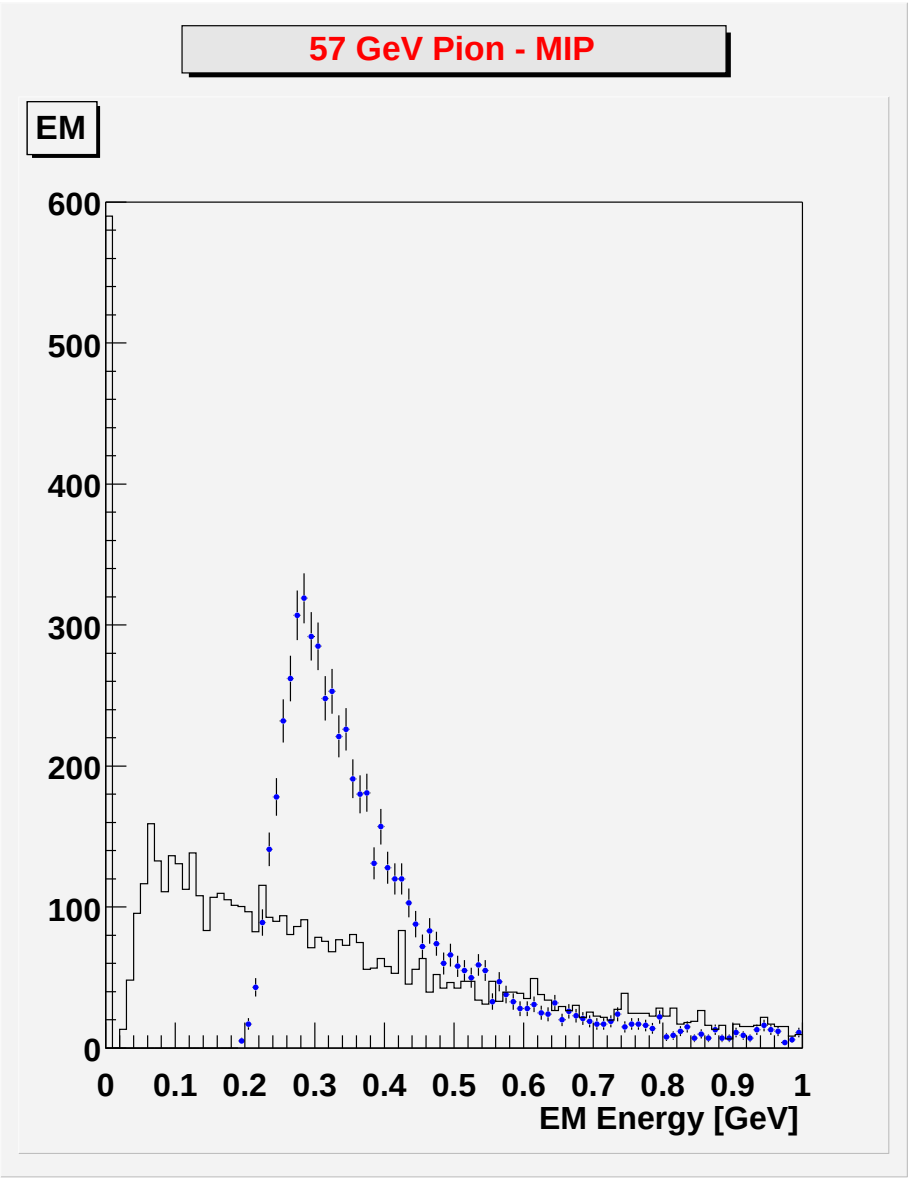
Hadron plug calorimeter tuning: update

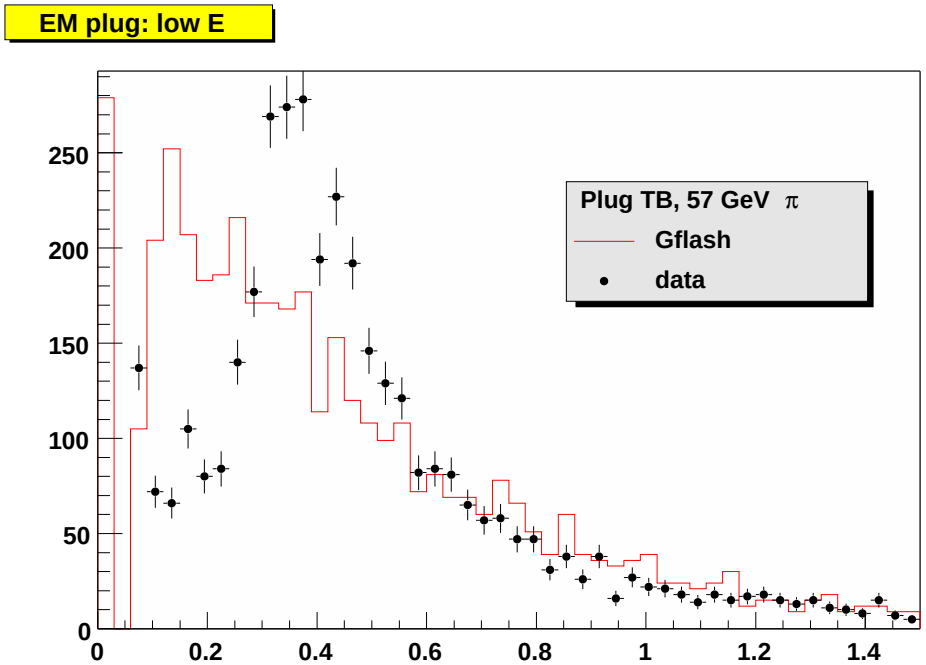
- Mip problem ☞ seems to be twofold ...
- Update for 8–227 GeV pions

Mip problem (1)



⇦ central (Soon J.)

⇩ plug



Mip problem (2)

Problem appears in the determination of the sampling fluctuations ...

gfelos() -> gfsamp() -> gfrgam()

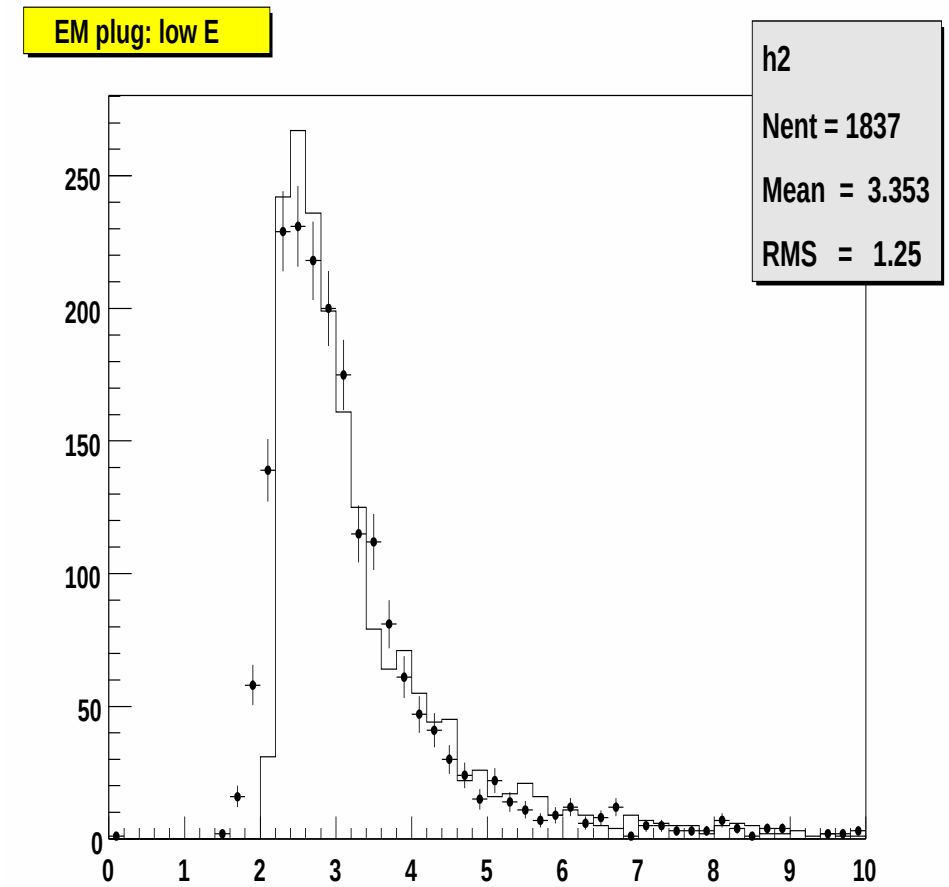
... all particles treated on an equal footing, except muons (?!)

1. Now, distinction is made between:

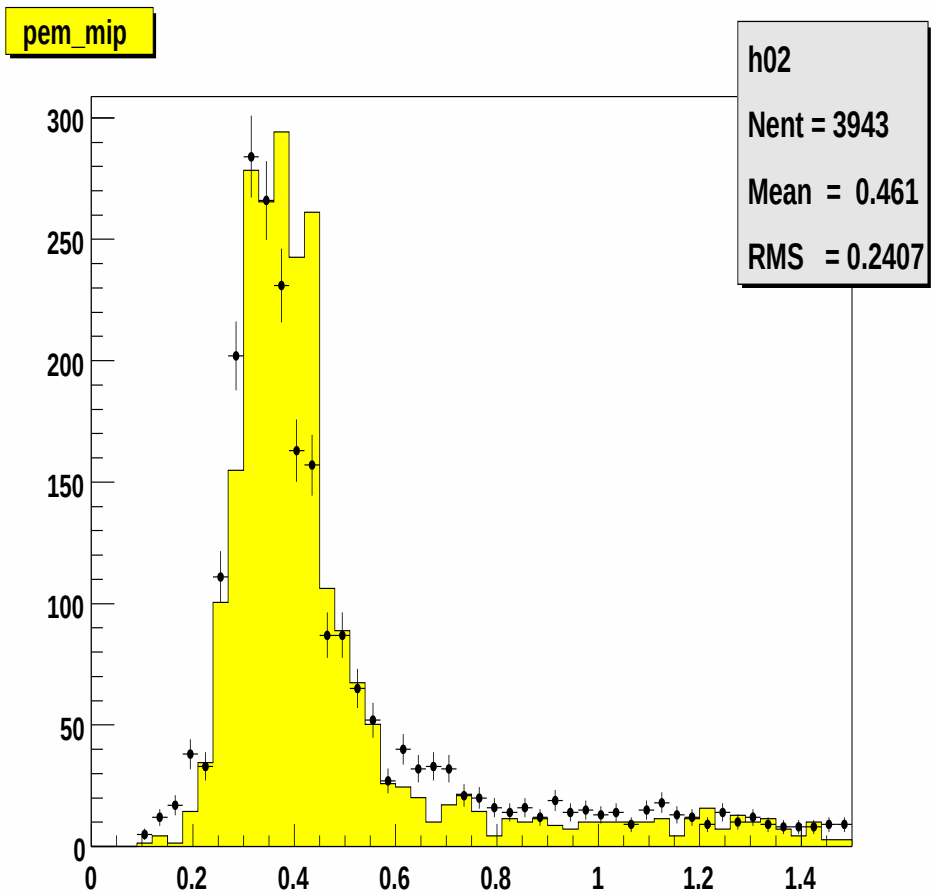
- mip particles -> Gaussian fluctuations (2 new parameters)
- showers -> left as is, fluctuated according to Gamma distribution

2. Soon J. still tracking a problem of variable initialization

Mip after correction

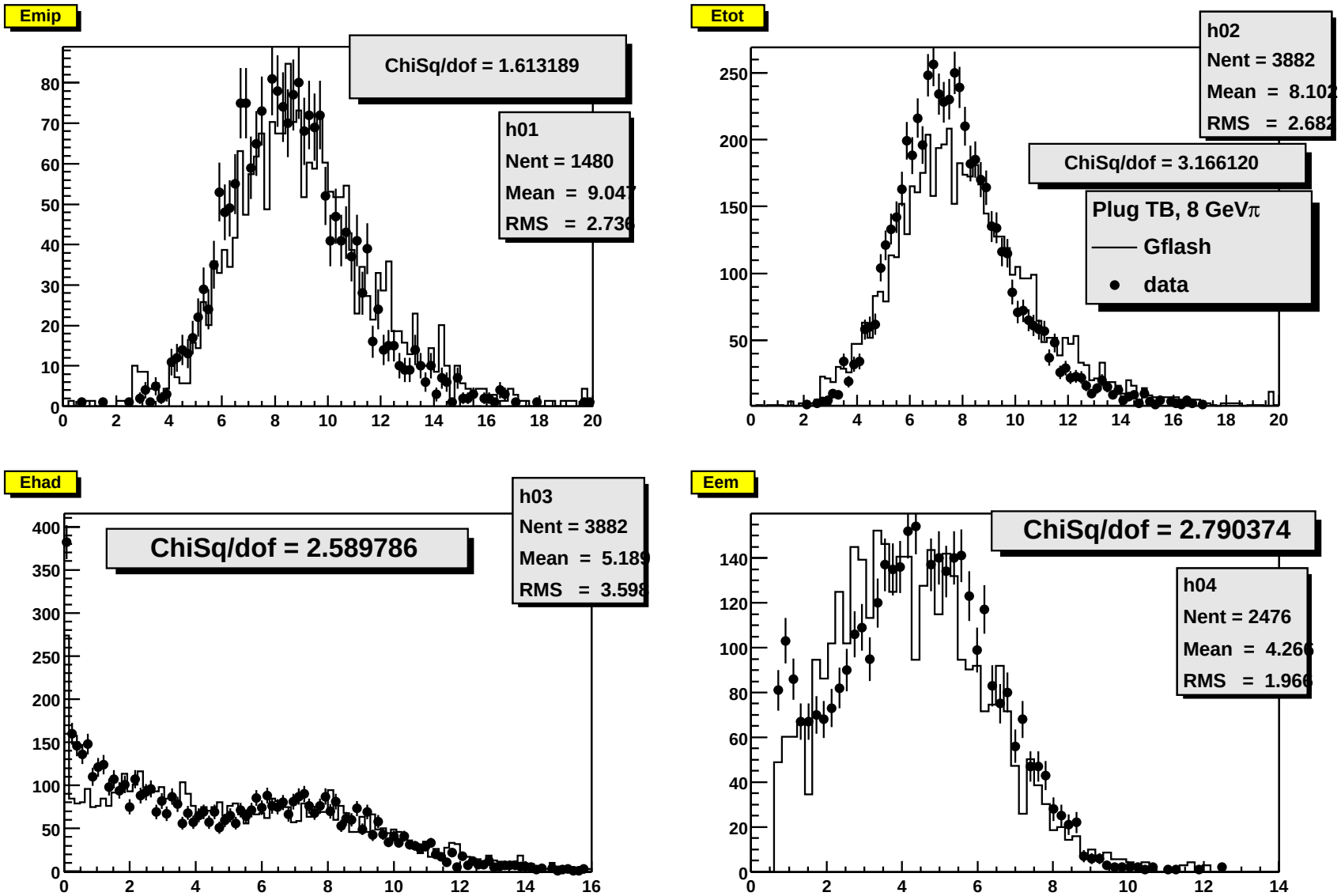


muons 167 GeV

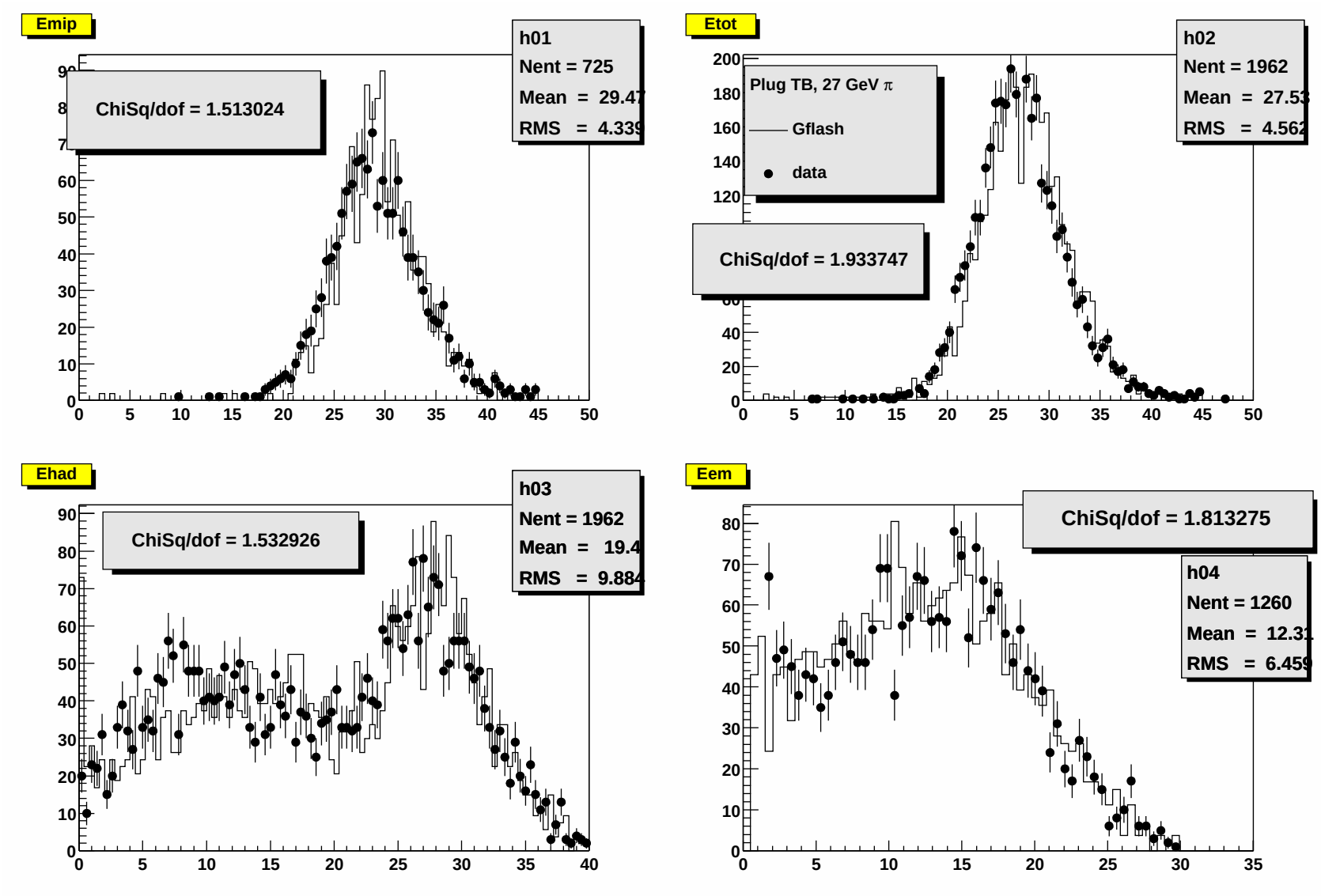


pions 8 GeV

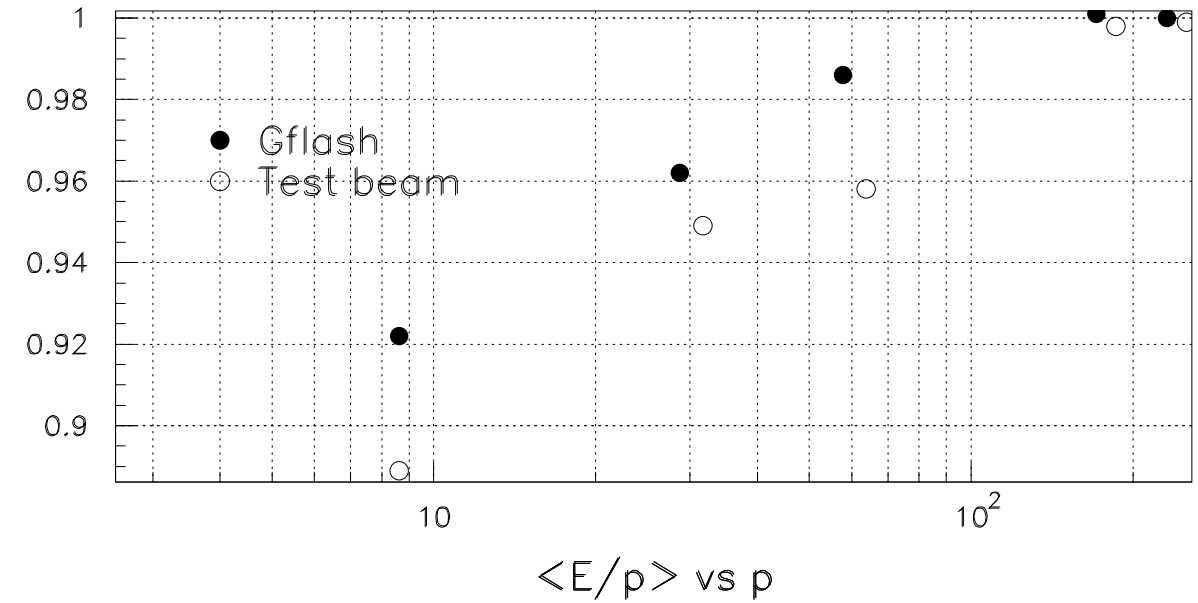
Tuning at 8 GeV (1)

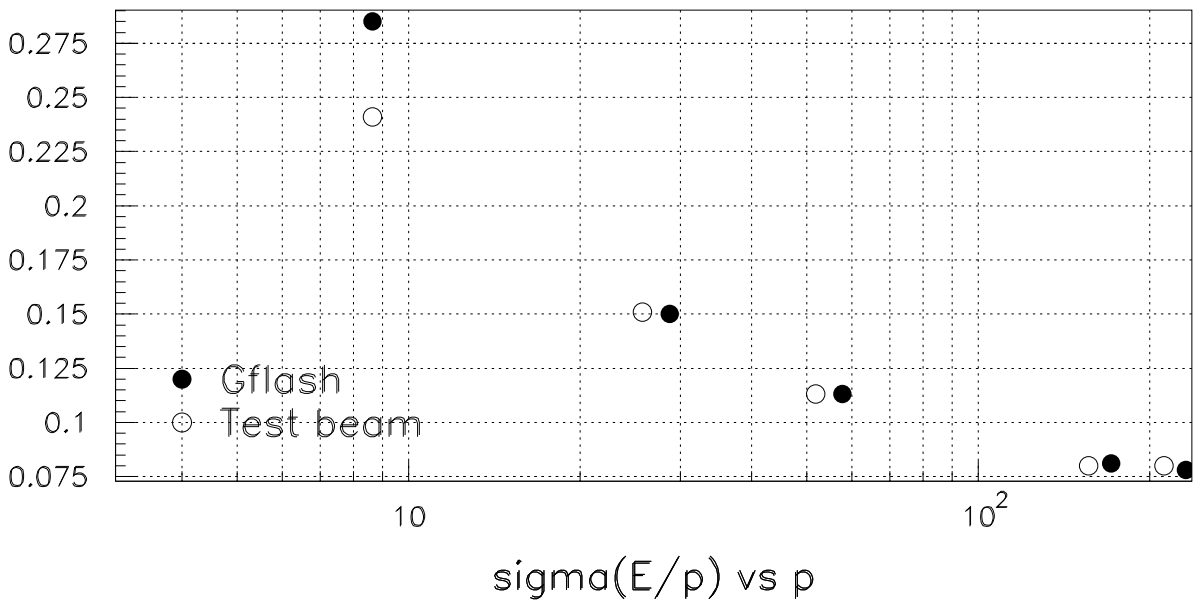


Tuning at 27 GeV



8–227 GeV summary

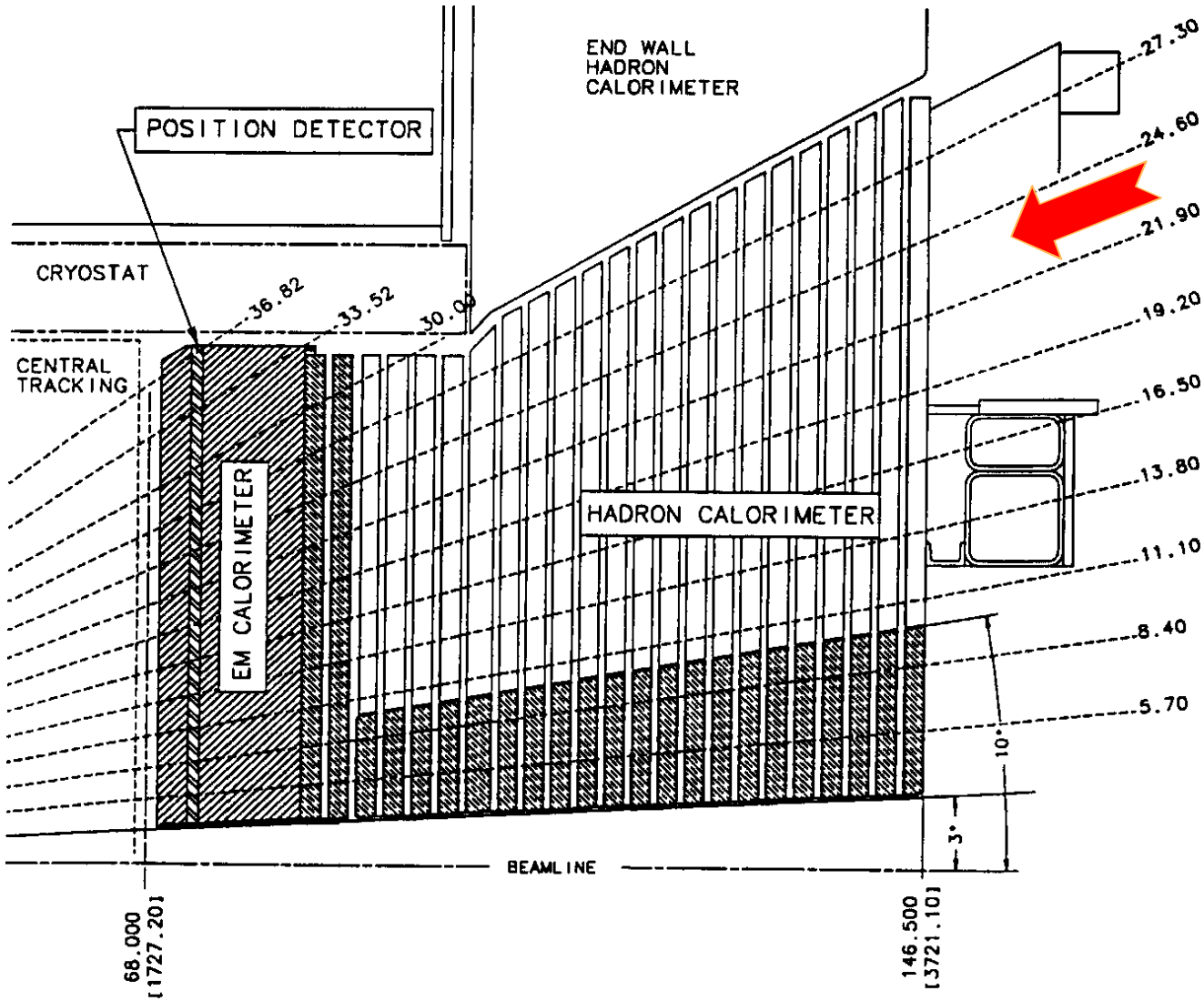


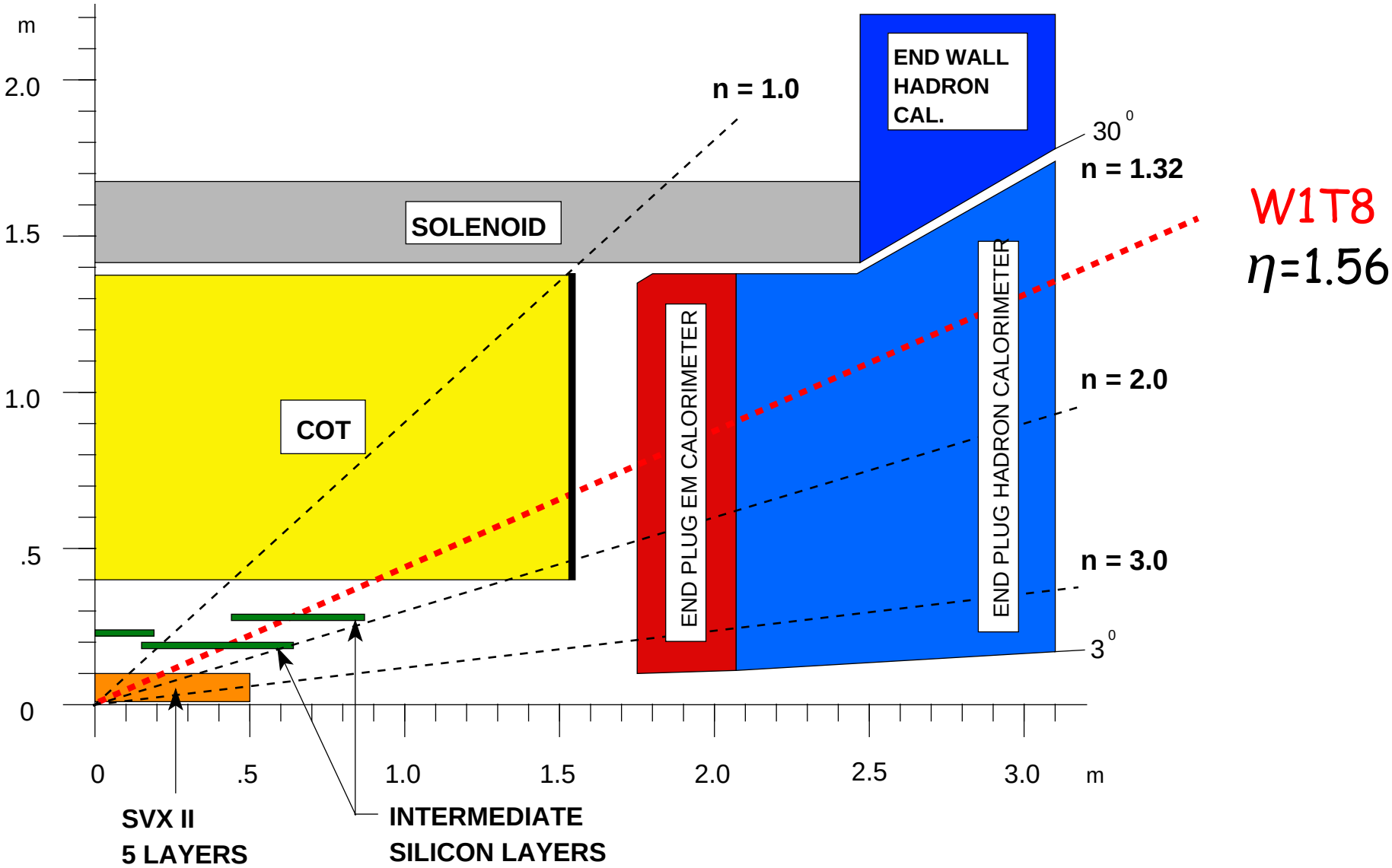


OK, but some tuning still needed at low energies ...

Use min. bias ?!

Calorimeter plug



1.42	
1.52	W1T8
1.64	
1.78	
1.93	
2.11	
2.33	
2.61	
3.00	
η	

CDF tracking volume