

# Weekly update

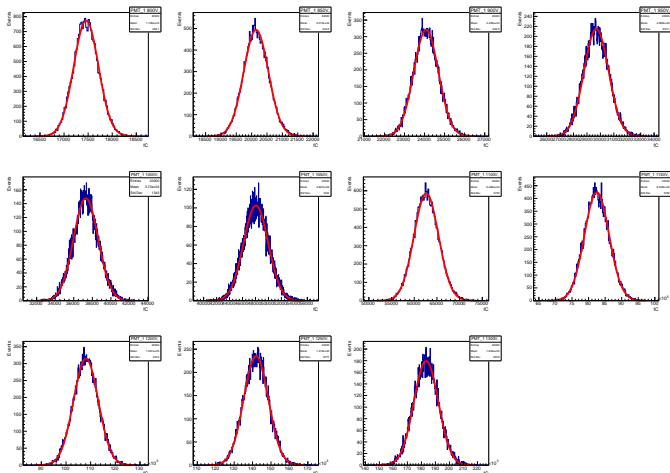
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# Updates on the testing

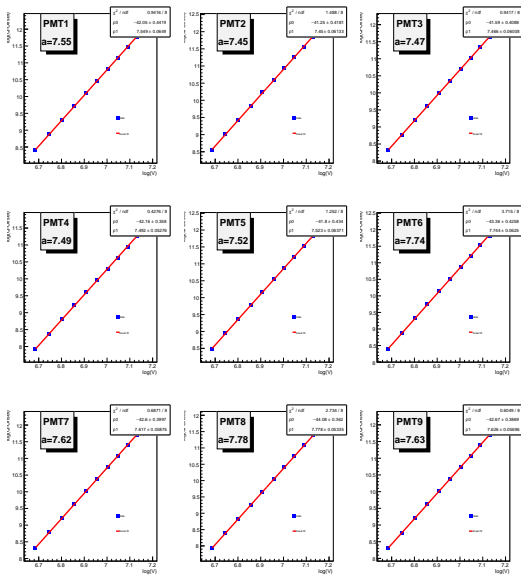
- All 45 PMTs have been tested
- PMT 14 has a broken connector (not tested)
- PMT 1,2,3 have been tested a second time
- Issue with the discriminator, we use the pulse generator for the gate now (still 200ns)
- Analysis framework (pyROOT):
  - Fitting QDC histogram to gaussian  $\mathcal{N}(m, \sigma) \rightarrow \text{Value} = m$  and error =  $\sigma$
  - For each PMT, fitting,  $\log(Q - Q_{\text{off}}) = a \log(V)$
  - Compare the values of  $a$  to compare PMTs

# Gaussian fit results

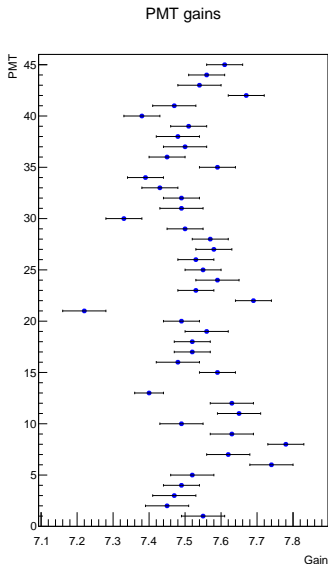


Gaussian fitting of QDC histograms for PMT 1,  $V : 800V \xrightarrow{50V} 1300V$ )

# Linear fitting, $\log(Q - Q_{\text{off}}) = a \log(V)$



# Comparison between PMTs



- All PMTs seem to work fine
- Many of them are compatible within the range of error
- Need to find 10 to 12 that seems compatible and retest them to check reproducibility