

# Accuracy of $Q_{VEM}^{pk}$ fit for UB and UUB

Mauricio Suárez Durán and Ioana C. Mariş

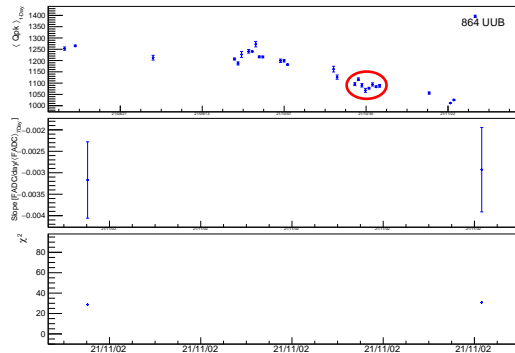
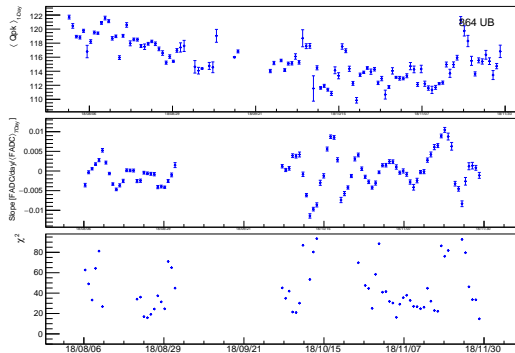
IIHE-ULB

February 9, 2022



# Cross Check: $Q_{VEM}^{pk}$ , slope/ $\langle FADC \rangle$ , $\chi^2$ as function of time

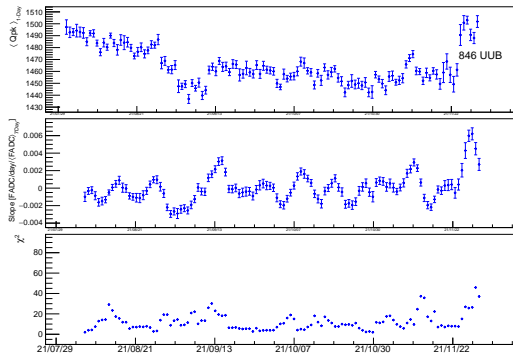
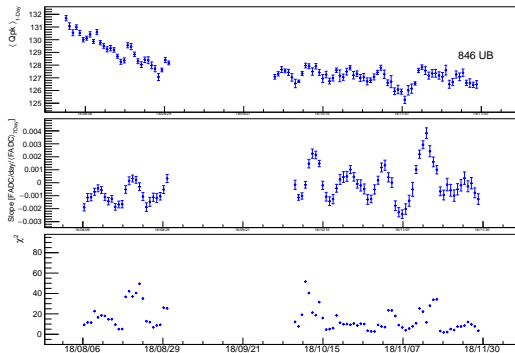
## PMT1



The moving window is over 7-days in a row. For UUB, red circle enclose the only 8-days in a row available for fir, i.e. only two fits.

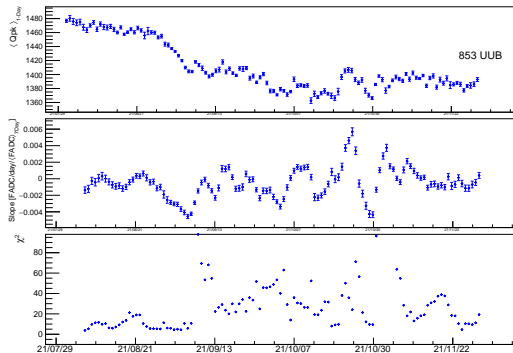
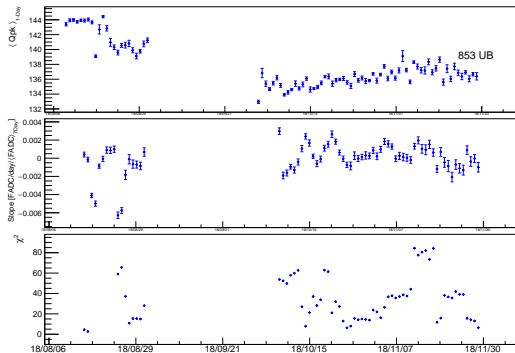
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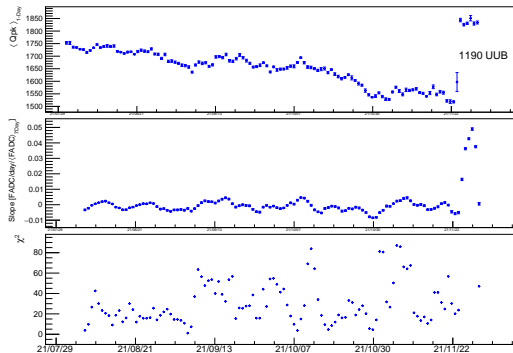
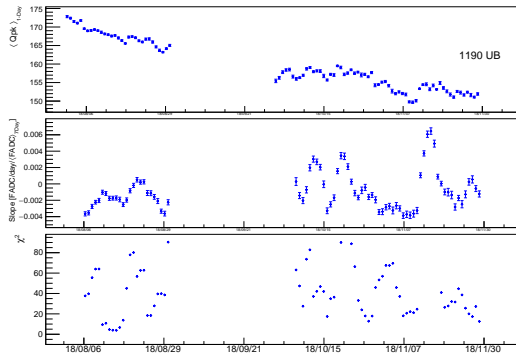
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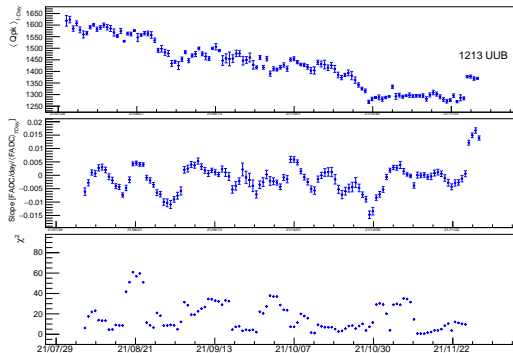
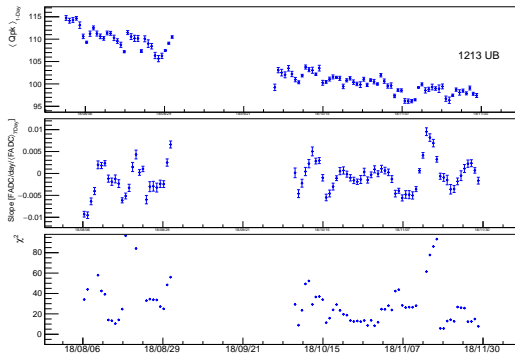
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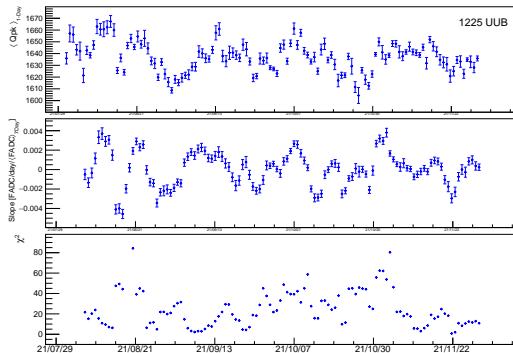
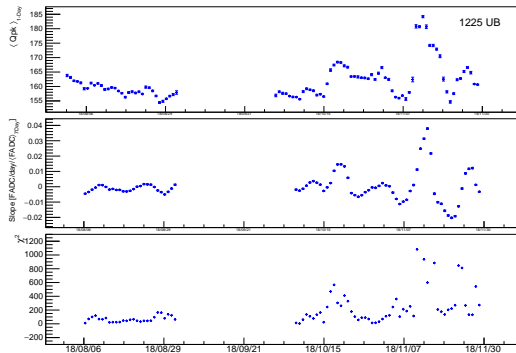
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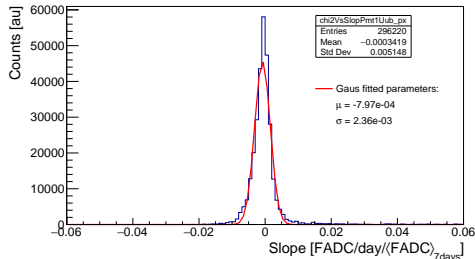
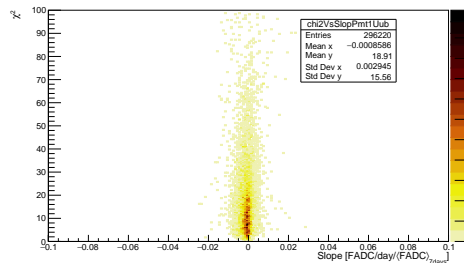
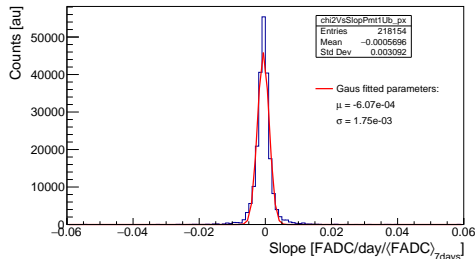
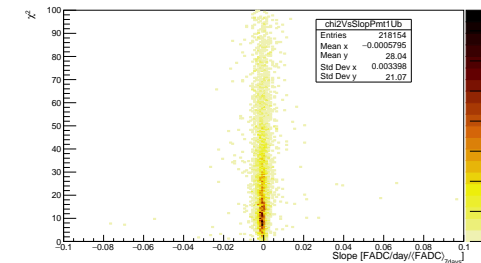


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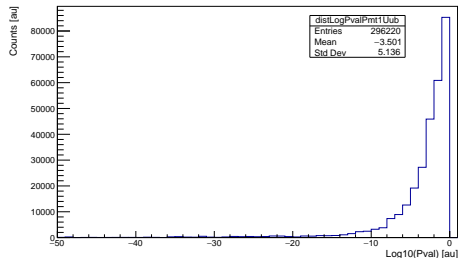
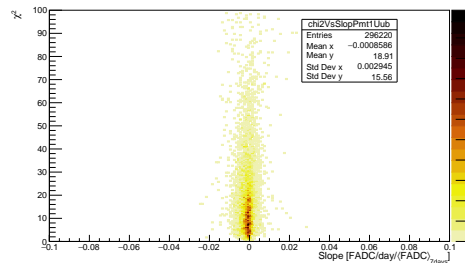
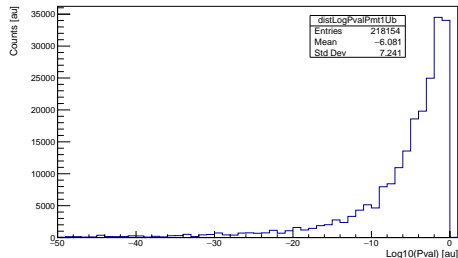
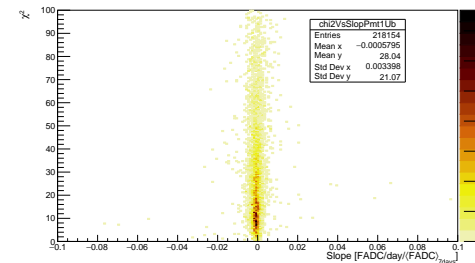
# Moving window algorithm results



Fits with slope between  $\mu \pm \sigma$  were considered.

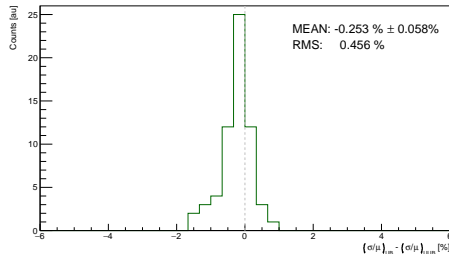
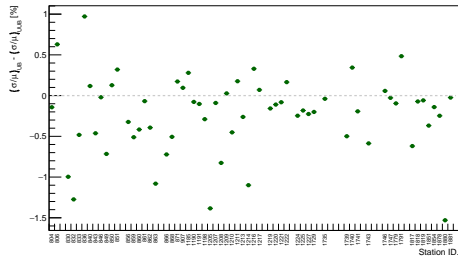
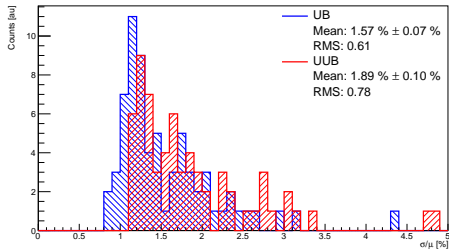
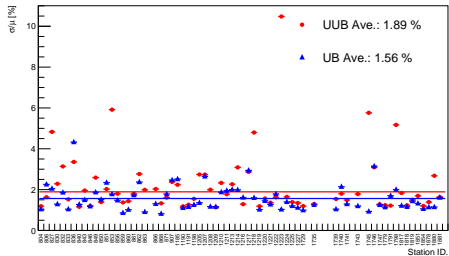


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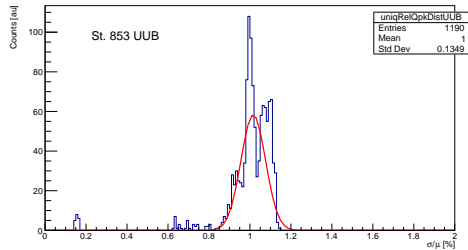
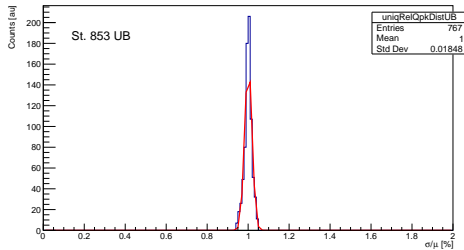
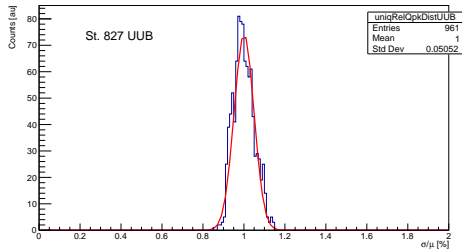
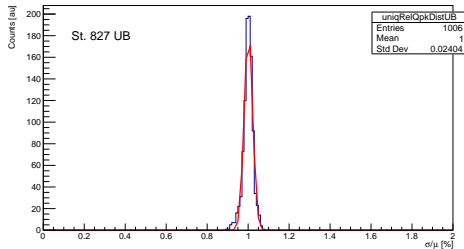
Fits with  $\log_{10}(Pval) > -10$  were considered.

# Accuracy results

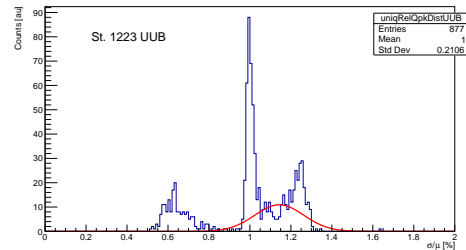
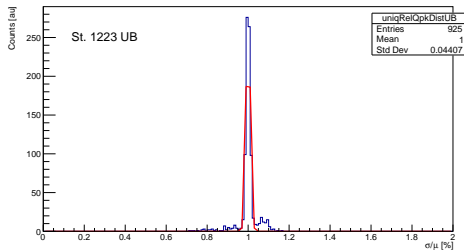
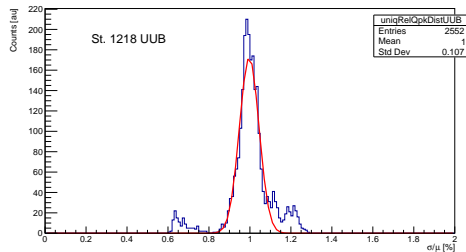
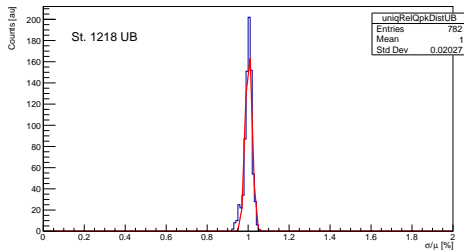


For accuracy distribution, only  $\sigma/\mu < 5.0$  considered. For difference,  $(\sigma/\mu)_{UB} - (\sigma/\mu)_{UUB} > -2.0$ .

Outliers,  $(\sigma/\mu)_{\text{UB}} - (\sigma/\mu)_{\text{UUB}} > -2.0\%$



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