

# CIEMAT Status Report

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Muon Week, April 2002

## Summary of CIEMAT Status

- Number of SL's mechanically finished 36
- Number of SL's tested 33
- Number of Chambers completed 9
- Number of Chambers at CERN 5

Next Shipment: (foreseen in April 23) 5 chambers

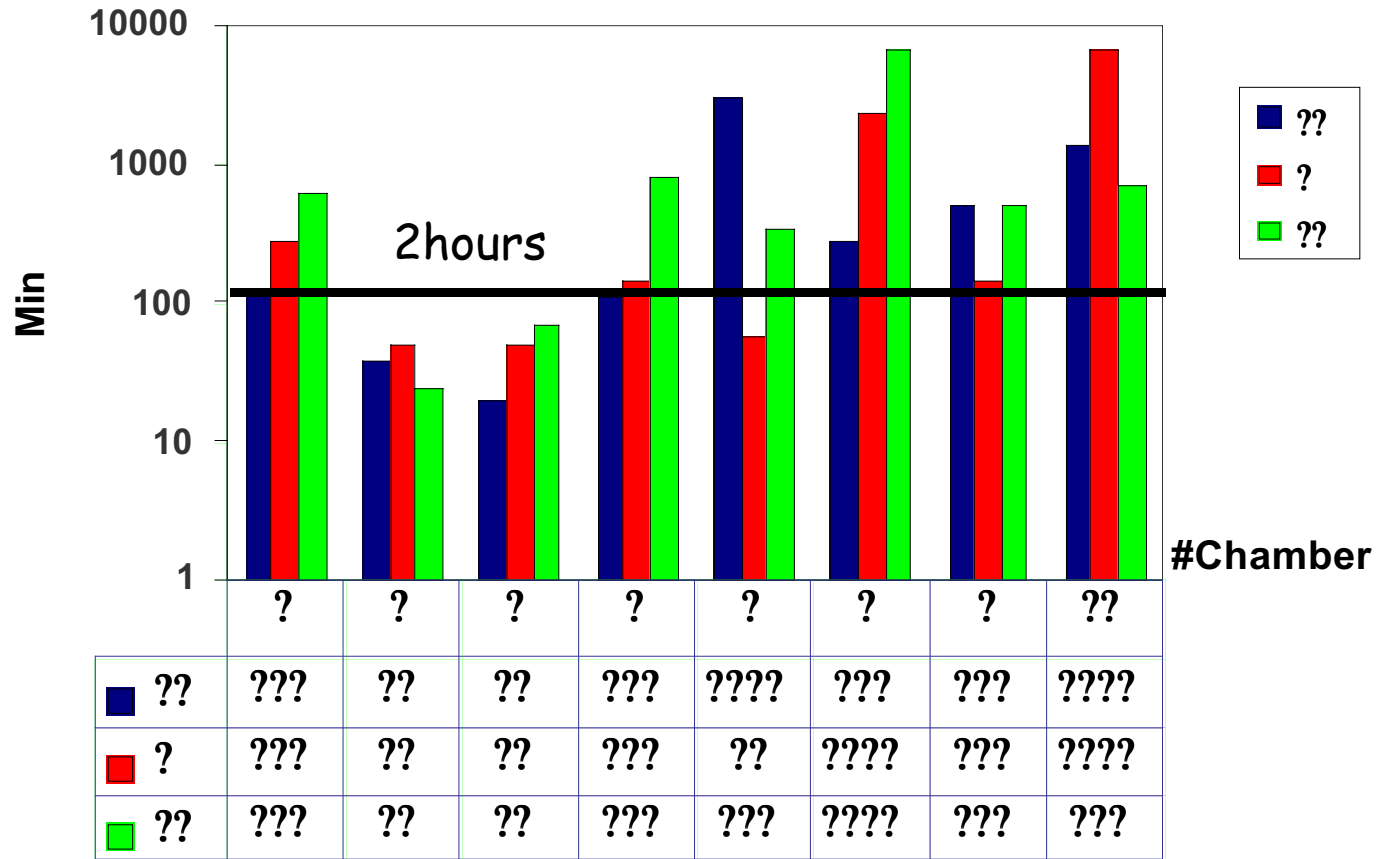
*Actual Production Rate:*

Last 4 chambers were built in 10 working weeks

*SL testing* proceeded at the same rate as mechanical assembly

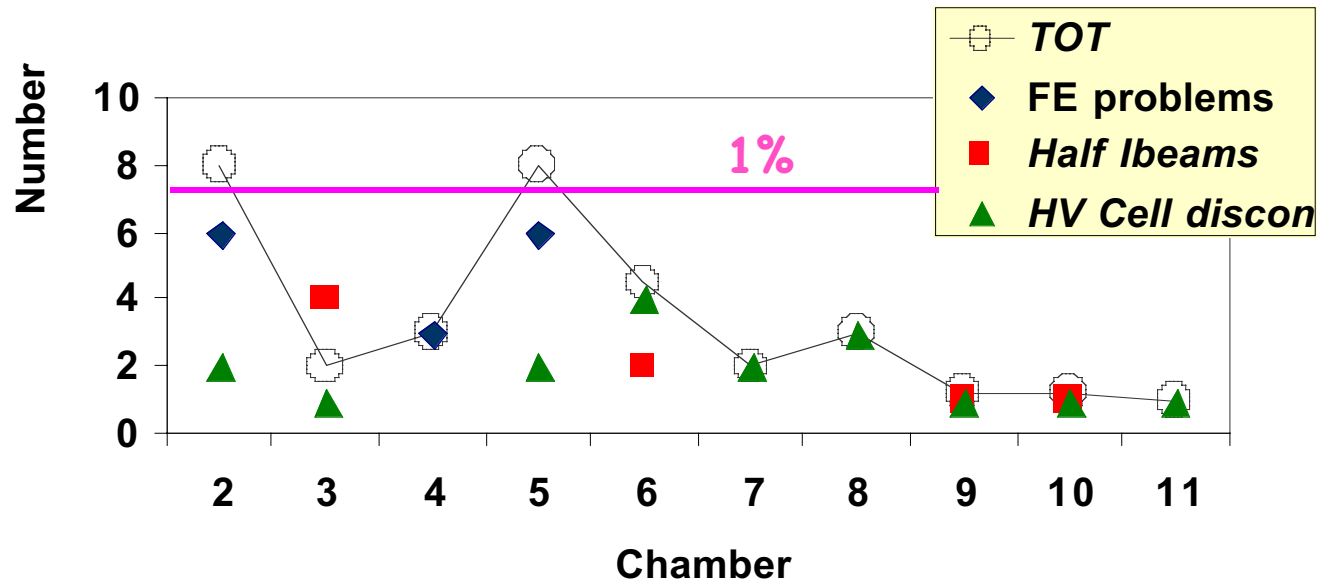
# GAS Tightness

## TIME CONSTANTS



Gas tightness is better in most recently built SL's

# Dead Channels



(Chamber 11. Only HV tests in air)

No dead channels due to FE problems in the last 5 chambers tested.

# Problems on TP connector feethroughs

Last week we used for the first time the TP connectors received on the last shipment.

We found that **some of them don't work**.

**Reason:** a short circuit due to a bad soldering (most frequently in the part glued to the SL cover).

## Statistics:

|               |           |             |
|---------------|-----------|-------------|
| TP assembly 4 | 5% fails  | (total 220) |
| TP assembly 3 | 13% fails | (total 123) |
| TP assembly 2 | 0% fails  | (total 20)  |

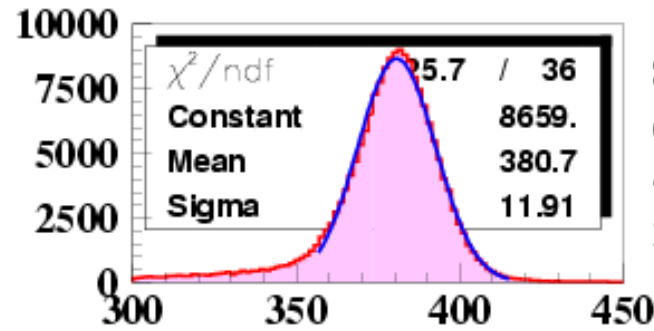
Average failure 7.5%

In previous 10 Chambers (120 TP) this problem was not found

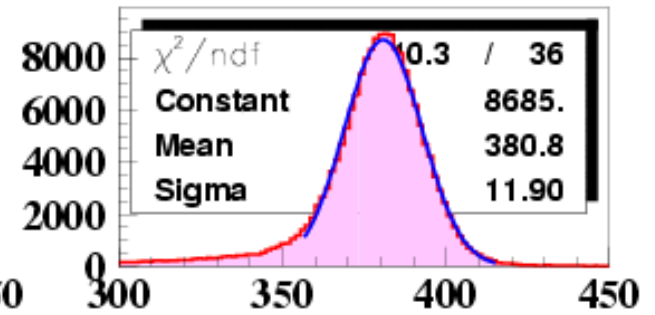
# Meantimers(I)

## Meantimer SL $\Phi 19$

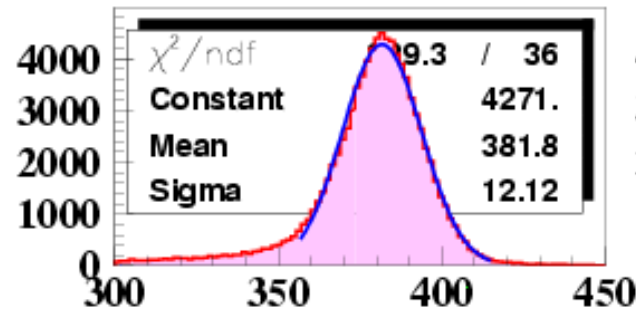
Mean values are the same within  $\pm 1ns$



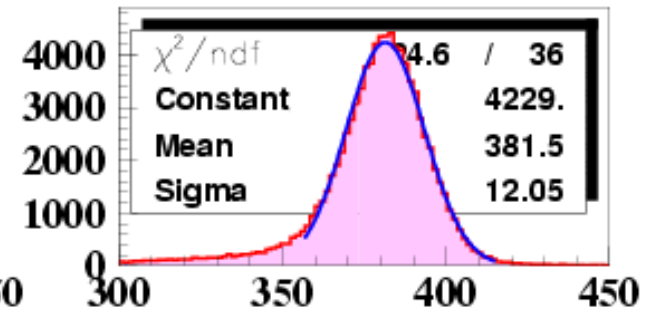
MT1



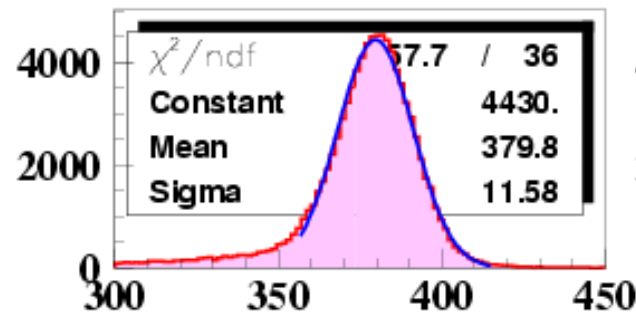
MT2



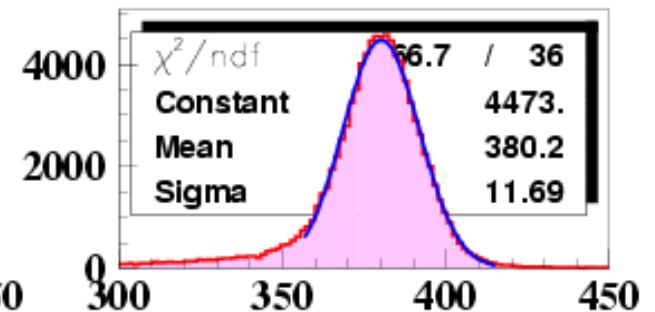
MT1 Left



MT2 Left

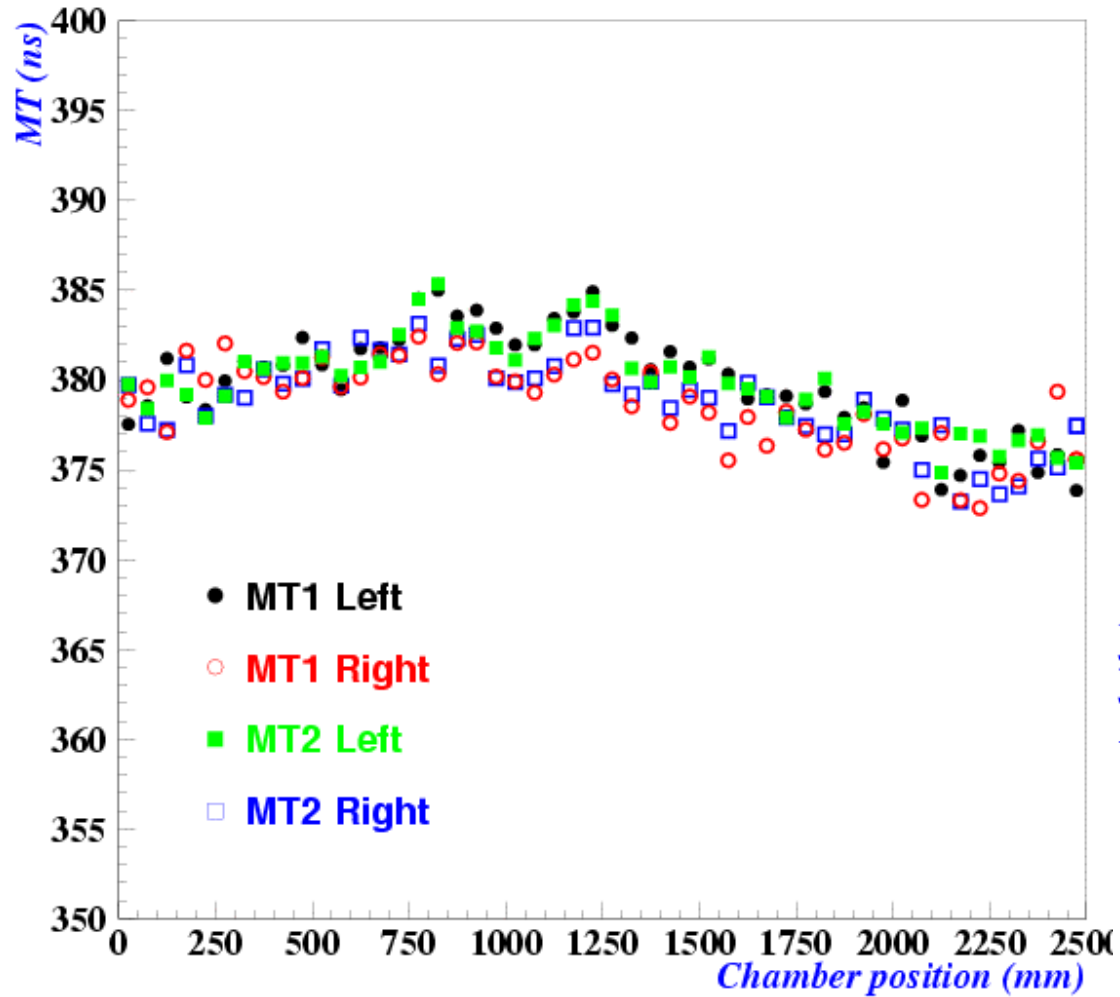


MT1 Right



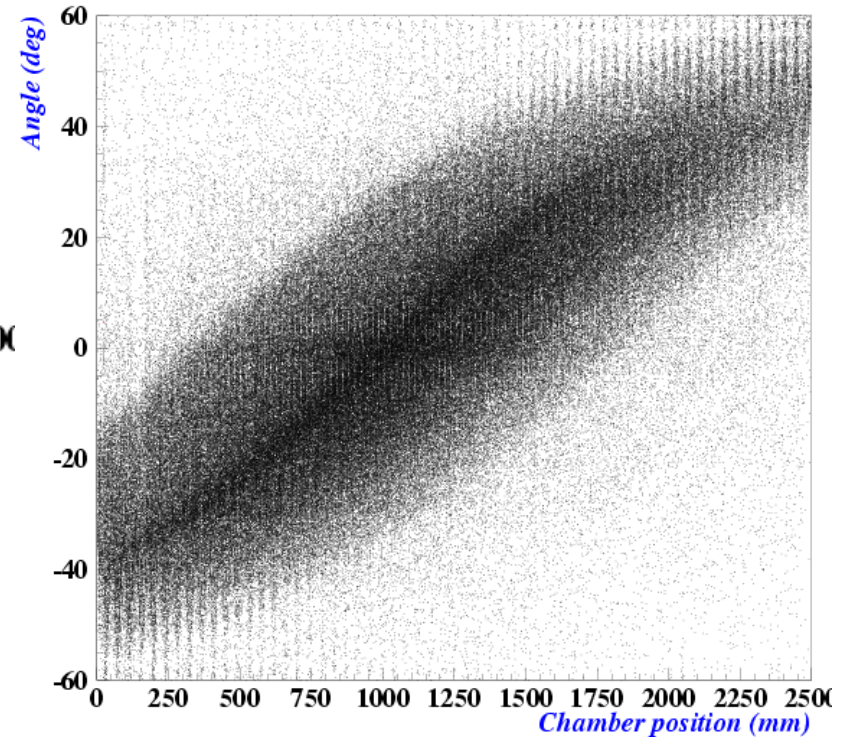
MT2 Right

## Meantimer SL $\Phi 19$



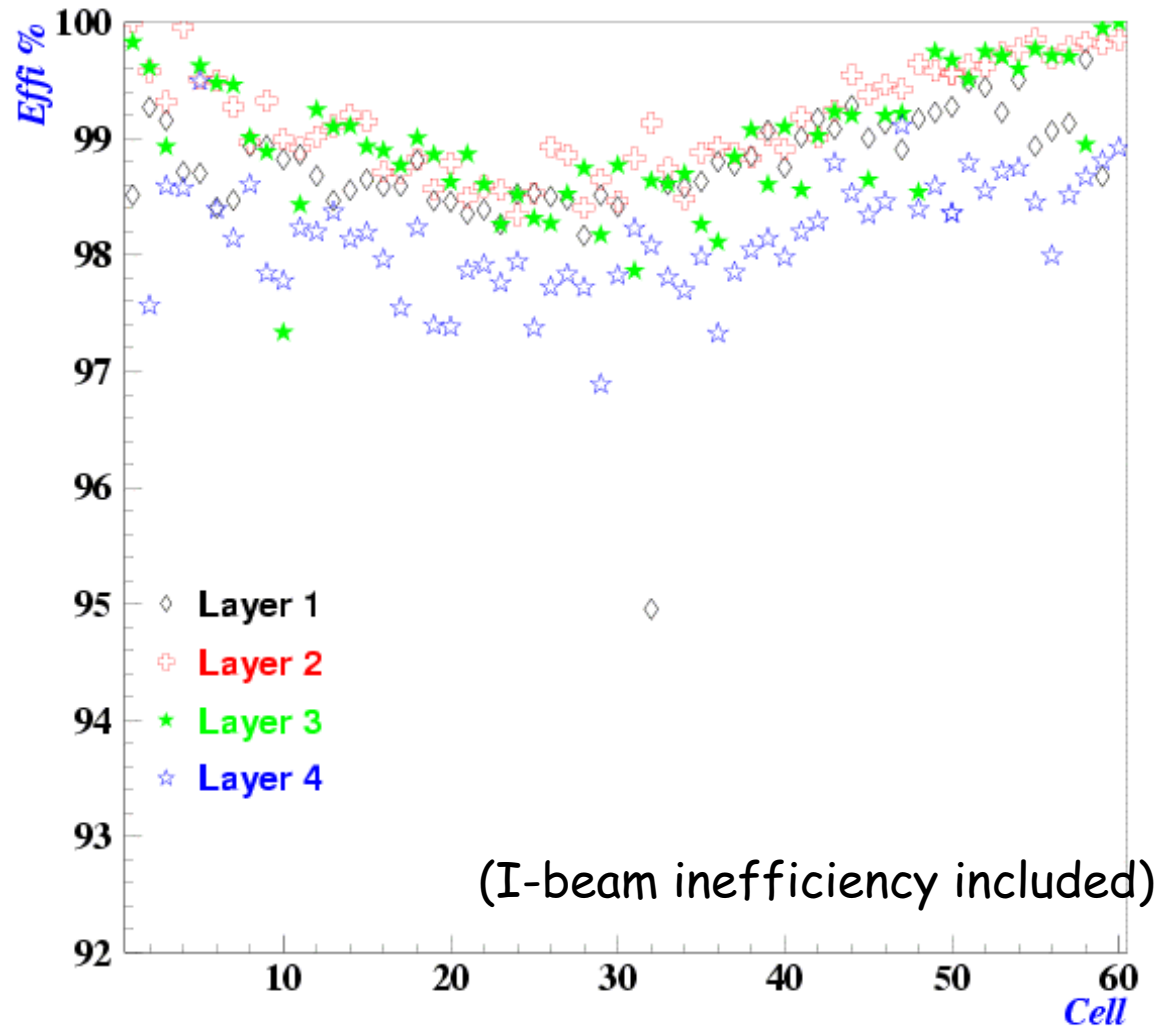
## Meantimers (II)

Variation of the Meantimer with the chamber position can be explained by our cosmic ray station setup (plastic scintillators, geometry and location)



# Efficiencies

Efficiency SL  $\Phi$  19



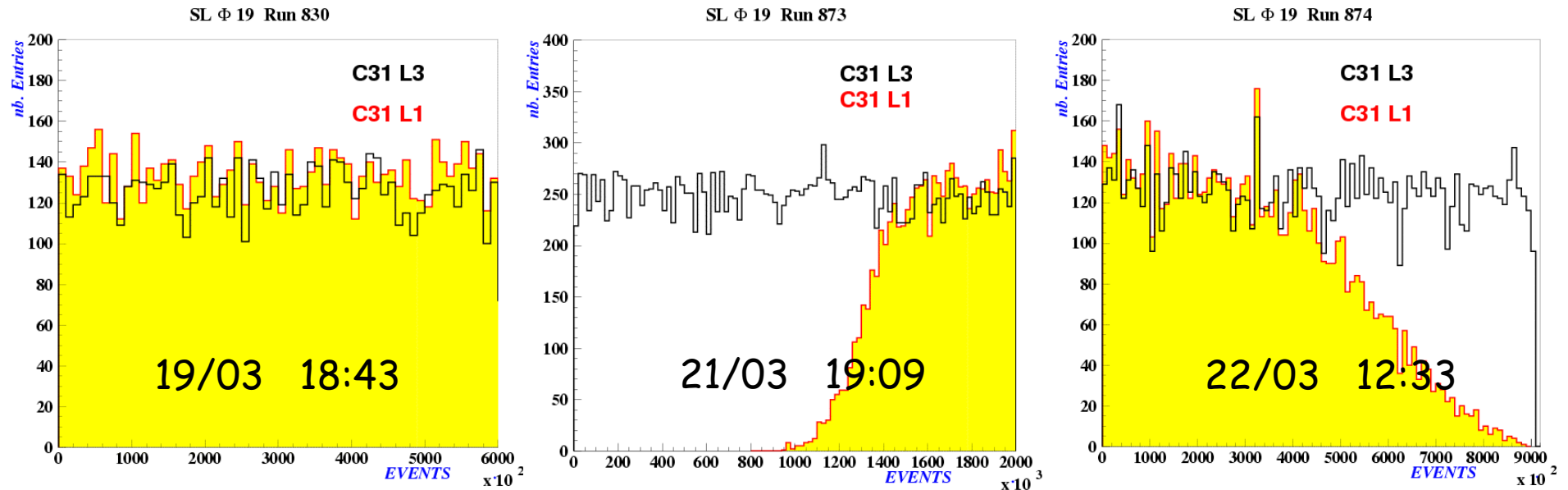
Approach:

$$\text{Eff} = \frac{N(4\text{hits})}{N(3\text{ or }4\text{hits})}$$

Dependence of efficiency with the cell number is again a consequence of our cosmic ray station set up



# FE inefficiency problems



HV: 3600/1800/-1200

For some channels the efficiency varies with time.

This problem is related with the FE, (TP also disappears)