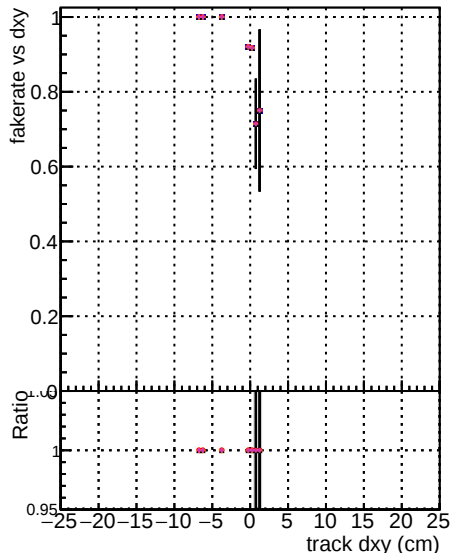
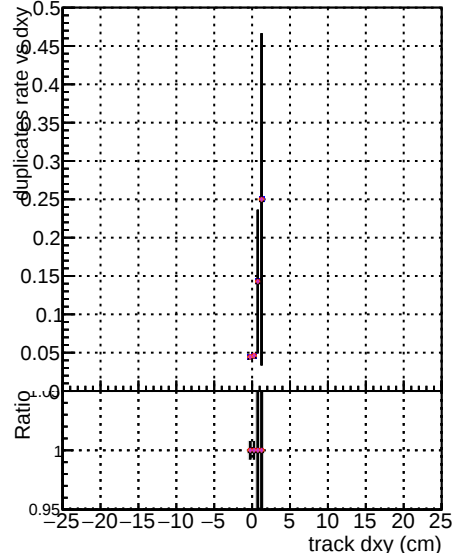


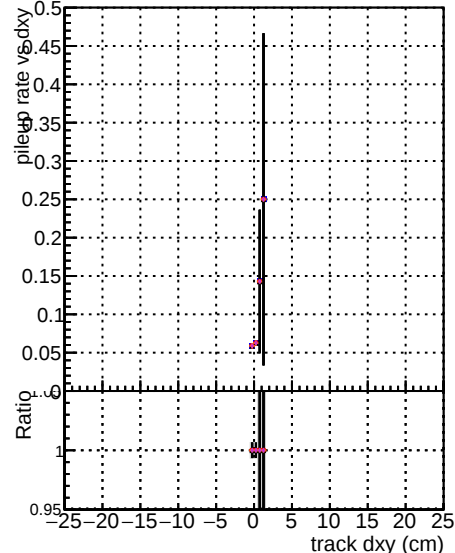
### Fake rate vs dxy



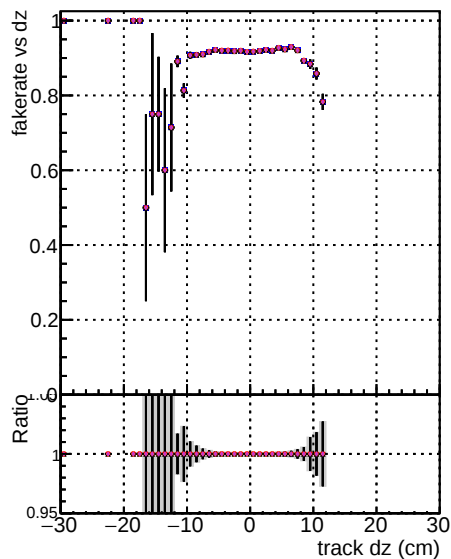
### Duplicates Rate vs Dxy



### Pileup rate vs dxy



Fake rate vs d



The figure consists of two vertically stacked plots sharing a common x-axis labeled 'track dz (cm)' ranging from -30 to 30.

The top plot shows 'pileup rate vs dz'. The y-axis ranges from 0 to 1.0. Data points are represented by pink circles with vertical error bars. There is a single point at dz = -20 cm with a rate of 1.0. A cluster of points with large error bars is centered around dz = -10 cm, with rates ranging from approximately 0.1 to 0.6. For dz values between -10 and 10 cm, the rates are lower, generally between 0.05 and 0.2. There are also points at dz = 10 cm with rates around 0.1.

The bottom plot shows the 'Ratio' of pileup rates. The y-axis ranges from 0.95 to 1.0. The data is represented by a series of vertical black bars, indicating the ratio for different dz bins. The ratio is mostly constant at 1.0, but shows a significant dip (ratio < 1.0) in the region where dz is between -10 and 10 cm, reaching a minimum of about 0.95 around dz = 0 cm.