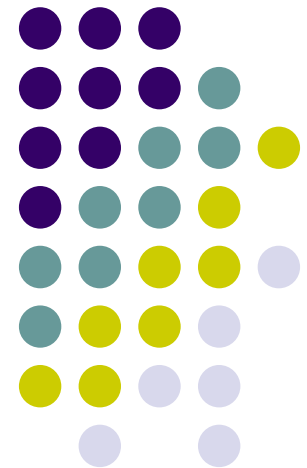


Калибровка электромагнитного калориметра IТЕР- IONS



Москва 27.12.2005



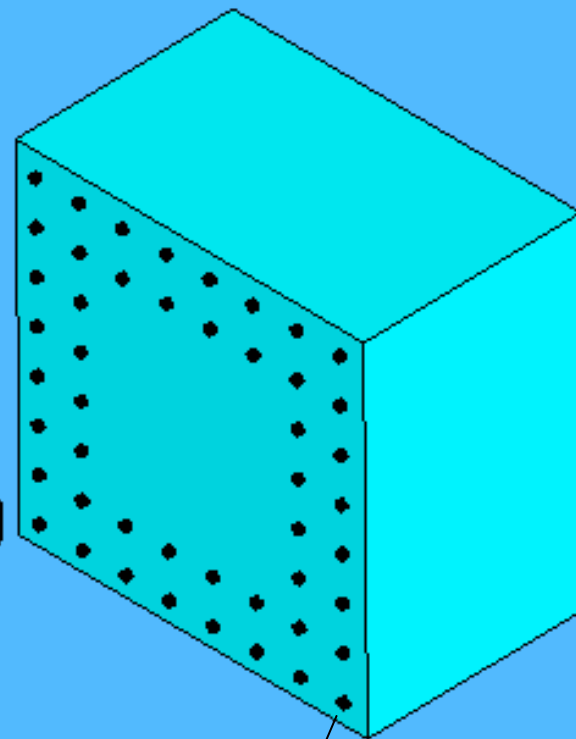
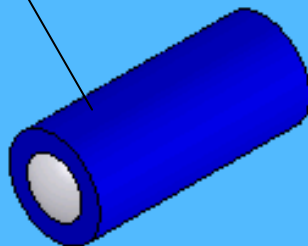
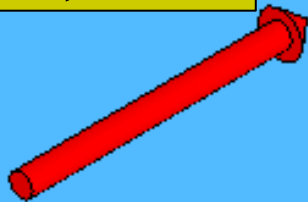
установки

2X2cm scintillator

Cherenkov
counter

e^- , π^- $E = \overline{1,4} \text{ GeV}$

48 blocks
Glass calorimeter



Нумерация стёкол

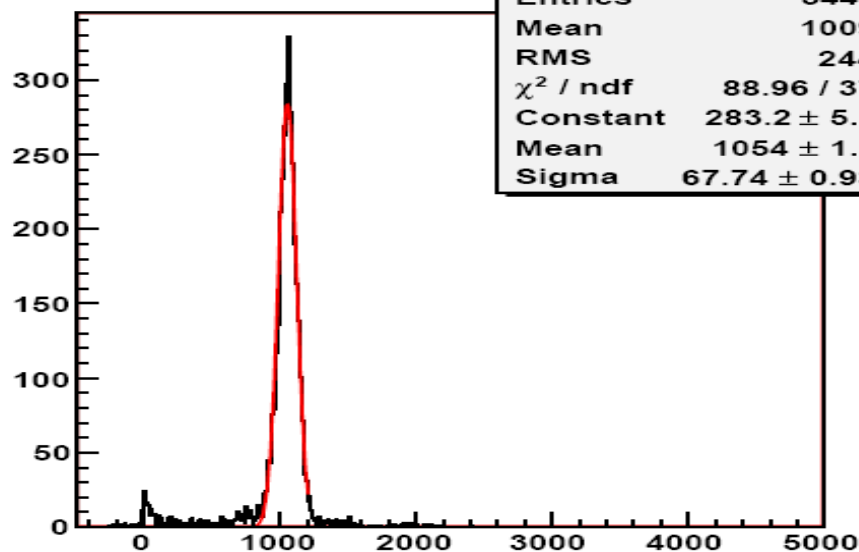


25left 5:8	17left 5:9	9left 5:10	1left 5:15	25right 5:12	17right 5:13	9right 5:14	1right 5:15
26left 5:0	18left 5:15	10left 5:2	2left 5:3	26right 5:4	18right 5:5	10right 5:6	2right 5:7
27left 3:15	19left 3:14					11right 3:13	3right 3:12
28left 3:11	20left 3:10					12right 3:9	4right 3:8
29left 3:7	21left 3:6					13right 3:5	5right 3:4
30left 3:3	22left 3:2					14right 3:1	6right 3:0
31left 4:15	23left 4:14	15left 4:13	7left 4:12	31right 4:11	23right 4:10	15right 4:9	7right 4:8
32left 4:7	24left 4:6	16left 4:5	8left 4:4	32right 4:3	24right 4:2	16right 4:1	8right 4:0

Glass IV spectra for $E_{e^-} = 1$ GeV and 3 GeV

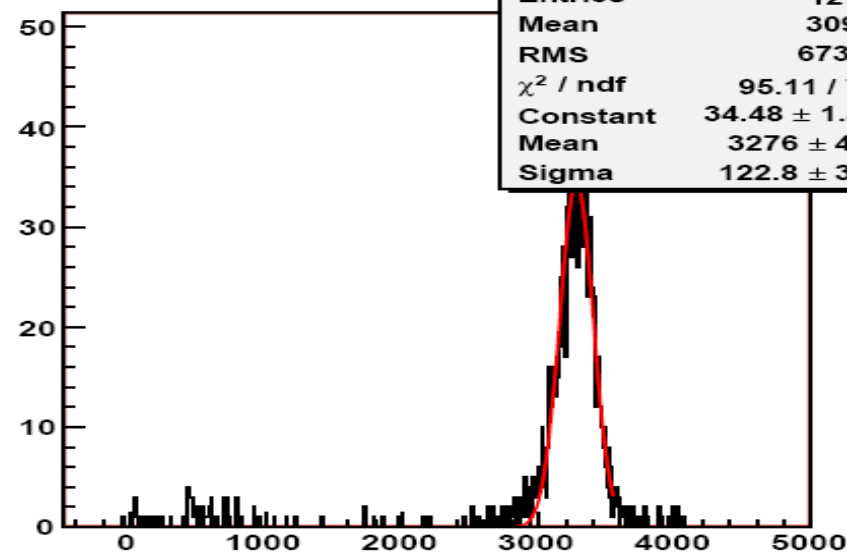


0091 sw 5 ADC 2



Entries	5446
Mean	1009
RMS	244
χ^2 / ndf	88.96 / 37
Constant	283.2 ± 5.5
Mean	1054 ± 1.0
Sigma	67.74 ± 0.93

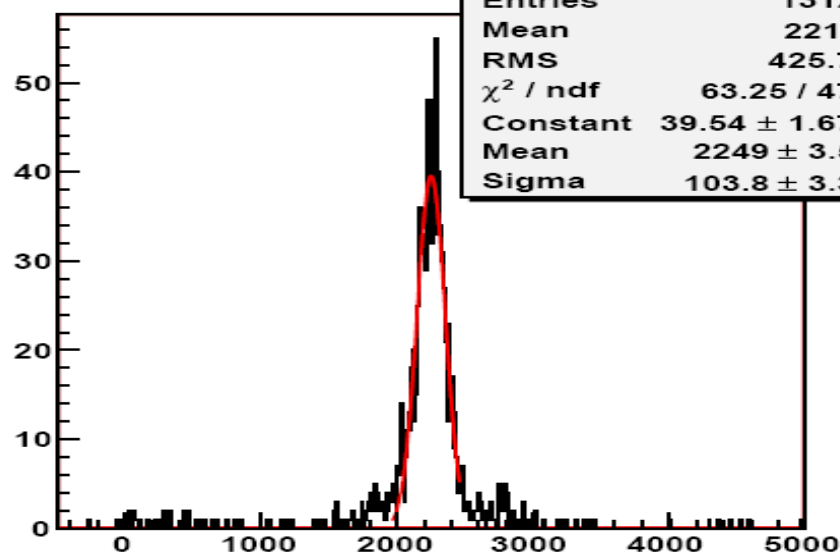
0091 sw 5 ADC 2



Entries	1272
Mean	3099
RMS	673.6
χ^2 / ndf	95.11 / 79
Constant	34.48 ± 1.41
Mean	3276 ± 4.0
Sigma	122.8 ± 3.6

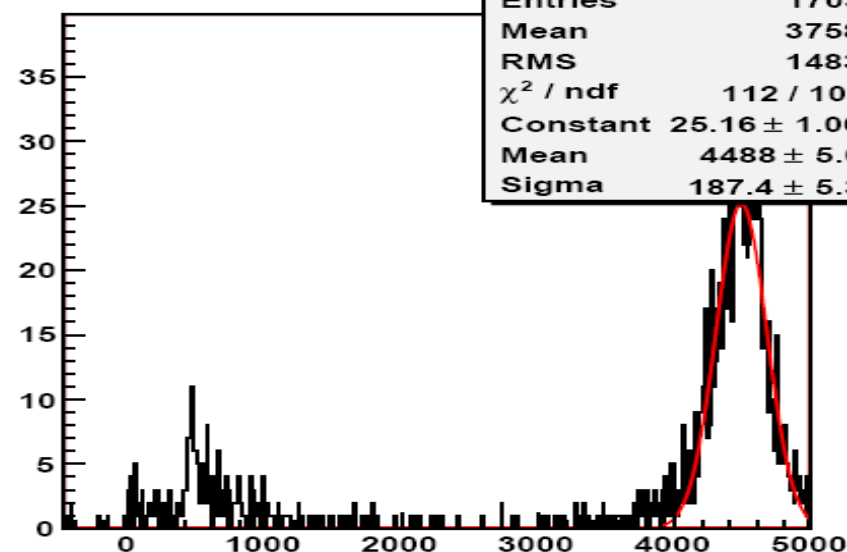
ADC channels sum

0091 sw 5 ADC 2



Entries	1312
Mean	2211
RMS	425.7
χ^2 / ndf	63.25 / 47
Constant	39.54 ± 1.67
Mean	2249 ± 3.5
Sigma	103.8 ± 3.3

0091 sw 5 ADC 2



Entries	1703
Mean	3758
RMS	1483
χ^2 / ndf	112 / 103
Constant	25.16 ± 1.00
Mean	4488 ± 5.6
Sigma	187.4 ± 5.3

ADC channels sum

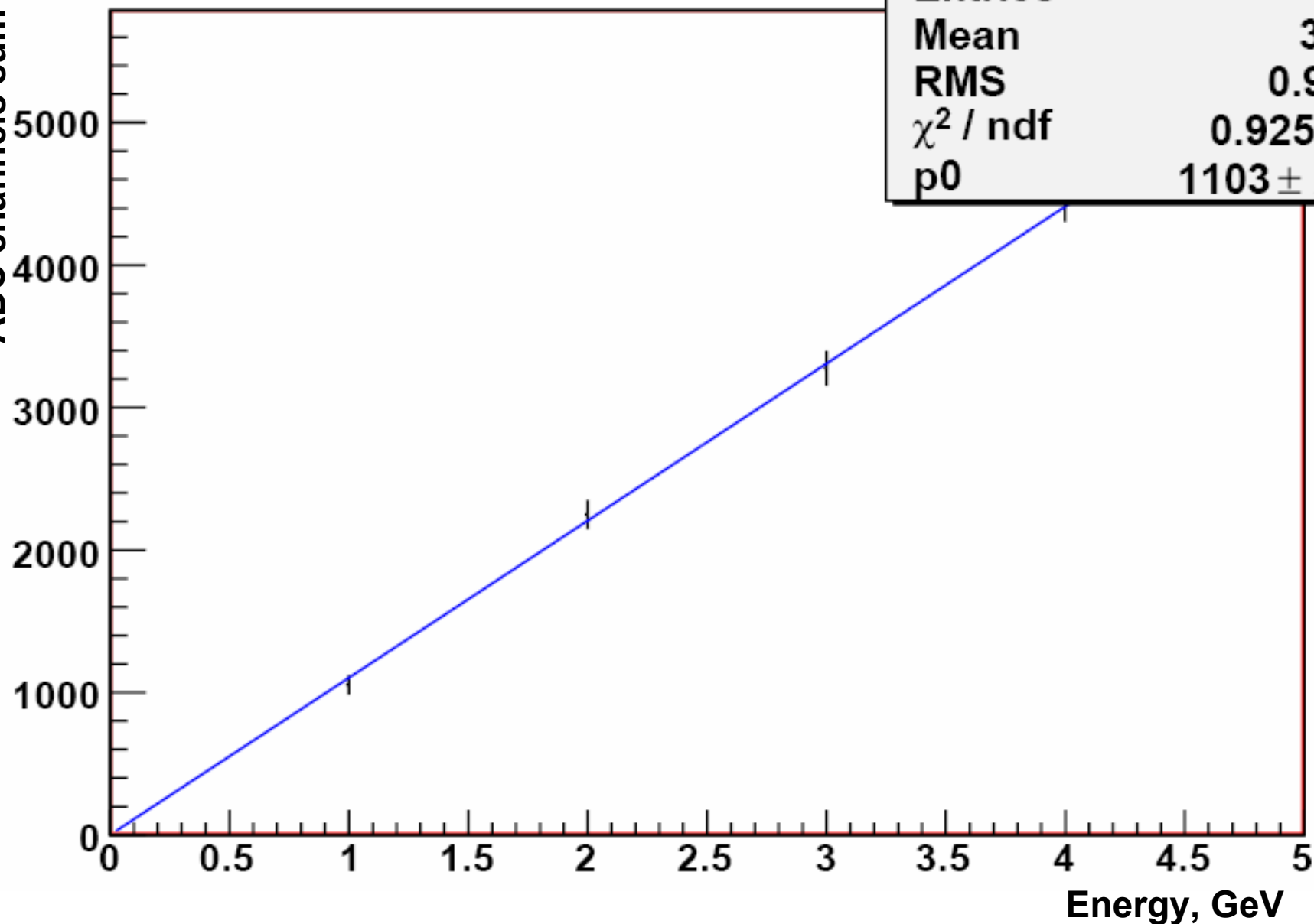
Calibration coefficient



0091 sw 5 ADC 2

ADC channels sum

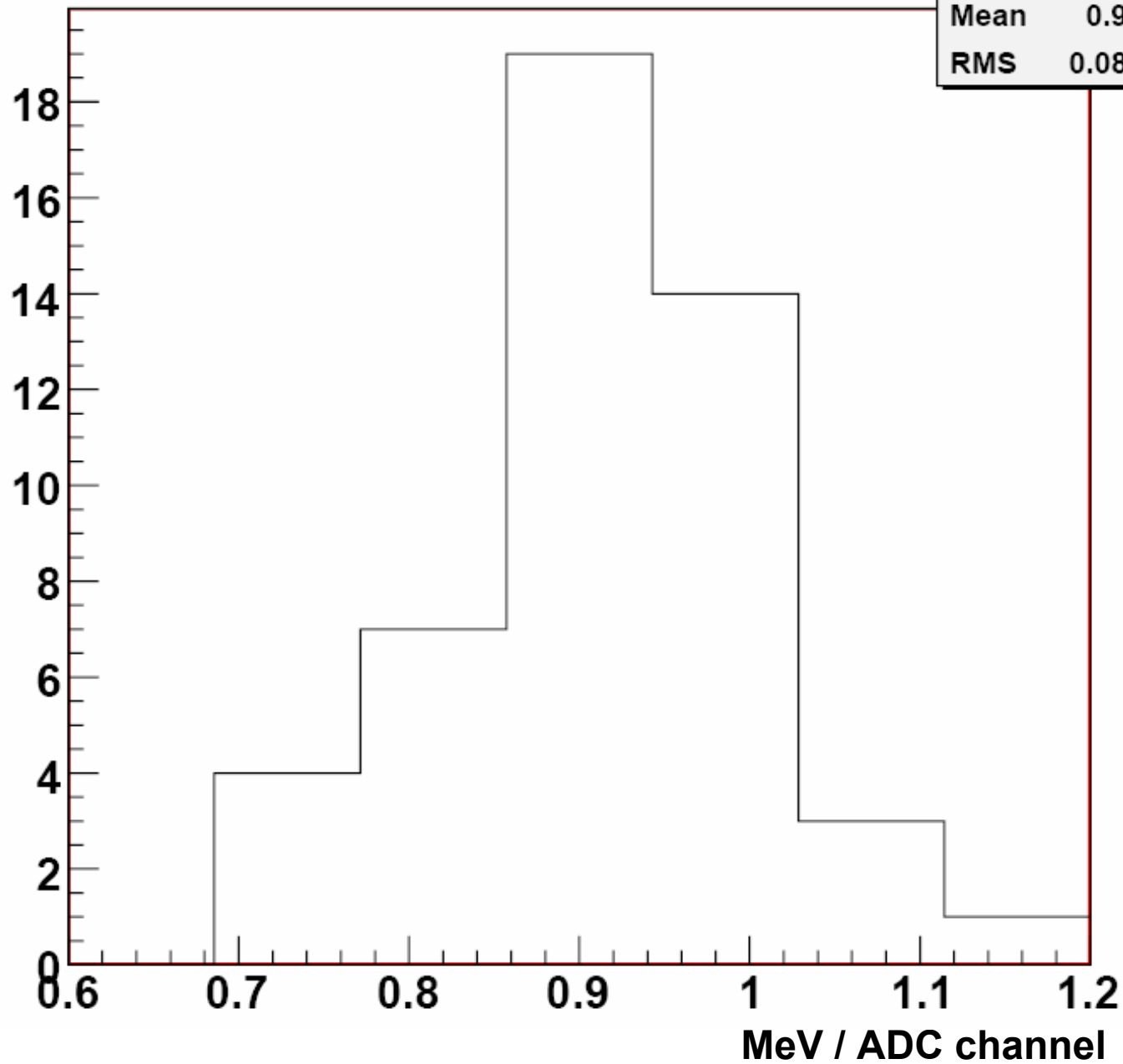
grSpectra0	
Entries	4
Mean	3.011
RMS	0.9948
χ^2 / ndf	0.9253 / 3
p0	1103 ± 24.7



Calibration coefficients

calib

Entries	48
Mean	0.9106
RMS	0.08855





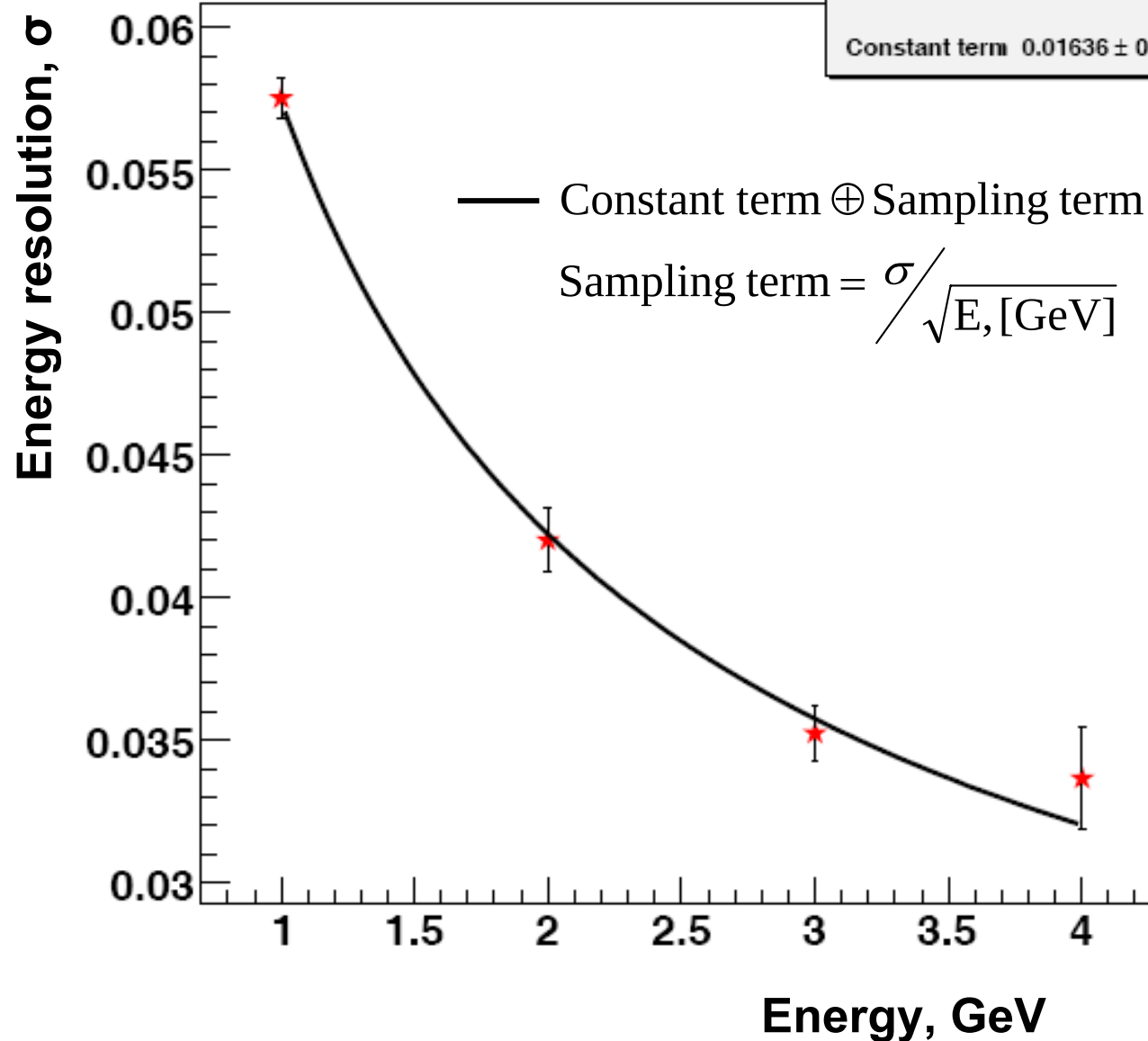
Energy resolution for 10

χ^2 / ndf

1.167 / 2

Sampling term 0.05505 ± 0.001292

Constant term 0.01636 ± 0.002704



Energy resolution as a function of the energy deposited in the glass block

Sampling term

sampl	
Entries	47
Mean	5.249
RMS	0.5123

