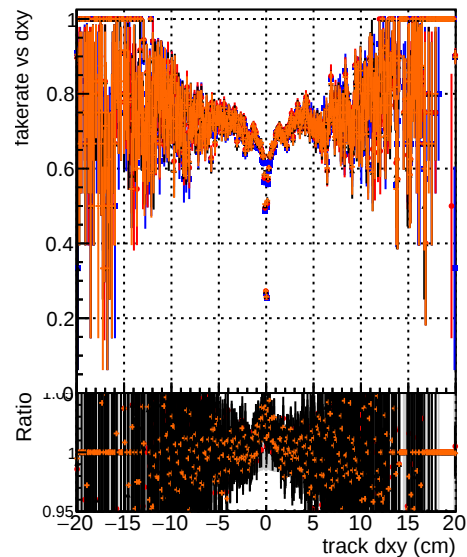
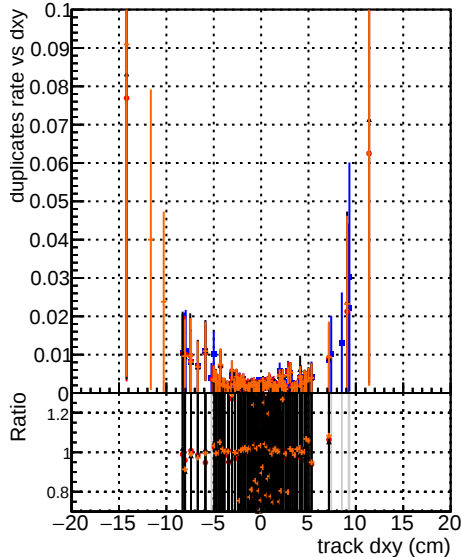


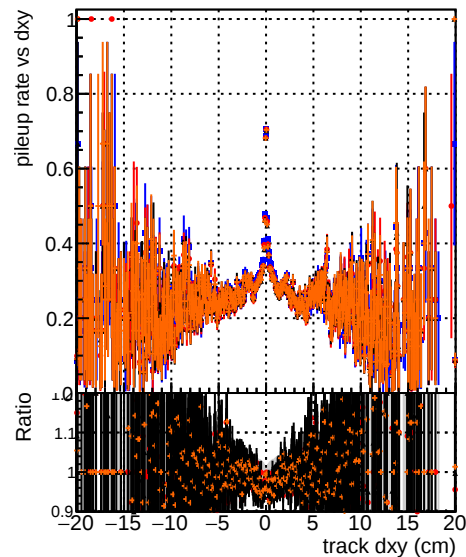
**Fake rate vs dxy**



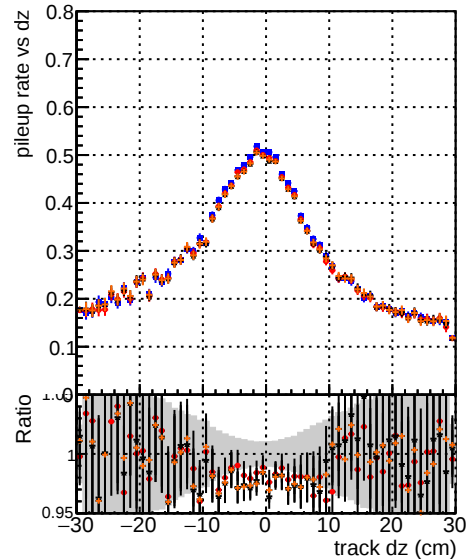
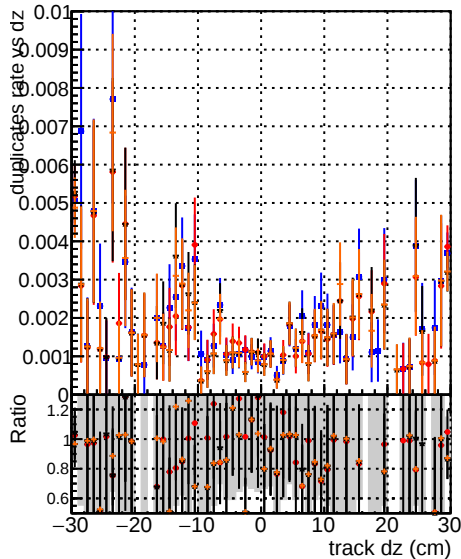
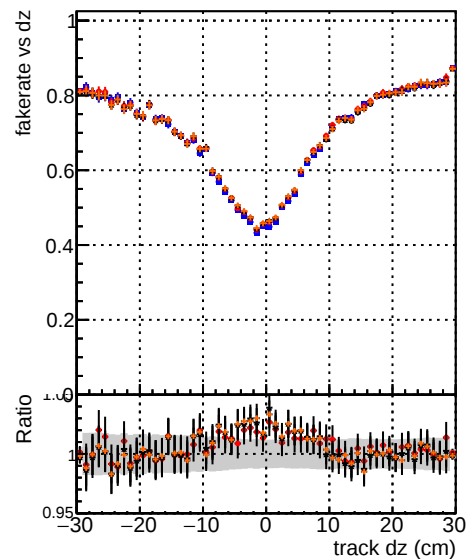
**Duplicates Rate vs Dxy**



**Pileup rate vs dxy**



**Fake rate vs dz**



BGM original\_step2\_tbar\_phase1\_newgeom  
 BGM+pixel CP+template\_step2\_tbar\_phase1\_newgeom  
 BGM+pixel CP+template+curtisquare\_new2\_step2\_tbar\_phase1\_newgeom