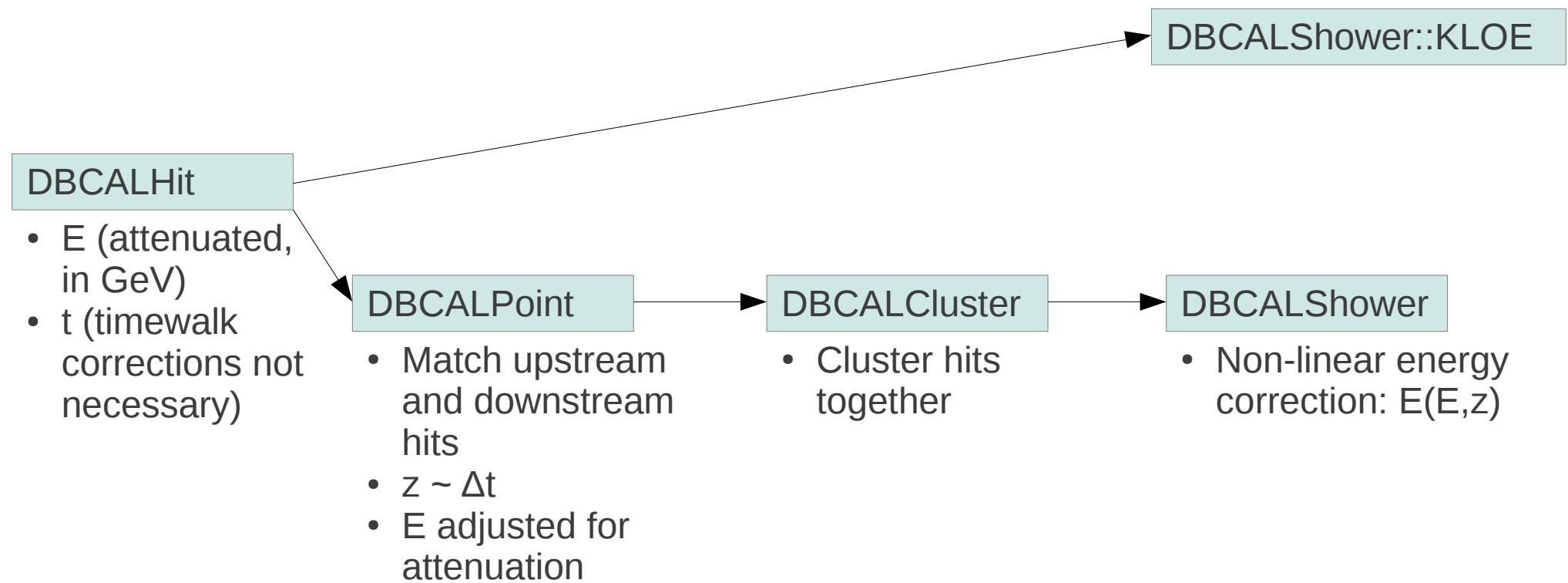
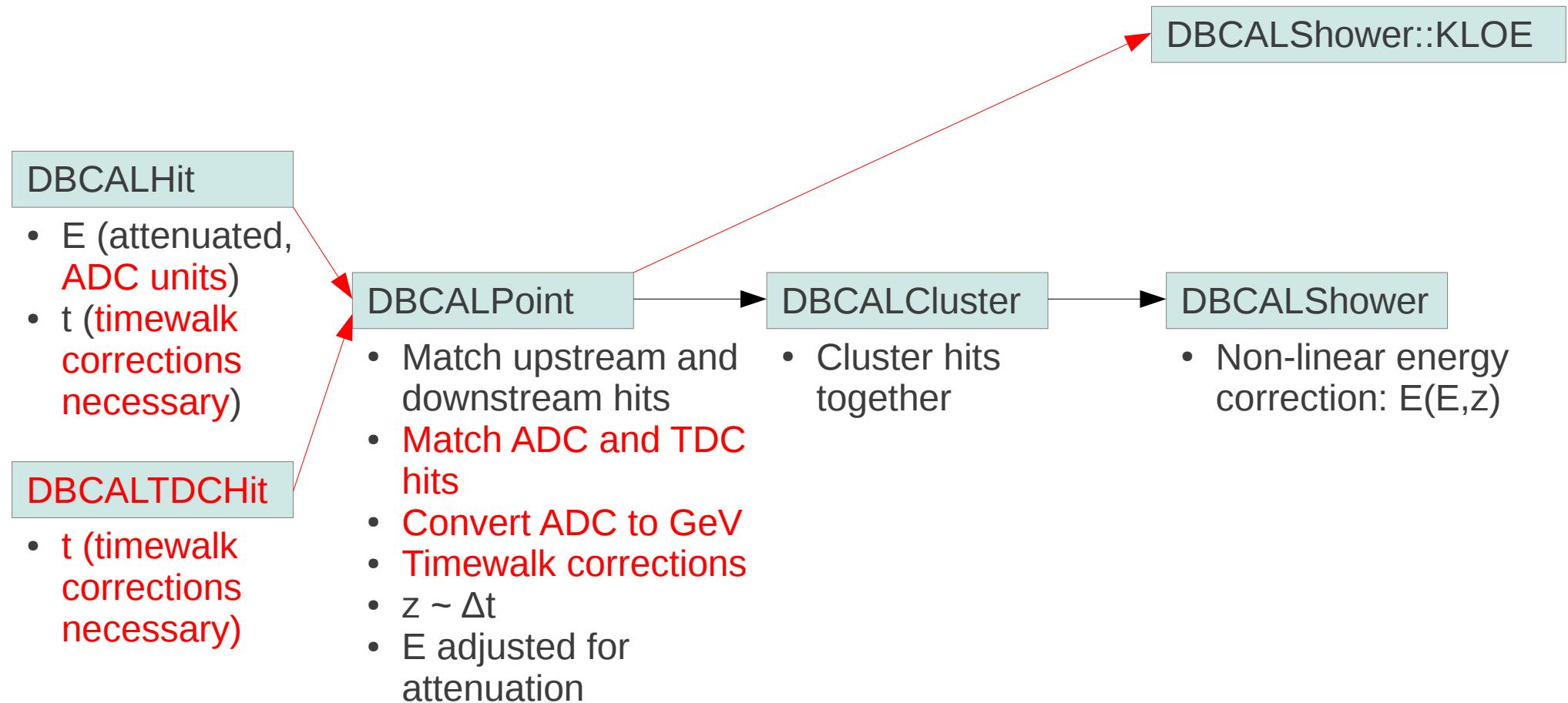


Old Reconstruction (based on old simulation)



New Reconstruction (based on new simulation)

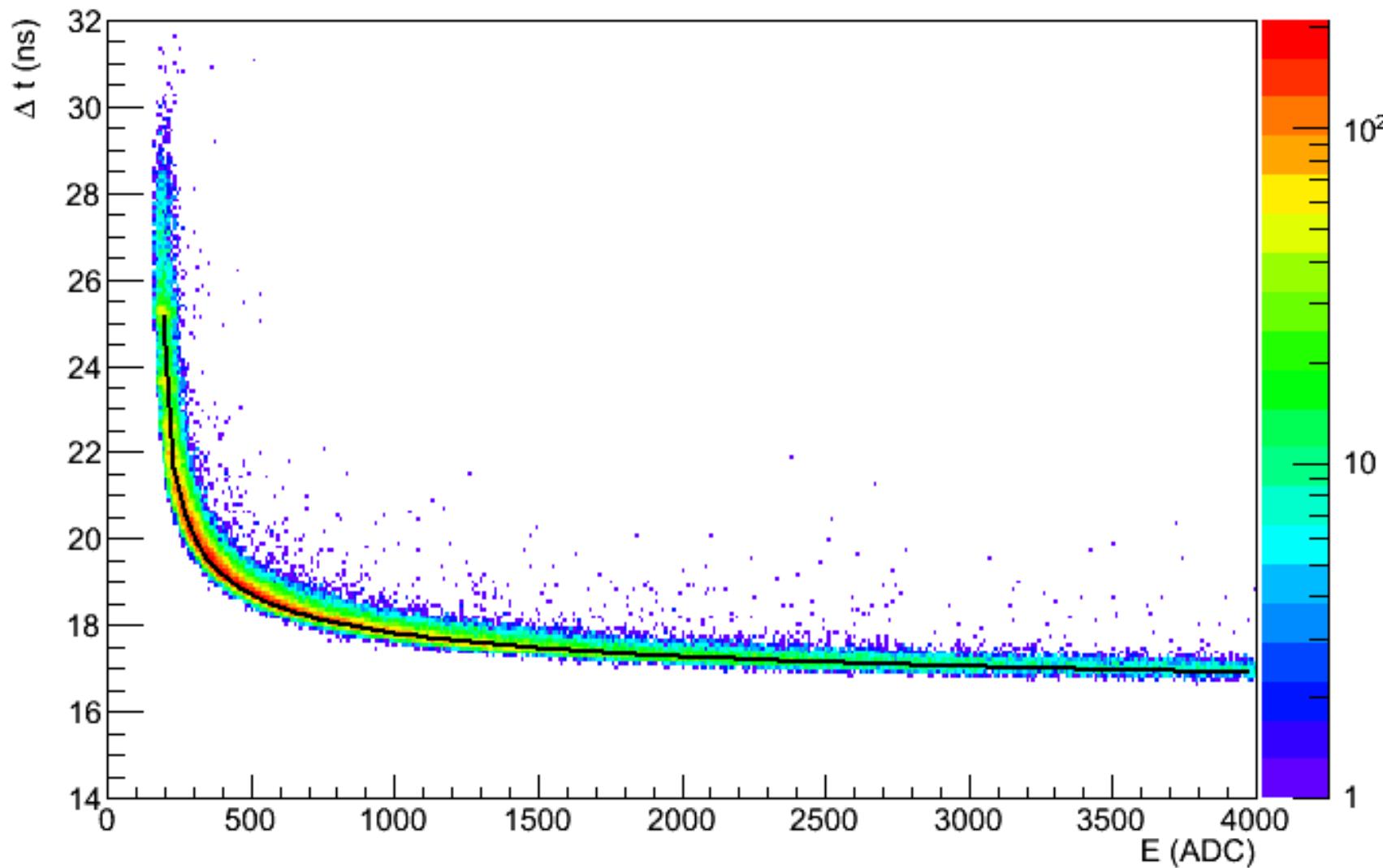


mcsmear

1. Output from hdgeant: energy-weighted time spectra (before electronics)
2. Apply electronic pulse shape, smearing, sum SiPM's
3. Find threshold crossing time with timing resolution appropriate to ADC/TDC

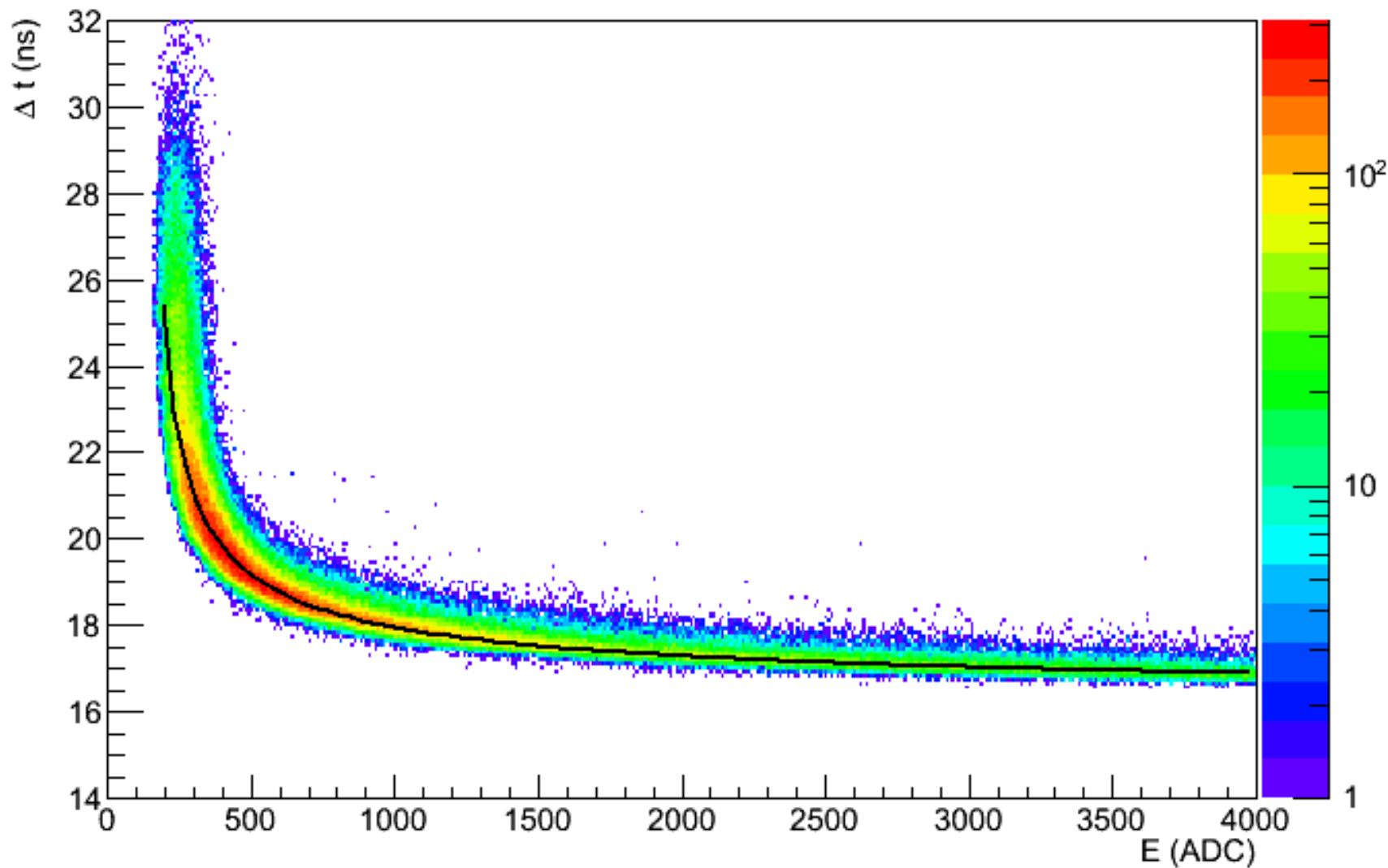
Compare times 1 and 3 to get Δt timewalk

TDC layer1



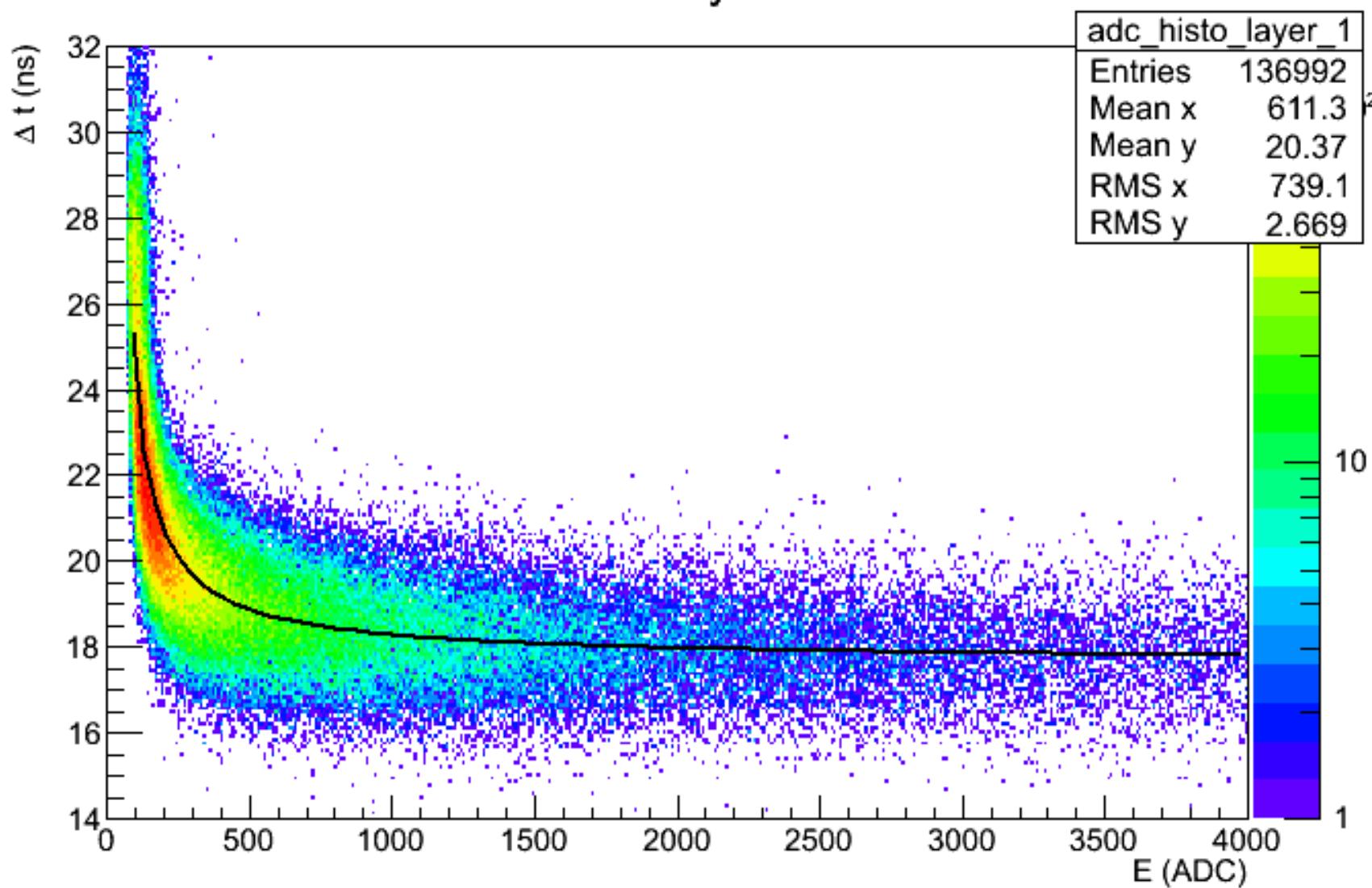
$$\text{Fit to } f(E) = c_0 + \frac{c_1}{(E - c_3)^{c_2}}$$

TDC layer3



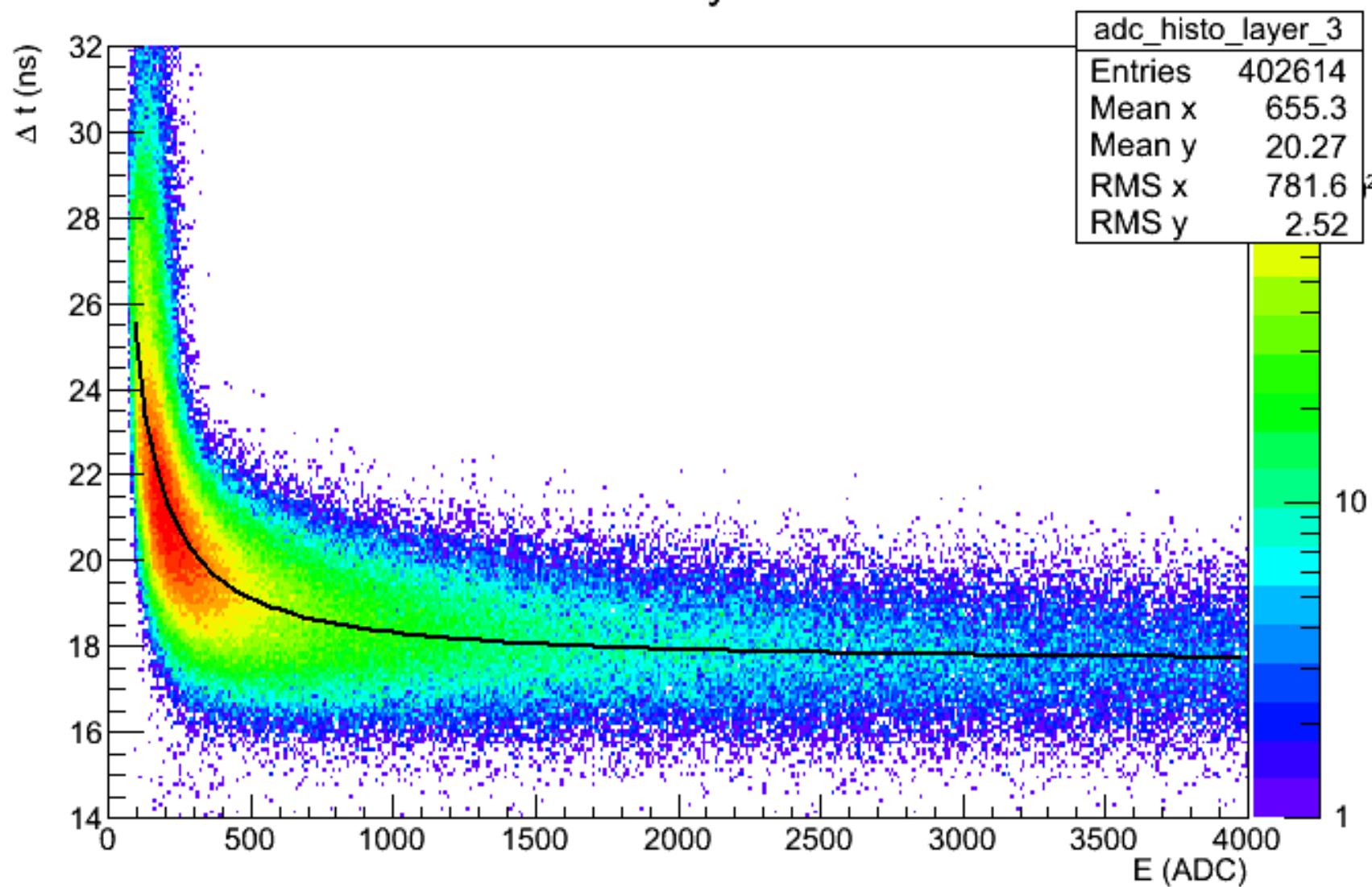
$$\text{Fit to } f(E) = c_0 + \frac{c_1}{(E - c_3)^{c_2}}$$

ADC layer1



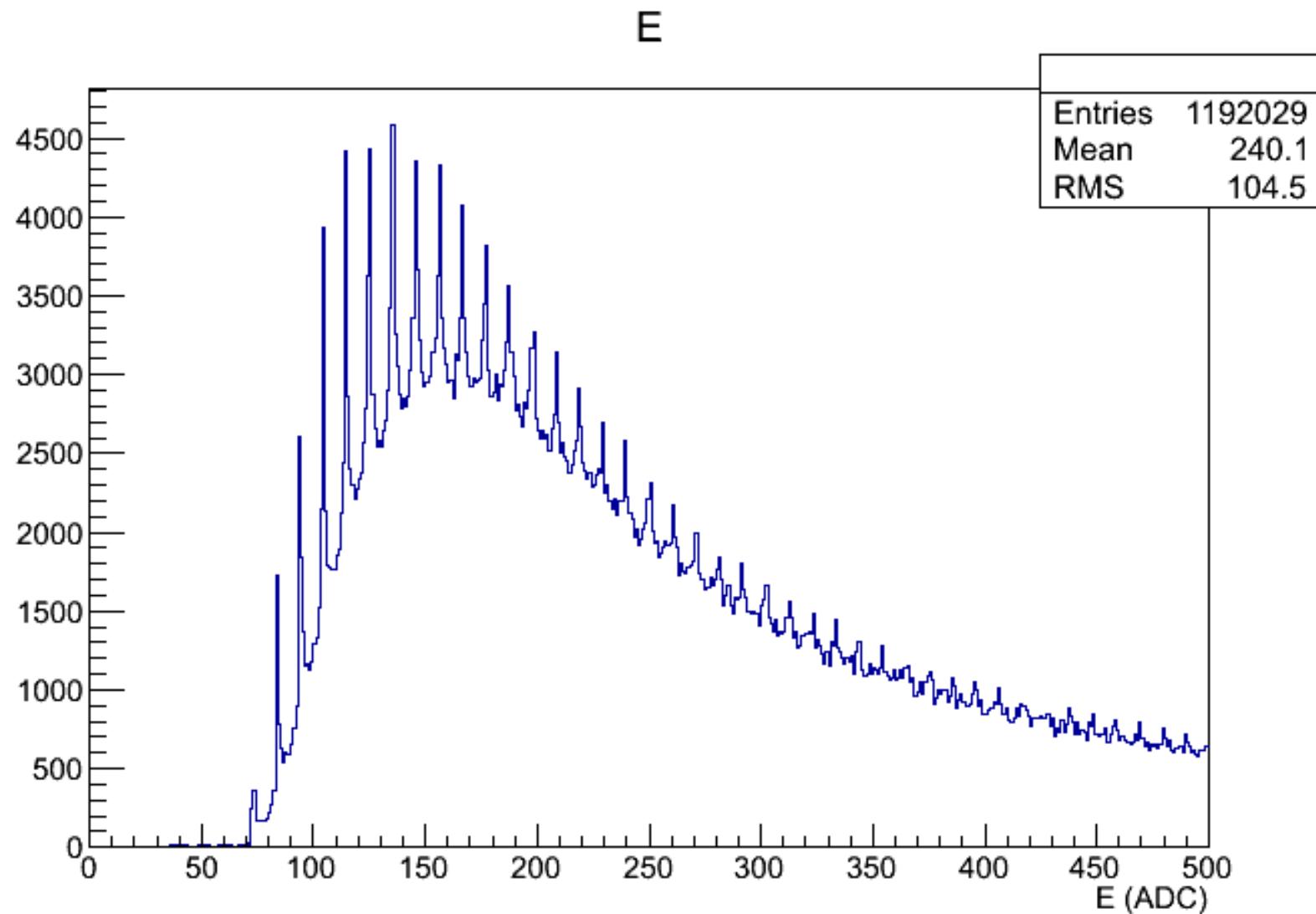
$$\text{Fit to } f(E) = c_0 + \frac{c_1}{(E - c_3)^{c_2}}$$

ADC layer3



$$\text{Fit to } f(E) = c_0 + \frac{c_1}{(E - c_3)^{c_2}}$$

Energy Spectrum??



Plans

- Add preliminary timewalk correction constants to CCDB
- Add timewalk correction to reconstruction
- See what needs to be fixed

- ADC maximum?
- ADC timing?