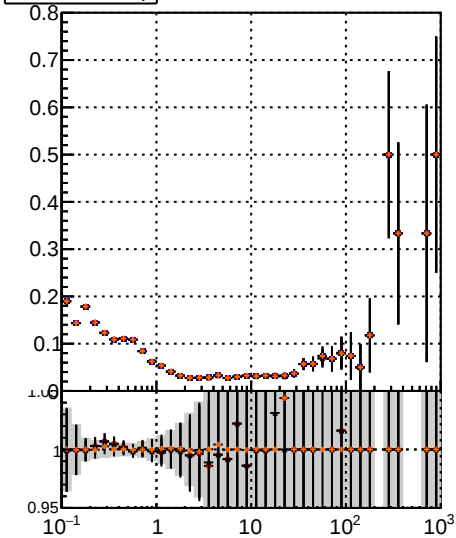
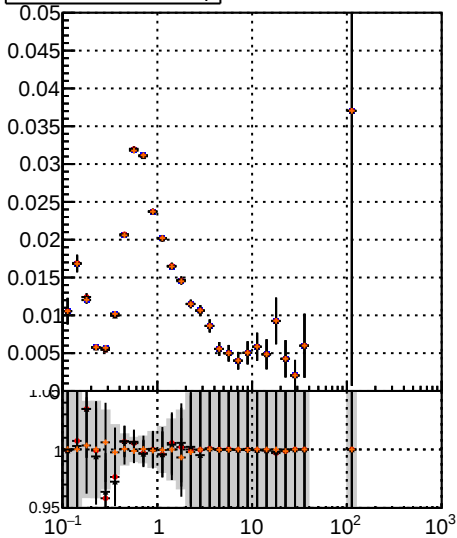
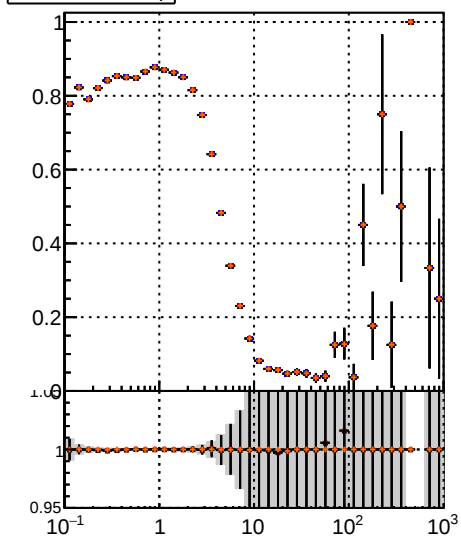
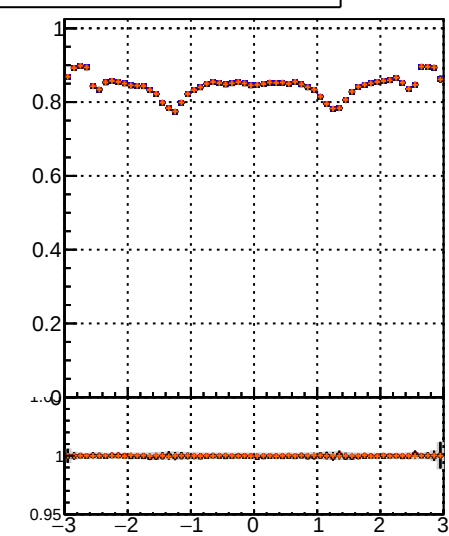
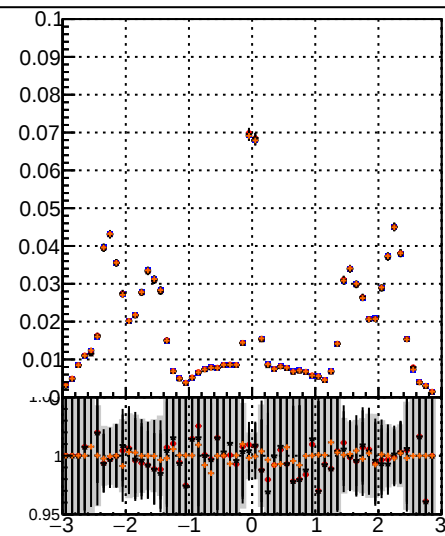
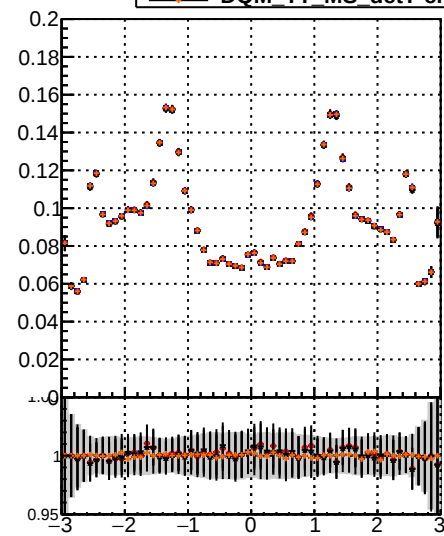
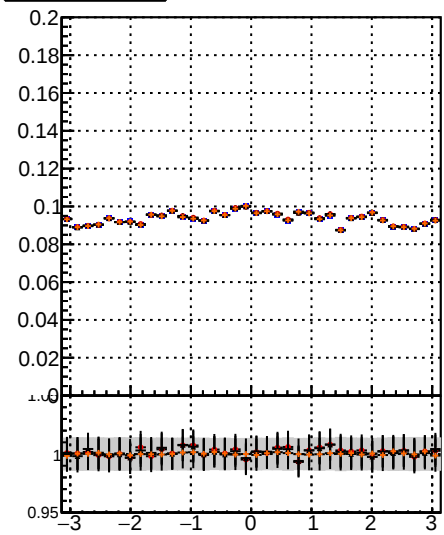
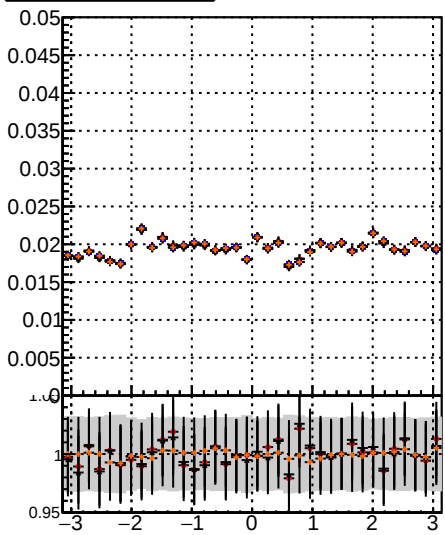


Fake rate vs  $p_T$ Duplicates Rate vs  $p_T$ Pileup rate vs  $p_T$ 

BQM TT MS  
 BQM TT MS detT  
 BQM TT MS detT-dpdq

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