ePIC simulation plan

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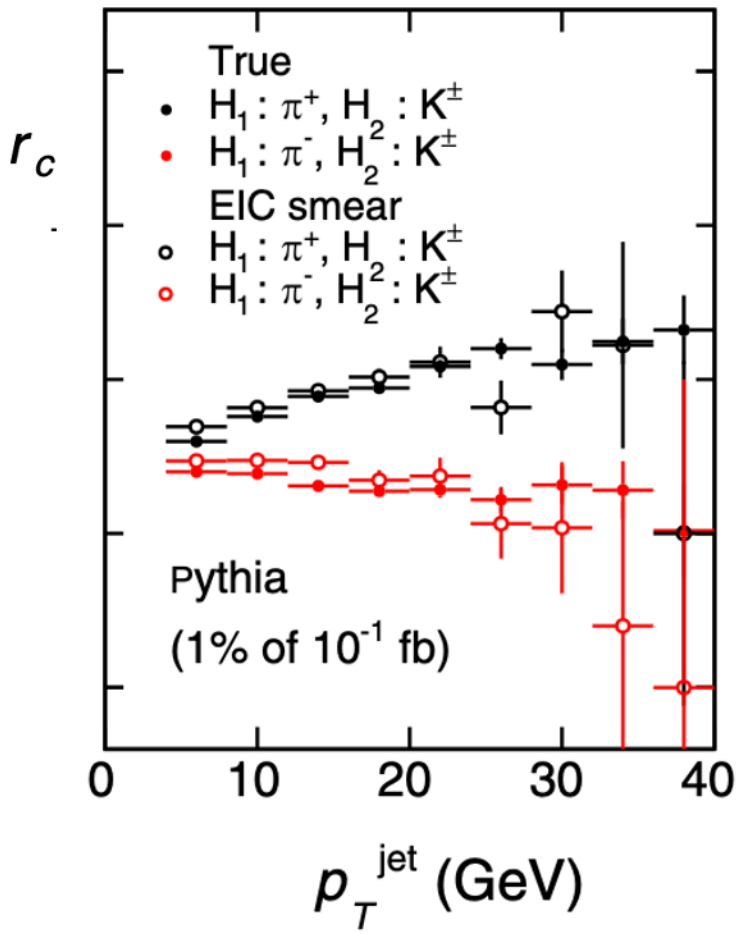
Experience: Transverse spin physics in STAR and PHENIX, Forward Calorimeter in ALICE, H1-Jet and Jet substructure, Jets, hadronization

Plan for ePIC: Simulation on Jet and jet substructure and related flavor correlations in jets

(Expecting to have a master student for the work for ePIC)

Probing hadronization with flavor correlations of leading particles in jets



Correlations are much stronger for π^+ $K^\pm$ than for $\pi^-K^\pm$ in PYTHIA

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$$r_c(X) = \frac{d\sigma_{h_1 h_2}/dX - d\sigma_{h_1 \overline{h_2}}/dX}{d\sigma_{h_1 h_2}/dX + d\sigma_{h_1 \overline{h_2}}/dX}$$

- ❑ Earlier EIC smear used.
- ❑ **Plan for full ePIC simulations**
  - Identified particles in a jet
  - Tracks and PID – high momentum

If simulated data available for pp@18x275 Plan add the plot for TDR and possibly with other kinematic variables like *formation time*.