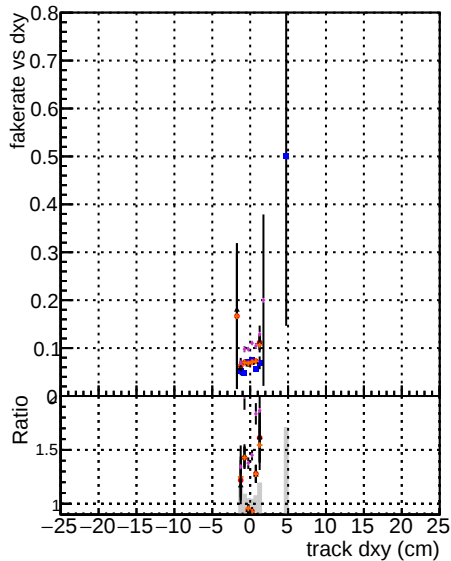
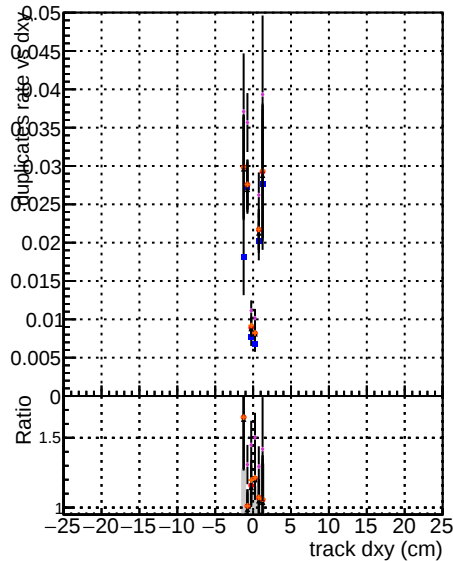


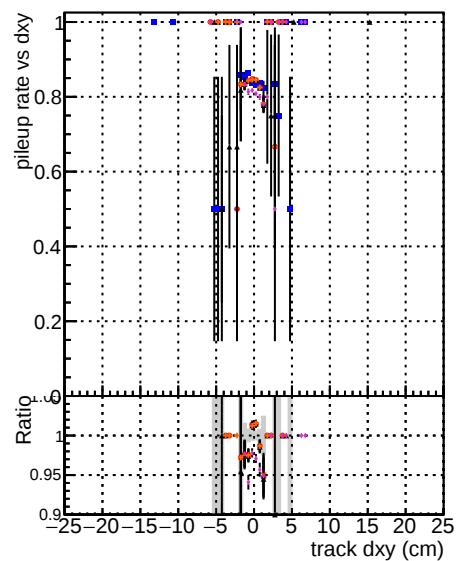
Fake rate vs dxy



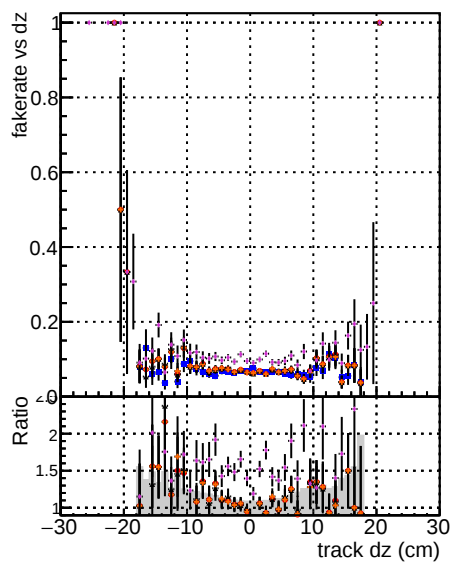
Duplicates Rate vs Dxy



Pileup rate vs dxy



Fake rate vs d



The figure consists of two vertically stacked panels sharing a common x-axis labeled 'track dz (cm)' ranging from -30 to 30. The top panel's y-axis is labeled 'duplicate rate vs dz' and ranges from 0.0 to 0.2. It displays data points with error bars for various track types: black (all), blue (all), red (all), orange (all), purple (all), and grey (all). The data shows a clear dip in the duplicate rate around dz = 0 cm. The bottom panel's y-axis is labeled 'Ratio' and ranges from 0 to 3. It shows the ratio of duplicate rates for the same track types, with a similar dip around dz = 0 cm. The legend at the bottom identifies the track types: black (all), blue (all), red (all), orange (all), purple (all), and grey (all).

Figure 1 consists of two panels. The top panel shows the pileup rate vs dz (y-axis, 0.6 to 1.0) versus track dz (cm) (x-axis, -30 to 30). The bottom panel shows the Ratio (y-axis, 0.9 to 1.0) versus track dz (cm) (x-axis, -30 to 30). Both panels show data for different track dz ranges and pileup rates. The top panel shows data for $dz \in [-10, 10]$ cm (blue circles), $dz \in [10, 20]$ cm (orange circles), and $dz \in [20, 30]$ cm (purple circles). The bottom panel shows data for $dz \in [-10, 10]$ cm (blue circles), $dz \in [10, 20]$ cm (orange circles), and $dz \in [20, 30]$ cm (purple circles). The ratio is defined as $R = \frac{P_{\text{pileup}}}{P_{\text{signal}}}$.