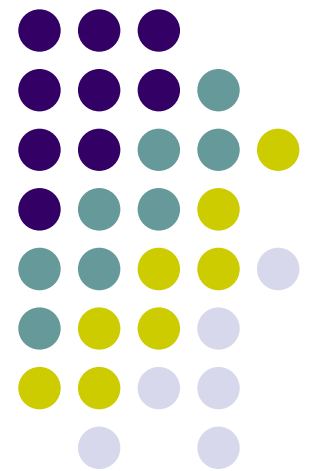# Status Of Prototype Calibration

Jose Benitez

10/13/2005

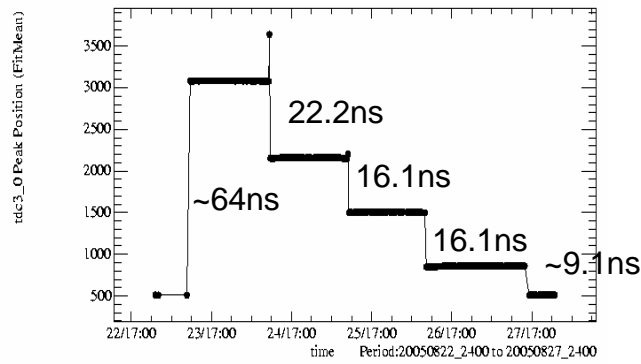# Time Dependece of TDC ps/count

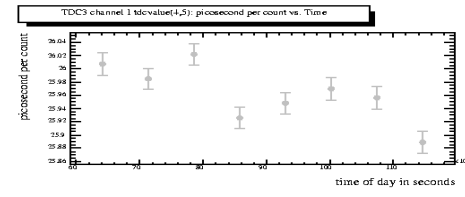tdc value vs. time

Dirc3_38 Time Dependence

~64ns

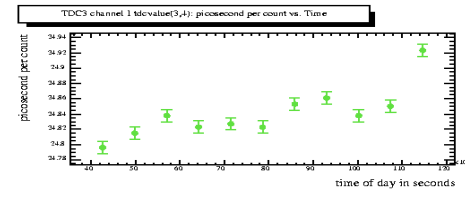22.2ns

16.1ns

16.1ns

~9.1ns

4 steps --> 10 possible
subtractions

.1ps
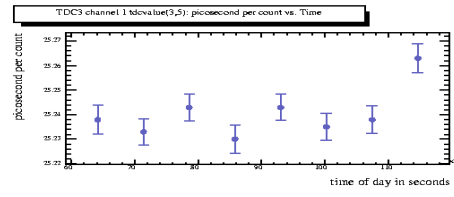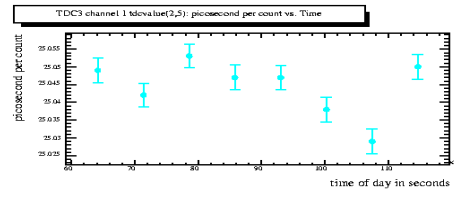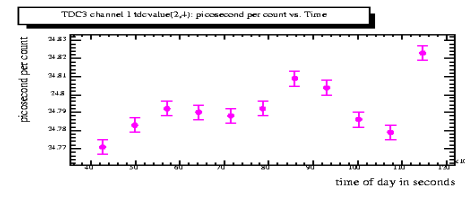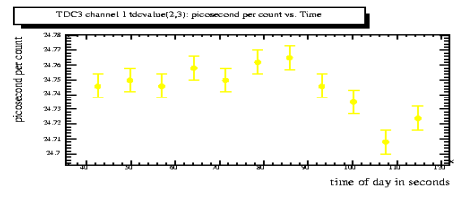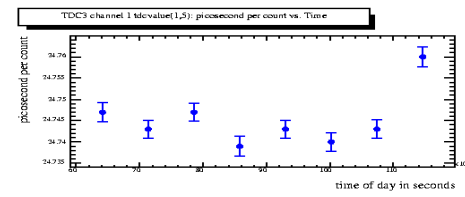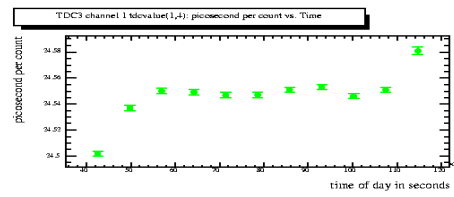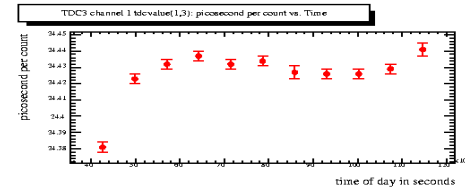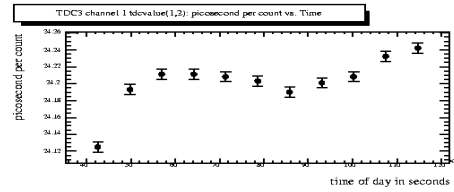
x axis: 10:50am--> 8:50am(next day)
Bins of 2 hrs --> 11 points

Temperature Fluctuations

.15ps
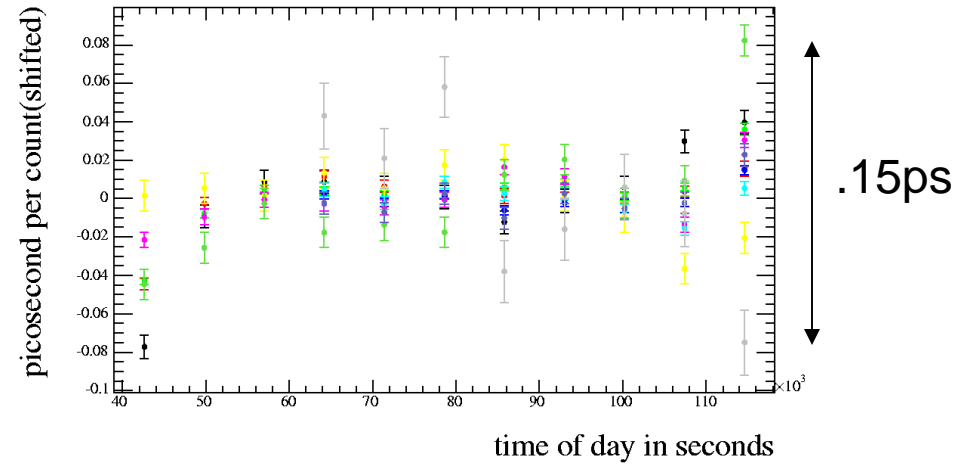
Overlay the curves

y axis= ps/count - mean

All 16 Channels of TDC3

All 8 TDCs

TDC3 (All tdcvalue combinations, All channels): picosecond per count(shifted) vs. Time

.25ps

All tdcvalue combinations, All channels, All TDCs : picosecond per count (shifted) vs. Time

.4ps

All tdcvalue combinations, All Channels, All TDCs: picosecond per count (shifted)

Sigma=19 fs

HallTDCsTime	
Entries	12250
Mean	-0.0007503
RMS	0.02452
Underflow	39
Overflow	126
Integral	1.208e+04
χ^2 / ndf	902.6 / 13
Constant	1627 ± 19.1
Mean	0.0006369 ± 0.0001783
Sigma	0.01864 ± 0.00014

Project onto y axis

picoSecond/Count vs. tdc value
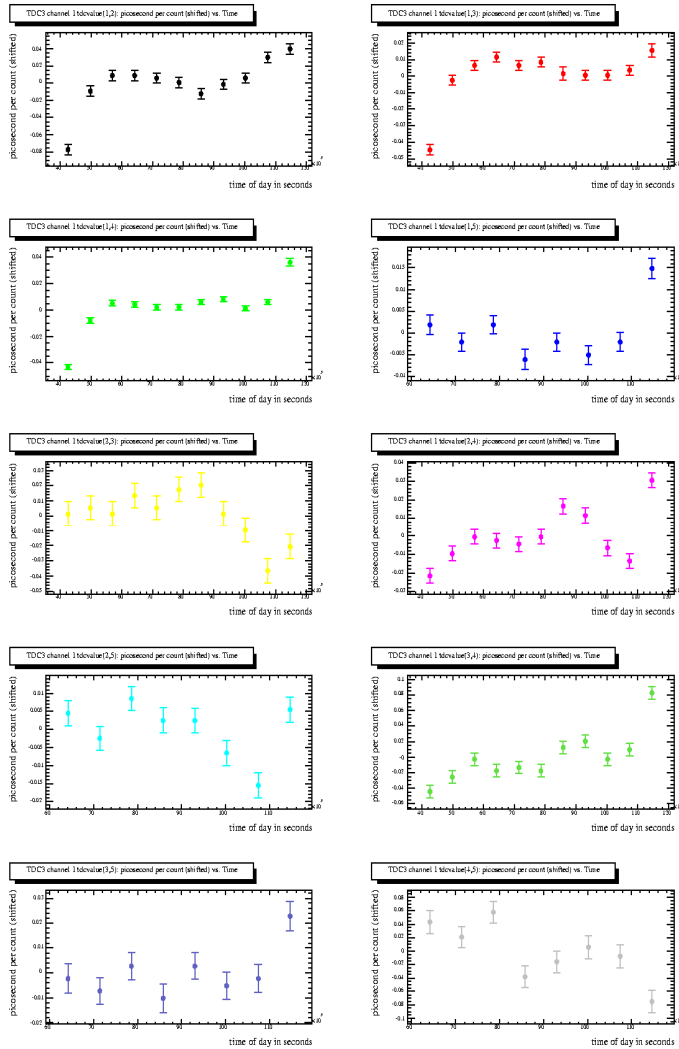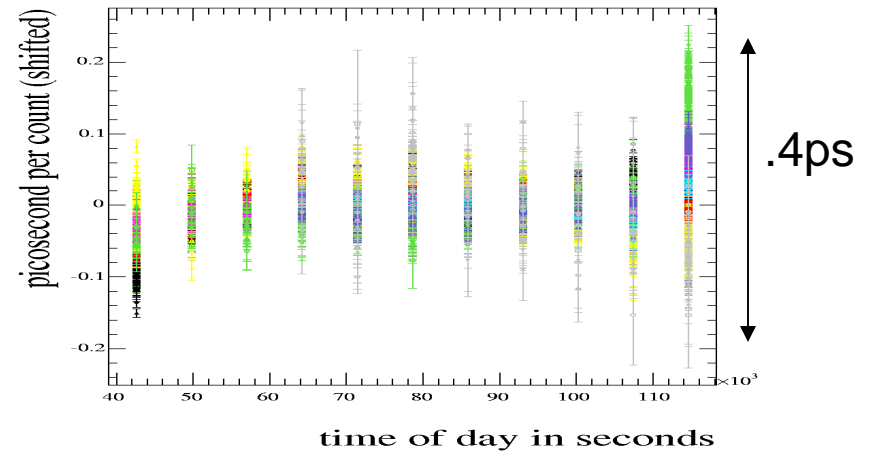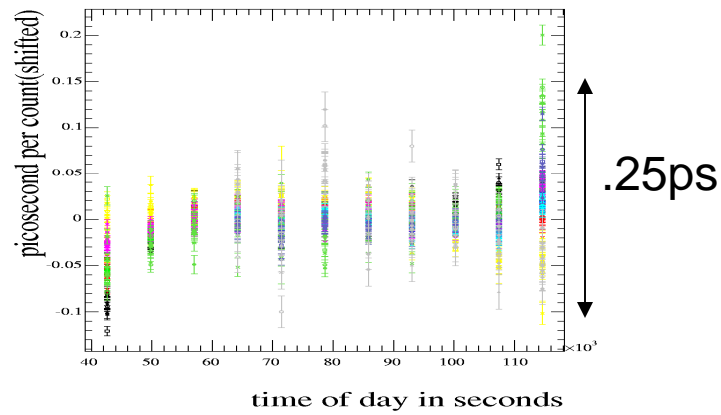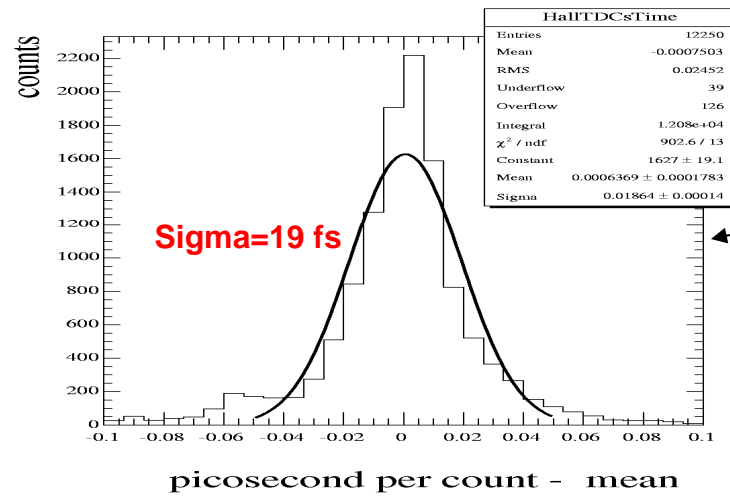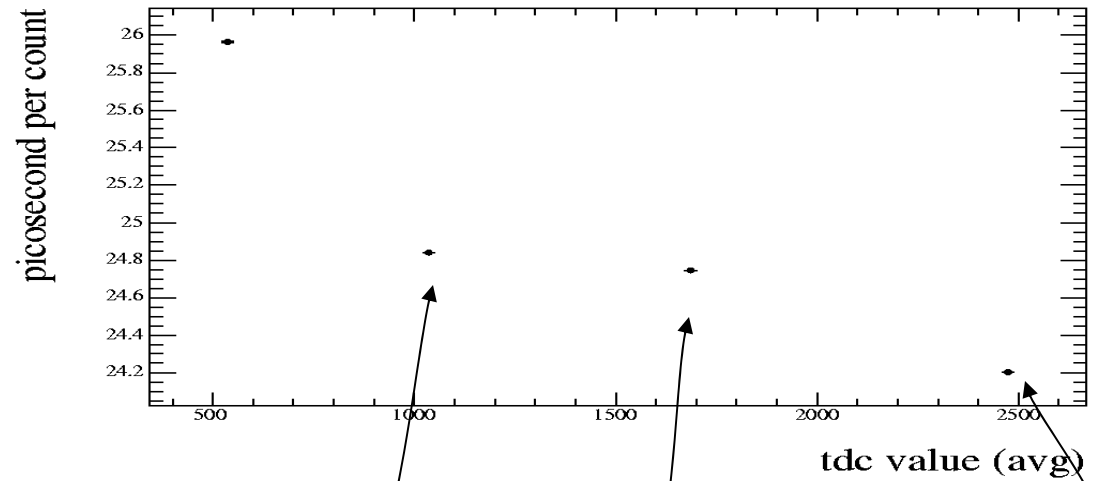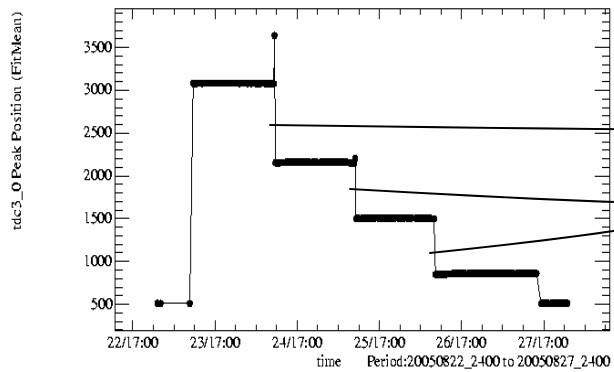
TDC3 channel 1: picosecond per count vs. tdc value

picosecond per count

tdc value (avg)

Dirc3_38 Time Dependence

tdc3_0 Peak Position (FitMean)

time   Period:20050822_2400 to 20050827_2400

All Channels TDC3

TDC3 (All channels): picosecond per count vs. tdc value

picosecond per count
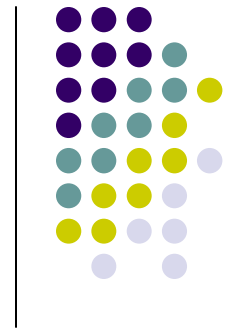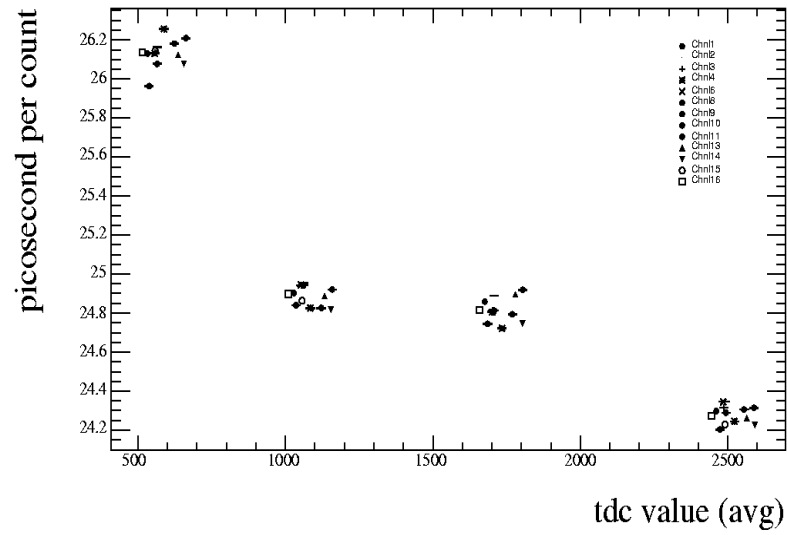
tdc value (avg)

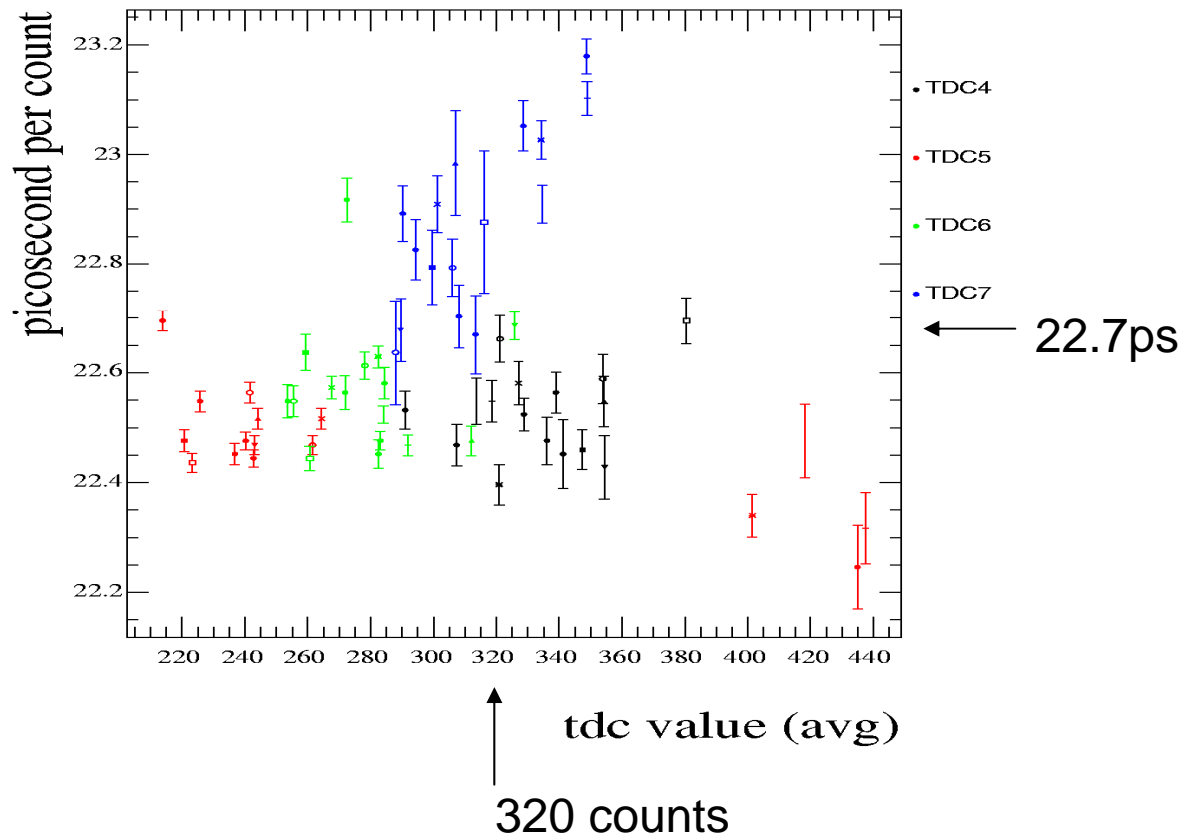# All TDCs

All 8 TDCs: picosecond per count vs. tdc value

picosecond per count

tdc value (avg)

1ps
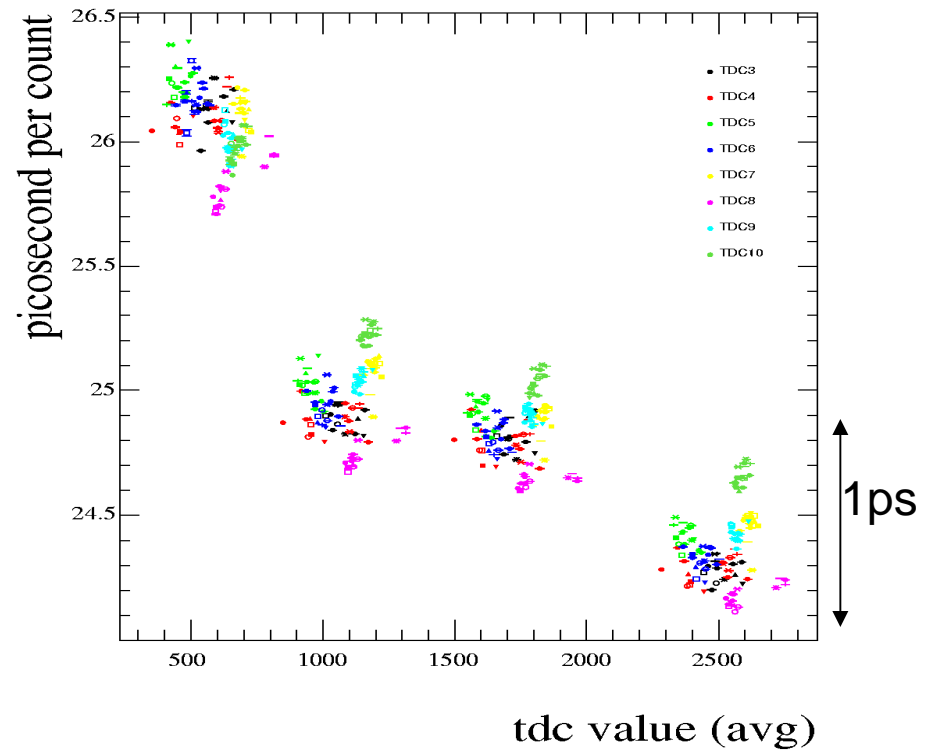
Calibration of first 4 TDCs from June 20, 2005
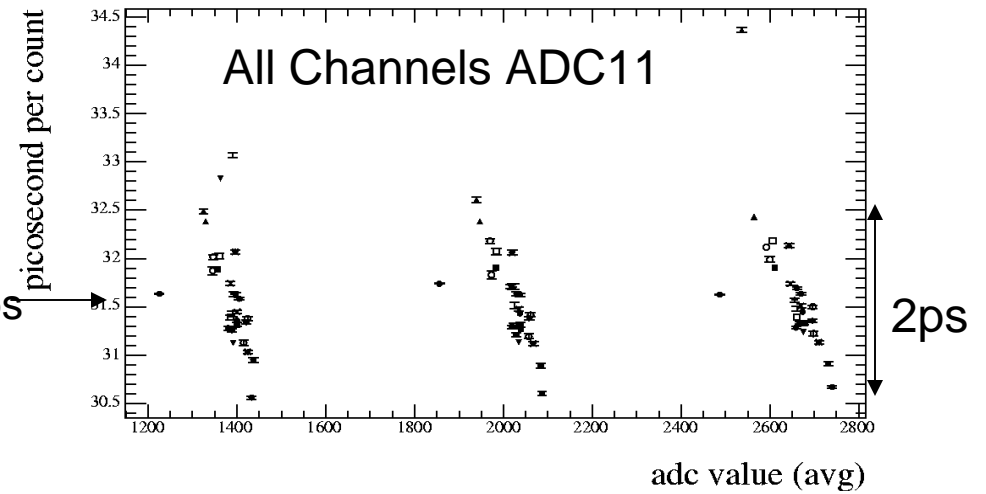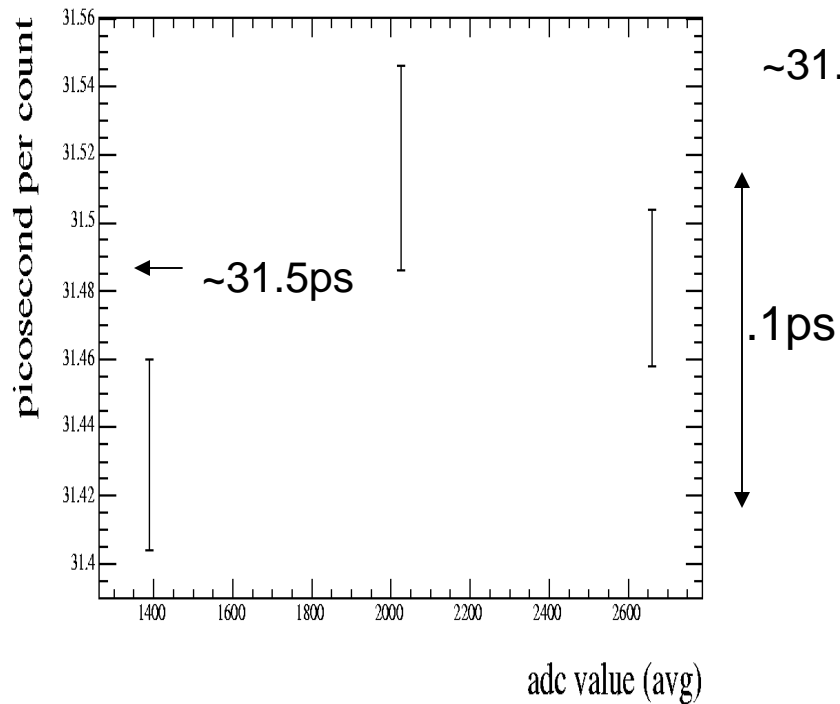
All 4 TDCs: picosecond per count vs. tdc value

SLAC ADC Calibration from August 5, 2005
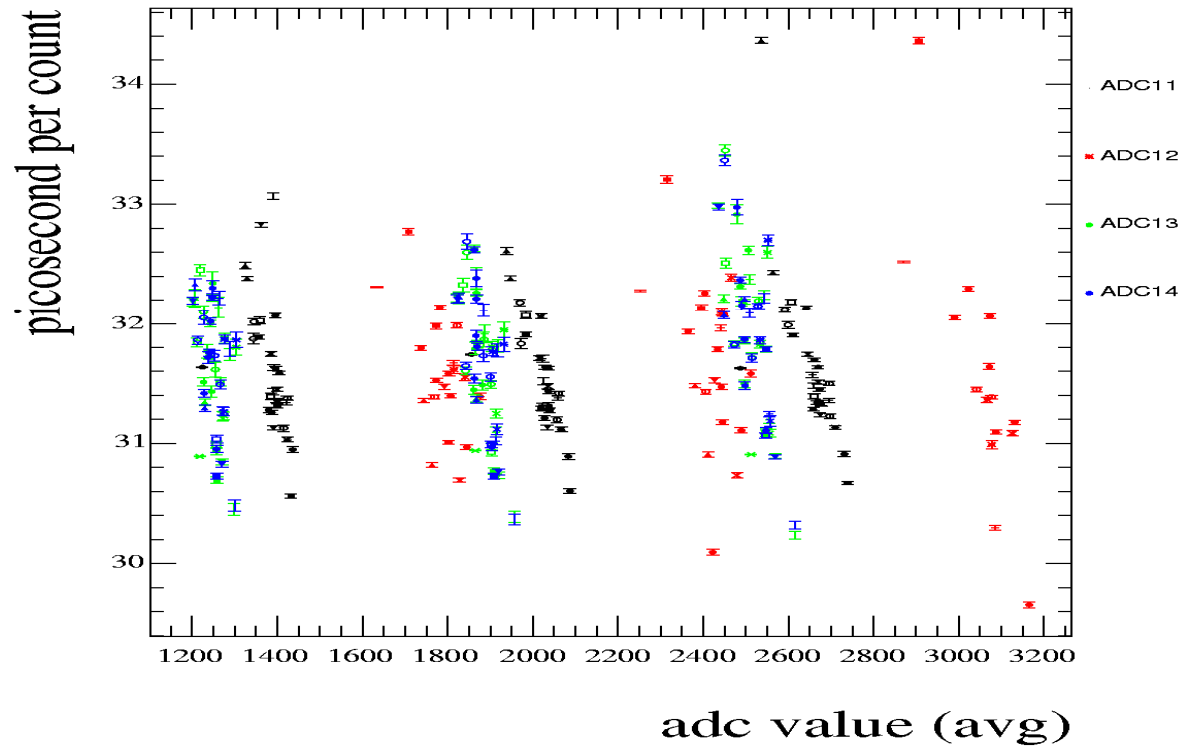
picoSecond/count vs. adc value

All ADCs

All 4 ADCs: picosecond per count vs. adc value

ADC --> nGoodChnls
11 --> 27
12 --> 20
13 --> 27
14 --> 25