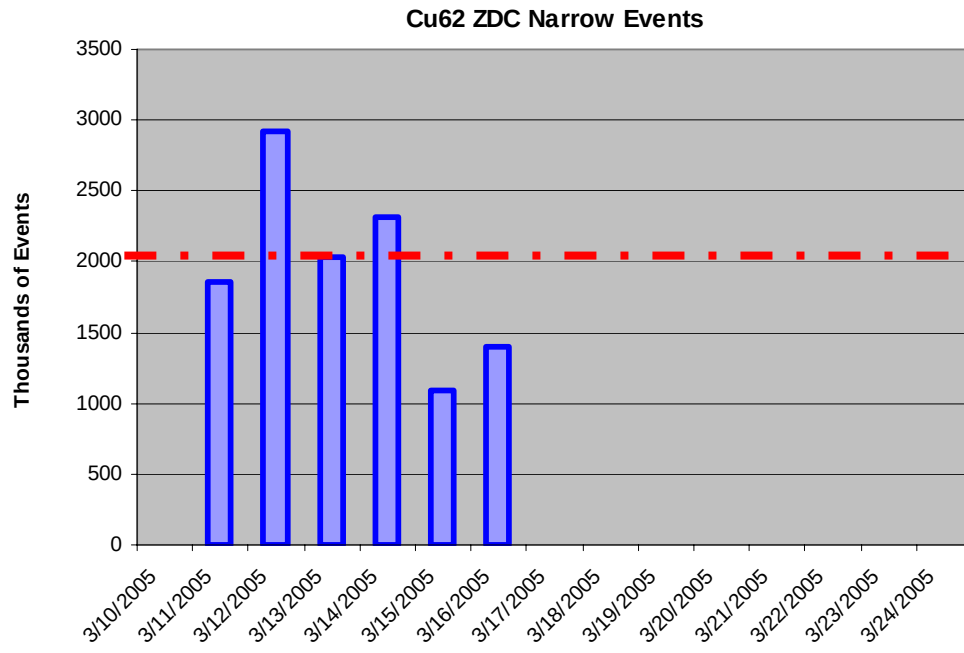


Ave/day ~ 1.9 Mevts

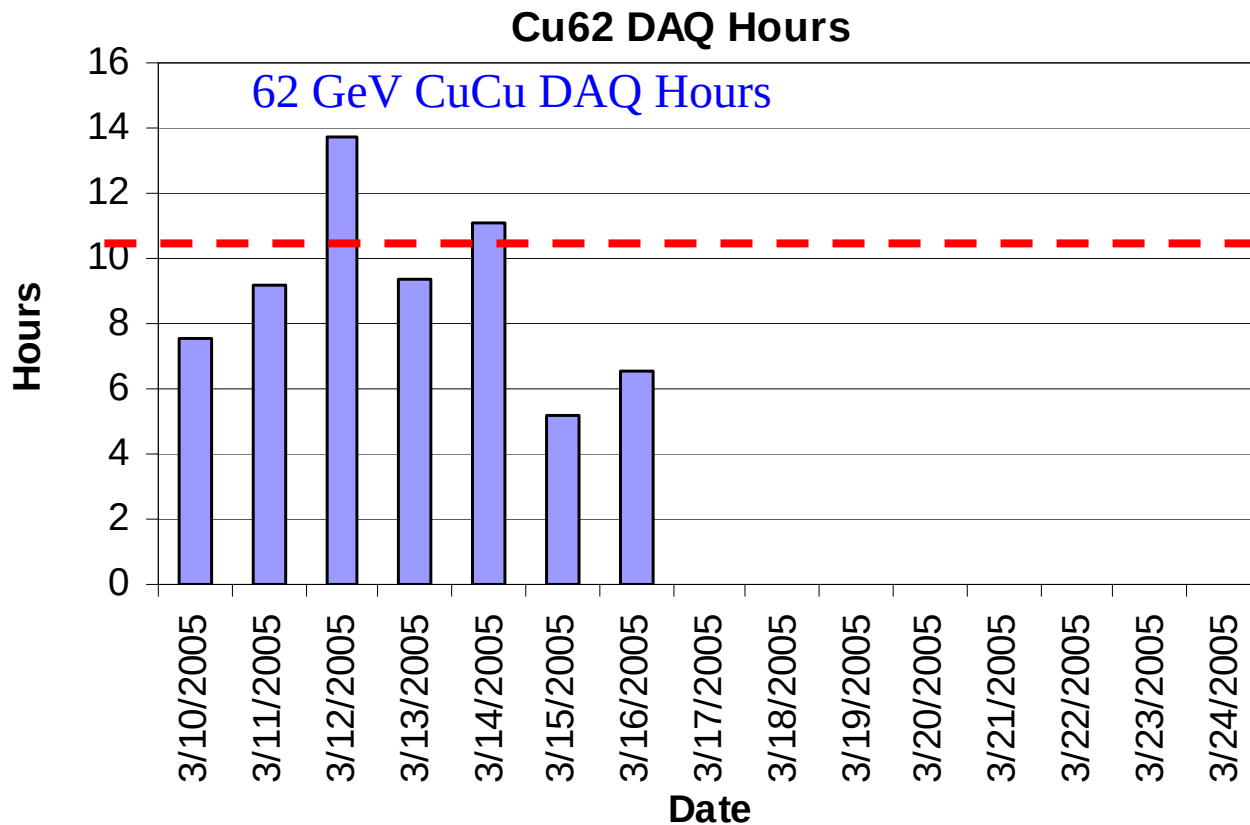
STAR 62 GeV CuCu Event totals (as of 3/16/05, noon)



- Total: 11.618 Mevts of ZDC Narrow
- **Goal > 20 Mevts.**
- ZDC Narrow Trigger has been operational for 5 full days. The “run” average number of ZDC events per day is ~ 2.04 Mevts/day (N.B. Evts taken today not included).



- Ave/day ~ 2.04 Mevts



DAQ Hours

Total 3/10 through 3/15 (6 days) = 56.06 hrs

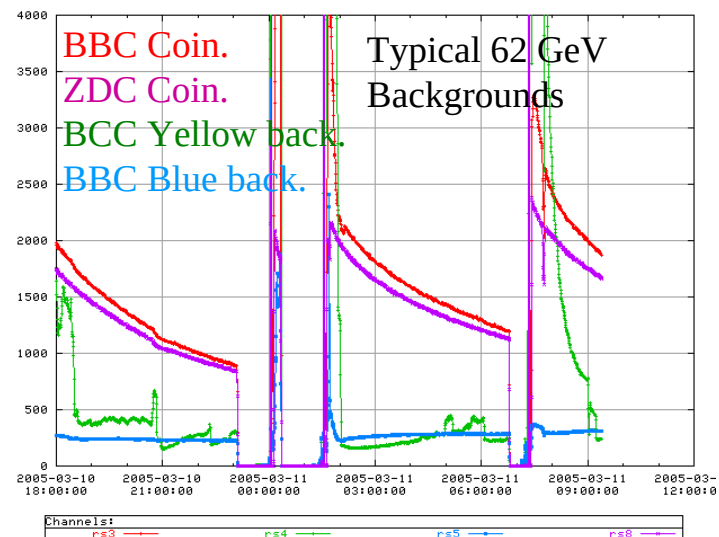
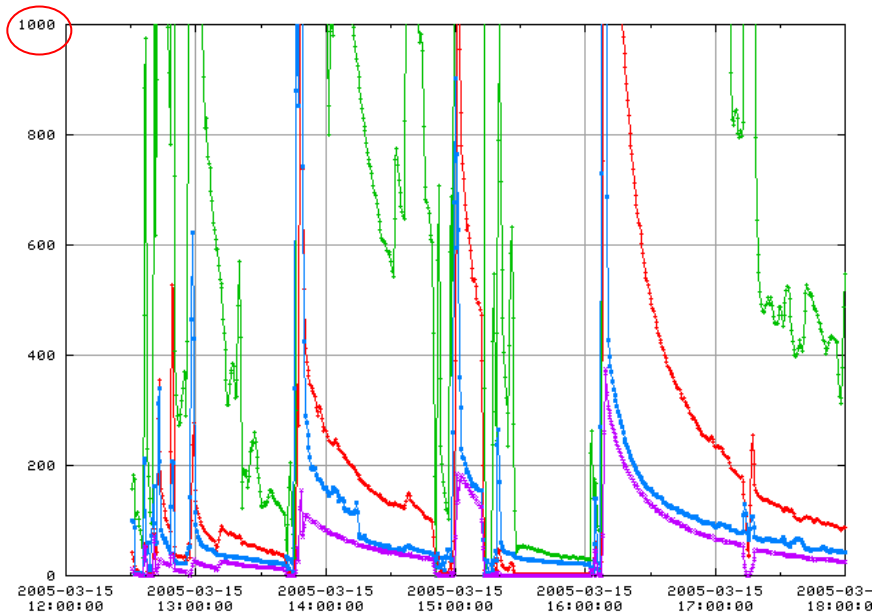
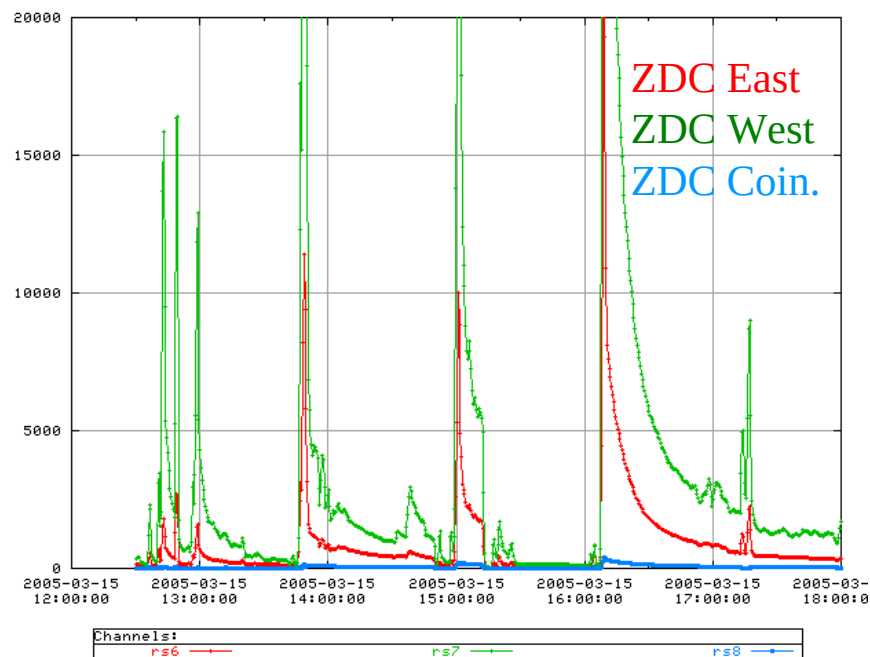
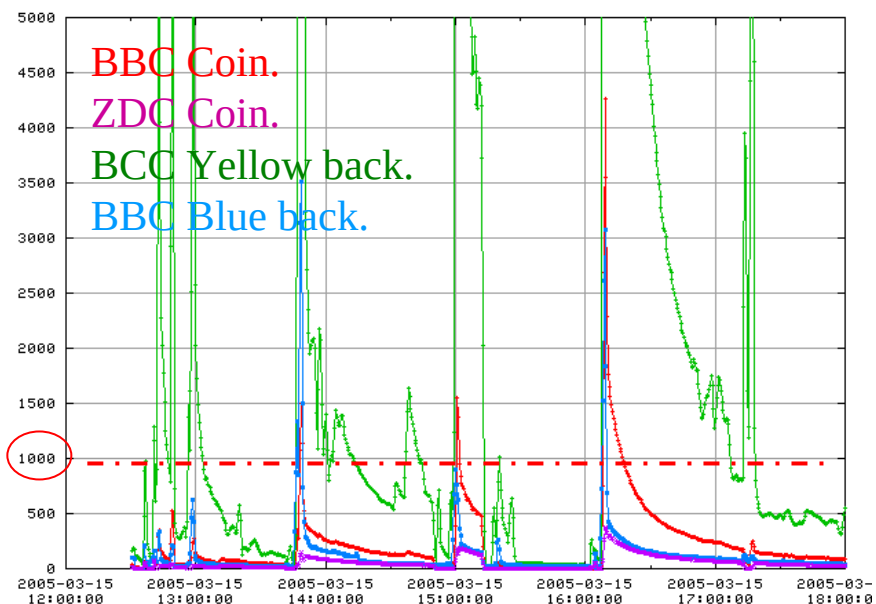
$\langle \text{DAQ hrs/day} \rangle \sim 9.3 \text{ hrs/day}$

N.B. “DAQ hrs” only count time when production Cu62 Production Configuration is running.

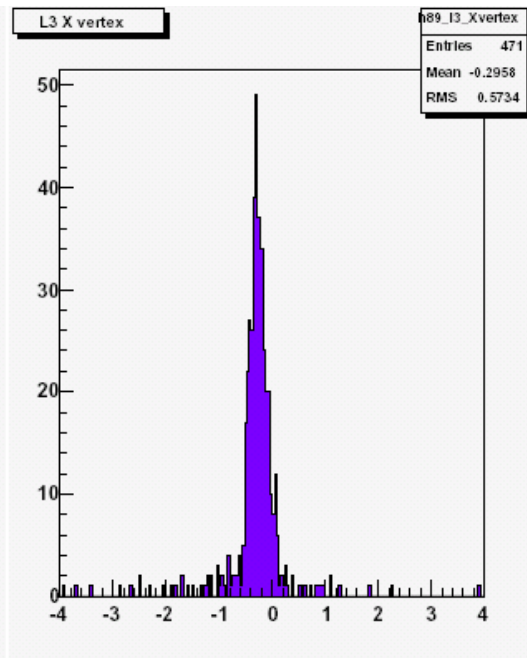
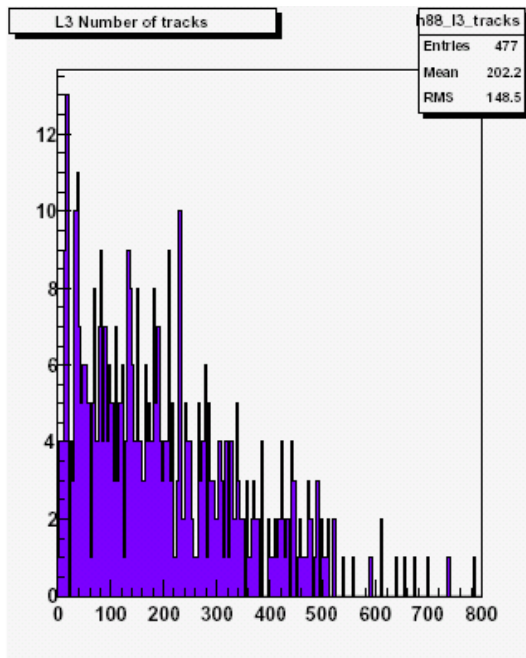
N.B. Hours today (partial 7th day) not included in numbers above.

22 GeV CuCu Development

Overall Environment (Large backgrounds)



22 GeV CuCu Development

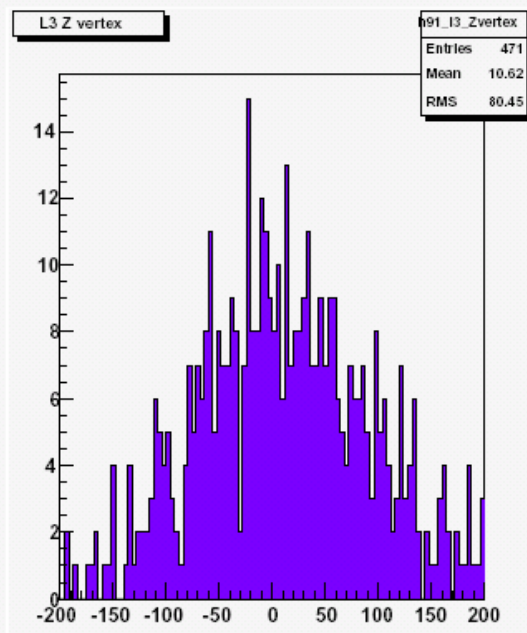
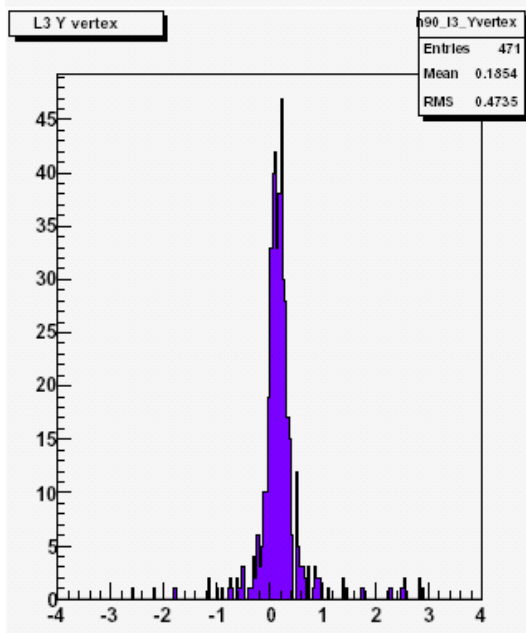


Vertex Distributions for Data taken at 4:20 pm.

The Trigger was zdc-tacs

(ZDC coin. where each ZDC also has a valid timing signal (additional disc. thres,.))

Expected to have substantial impact parameter bias, but minimal collision vertex bias.



Short run with low statistics.

$\langle V_z \rangle \sim 10.6$ cm, rms ~ 80.5 cm

$\langle V_x \rangle \sim -3$ mm, rms ~ 5.7 mm

$\langle V_y \rangle \sim 1.8$ mm, rms ~ 4.7 mm

22 GeV CuCu Development

Vertex Distributions for Data taken from 5:28 to 5:58 pm.

The Trigger was:

zdc (Just zdc adc coin.)

zdc-tacs (Add TAC disc. Thres.)

bbc-narrow (bbc coin. + timing cut)

name	bit(daqTrgId)	offlineTrgId	prescale	numberOfEvents
cu20-zdc	1	1	1.0	24162
cu20-zdc-tacs	10	2	1.0	16559
cu20-bbc-narrow	10000	5	1.0	63026

Trigger Mix (zero suppressed)

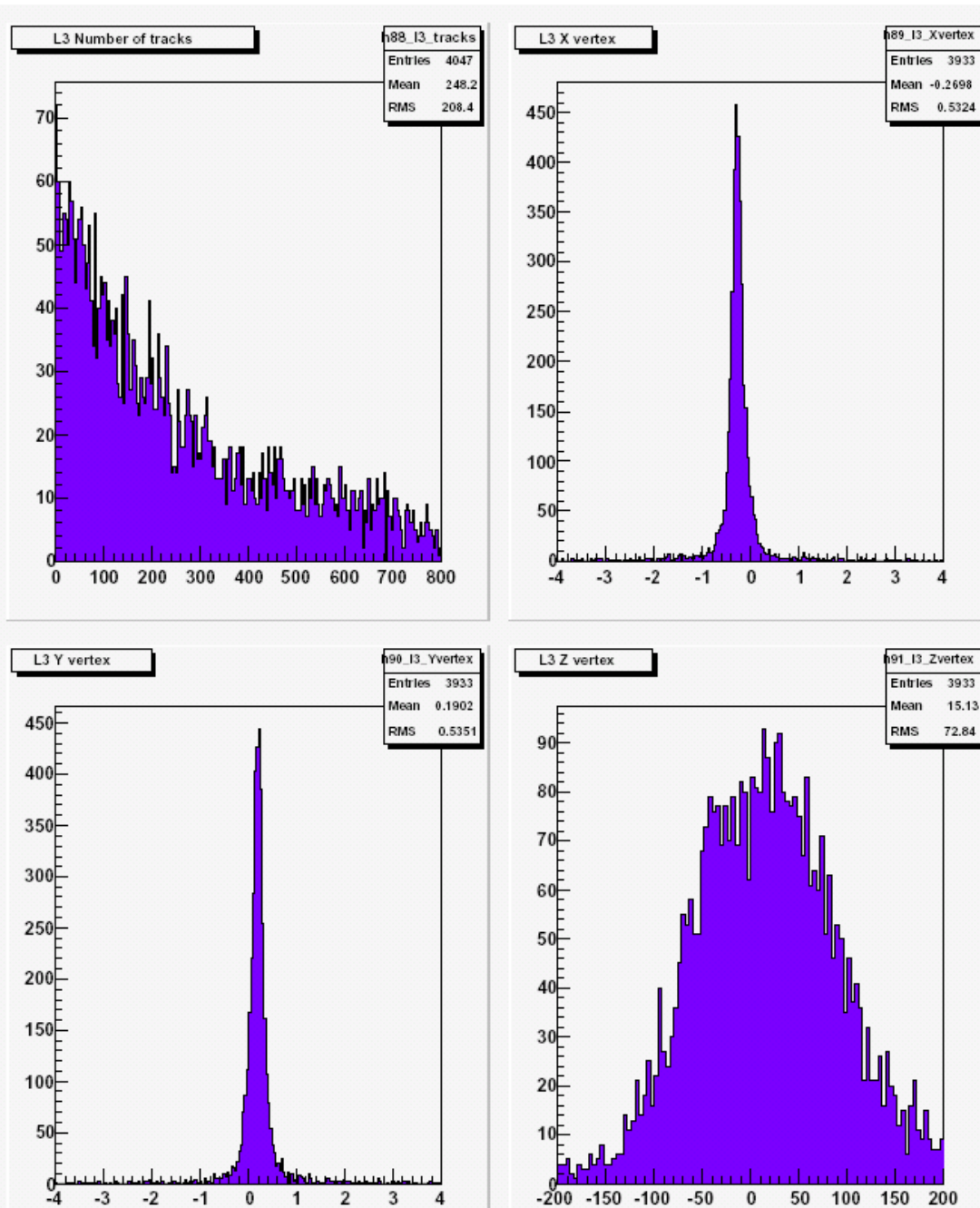
binary(summaryBits)	numberOfEvents
1	3325
11	6765
10000	48954
10001	4278
10011	9794

N.B. Though I widened the timing cuts on the bbc (triggers mostly background without cut), the V_z dist. Is biased by this trigger)

$\langle V_z \rangle \sim 15.1$ cm, rms ~ 72.8 cm

$\langle V_x \rangle \sim -2.7$ mm, rms ~ 5.3 mm

$\langle V_y \rangle \sim 1.9$ mm, rms ~ 5.4 mm



22 GeV CuCu Development

Vertex Distributions for Data taken from 4:42 to 4:54 pm.

The Trigger was:

zdc (Just zdc adc coin.)

zdc-tacs (Add TAC disc. Thres.)

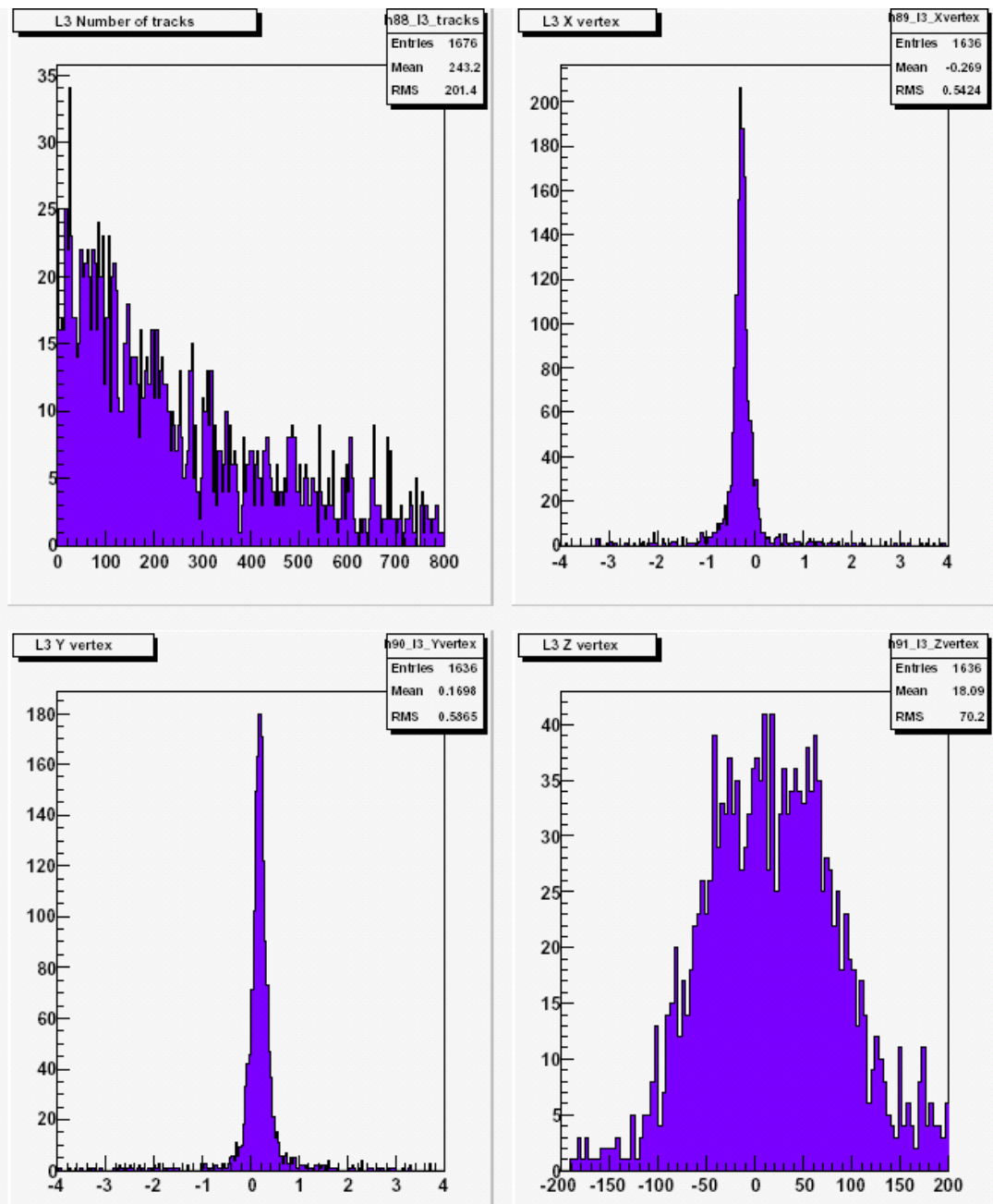
bbc-narrow (bbc coin. + timing cut)

I changed the bbc timing cut (widened it) between this run and 5:28 pm run.

$\langle V_z \rangle \sim 18.1$ cm, rms ~ 70.2 cm

$\langle V_x \rangle \sim -2.7$ mm, rms ~ 5.4 mm

$\langle V_y \rangle \sim 1.7$ mm, rms ~ 5.9 mm



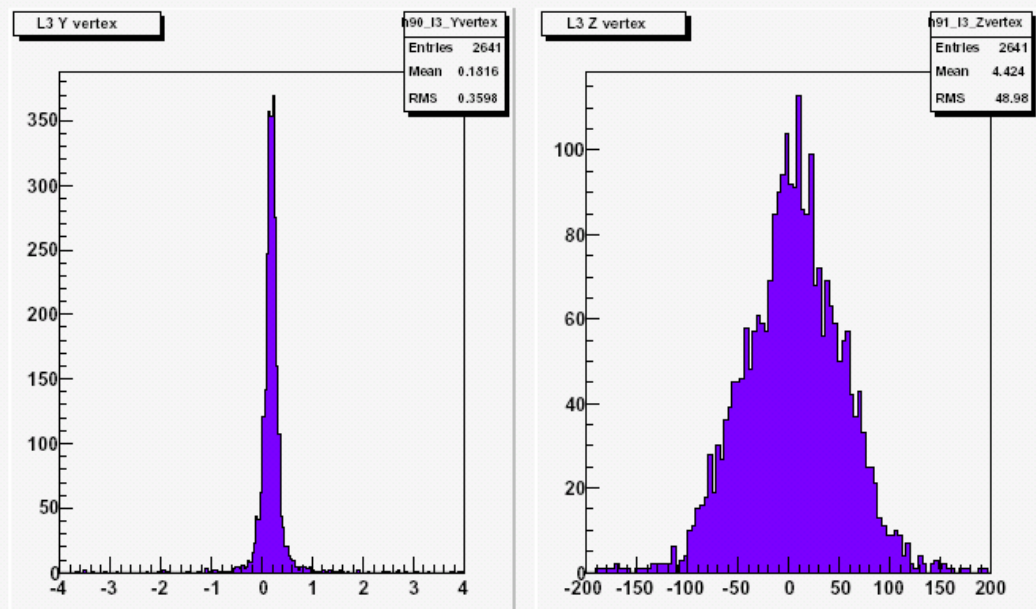
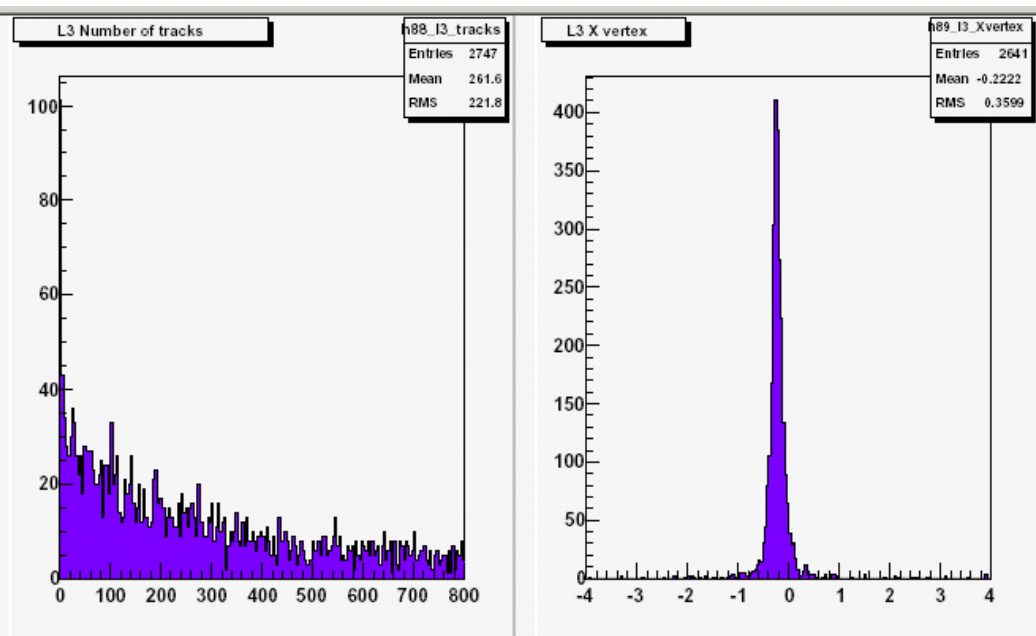
Typical 62 GeV CuCu Vertex Distributions

Vertex Distributions for Data taken Tuesday from 9:00 to 9:20 am.

Running a mix of Triggers.

name	bit(daqTrgId)	offlineTrgId	prescale	numberOfEvents
cu62-zdc	1	76001	400.0	337
cu62-zdc-tacs	10	76002	100.0	1207
cu62-zdc-narrow	100	76007	1.0	78632
cu62-bbc-by	1000	76012	500.0	260
cu62-bbc-narrow	10000	76011	1.0	78014
cu62-zerobias	100000	76300	1.0	1224

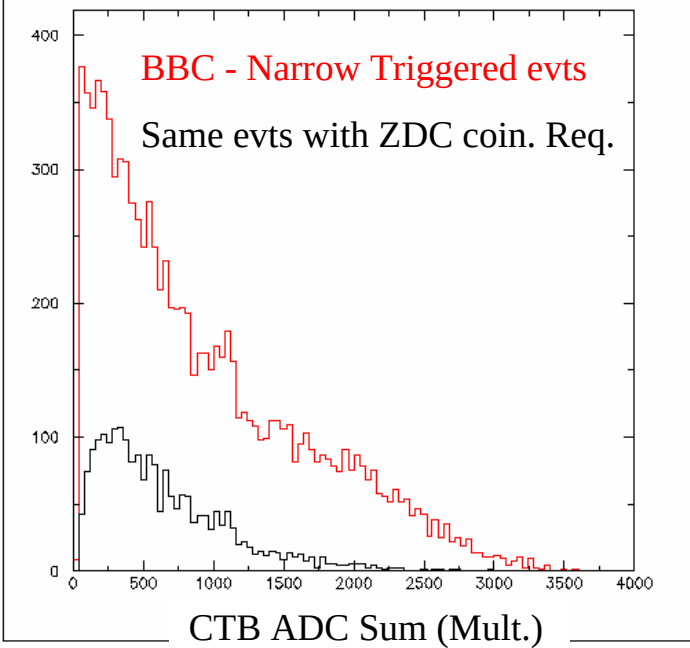
N.B. This Trigger mix biases the V_z distribution.



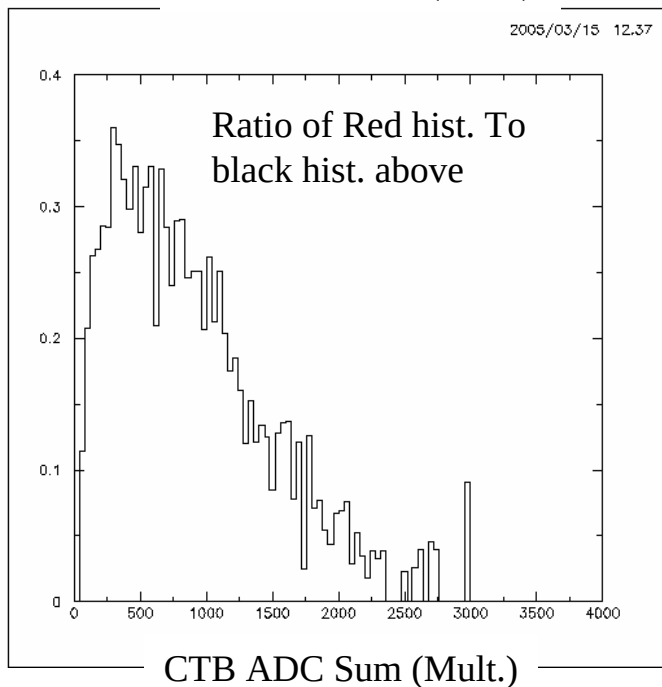
$\langle V_z \rangle \sim 4.4$ cm, rms ~ 49 cm

$\langle V_x \rangle \sim -2.2$ mm, rms ~ 3.6 mm

$\langle V_y \rangle \sim 1.8$ mm, rms ~ 3.6 mm



2005/03/15 12:37



Preliminary Conclusions:

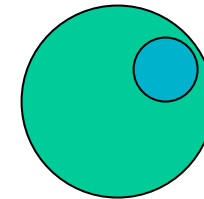
- ZDC coin. Has very low efficiency for central CuCu collisions at 22 GeV.
- Including info. from ZDC triggered data set, the BBC has poor efficiency for peripheral collisions.

Pictorially (rough idea):

For Central Events

Seen by BBC

Seen by ZDC



For Peripheral Events

