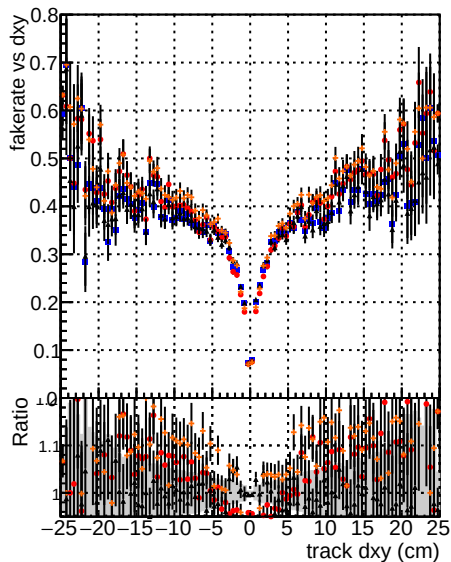
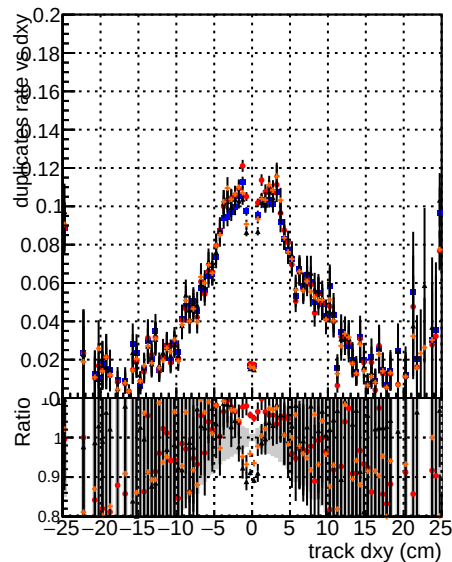


Fake rate vs dxy



Duplicates Rate vs Dxy



Pileup rate vs dxy

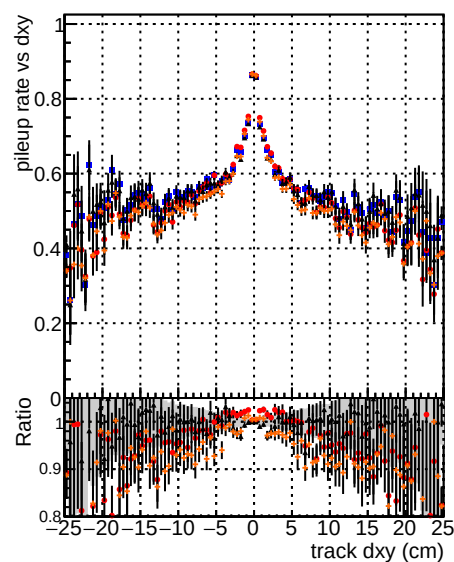
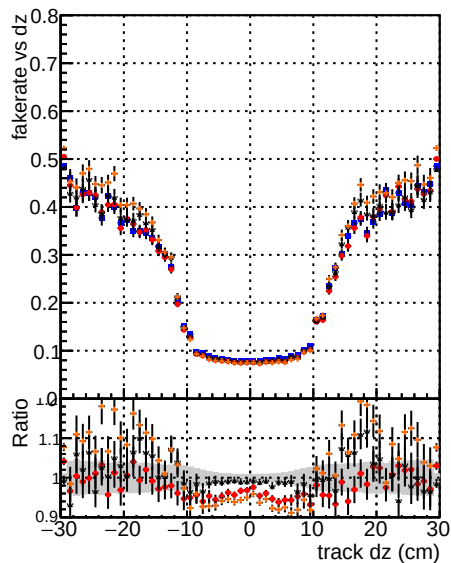
[illegible]

Figure 1 consists of two panels. The top panel shows the pileup rate (black dots) and its uncertainty (grey band) as a function of track dz (cm). The y-axis is labeled 'pileup rate vs dz' and ranges from 0.4 to 1.0. The x-axis ranges from -30 to 30 cm. The rate starts at approximately 0.5 at $dz = -30$ cm, rises to a peak of about 0.85 at $dz = 0$ cm, and then falls back to about 0.5 at $dz = 30$ cm. The bottom panel shows the ratio of the pileup rate to the nominal rate (black dots) and its uncertainty (grey band) as a function of track dz (cm). The y-axis is labeled 'Ratio' and ranges from 0.9 to 1.0. The x-axis ranges from -30 to 30 cm. The ratio is approximately 1.0 across the entire range of dz , with some fluctuations and a slight dip around $dz = 0$ cm.