Look Closely Studies

Pelle

Outline

Trigger timing

SVT Clock Phase

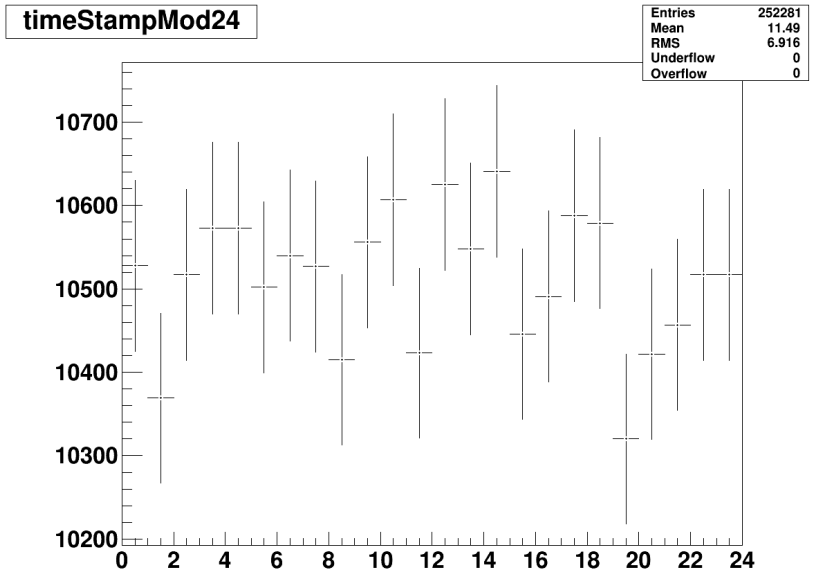
SVT Occupancy vs. time structure of triggers

Look at 5796 (next to last prod. Run at 0.5mm) here.

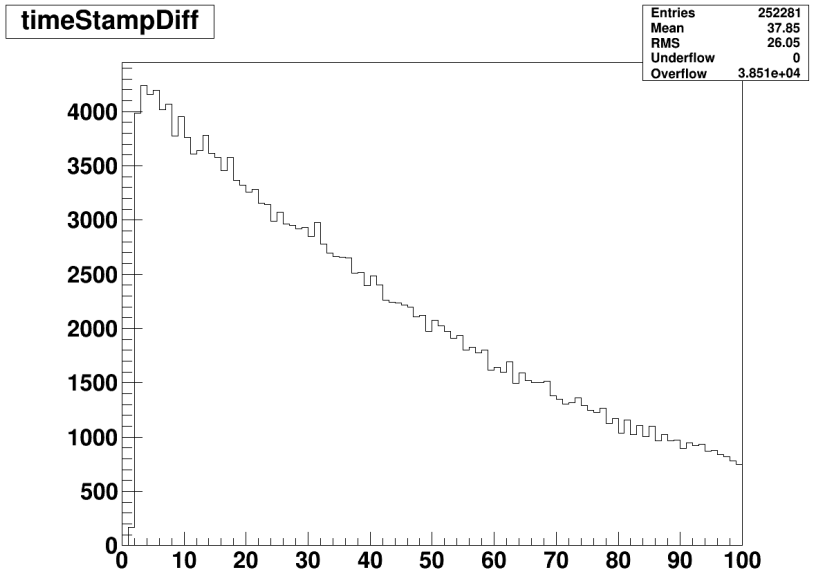
Others look similar (for the stuff I checked).

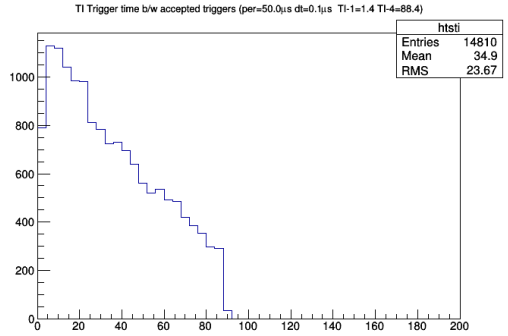
Trigger Timing

Uniform distribution of triggers in 1 APV clock cycle. Good.

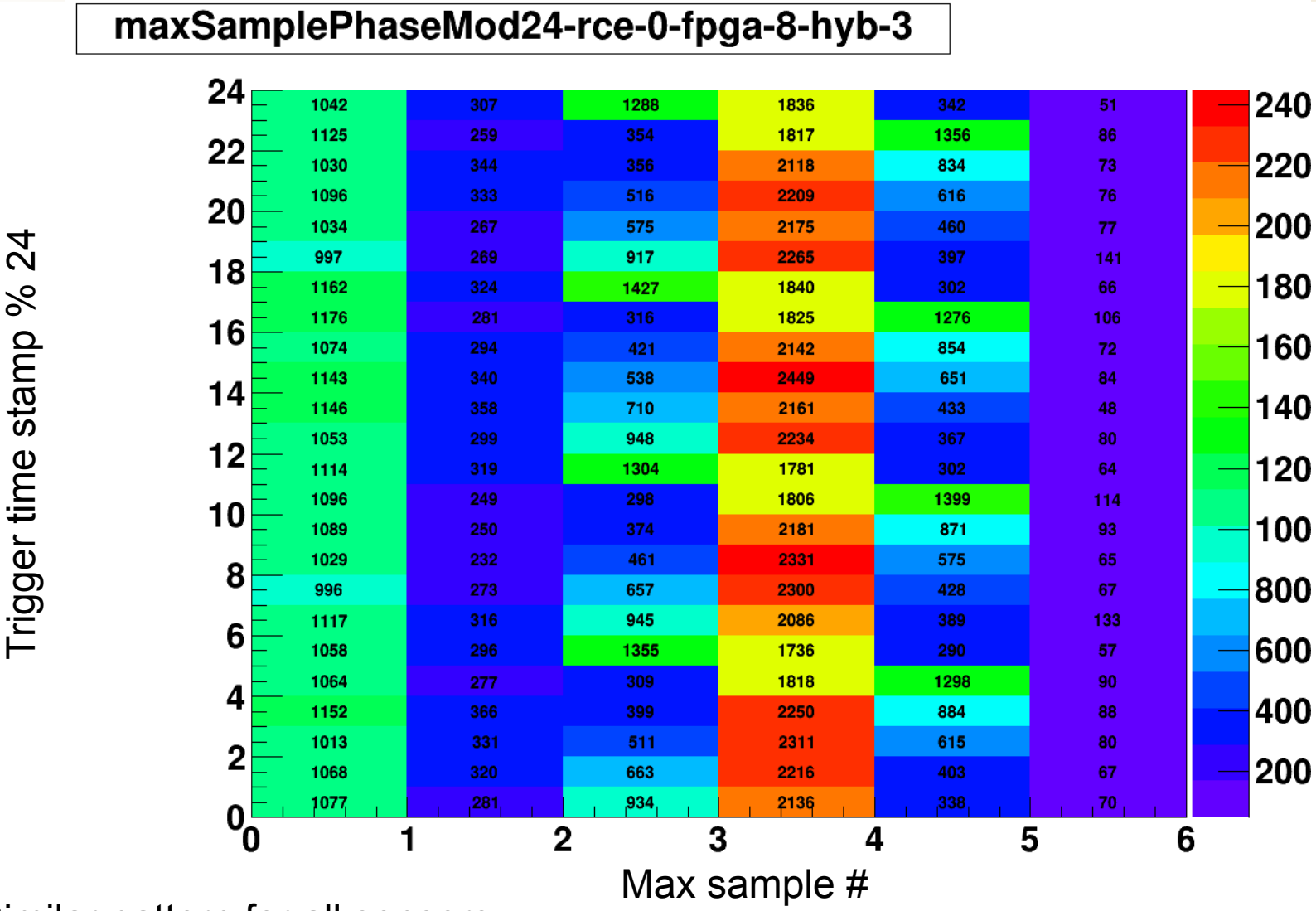


Time between triggers.





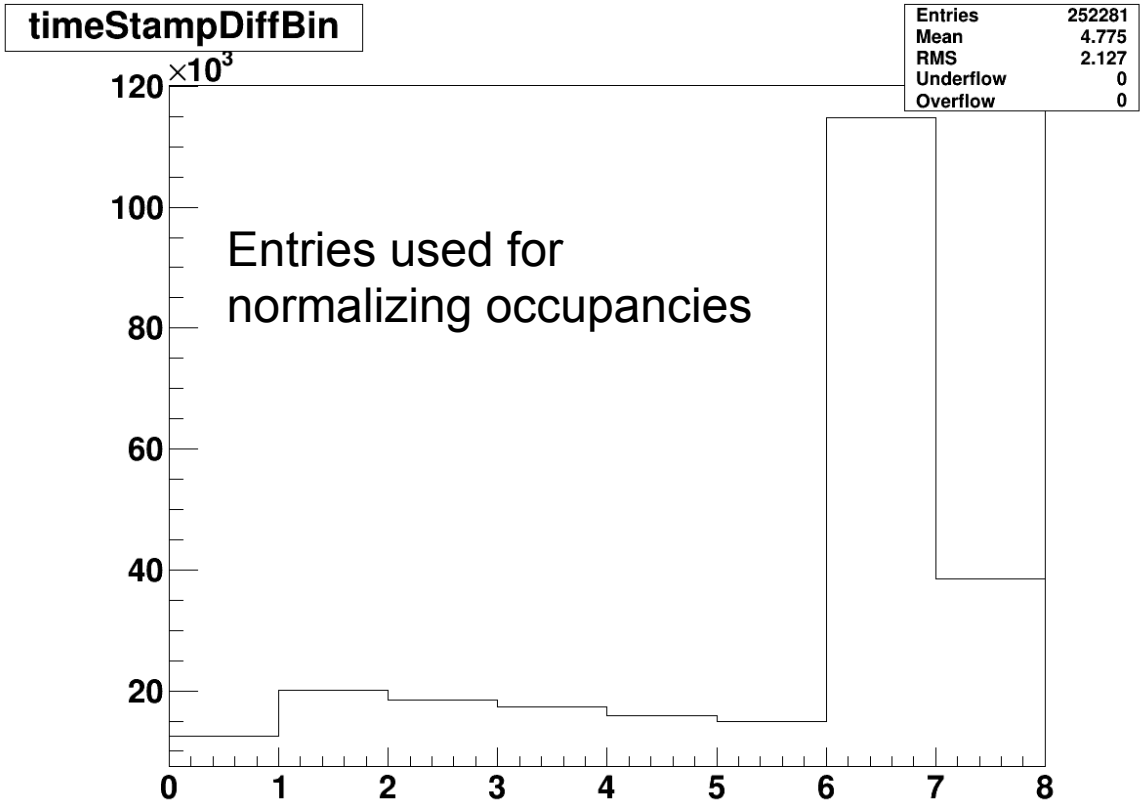
SVT Timing – Max Sample Phase Dependence



Similar pattern for all sensors

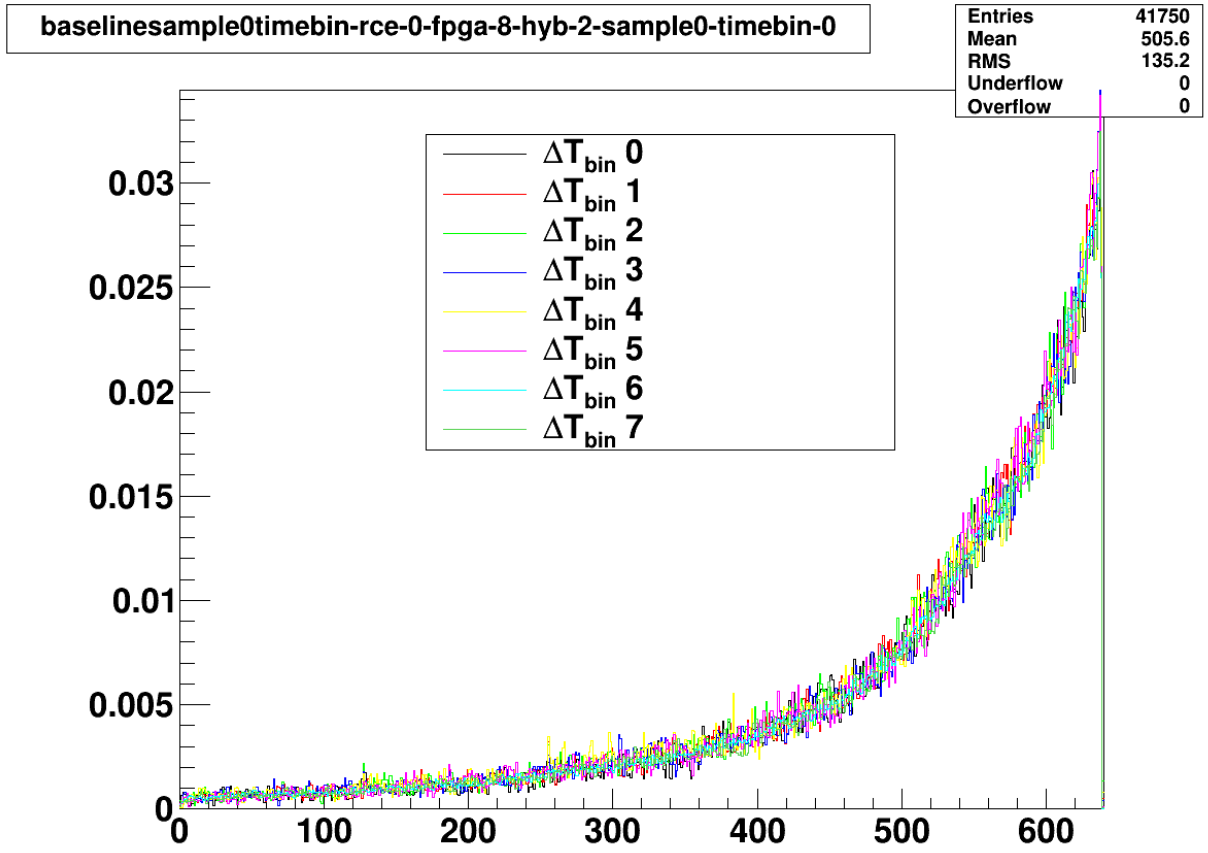
Delta Trigger Time

Time b/w triggers binning in the following is {0,5,10,15,20,25,30,100} in us



Occupancy

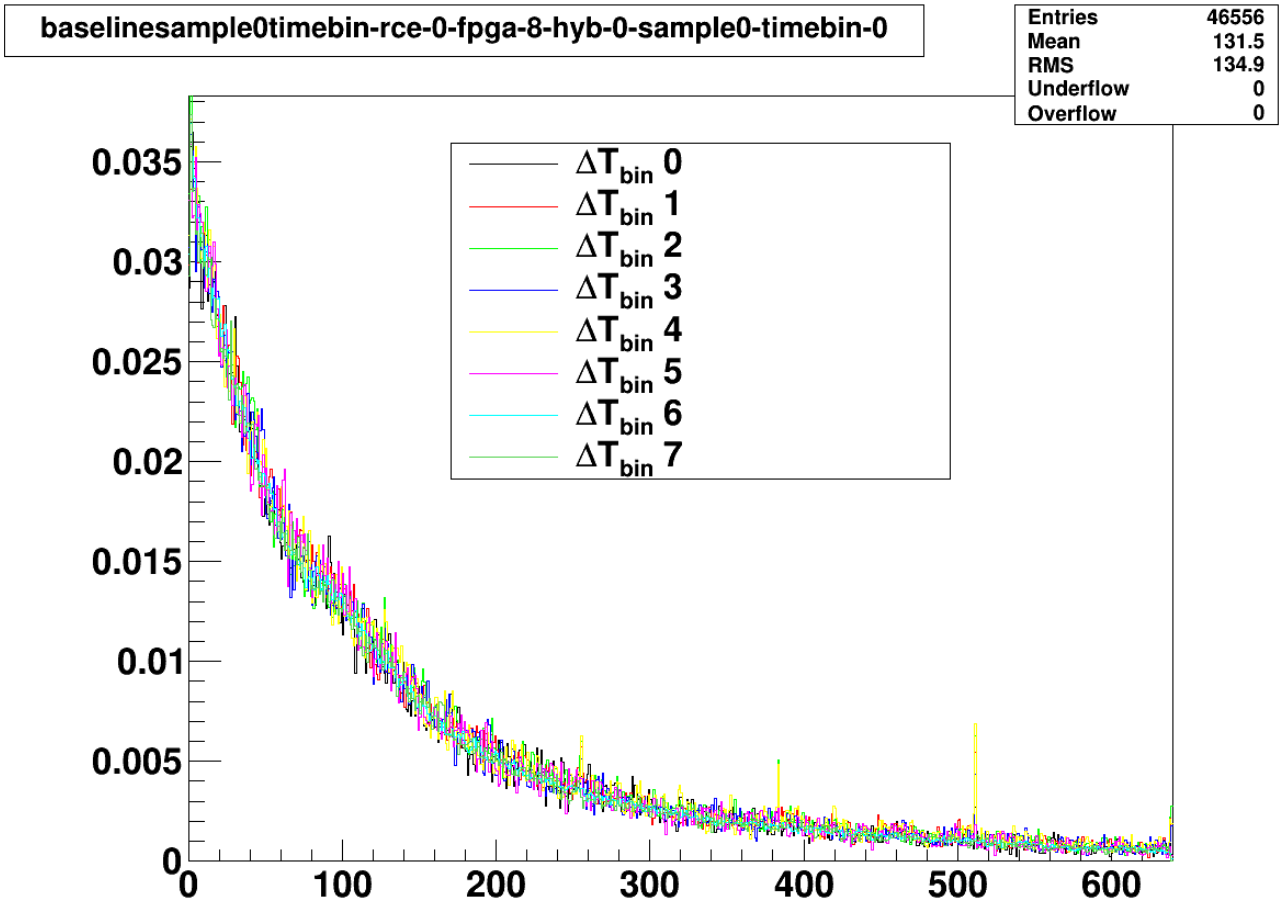
Good example



Occupancy

SLAC

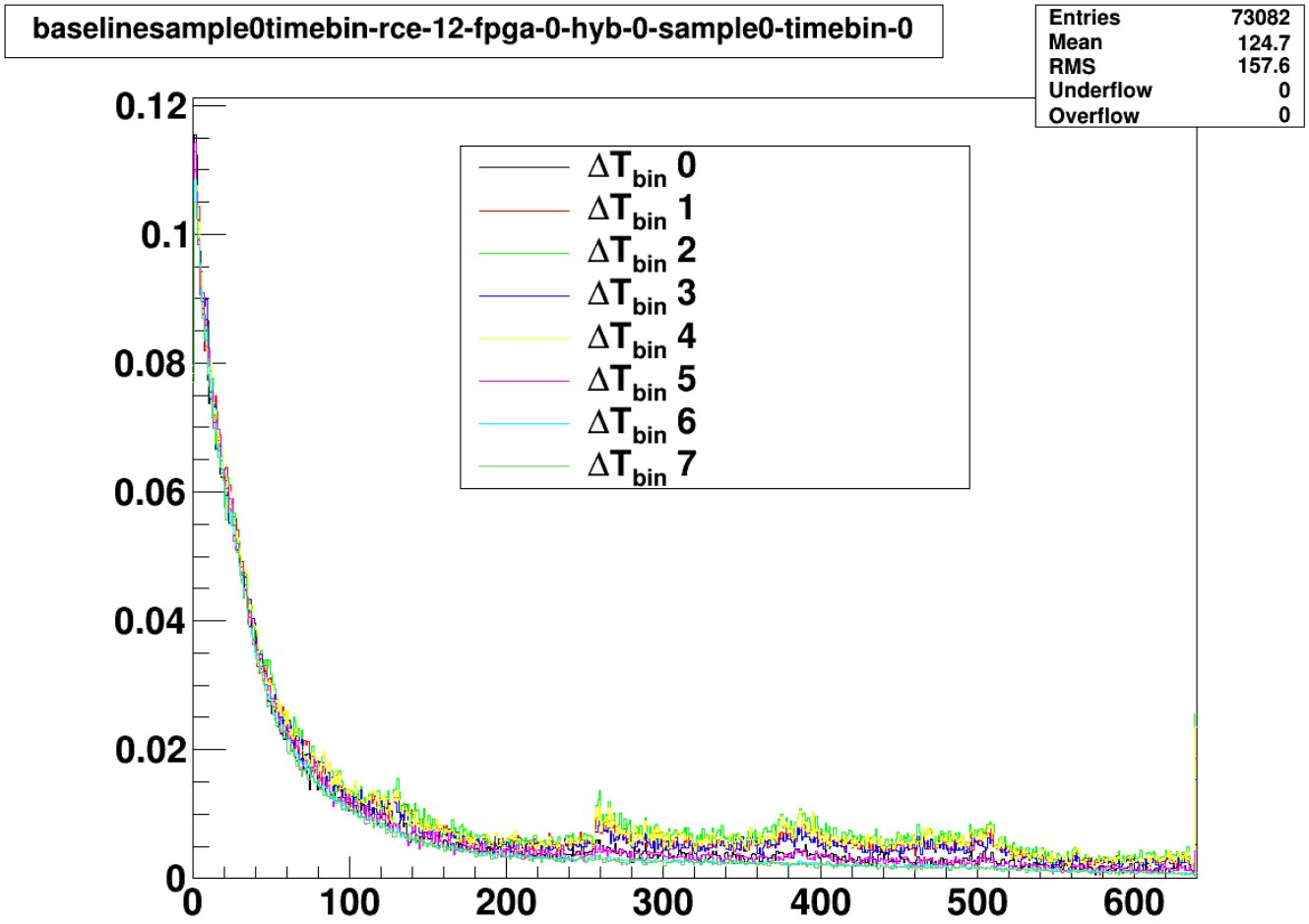
Pretty good example



Occupancy

SLAC

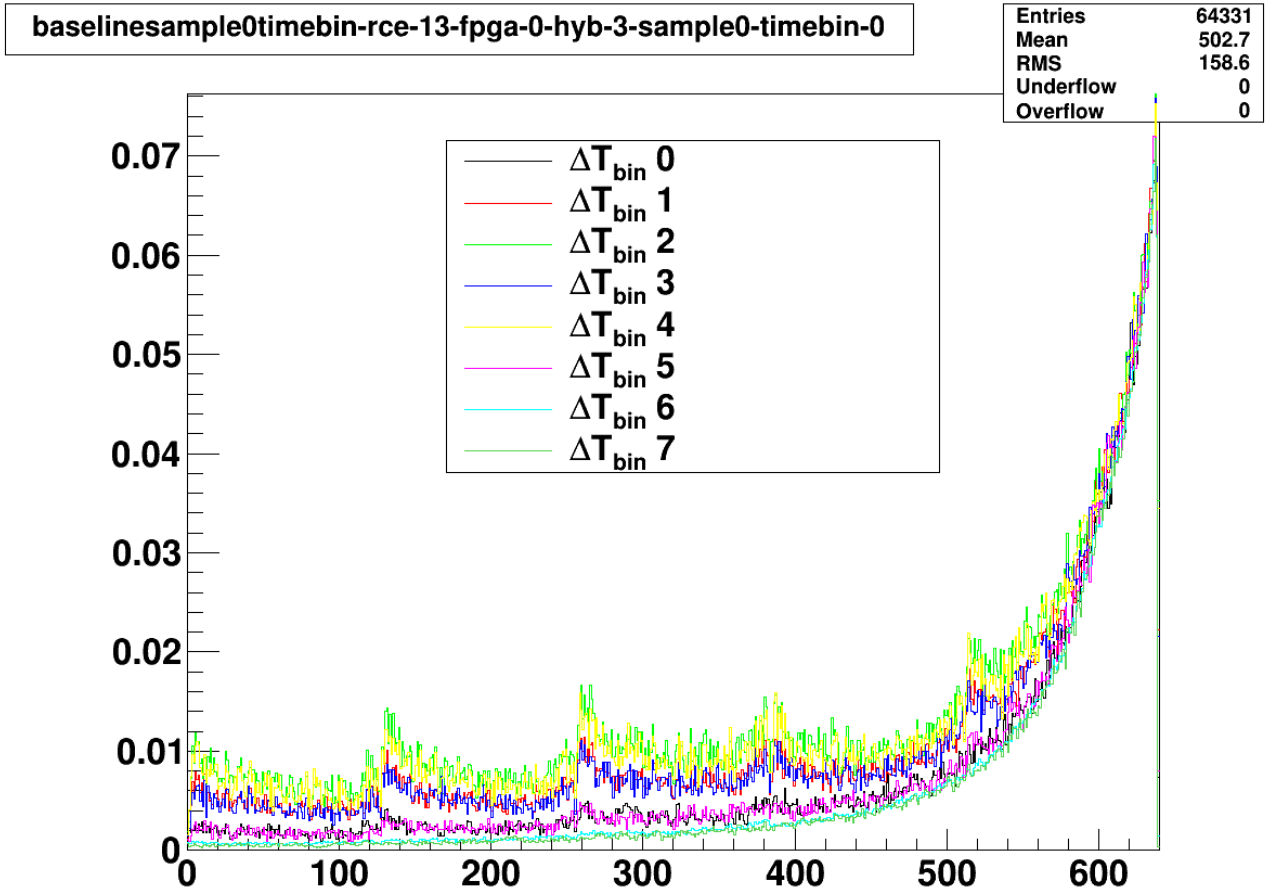
Worse example



Occupancy

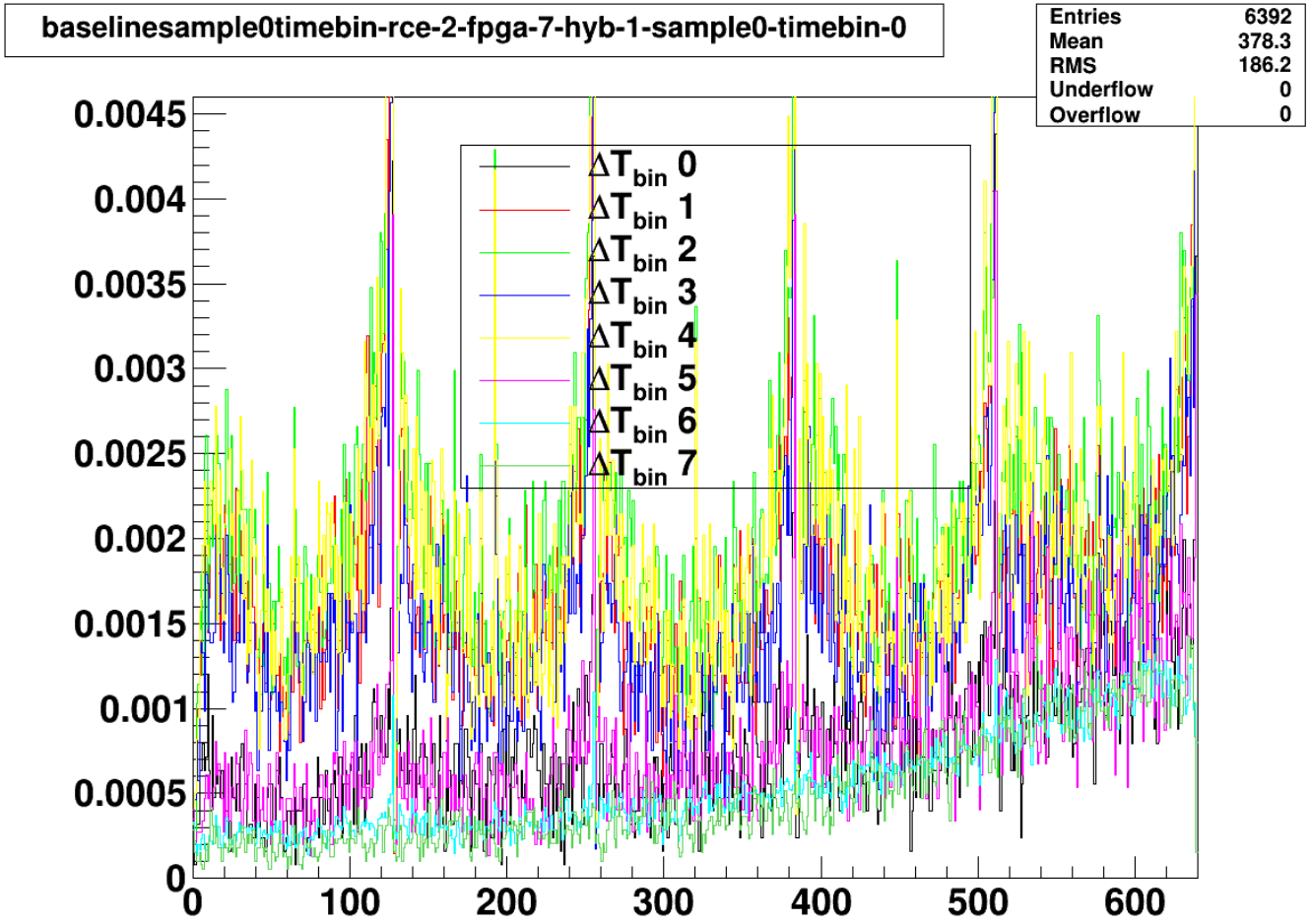
SLAC

Worse example



Occupancy

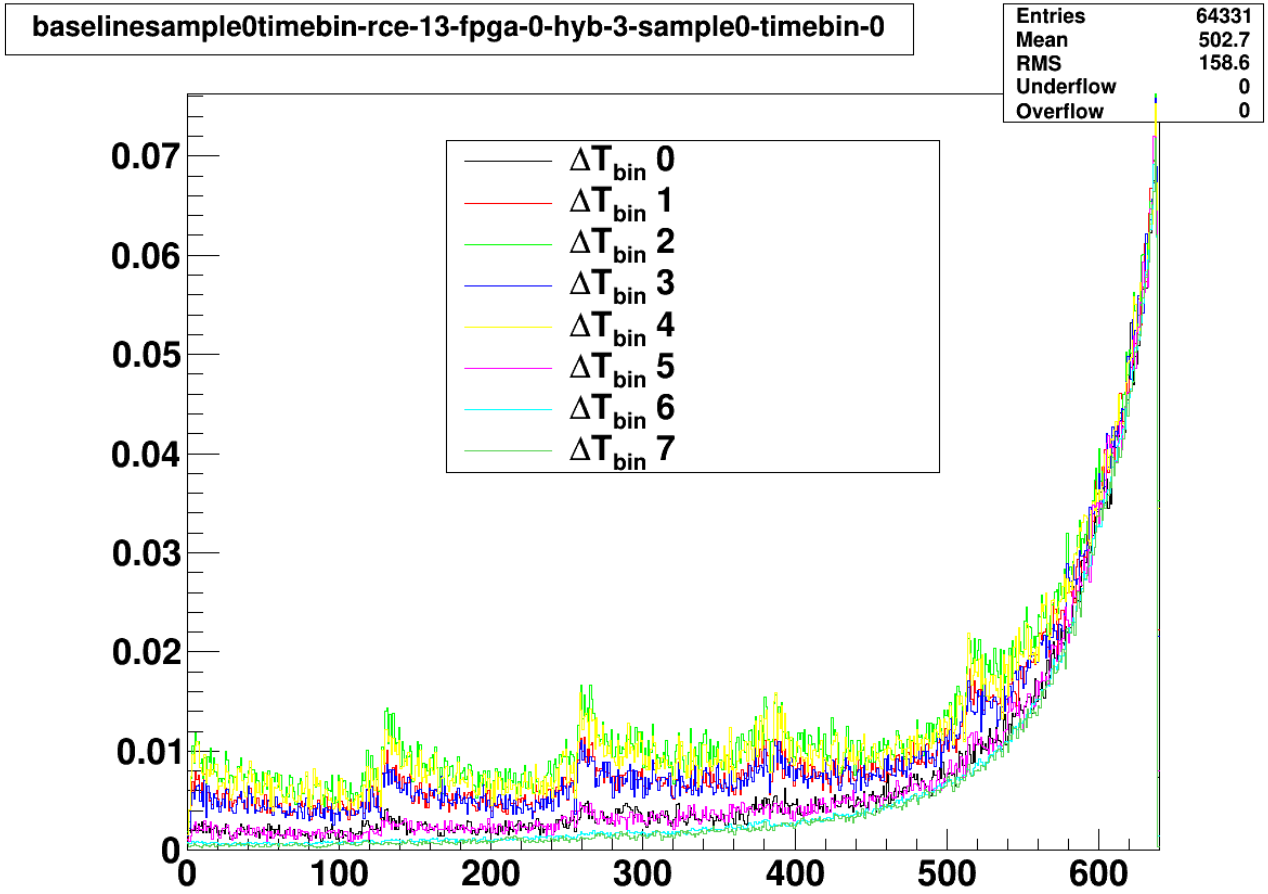
Worse example



Occupancy

SLAC

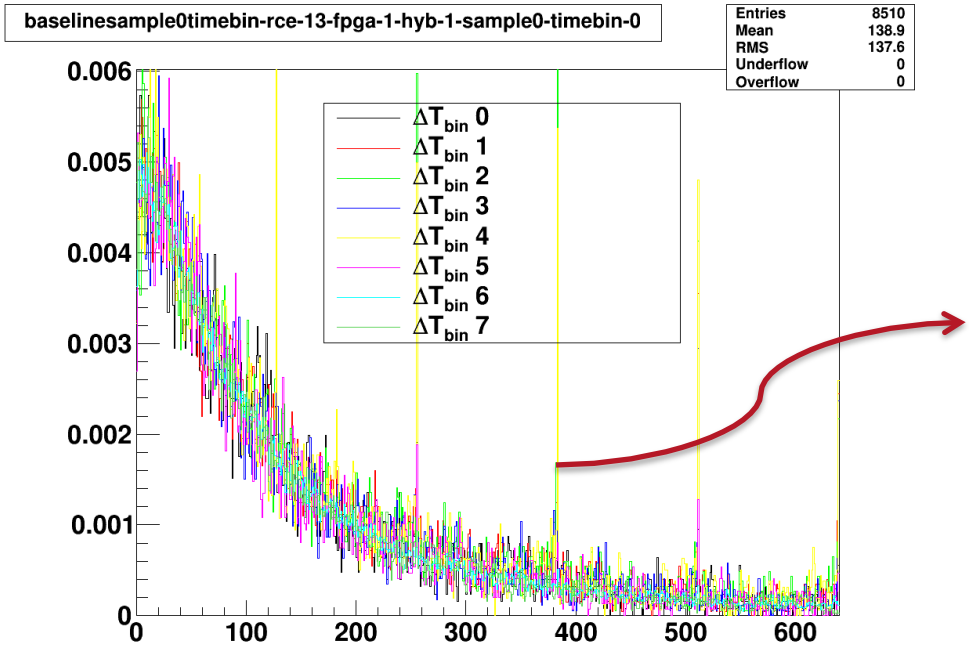
Worse example

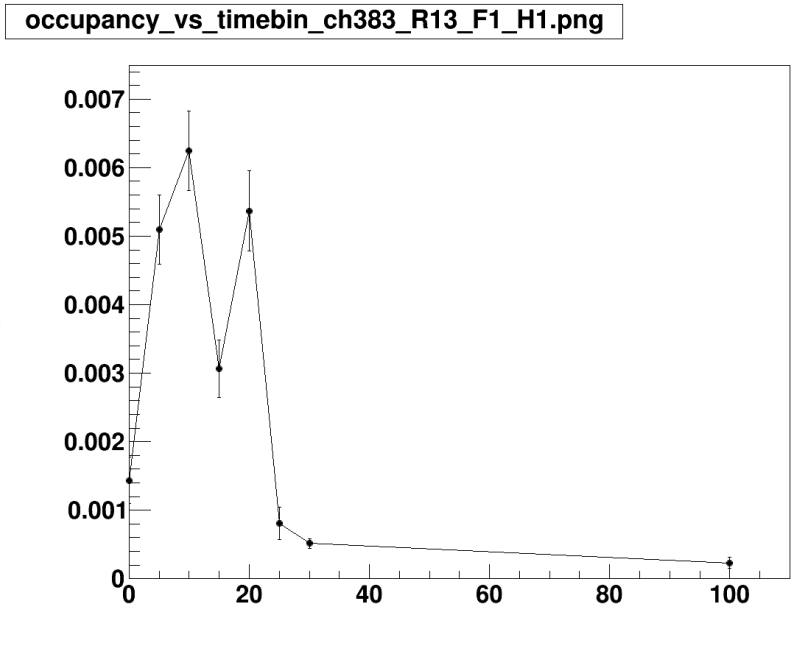


Delta Trigger Time Evolution of Occupancy

Look at channels with large occupancy changes

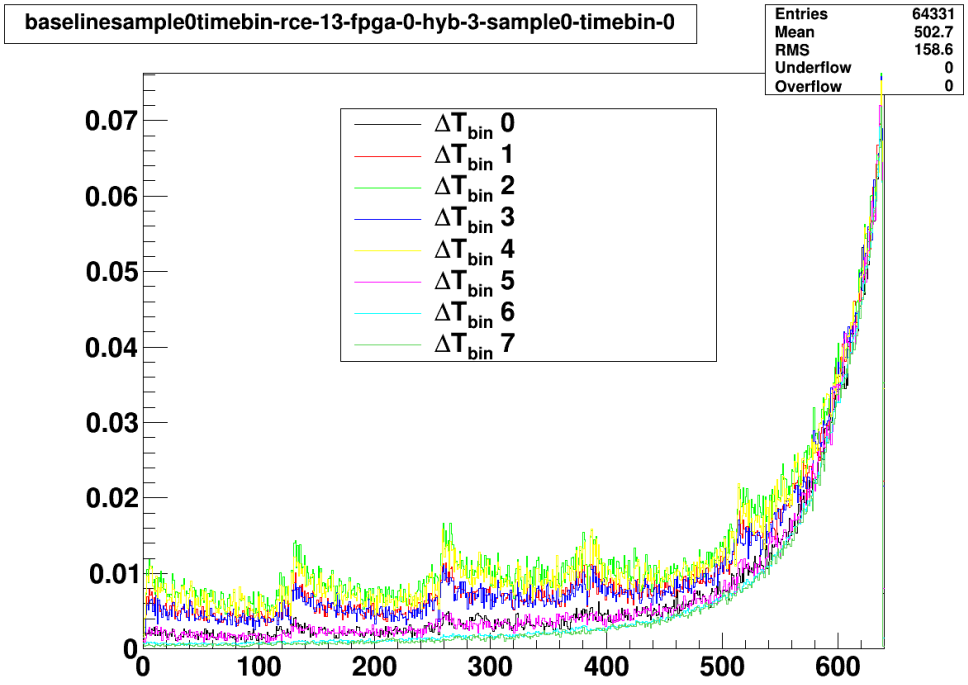
Plot as a function of time

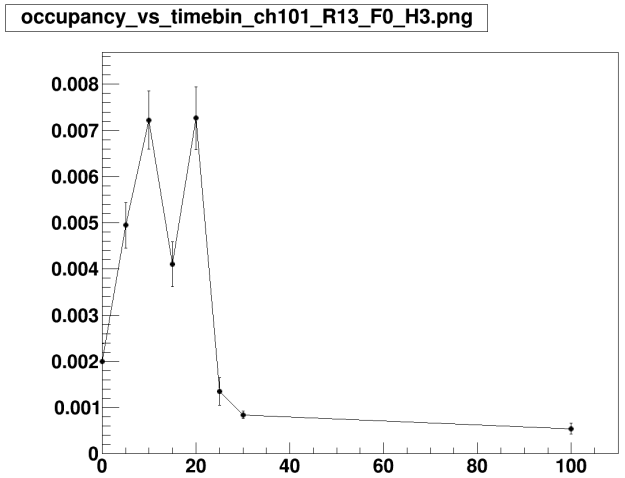


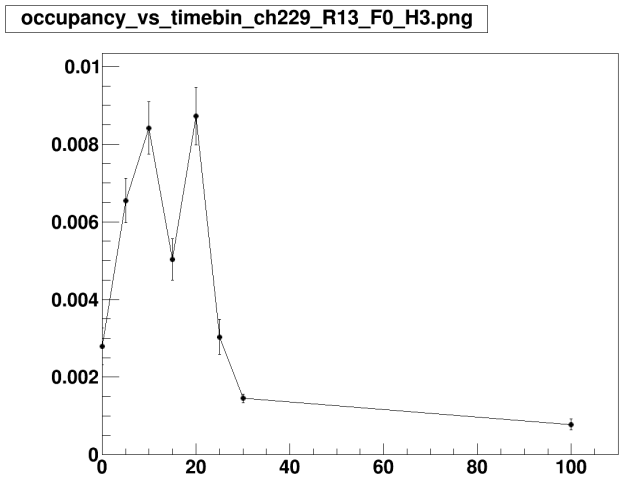


Delta Trigger Time Evolution of Occupancy

Ex. 170 channels with x10 occupancy difference depending on trigger delta time







This structure are seen on **ALL** sensors. >95% of channels that I looked at share this feature (others seem statistically consistent with it…)