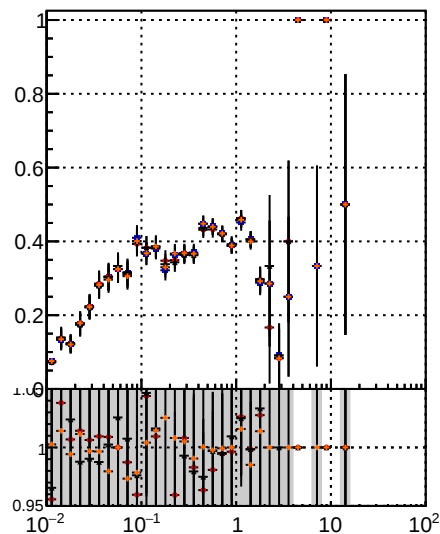


## Fake rate vs vertpos



### Duplicates Rate vs vertpos



### Pileup rate vs vertpos

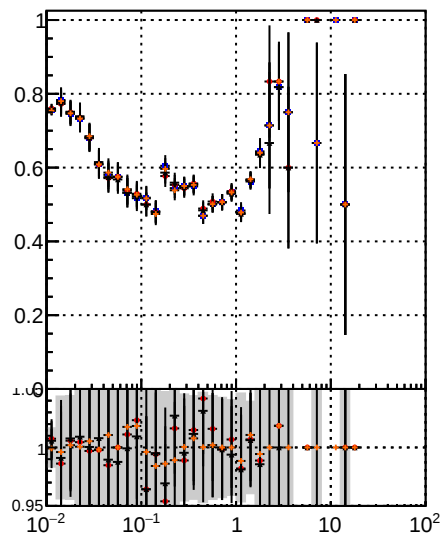
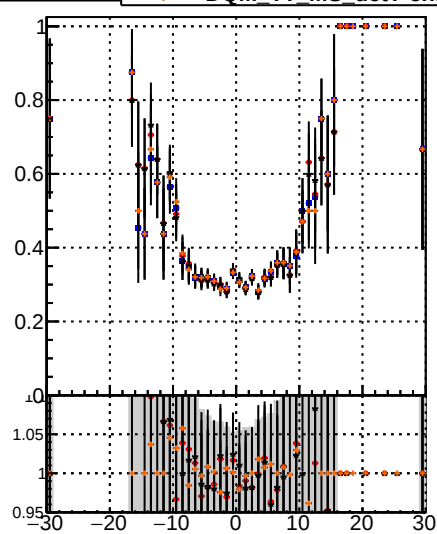
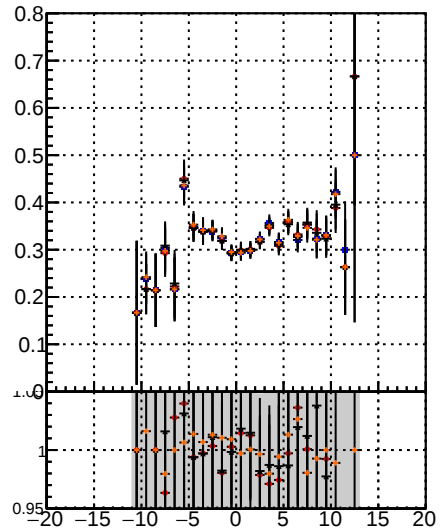


Figure 1: Fake rate vs  $v$ . The plot shows the fake rate for different variables as a function of  $v$ . The variables are DOM, TT, MS, detT-dpdq, and detT-chi2. The fake rate for detT-dpdq is significantly higher than for the other variables.



### Fake rate vs. sim PV z



### Duplicates Rate vs sim PV z



### Pileup rate vs. sim PV z

