NEW DATA TAKING DATA

Period in which the data have been split (to see time effects)

Period	Runs	from	to
0	3500-3959	19nov06	27nov06
1	3960-4399	27nov06	08dec06
2	4400-4849	08dec06	16dec06
3	4850-5299	16dec06	07jan07(*)
4	5300-5749	07jan07	14jan07
5	5750-6199	14jan07	20jan07
6	6200-6460	20jan07	24jan07

(*) new year's run: 5147, 03jan07

SOME STATISTICS (up to 24jan07)

Number of K^-/K^+ and μ^+ (Extrplu==1&&Normplu<80 - averaged over all targets)

Period	K^-	K^+	μ^+
0	1.084.480	1.161.201	68.854 (**5,93%**)
1	1.606.162	1.714.923	108.072 (**6,30%**)
2	2.094.821	2.254.775	152.084 (**6,74%**)
3	2.252.748	2.422.273	172.629 (**7,13%**)
4	2.413.708	2.597.391	182.047 (**7,01%**)
5	2.782.497	2.991.548	179.753 (**6,01%**)
6	1.335.261	1.427.400	92.697 (**6,49%**)
TOT (2006/07)	**13.569.677**	**14.569.511**	**956.136 (6,56%)**
OLD:585-2100	9.171.358	9.251.115	985.393 (**10,65%**)
OLD:2101-2583	3.647.791	3.676.799	260.799 (**7,09%**)
TOT (2003/04)	**12.819.149**	**12.927.914**	**1.246.192 (9,64%)**

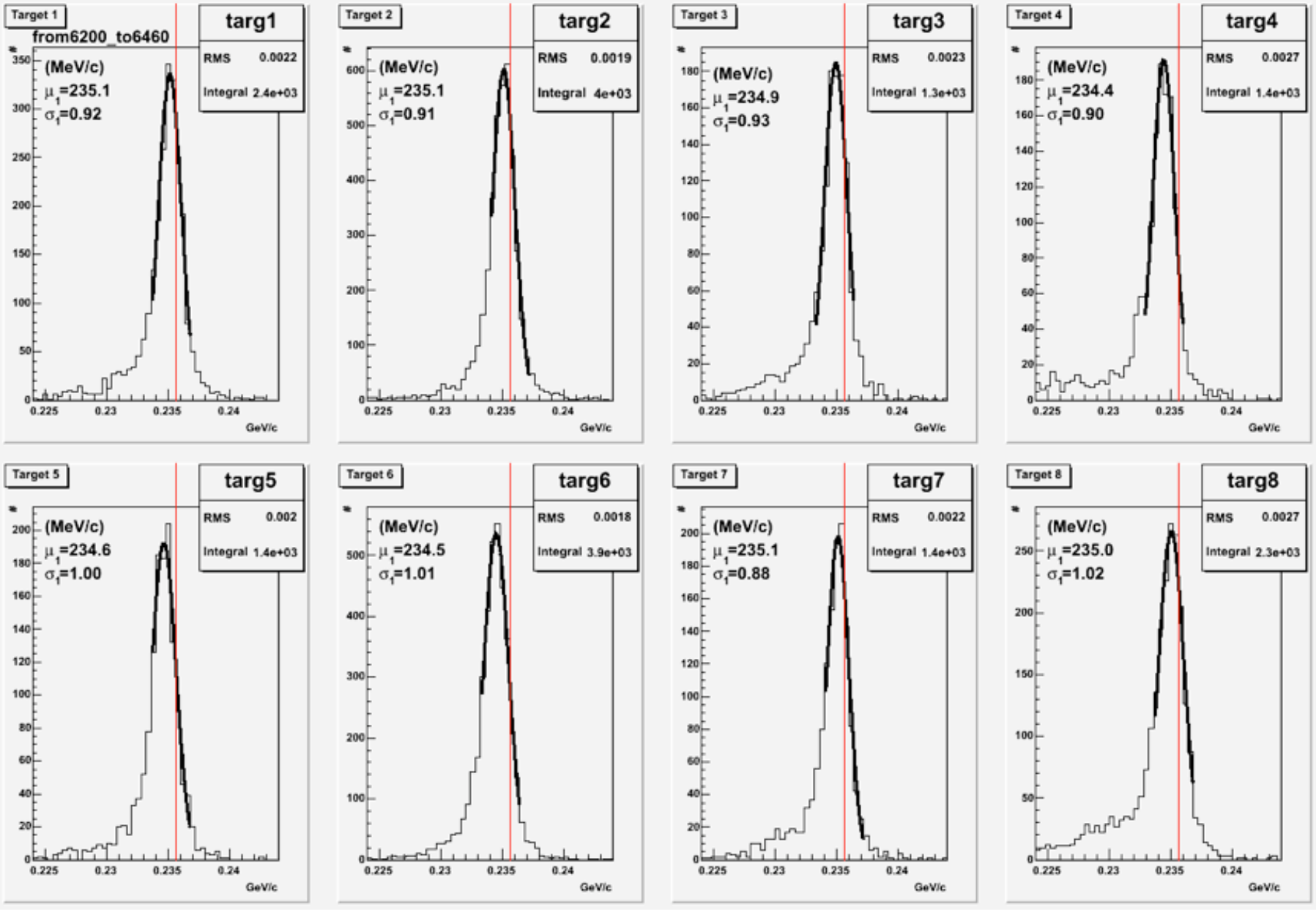
compared to 2003/04 we lost at least 30% of efficiency in reconstructing positive muons

FITTING THE DISTRIBUTIONS

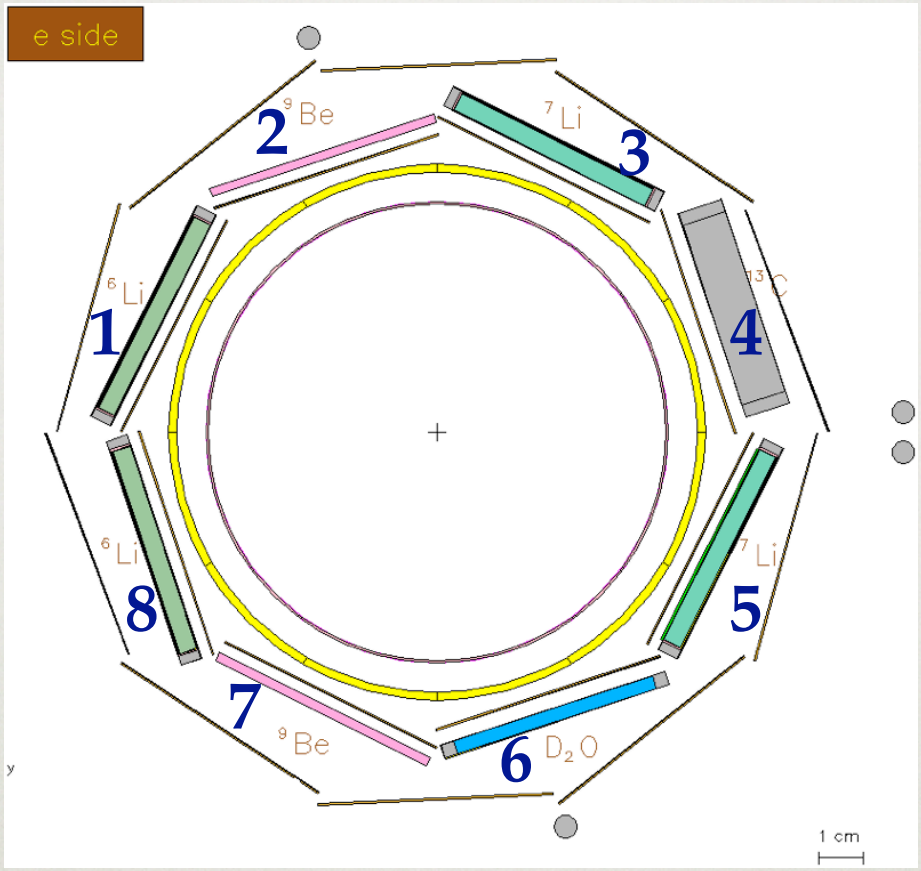
μ^+ *(Stopplu==1&&Normplu<60&&Sterplu<200&&Resdplu<0.2)*

gBonomi, frascati 08/02/07

fit with 1 Gaussian between [max-1.3MeV-max+1.8 MeV] ***FIT for stability & comparison (not to look for best resolution)***



TARGETS POSITION

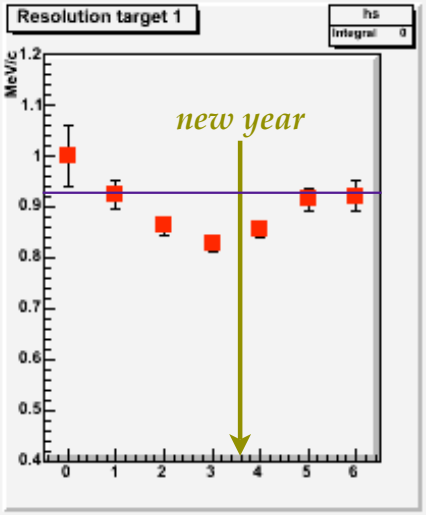


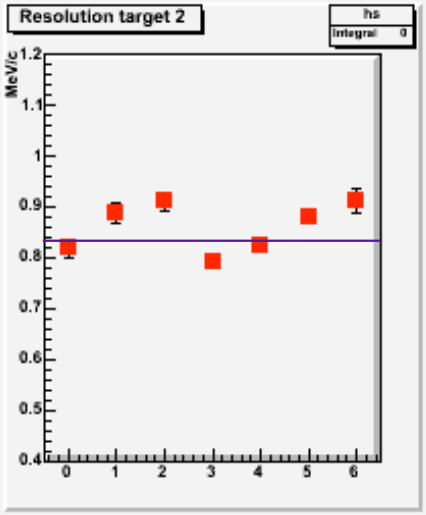
Relative resolution (FWHM)

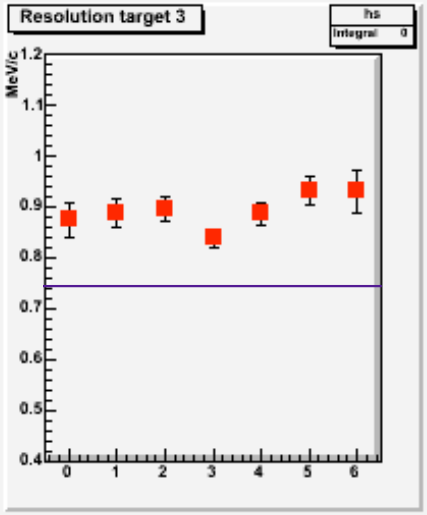
$$\frac{\sigma}{\mu} \cdot 2.35 = \frac{\sigma}{235.6} \cdot 2.35 = \frac{\sigma}{100}$$

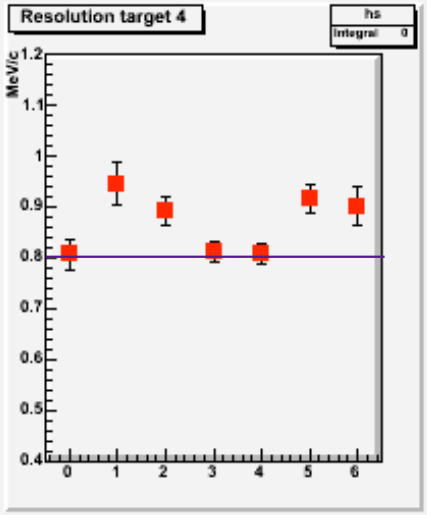
Example (σ = 1 MeV/c, res. 1%)

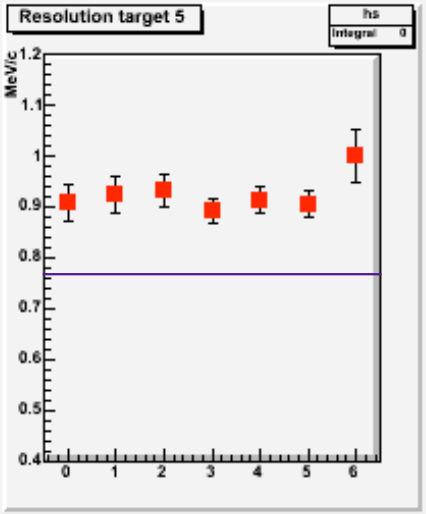
OVERALL BEHAVIOUR (targets) *sigma of the distributions*

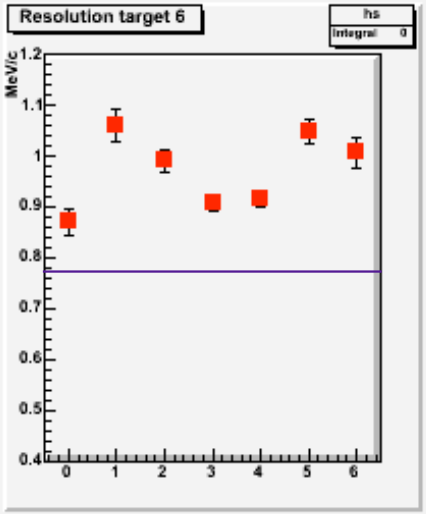


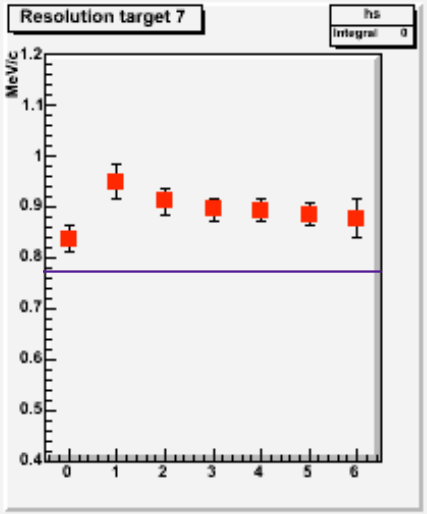


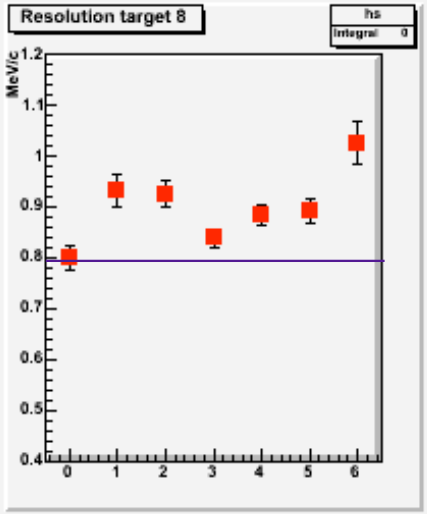






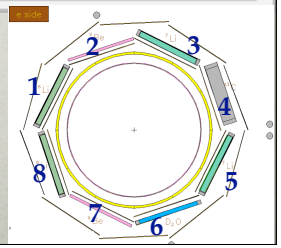




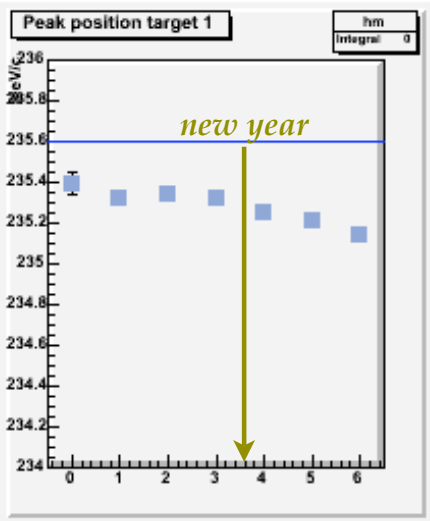


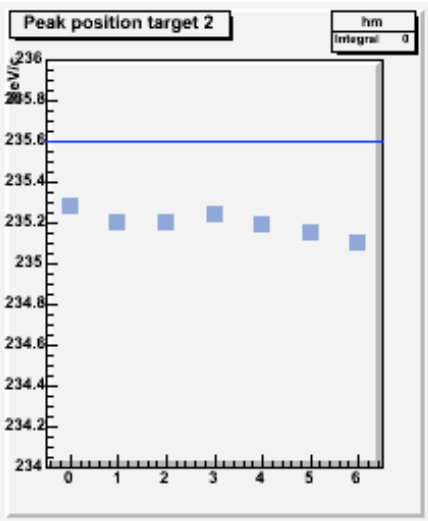
difficult to draw conclusions ... the sigma of the fit fluctuate (sensitive to fit range)

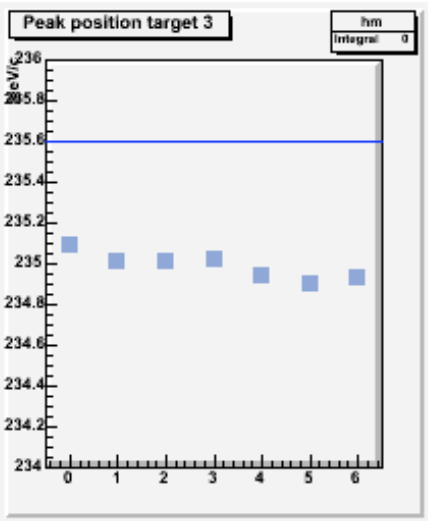
tentative conclusions: with the new year we see a worsening of the resolution
without "alignment" hard to evaluate the absolute effect

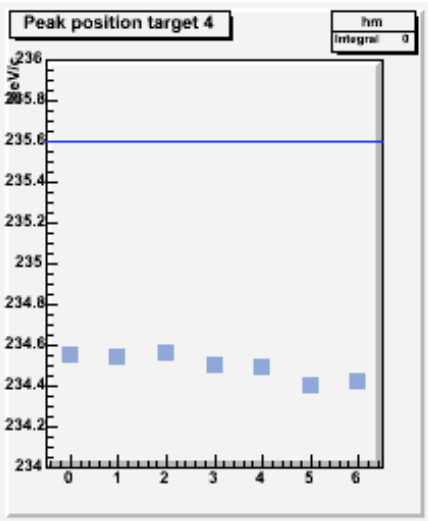


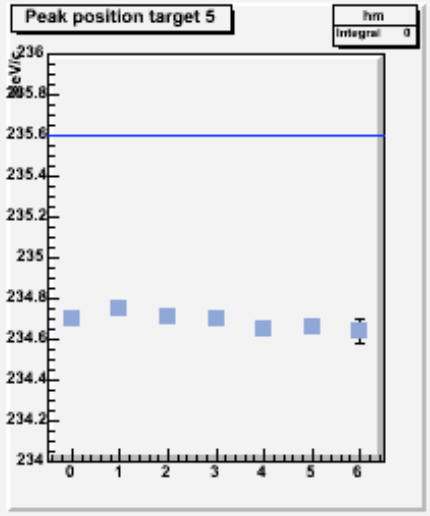
OVERALL BEHAVIOUR (targets) *peak position*

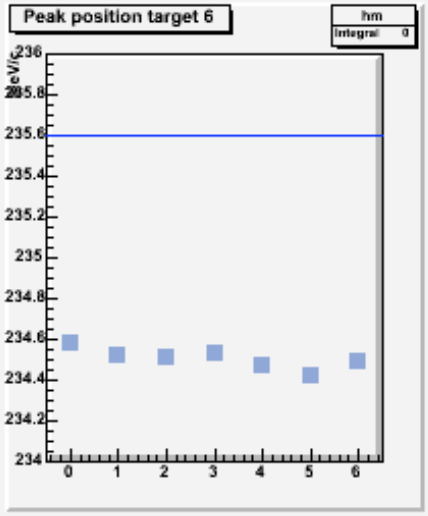


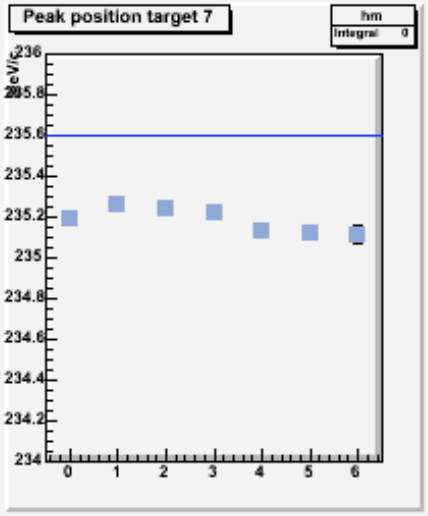


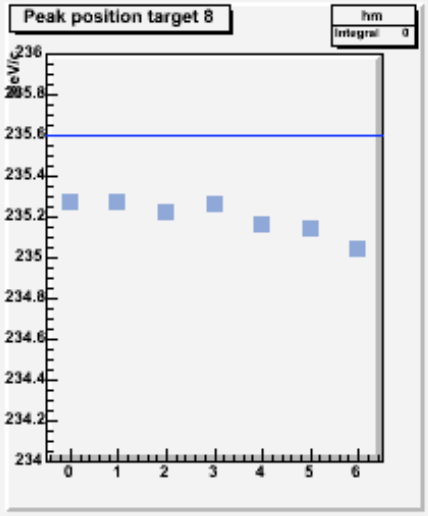






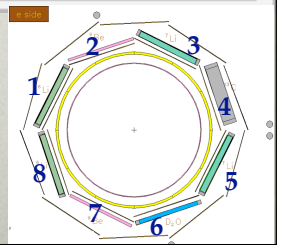




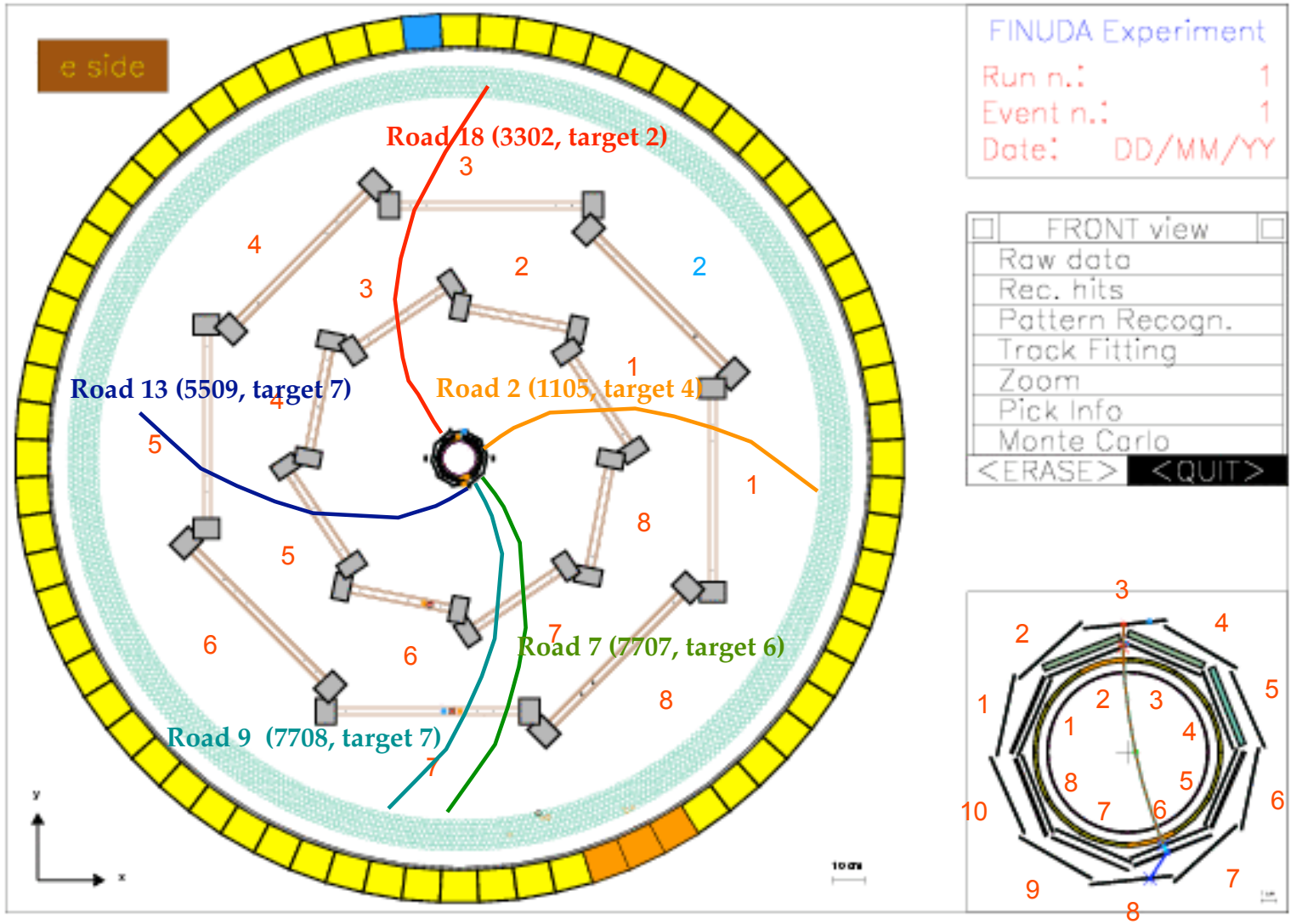


muon peak position is drifting ... this is probably sensitive to the % of air

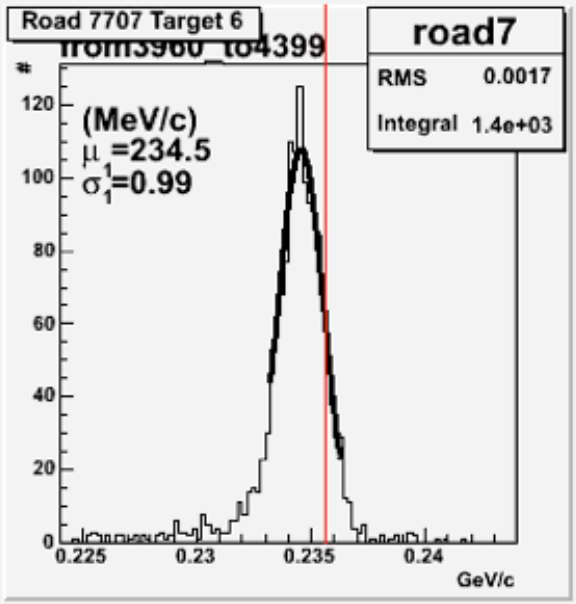
..... checking single "roads"

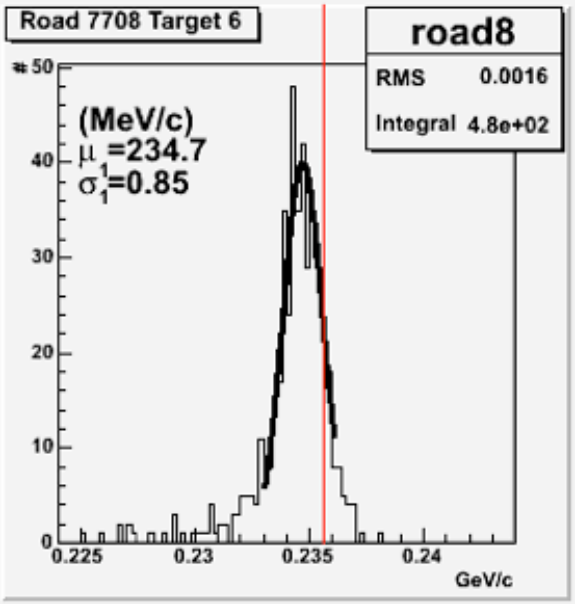


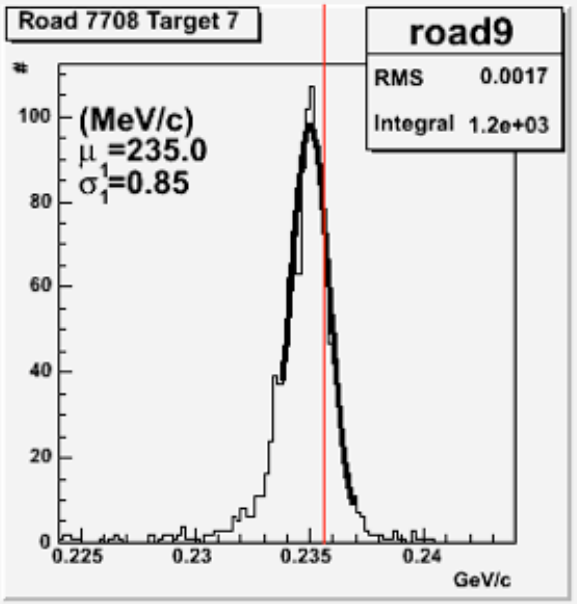
ROADS

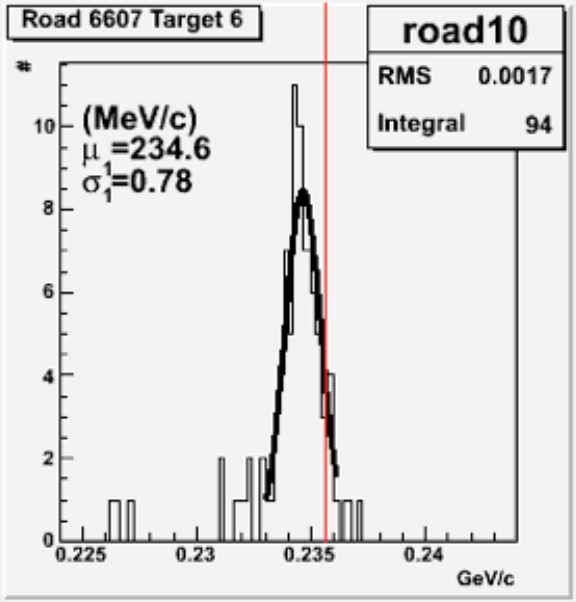

e side
Road 18 (3302, target 2)
Road 13 (5509, target 7)
Road 2 (1105, target 4)
Road 7 (7707, target 6)
Road 9 (7708, target 7)
FINUDA Experiment
Run n.: 1
Event n.: 1
Date: DD/MM/YY
FRONT view
Raw data
Rec. hits
Pattern Recogn.
Track Fitting
Zoom
Pick Info
Monte Carlo
<ERASE>
<QUIT>

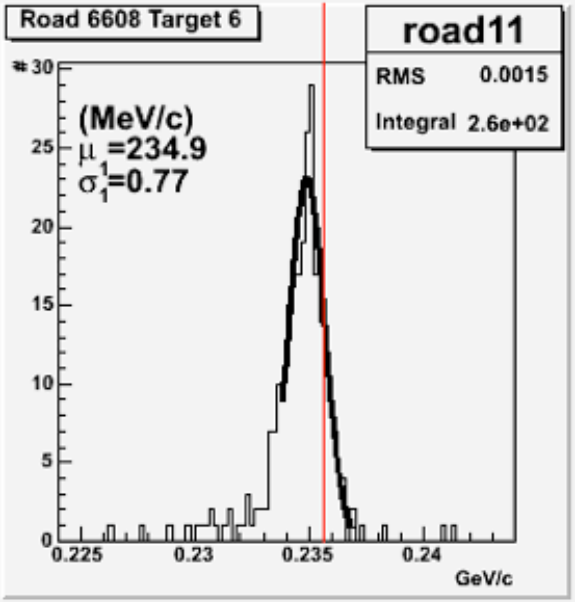
OVERALL BEHAVIOUR (roads)

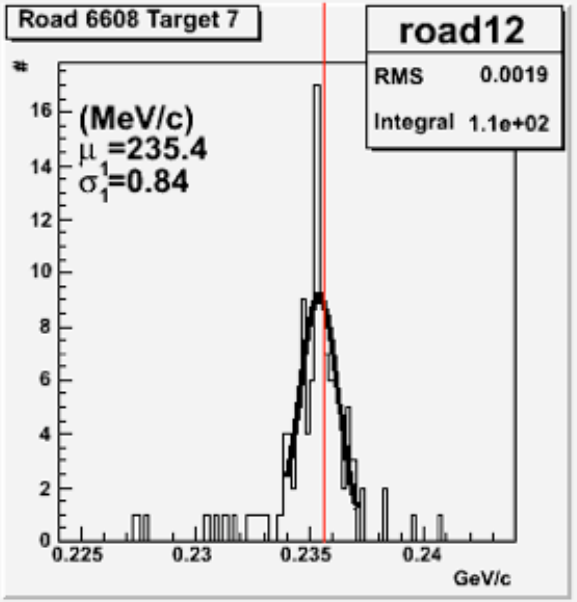




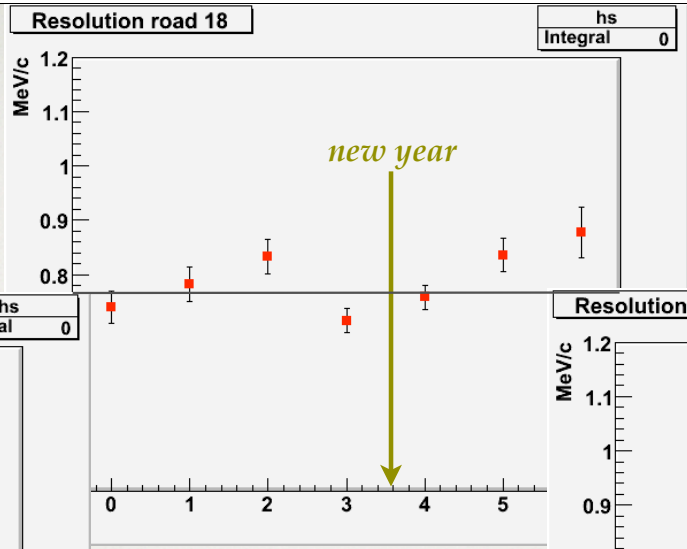


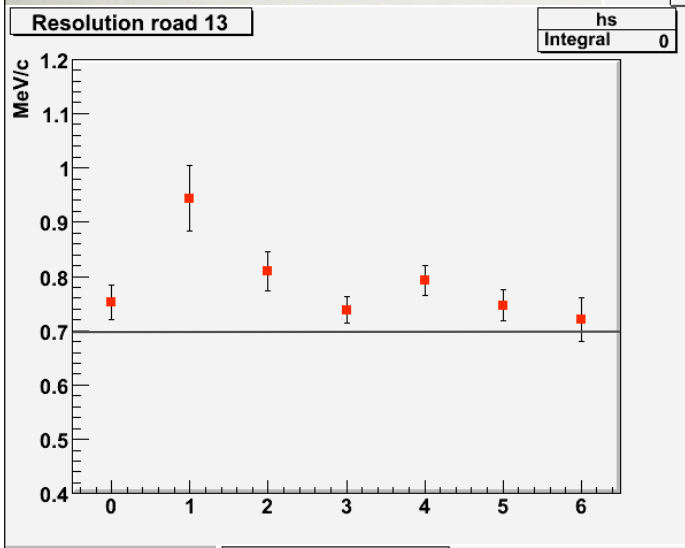


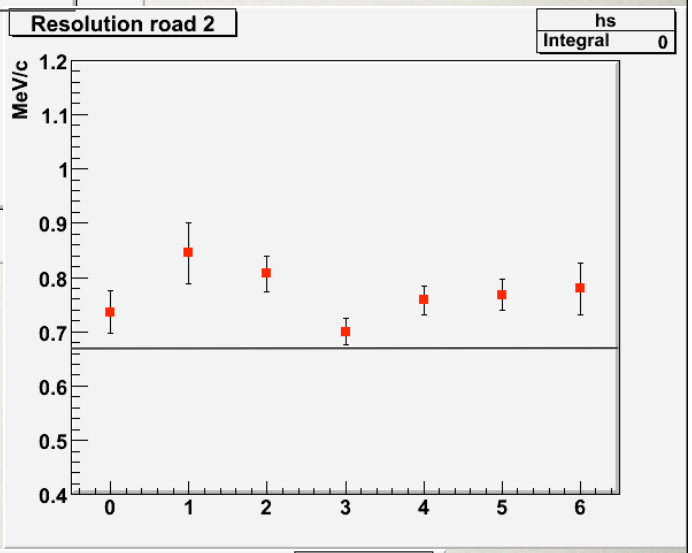


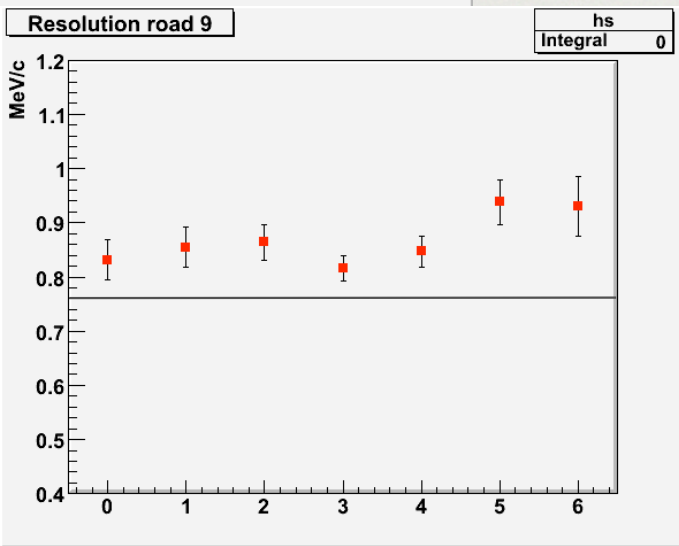


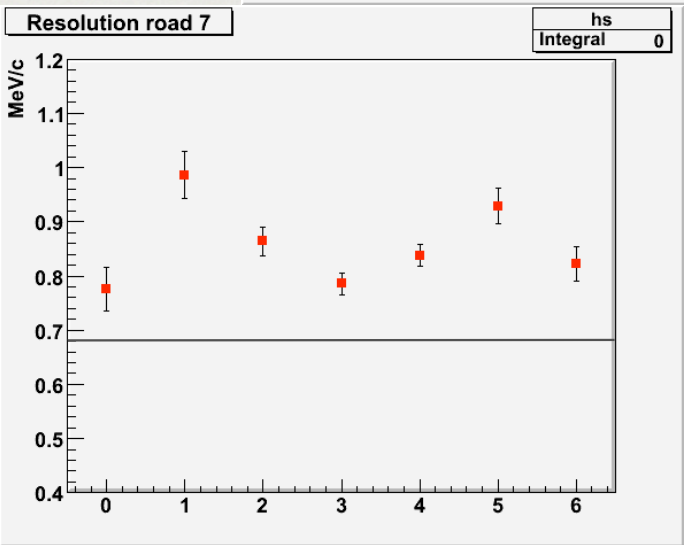
OVERALL BEHAVIOUR
(roads resolution)



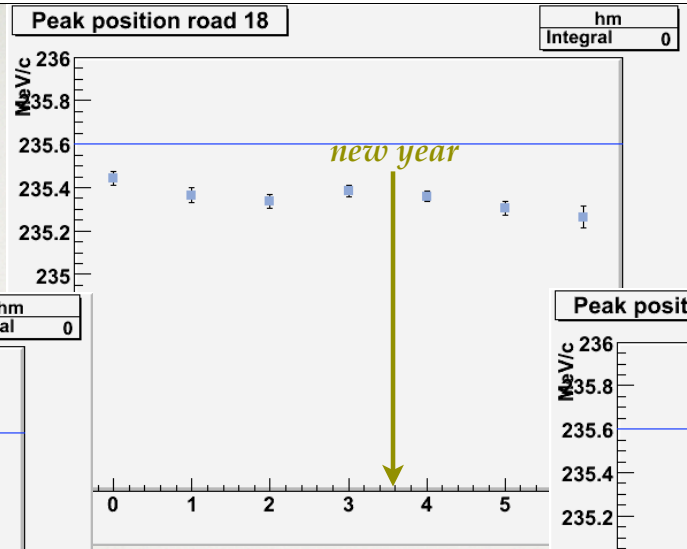


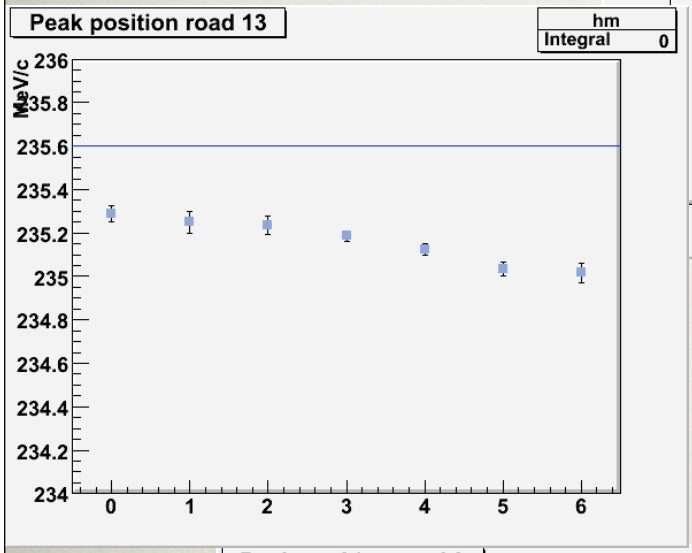


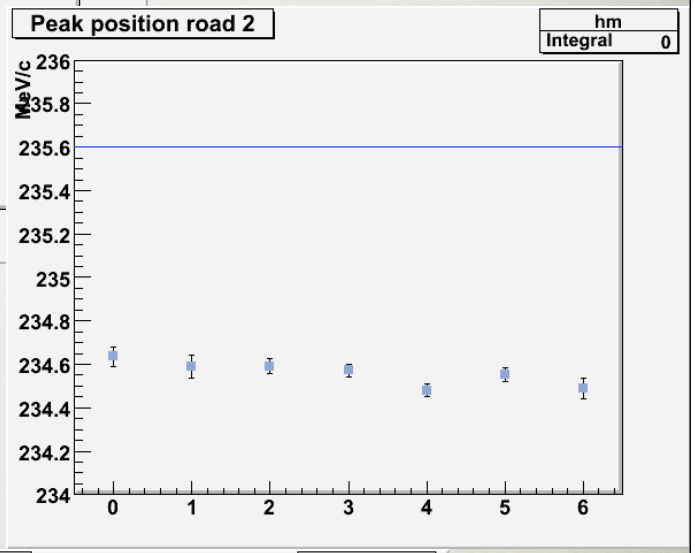


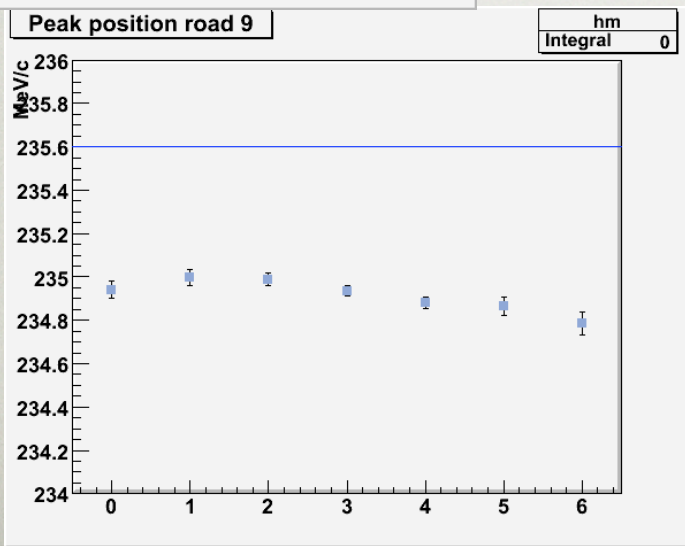


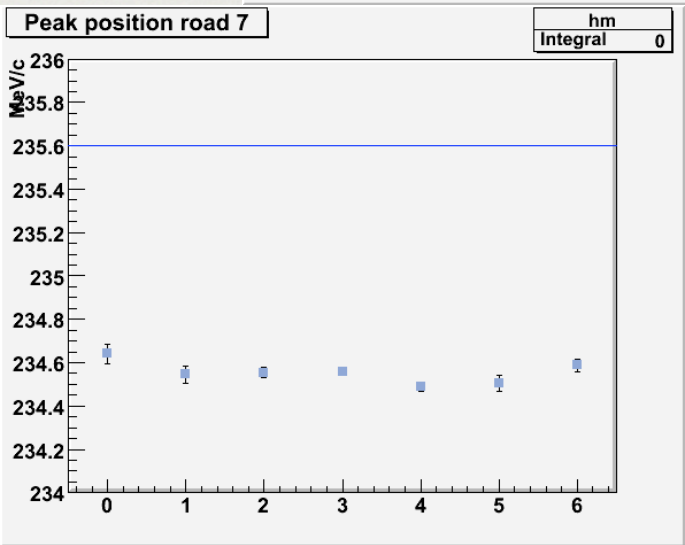
OVERALL BEHAVIOUR
(roads mean)











CONCLUSIONS

1) we lost efficiency (compared to 2003/04 data taking)

2) the resolution is getting worse

- *o) difficult to compare it with previous data taking since we are not "aligned" yet*
- *o) difficult to isolate/quantify the effect of the increase of the air in the He-bag (from other contributions such as alignment and detector resolution)*