



Status of Torino-Dubna Production



Plates for n.chambers

	completed	to do
MB1-S	<u>66</u>	-
MB4(9,11)	<u>11</u>	-
MB2-S	<u>62</u>	4
MB4(10)	6	5
MB3-S	<u>66</u>	-
MB4(4)	<u>11</u>	-
MB4(8,12)	8	3
MB4-S	21	13

Aachen+Legnaro production ended

Completion in may 2005. Production stopped since 2 weeks, motoreductor needs replacement (2 people from Torino will go to Dubna on Monday).



Status of Torino-Dubna Production



Same problem occurred in november 2004 on the other motoreductor.





Status of MB4 Production

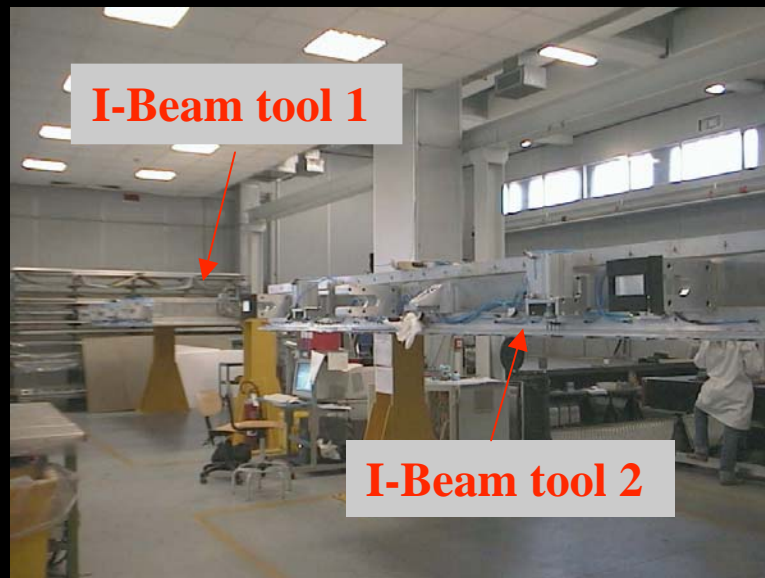


First 3 chambers transported successfully to CERN on 15-2-2005

Both tables operational:

Table 1 : SL assembly and chamber assembly

Table 2 : SI assembly only (presently working at 1SL/week)

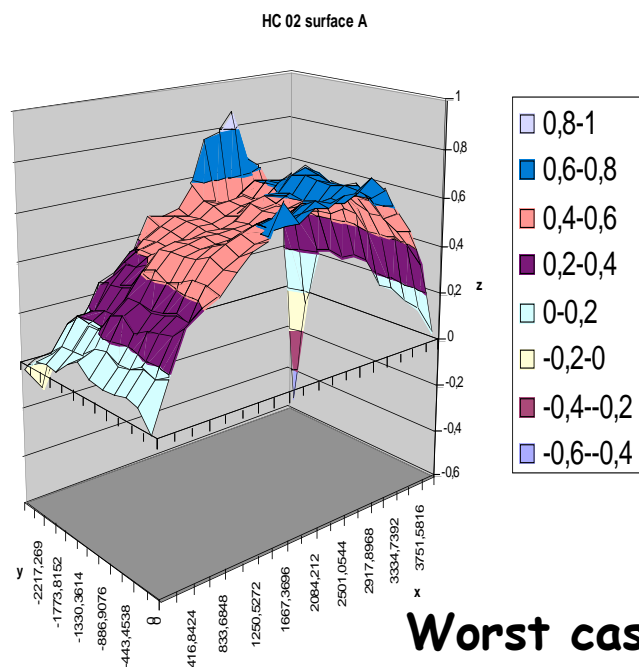




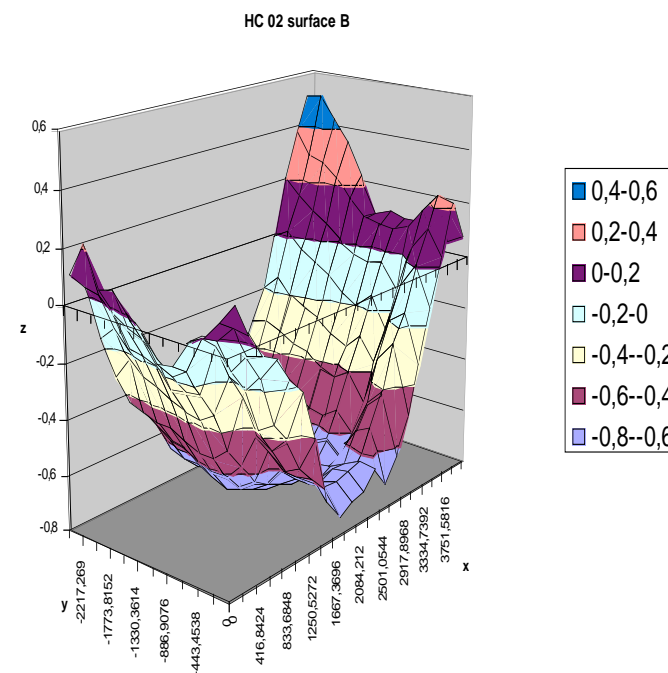
Chamber Glueing I



- measure HC surfaces
- place SI on table, HC and spacers on SL and use a 200 μ m wire to find correct spacers



Worst case example





Chamber Glueing II



1. Use glueing machine to deposit glue on SL (~6 litres, glue tube thickness ~3mm)
2. place HC
3. deposit glue on HC (same procedure of step 1)
4. Place SL, and place a second HC on top as weight.



Time needed to glue one chamber: 1.5 days



Status of MB4 Production



Since 7th march two more people, are participating to chamber assembly, thus providing the necessary help to reach the requested rate of 3 chambers/month.

Starting from April we will aim to this target rate, but we still have the problem of wire making, since the technician who should do this job in Legnaro has not yet arrived.

HVB status: 300 new HVB delivered, enough for 6 chambers. 4 Chambers built so far with old HVB, we will need more HVB in one month from now.



Status of MB4 Production



Mechanically finished SL	19
Assembled SL	18
Tested SL	15
Completed Chambers	6
Chambers @ CERN	3



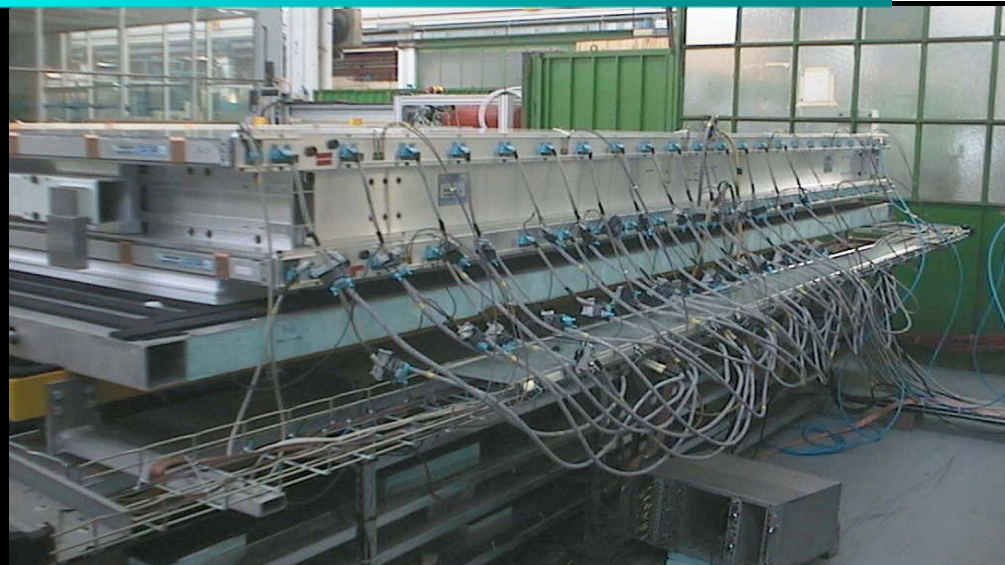
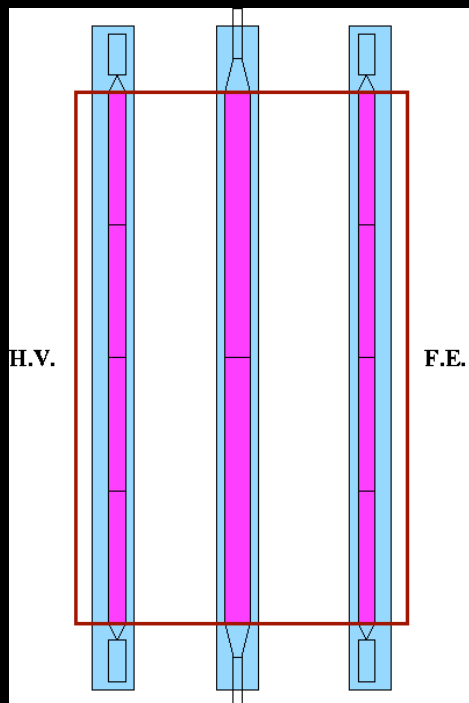
Next deliveries



- 1st week of april 4 chambers to CERN (wheel YB+2 completed)
- 1st week of may 4 chambers to CERN (wheel YB+1 completed)
- 1st week of june 3 chambers to CERN (3 chambers for YB0)



Cosmic Test Stand



Scintillators:

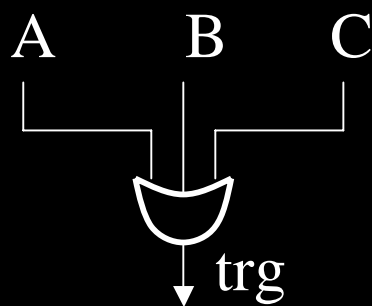
16 (100*10*1 cm³) + 4 (200*20*1 cm³)

4 CAEN V767 TDCs (1/2 ch or 1 SL)

Trigger timing resolution and spatial

uniformity: ~ 1 ns

Trigger rate: ~ 55 Hz



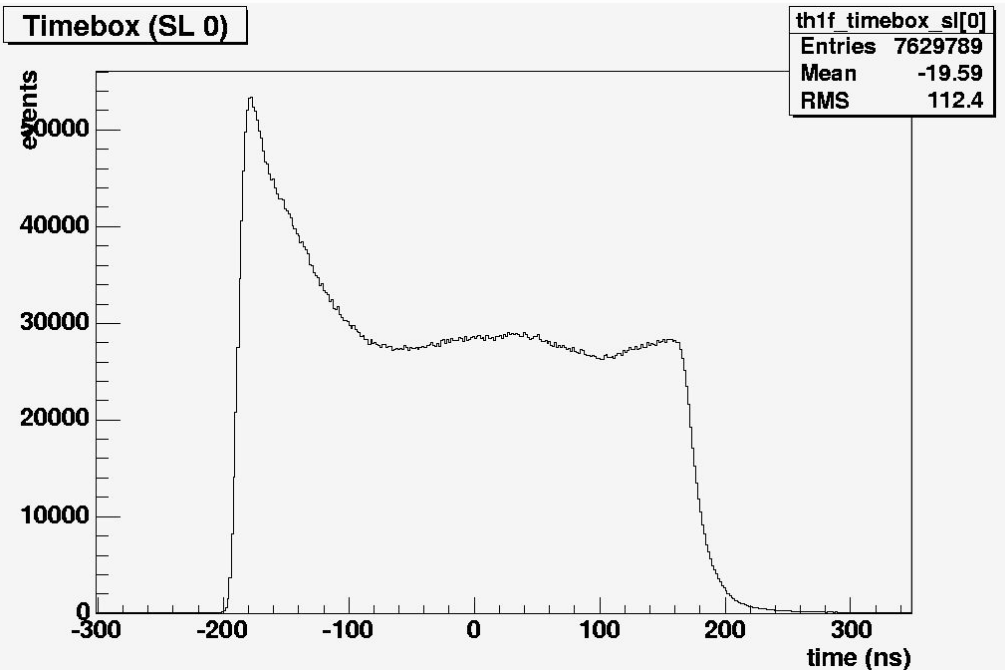


Measurements



5 chambers (10 SLs) tested up to now:

- check HV stability (SY1527 HV system)
- noise (random triggers)
- time boxes (visual check for bad HV contacts)
- MT (L/R) (preliminary)
- cell by cell efficiency (preliminary)



Running conditions:
(to be optimized)

HV 1800(S)/3600(A)/1200(C)

Thr=15 mV

$\Delta p = 10$ mbar amedeo.staiano@to.infn.it

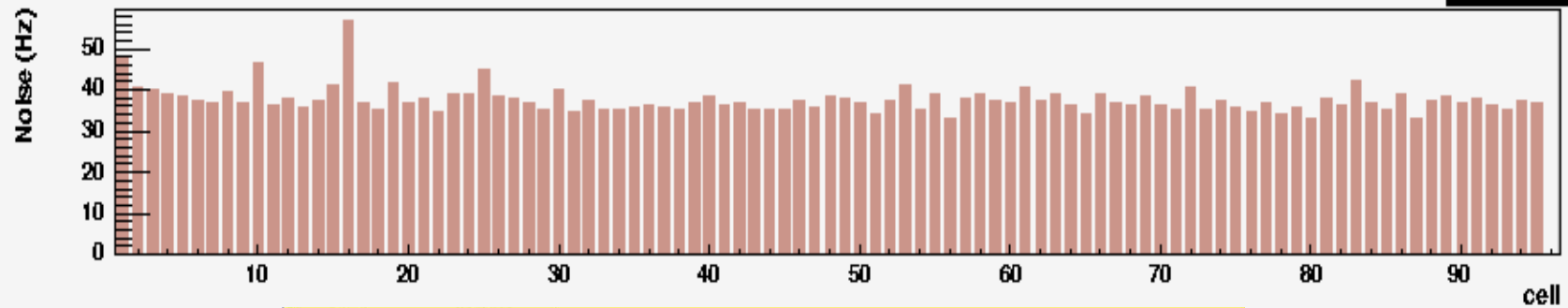


Noise

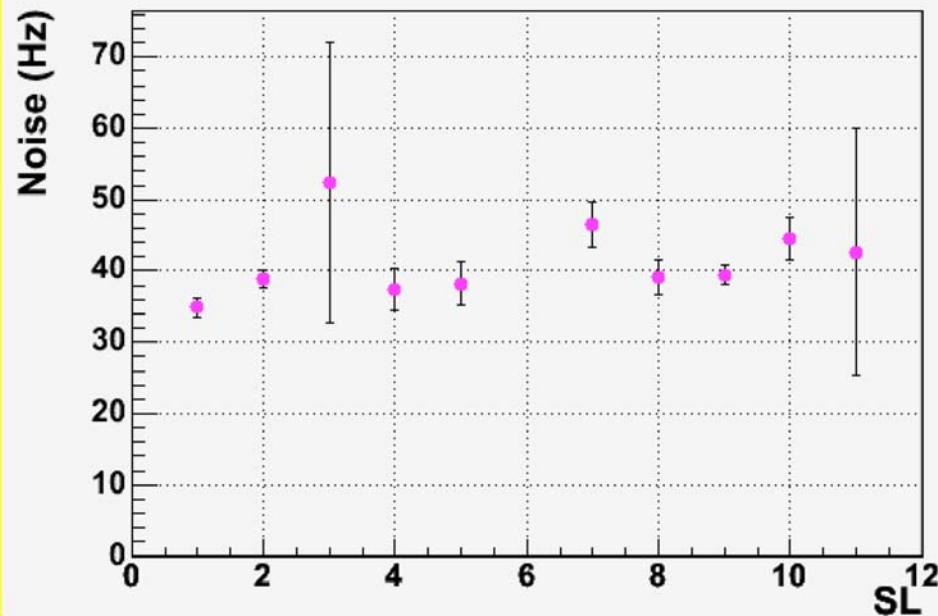


Noise (layer 1)

SL 5



Noise mean/RMS

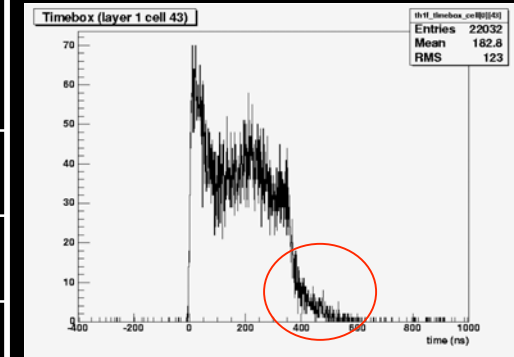




Bad Cells



SL n. (CH. n.)	N.of cells with noise > 100 Hz	Disconnected/ dead cells	N.cells with bad HV connections (cathodes)
001 (CH002)	0	1	0
002 (CH002)	0	1	3
003 (CH001)	1 (380 Hz)	2	0
004 (CH003)	1 (140 Hz)	1	0
005 (CH001)	0	0	0
007 (CH004)	0	0	0
008 (CH003)	0	0	0
009 (CH005)	0	0	0
010 (CH004)	0	0	1
011 (CH005)	2 (110,350 Hz)	1	1



To be repaired at CERN when HVB will be changed

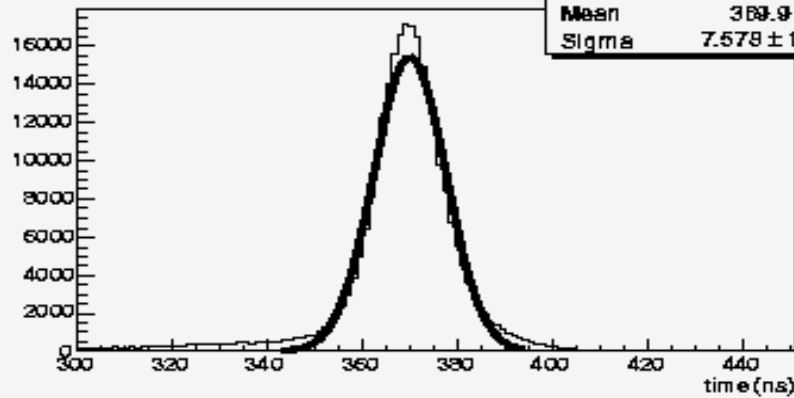
~ 0,15 %



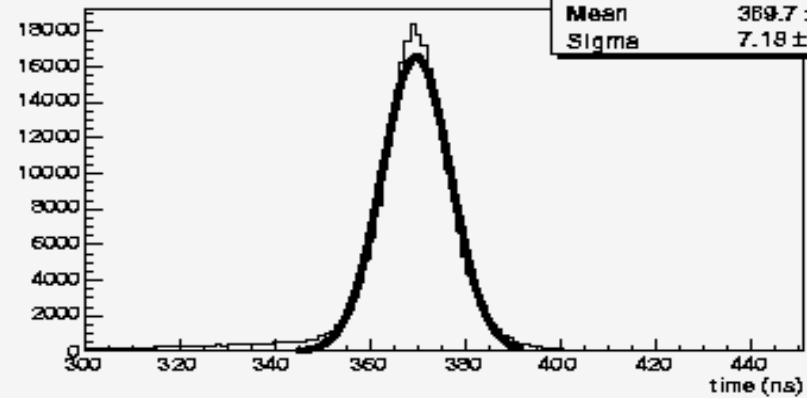
MT



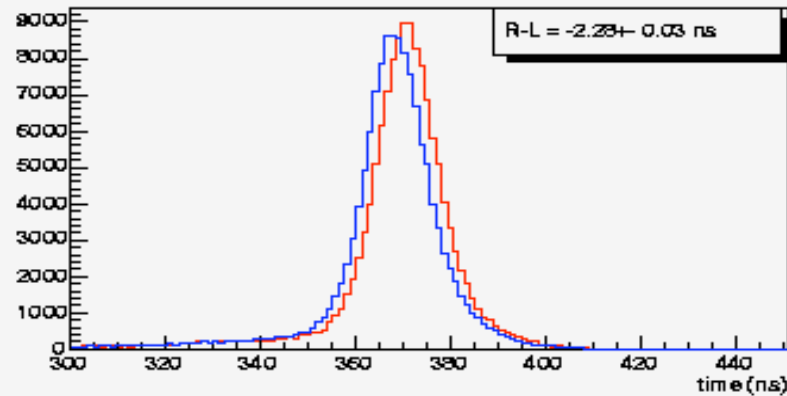
MT123 (SL 7)



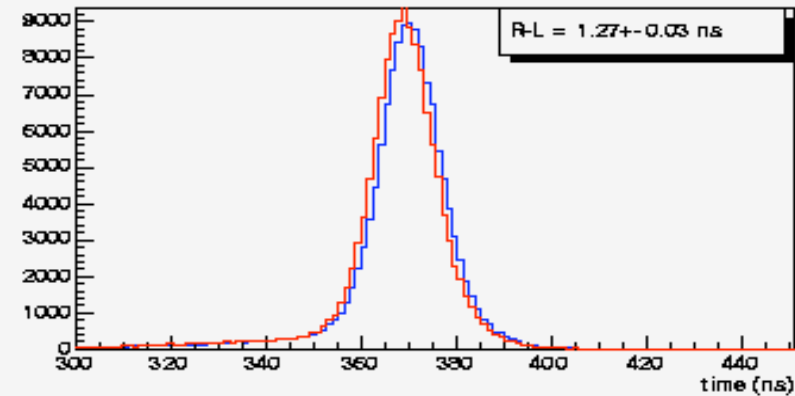
MT234 (SL 7)



MT123 L/R (SL 7)



MT234 L/R (SL 7)



$\sigma \sim 7 \text{ ns}$

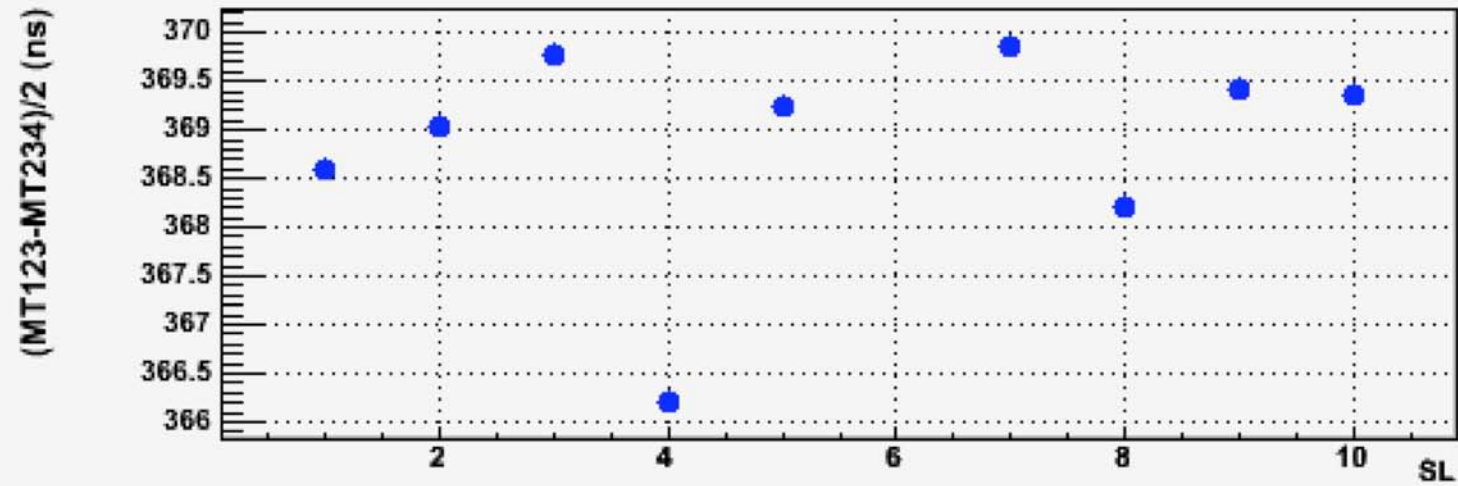
Best 4-hit fit track used, if in one column. No χ^2 cut



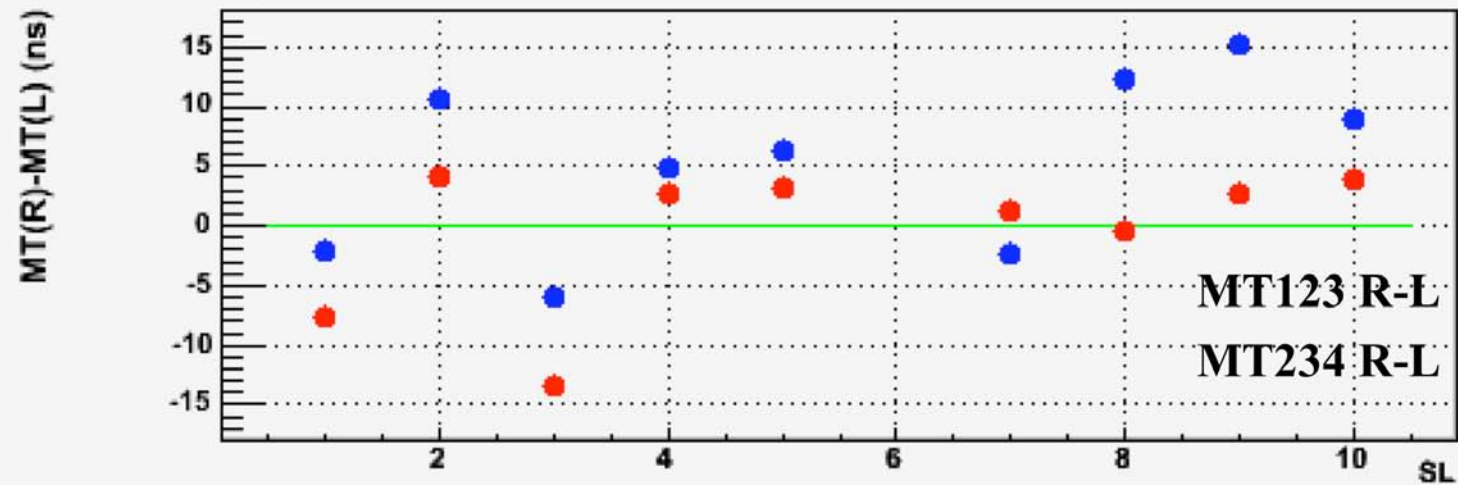
Status of MB4 Production



mean MT



MT(Right)-MT(Left)



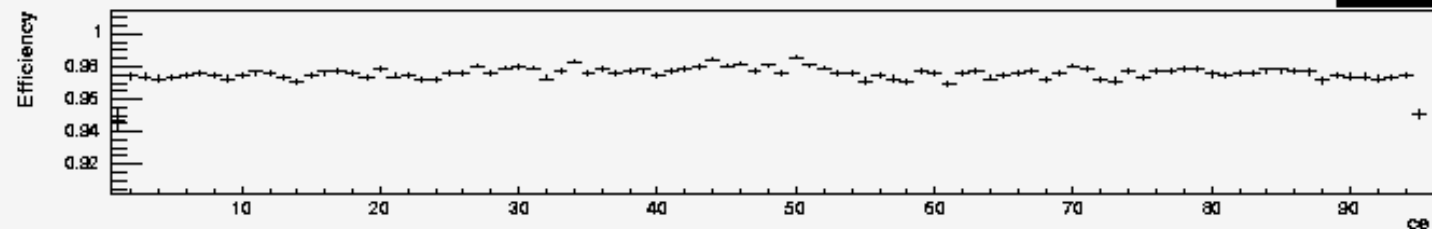


Efficiency (preliminary)

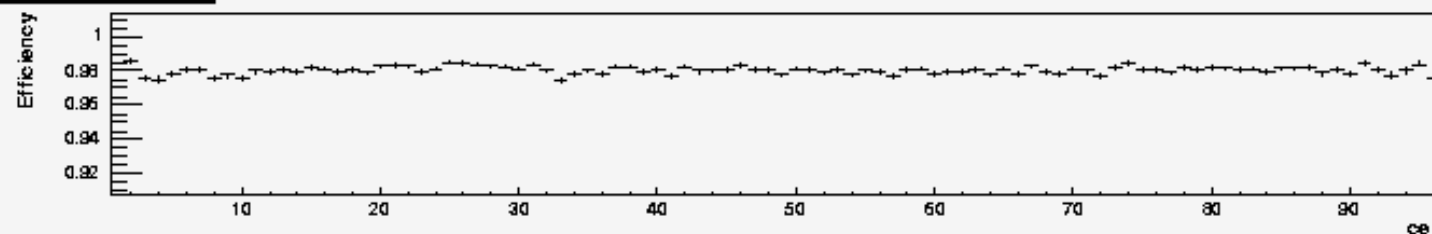


Efficiency (layer 1)

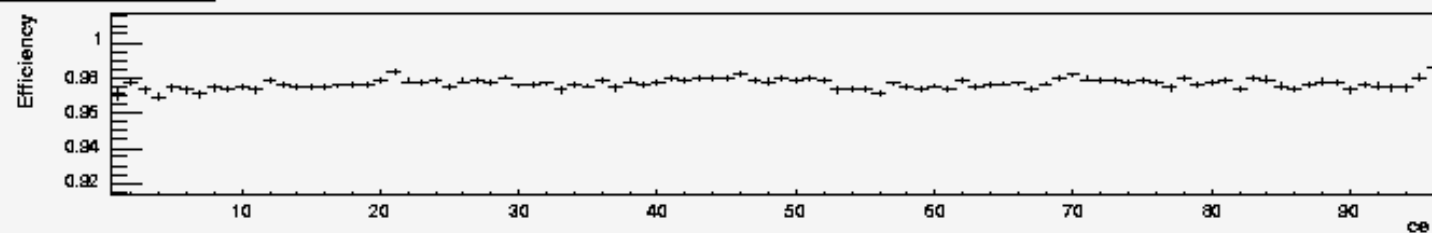
BL 10



Efficiency (layer 2)



Efficiency (layer 3)



Efficiency (layer 4)

