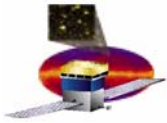


**Gamma-ray Large  
Area Space  
Telescope**

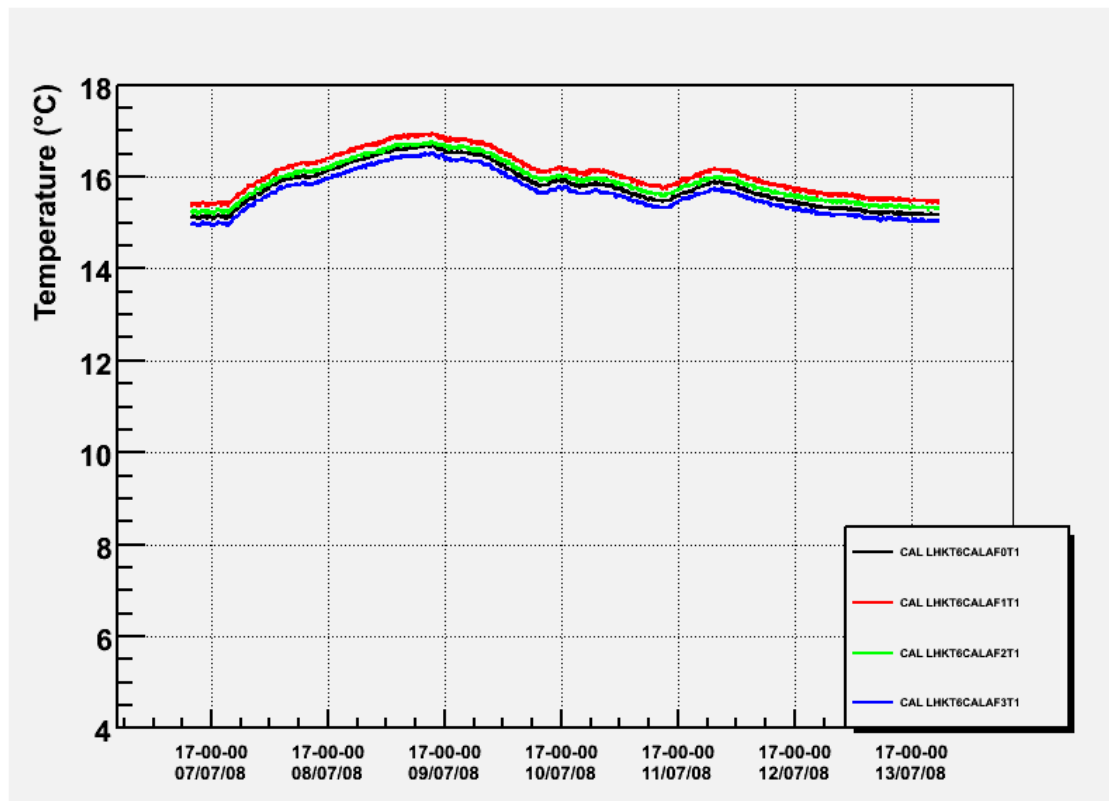


## **Correcting temperature pedestal drift in pointing mode.**

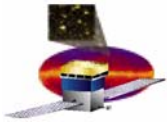
**Alexandre Chekhtman  
NRL/GMU**



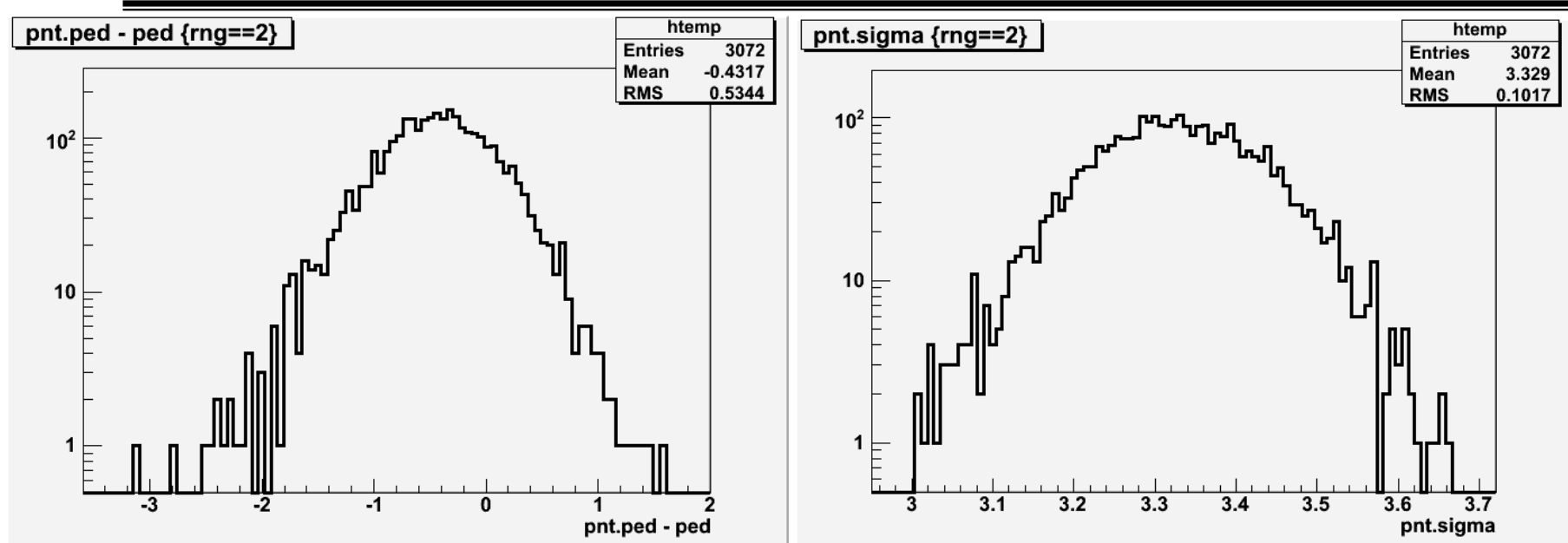
## CAL temperature drift during pointing mode



- GLAST was still in survey mode at stable temperature on July, 7 at 17:00 UTC
  - Run 237143518
- Then it switched to the pointing mode and reached the maximum temperature (1.5 deg C higher) on July, 9 at 11:00
  - Run 237291733



# Pedestal drift



- The temperature pedestal drift during pointing observation reached from -3 to +1.5 adc units in HEX8 range, with RMS 0.53 adc units. This should be compared with pedestal noise (sigma of pedestal peak) which is ~3.3 adc units in HEX8 range.
- The bias in position measurement at 1 GeV = 500 HEX8 adc units:
  - Maximum possible:  $4.5/500 * 16 \text{ cm} / 0.3 = 4.8 \text{ mm}$
  - average:  $0.53 * 1.41 / 500 * 16 \text{ cm} / 0.3 = 0.8 \text{ mm}$
  - Position resolution:  $3.3 / 500 * 16 \text{ cm} / 0.3 = 3.5 \text{ mm}$
- Nothing to worry about ?