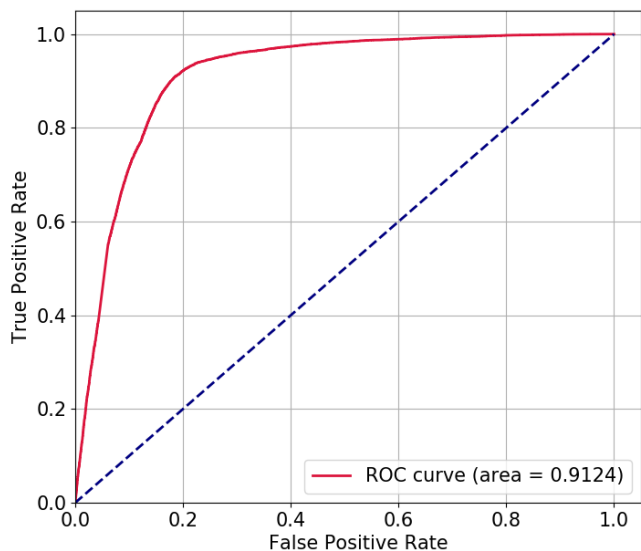
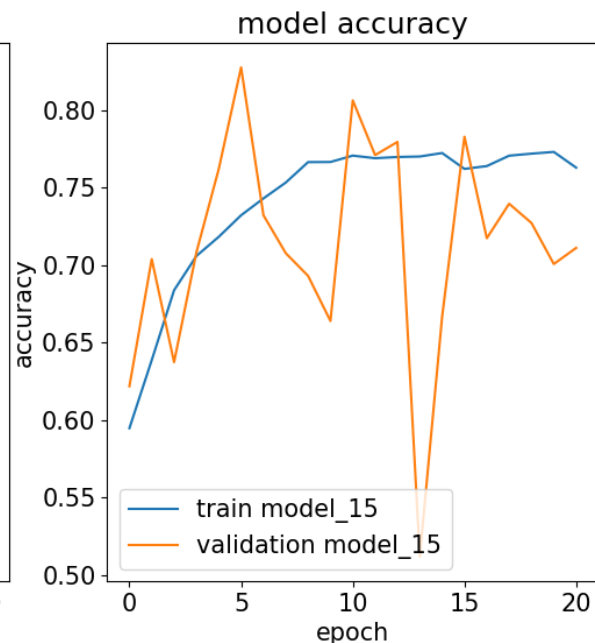
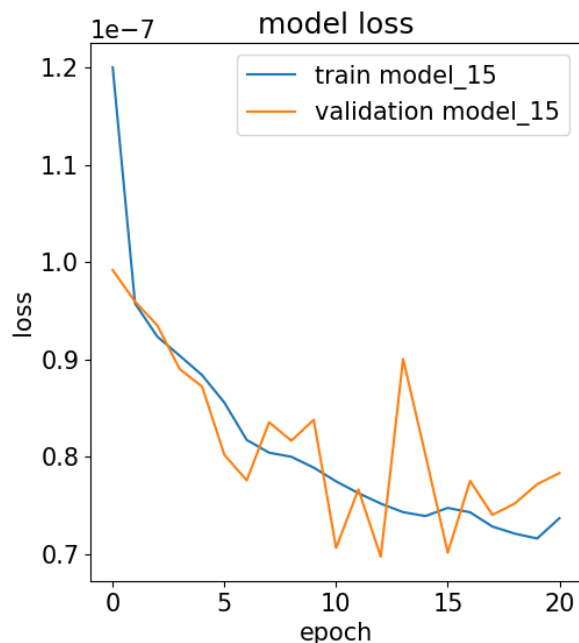


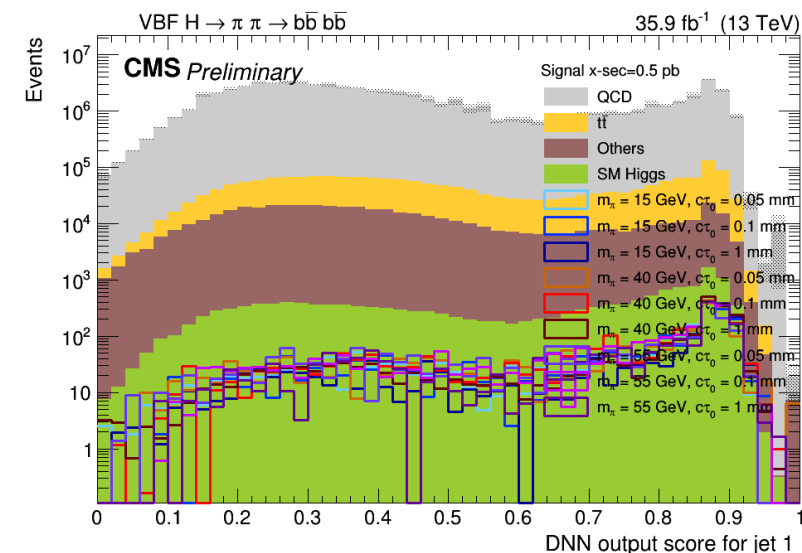
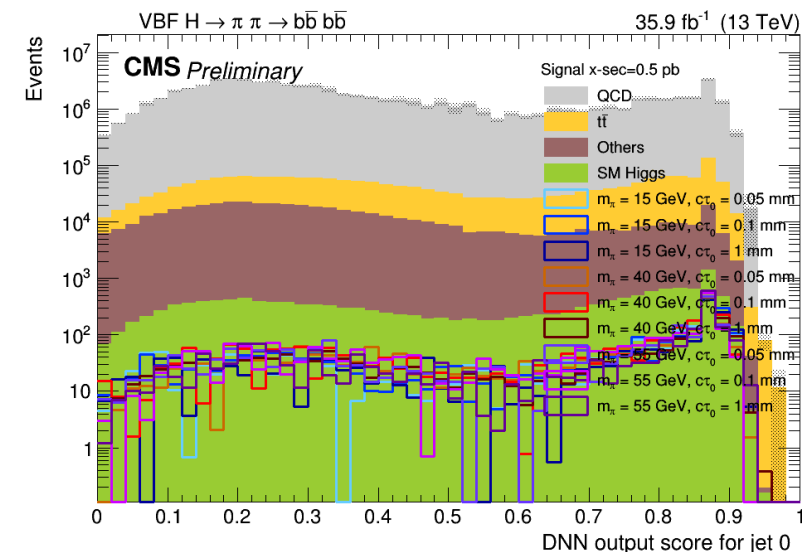
# LLP short

Meeting 06.08.2020

# New trained FCN for all masses - parametrized

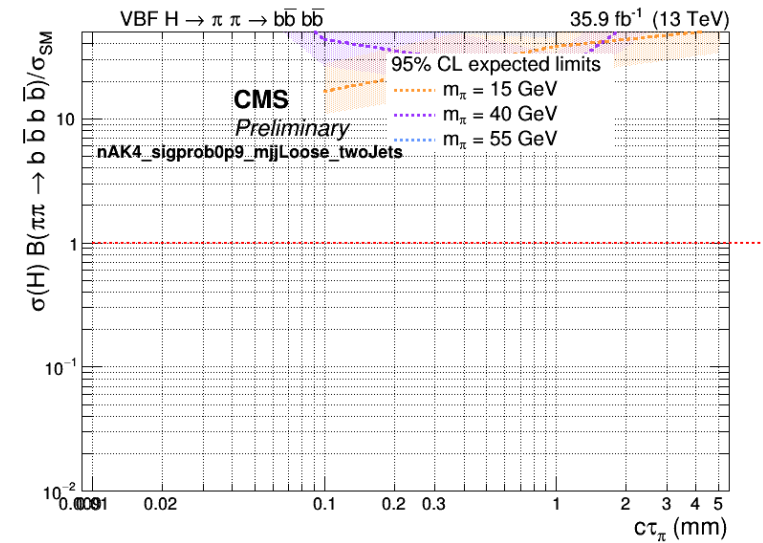
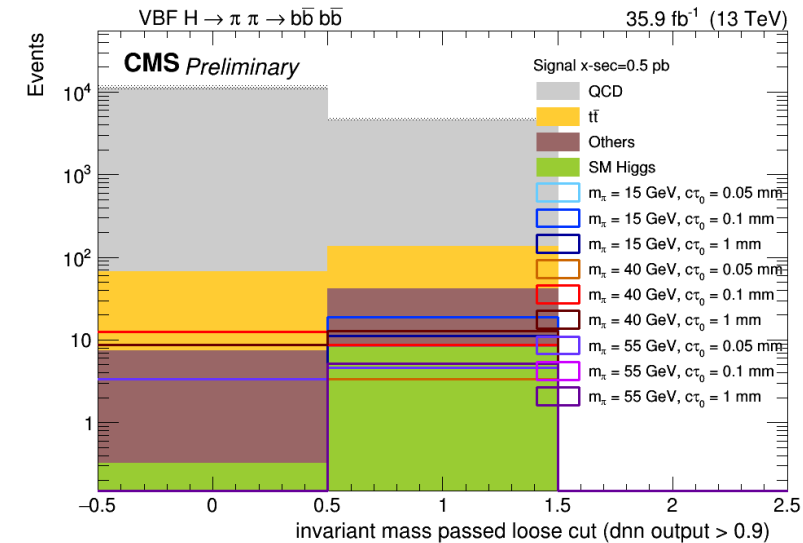
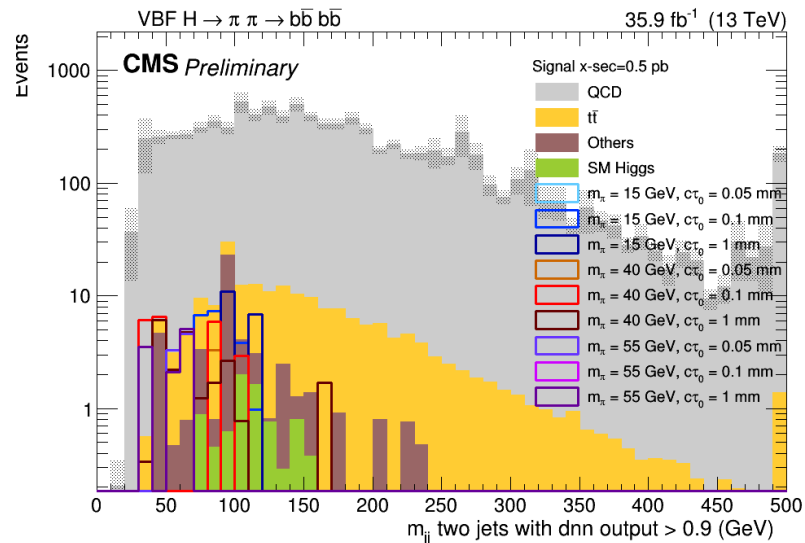
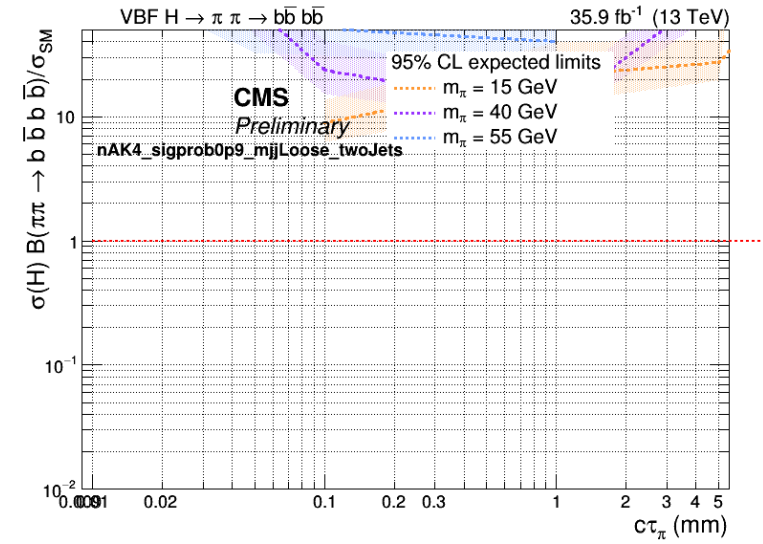
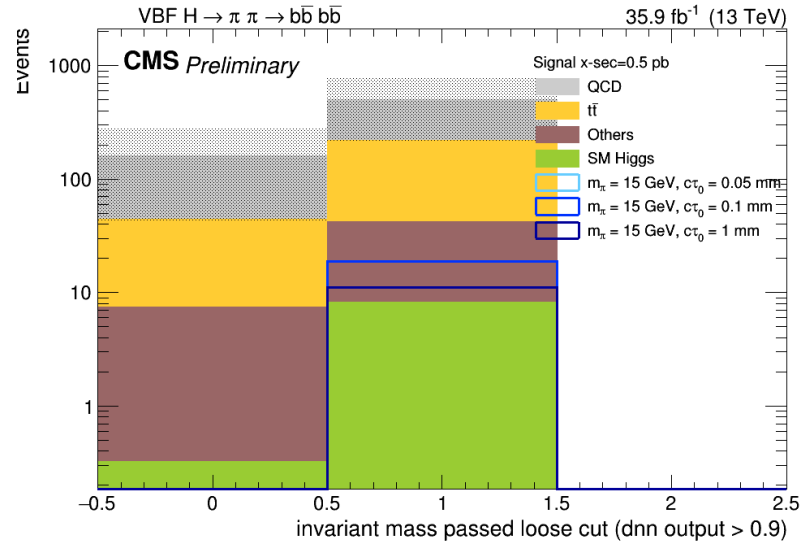
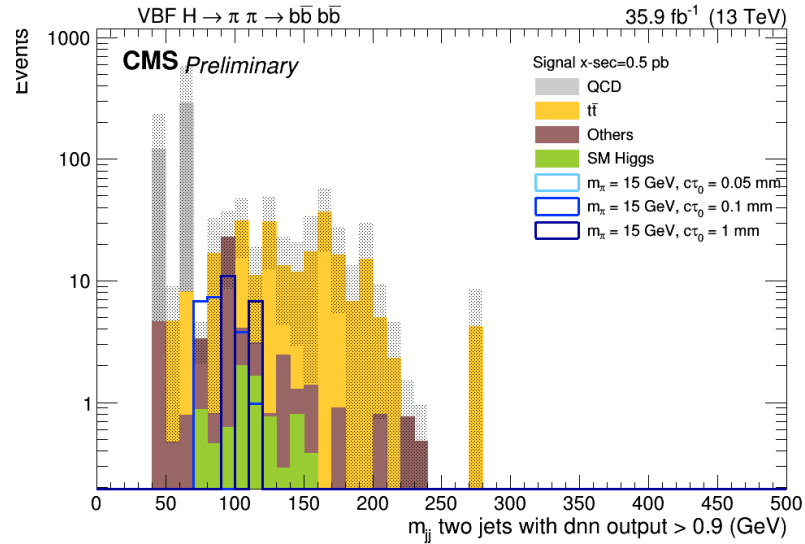


Added in addition as input parameters mass and ctau of pion. For background took zero for both. Peak at around 0.9 in signal and background.



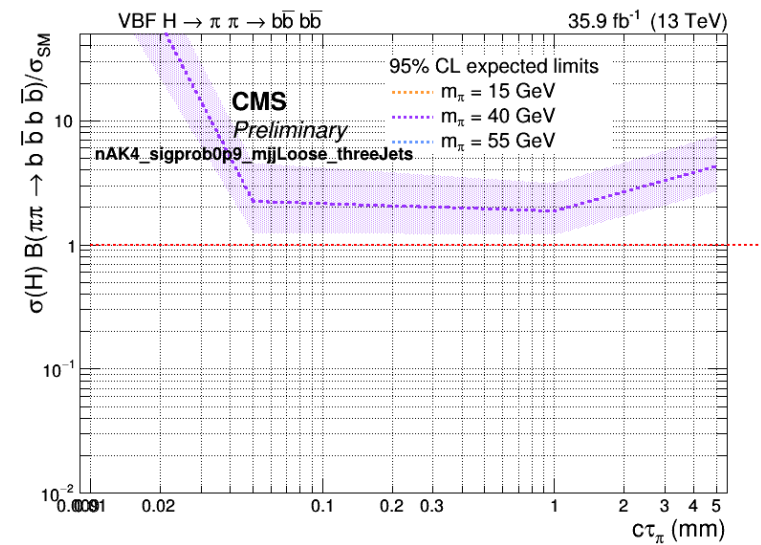
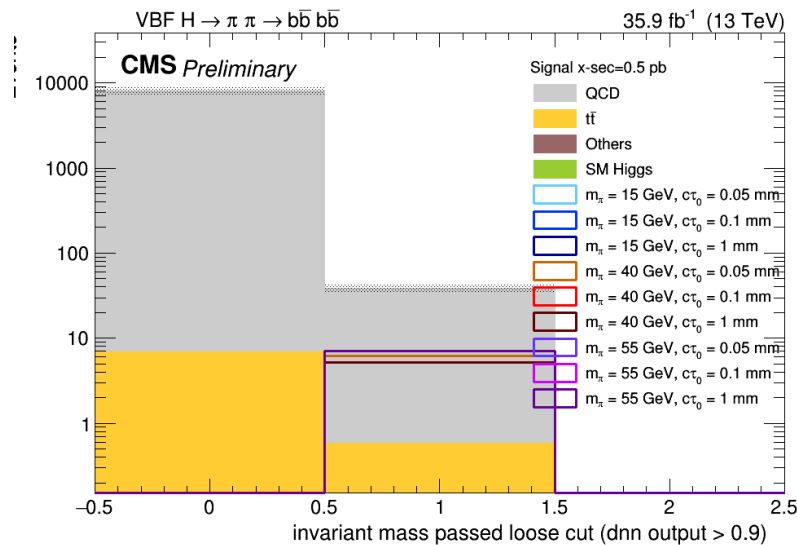
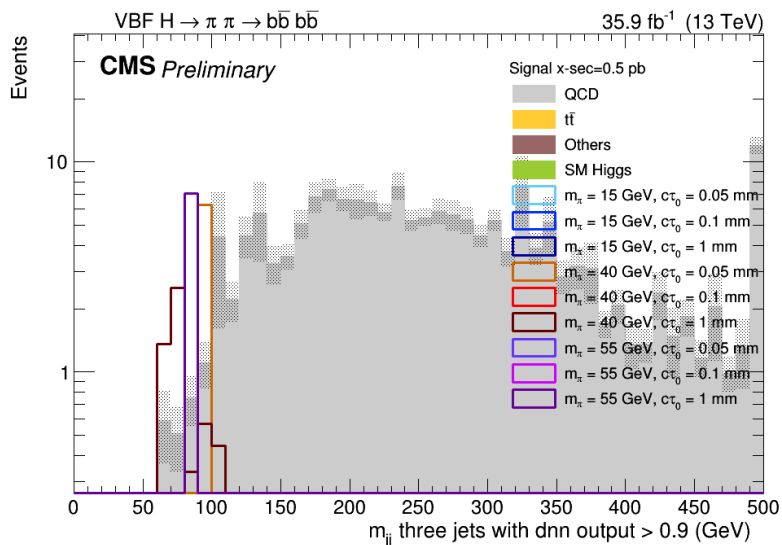
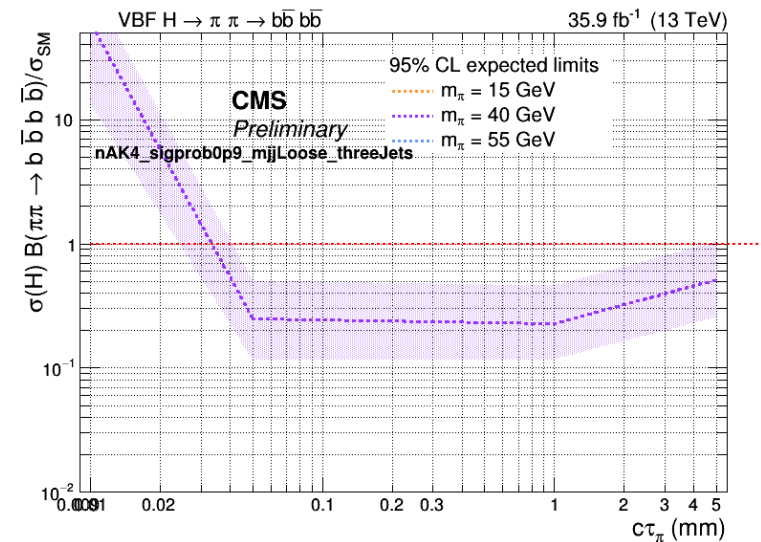
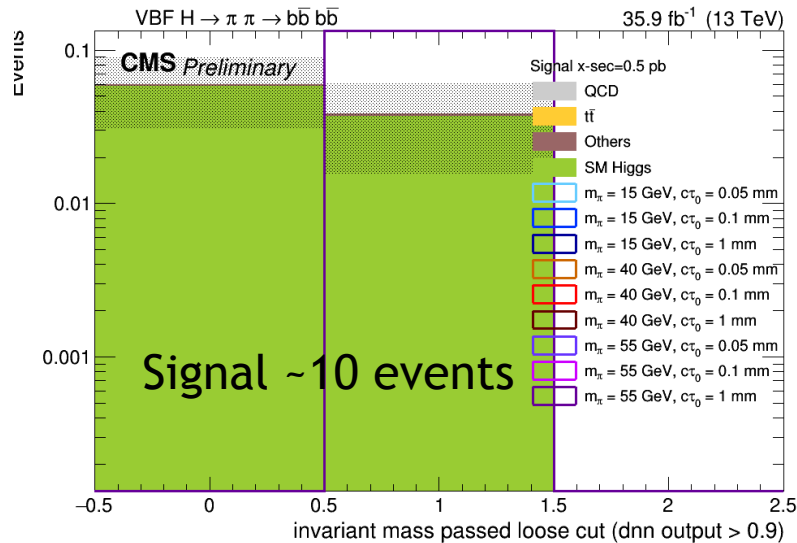
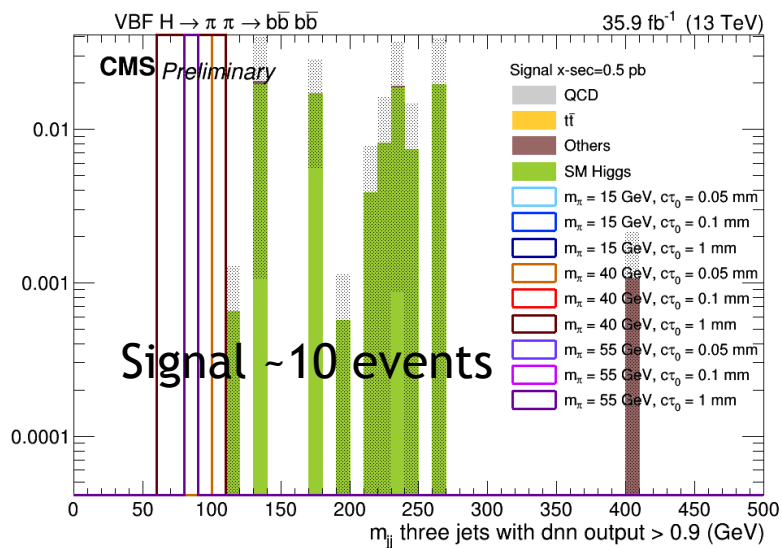
# FCN for all masses parametrized - Limits

**TWO leading jets.** Upper no efficiency applied, lower new calculated efficiency.



# FCN for all masses parametrized - Limits

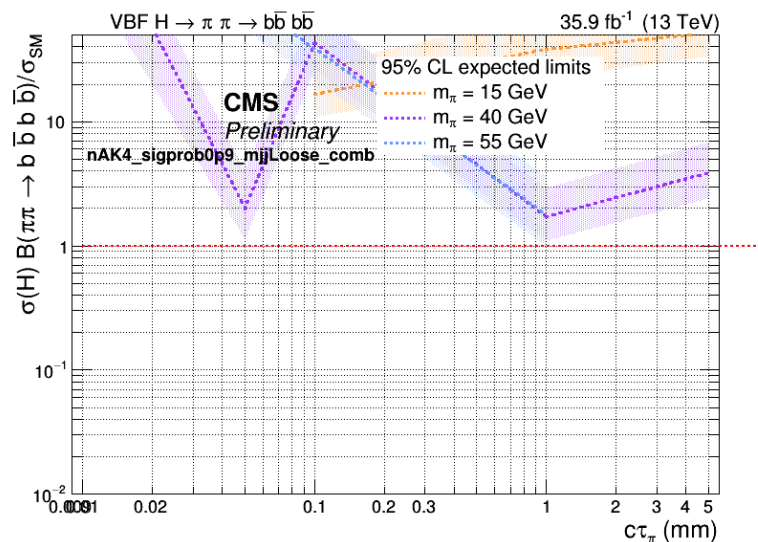
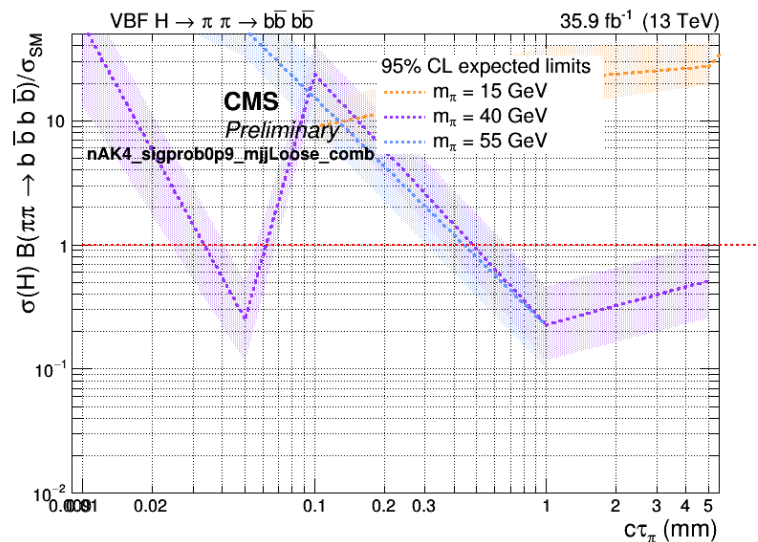
THREE leading jets. Upper no efficiency applied, lower new calculated efficiency.



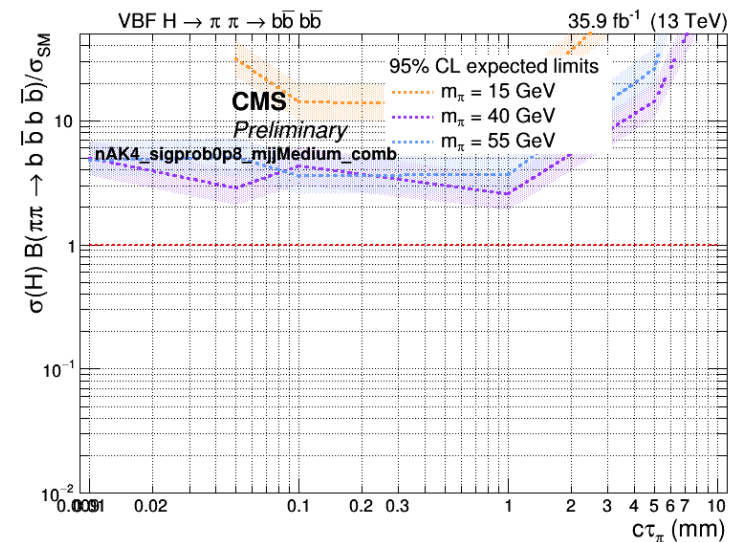
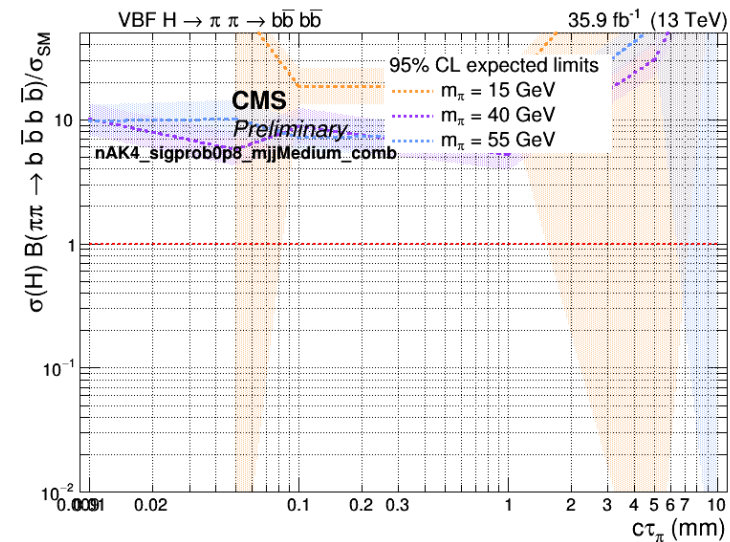
# FCN for all masses parametrized - Limits

COMBINATION of two and three leading jets. Upper no efficiency applied, lower new calculated efficiency.

FCN discriminator > 0.9, loose mass window



FCN discriminator > 0.8, medium mass window

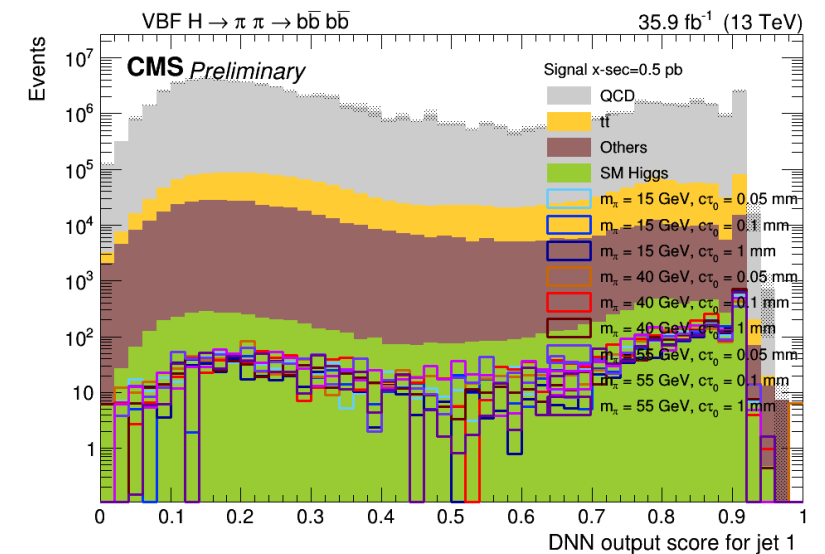
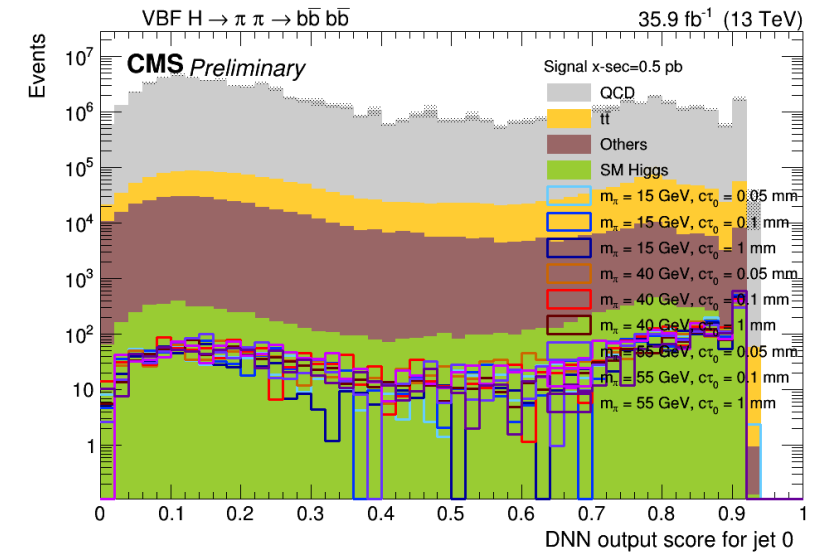
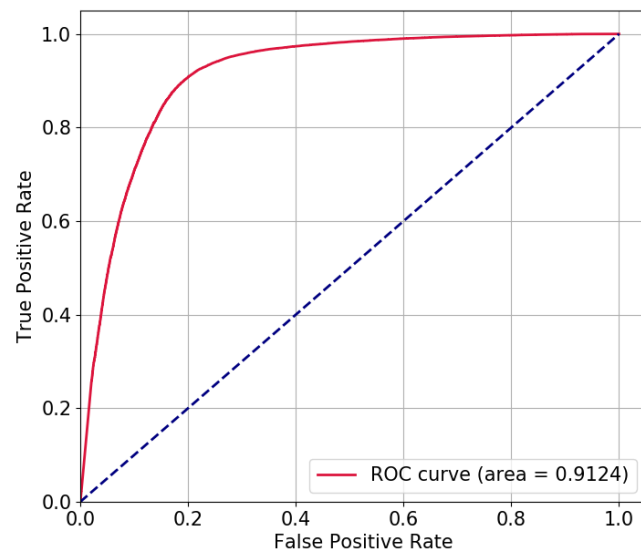
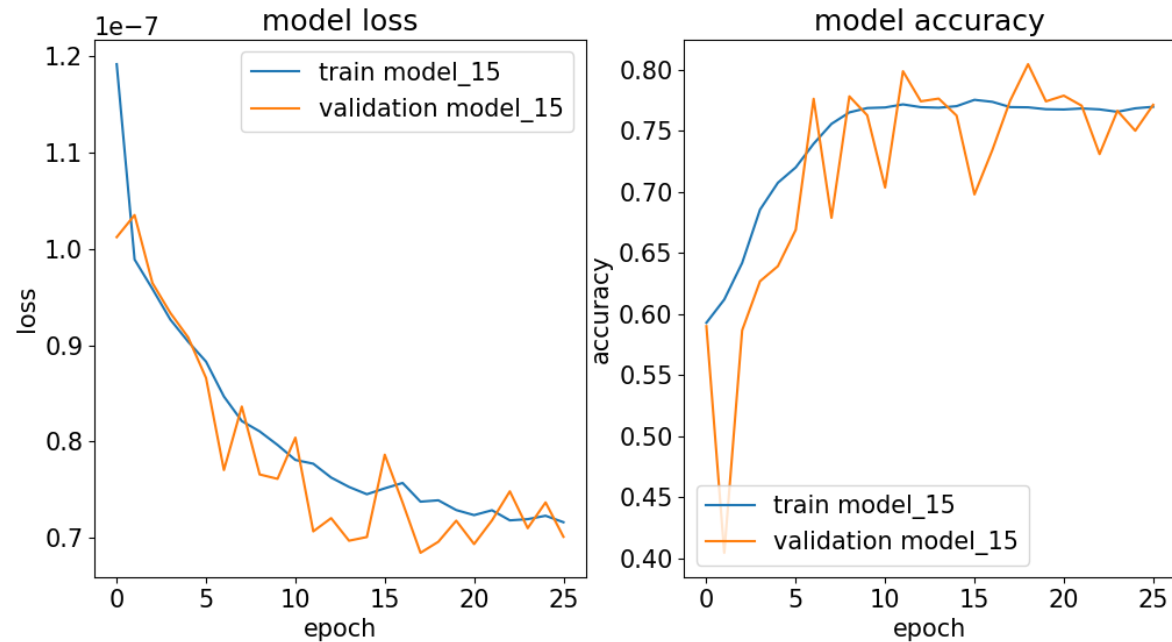




# FCN without parametrization

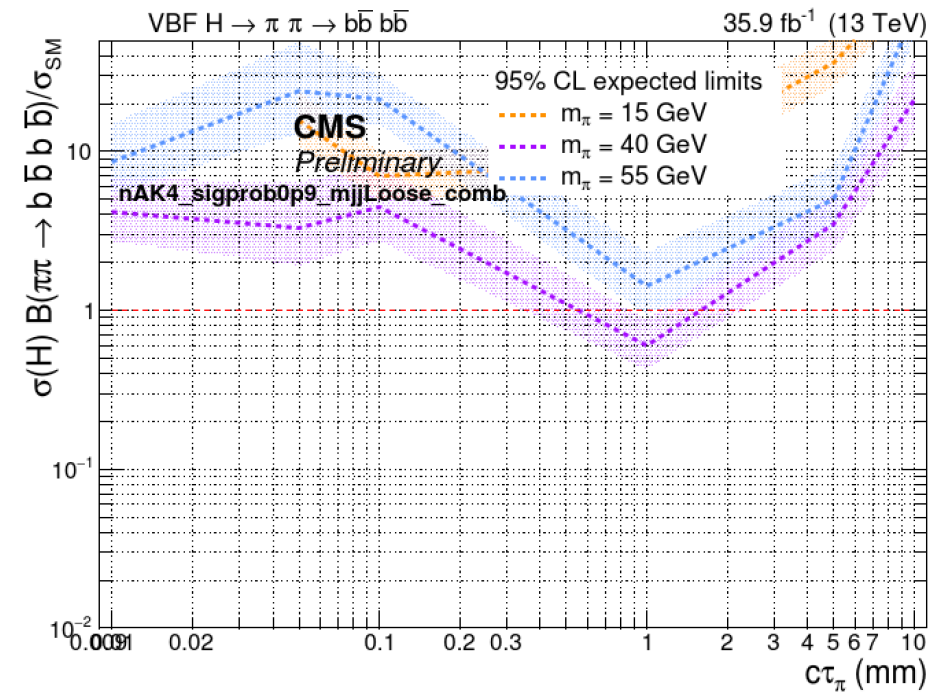
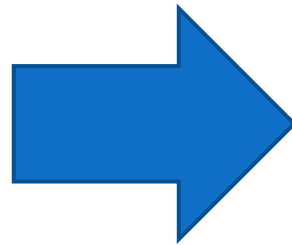
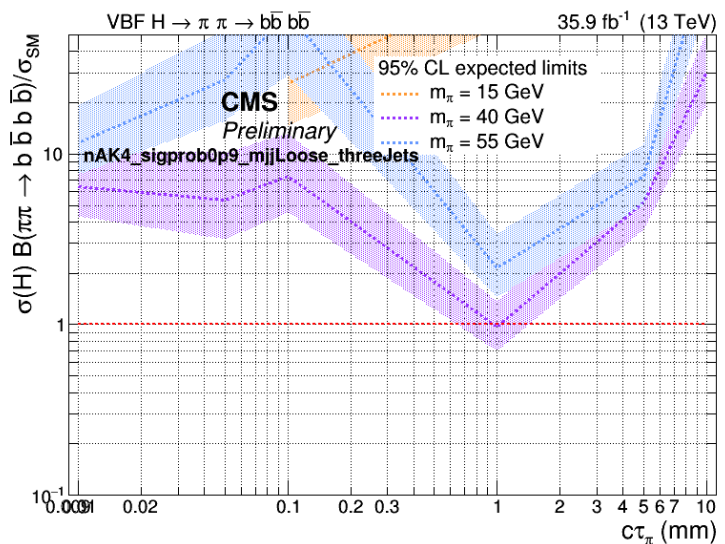
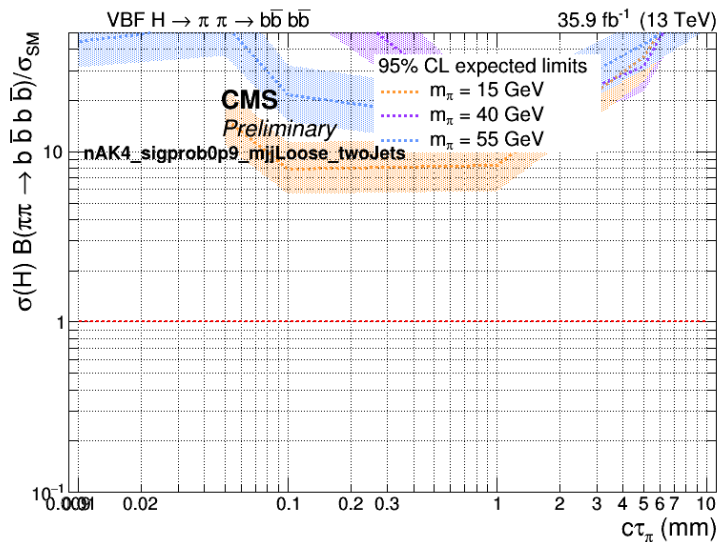
Results from last week

# New trained FCN for all masses



# FCN for all masses parametrized - Limits

COMBINATION of two and three leading jets.

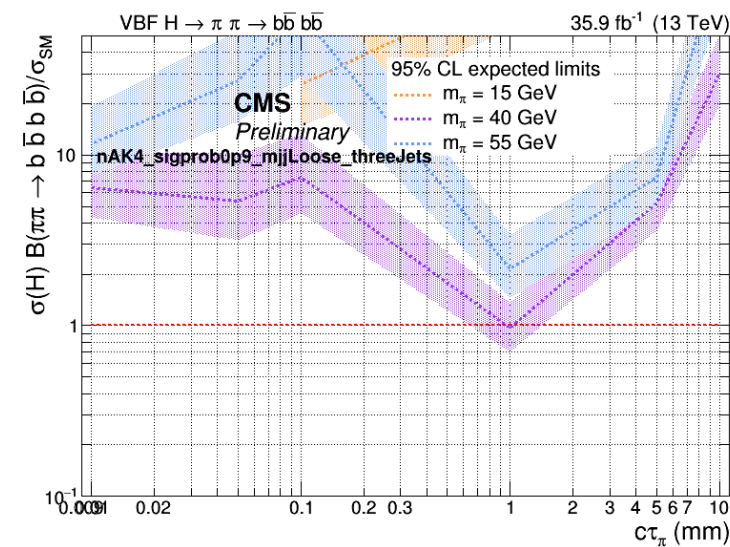
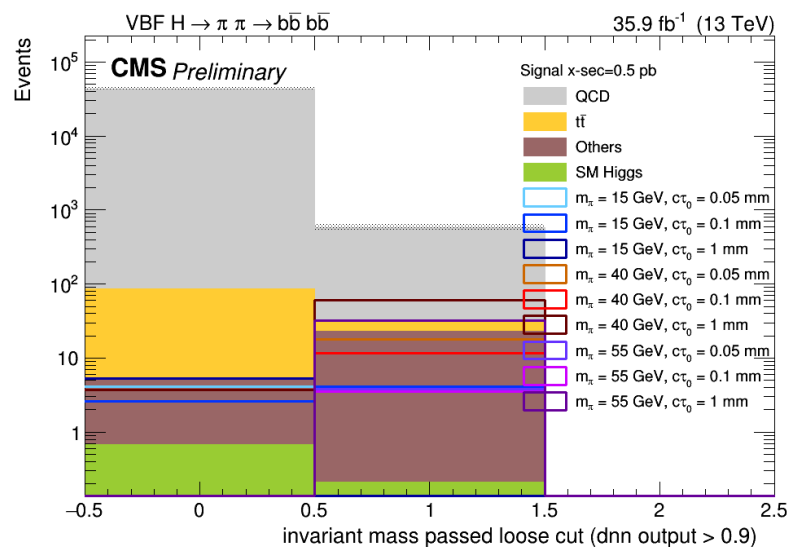
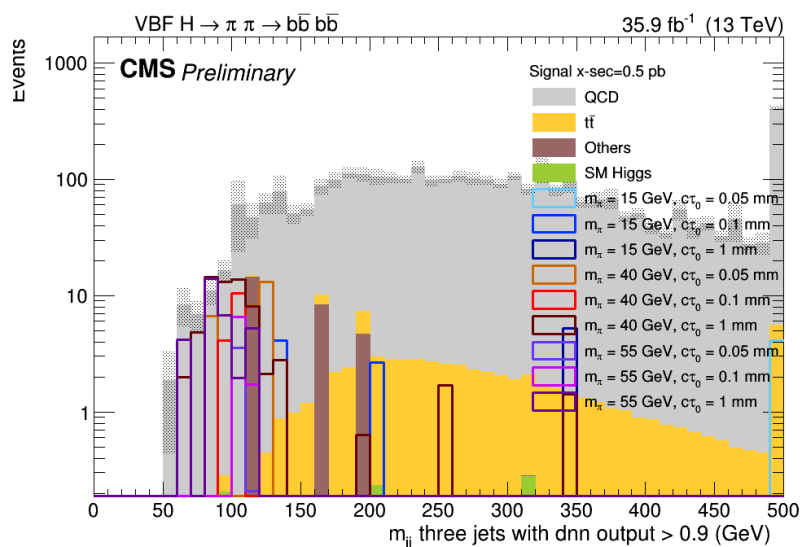
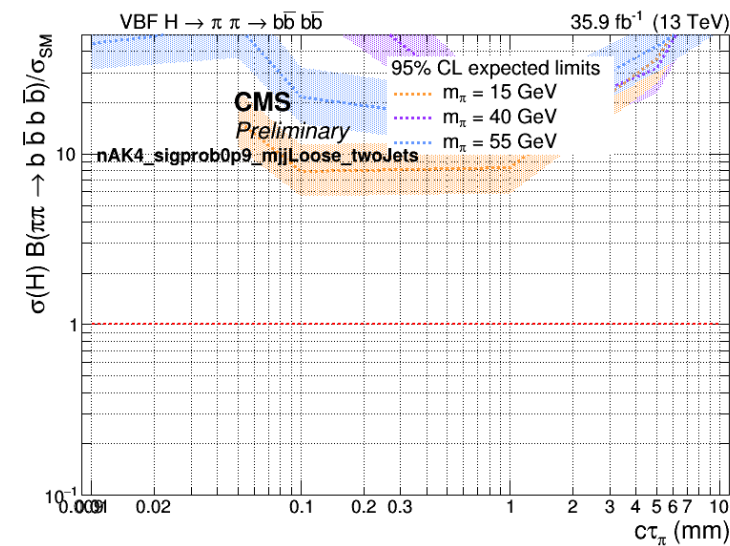
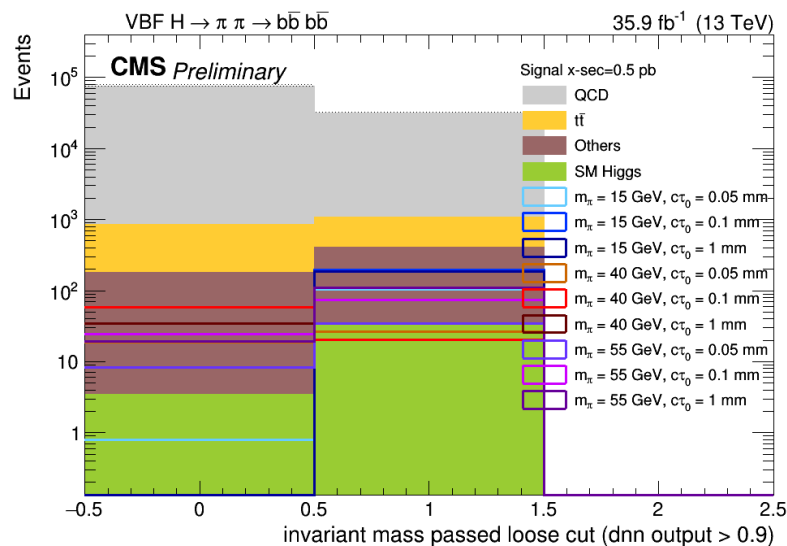
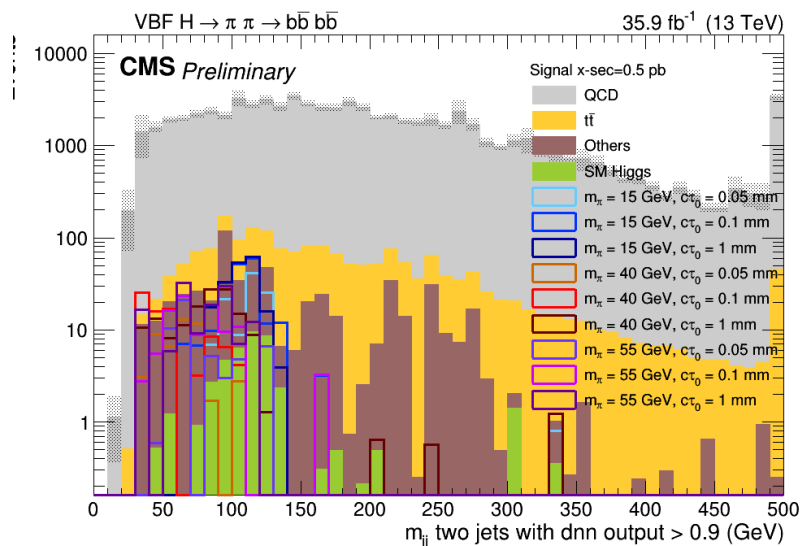




# New trained FCN for all masses - Limits

Efficiency factors are new calculated and applied to  $t\bar{t}$  and QCD events.

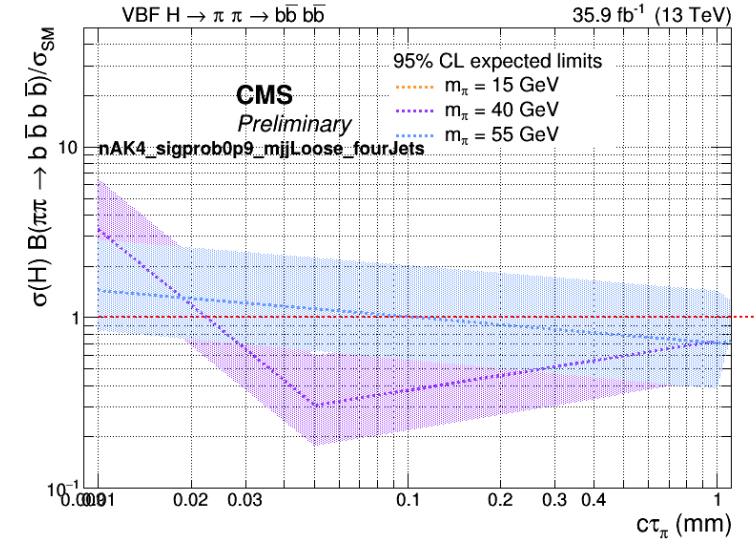
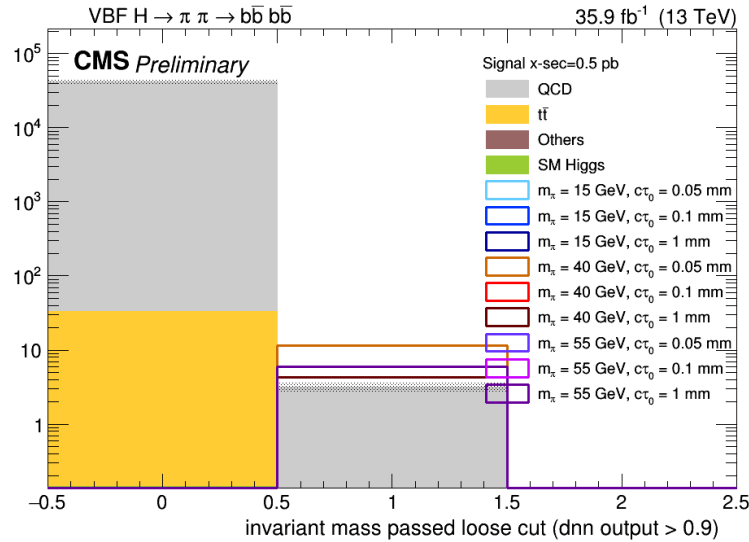
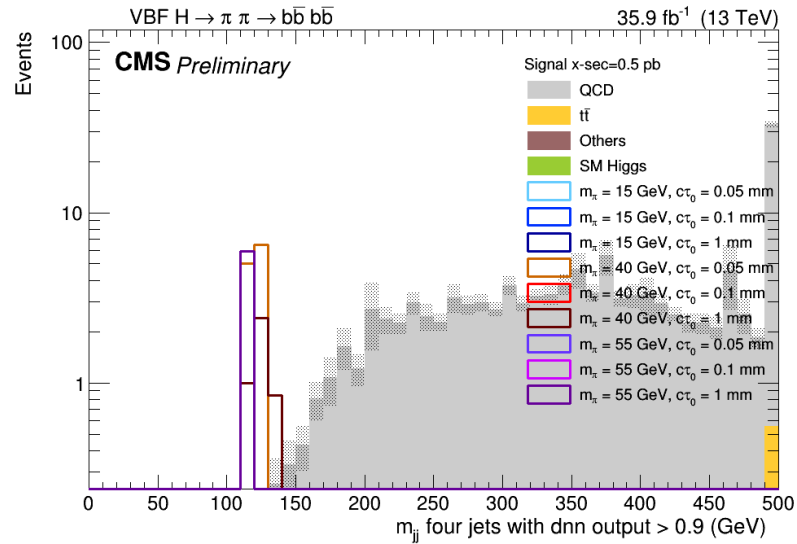
So far only leading jets used to calculate invariant mass, no permutation (due to complication for combined efficiency definition).



# New trained FCN for all masses - Limits

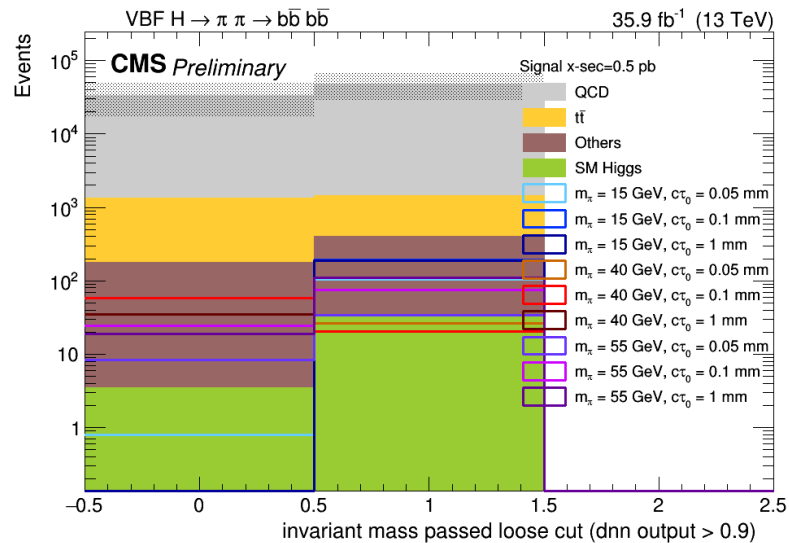
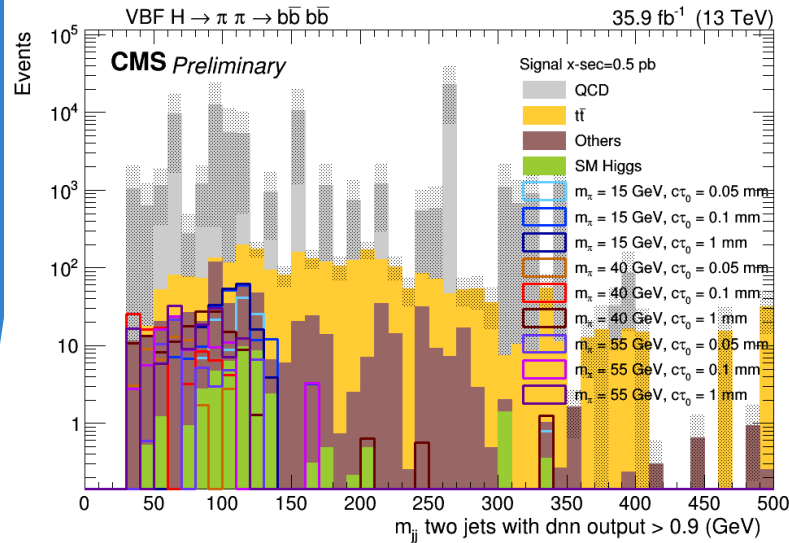
Efficiency factors are new calculated and applied to  $t\bar{t}$  and QCD events.

So far only leading jets used to calculate invariant mass, no permutation (due to complication for combined efficiency definition).

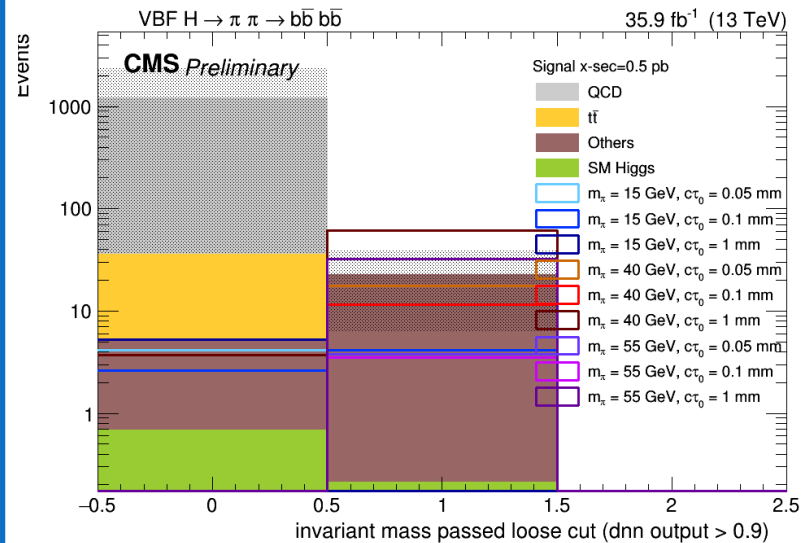
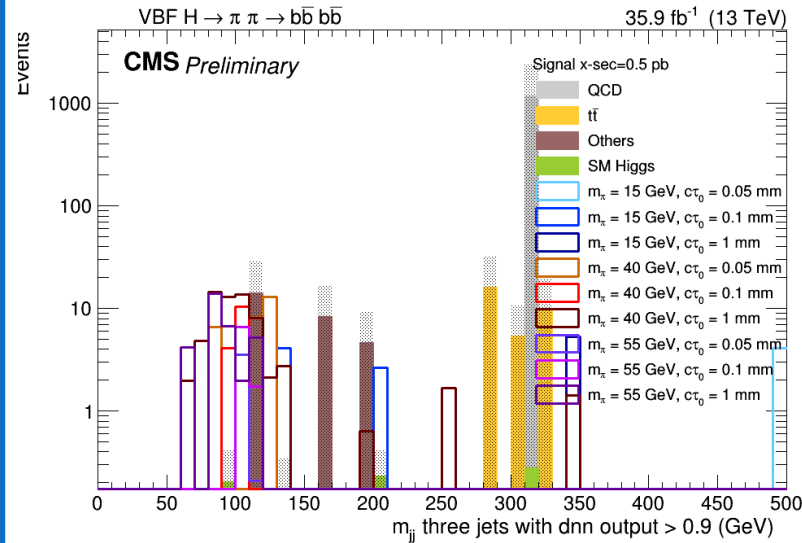


# Plots without Efficiency Factors Applied

## Two jets



## Three jets



## Four jets

