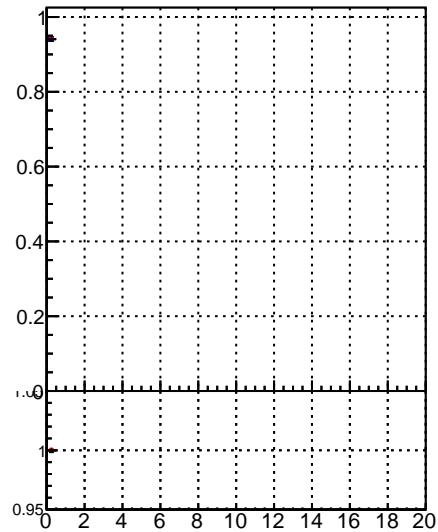
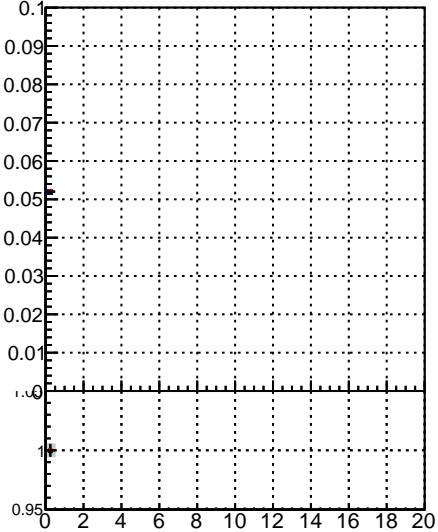
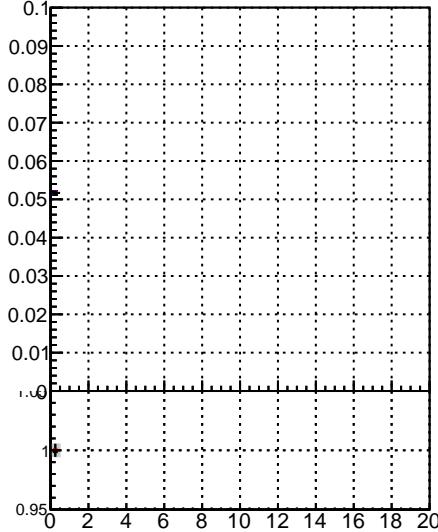


Fake rate vs normalized  $\chi^2$ Duplicates Rate vs normalized  $\chi^2$ Pileup rate vs normalized  $\chi^2$ Fake rate vs.   
  $\text{BGM}_{\text{II}}$   $\text{mRFit-BGM}_{\text{II}}$   
  $\text{BGM}_{\text{III}}$   $\text{mRFit-BGM}_{\text{III}}$   
 adjusted  $\text{BGM}_{\text{II}}$   $\text{mRFit-BGM}_{\text{III}}$  adjusted2