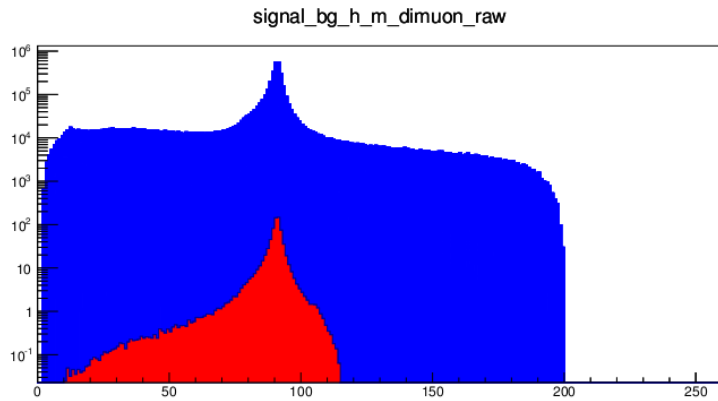


Weekly report

Kong Lingteng

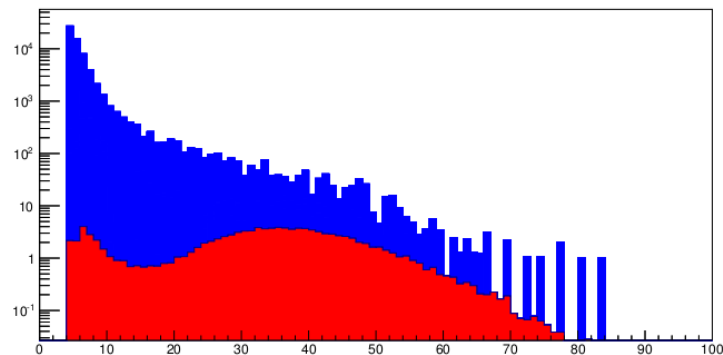
2018.10.11

Some cut conditions

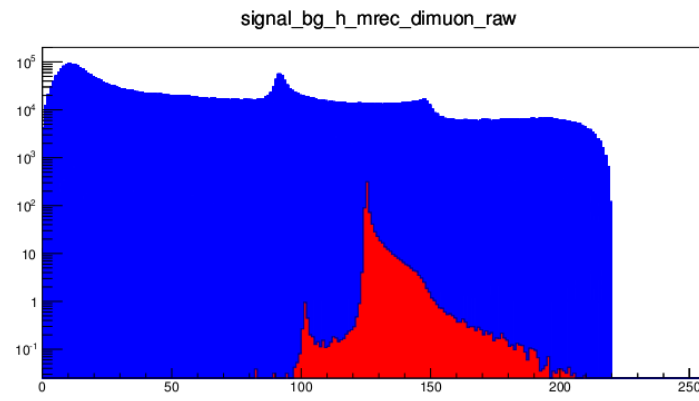


$80 < M(\text{dimuon}) < 100$

signal_bg_h_npfo

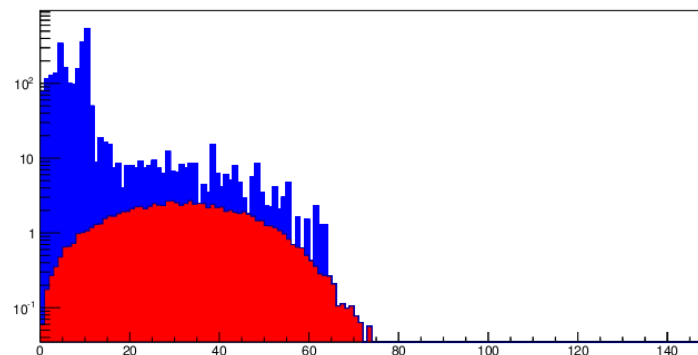


$N(\text{pfo}) > 15$ (particle flow object)



$120 < \text{RecM}(\text{dimuon}) < 135$

signal_bg_h_vis_all_pt



$P_t(\text{total visible}) > 10$

background
signal

Signal – Background Cut Flow table

	signal	background
Missing mass > M(di-jets)	13563	520452
80 < M(dimuon) < 100	12416	237664
120 < RecM(dimuon) < 135	11087	17141
N(pfo) > 15	9231	779
Pt(total visible) > 10	8727	315
Min angle > 0.3	8149	219
Missing Mass & M(dijets)	5672	101
Pt(jet1) > 3 & Pt(jet2) > 3	5032	8
N(lepton) < 3	4857	7

Plan

- Understand the physical meaning of the cut like p_{of} and P_t .
- Try different cut order and cut range and find the best.
- Learn and calculate $\text{Br}(H \rightarrow ZZ)$