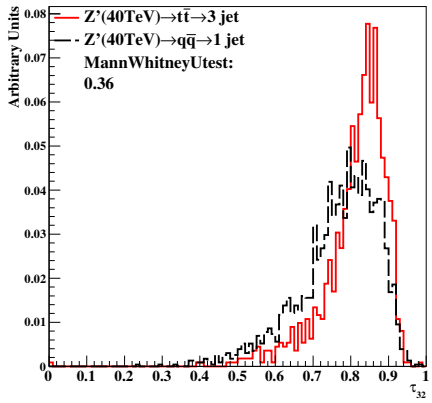
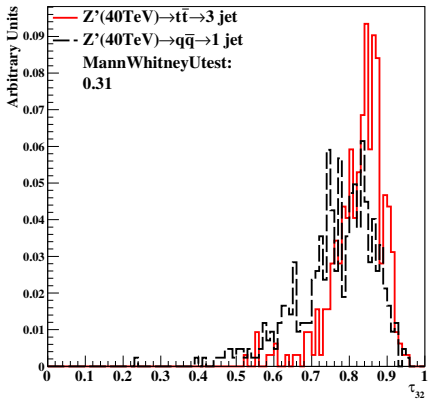
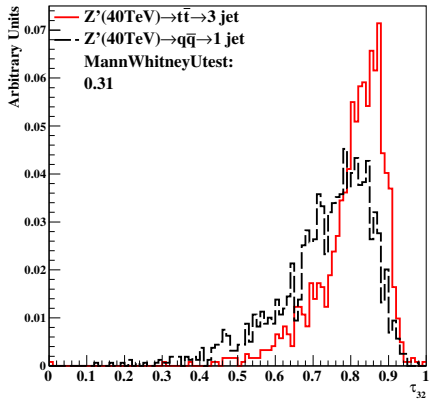


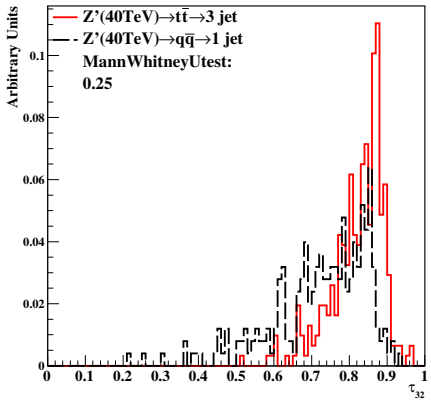
(a) 40TeV at 20×20(cm×cm) in cluster (no cut)



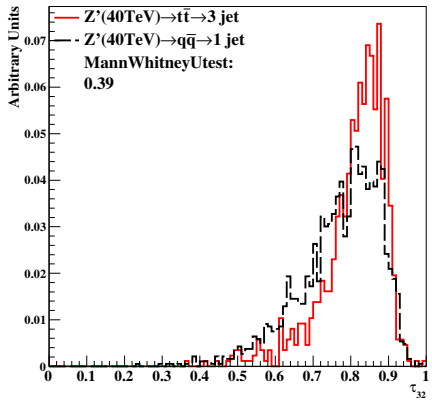
(b) 40TeV at 20×20(cm×cm) in cluster (after cut)



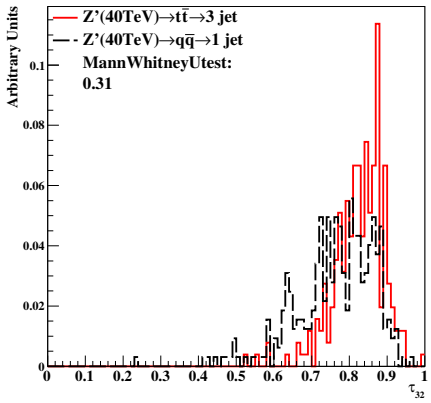
(c) 40TeV at 5×5(cm×cm) in cluster (no cut)



(d) 40TeV at 5×5(cm×cm) in cluster (after cut)

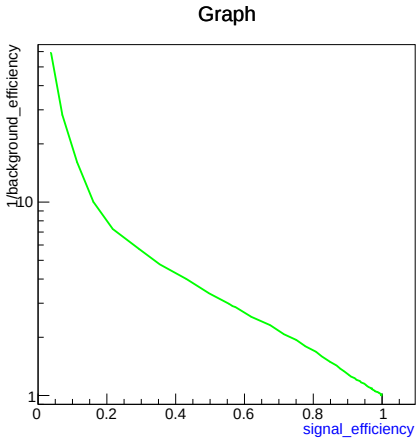


(e) 40TeV at 1×1(cm×cm) in cluster (no cut)

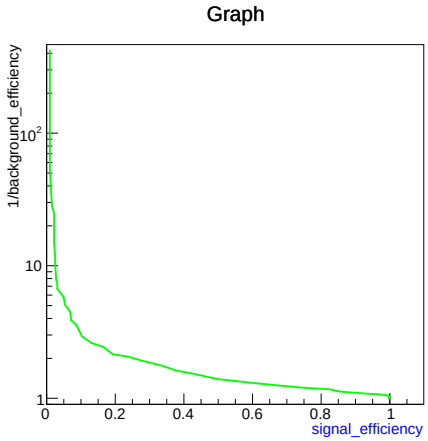


(f) 40TeV at 1×1(cm×cm) in cluster (after cut)

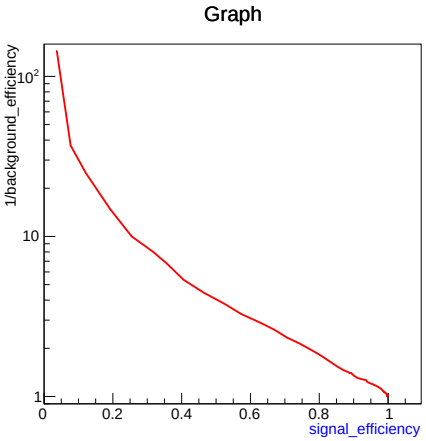
Figure 1: Distributions of Mann-Whitney value U in 5, 10, 20, 40TeV energy collision for τ_{32} in different detector sizes. Cell Size in 20×20, 5×5, and 1×1(cm×cm) are shown here, and all use 100 bins here.



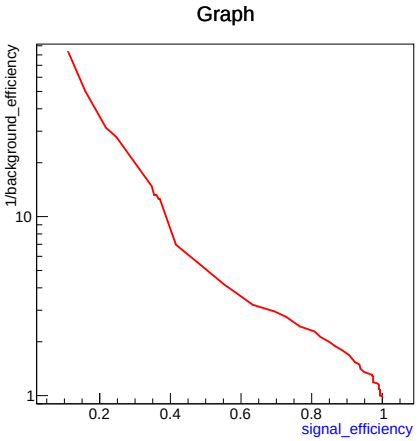
(a) 40TeV at 20×20(cm×cm) in cluster (no cut)



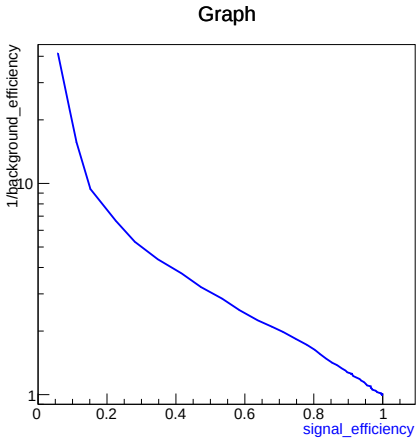
(b) 40TeV at 20×20(cm×cm) in cluster (after cut)



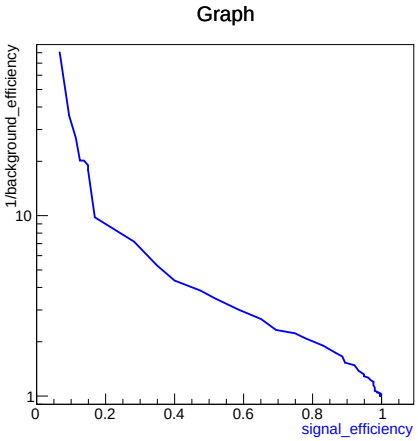
(c) 40TeV at 5×5(cm×cm) in cluster (no cut)



(d) 40TeV at 5×5(cm×cm) in cluster (after cut)

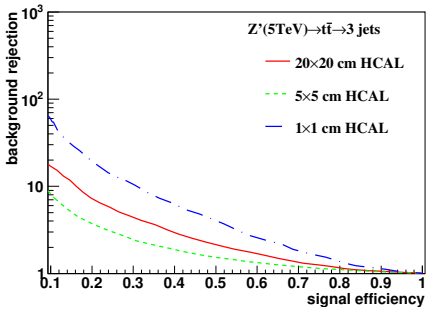


(e) 40TeV at 1×1(cm×cm) in cluster (no cut)

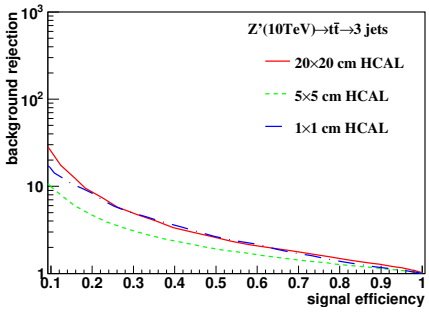


(f) 40TeV at 1×1(cm×cm) in cluster (after cut)

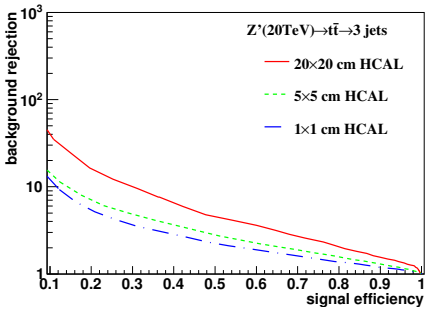
Figure 2: Signal efficiency versus background rejection rate using τ_{32}, all use 100 bins.



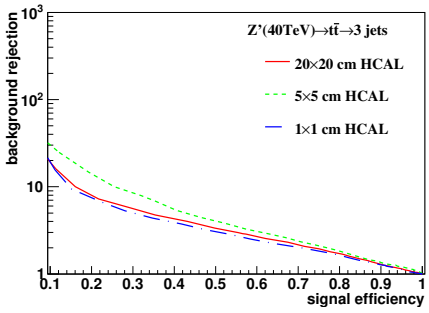
(a) 5 TeV using cluster method with New2 no cut Method



(b) 10 TeV using cluster method with New2 no cut Method

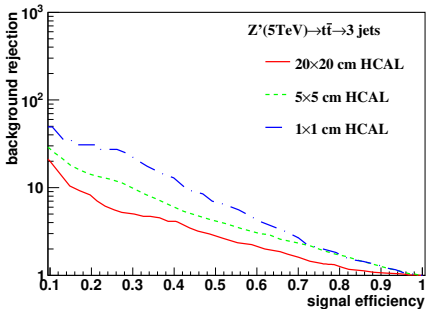


(c) 20 TeV using cluster method with New2 no cut Method

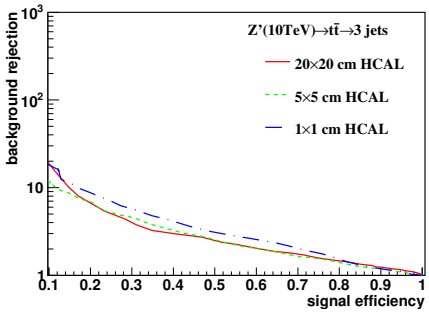


(d) 40 TeV using cluster method with New2 no cut Method

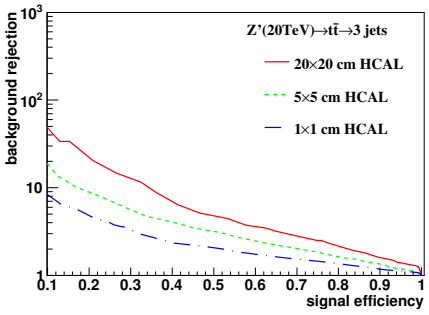
Figure 3: Signal efficiency versus background rejection rate using τ_{32} .The energies of collision at (a)5, (b)10, (c)20, (d)40TeV are shown here. In each picture, the three ROC curves correspond to different detector sizes.



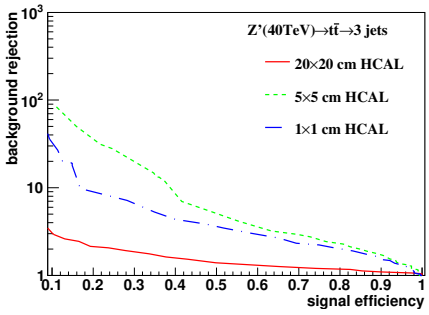
(a) 5 TeV using cluster method with New2 after cut Method



(b) 10 TeV using cluster method with New2 after cut Method



(c) 20 TeV using cluster method with New2 after cut Method



(d) 40 TeV using cluster method with New2 after cut Method

Figure 4: Signal efficiency versus background rejection rate using τ_{32} .The energies of collision at (a)5, (b)10, (c)20, (d)40TeV are shown here. In each picture, the three ROC curves correspond to different detector sizes.