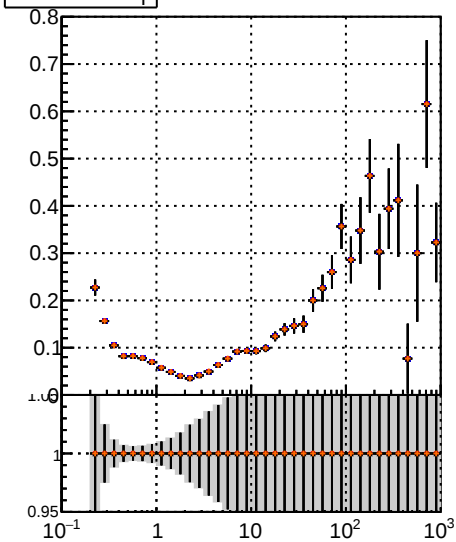
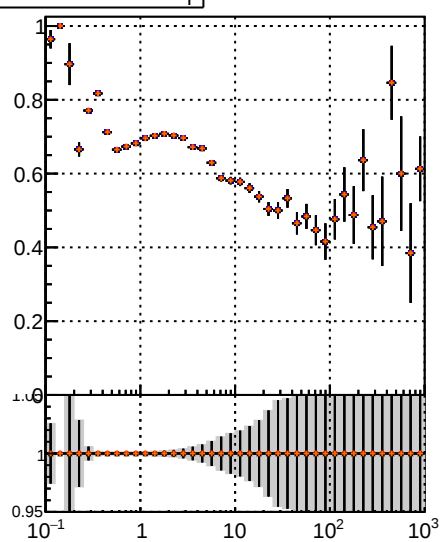
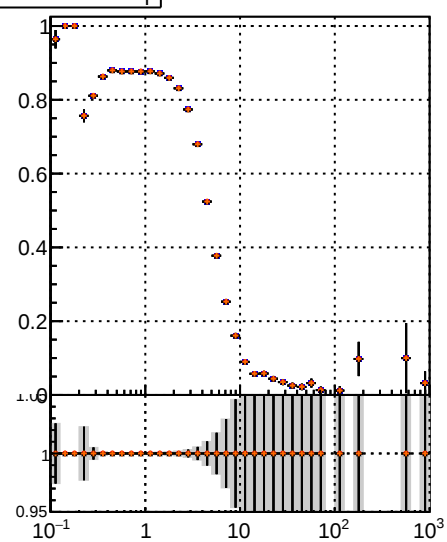
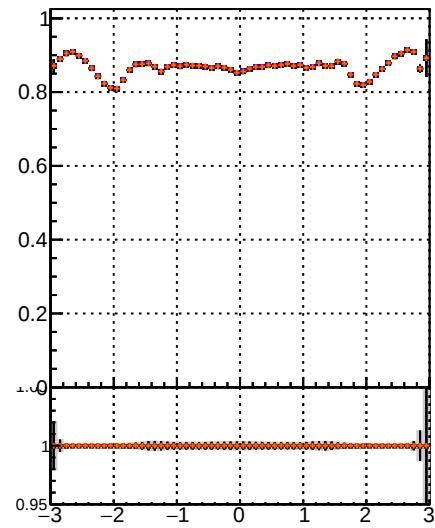
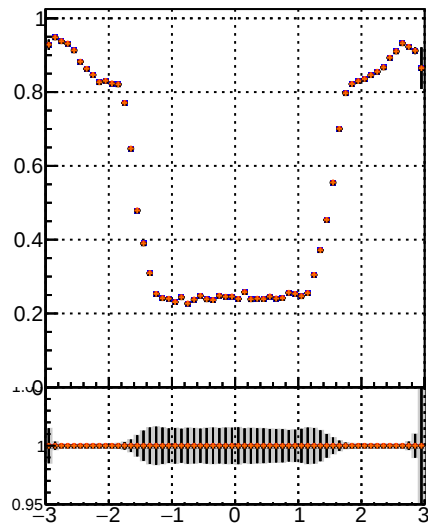
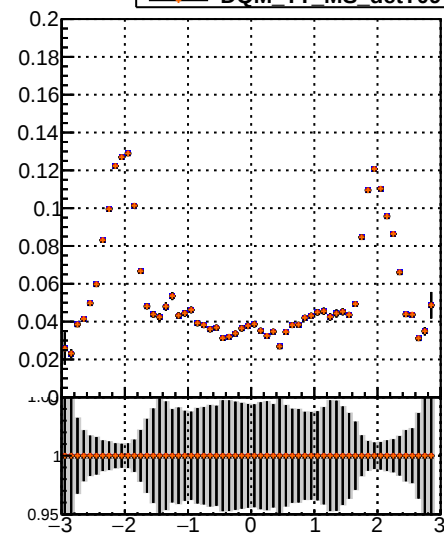
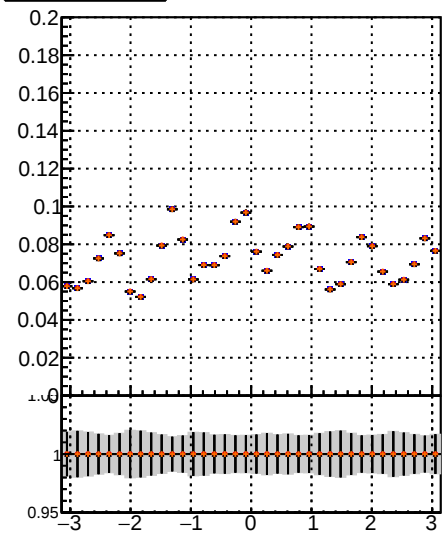
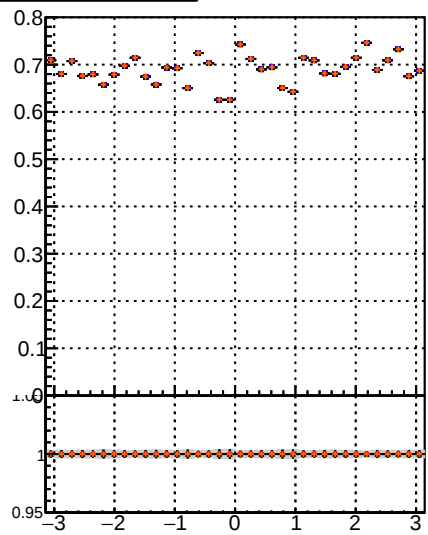


Fake rate vs  $p_T$ Duplicates Rate vs  $p_T$ Pileup rate vs  $p_T$ 

$\text{detT}$   $\text{detL1}$   $\text{det109}$   
 $\text{MS}$   $\text{MS}$   $\text{MS}$   
 $\text{TT}$   $\text{TT}$   $\text{TT}$   
 $\text{BQM}$   $\text{BQM}$   $\text{BQM}$

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