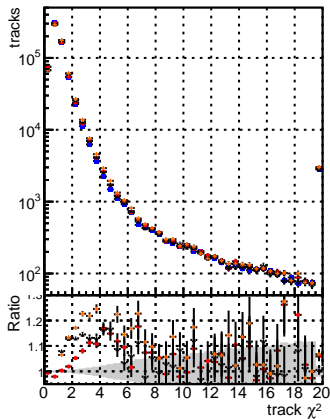
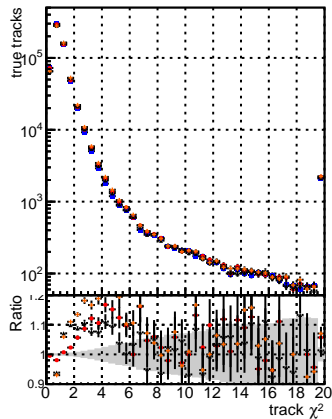


N of reco track vs normalized  $\chi^2$

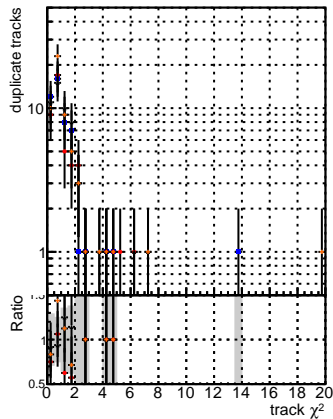


N of associated (recoToSim) tracks vs normalized  $\chi^2$



The figure consists of two vertically stacked plots sharing a common x-axis labeled 'track  $\chi^2$ ' ranging from 0 to 20. The top plot's y-axis is 'fake\_tracks' on a logarithmic scale from 1 to 10,000. It shows multiple data series (black, red, blue, green, orange, purple) representing different track lengths, all following a similar decreasing trend. A shaded gray region represents the total distribution. The bottom plot's y-axis is 'Ratio' on a linear scale from 0.8 to 1.4. It shows the ratio of fake tracks to total tracks for the same data series, with a shaded gray region representing the total ratio, which is mostly below 1.0.

N of associated (recoToSim) looper tracks vs normalized  $\chi^2$



N of reco track vs. s

