# New cuts for signal selections

LAKHNO GLEB

TSNUK, UKRAINE

# Old & new signal selections:



$S(t) = A\frac{t-t_0}{\tau}e^{-\frac{t-t_0}{\tau}}\theta(t - t_0)$

Signal selection( for TB2016 ):

1. $1 < \tau_{fit} < 3$
2. $S_{max} < 2000$ ADC
3. $t_{1,bin} - 2{,}7 < t_{0,fit} < t_{1,bin} - 0{,}5$
4. $NN_{output} > 0{,}5$

For TB2020:

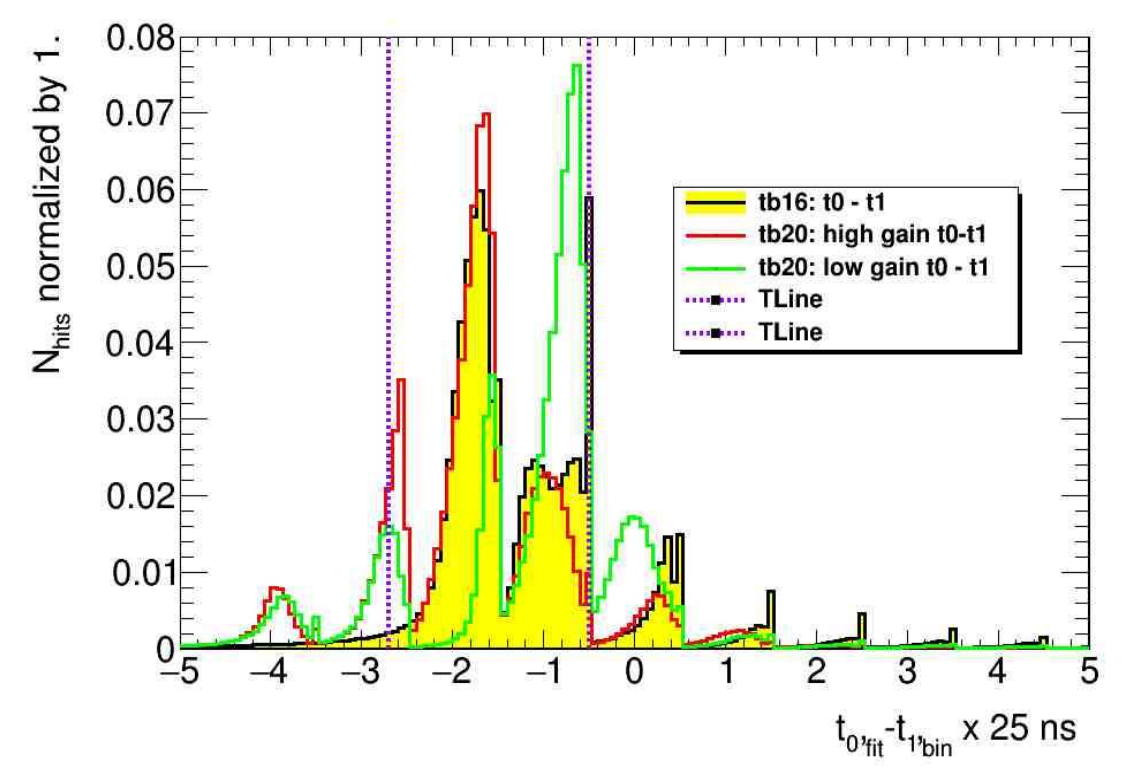
1. $1{,}4 < \tau_{fit} < 3{,}2$ – high gain

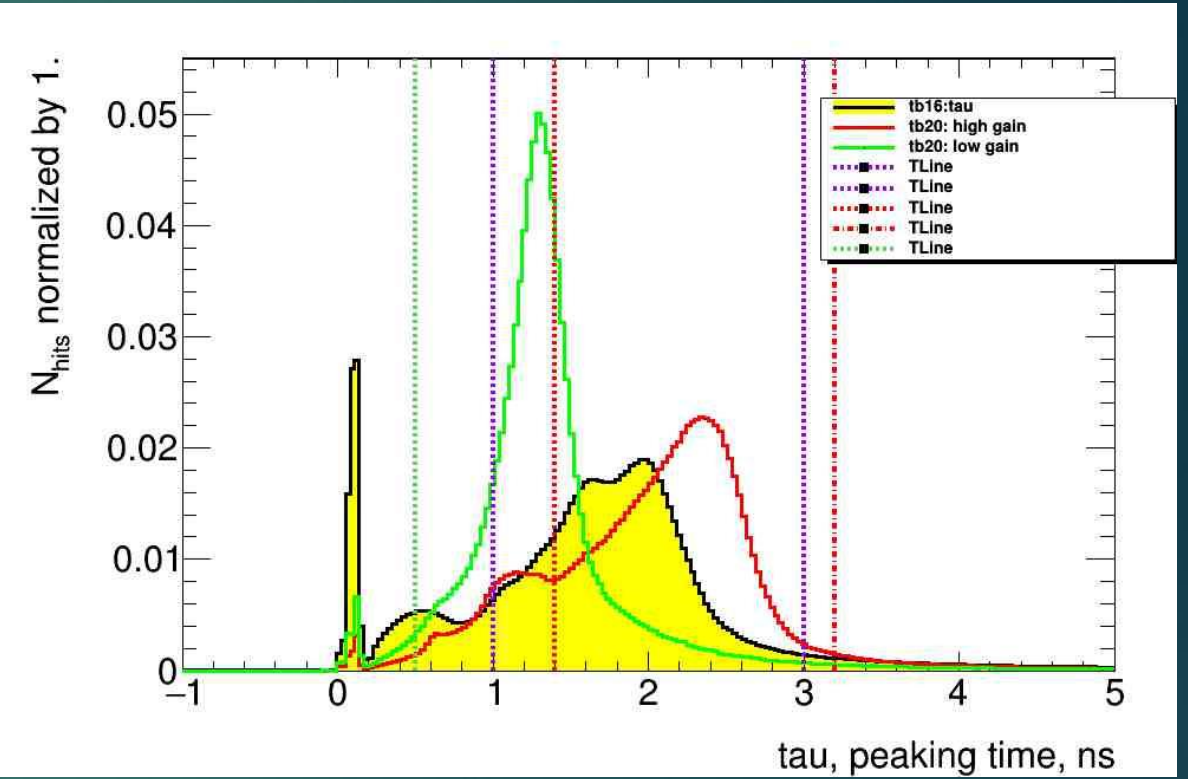
   $0{,}5 < \tau_{fit} < 3{,}2$ – low gain
2. $S_{max} < 2000$ ADC
3. $t_{1,bin} - 3{,}2 < t_{0,fit} < t_{1,bin} - 0{,}5$ – high gain

   $t_{1,bin} - 2 < t_{0,fit} < t_{1,bin} - 0{,}5$ – low gain
4. $NN_{output} > 0{,}5$

# Plots for signal selections

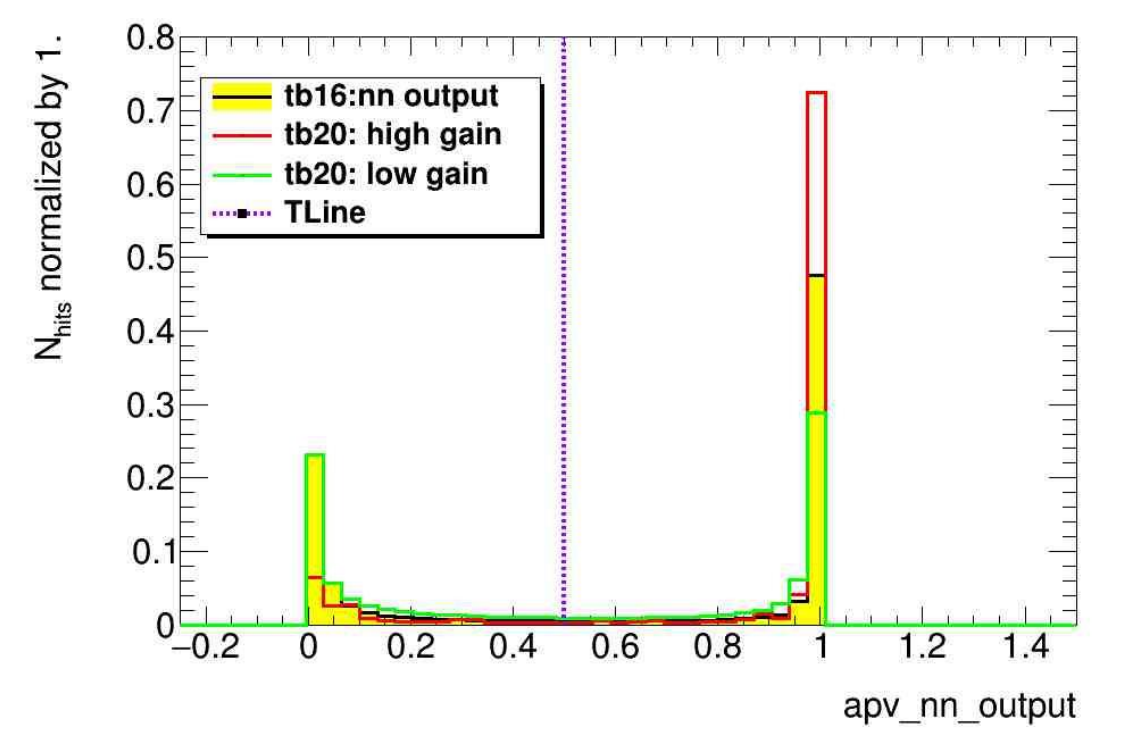


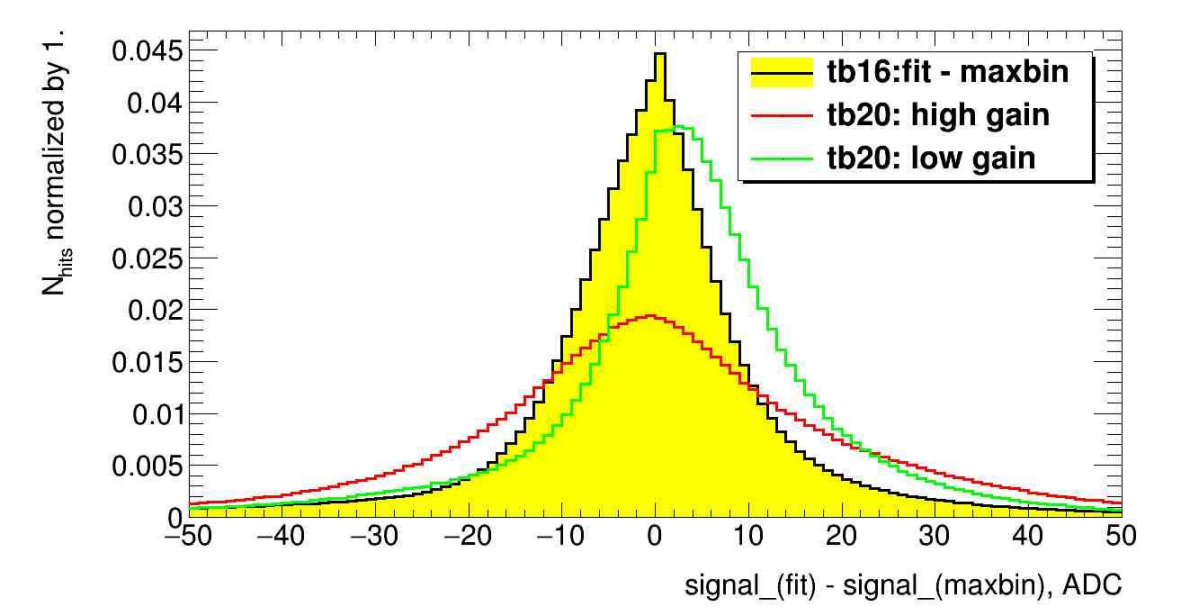


# Plots for signal selections



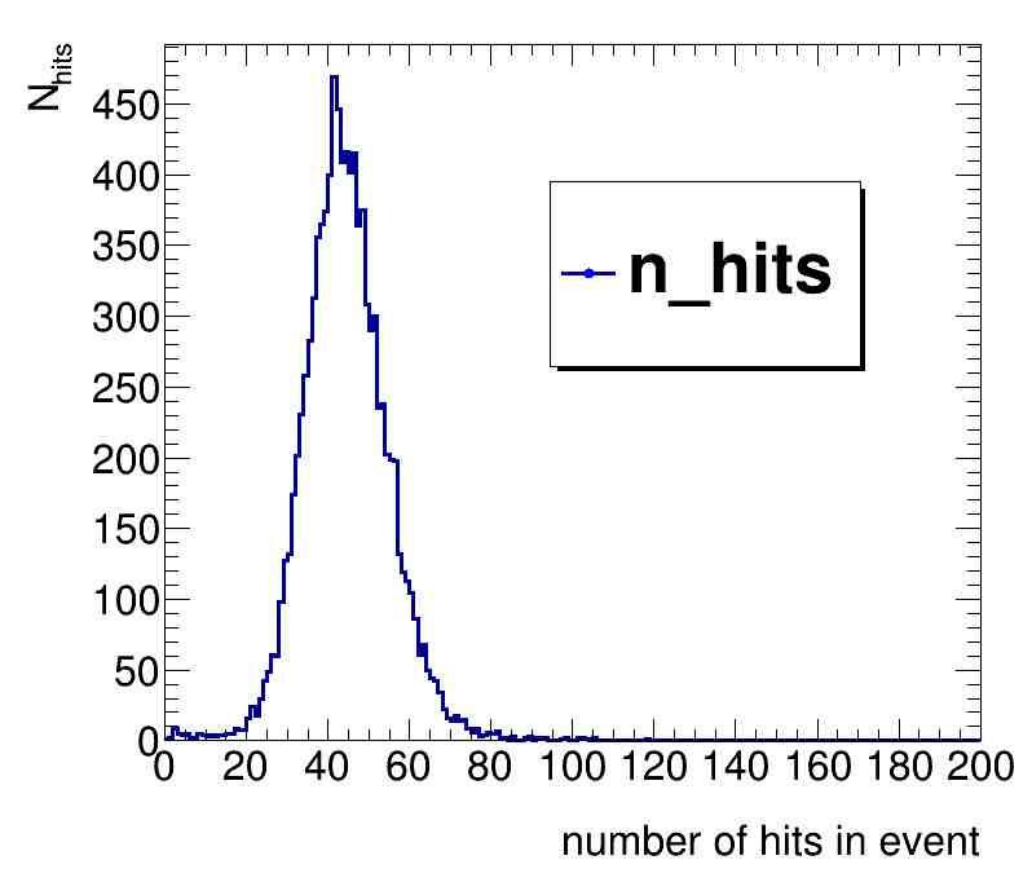


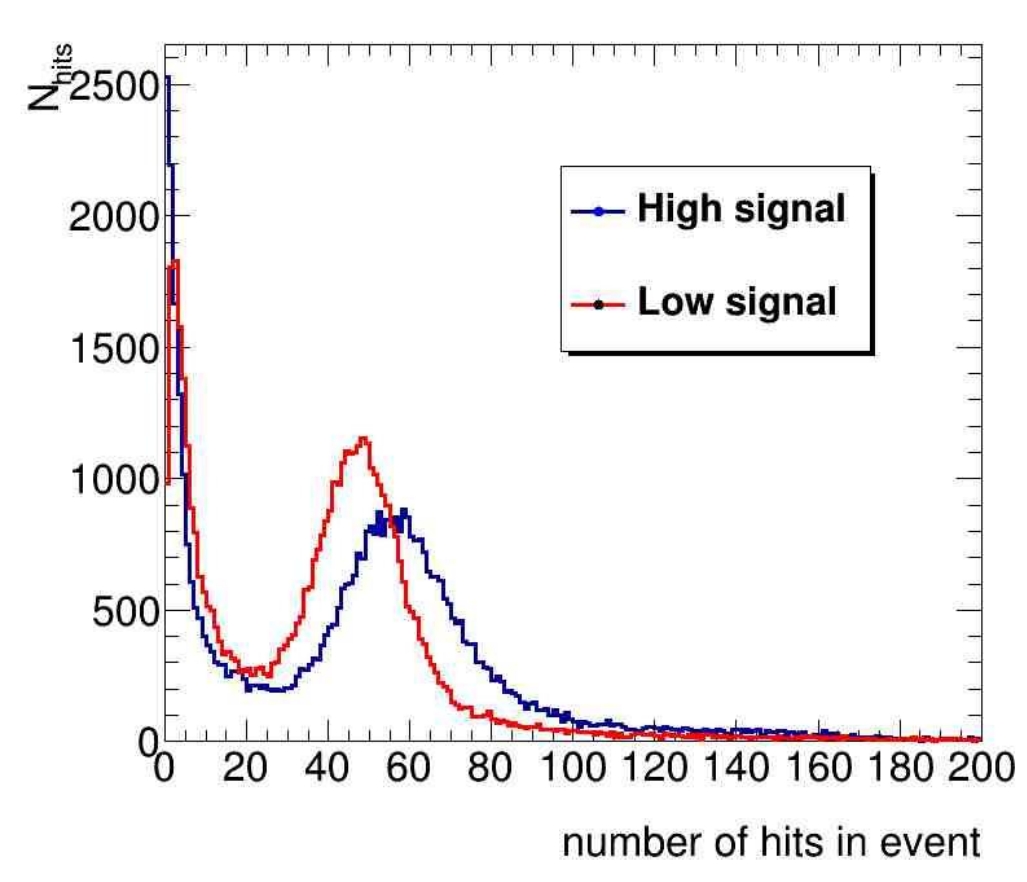



# Problems



Hits in event with signal selection

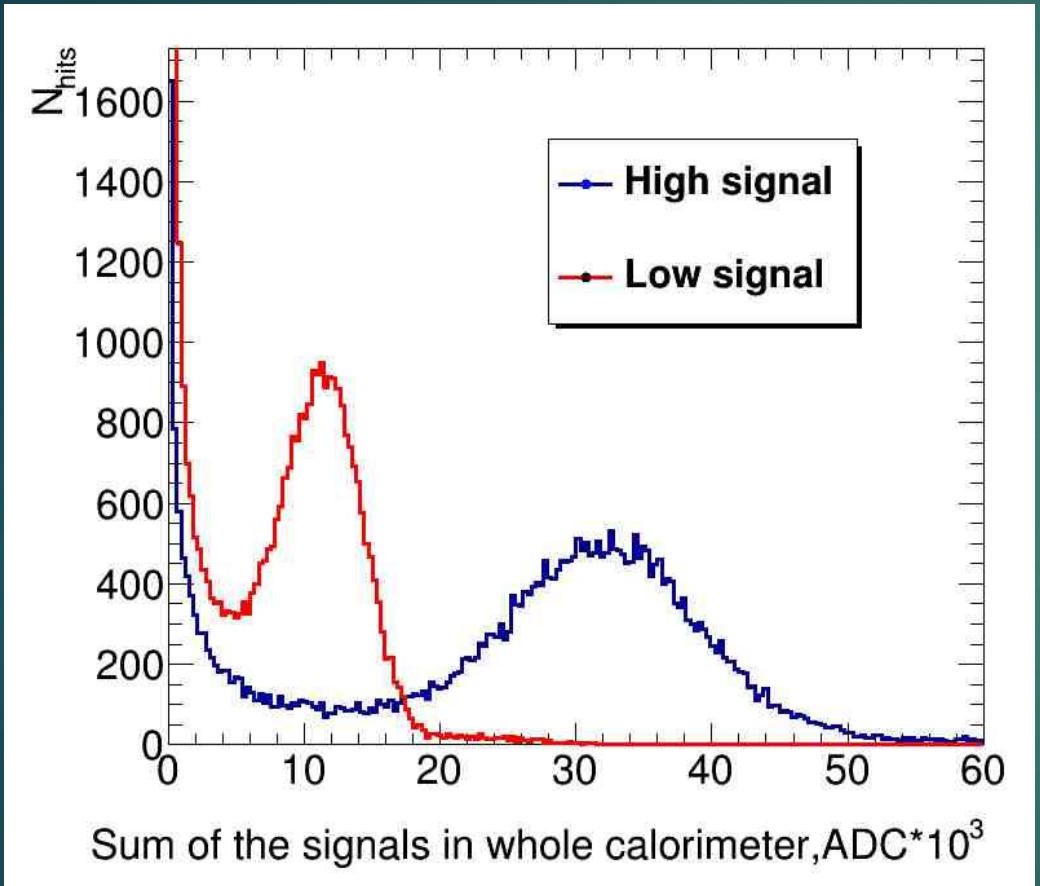


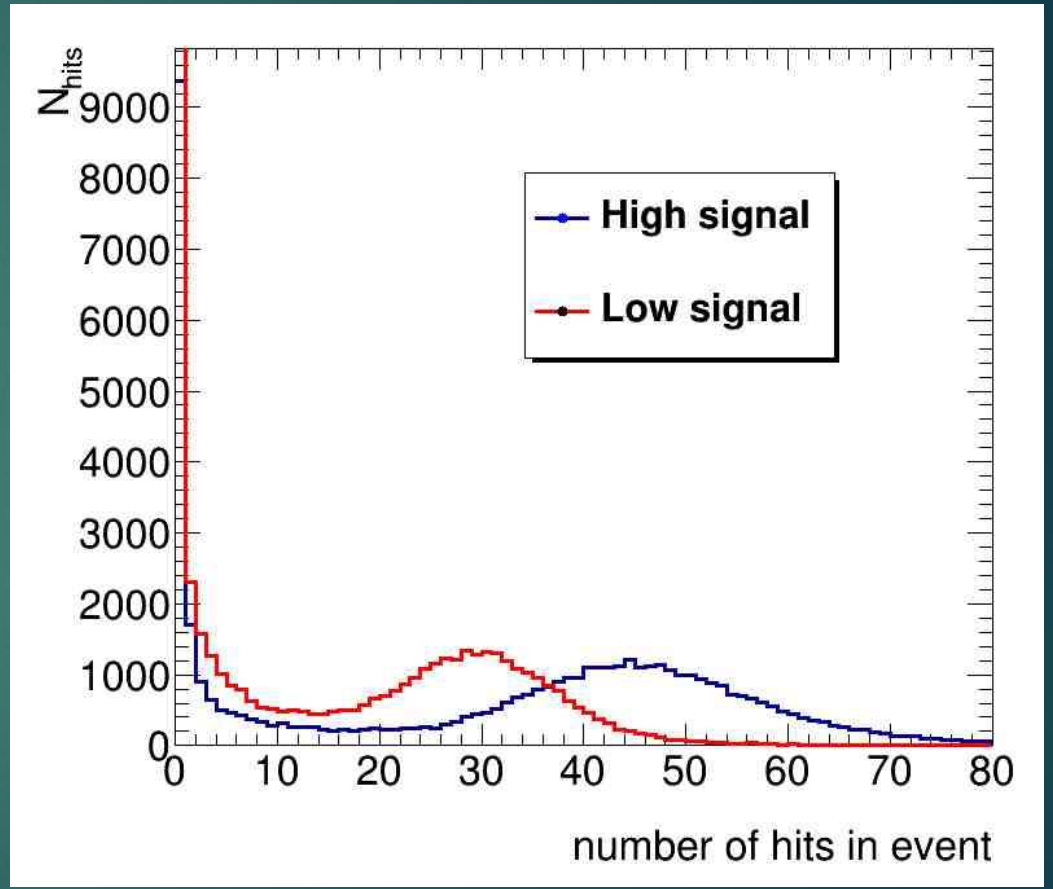



# Problems



Hits in event with signal selection



# BACKUP



Hits in event without signal selection