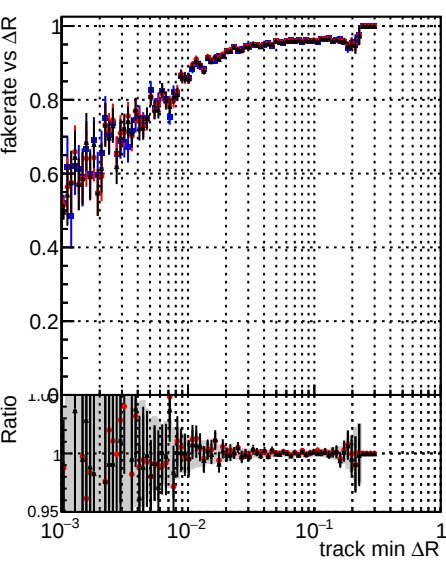
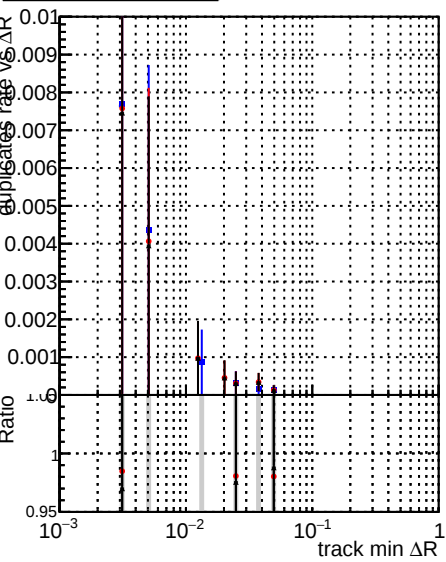


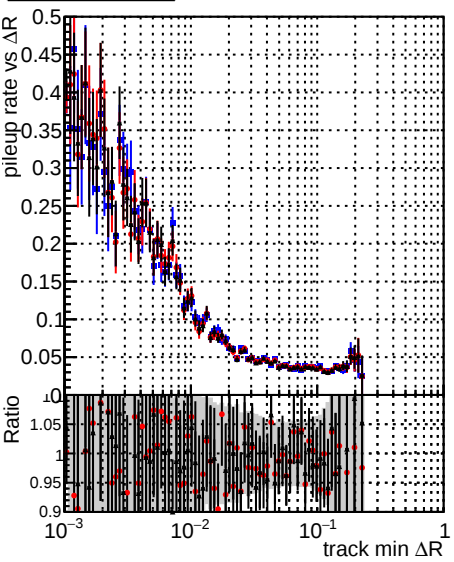
Fake rate vs dr



Duplicates Rate vs dr

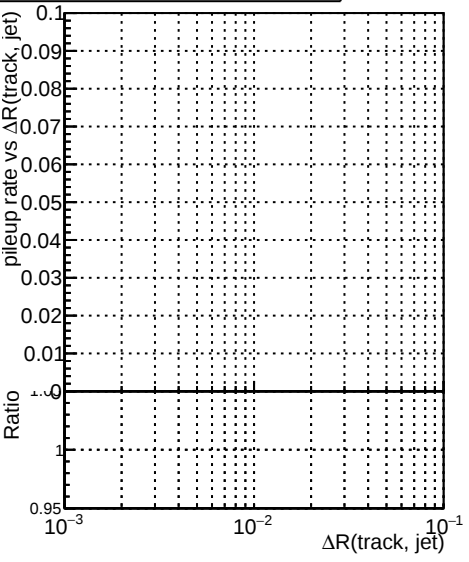
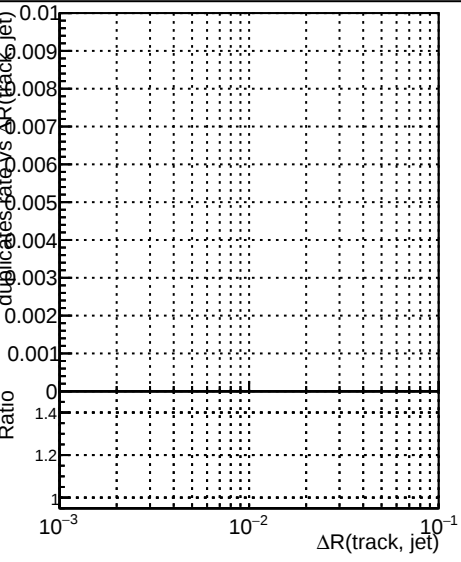


Pileup rate vs dr

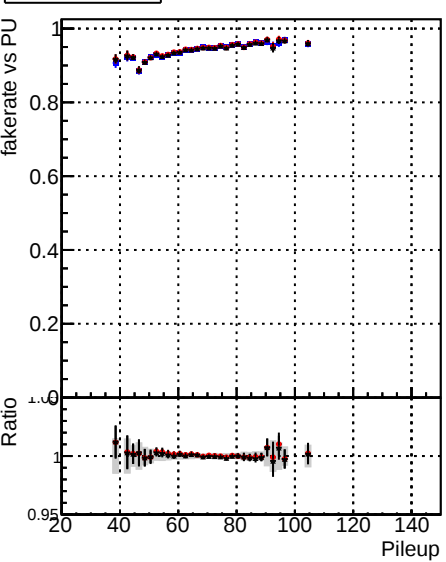


Legend:  
-  $\Delta R$  original step2 ttbar-phase1-newgeom (blue line with dots)  
-  $\Delta R$  pixelCPE step2 ttbar-phase1-newgeom (red line with dots)  
-  $\Delta R$  pixelCPENoMatR step2 ttbar-phase1-newgeom (black line with dots)

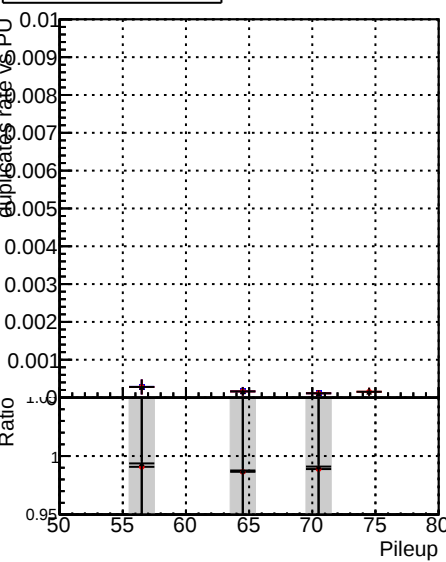
Fake rate vs



Fake rate vs pu



Duplicates Rate vs pu



Pileup rate vs pu

