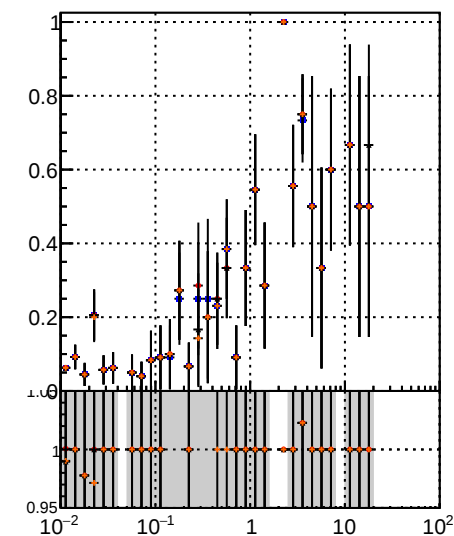


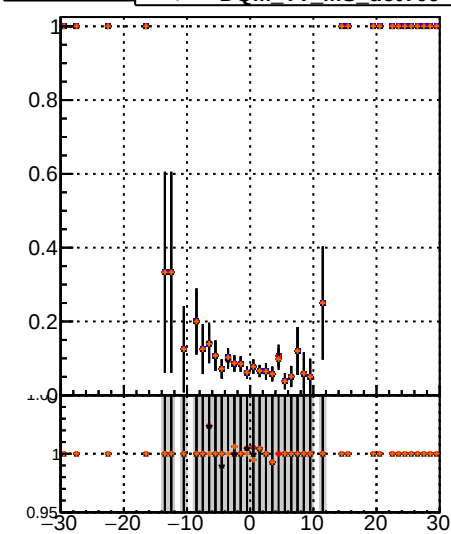
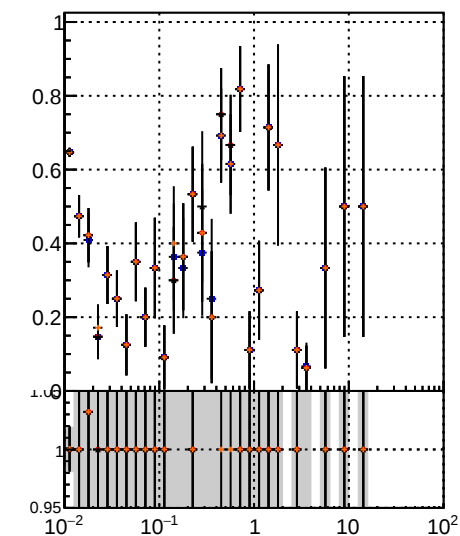
Fake rate vs vertpos



Duplicates Rate vs vertpos

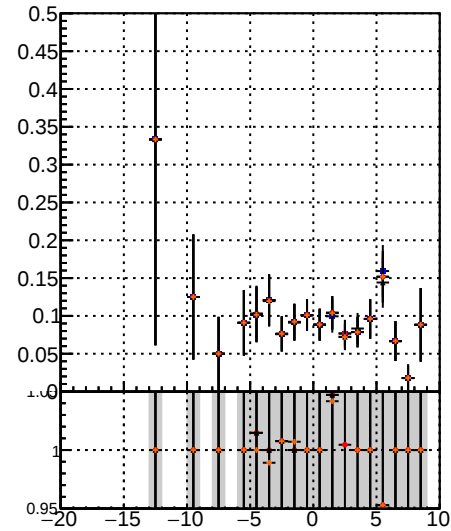


Pileup rate vs vertpos



The figure consists of two panels. The top panel is a plot of the relic density $\Omega_{\text{DM}} h^2$ versus the dark matter mass m_{DM} in GeV. The x-axis ranges from -30 to 30 GeV, and the y-axis ranges from 0.0 to 1.0. Data points are shown as orange circles with vertical error bars. The relic density is constant at 1.0 for $m_{\text{DM}} < -10$ GeV and $m_{\text{DM}} > 10$ GeV. Between $m_{\text{DM}} = -10$ and 10 GeV, the relic density fluctuates between approximately 0.3 and 0.7. The bottom panel is a plot of the relic density $\Omega_{\text{DM}} h^2$ versus the dark matter mass m_{DM} in GeV. The x-axis ranges from -30 to 30 GeV, and the y-axis ranges from 0.95 to 1.0. A shaded region indicates the relic density range, which is constant at 1.0 for $m_{\text{DM}} < -10$ GeV and $m_{\text{DM}} > 10$ GeV. Between $m_{\text{DM}} = -10$ and 10 GeV, the relic density fluctuates between approximately 0.95 and 1.0.

Fake rate vs. sim PV z



Duplicates Rate vs sim PV z



Pileup rate vs. sim PV z

