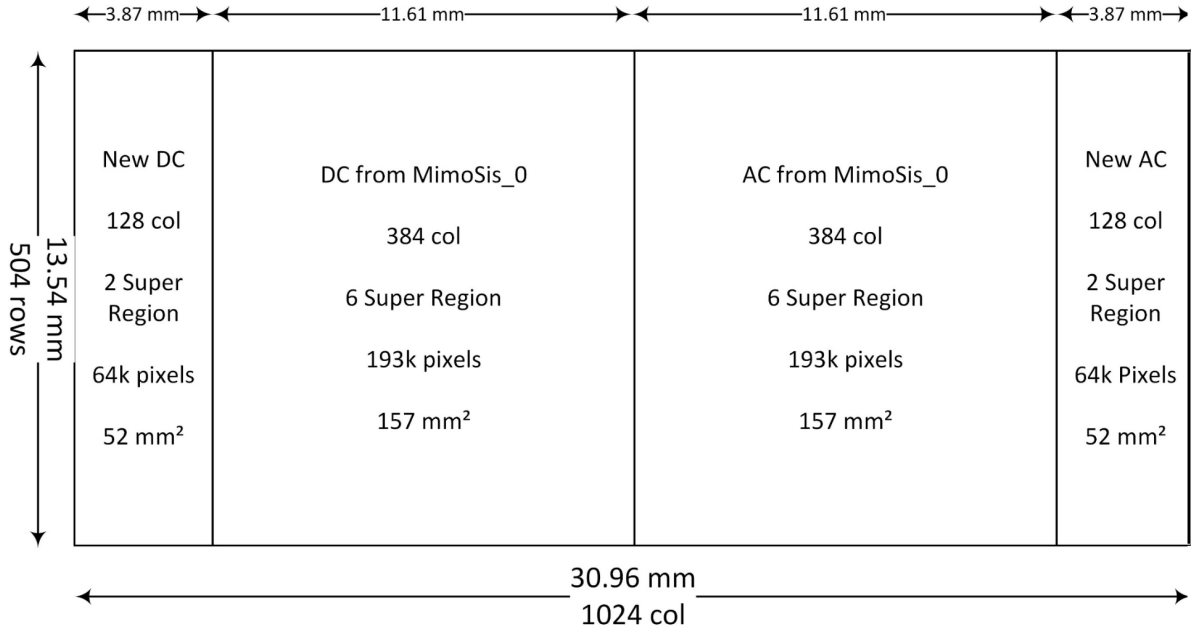
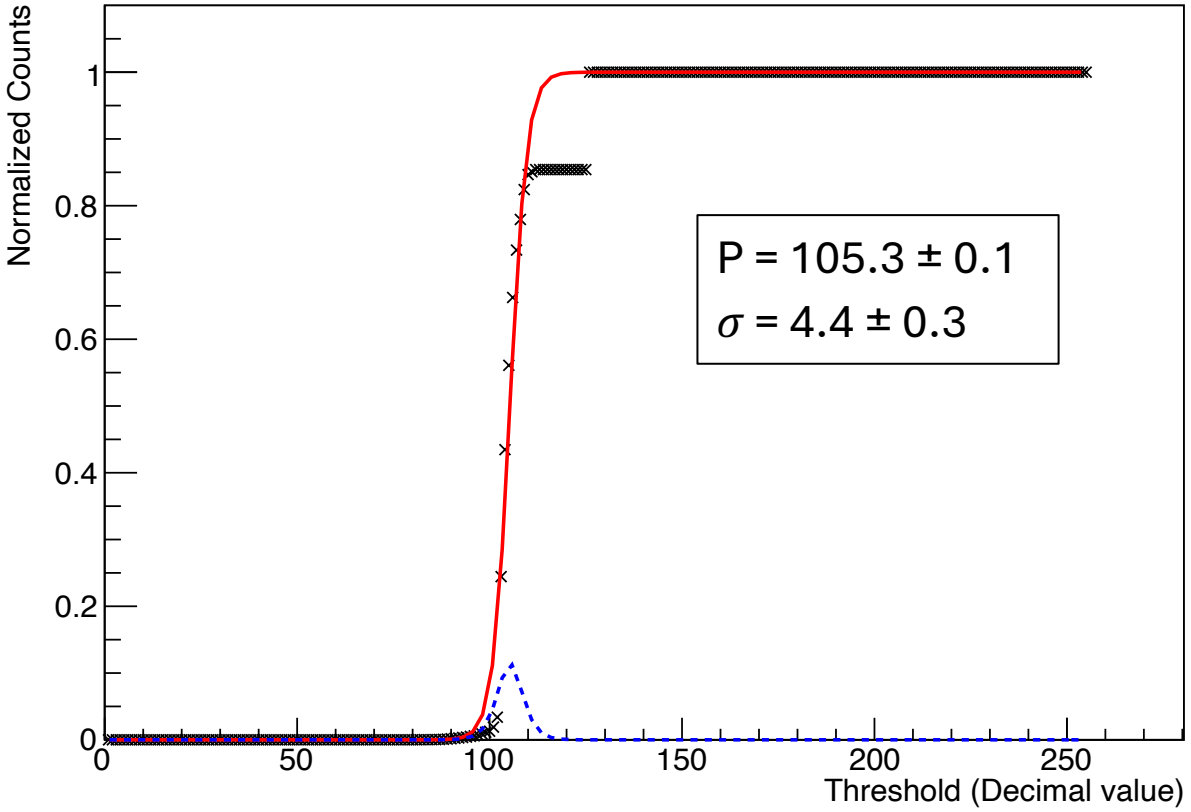
# Threshold Scan

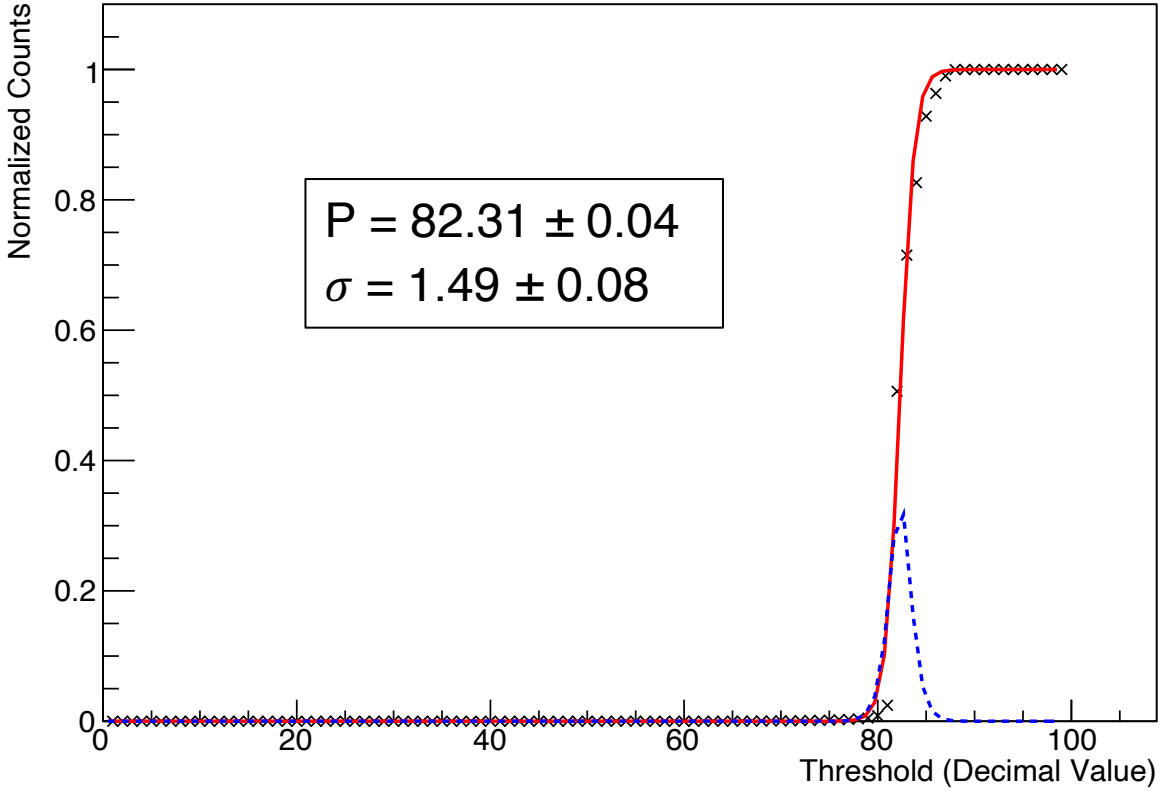
- Random Trigger
- NO radioactive source
- Possible value for the threshold: 0 – 1.5 V, step 6 mV (0 to 255)
- ~2000 events (arrived trigger) per threshold value
- 4 sub-matrices
- Fit with a Sigmoid function to find the Pedestal (P) and the Sigma ($\sigma$):

$$S = 0.5 \cdot \left(\tanh\left(\frac{(x-P)}{\sigma}\right) + 1\right)$$

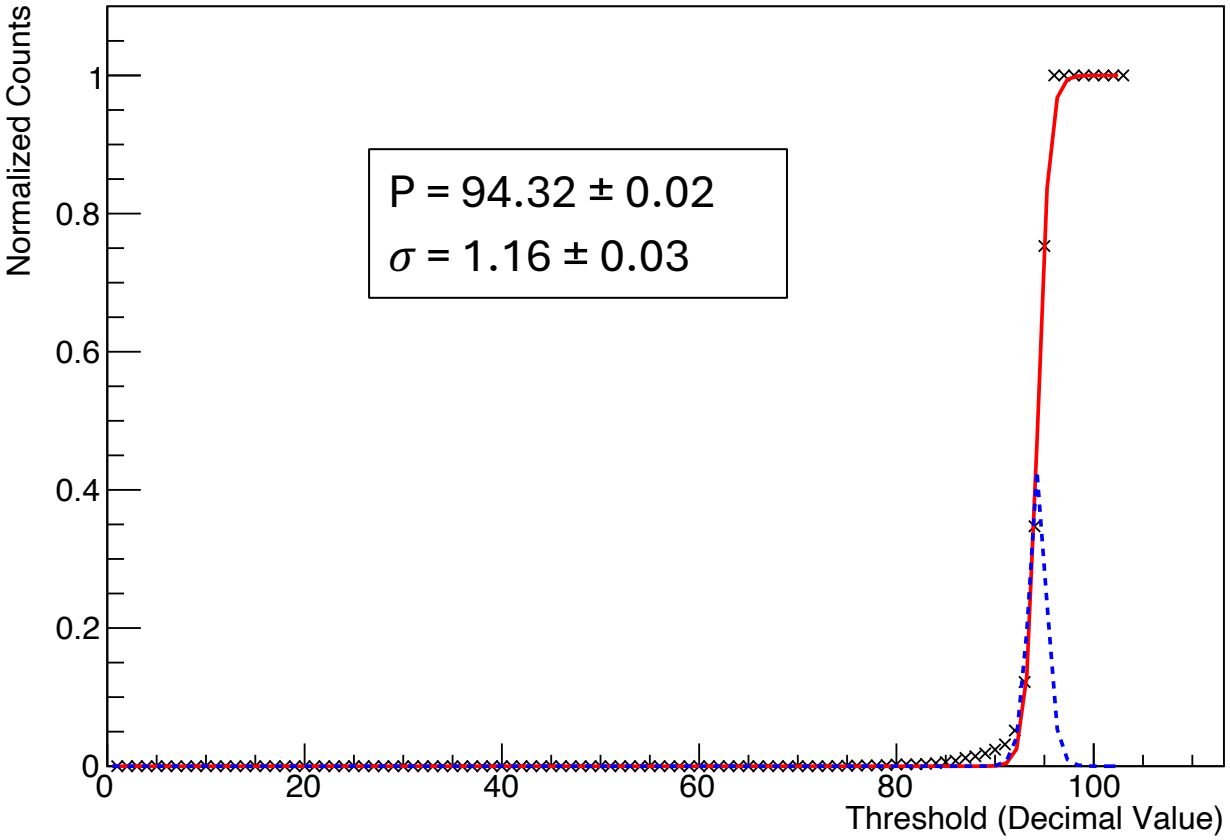


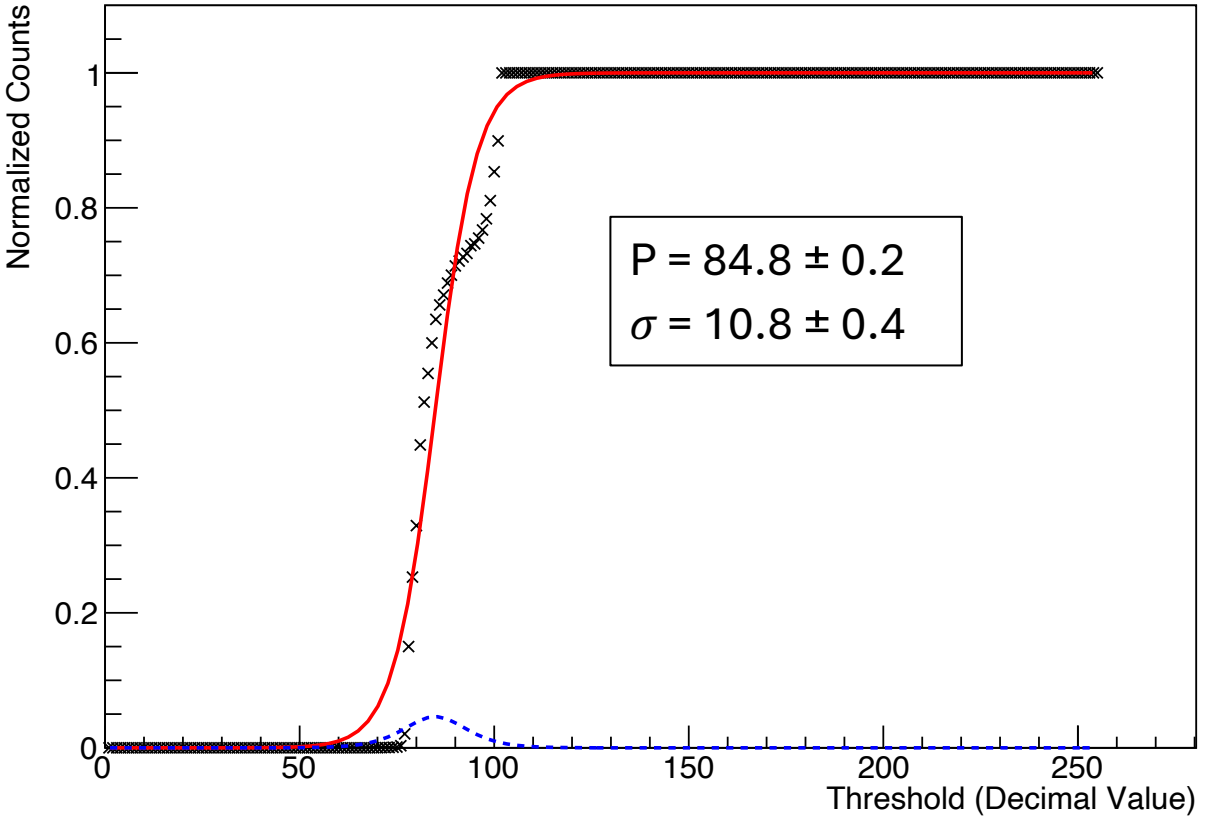
# Threshold Scan



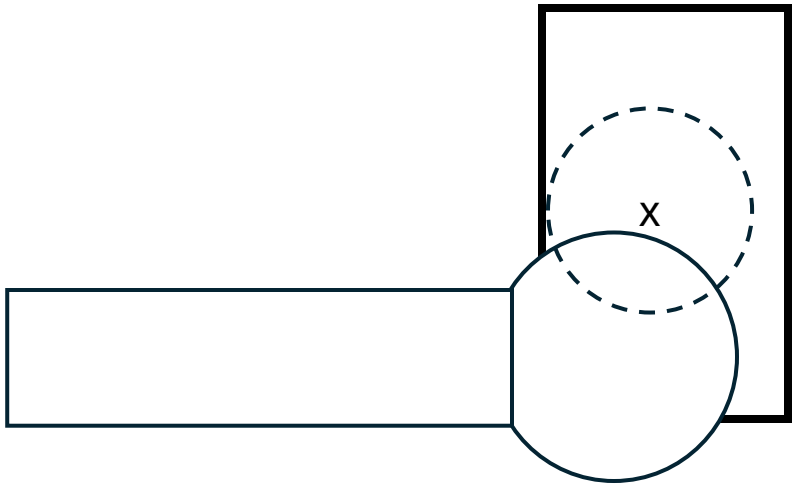



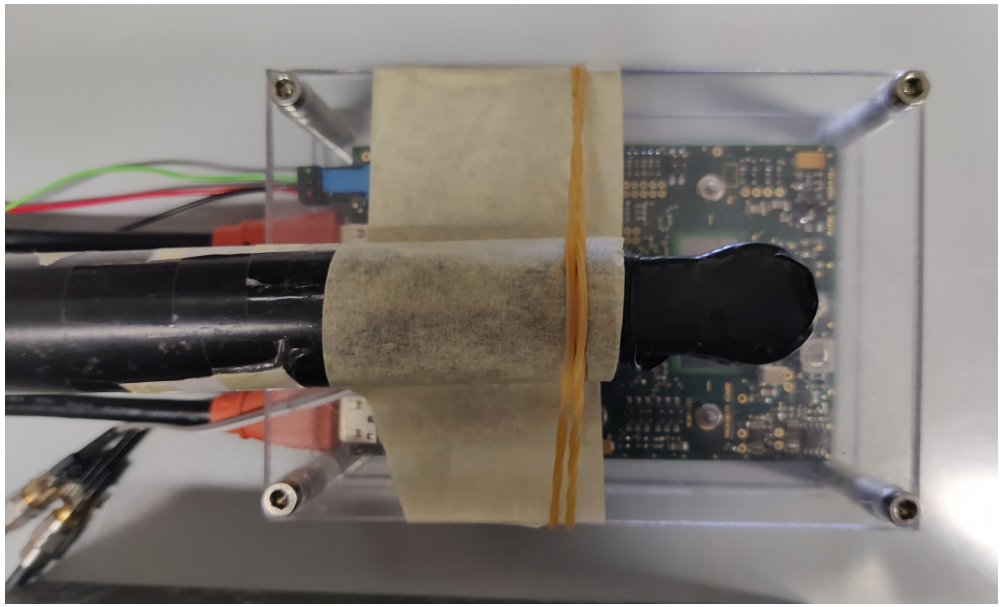
# Threshold Scan

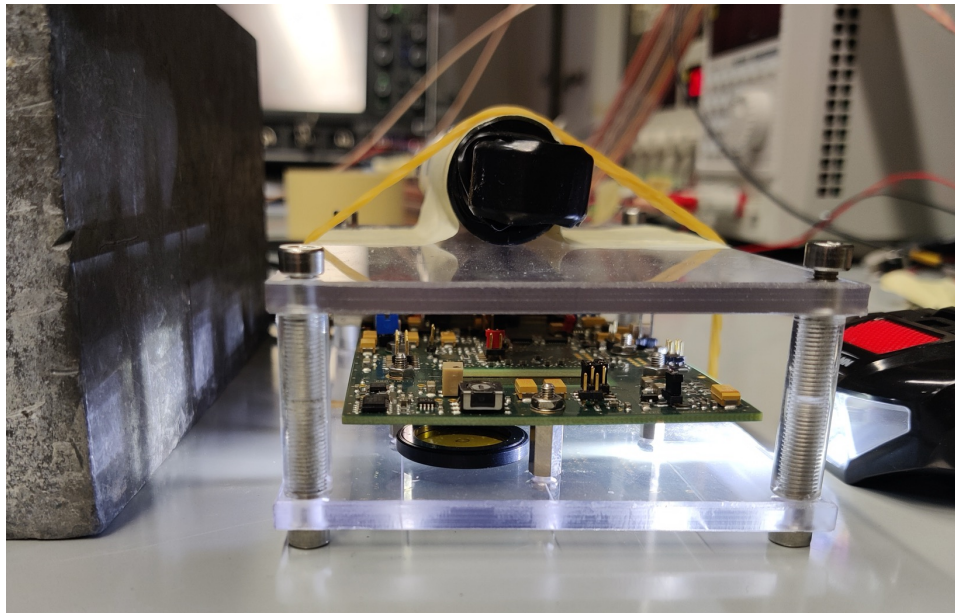


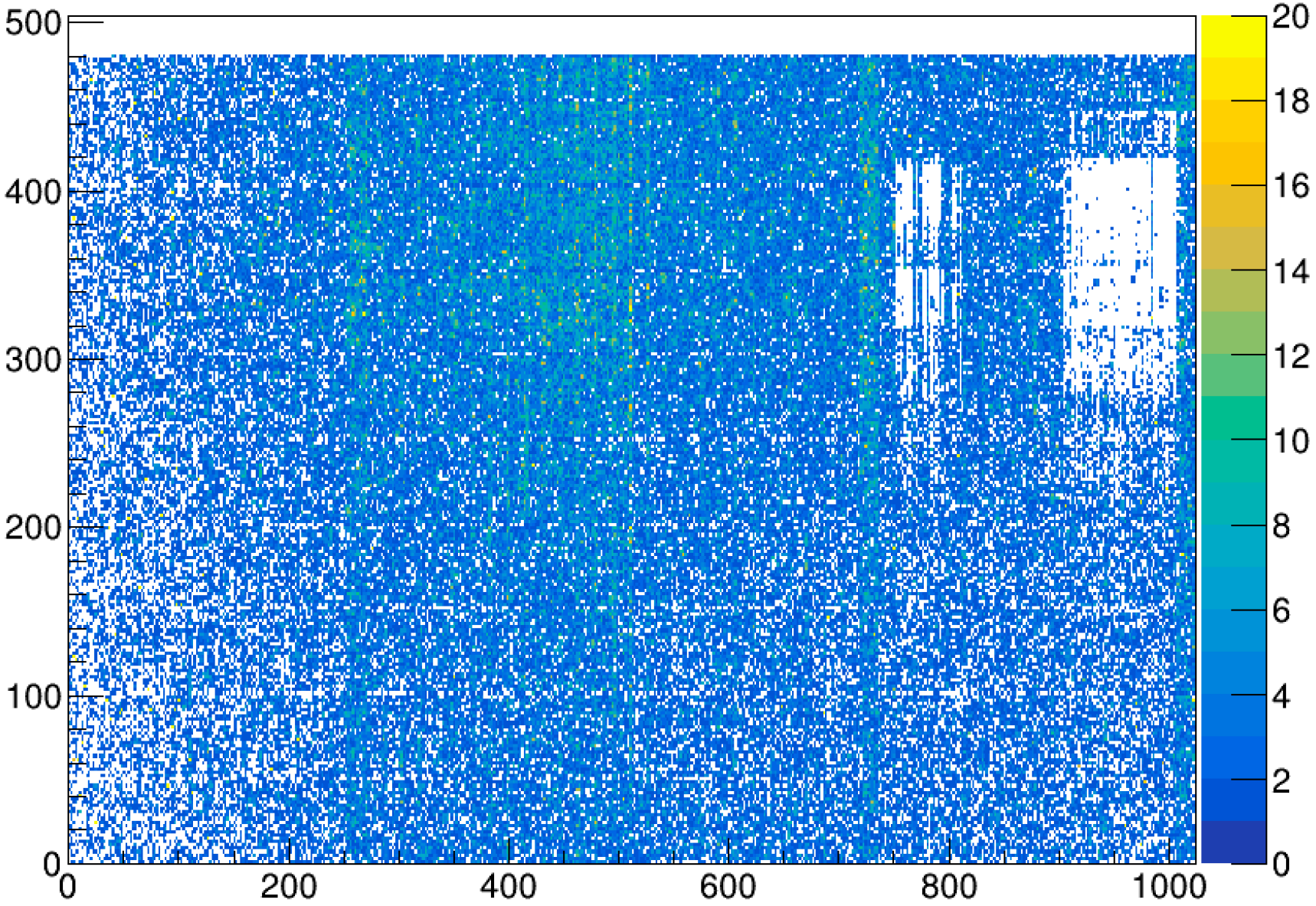
# Data collection with radioactive Source



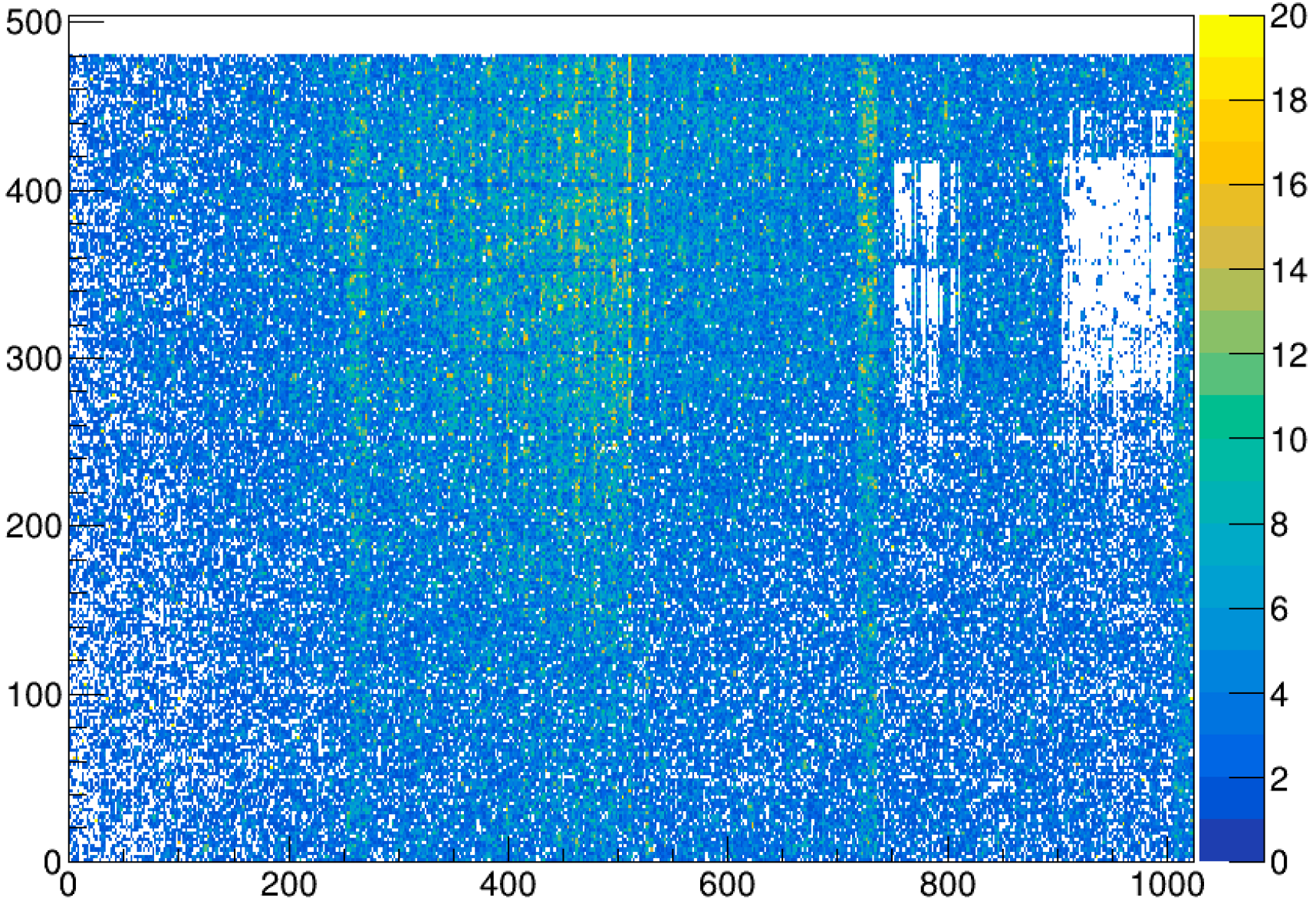





# External Trigger + Radiaoctive Source

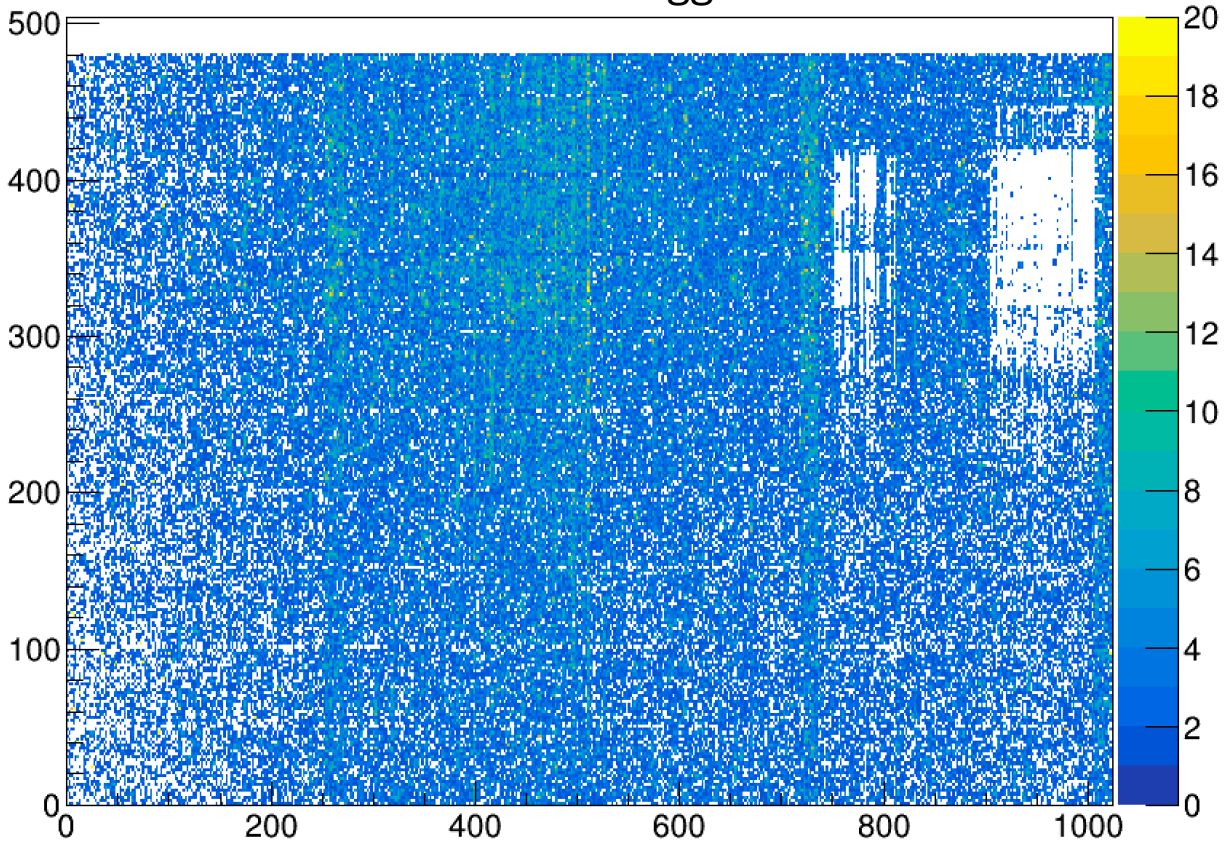


# Random Trigger + Radiaoctive Source

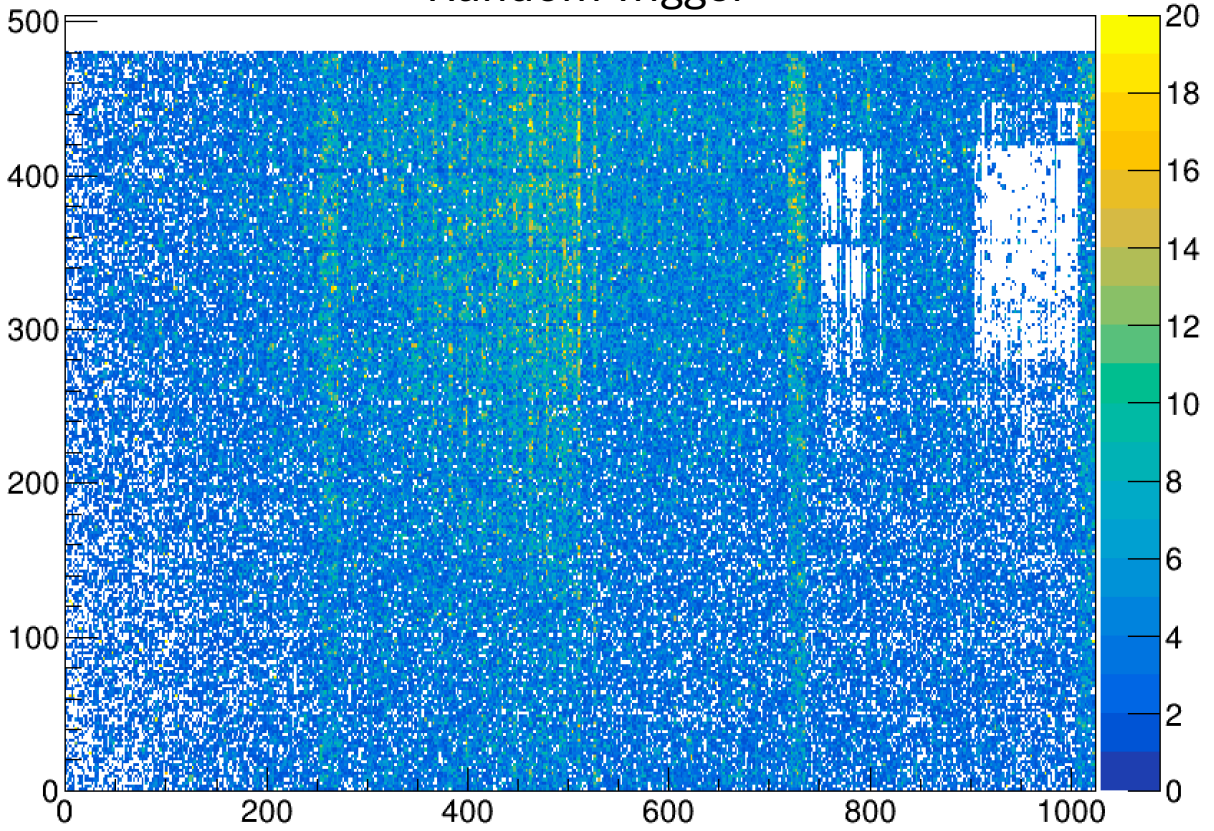


# Comparison

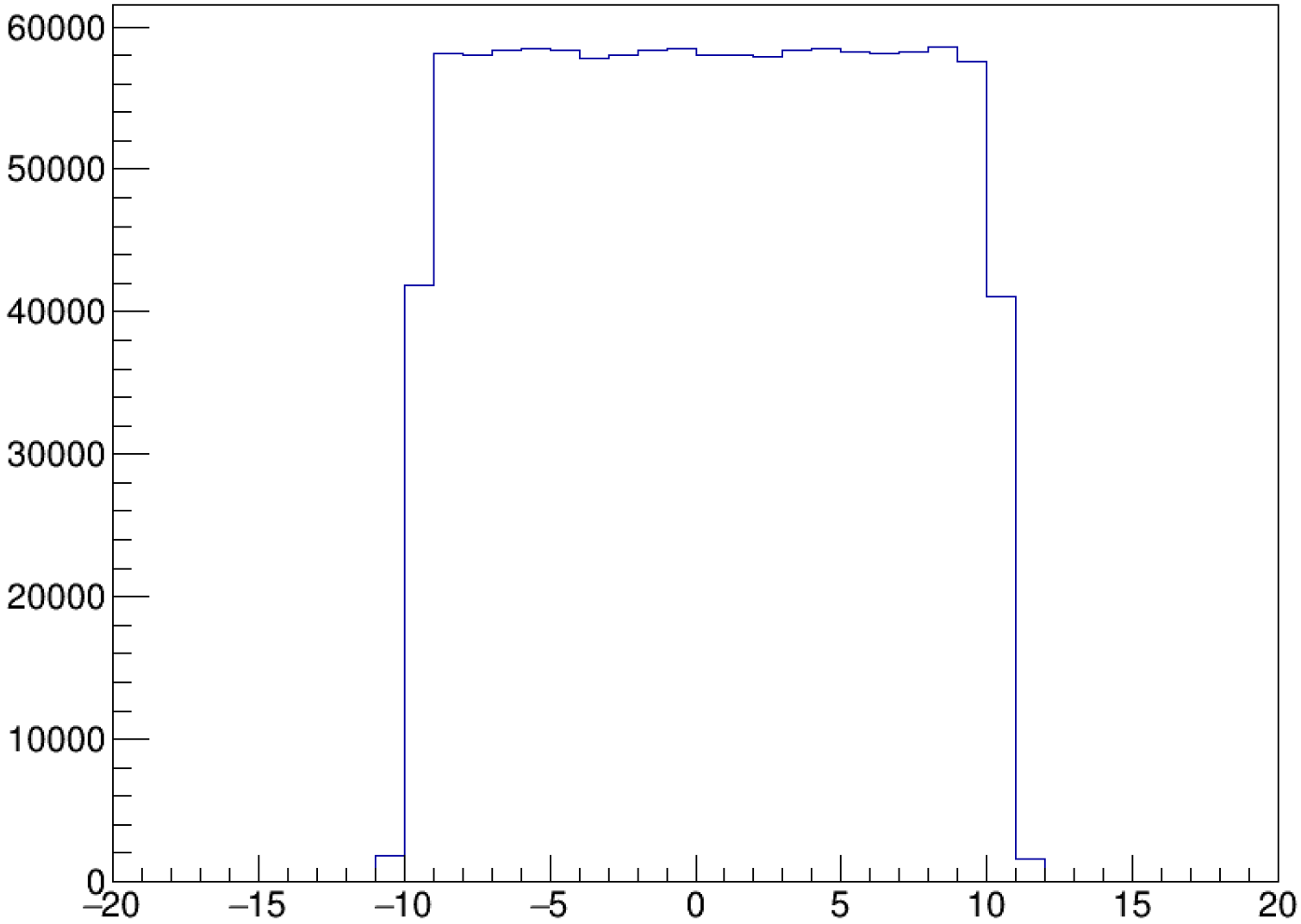
External Trigger




Random Trigger



# TimeStamp analysis




TimeStamp_frame – TimeStamp_trigger