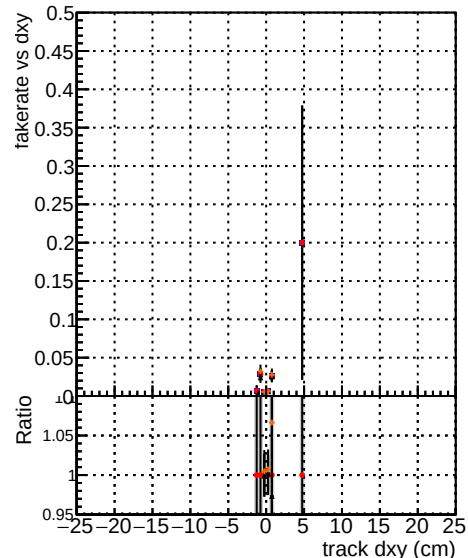
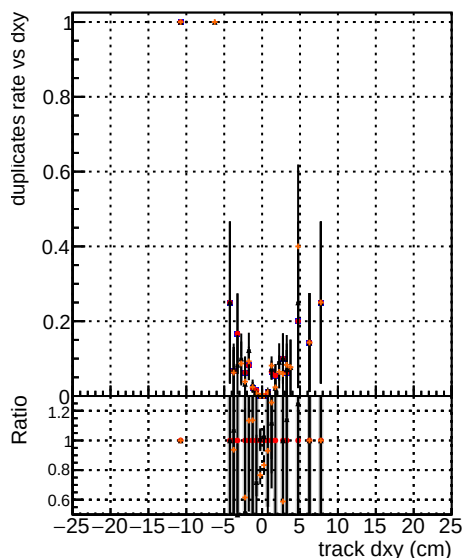


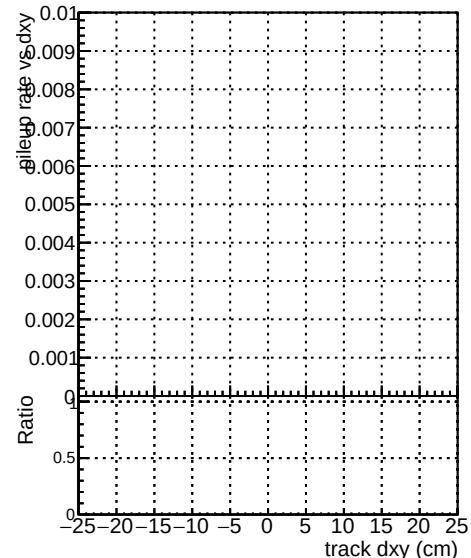
Fake rate vs dxy



Duplicates Rate vs Dxy



Pileup rate vs dxy



Fake rate vs d

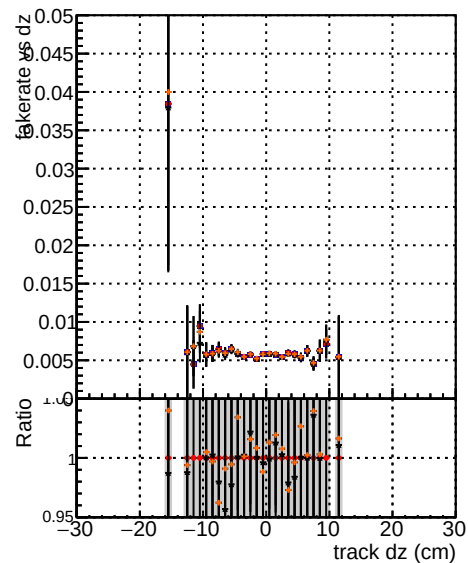


Figure 1 consists of two panels. The top panel shows the ratio of duplicate rates as a function of track dz (cm). The y-axis is labeled 'duplicates rate vs dz' and ranges from 0.000 to 0.010. The x-axis is labeled 'track dz (cm)' and ranges from -30 to 30. The plot shows three data series: black points (full sample), orange points (sample with $dz < 10$ cm), and grey points (sample with $dz > 10$ cm). The ratio is highest at $dz = 0$ and lowest at $dz = 10$ cm. The bottom panel shows the ratio of duplicate rates as a function of track dz (cm). The y-axis is labeled 'Ratio' and ranges from 0.6 to 1.2. The x-axis is labeled 'track dz (cm)' and ranges from -30 to 30. The plot shows three data series: black points (full sample), orange points (sample with $dz < 10$ cm), and grey points (sample with $dz > 10$ cm). The ratio is highest at $dz = 0$ and lowest at $dz = 10$ cm.

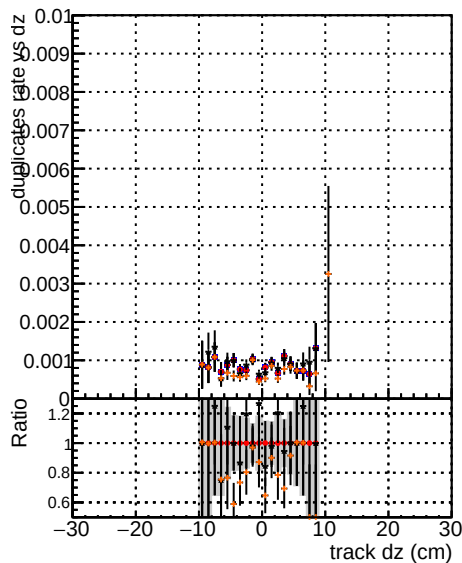


Figure 1 is a plot showing the ratio of pileup rate vs dz for the 2011 data. The x-axis is labeled 'track dz (cm)' and ranges from -30 to 30. The y-axis is labeled 'Ratio' and ranges from 0 to 0.01. The plot shows a horizontal line at a ratio of approximately 0.001, with a shaded uncertainty band around it.

