

TRIUMF nEXO SiPM Studies



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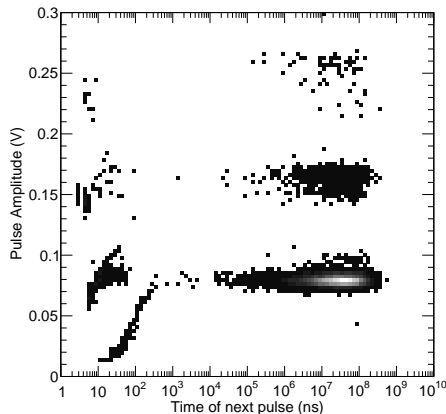
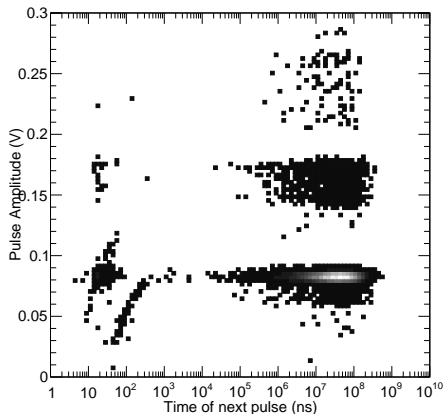


Figure : Amplitude of pulses against the time between the pulse and the previous pulse, before and after improvements to the pulse finder. No fitting involved.

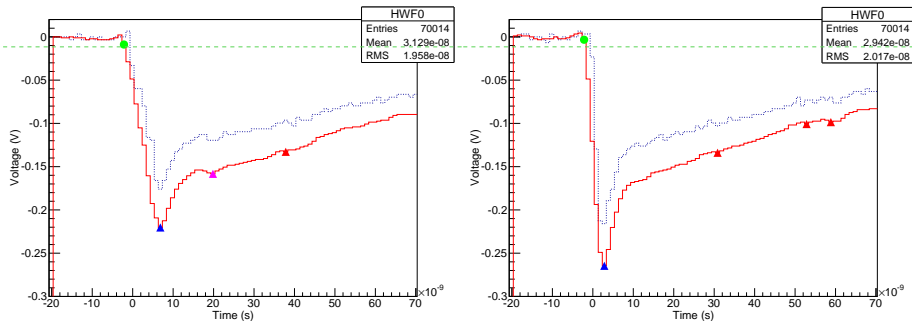


Figure : At higher p.e., the amplitude bands are more spread out. These figures show this to be a result of inconsistent pulse shape.

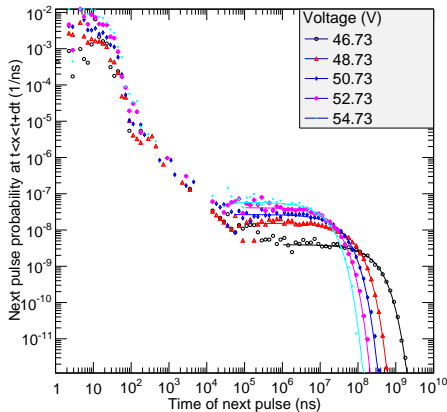


Figure : Delta-time distribution for VUV3 at -100C at several operating voltages.

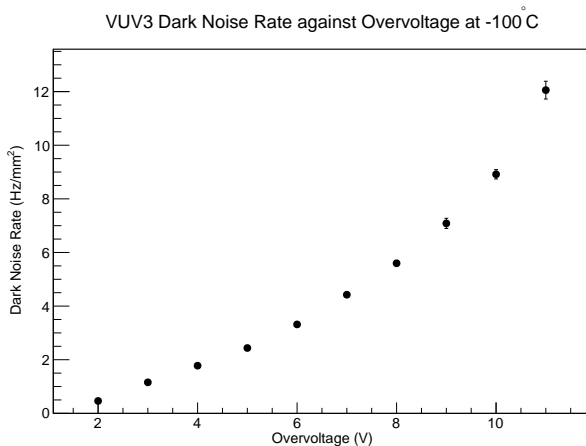


Figure : Dark noise rate against operating voltage for VUV3 at -100°C . Extracted from fit to delta-time distribution.

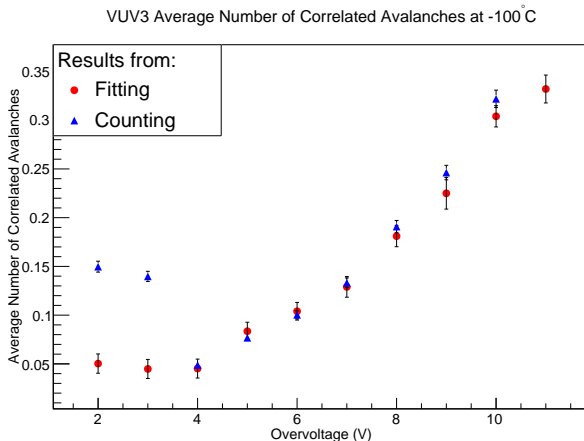


Figure : Average number of afterpulses against operating voltage for VUV3 at -100C. Both values extracted from fit to delta-time distribution and counted directly.

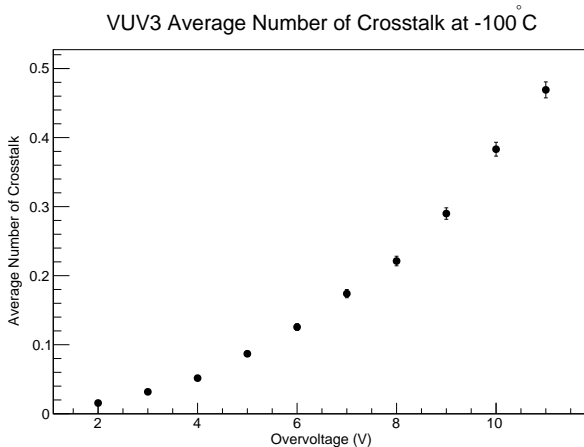


Figure : Average number of crosstalk against operating voltage for VUV3 at -100C. Calculated from counting process.

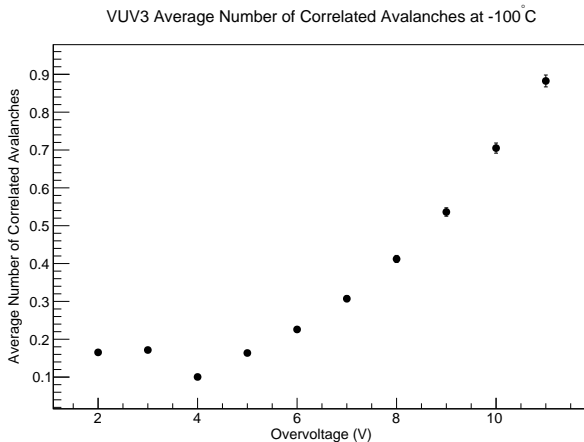


Figure : Average number of correlated avalanches against operating voltage for VUV3 at -100°C . Sum of counted afterpulsing and crosstalk values

- When the collimators were removed, the anticorrelation in jPE_j was gone
- To test if the UV filters had an impact, they were removed but the previous anticorrelation was still evident

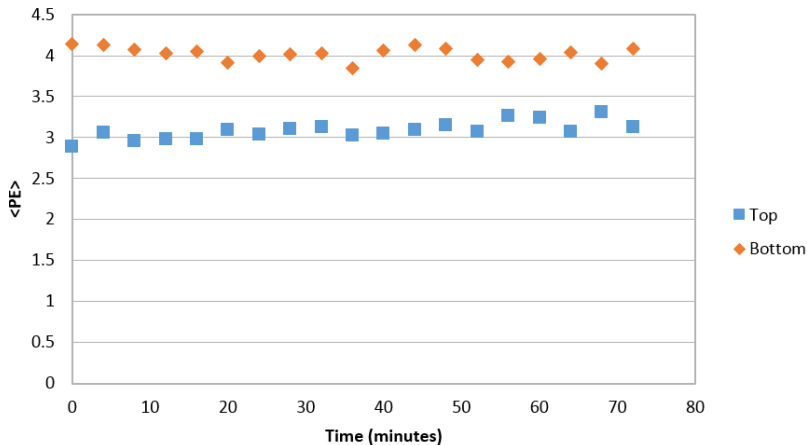


Figure : PE measurement over time for VUV3