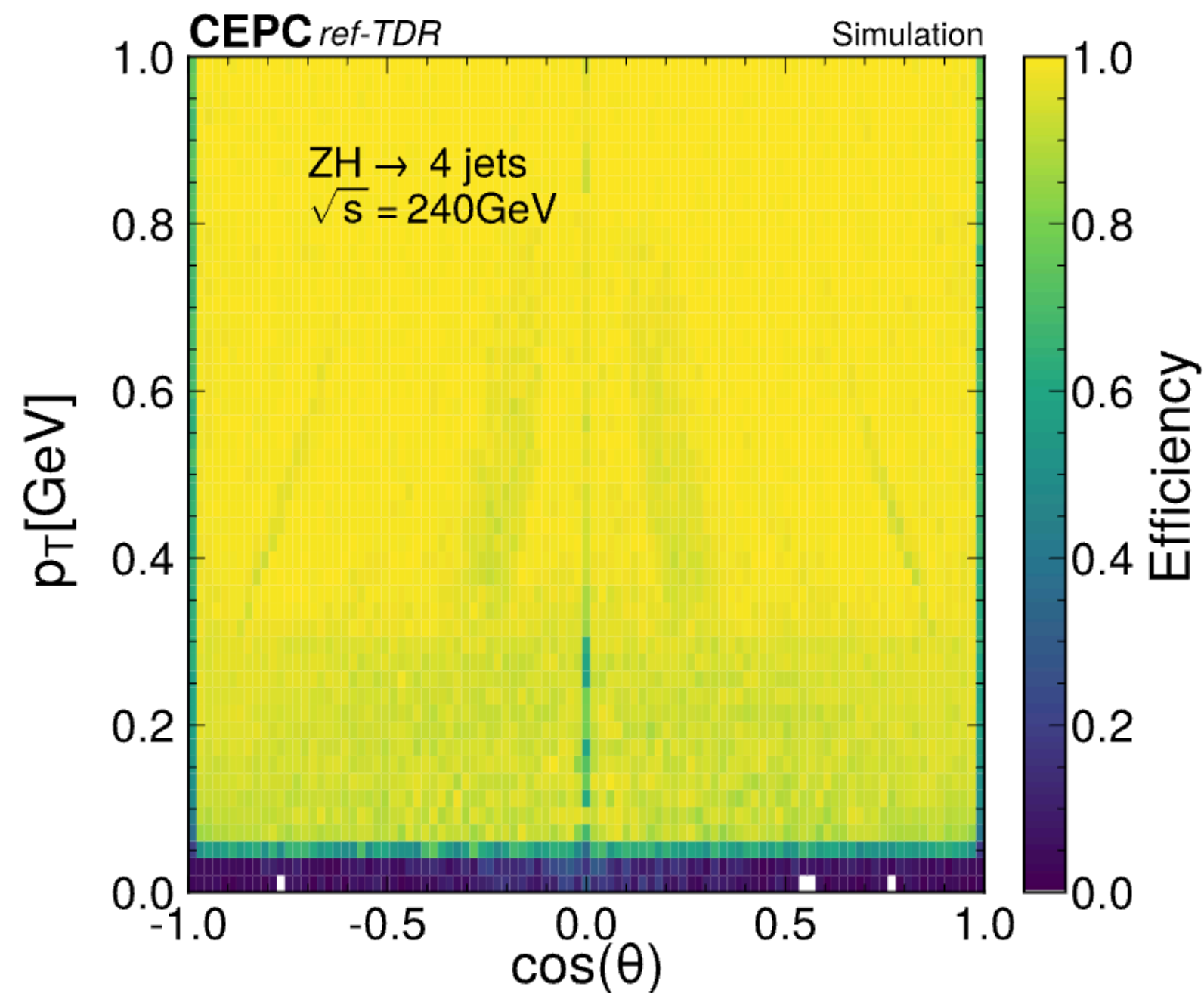


Tracking, PID and Vertexing

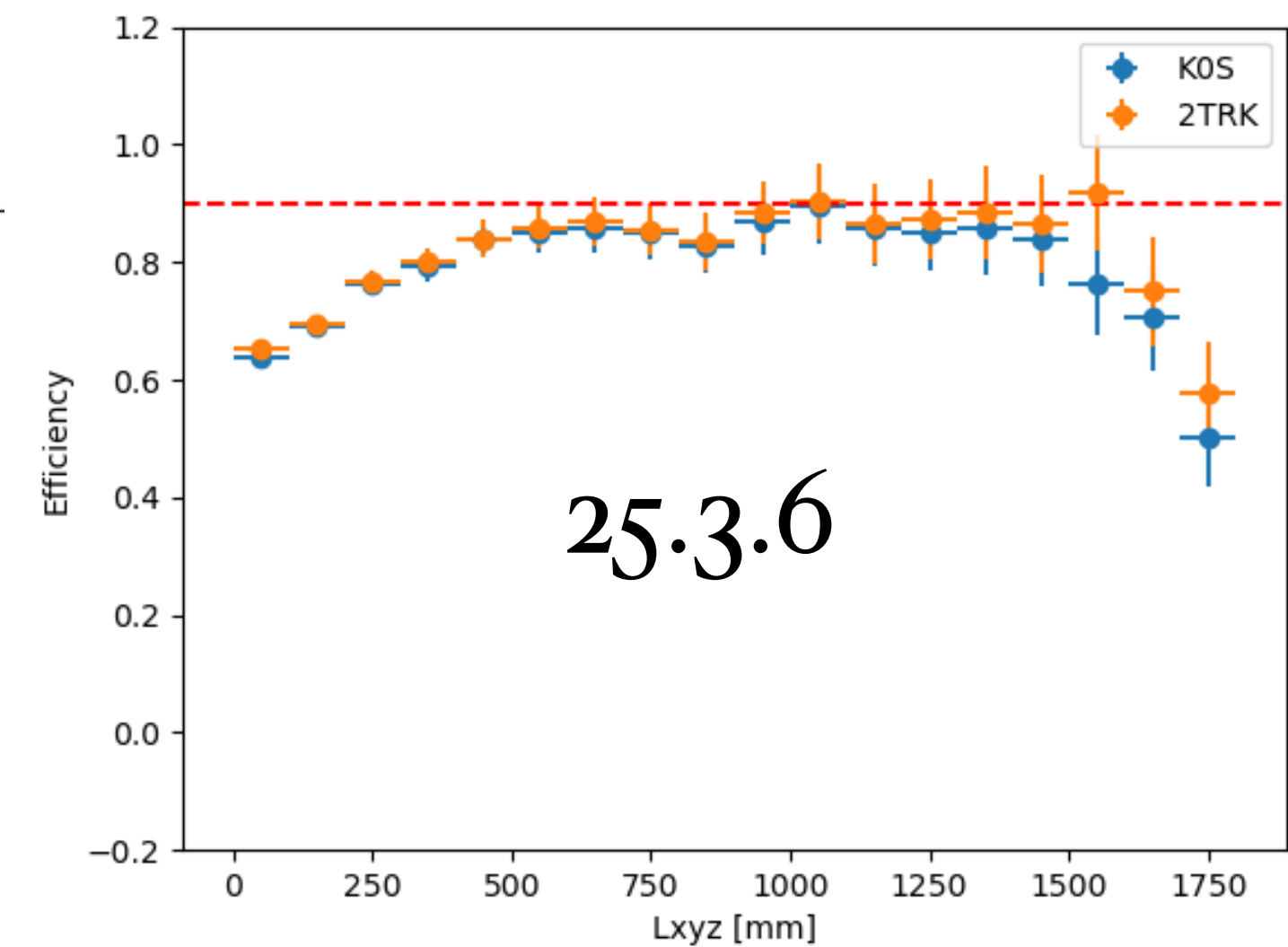
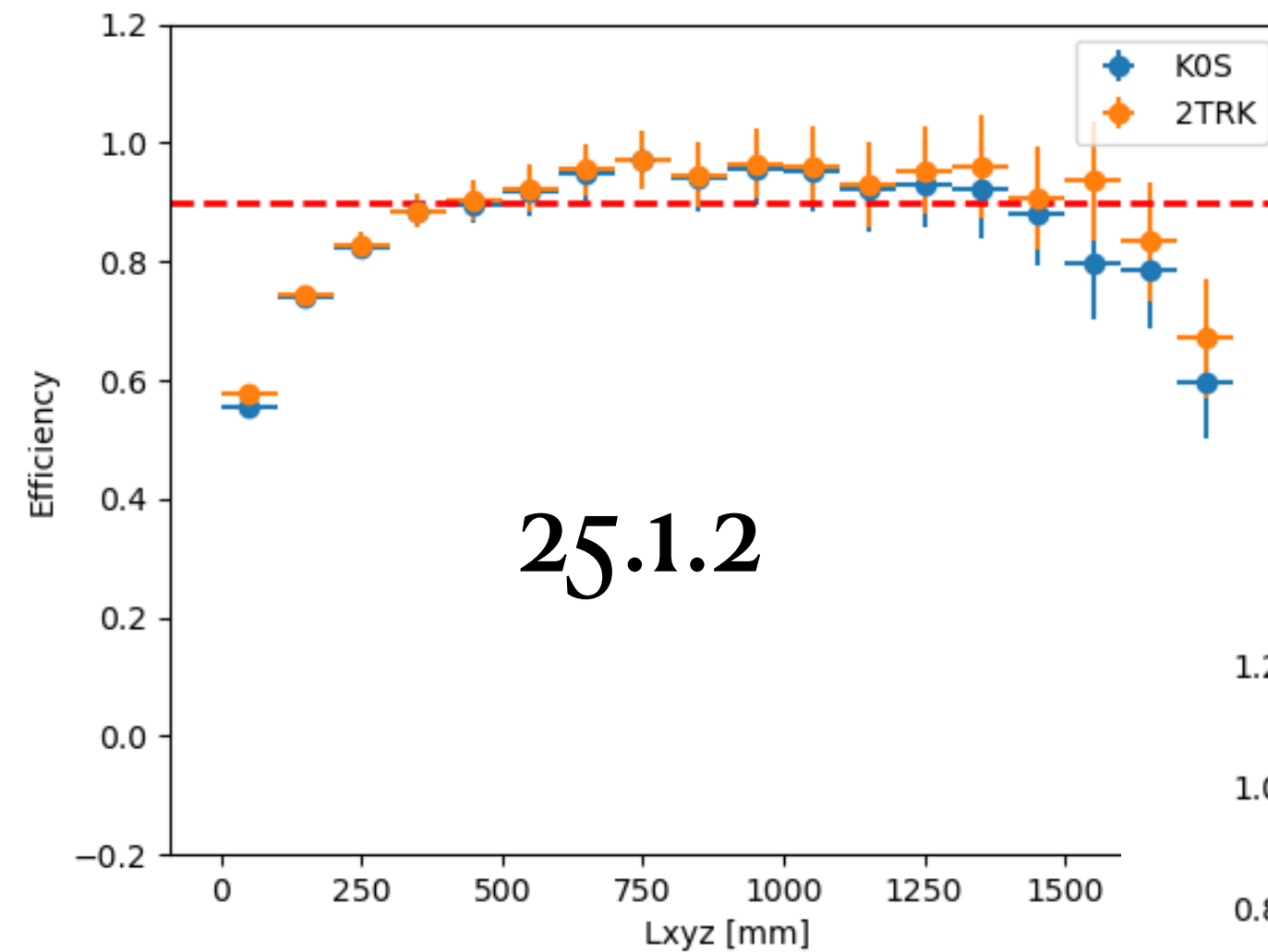
C.Zhang/31Mar2025

Tracking and charged hadron PID

- Tracking
 - What are the shadow bands on the 2D distribution, ongoing...



- Kaon efficiency



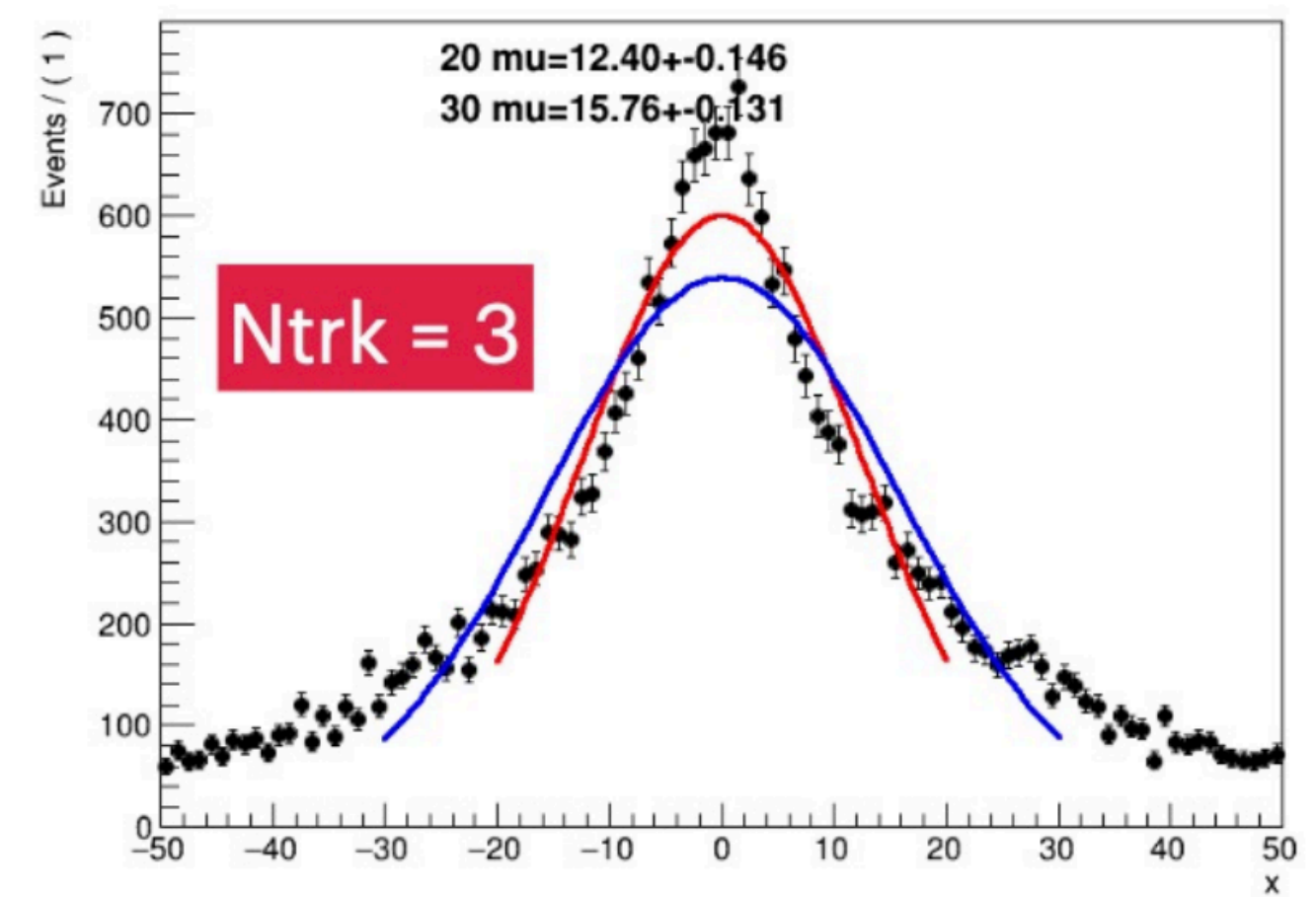
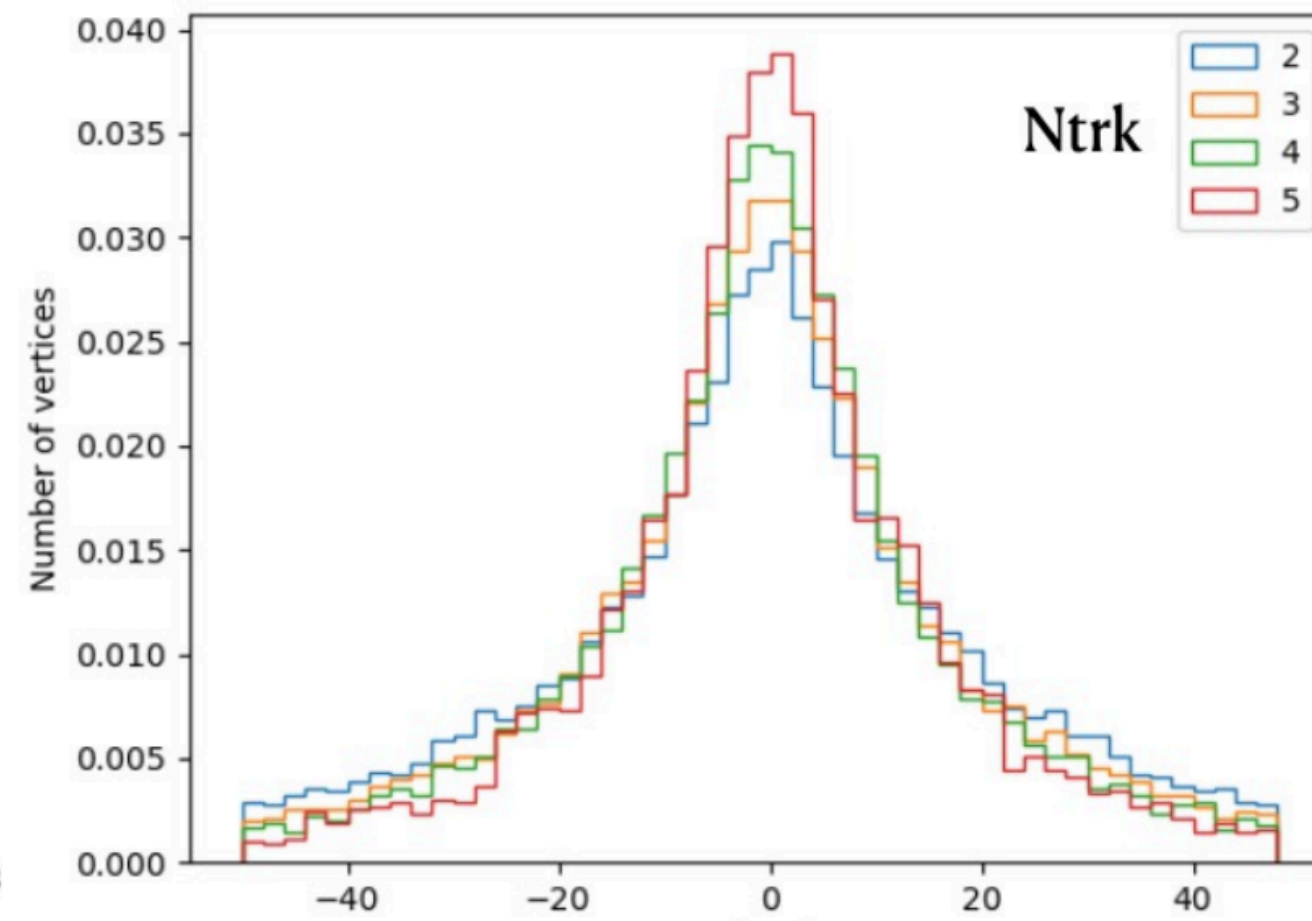
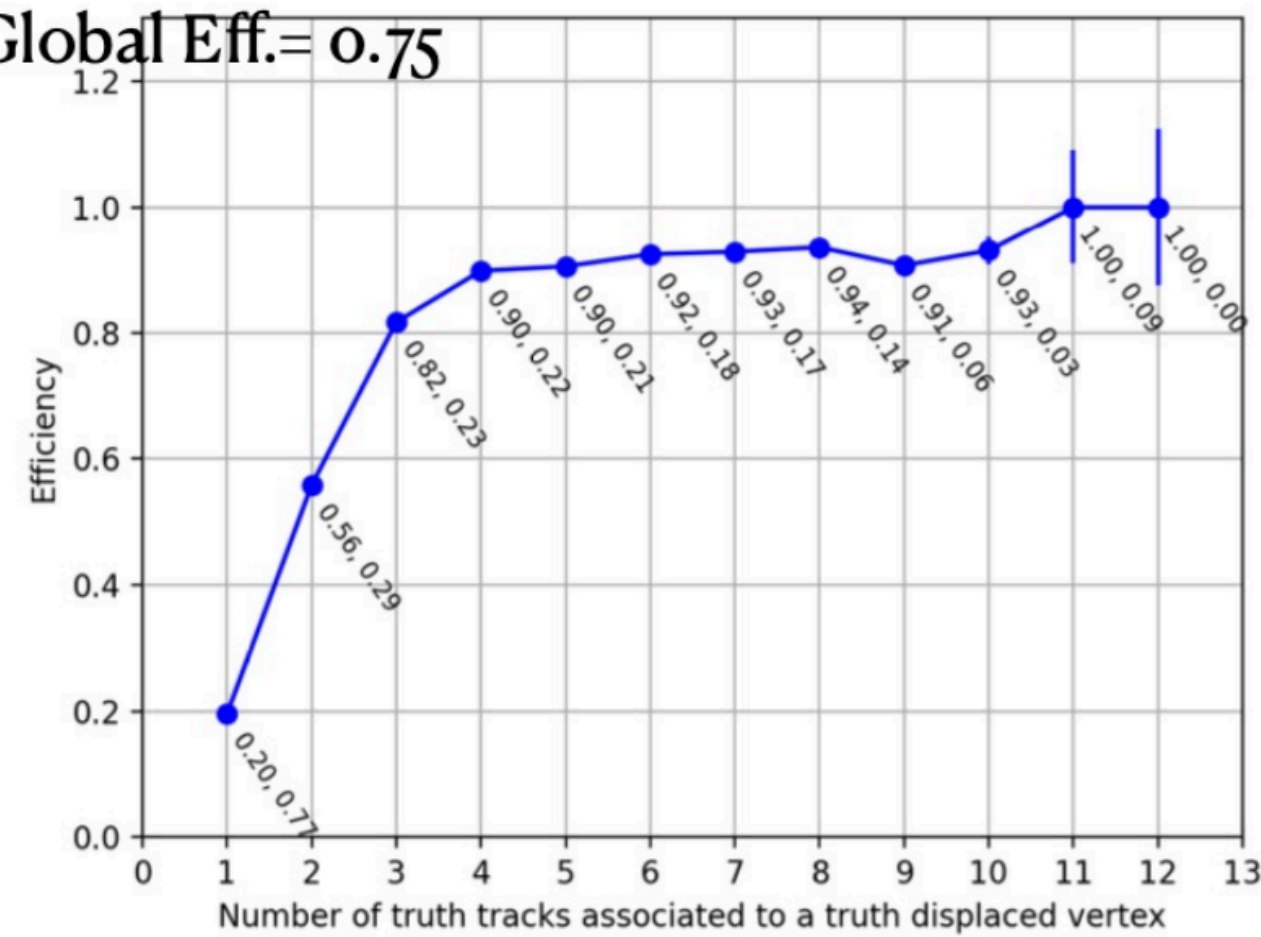
Secondary vertex resolution

Previous treatment

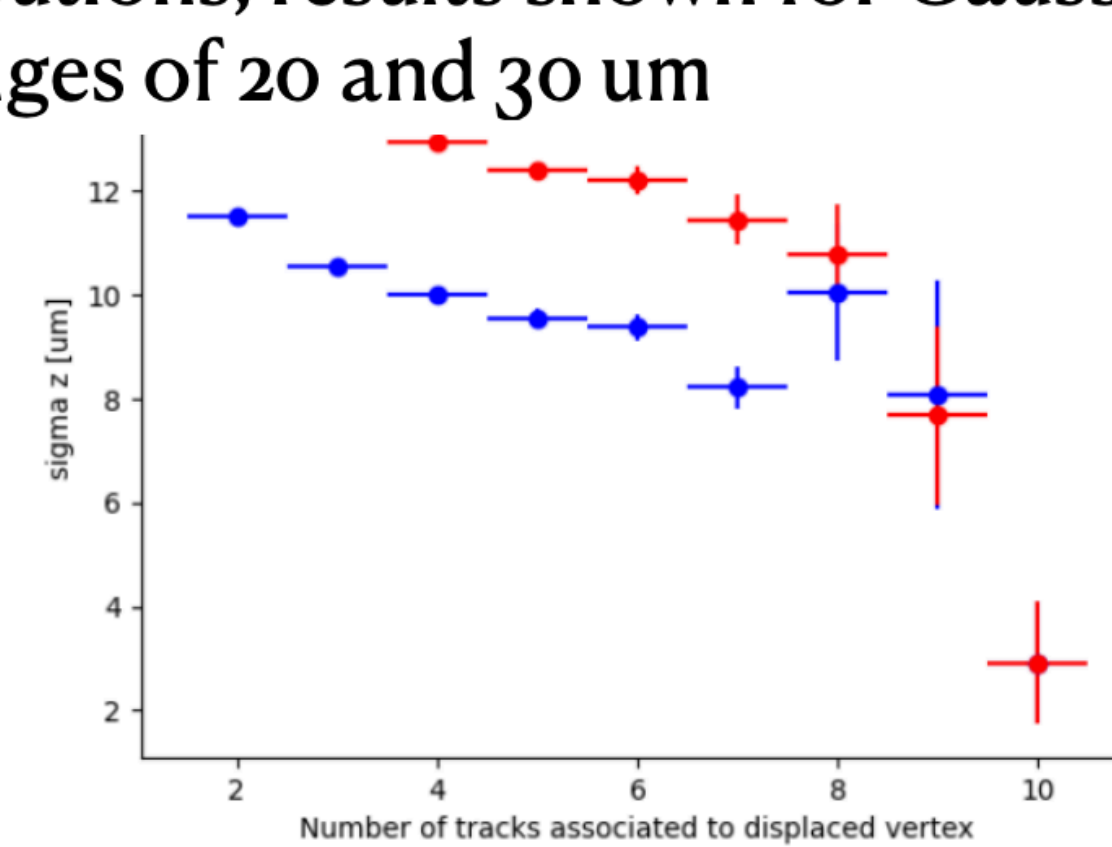
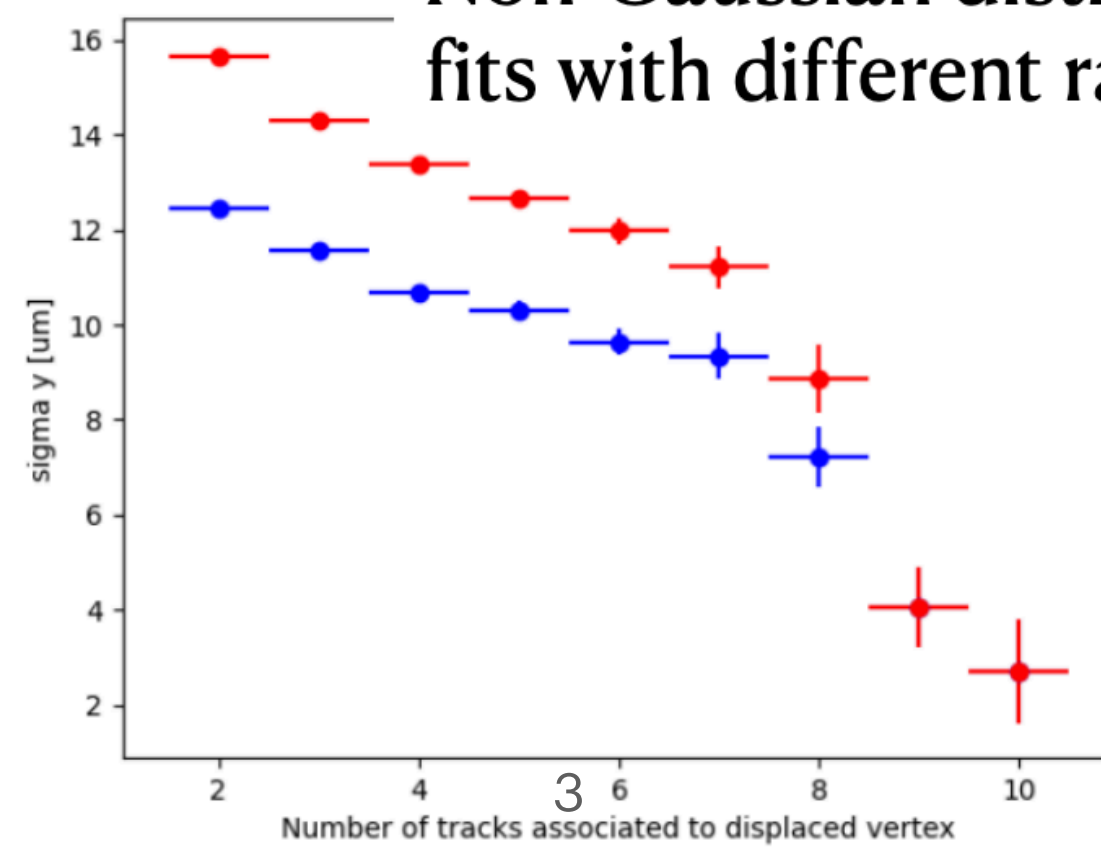
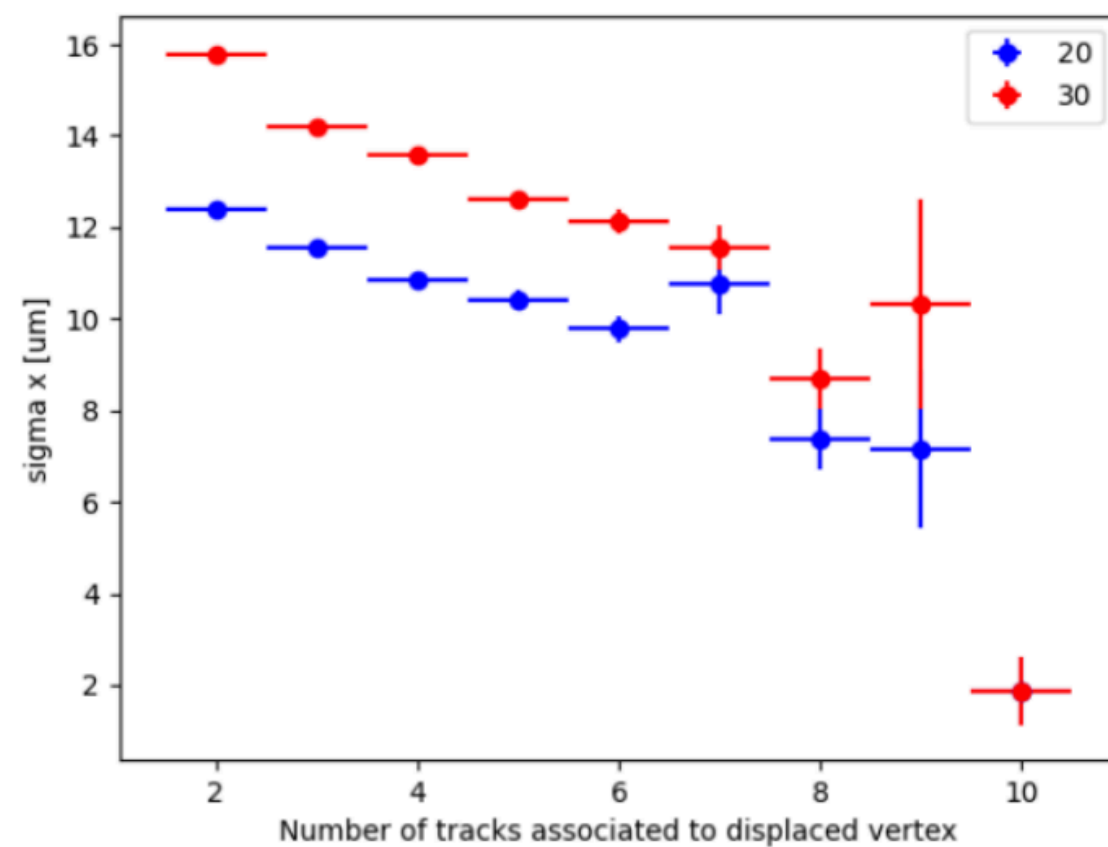
Update 2025.02.11

Secondary vertex (E91_eebb events)

• Global Eff.= 0.75

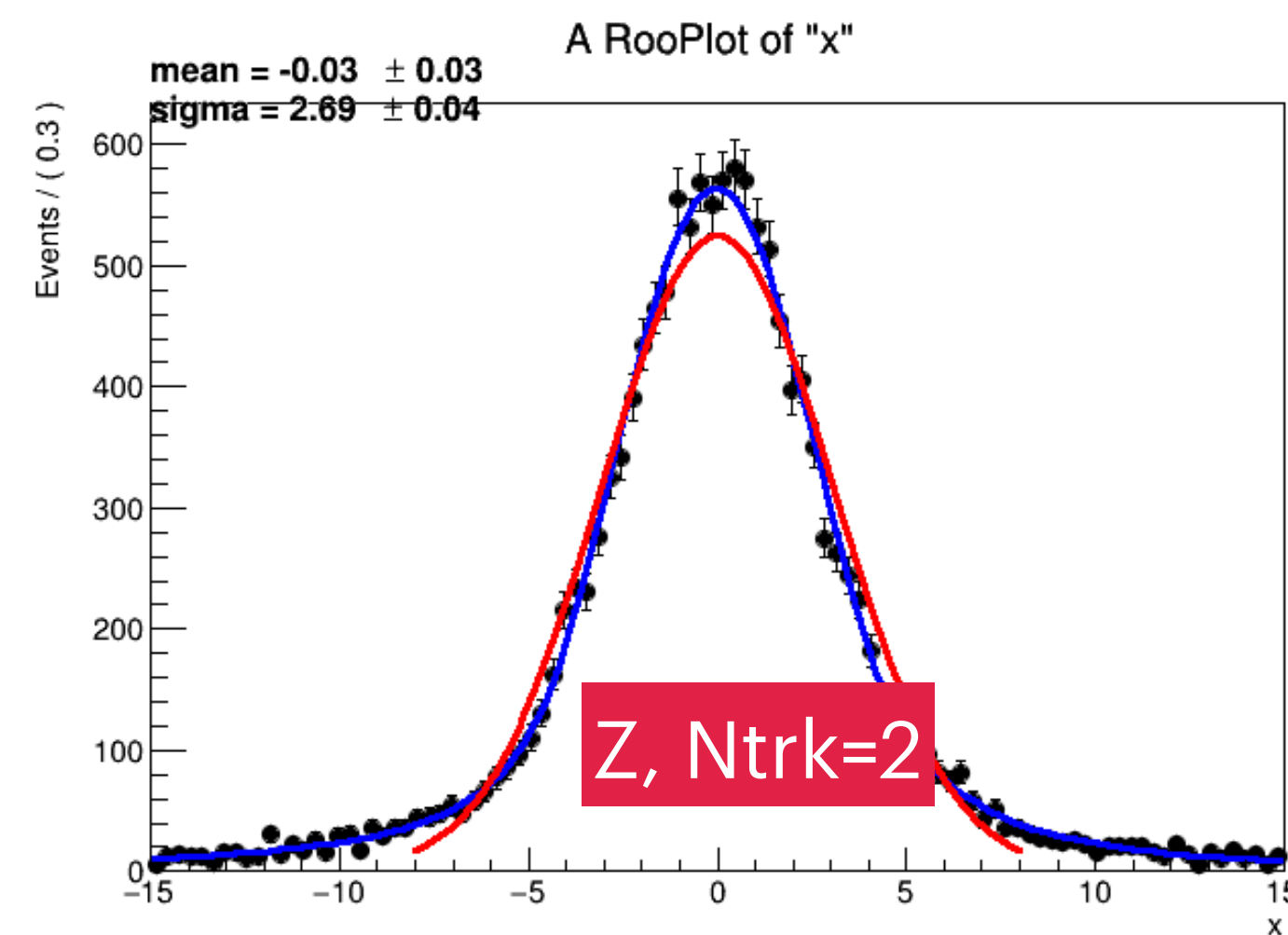
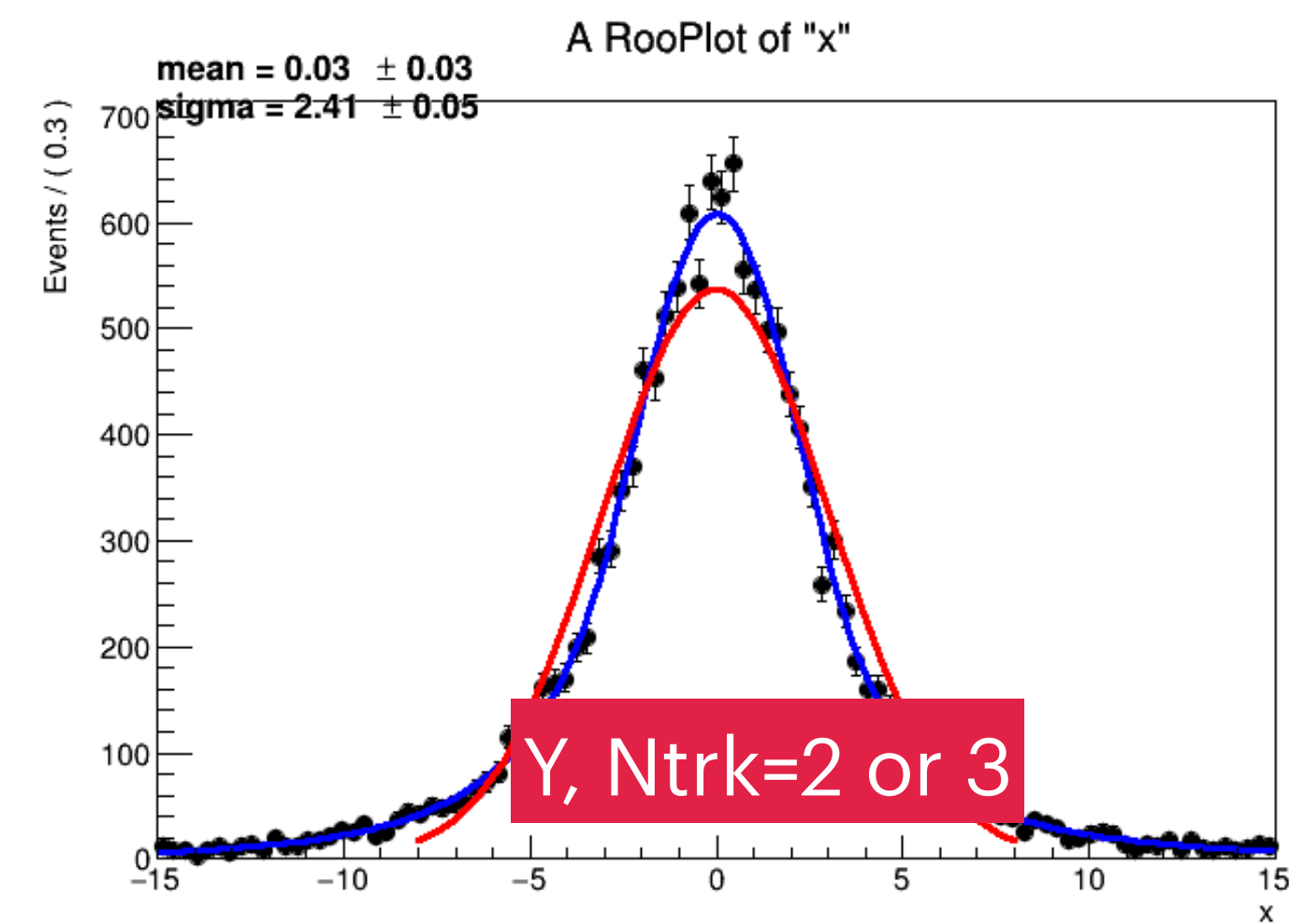
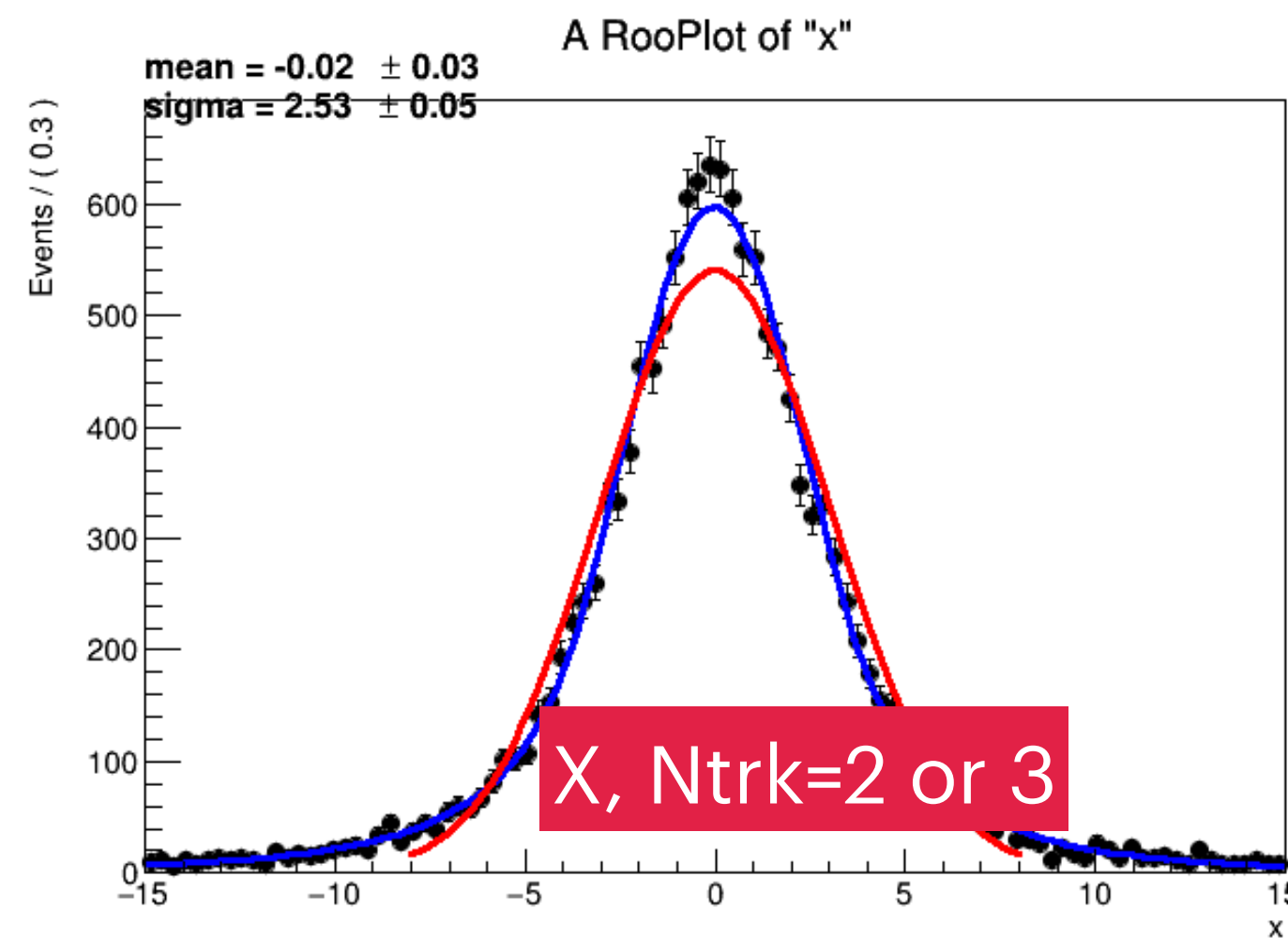
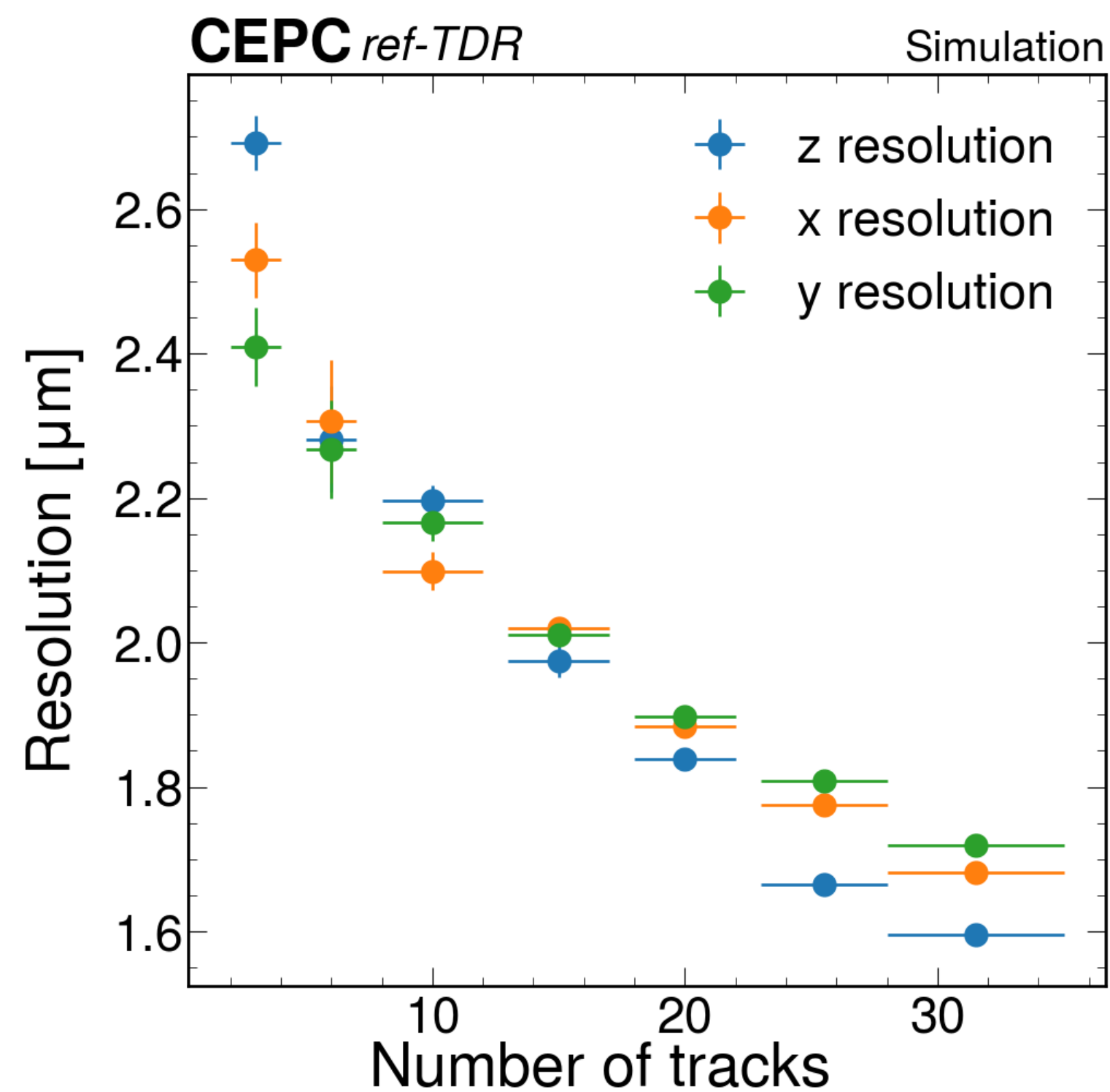


Non-Gaussian distributions, results shown for Gaussian fits with different ranges of 20 and 30 μm



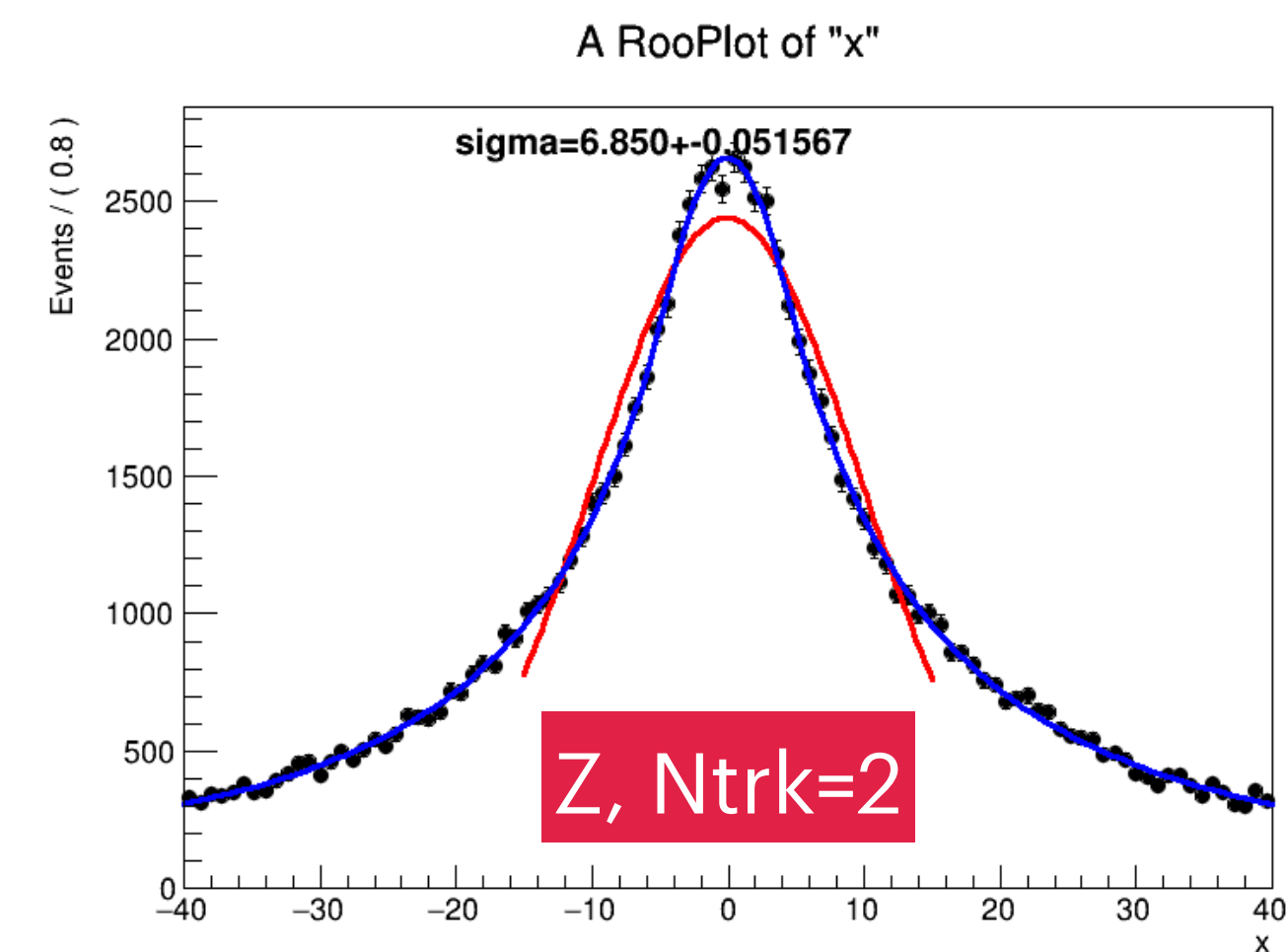
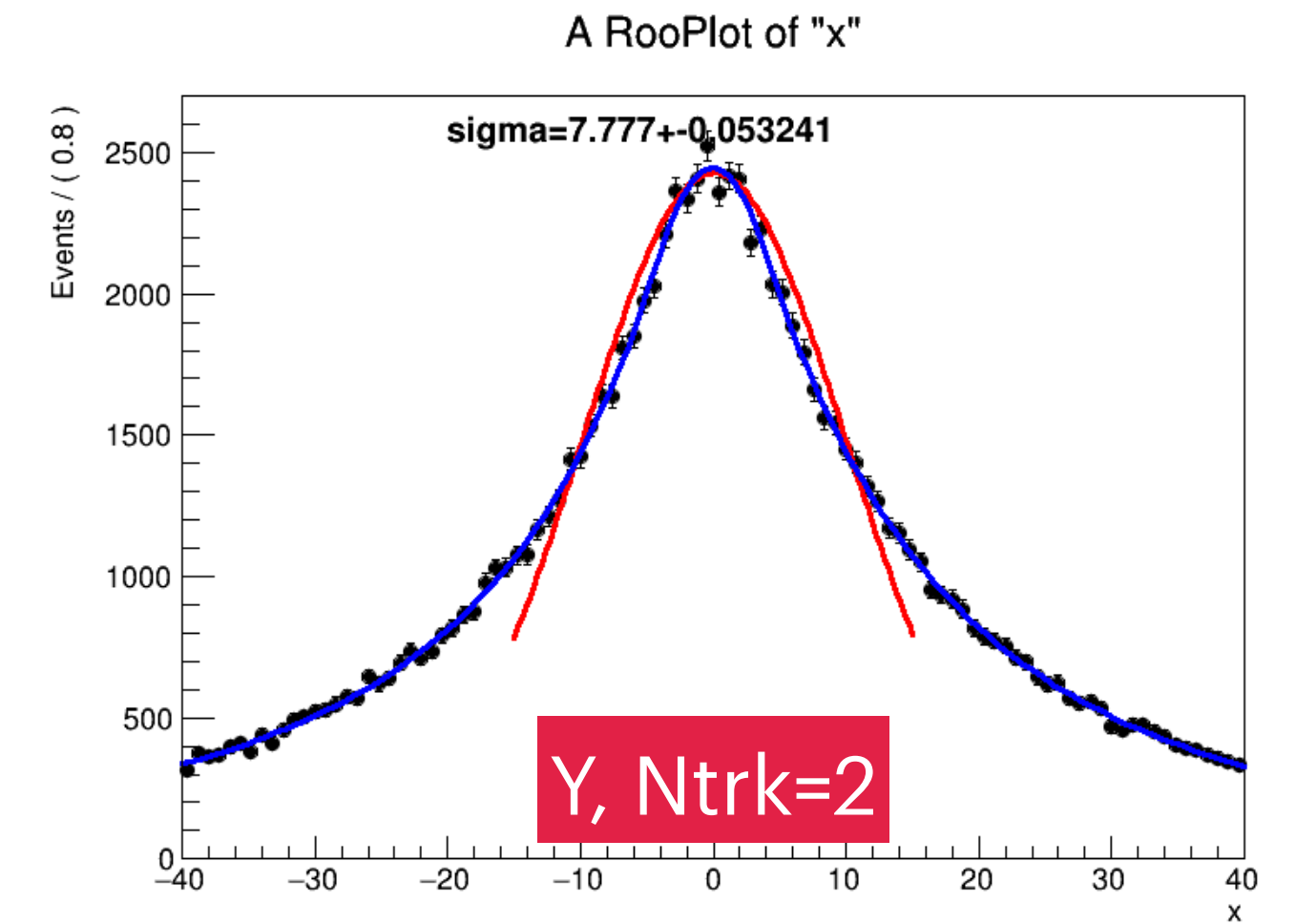
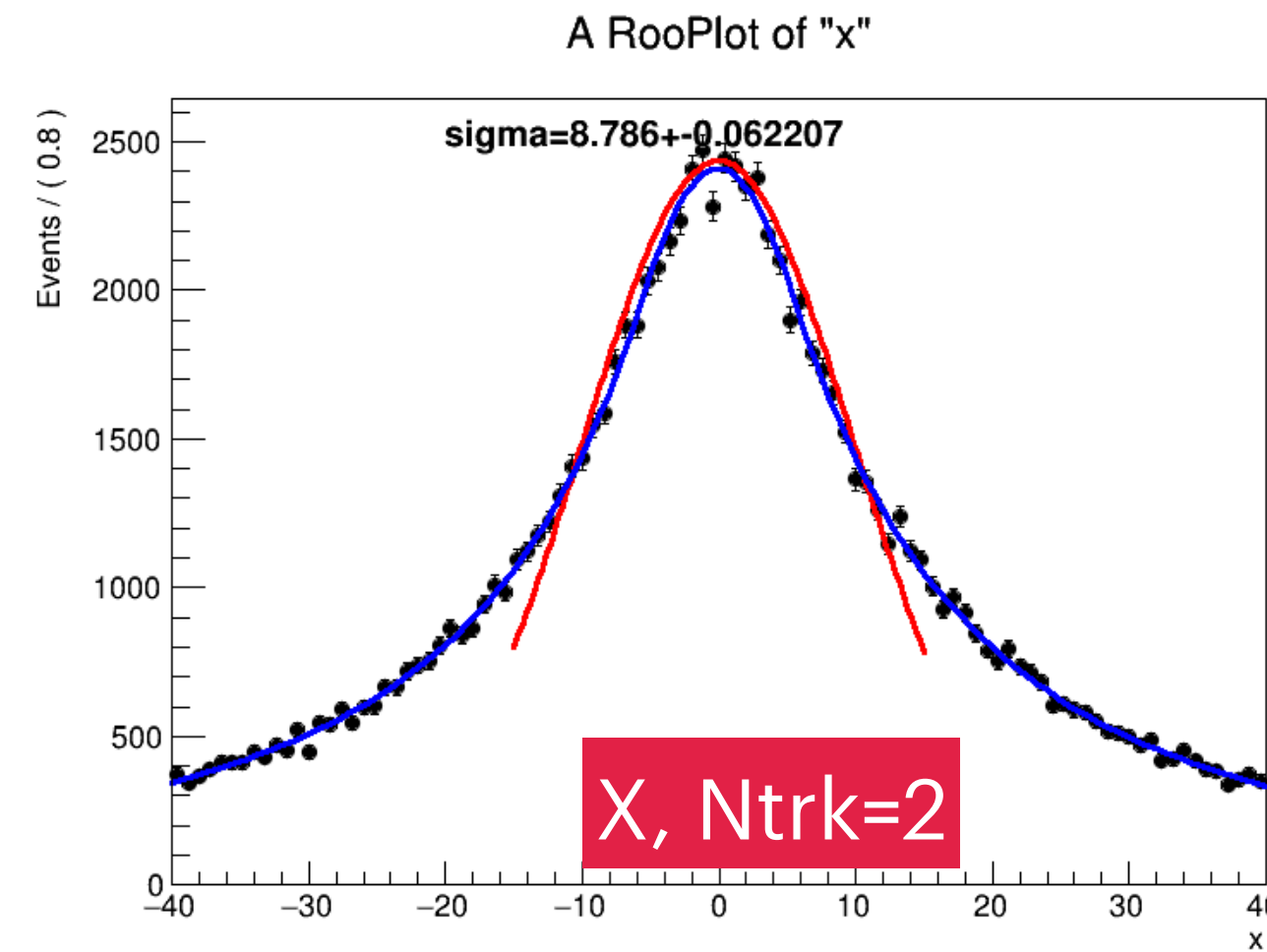
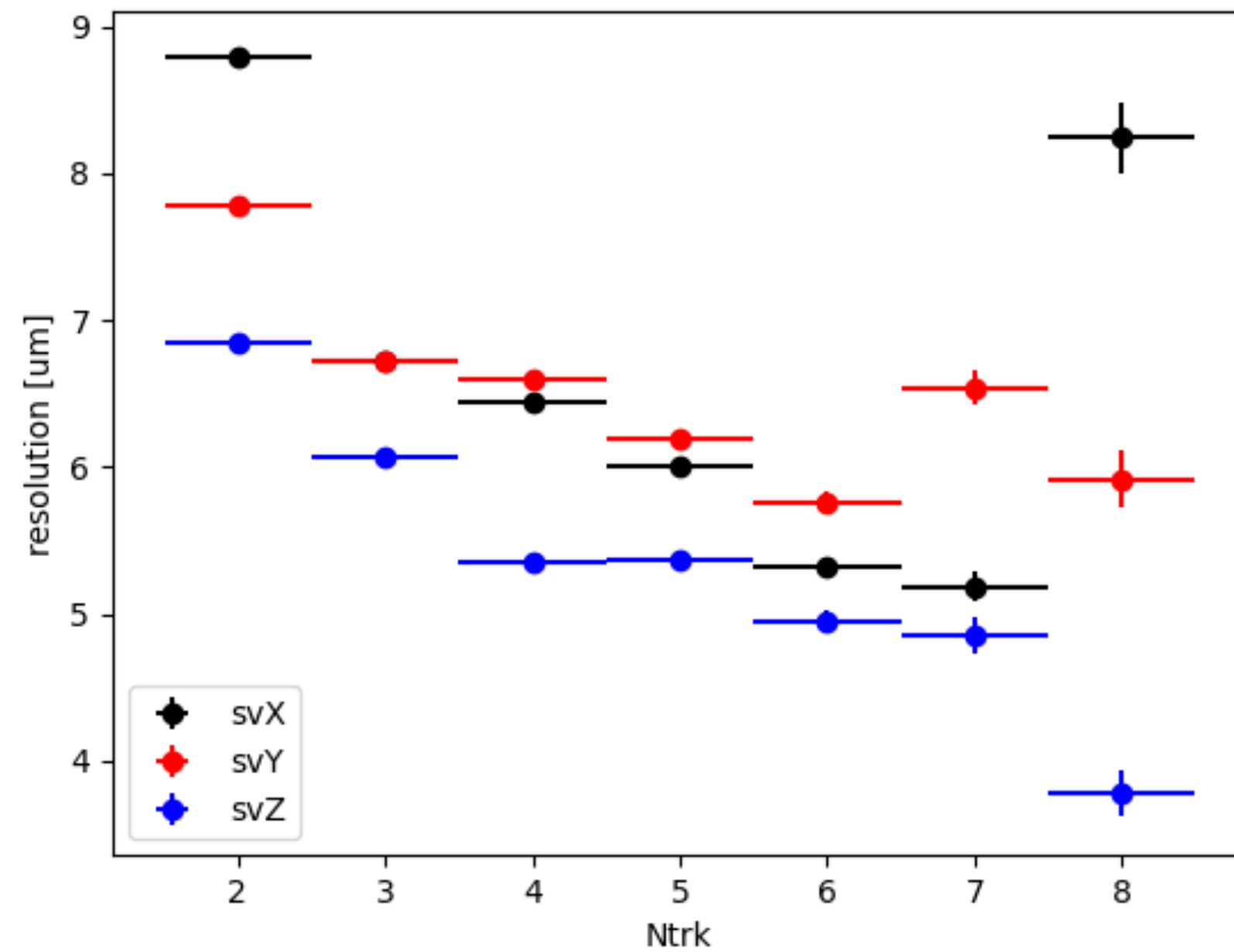
Primary vertex resolution

Resolution vs Nrk in XYZ



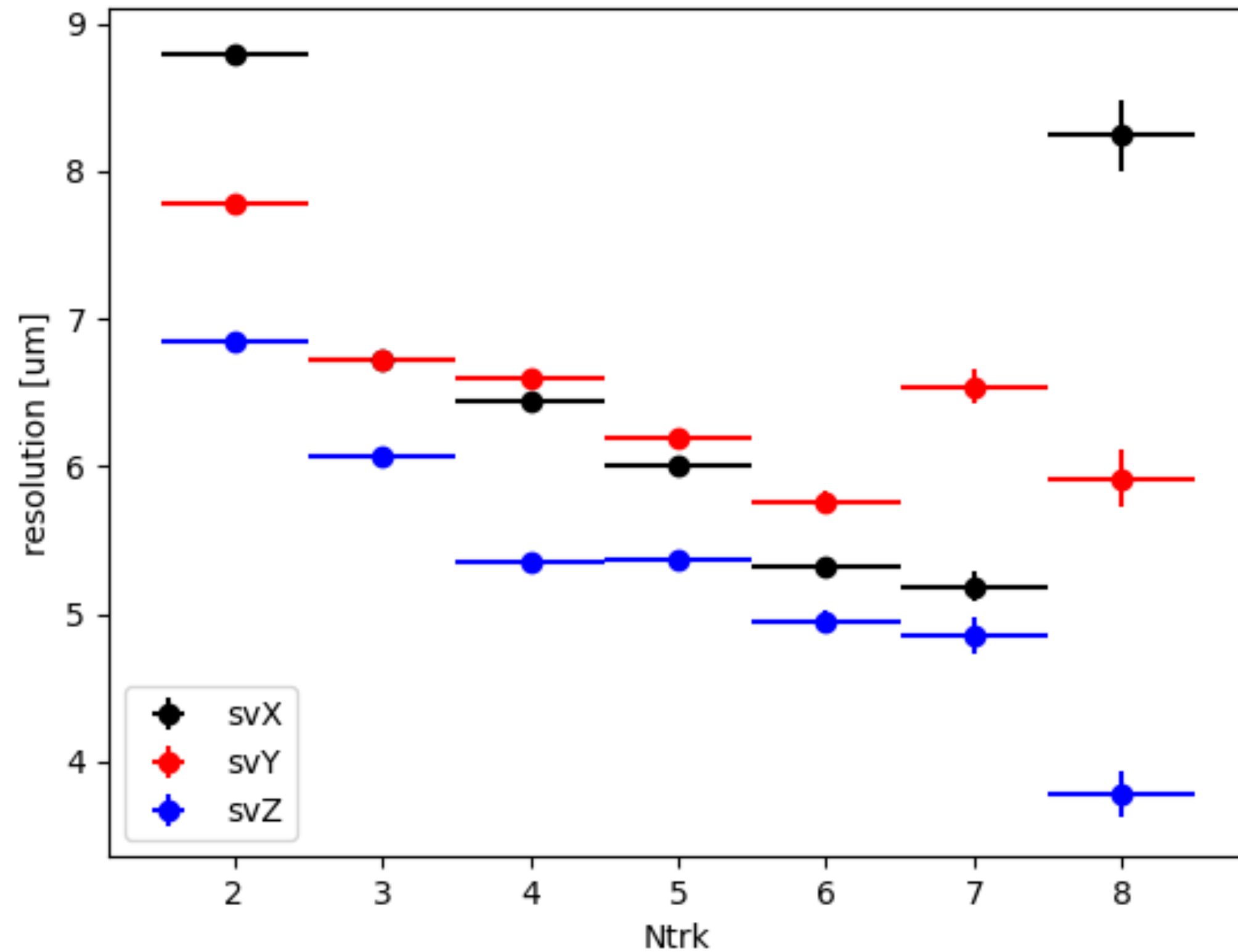
Secondary vertex resolution

Resolution vs Ntrk in XYZ

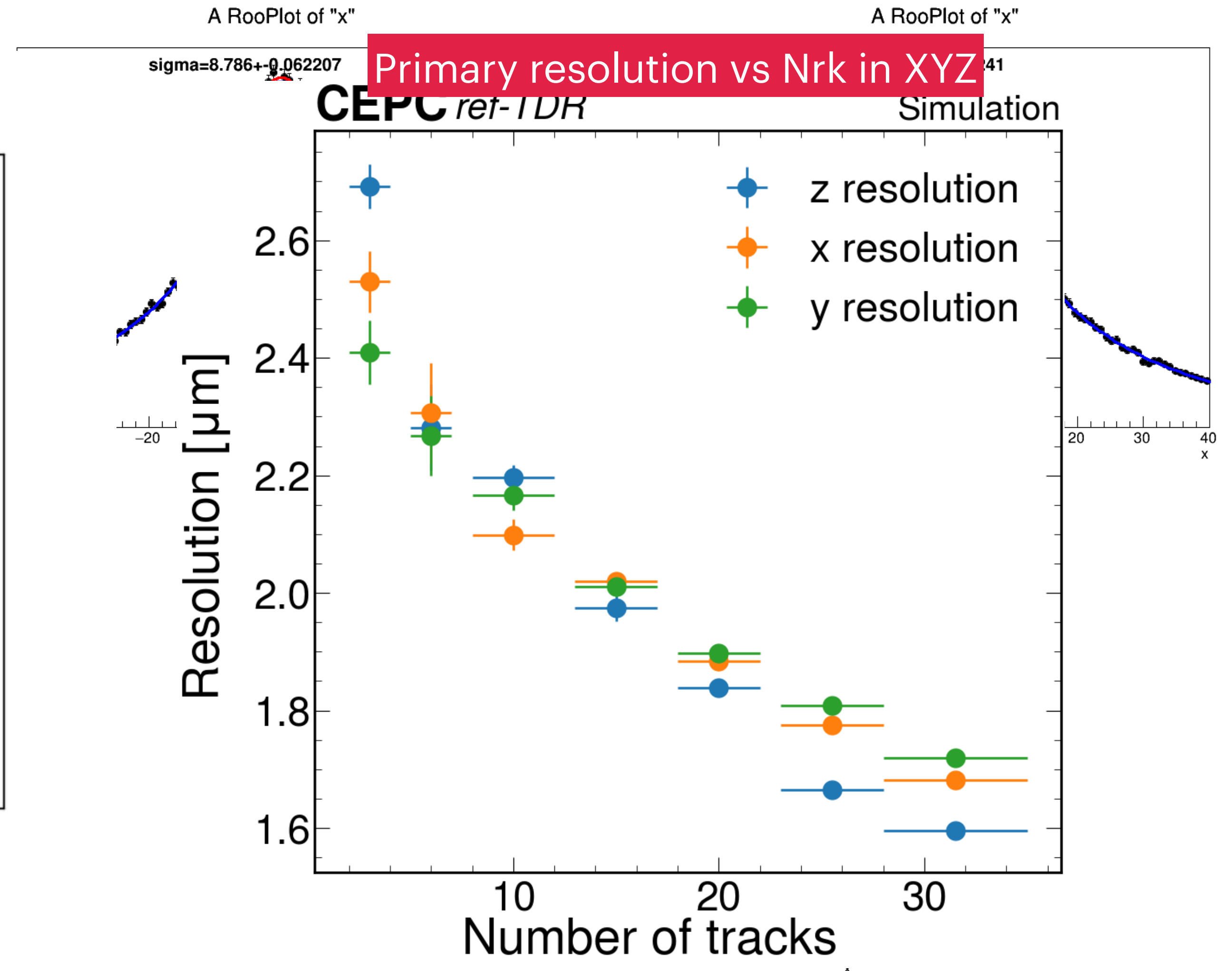


Secondary vertex resolution

Secondary resolution vs Nrk in XYZ



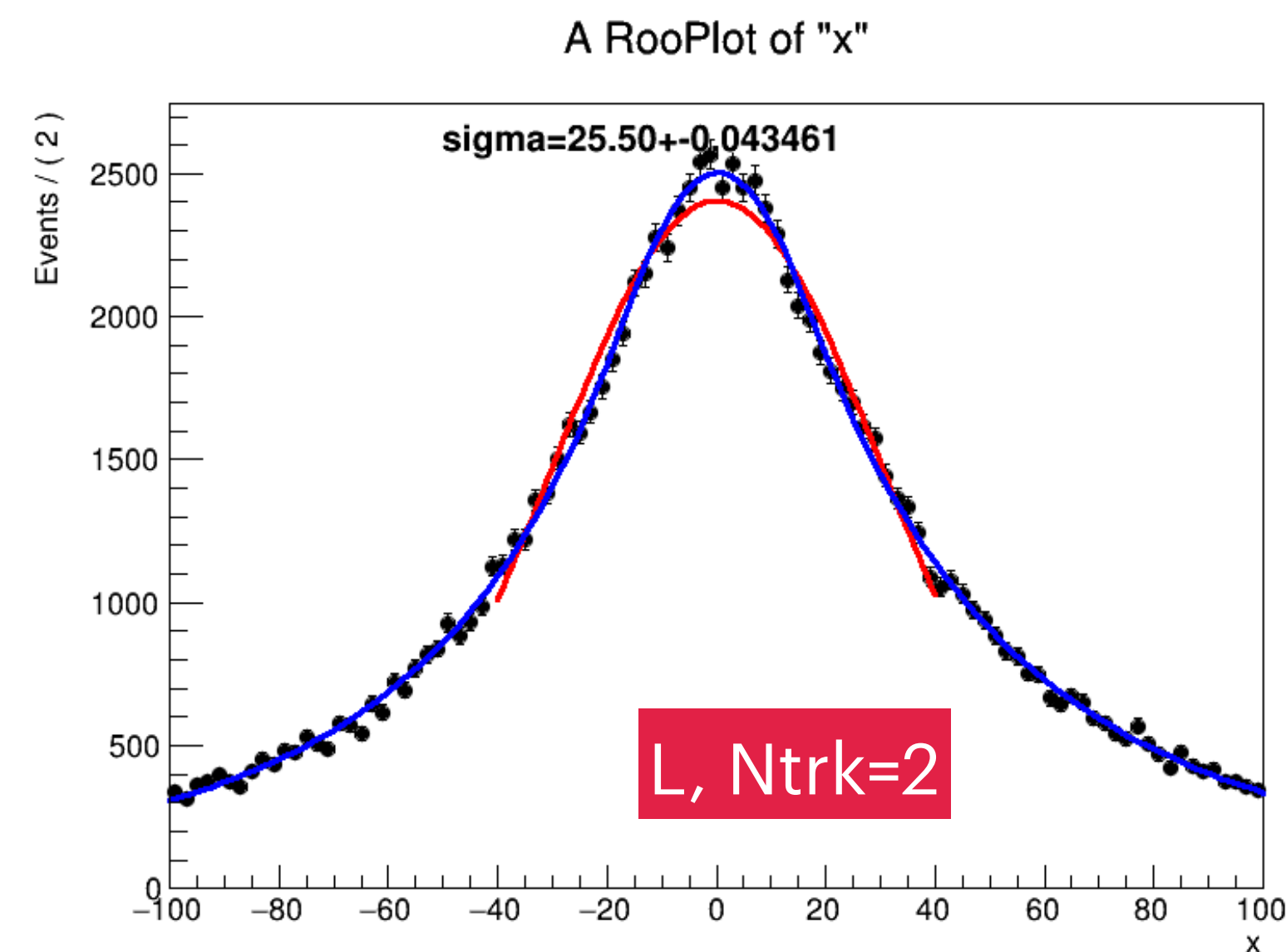
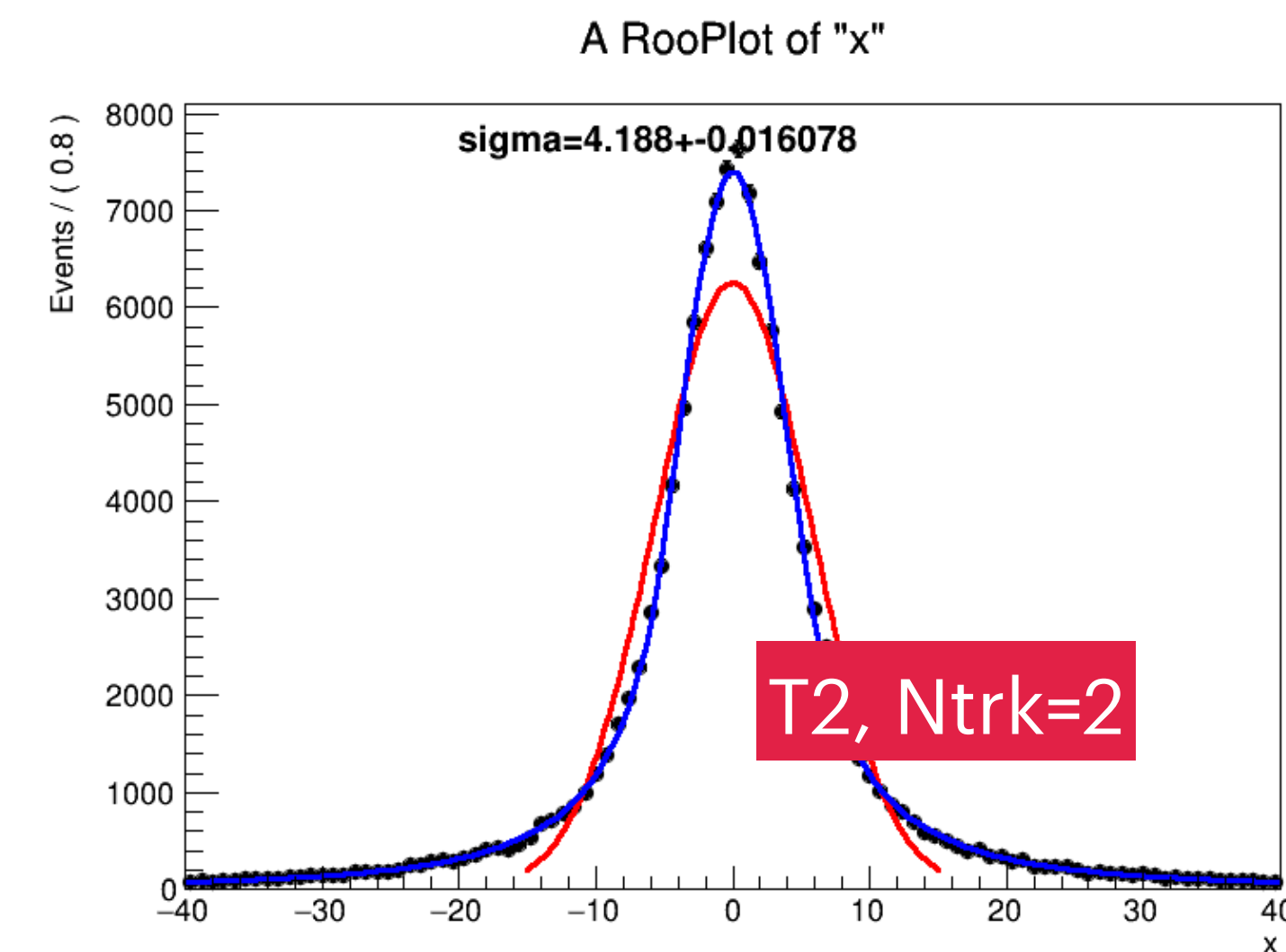
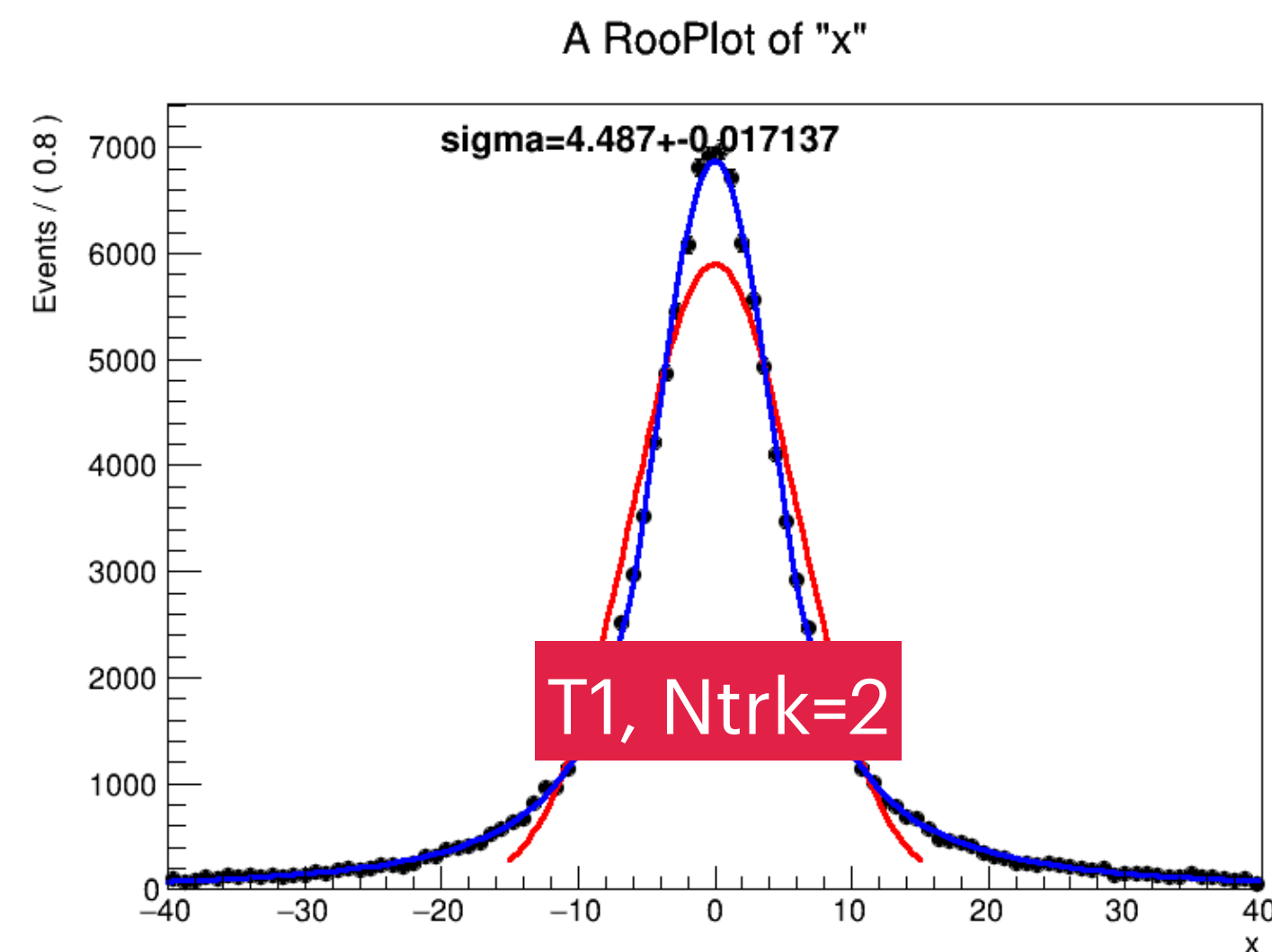
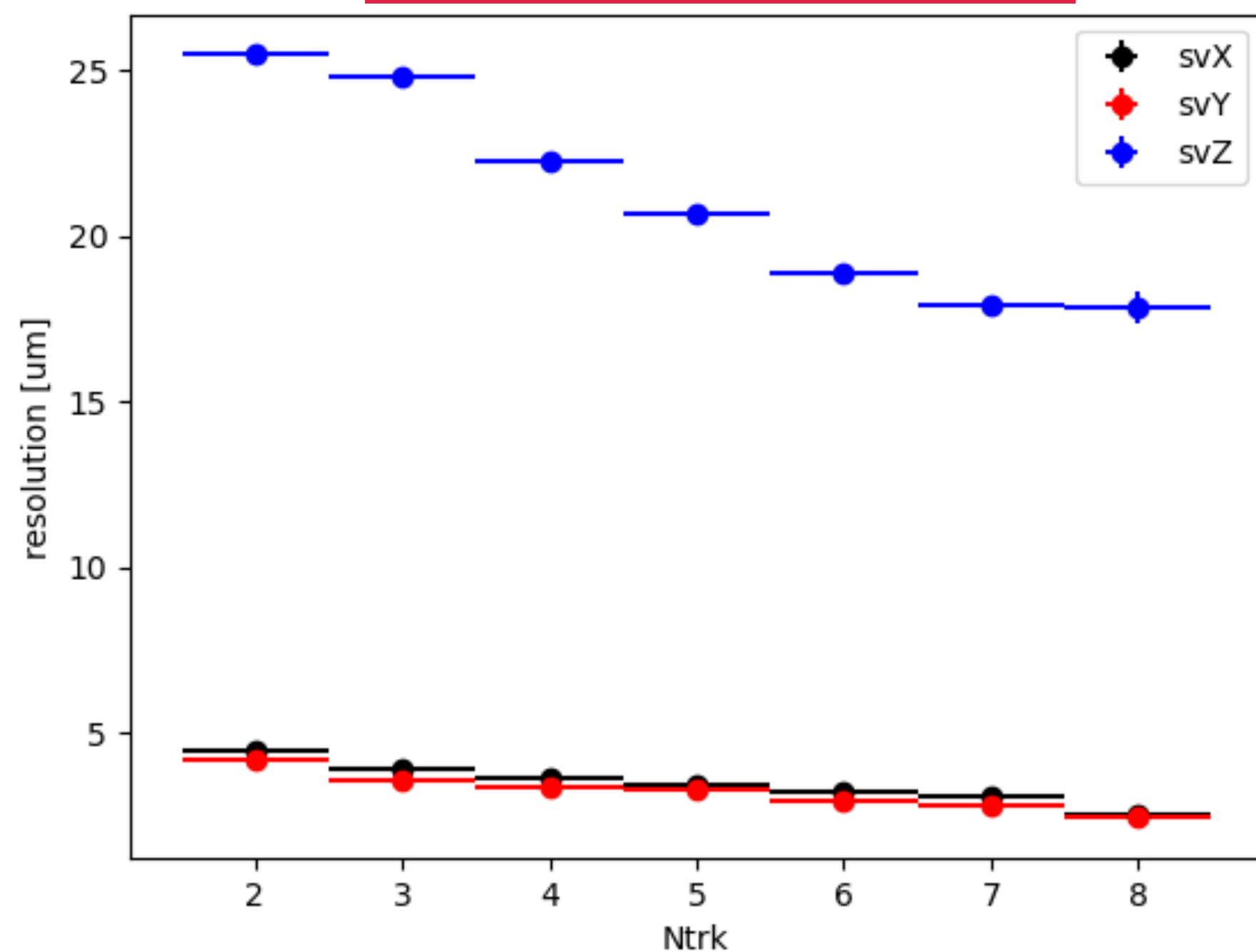
Primary resolution vs Nrk in XYZ



Secondary vertex resolution

Transform XYZ coordinates to TTL by rotating the Z-axis to align with jet direction

Resolution vs Ntrk in TTL



Secondary vertex resolution

Resolution vs L_{xyz} in TTL, $N_{trk} < 4$. Additional checks needed

