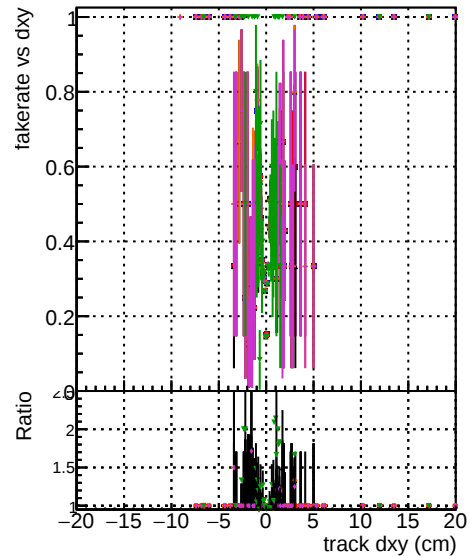
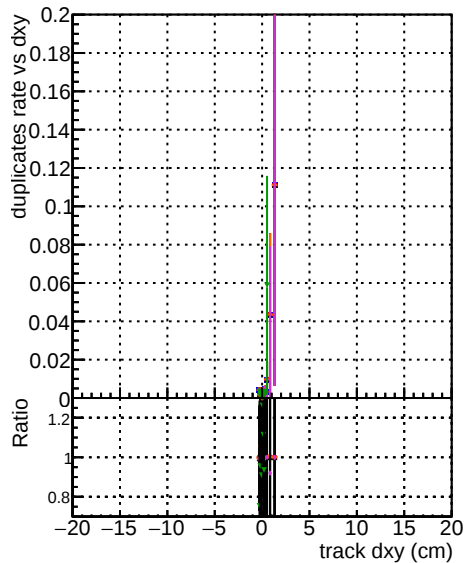


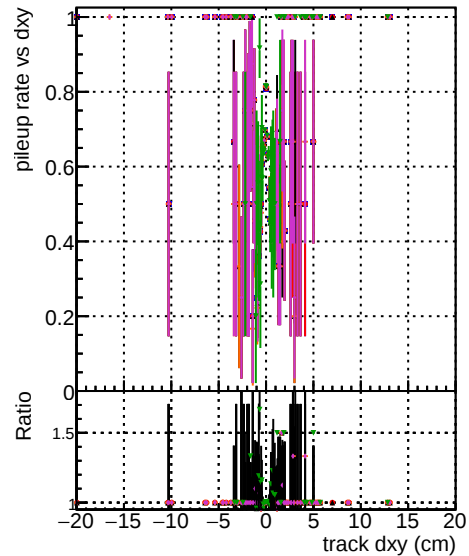
Fake rate vs dxy



Duplicates Rate vs Dxy



Pileup rate vs dxy



Fake rate vs d

Fake rate vs d

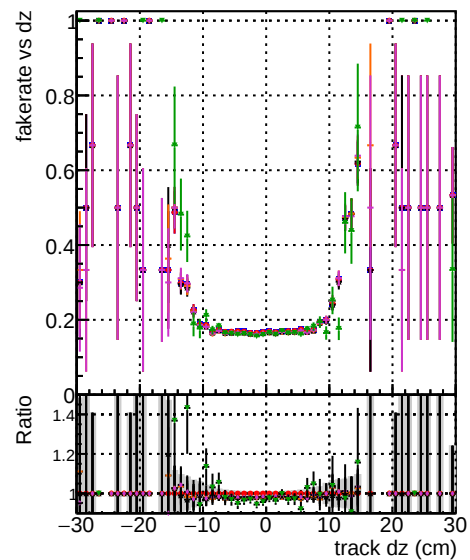


Figure 1 consists of two panels. The top panel is a scatter plot with error bars showing the pileup rate versus track dz (cm). The x-axis ranges from -30 to 30 cm, and the y-axis ranges from 0 to 1.0. Three data series are shown: 100% pileup (green circles), 50% pileup (magenta circles), and 25% pileup (orange circles). The 100% pileup series shows a high pileup rate (around 0.8) for dz between -10 and 10 cm, dropping to around 0.4 for dz between 10 and 20 cm. The 50% pileup series shows a high pileup rate (around 0.8) for dz between -10 and 10 cm, dropping to around 0.5 for dz between 10 and 20 cm. The 25% pileup series shows a high pileup rate (around 0.8) for dz between -10 and 10 cm, dropping to around 0.4 for dz between 10 and 20 cm. The bottom panel is a histogram showing the ratio of pileup rates versus track dz (cm). The x-axis ranges from -30 to 30 cm, and the y-axis ranges from 1.0 to 1.2. The histogram shows the distribution of track dz for the three scenarios. A red line is drawn at a ratio of 1.0.