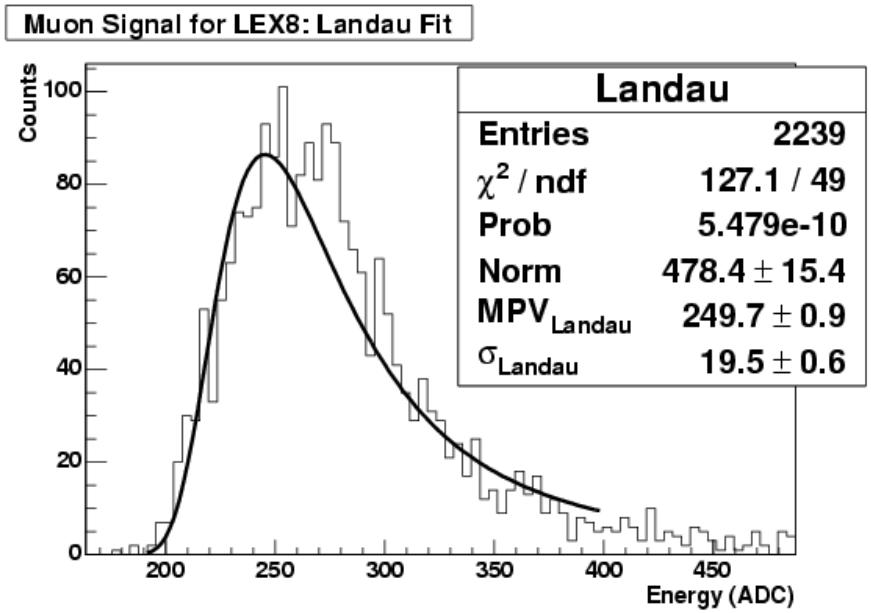
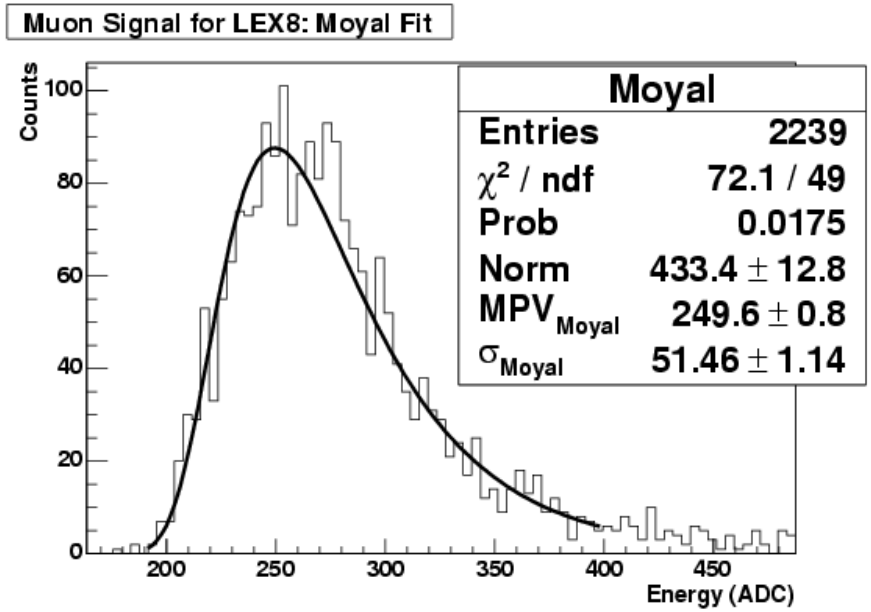
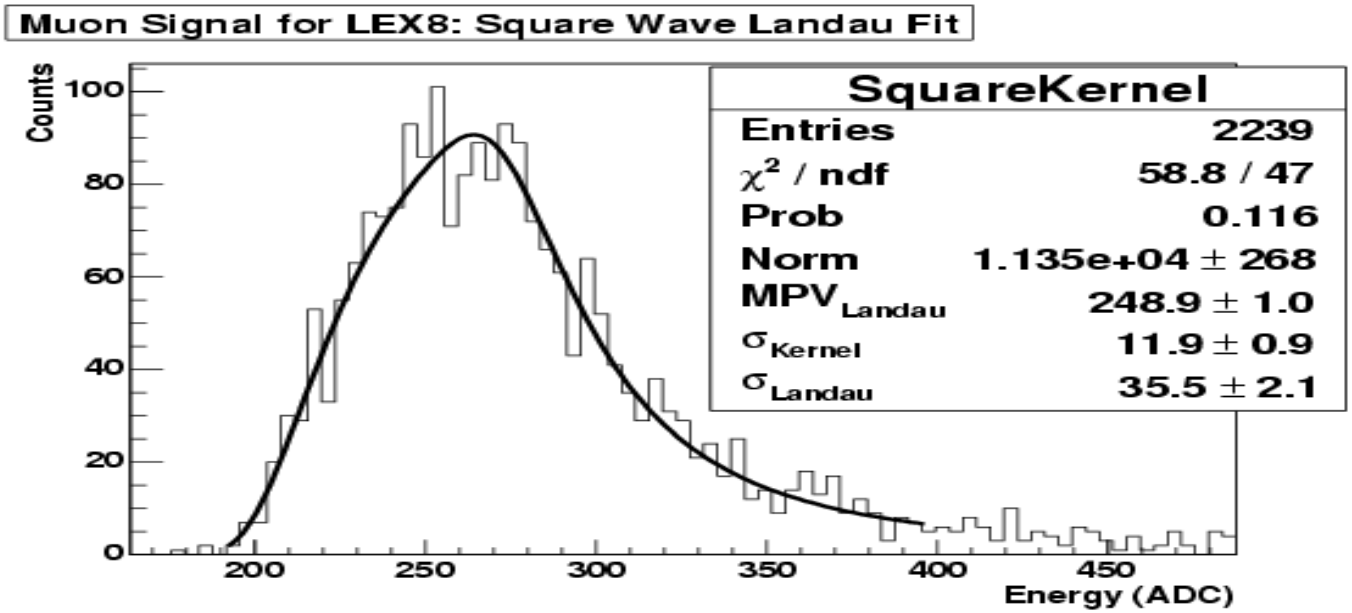
Muon Gain Calibration For LEX8

- Data collected in October at SLAC
- Cuts:
  - LEX8 > 5 $\sigma_{pedestal}$ on both sides.
  - 1 hit per layer exactly.
  - $\theta > \frac{\pi}{6}$
  - Hit logs in even (odd) layers are in the same column
  - Closer than 8 cm to the center
- Corrections:
  - Attenuation and path length.
- Functions used for fitting:
  - Landau, Moyal
  - Log Normal
  - Gaussian Kernel Landau, Square Kernel Landau

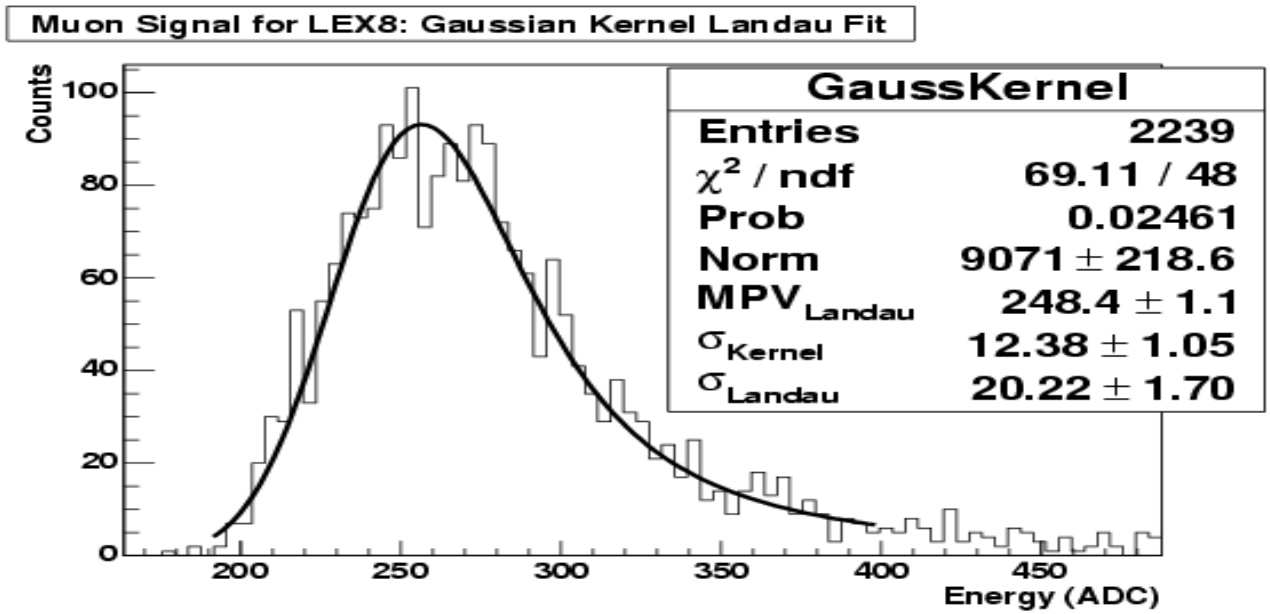
LLR, Pol d'Avezac

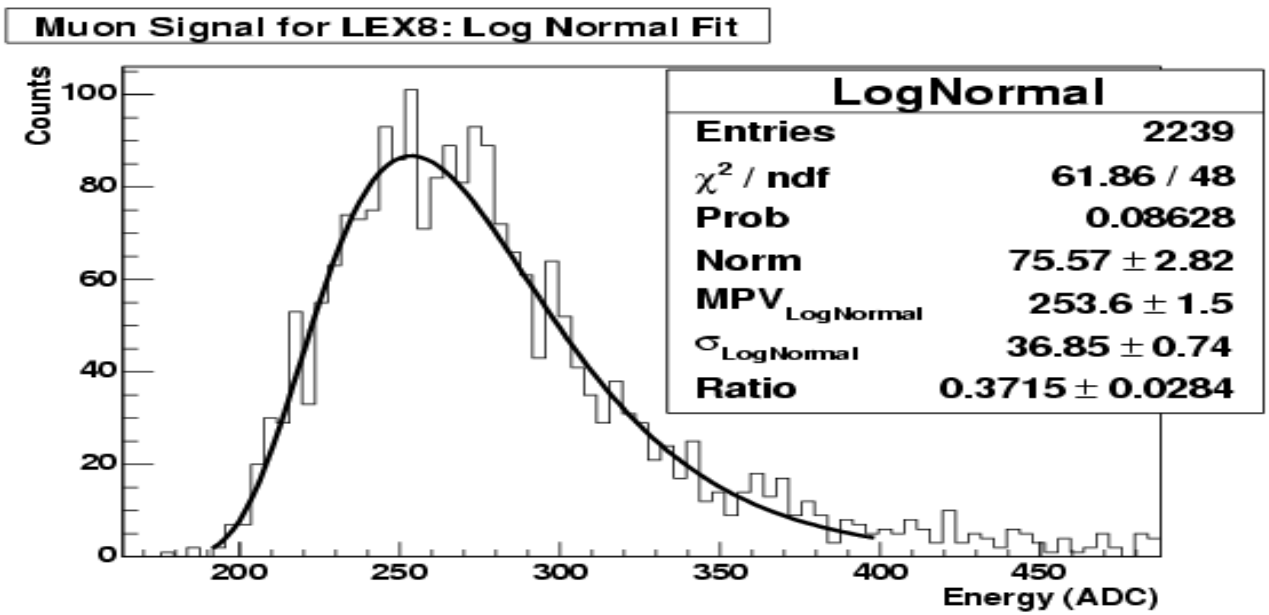




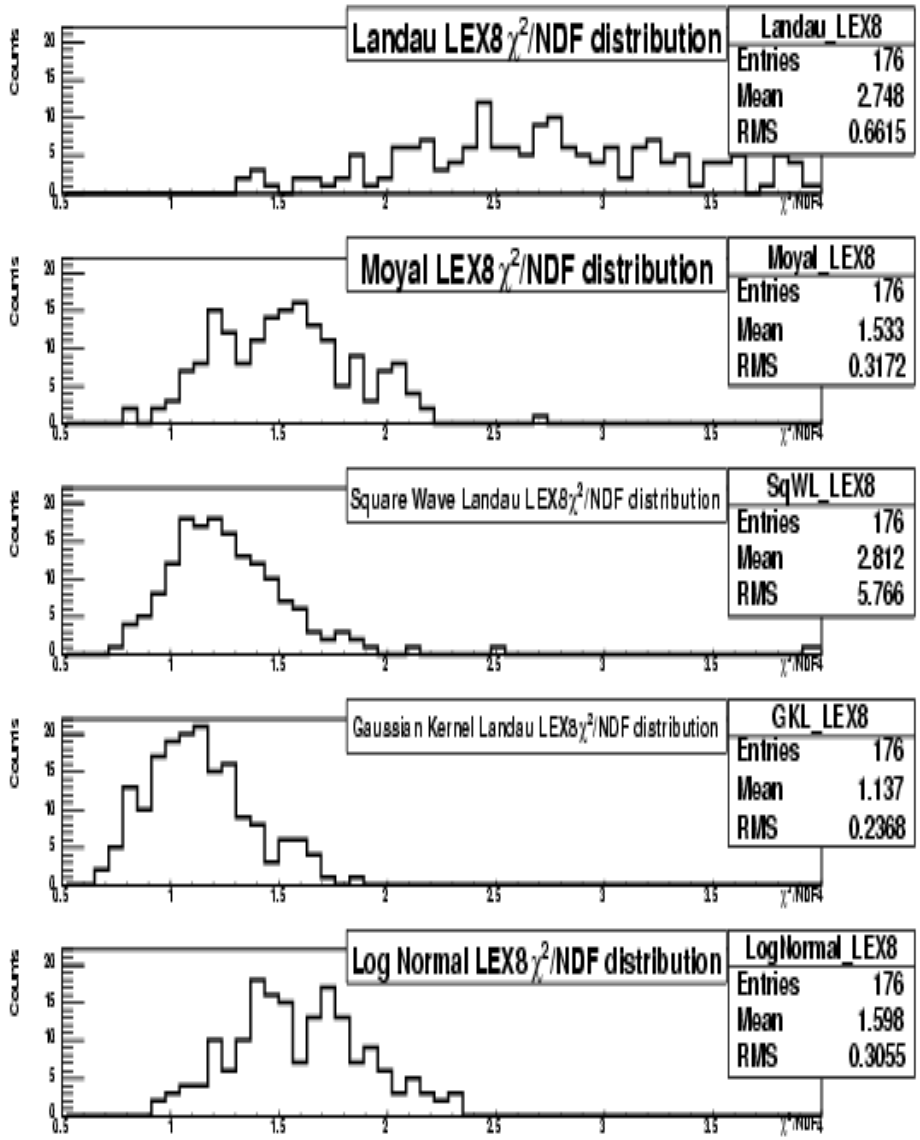


LLR, Pol d'Avezac





LLR, Pol d'Avezac



Gaussian Kernel Landau is the best fit.

All 4 Landau, Moyal, gaussian kernel Landau and square kernel Landau have very close values for their Landau MPV parameter.

A gaussian kernel Landau with fixed ratio between its Landau MPV and Landau Width gives very similar results to one without a fixed ratio.