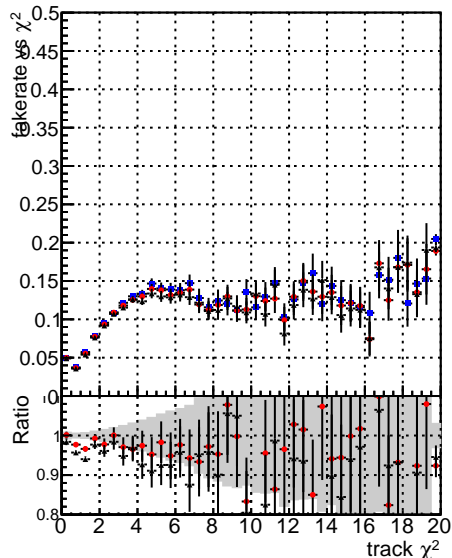
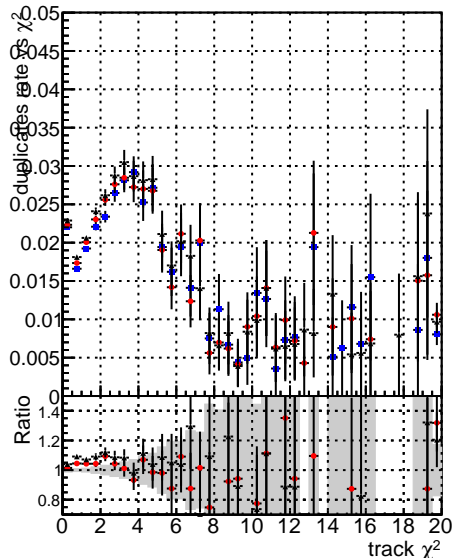


**Fake rate vs normalized  $\chi^2$** **Duplicates Rate vs normalized  $\chi^2$** **Pileup rate vs normalized  $\chi^2$** 