Temperature dependence of the signals from PbW04 crystals - Update

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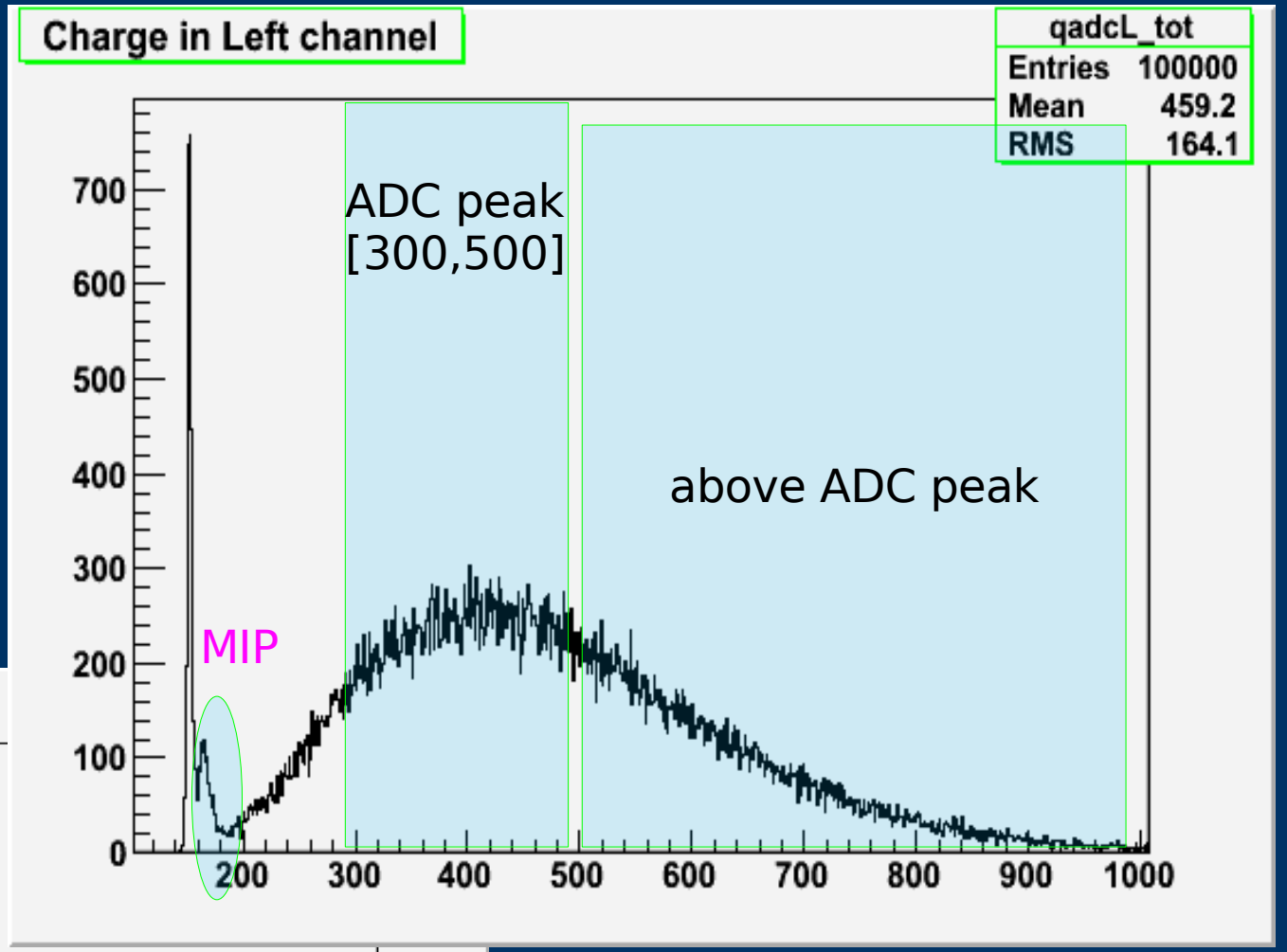
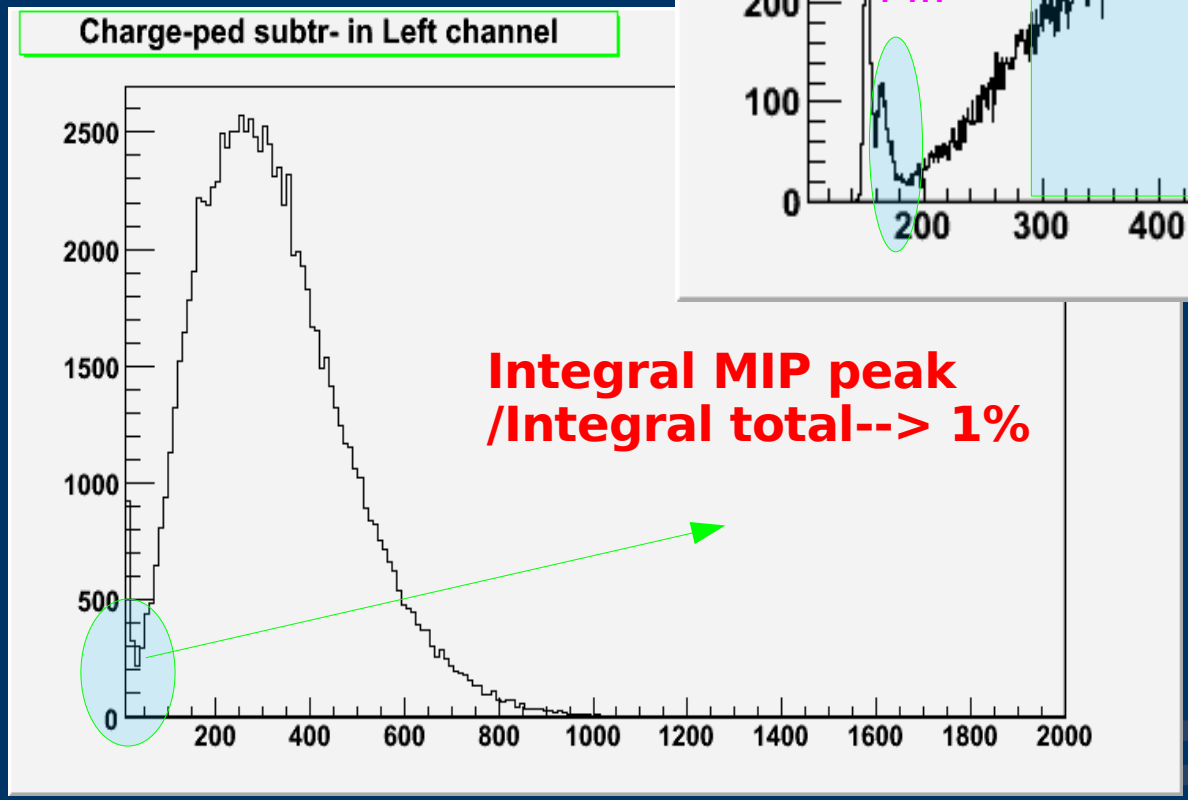
ADC counts

For temperature scans we take the mean value of the distribution ped substract



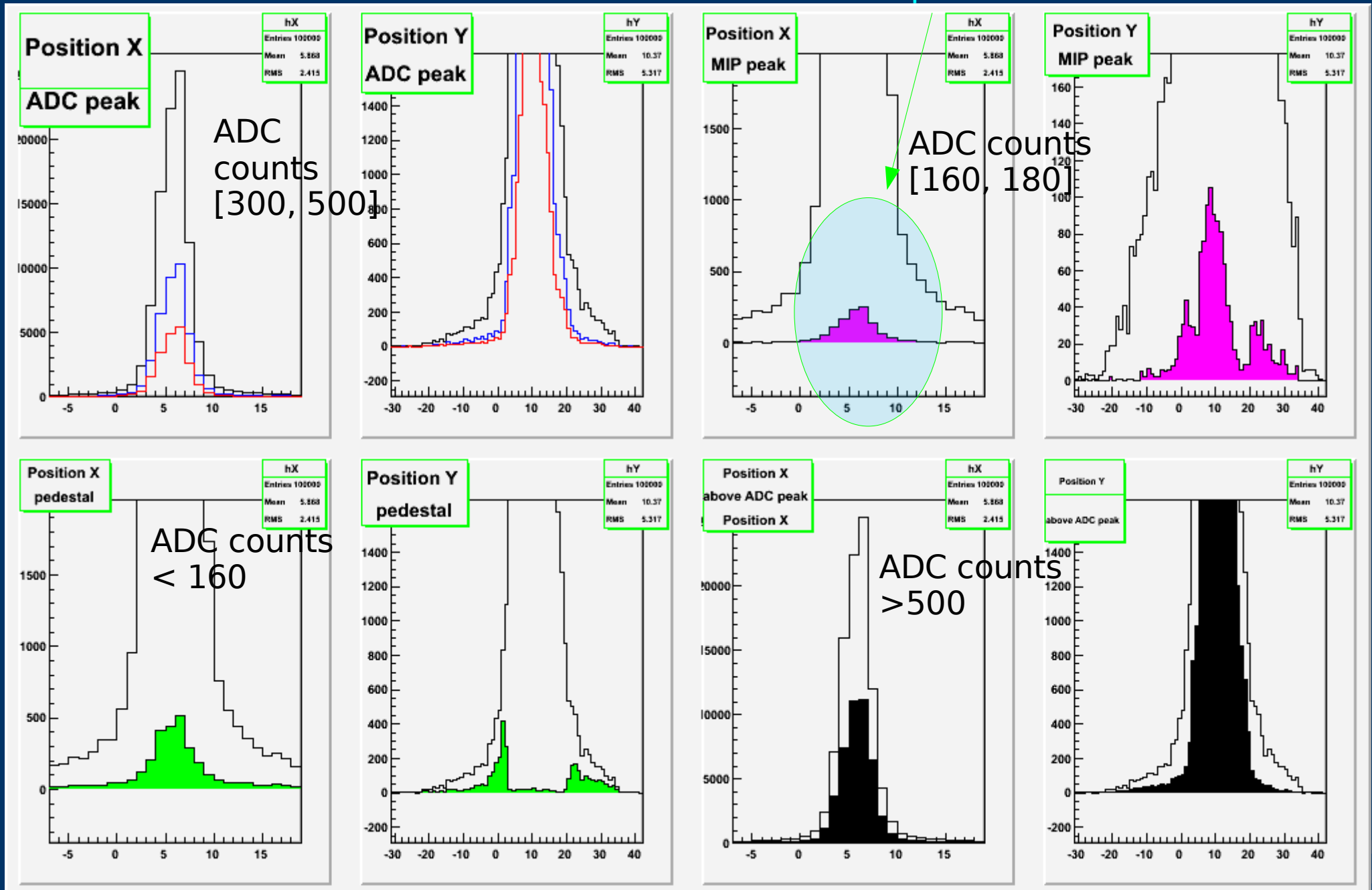


Integral MIP peak /Integral total--> 1%

Look at the position of hits with different ADC counts
(see next page)

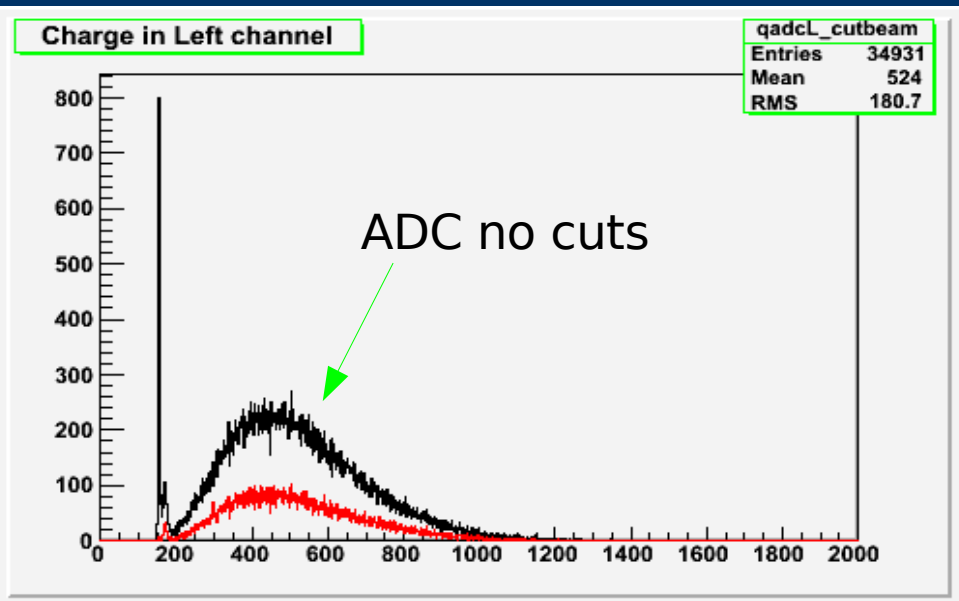
Position of ADC counts

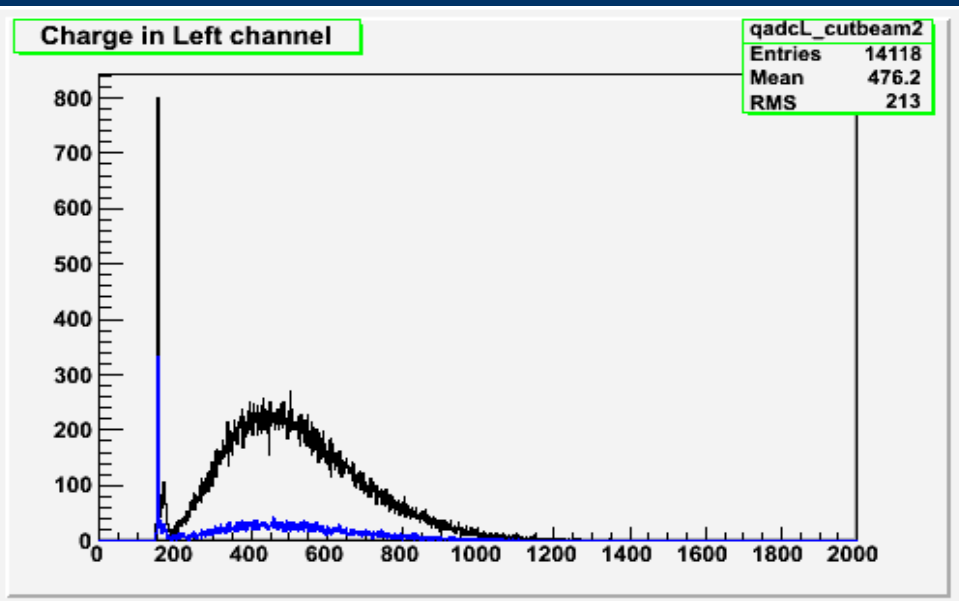
not possible to cut the MIP peak with position cuts!

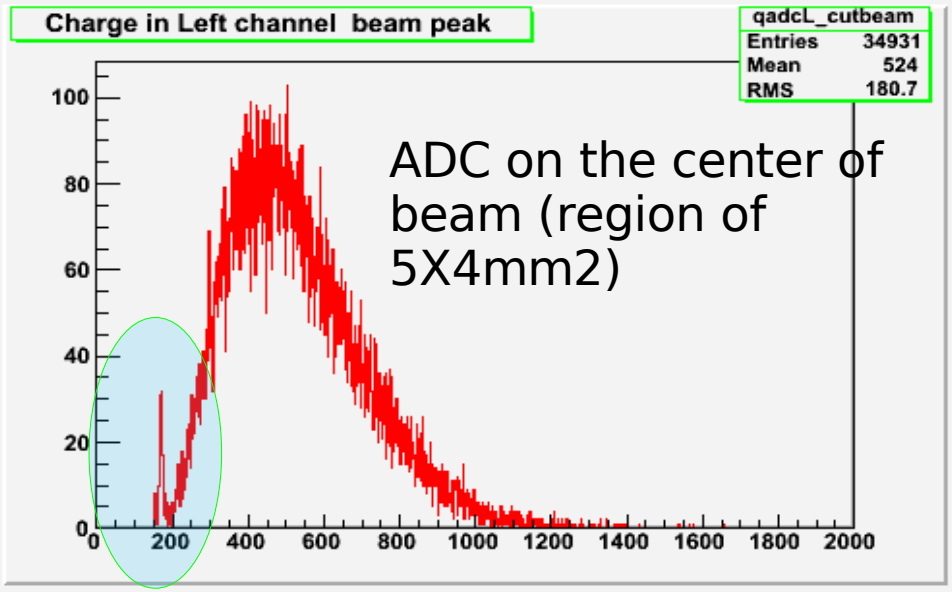


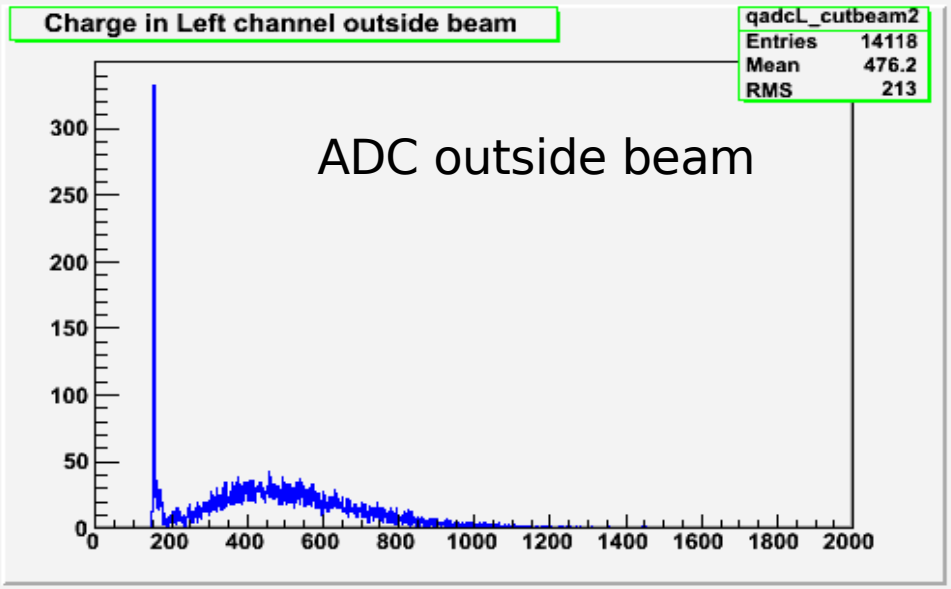
ADC with position cuts

mean beam X: 5.7 mm, RMS: 3.7mm
mean beam Y: 10.3mm, RMS: 5.3mm



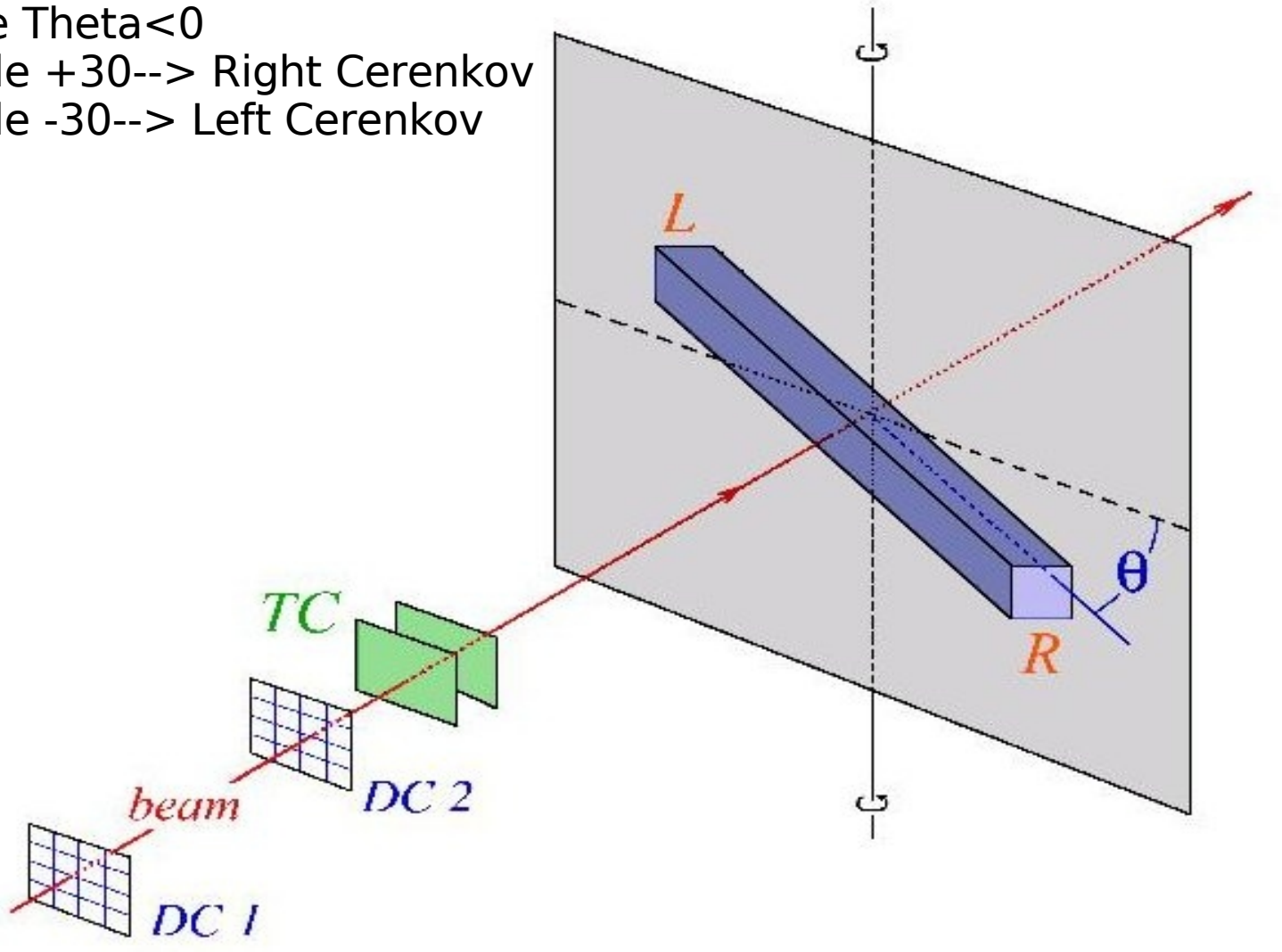






Setup

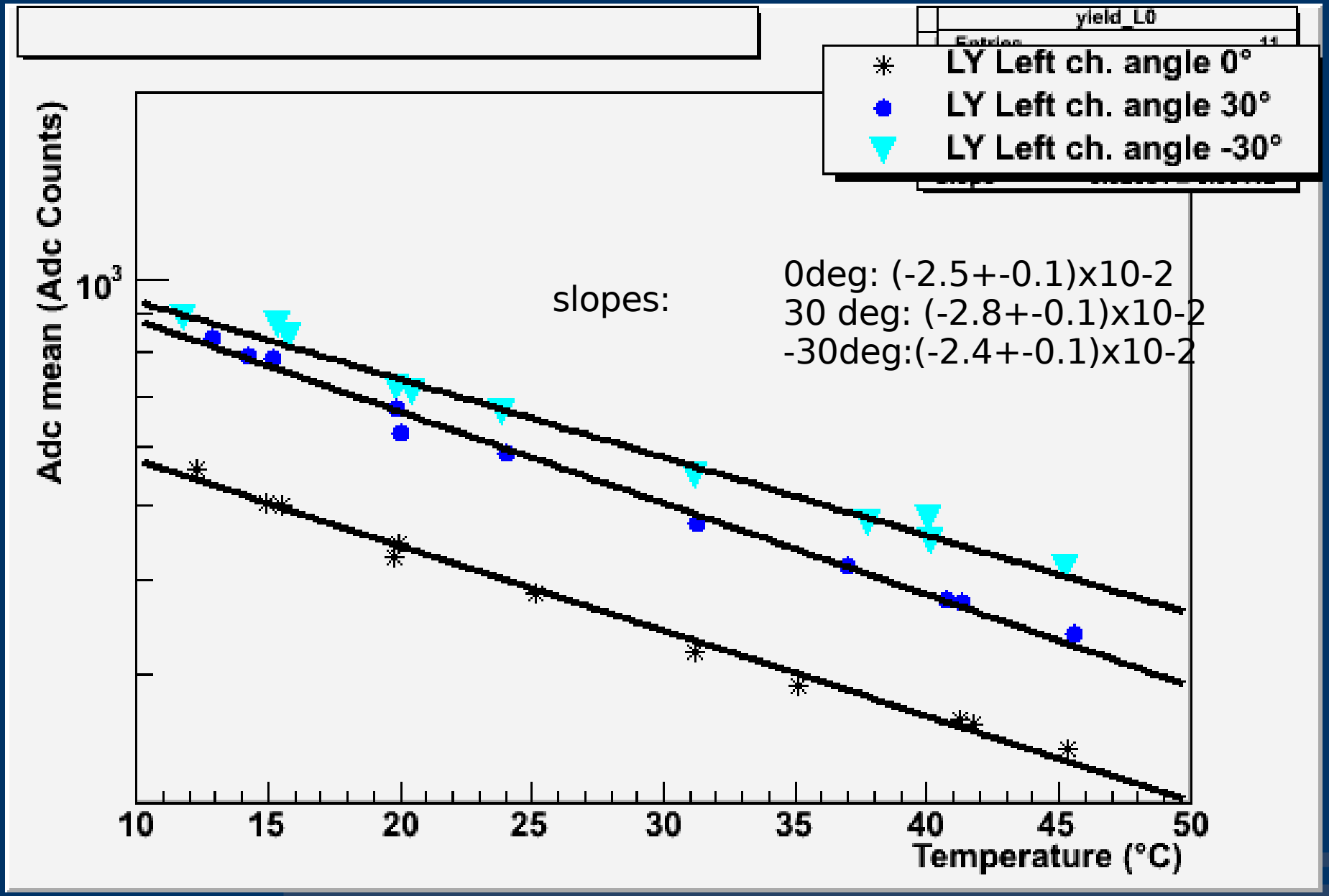
here Theta<0
angle +30--> Right Cerenkov
angle -30--> Left Cerenkov



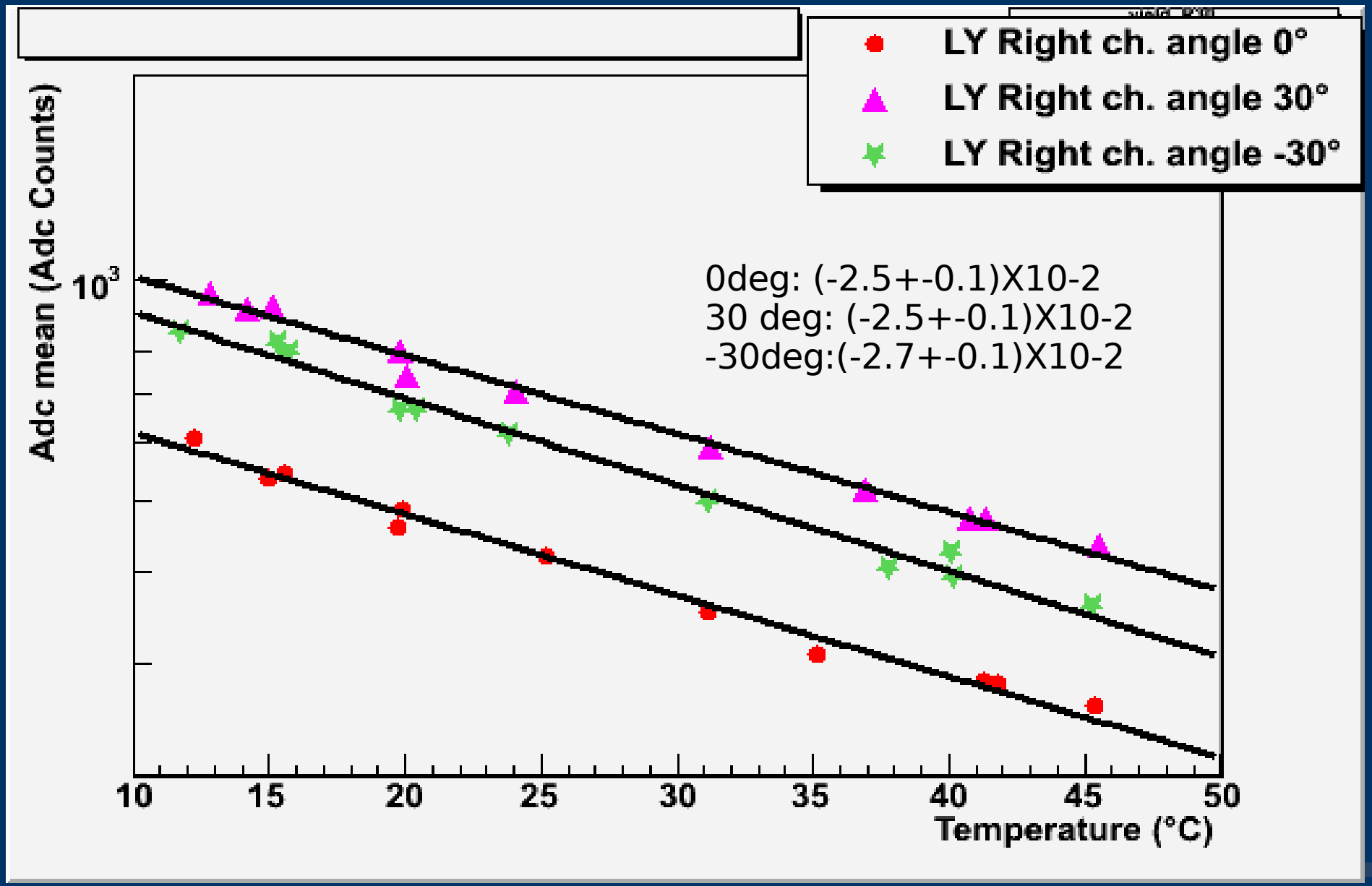
Temperature scans

- 1) ADC mean value without pedestal (but still with the MIP peak, only 1%)
- 2) no muon and beam cuts
- 3) different runs with different temperature at the same angular position (so far 0, +30, -30)
- 4) look at the slope of the ADC mean value as function of temperature

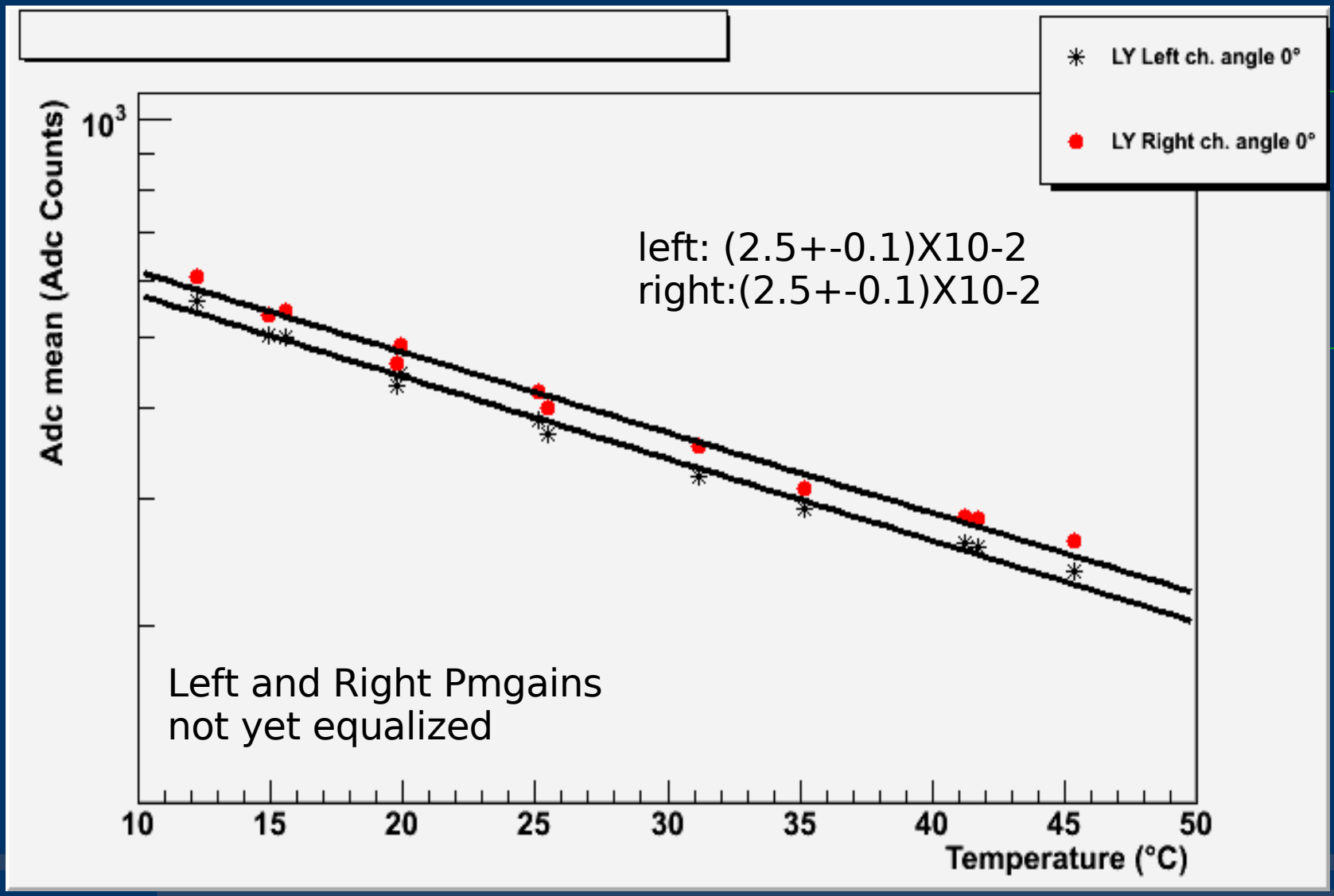
Left PM @ 30, 0, -30 degree



Right PM @ 30, 0, -30 degree



ADC Peak @ 0 degree , Left and Right PM



ADC Peak @ 30 degree , Left and Right PM