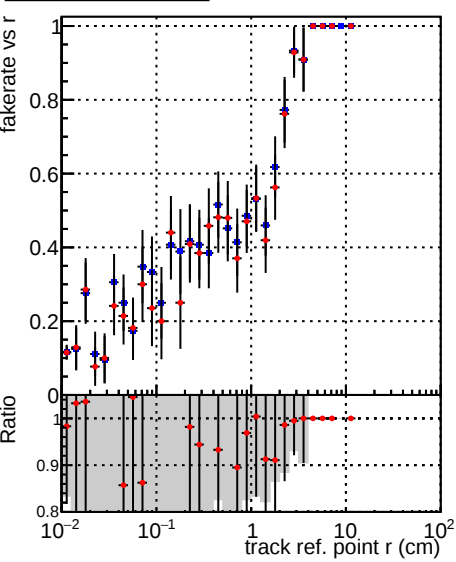


**Fake rate vs vertpos**



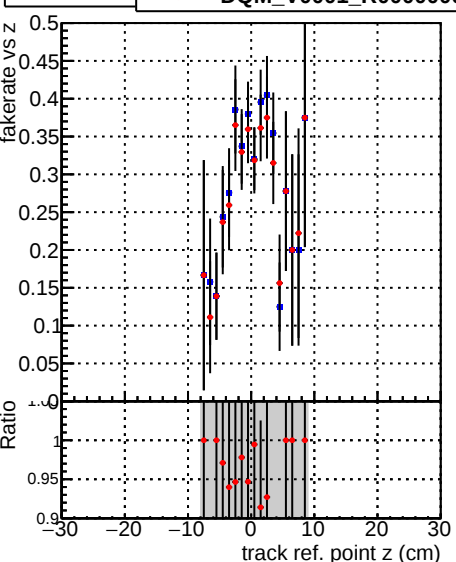
**Duplicates Rate vs vertpos**



**Pileup rate vs vertpos**



**Fake rate vs v**



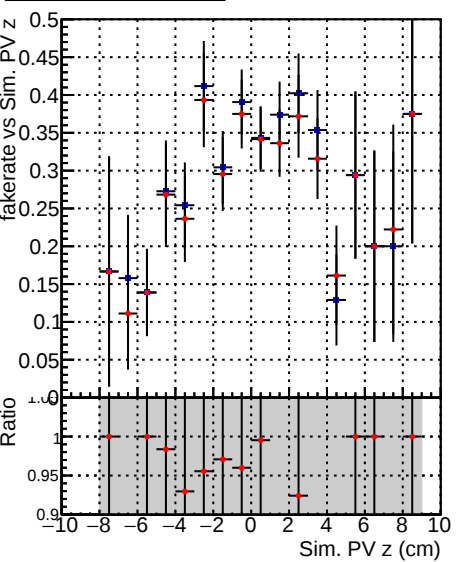
**Duplicates Rate vs v**



**Pileup rate vs v**



**Fake rate vs. sim PV z**



**Duplicates Rate vs sim PV z**



**Pileup rate vs. sim PV z**

