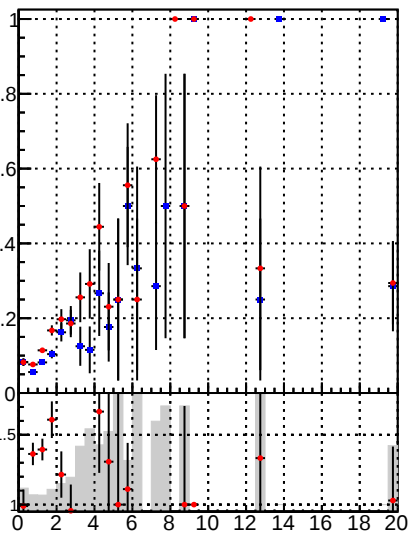
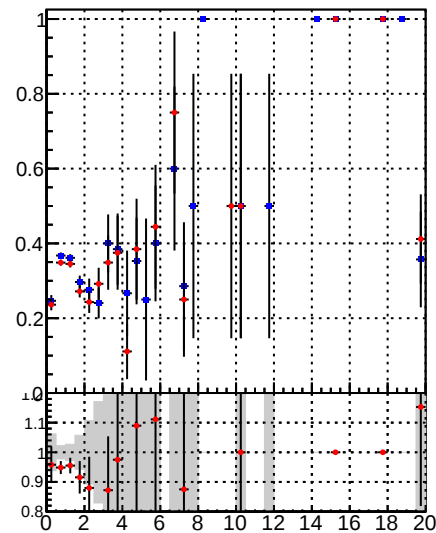


Fake rate vs normalized  $\chi^2$ Duplicates Rate vs normalized  $\chi^2$ Pileup rate vs normalized  $\chi^2$ 

Fake rate vs.

