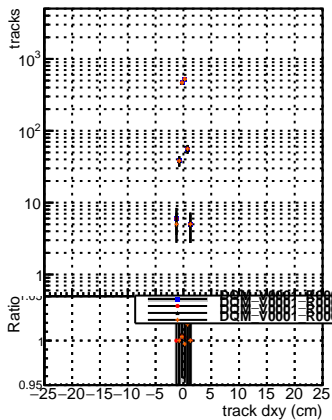
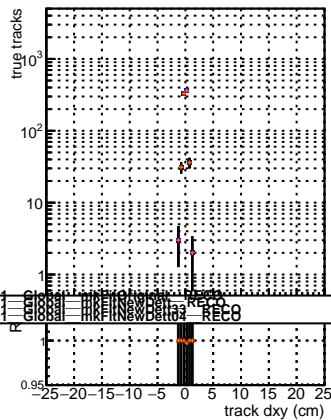


N of reco track vs dxy



N of associated (recoToSim) tracks vs dxy



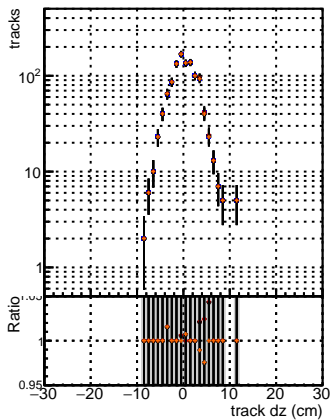
The figure consists of two panels sharing a common x-axis labeled "track dx dy (cm)" ranging from -25 to 25.

- Top Panel:** Y-axis is "fake tracks" on a logarithmic scale from 1 to 10<sup>2</sup>. It shows a distribution of points with a vertical line at 0 cm. A red dashed line indicates a specific value near 10<sup>2</sup> at 0 cm.
- Bottom Panel:** Y-axis is " $\epsilon$ " (efficiency) on a linear scale from 0.95 to 1.0. It shows a sharp peak at 0 cm, reaching an efficiency of 1.0. A red dashed horizontal line is drawn at approximately 0.97.

N of associated (recoToSim) looper tracks vs dxy



N of reco track vs dz



N of associated (recoToSim) tracks vs dz

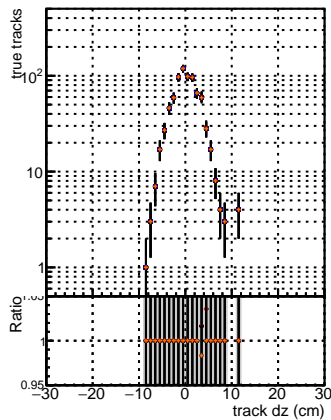


Figure 1 is a log-linear plot showing the ratio of fake tracks to total tracks as a function of track  $dz$  (cm). The y-axis is labeled 'Ratio' and ranges from 0.95 to  $10^2$  on a logarithmic scale. The x-axis is labeled 'track  $dz$  (cm)' and ranges from -30 to 30. The data points, represented by black dots with vertical error bars, show a sharp peak around  $dz = 0$  cm, reaching a ratio of approximately 50. A horizontal line is drawn at Ratio = 1.0, indicating the expected ratio for a uniform distribution. The plot is overlaid on a grid of dashed lines.

N of associated (recoToSim) looper tracks vs dz

