

WEEKLY ANALYSIS UPDATE

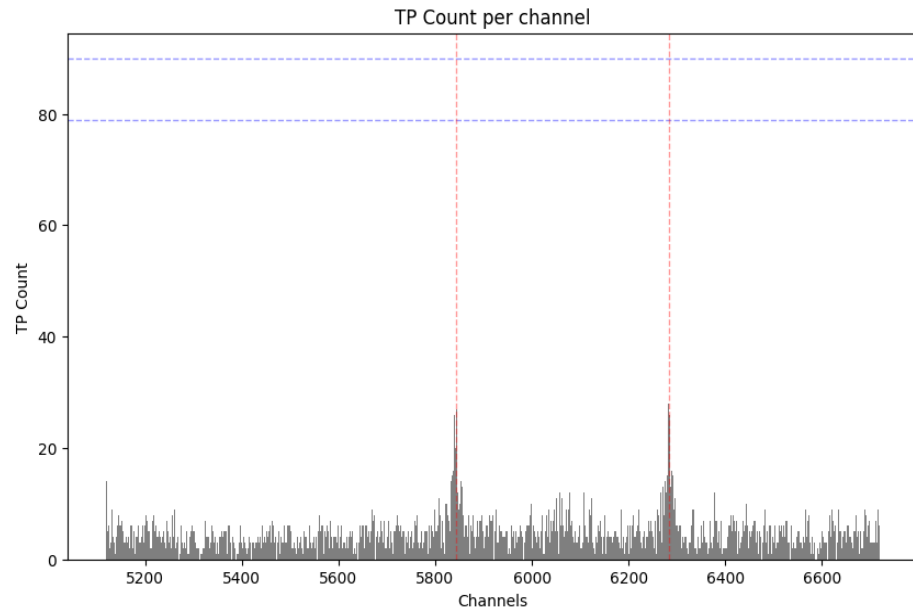
19 July 2024

Samikshya Kar

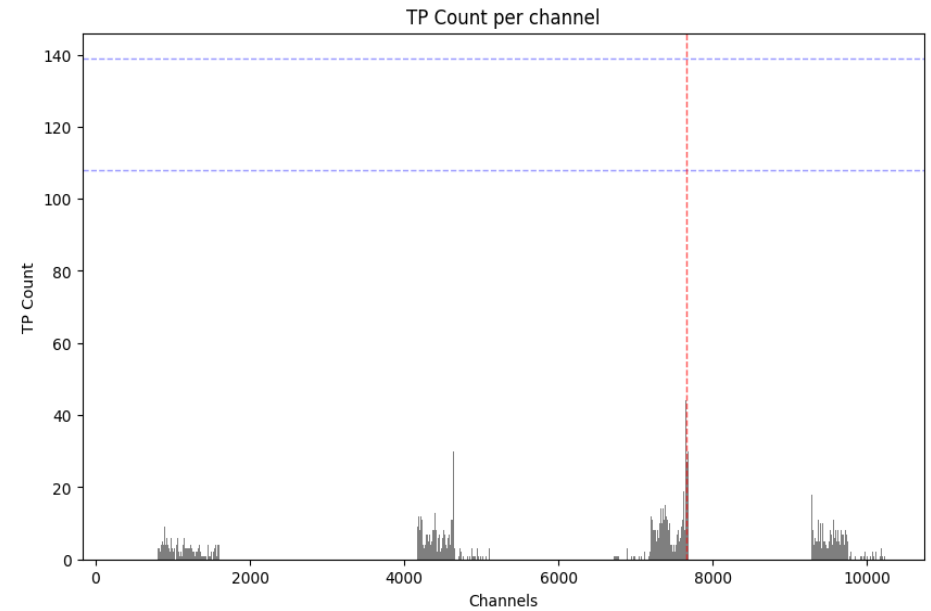
Steps for Bismuth Physics

- Starting with raw data for APA 2 induction channels
- Why? Because:
 - For run **026482**:
 - APA 2, 3, 4: Induction planes: ST 5000, Collection plane: ST 250
 - APA 1: U plane and Collection plane: ST 5000, V plane: ST 300
- 1D Histogram of **unclustered** TP Counts per channel
 - For induction plane: emulated TPs with Std RS with $R=0.8$ and hit finding threshold = 150
 - For collection plane: TPs from TR with simple threshold = 250
- ADC integral histogram of the TPs that are in the channel of increased activity
- Conversion of ADC integral to Energy and the 1D energy plot ([needs further work](#))
- Matching the TPs from all 3 planes (done by Dennis)
- Histograms (charge and energy) from ADC integral between all 3 plane

TP Count per channel

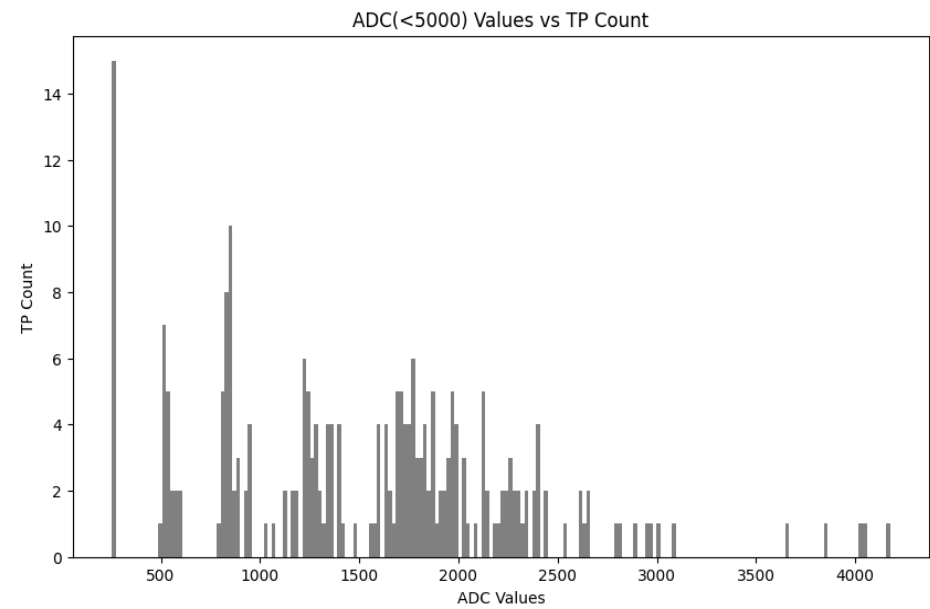
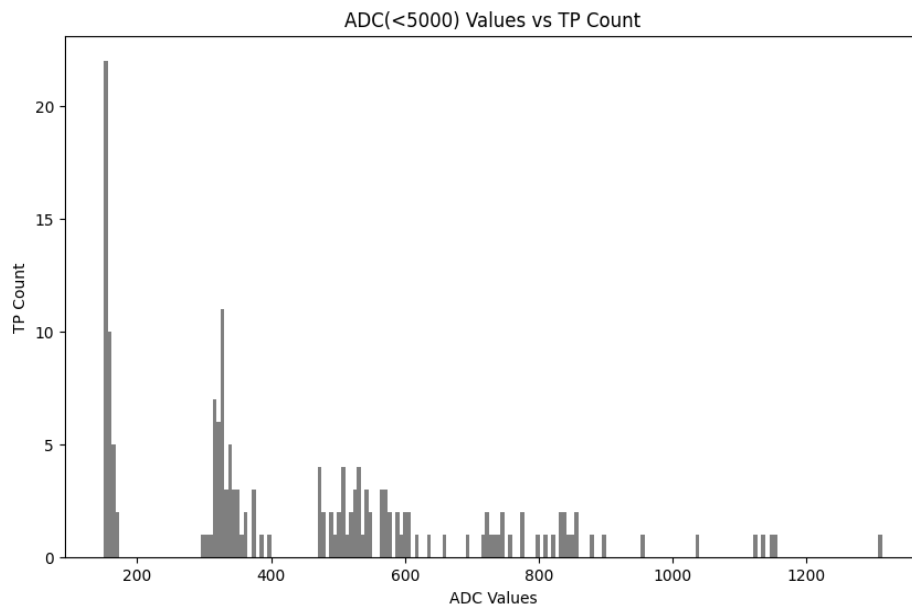


Induction plane

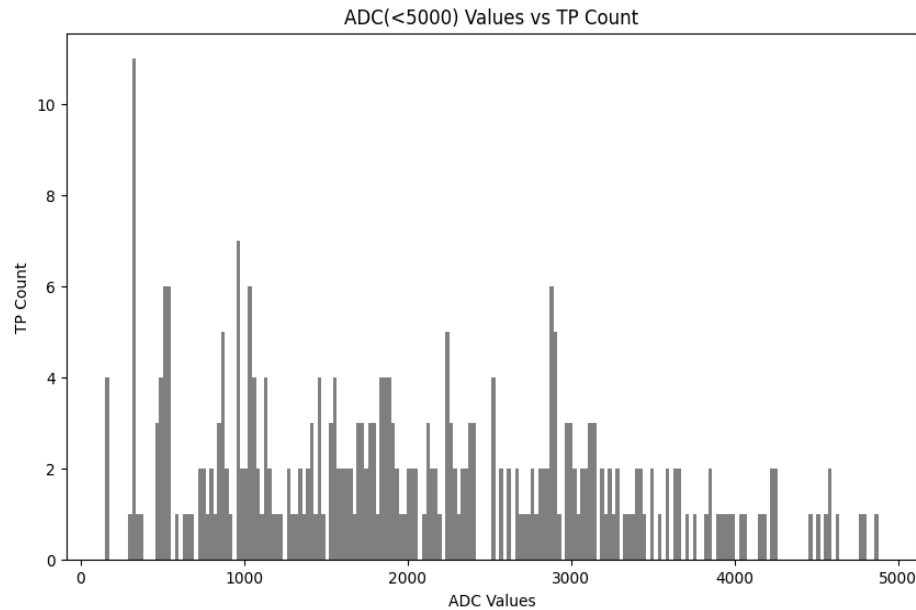


Collection plane

1D Histogram of ADC Integral values



ADC Integral for the matched TPs



Note: Unclustered TPs from the three planes are matched.

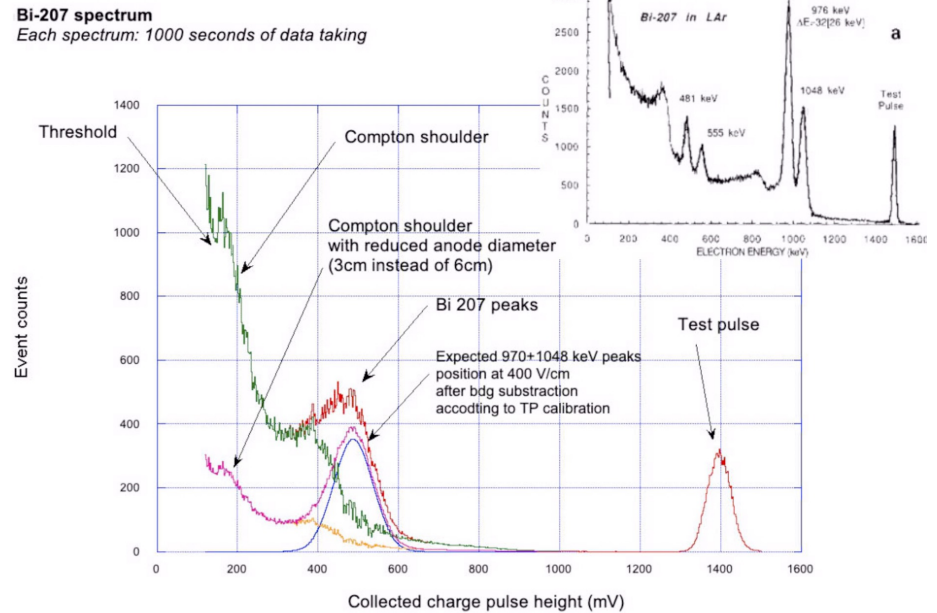


Image source:
Calibration study using Bi-207 presented by Alex Oranday

THANK YOU!

ADC Integral for the matched TPs

