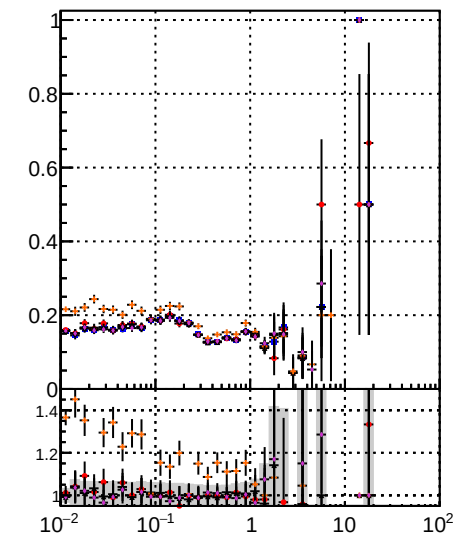
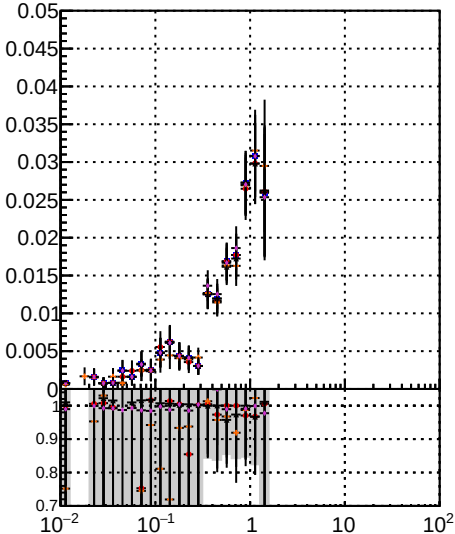


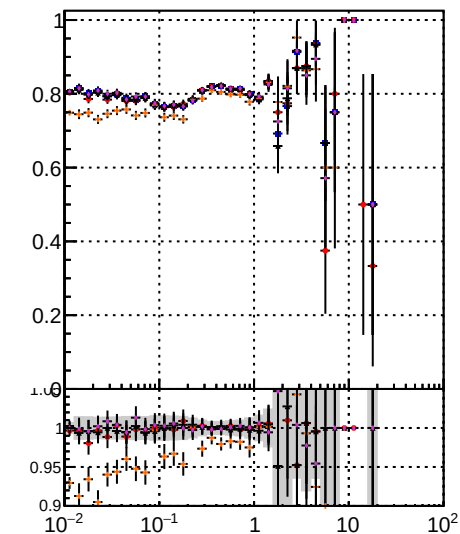
## Fake rate vs vertpos



### Duplicates Rate vs vertpos



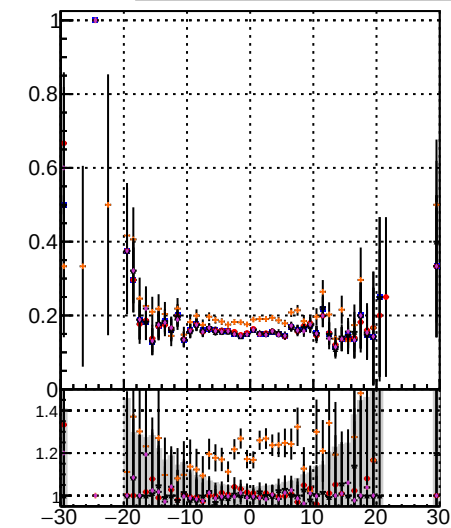
### Pileup rate vs vertpos



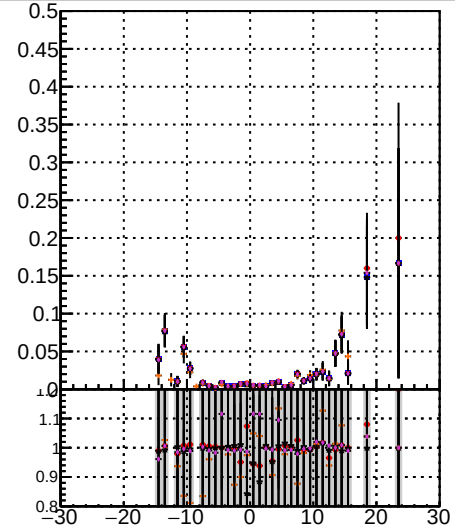
Fake rate vs  $v$

DOM TT MS init

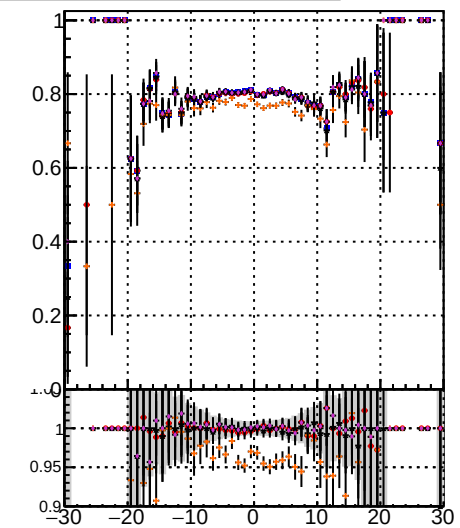
data mc



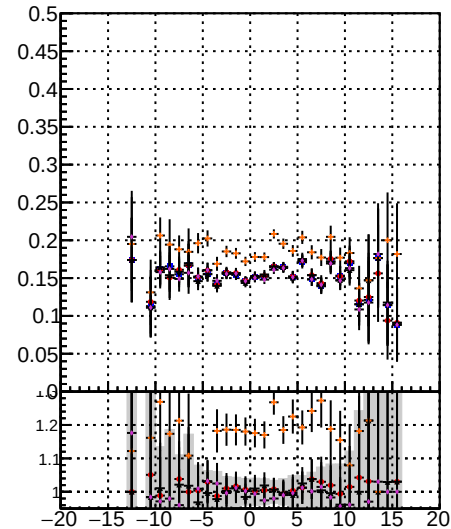
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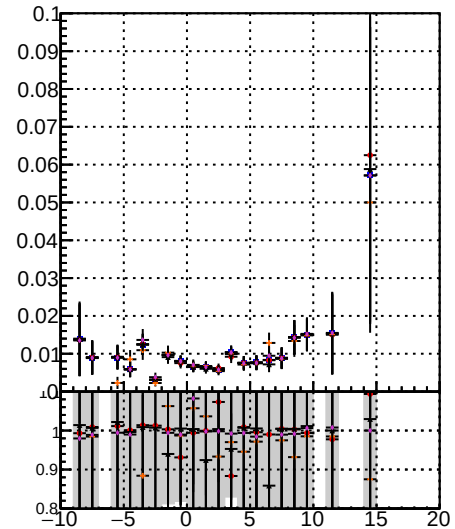
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**Fake rate vs. sim PV z**



### Duplicates Rate vs sim PV z



### Pileup rate vs. sim PV z

