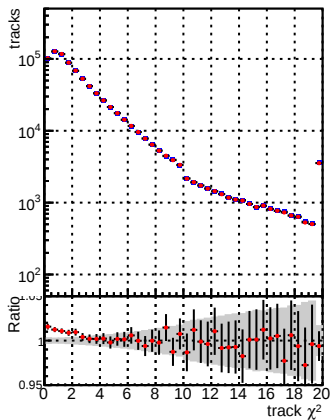


N of reco track vs normalized χ^2



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

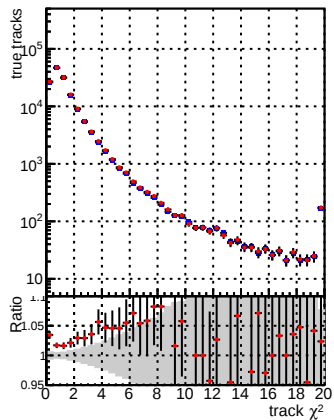
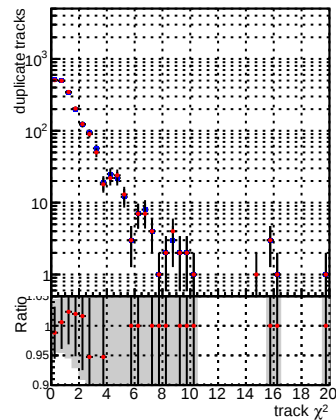


Figure 1 consists of two vertically stacked panels sharing a common x-axis labeled 'track χ^2 ' ranging from 0 to 20. The top panel shows 'fake tracks' on a logarithmic y-axis from 10^2 to 10^5 . It features a solid black line representing the total number of fake tracks, which decreases from approximately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

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



N of reco track vs. s 

