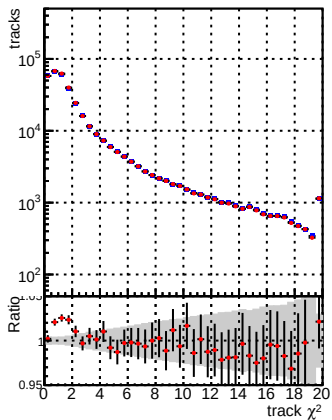


N of reco track vs normalized χ^2



N of associated (recoToSim) tracks vs normalized χ^2

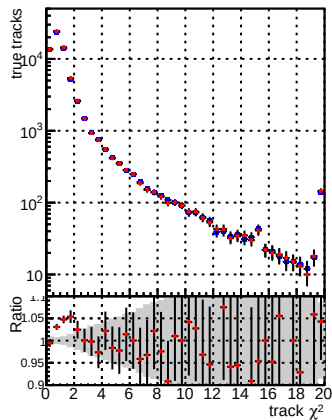
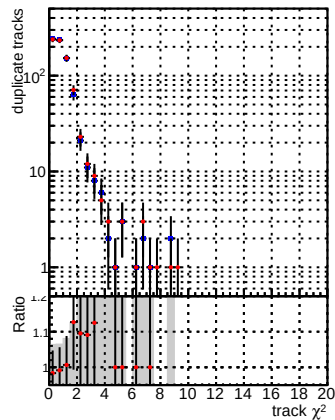
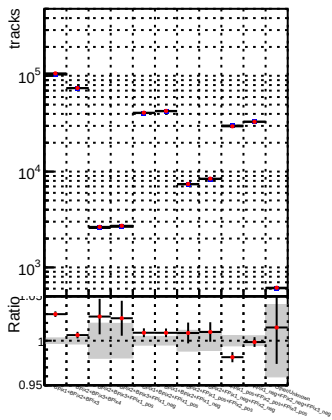


Figure 1 consists of two vertically stacked panels sharing a common x-axis labeled 'track χ^2 ' ranging from 0 to 20. The top panel shows 'fake tracks' on a logarithmic y-axis from 10^2 to 10^5 . It features a solid black line representing the total number of fake tracks, which decreases from approximately 3×10^5 at $\chi^2 = 0$ to 10^3 at $\chi^2 = 20$. Red dots represent the number of fake tracks from the $100\% \text{ } \gamma$ sample, which closely follow the solid line. The bottom panel shows the 'Ratio' on a linear y-axis from 0.95 to 1.05. It displays the ratio of the $100\% \text{ } \gamma$ sample to the total fake tracks, represented by red dots with vertical error bars. A horizontal line at Ratio = 1.0 is shown. A shaded gray region between Ratio = 0.95 and 1.05 indicates the $\pm 5\%$ uncertainty band.

N of associated (recoToSim) looper tracks vs normalized χ^2



N of reco track vs. s

[illegible]