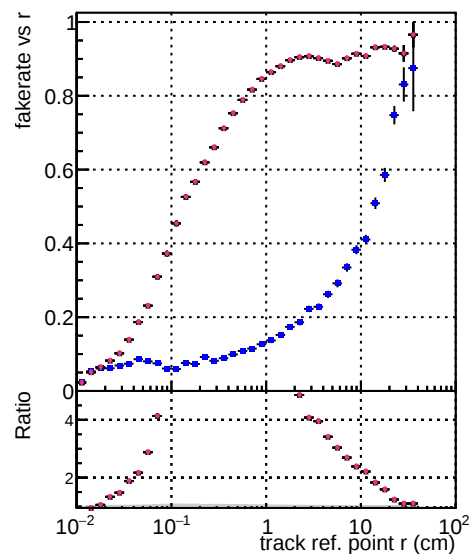
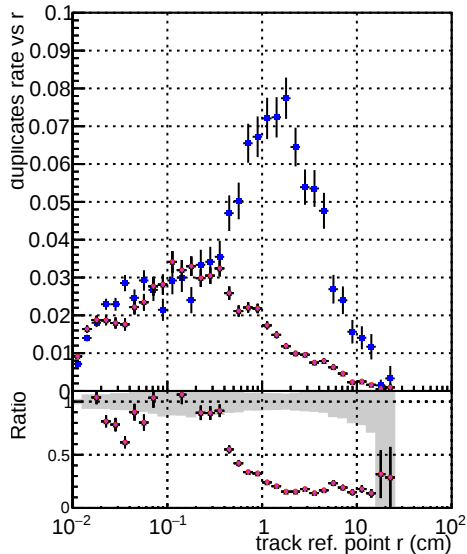


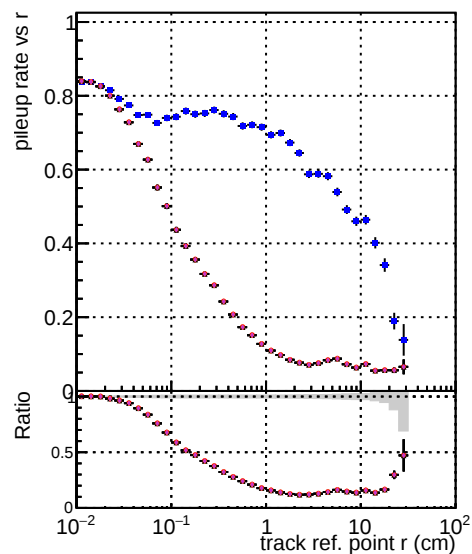
Fake rate vs vertpos



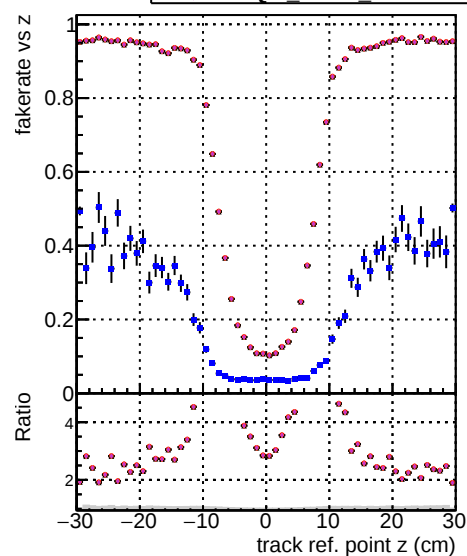
Duplicates Rate vs vertpos



Pileup rate vs vertpos



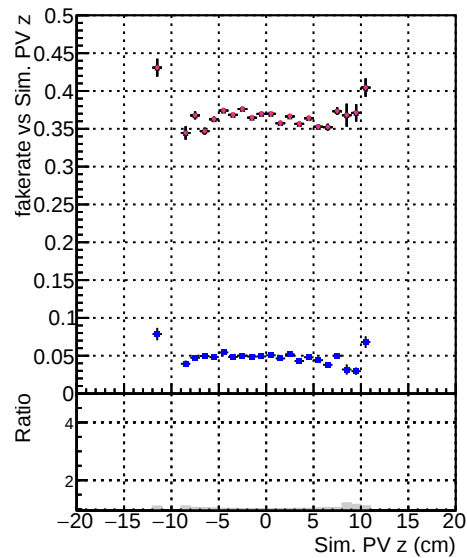
Fake rate vs v



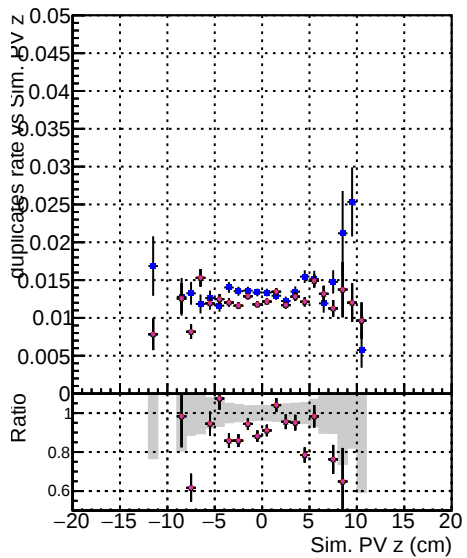
The figure consists of two vertically stacked panels sharing a common x-axis labeled 'track ref. point z (cm)' ranging from -30 to 30. The top panel's y-axis is 'duplicates rate vs z' ranging from 0 to 0.1. It displays two data series: blue circles and red circles, both with vertical error bars. The blue series shows a higher rate, peaking around 0.06 at z ≈ -10 and 0.07 at z ≈ 15. The red series shows a lower, more stable rate around 0.01. The bottom panel's y-axis is 'Ratio' ranging from 0 to 1. It shows a histogram of the ratio, with a shaded gray region representing the expected distribution for a random selection of tracks. The histogram peaks around 0.5 at z ≈ 0.

Figure 1 consists of two panels. The top panel shows the pileup rate (black dots with error bars) and the ratio of pileup rates (blue squares) as a function of track reference point z (cm). The bottom panel shows the ratio of pileup rates (red circles) as a function of track reference point z (cm). Both panels show a peak in the ratio around $z = 0$ cm.

Fake rate vs. sim PV z



Duplicates Rate vs sim PV z



Pileup rate vs. sim PV z

