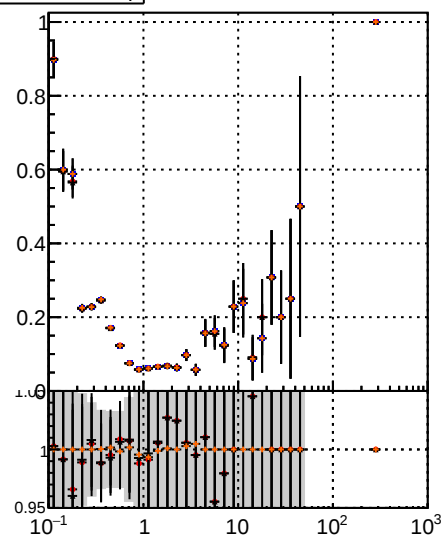
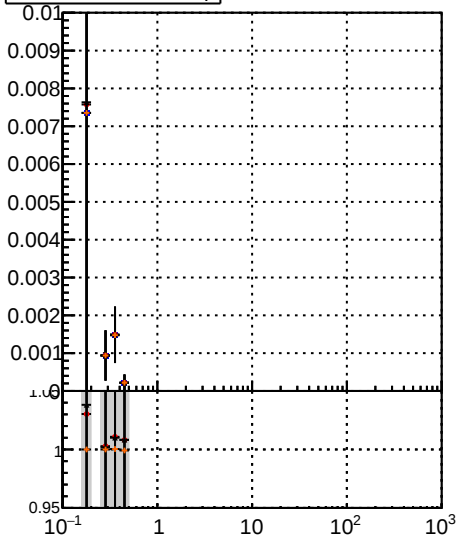
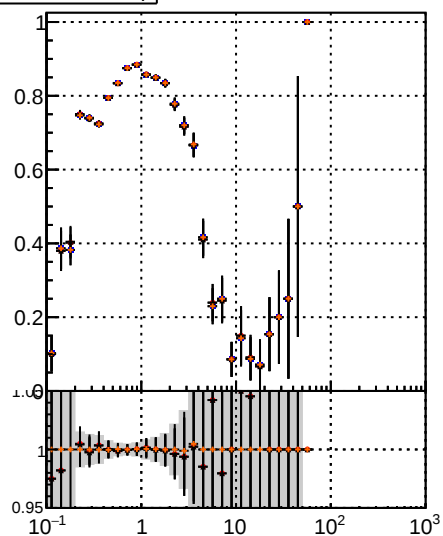
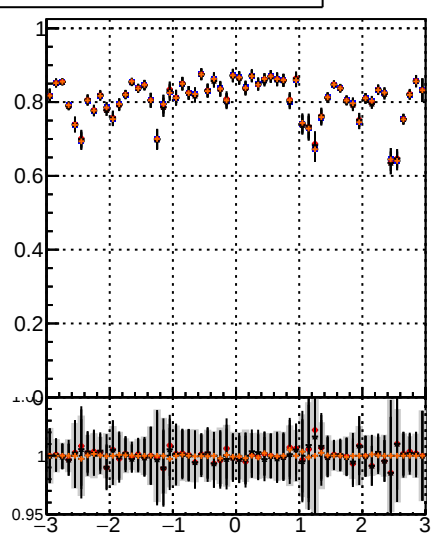
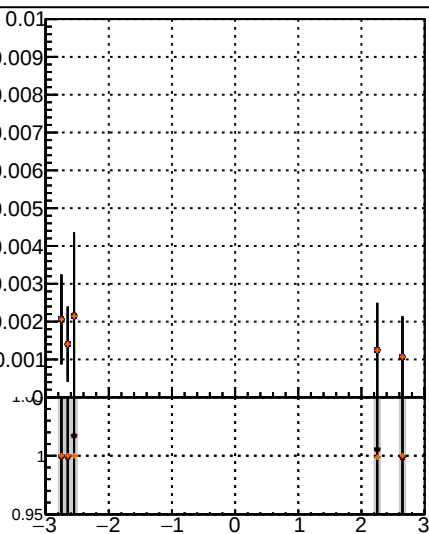
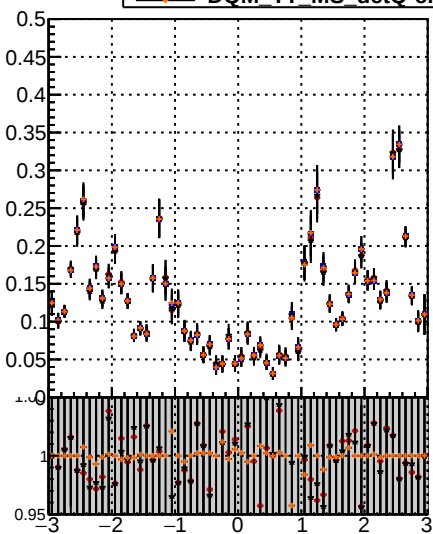
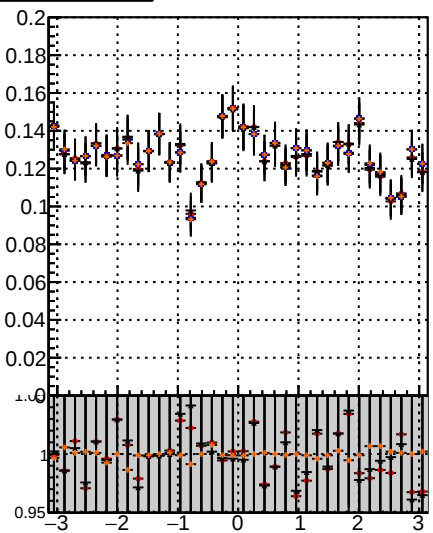
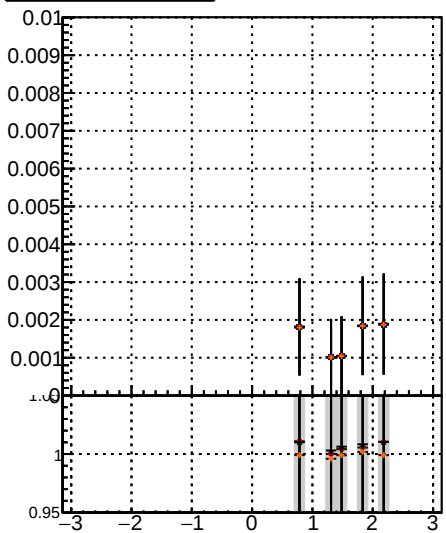


Fake rate vs  $p_T$ Duplicates Rate vs  $p_T$ Pileup rate vs  $p_T$ 

Legend for the plots:

- $MS_{det0}$  (blue line)
- $MS_{det0}+dpdq$  (red line)
- $MS_{det0}+chiz$  (orange line)
- $MS_{det0}$  (black line)
- $MS_{det0}+dpdq$  (red line)
- $MS_{det0}+chiz$  (orange line)

Fake rate vs  $\phi$ Duplicates Rate vs  $\phi$ Pileup rate vs  $\phi$ 