

# Comparison results for Offline's Fitting algorithm vs Katarina's Fitting algorithm

Mauricio Suárez Durán and Ioana C. Mariş

IIHE-ULB

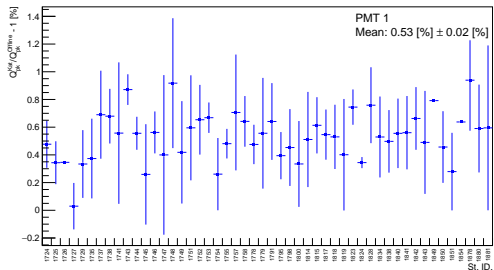
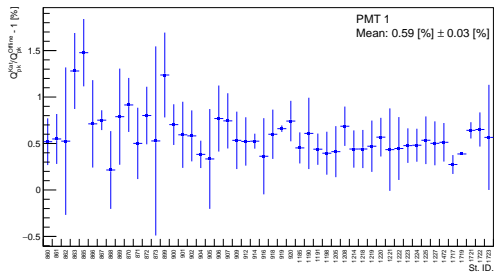
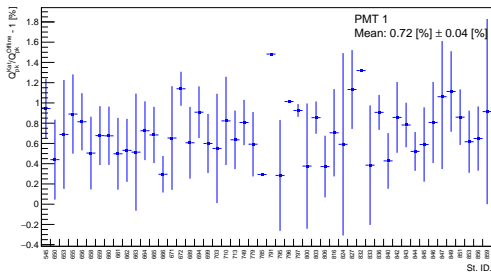
August 16, 2022



## Algorithms:

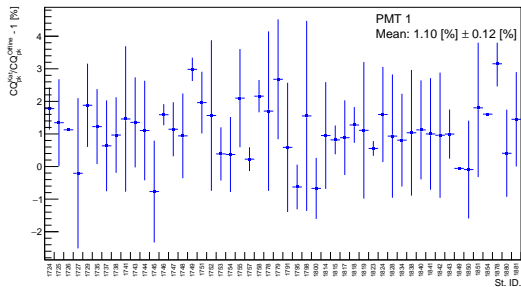
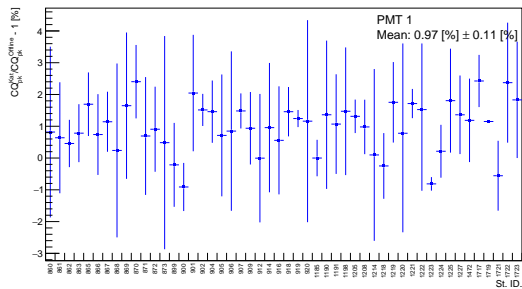
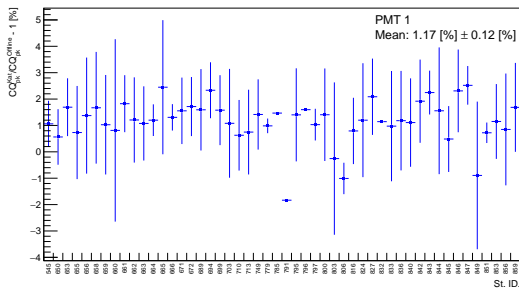
- ▶ Katarina ( $Q_{\text{pk}}^{\text{Kat}}$ ): Least squares implemented in `scipy.optimize.curve_fit` in python:  
 $f(Q) = aQ^2 + bQ + c$
- ▶ Offline ( $Q_{\text{pk}}^{\text{Offline}}$ ): SdHistogramFitterKG.cc writing by Alexander Streich and Allan Payeras.

# Comparison between $Q_{pk}^{Kat}$ and $Q_{pk}^{Offline}$

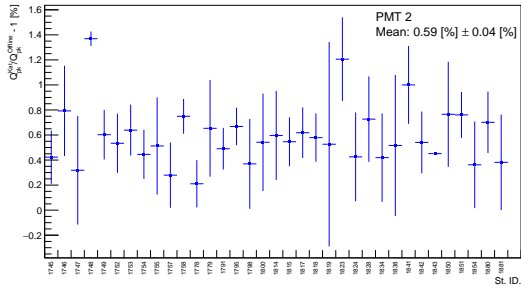
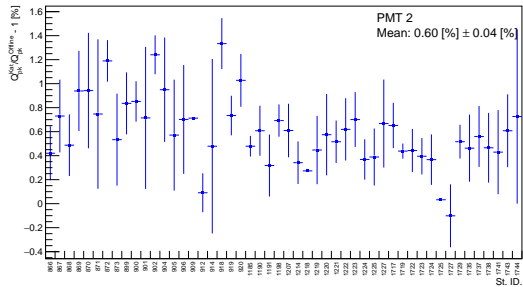
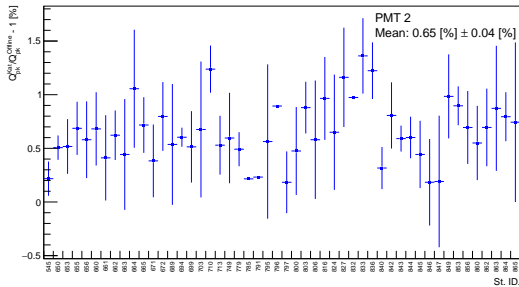


An average, 8 entries per bin

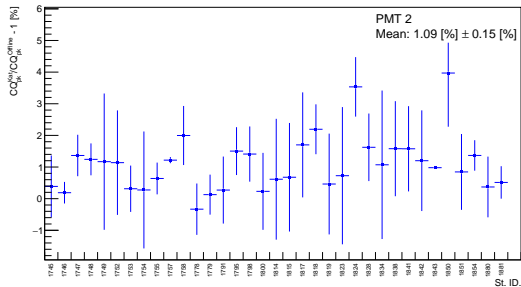
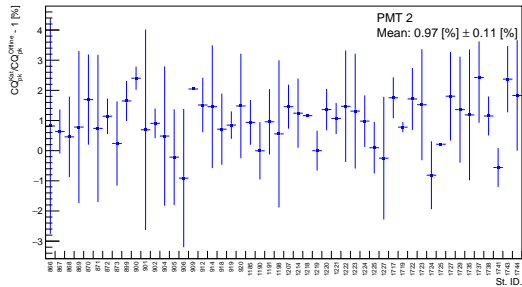
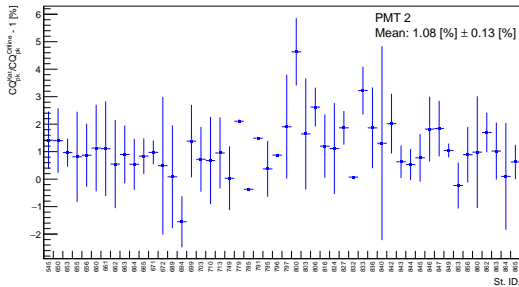
# Comparison between $CQ_{pk}^{Kat}$ and $CQ_{pk}^{Offline}$



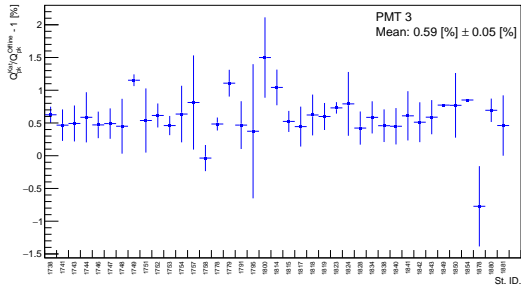
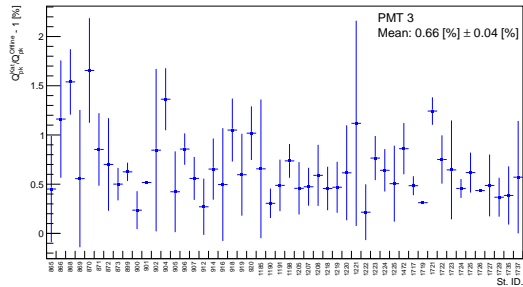
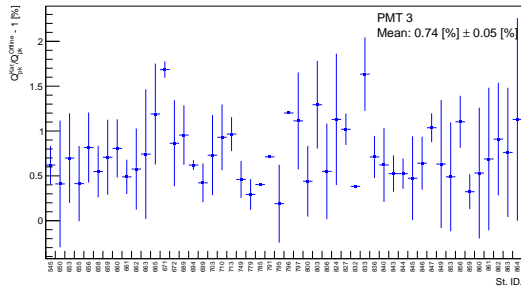
# Comparison between $Q_{pk}^{Kat}$ and $Q_{pk}^{Offline}$



# Comparison between $CQ_{pk}^{Kat}$ and $CQ_{pk}^{Offline}$

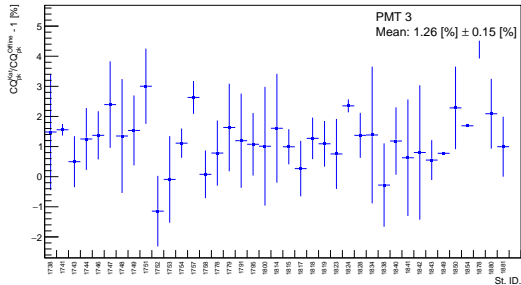
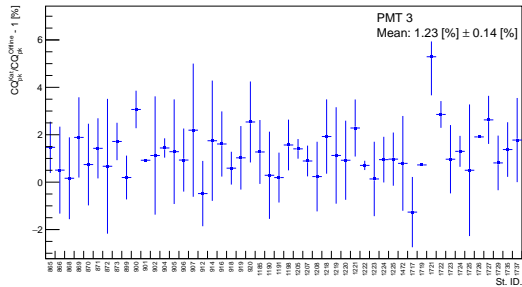
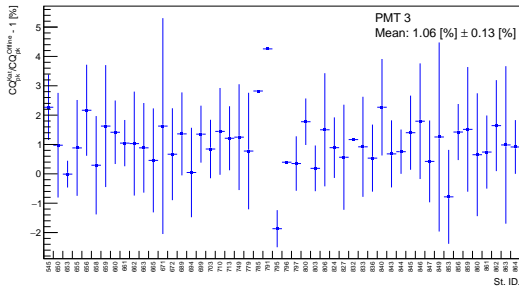


# Comparison between $Q_{pk}^{Kat}$ and $Q_{pk}^{Offline}$



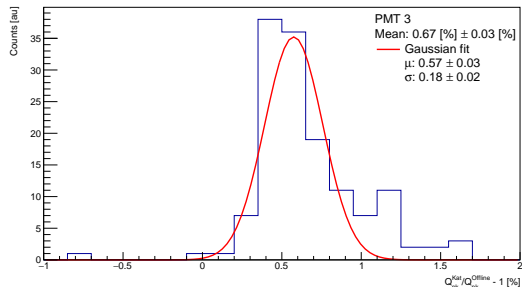
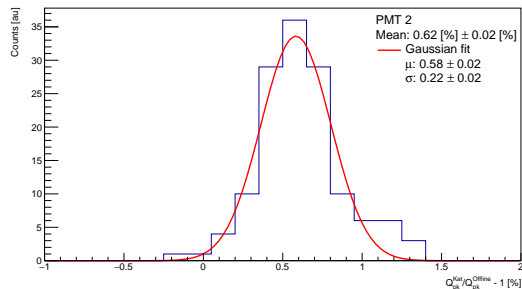
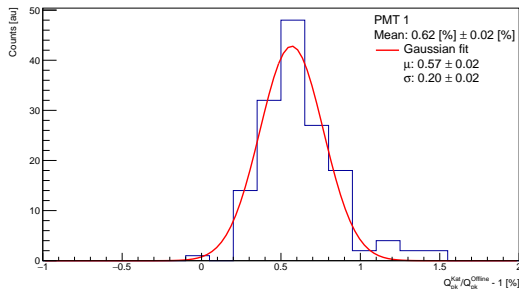
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# Comparison between $CQ_{pk}^{Kat}$ and $CQ_{pk}^{Offline}$





# Distribution for $Q_{pk}^{Kat}$ Vs $Q_{pk}^{Offline}$



# Distribution for $CQ_{pk}^{Kat}$ Vs $CQ_{pk}^{Offline}$

