

Checking the Calorimeter with Electrons

Purpose

To find "clean" electrons that are momentum analyzed by the spectrometer, and compare to energy deposition seen in the calorimeter

Data Requirements

Bruce's "CCe" tagged events in downstream half of Station 4 or Station 3 for Period 1

Only one track per cluster

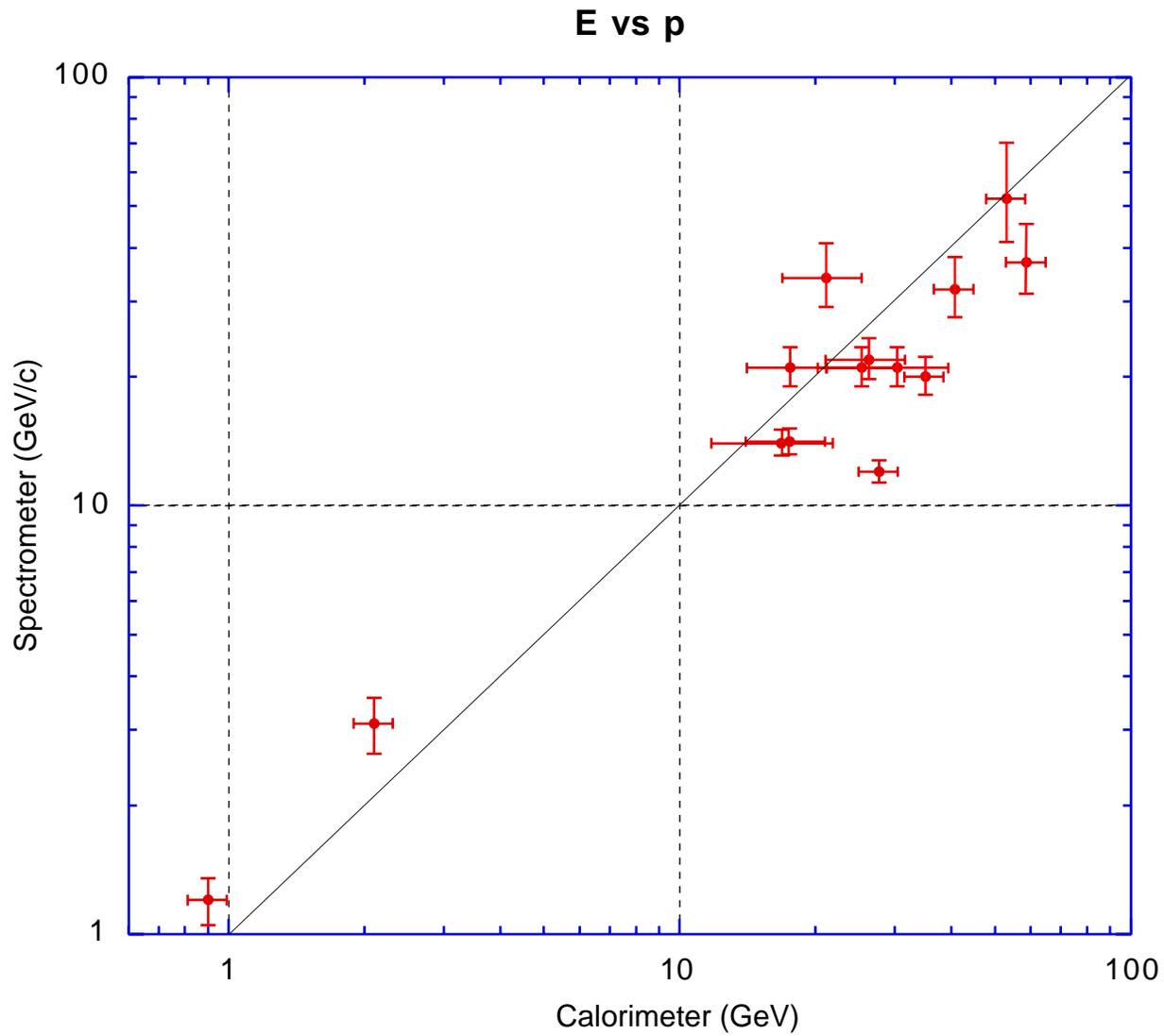
$E/p > 0.5$

Isolated DC space track fit to SFT hits in u, v, x views

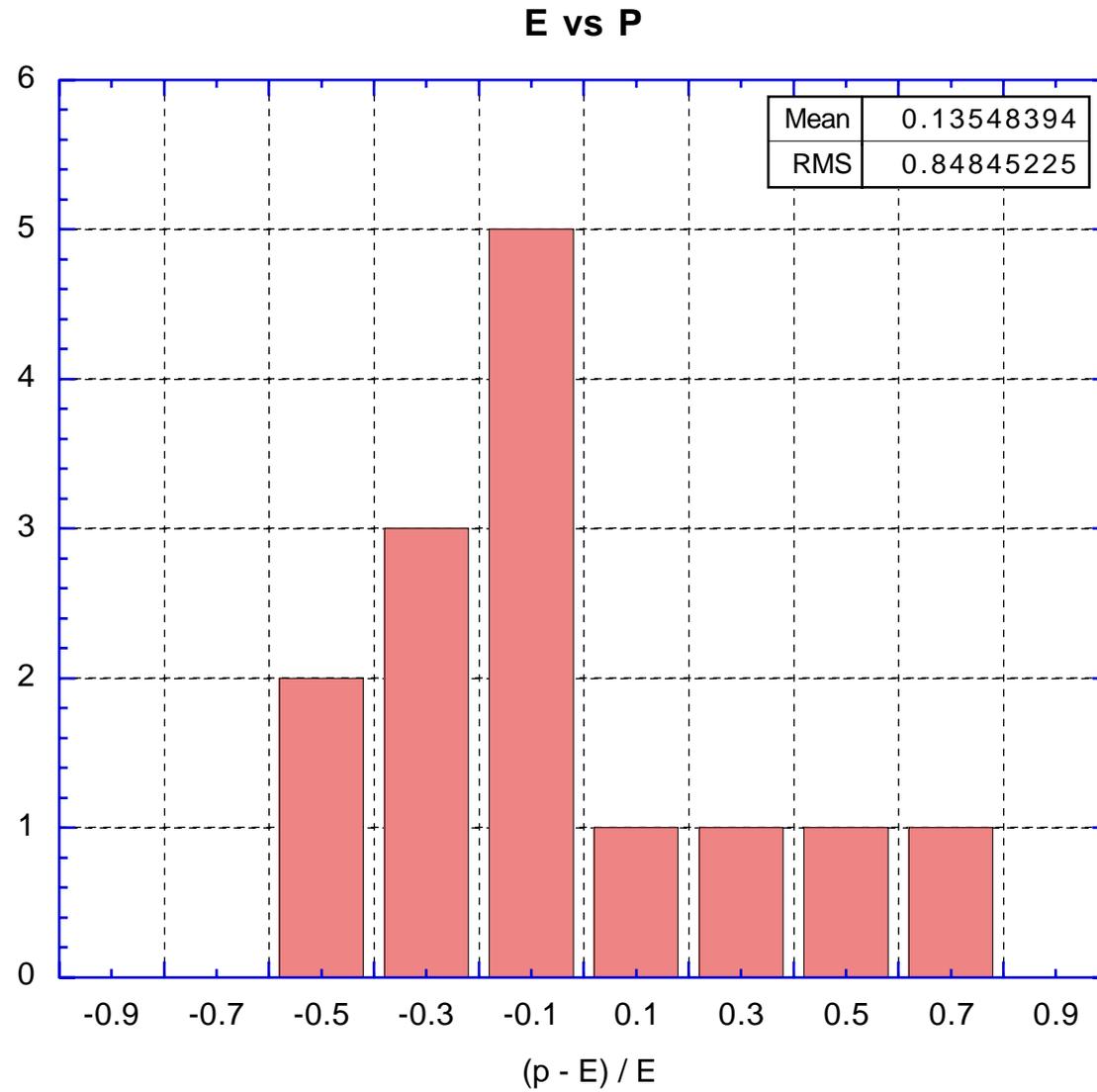
Event Rating

Events de-rated for: brems, Ecal cluster overlap, fewer than 10 DC hits

- 1 - no problems
- 2 - one problem
- 3 - more than one problem



The line is just $E = p$, not a fit. There is one point off-scale and not plotted.



Relative error for the events in the sample.

Event	p (GeV/c)	E_{cal} (GeV)	Category
3025_12221	32.	40.7	1
3062_11565	21.	25.3	2
3131_27620	21.9	26.3	2
3138_17105	202.	50.2	3
3176_00801	21.0	30.2	3
3186_07389	34.	21.1	2
3224_13443	37.	58.8	1
3224_19011	14.1	17.5	2
3257_08685	12.	27.7	1
3276_08970	21.	17.6	2
3282_17876	20.	35.0	1
3286_09110	14.	16.8	3
2896_02459	1.2	0.9	1
	52.	53.1	1
	3.3	2.1	1

The events used in this sample. Here category = rating. Only “CCe” events from `evlist` are used. There must be more interesting events in the remaining ~600 events.