

# TRIUMF nEXO SiPM Studies

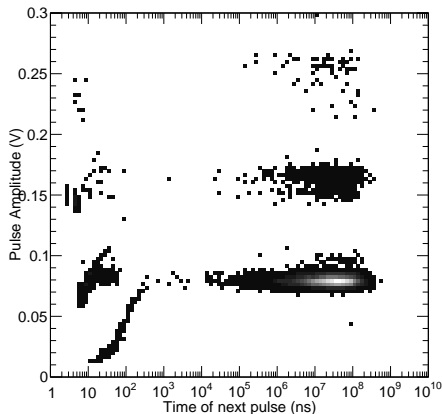
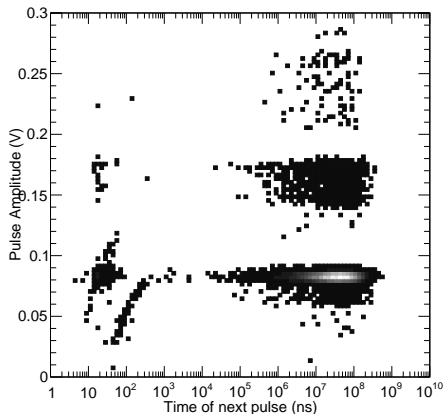


Fabrice Retière  
Carl Rethmeier  
Lloyd James  
Paul Lopes Gomes

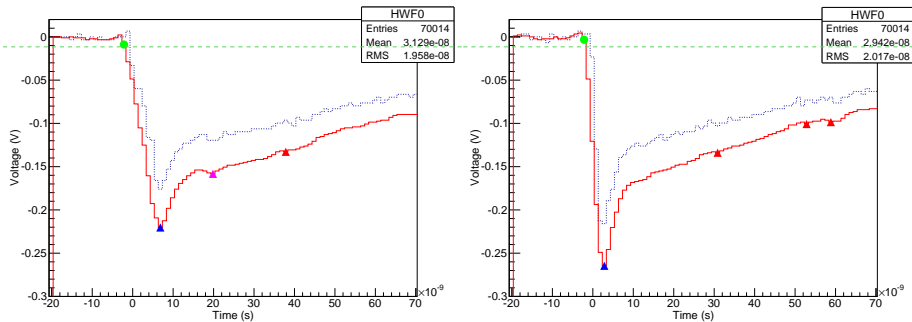


August 18, 2015

# Pulse Amplitude vs Time - VUV3



**Figure:** Amplitude of pulses against the time between the pulse and the previous pulse, before and after improvements to the pulse finder. No fitting involved.



**Figure:** At higher p.e., the amplitude bands are more spread out. These figures show this to be a result of inconsistent pulse shape.

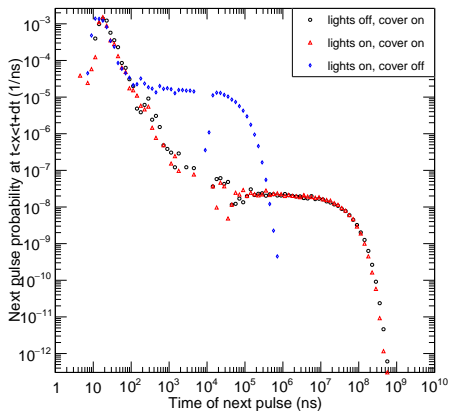


Figure: Delta-time distribution.

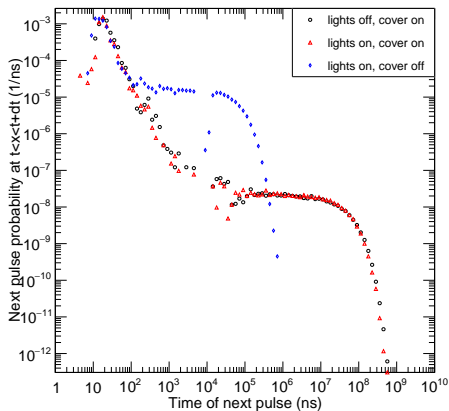


Figure: Delta-time distribution.

- To obtain a less noisy reference waveform, one SiPM was replaced with a Hamamatsu PMT.
- It was seen that the collimators were the source of the  $\langle PE \rangle$  measurement instability, by exacerbating any small misalignment, and were removed.

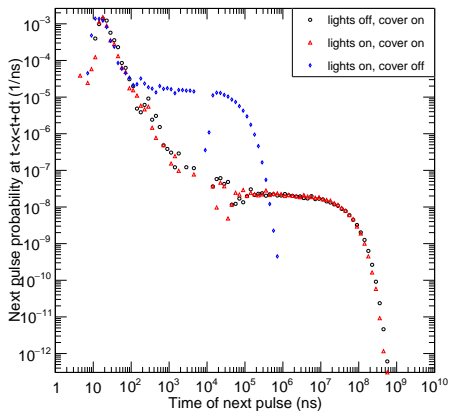


Figure: Delta-time distribution.