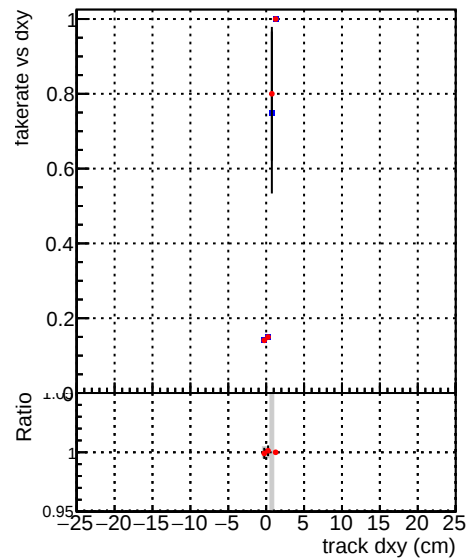
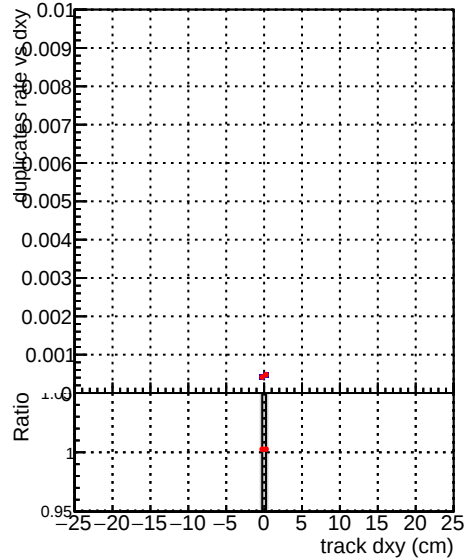


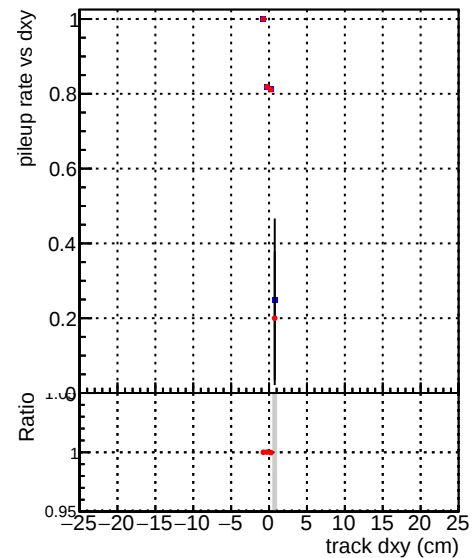
Fake rate vs dxy



Duplicates Rate vs Dxy



Pileup rate vs dxy



Fake rate vs d

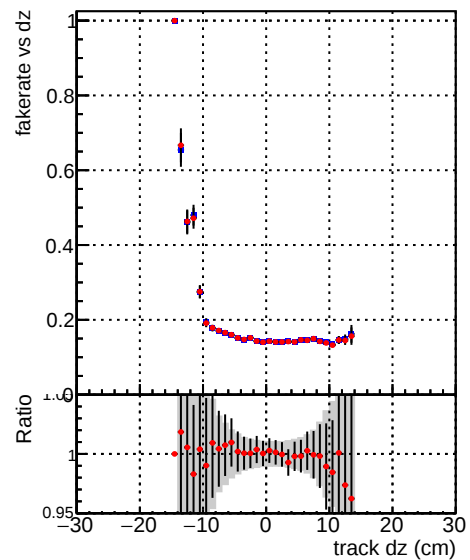


Figure 1 consists of two vertically stacked plots sharing a common x-axis labeled 'track dz (cm)' ranging from -30 to 30. The top plot shows the 'duplicates rate vs dz' on a logarithmic y-axis from 0.002 to 0.02. It displays red data points with vertical error bars, showing a sharp peak around dz = -10 cm. The bottom plot shows the 'Ratio' on a linear y-axis from 0.95 to 1.0. It displays red data points with vertical error bars, showing a dip around dz = -10 cm. Vertical grey shaded regions are present in the bottom plot, corresponding to the regions where the ratio is significantly below 1.0.

Figure 1 consists of two panels. The top panel shows the pileup rate (black dots) and ratio (red dots) as a function of track dz (cm). The x-axis ranges from -30 to 30 cm. The y-axis ranges from 0 to 1. The pileup rate starts at approximately 0.35 at $dz = -15$ cm, rises sharply to about 0.8 at $dz = -5$ cm, and then remains relatively constant around 0.8 for $dz > -5$ cm. The ratio starts at approximately 0.35 at $dz = -15$ cm, rises sharply to about 0.8 at $dz = -5$ cm, and then remains relatively constant around 0.8 for $dz > -5$ cm. The bottom panel shows the ratio (black dots) as a function of track dz (cm). The x-axis ranges from -30 to 30 cm. The y-axis ranges from 0.95 to 1.05. The ratio is approximately 1.0 for $dz > -10$ cm, with some fluctuations. For $dz < -10$ cm, the ratio is significantly lower, around 0.35, and shows a sharp increase as dz approaches -10 cm.