

Timing Issues

Emily Conover

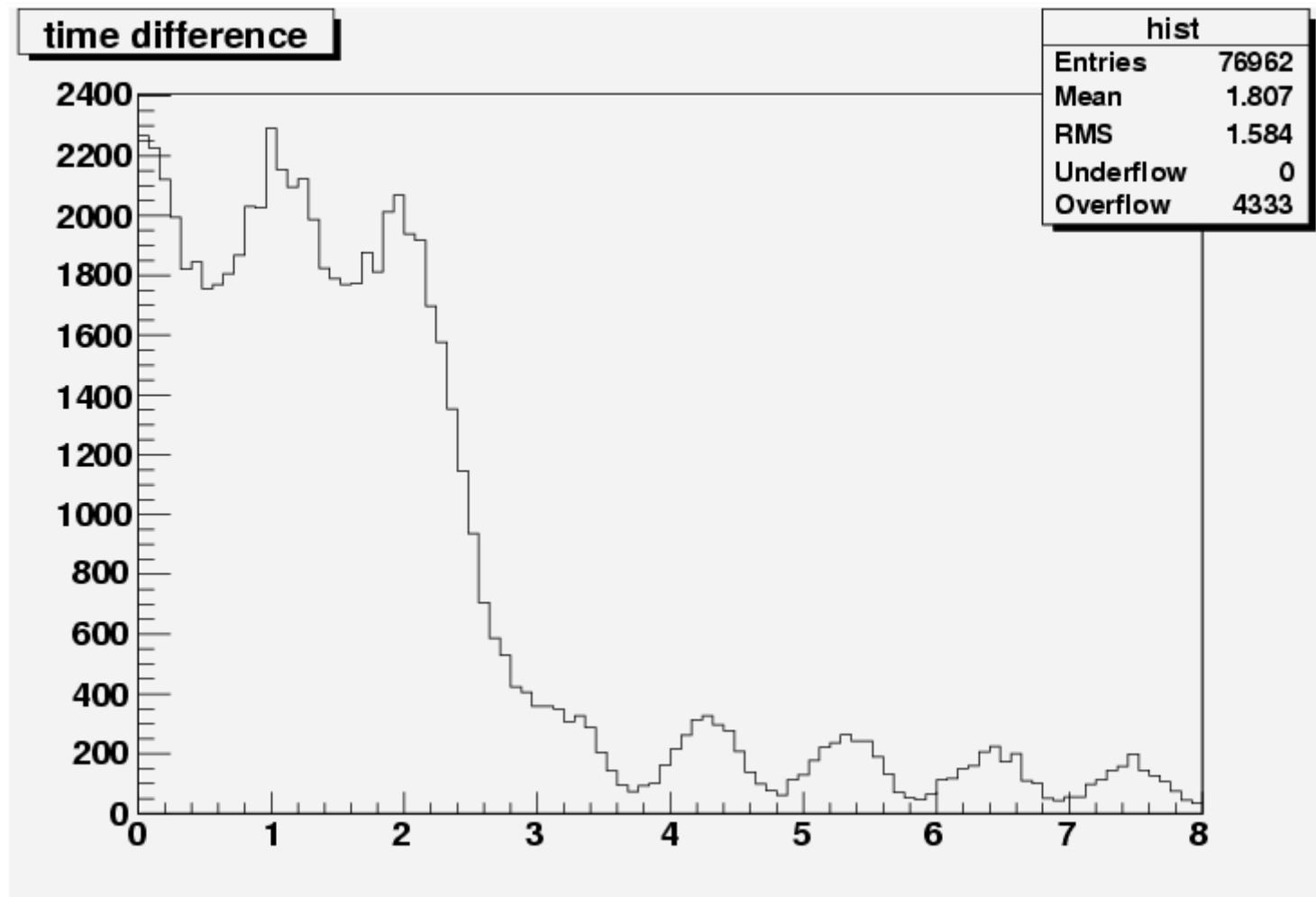
Outer Veto Meeting -7/24/08

setup – we have an array of muon counters set up to make a test stand for the module

This is made up of sets of two muon counters, one on top and one on the bottom. We require coincidence from these two counters. This signal is then put into the electronics board.

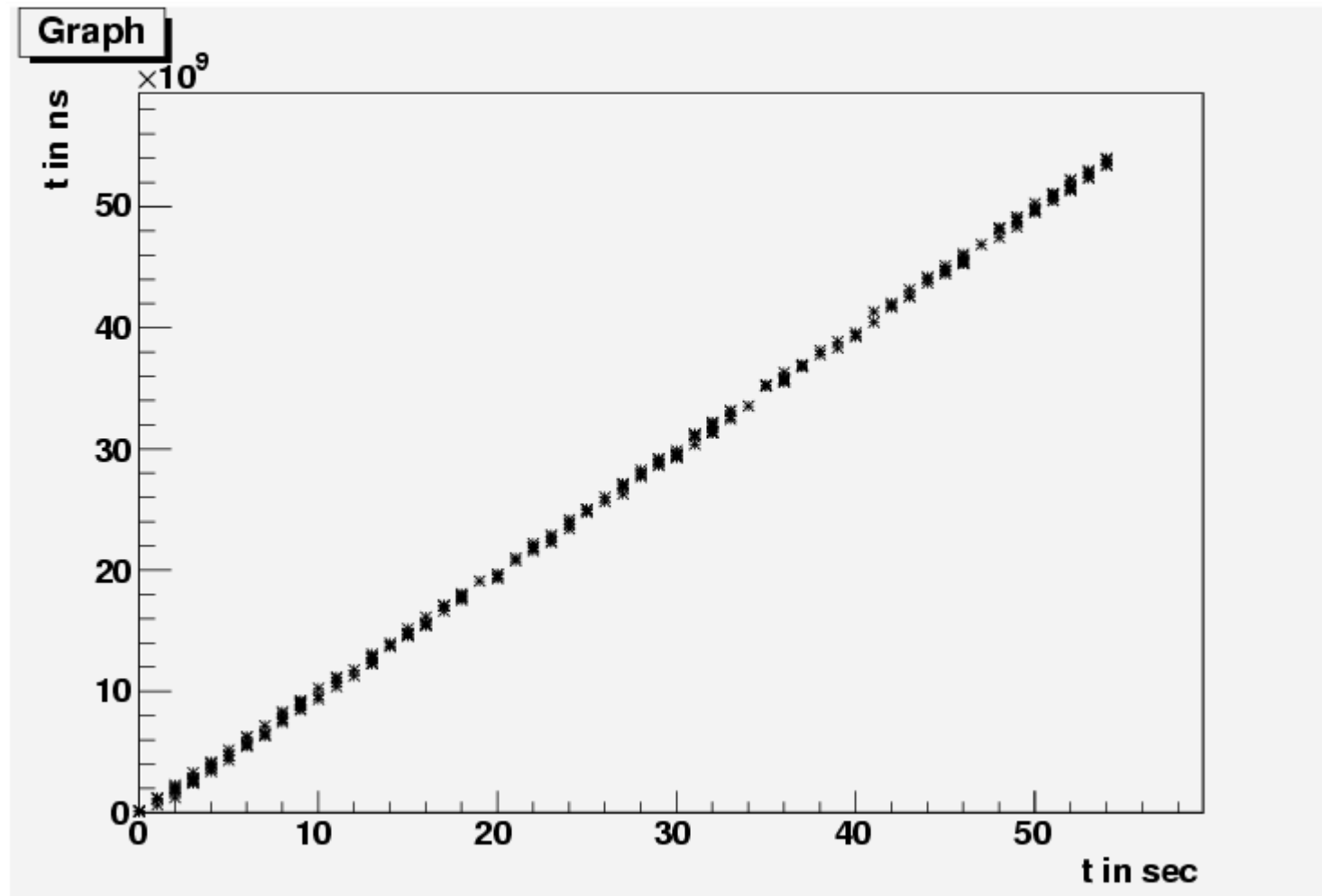
We then have another counter, perpendicular to these (so that it overlaps several counters in our array), with which we are trying to get the correlation in time between events with this counter and events with counters in our array.

difference in time for events from two counters



Here we plot the time difference in ns for all events in the two counters, requiring a time difference from PC timestamp < 3 seconds

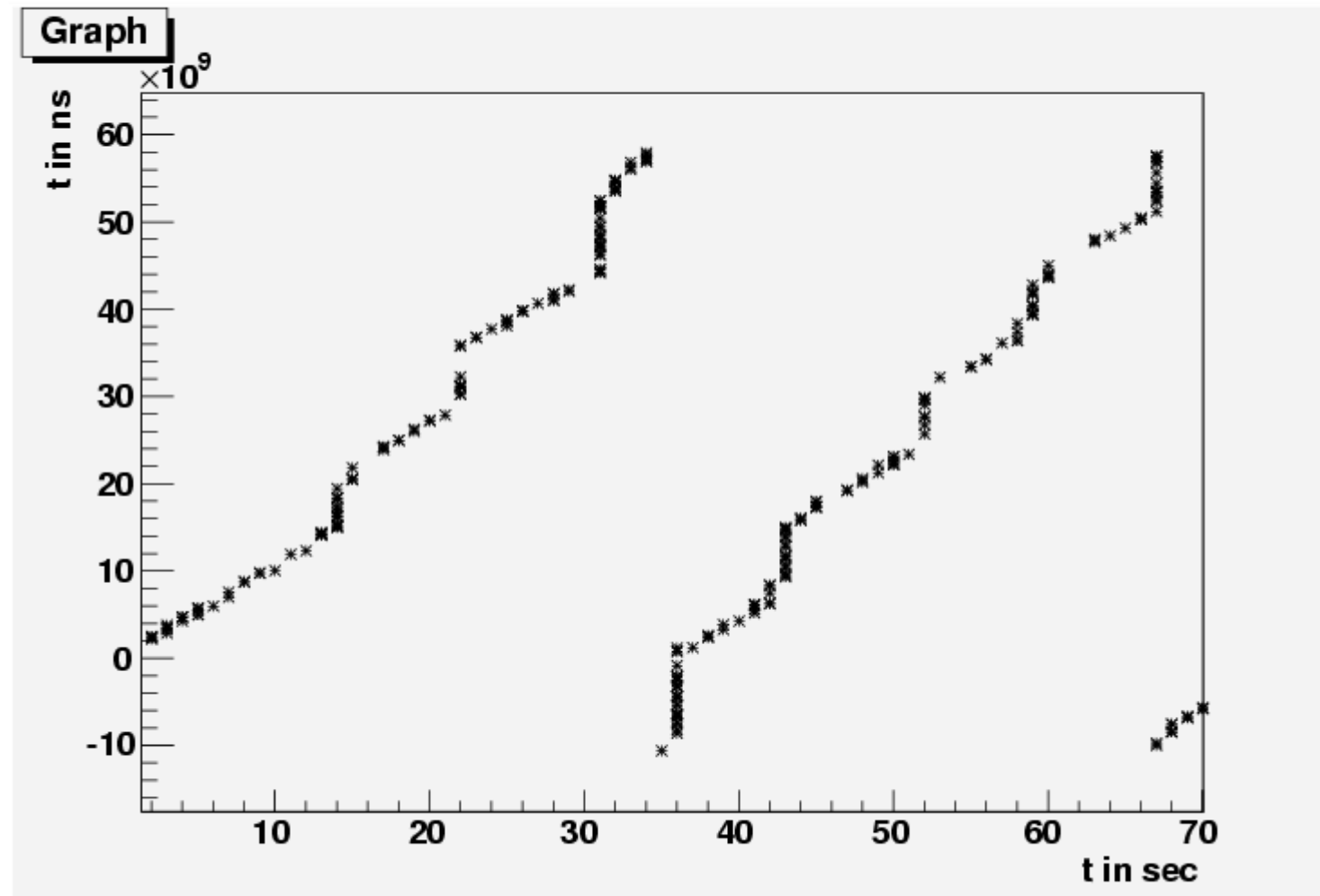
time in ns vs time in sec from beginning of run



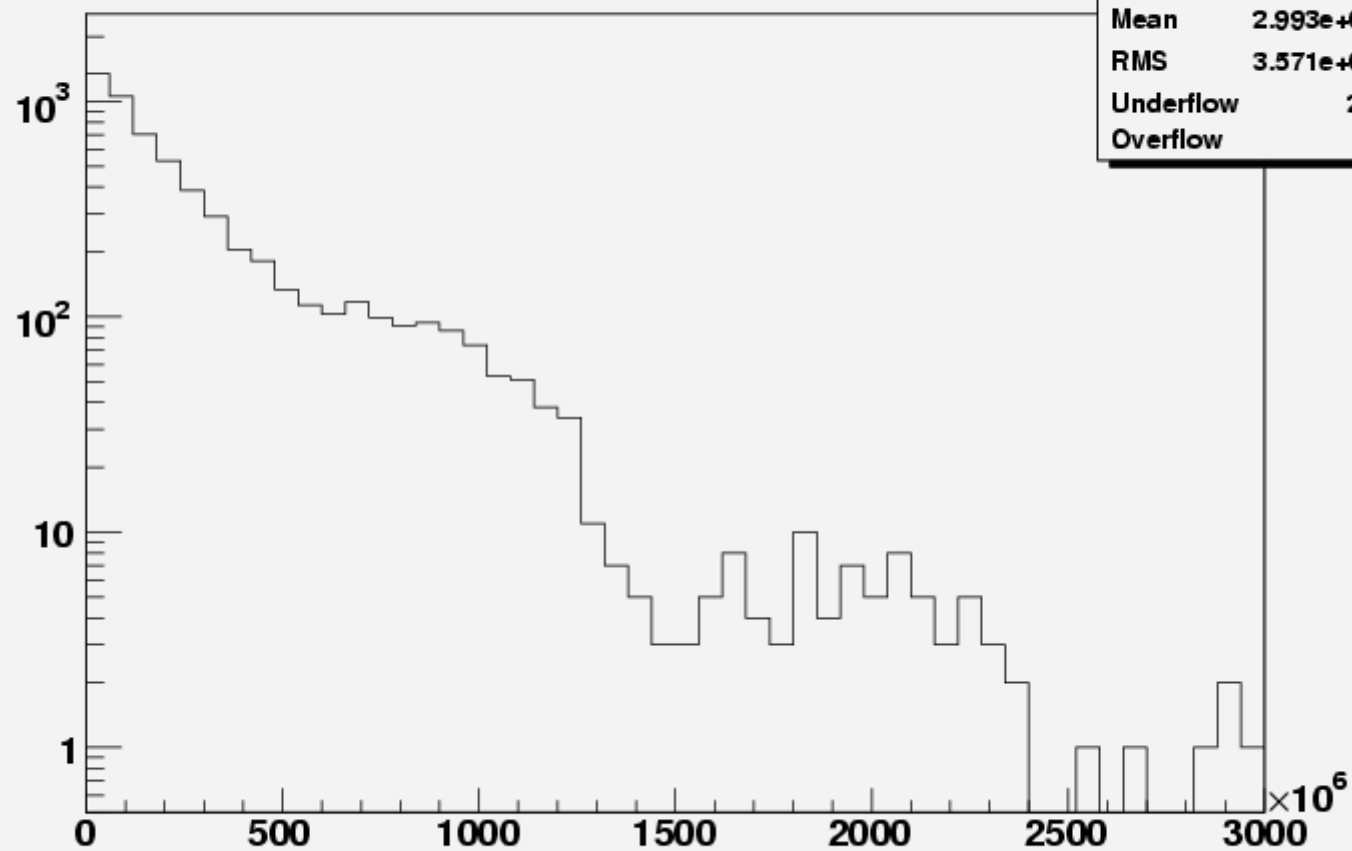
time in sec = timestamp from PC

time in ns is clock counts*16ns

time in ns vs sec – end of the run



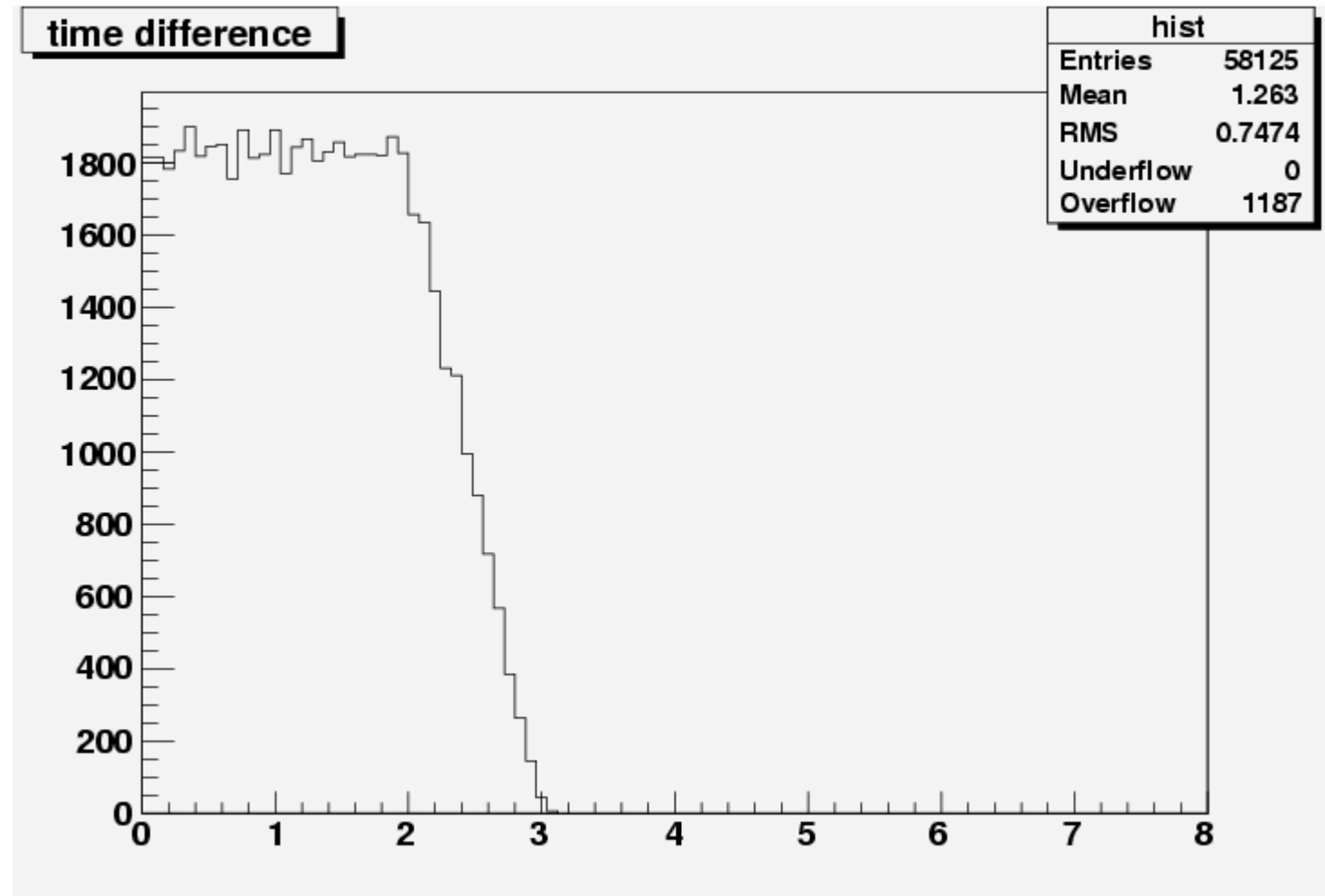
time between consecutive events



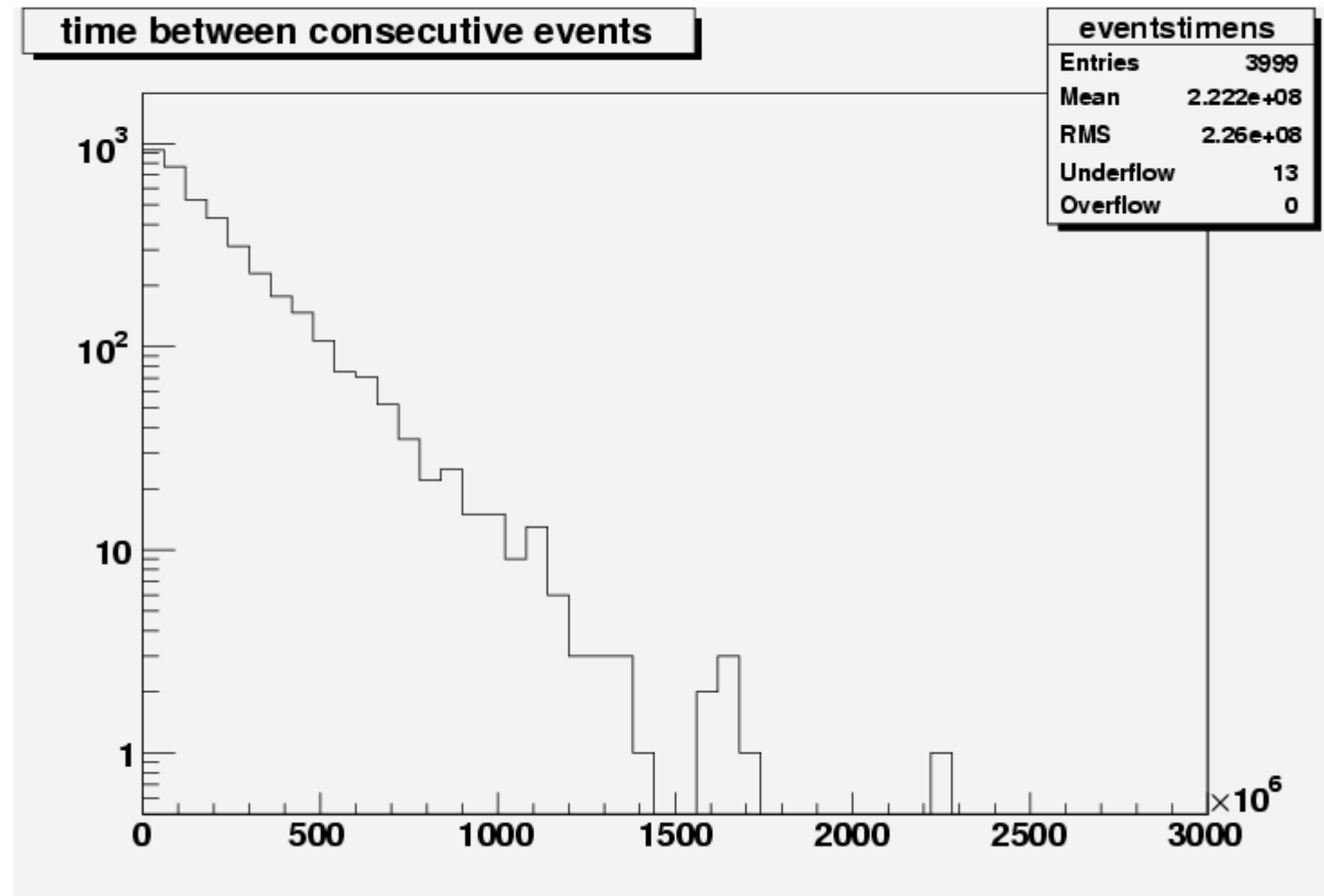
eventstimens

Entries	5922
Mean	2.993e+08
RMS	3.571e+08
Underflow	26
Overflow	4

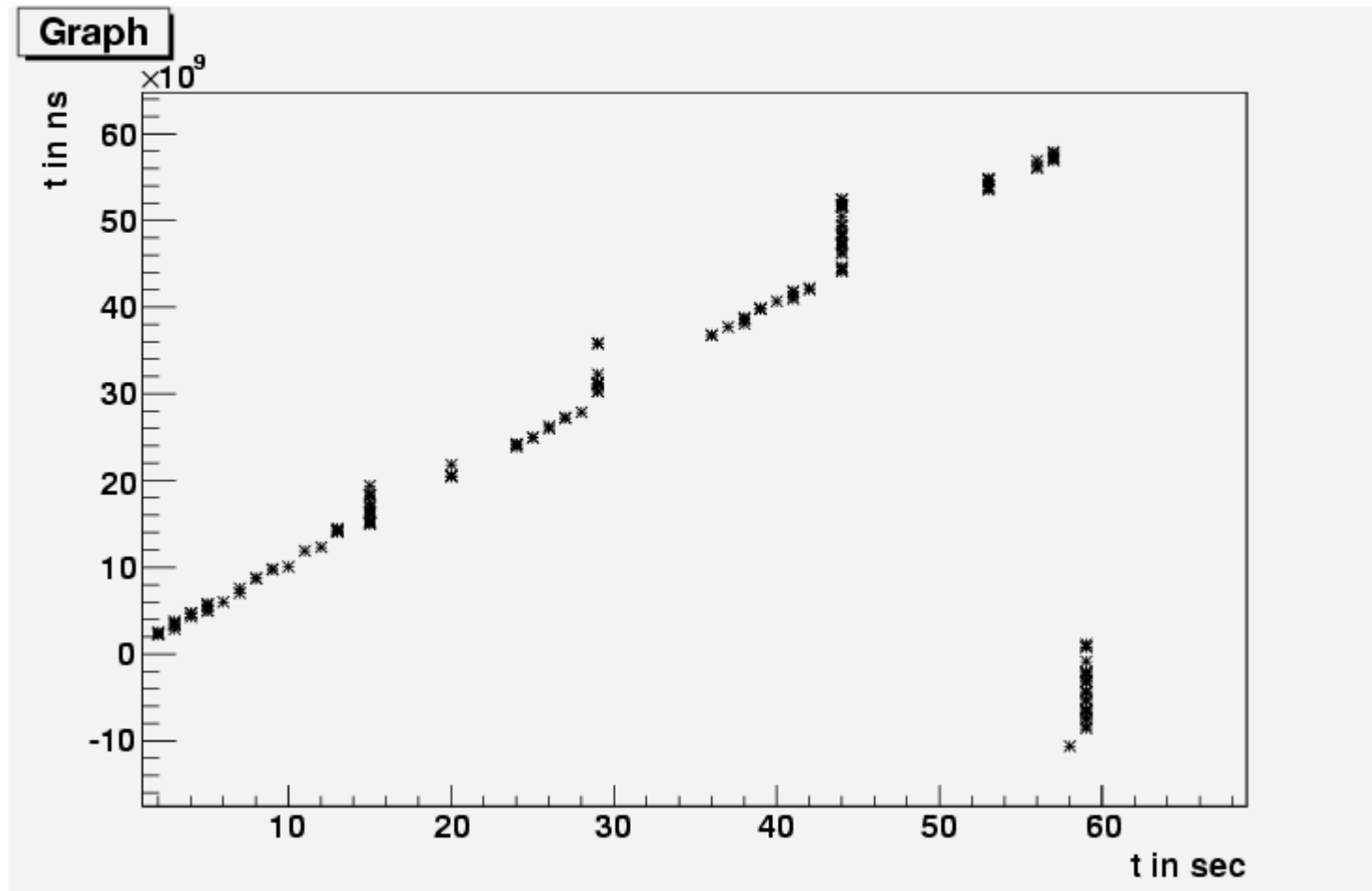
results from events before timing issues begin



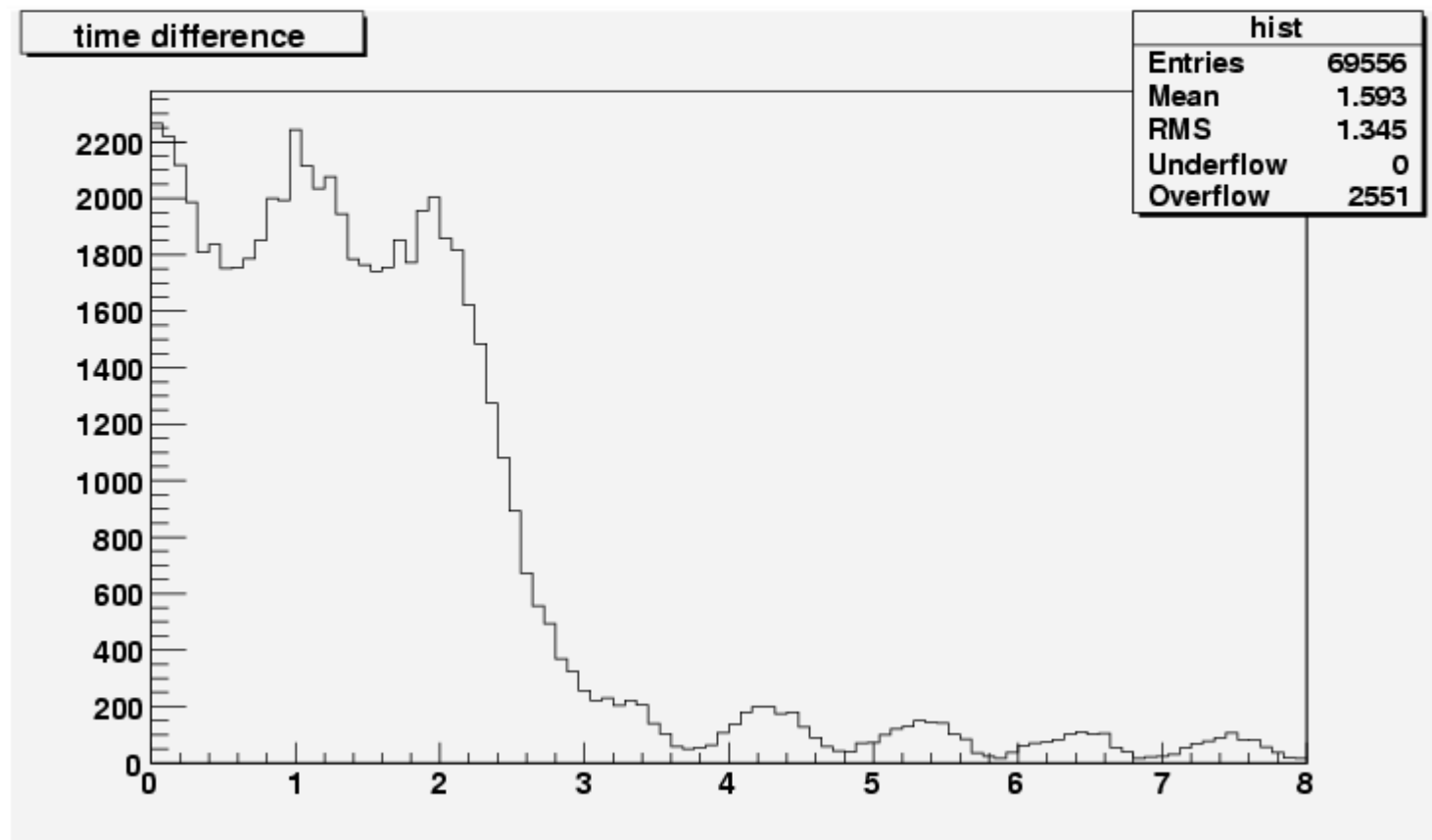
results from events before timing issues begin



after changing decoder.C



after changing decoder.C



after changing decoder.C

