Status of the setup: cosmic runs

- Cosmics at LLR (single slabs) → very long spills!
- In setup at LAL → it is not possible to run with spill larger than 2.85 ms
 - → noise burst in BCID = 4096+2050
- Long cosmic data taking.

A. Irles, LLR, 9th Mai 2017







Cosmics at LLR







7 = different hit bit for low/high gain

Cosmics at LLR: channel monitoring I

"high" negative entries (~0.01-1 of total), "moderated" retriggers (~1-3 of total)



Cosmics at LLR: chip monitoring



Cosmics at LLR: channel monitoring II





Cosmics at LAL: spill of 10Hz and 5ms, PP mode

Pedestal = Hit (except in SCA = 0)



Cosmics at LAL: spill of 10Hz and 5ms, PP mode

Spill width > 2.85 \rightarrow spike of noise at BCID = 2050 (tested with CC and PP)





Cosmics at LAL: spill of 10Hz and 2.5ms, PP mode

No errors. No problem with BCID = 2050, retriggers dominates SCA > 0, but quality of filtered events is good



Cosmics at LAL: spill of 10Hz and 2.5ms, PP mode

No errors. No problem with BCID = 2050, retriggers dominates SCA > 0, but quality of filtered events is good





Assume 1-2cosmic/min cm^2

- What is different between LAL/LLR setups?
 - CC/PP (checked, it is not the reason of BCID = 2050)
 - Slight modifications in the slow control files (cc=6pF at LAL, no hold optimization)
 - LLR: not masking of ADC=4 channels
 - Power supplies + rack (LAL runs with 100V... LLR ?)
 - Why root data from LLR starts from acquisition number 30000 ??
 - DIF firmware ?
 - Spill settings ?

temp Entries 2136 Mean 111.4 RMS 90.72

ADC 500

temp Entries 3630 Mean 69.25 RMS 83.49

ADC

temp Entries 2026 Mean 113.6 RMS 87.86

ADC



ADC

500 ADC



400 500 ADC















