Quick look at cal-only events

- what’s the current situation?
- allGamma-GR-v7r0p2 cal only
- direction reconstruction
- energy reconstruction
Direction reconstruction

- good direction reconstruction
- except for the $\pi$ peak
- 35% of events with CalZDir<0.1
Energy Reconstruction

- two algorithms: parametric (left), full profile (right)
- CalEnergyRaw/McEnergy < 0.2: no good energy reconstruction.
large CalTransRms events -> CalEnergyRaw/McEnergy<0.2

-> requiring CalTransCal<50
Back to direction reconstruction

CalTransRms doesn’t cure the $\pi$ peak
Where are these events?

position doesn’t help to reject the $\pi$ peak

\begin{align*}
\text{CalZDir} &< 0.1 \&\& \text{acos(CalDir.McDir)} < 2 \\
\text{CalZDir} &< 0.1 \&\& \text{acos(CalDir.McDir)} > 2
\end{align*}
Lever arm problem?

- almost all the energy is deposited in one layer
- \( \pi \) peak: 35% \( \rightarrow \) 12% of events with CalZDir<0.1

![Graphs showing acos(CalDir.McDir) and max(CalELayer)/CalEnergyRaw distributions](image)
Back to energy reconstruction

\[ \text{max(CalELayer/CalEnergyRaw)} < 0.8 \]
Radiation length in cal

CalCsIRLn<1 peak ?
PSF in mrad : no cut

68% PSF

90% PSF

Ph. Bruel - Analysis meeting - 29/08/2005 – p.10/18
PSF in mrad - after cuts

68% PSF

90% PSF
Parametric (CalCsIRLn>4)

Entries

Mean

RMS
Parametric (CalCsIRLn>4)
Parametric (CalCsIRLn>4)

Resolution:

Bias:
Full profile (CalCfpEffRLn>4)
Full profile (CalCfpEffRLn>4)
Conclusions

what’s the current situation?

after rather simple cuts: quite good!