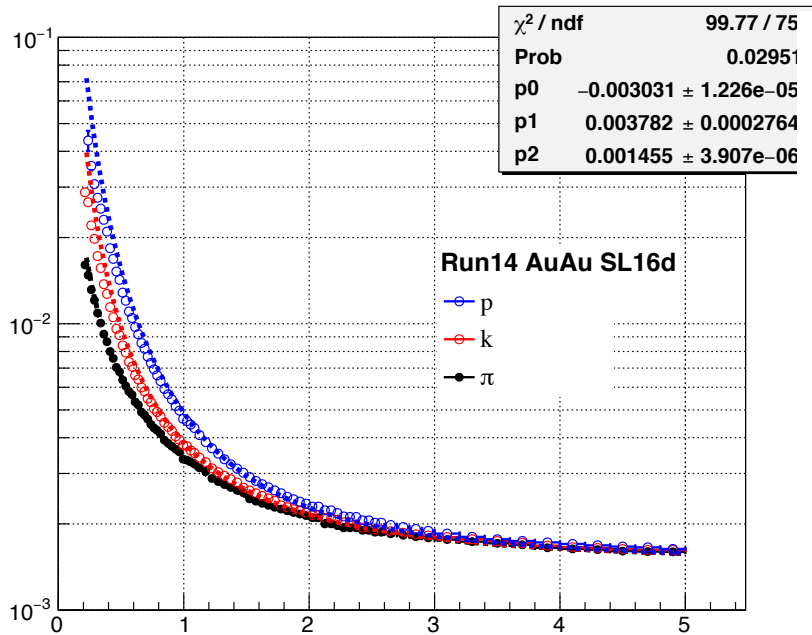


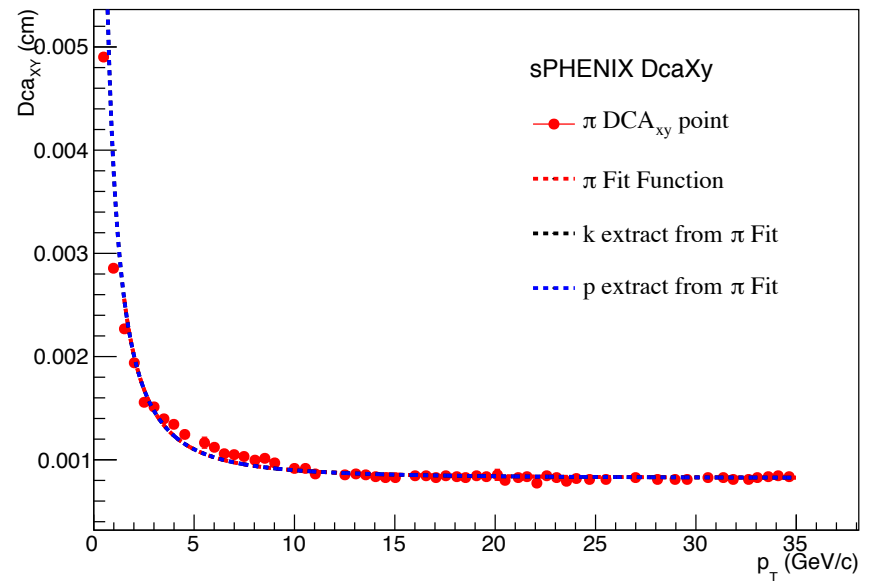
# Dca smear update



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Graph



Function updated with

$$y = \sqrt{a^2 + \frac{b^2}{x^2} + \frac{c^2 m^2}{x^4}}$$

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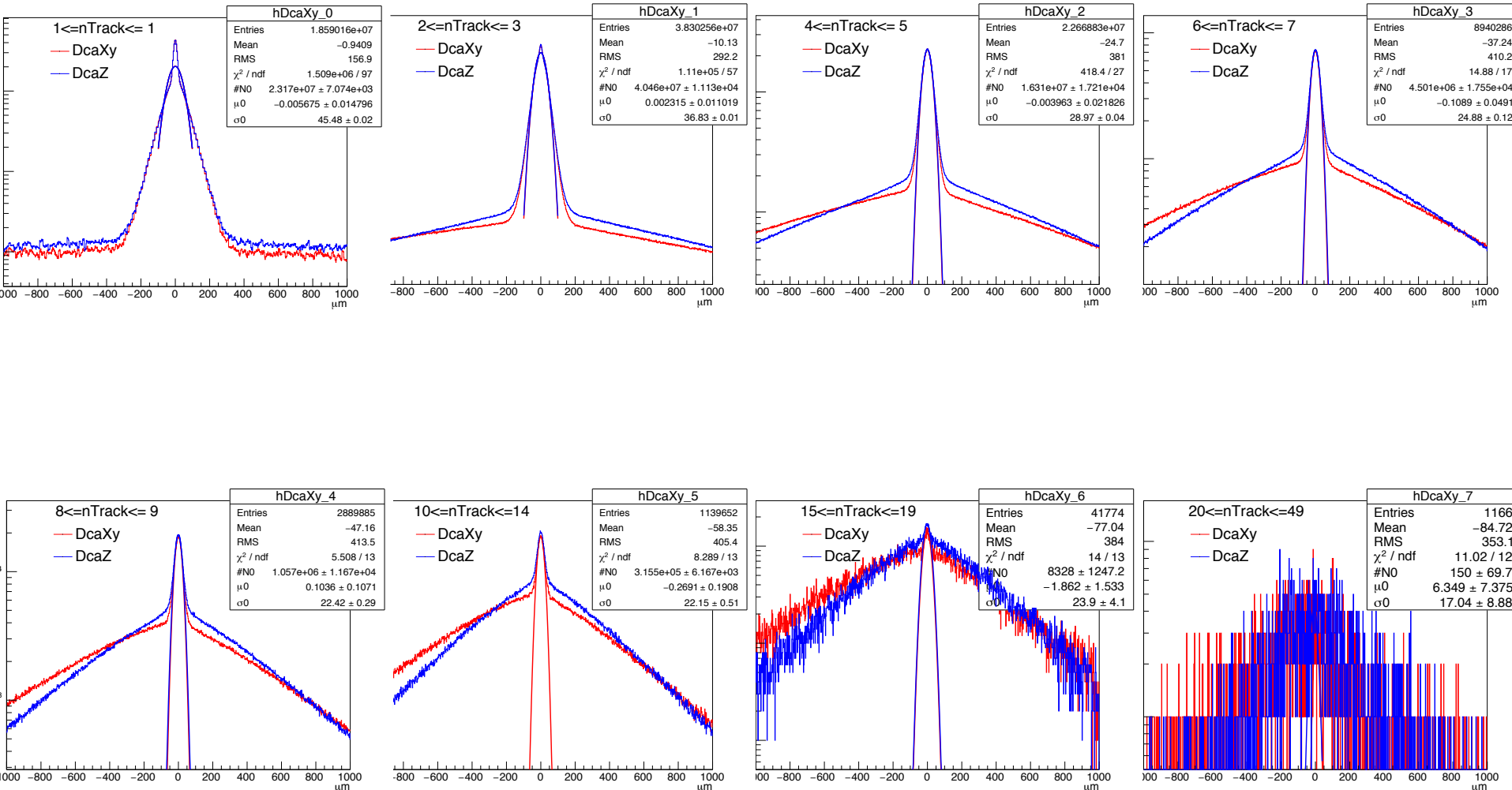
- Pythia event generator
  - Only consider  $\pi/k/p$
  - Smear  $p_T$ , smear  $Dca_{XyZ}$
  - $p_T > 0.2 \text{ GeV}$ ,  $|\eta| < 1$ ,  $|dca| < 1$
  - Consider tracking efficiency from STAR
  - Average track  $Dca_{Xy}$  and  $Dca_Z$ , weighted by  $p_T$

/star/u/xgn1992/work/Dmeson/D0Simu/HijingD0Pico/sPHENIX/PPsimulation/Vertex

# p+p vertex resolution study (II)



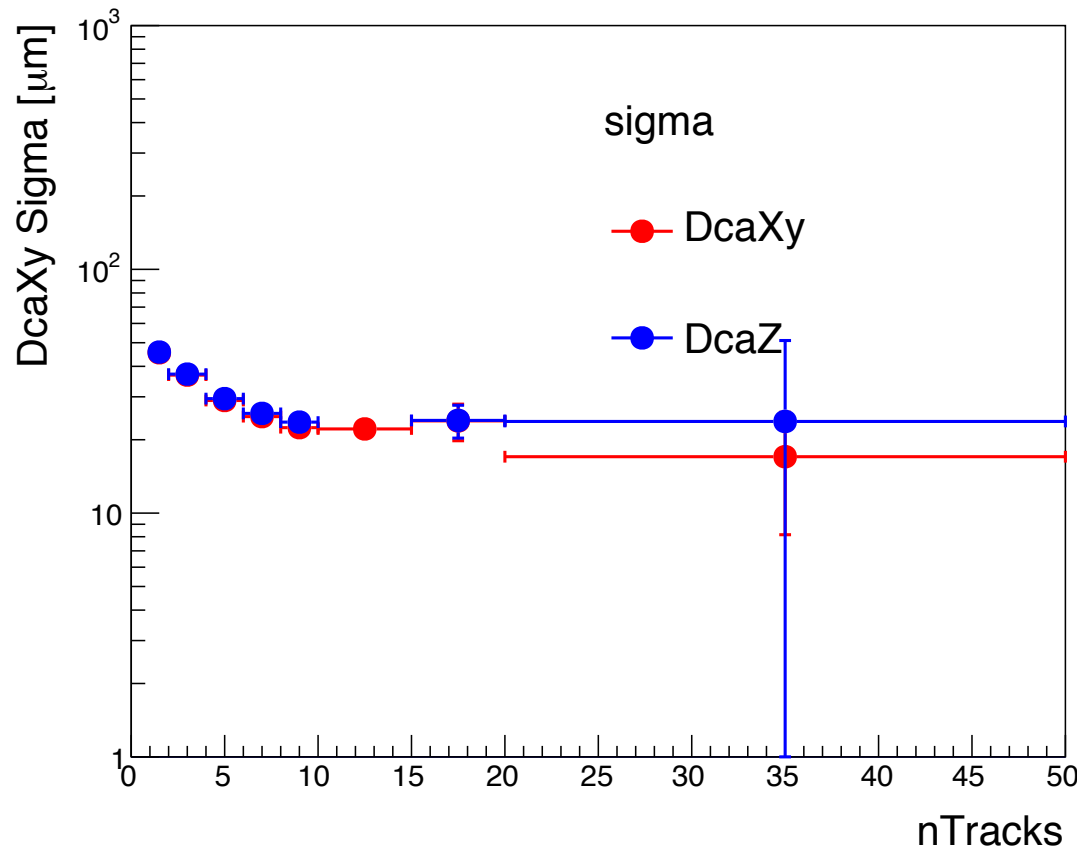
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# p+p vertex resolution study (III)



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- From this simple calculation, looks like vertex have visible contribution
- Trying to use Minuit Vertex to fit again