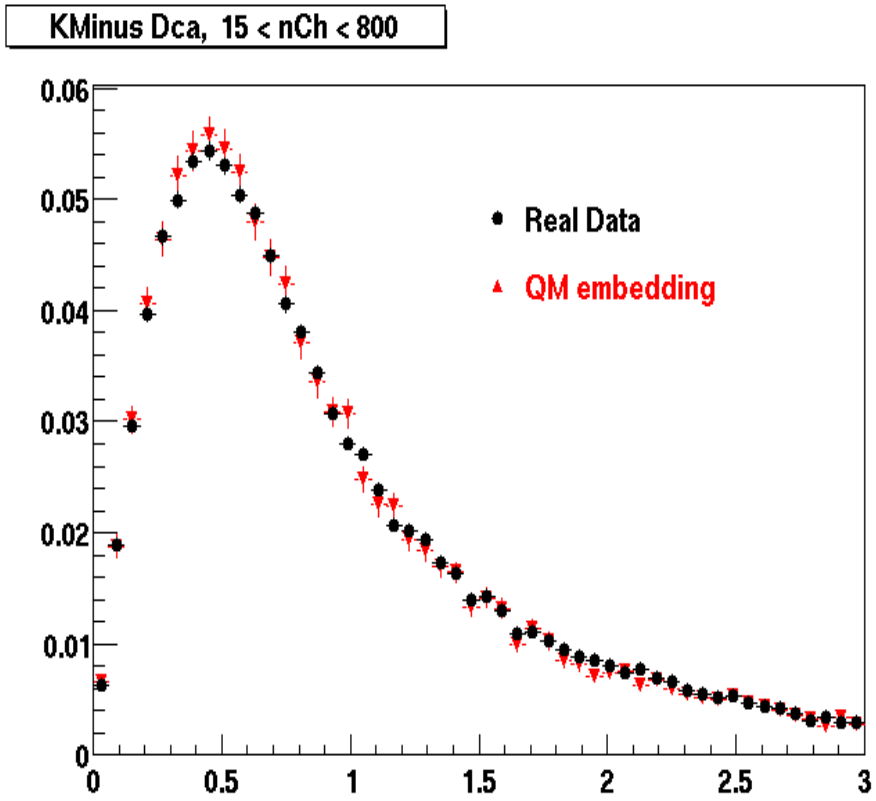
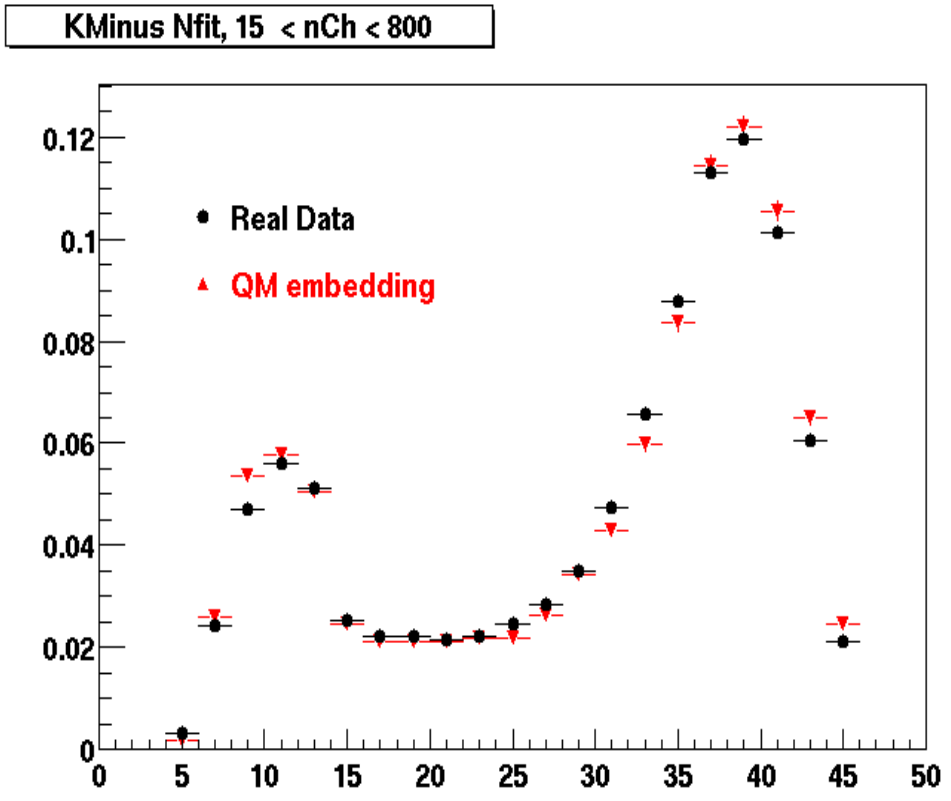
Recent Developments in Embedding

STATUS, CHANGES, PROBLEMS

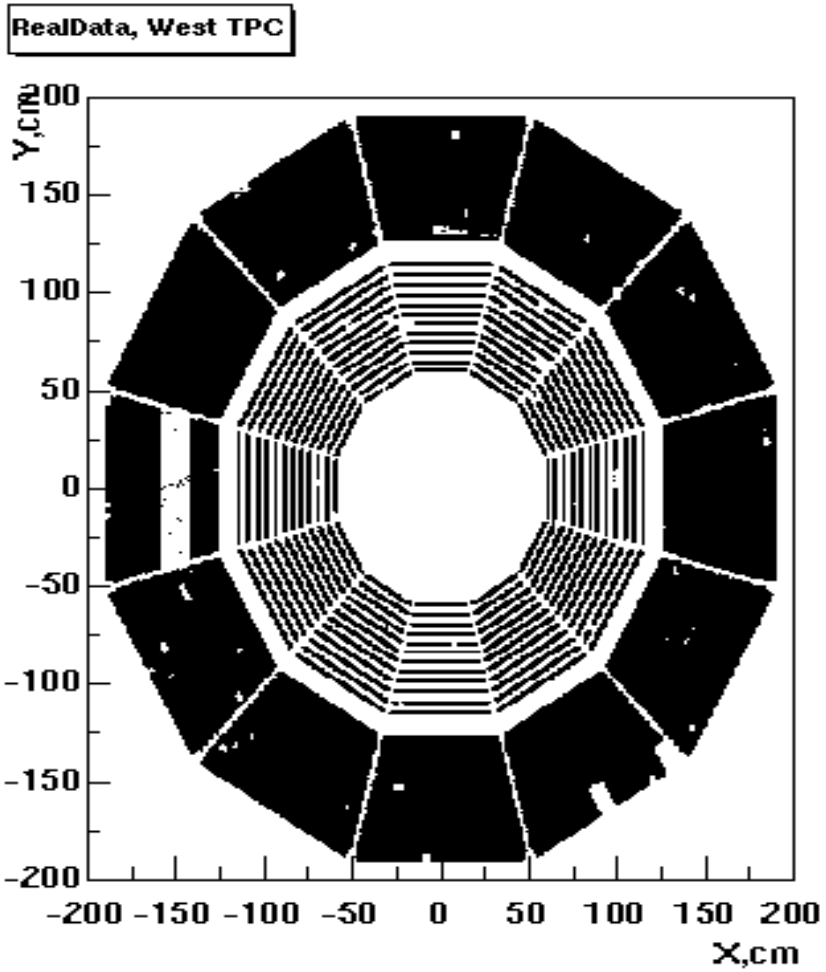
- Quality Assurance
- Energy loss calibrations
    - Fudge factor history
- New Mixer
- Papers affected
- Reproduction update

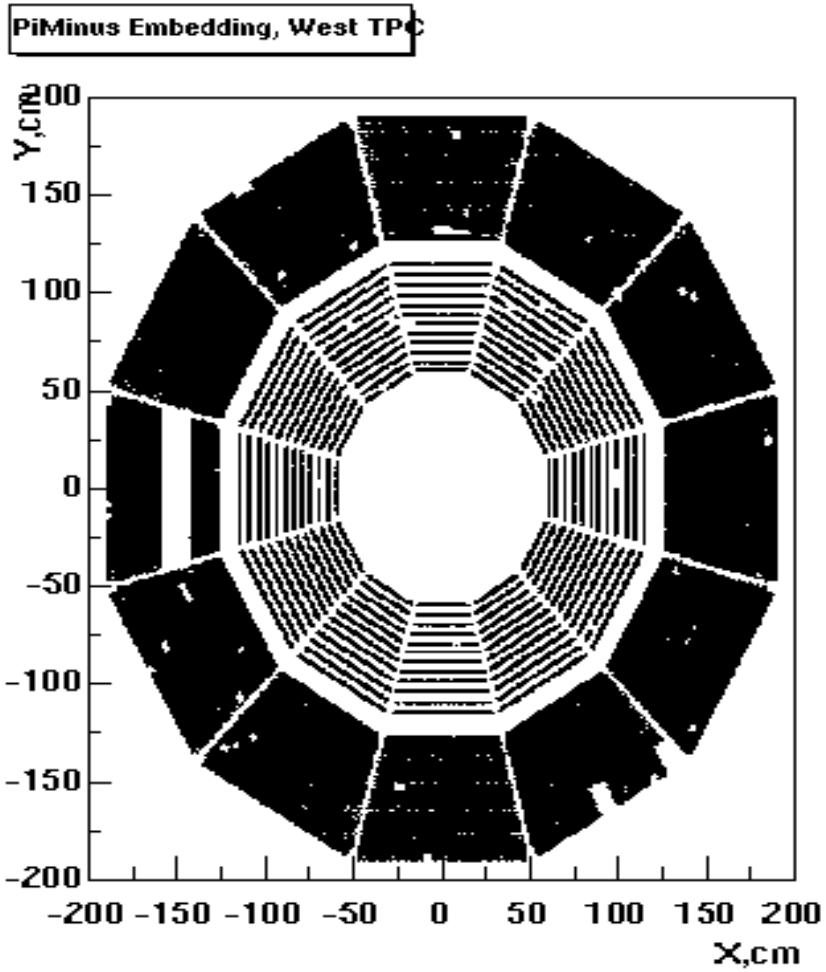
Quark Matter Embedding



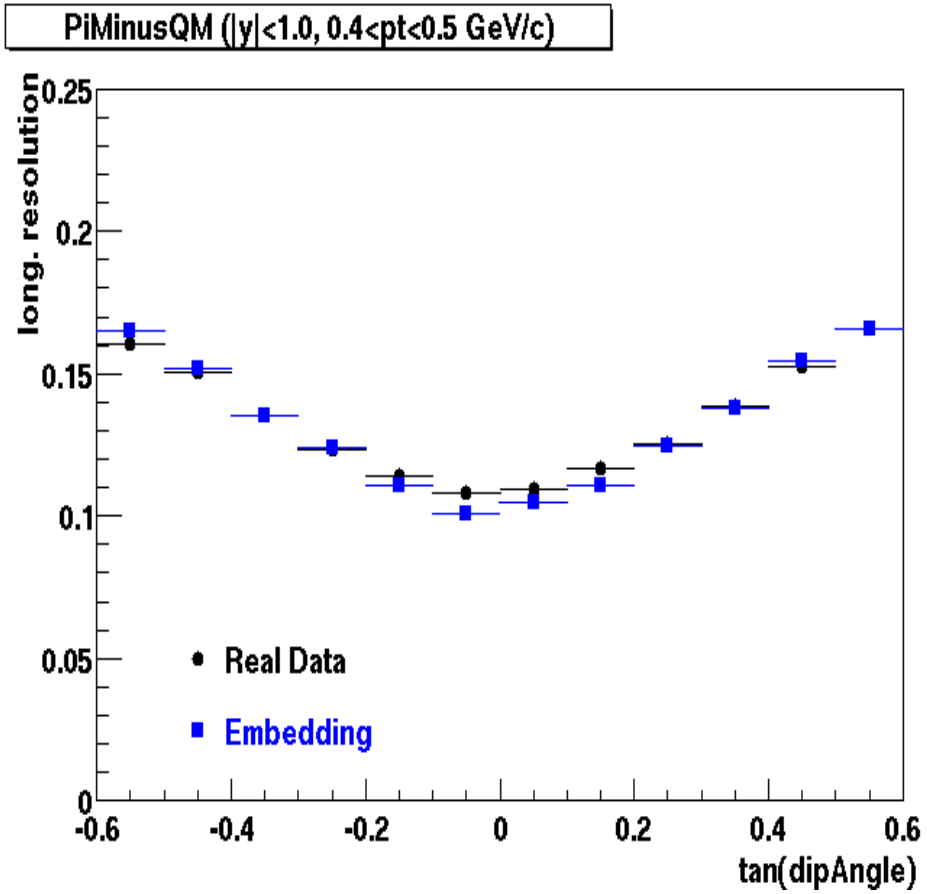


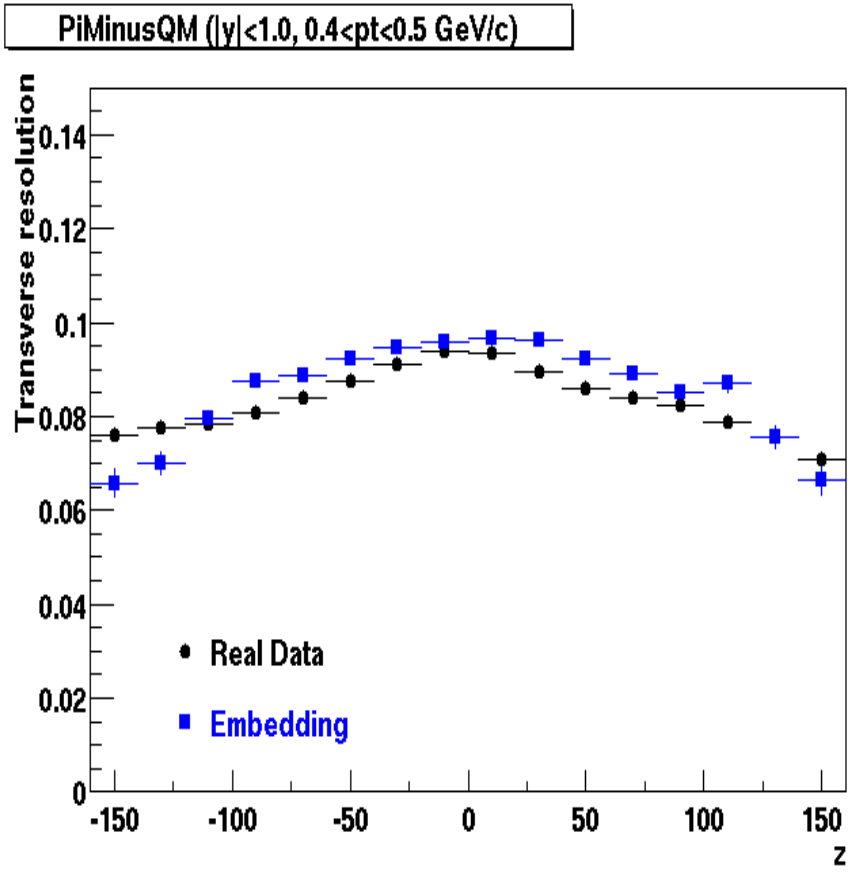
Quark Matter Embedding



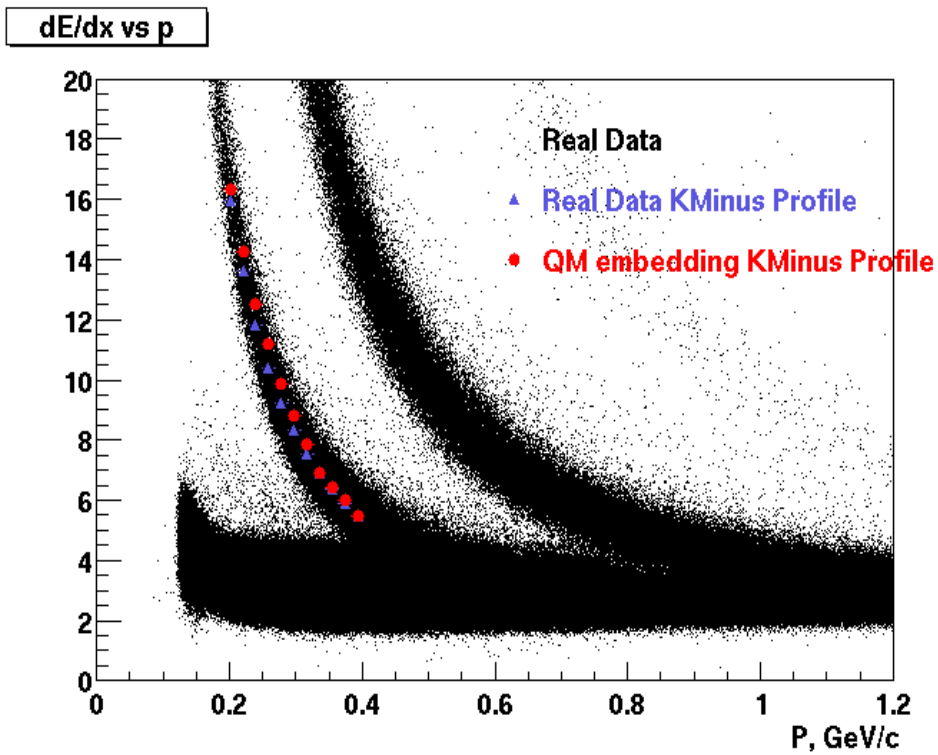


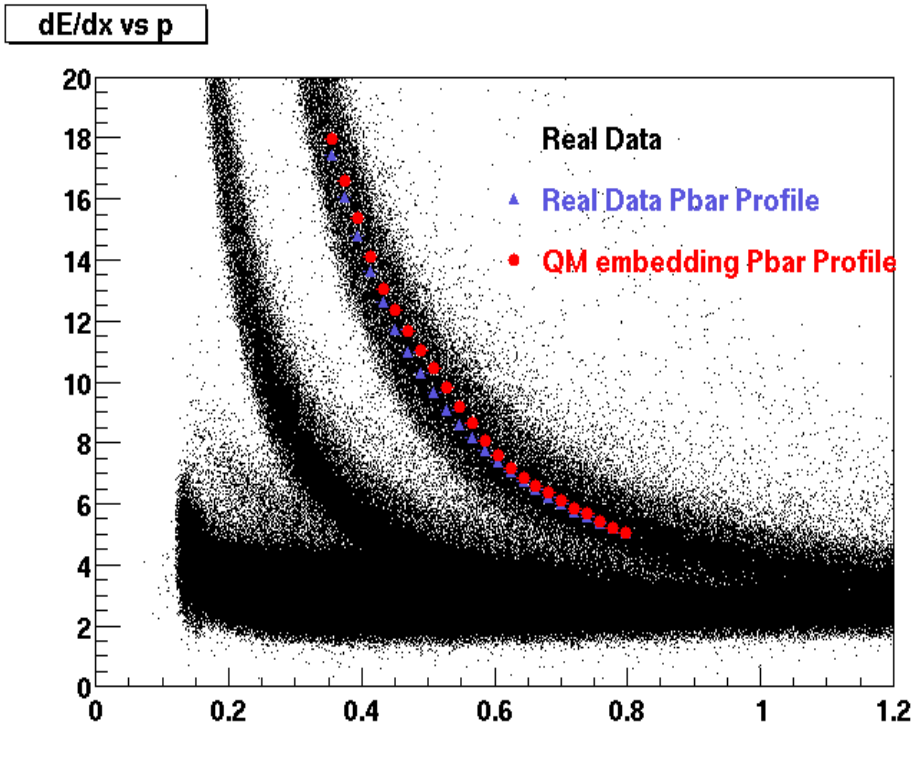
Quark Matter Embedding



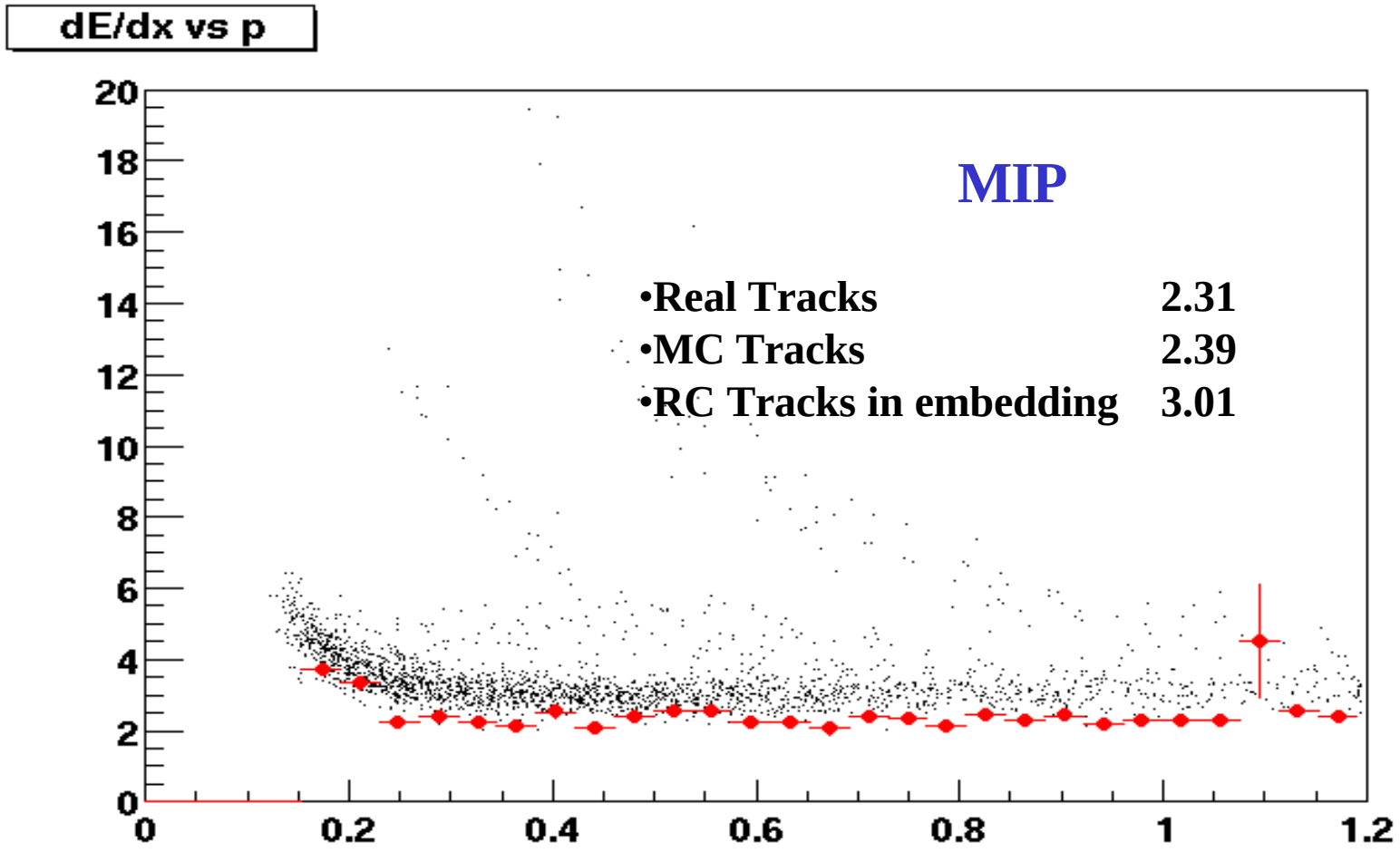


Quark Matter Embedding

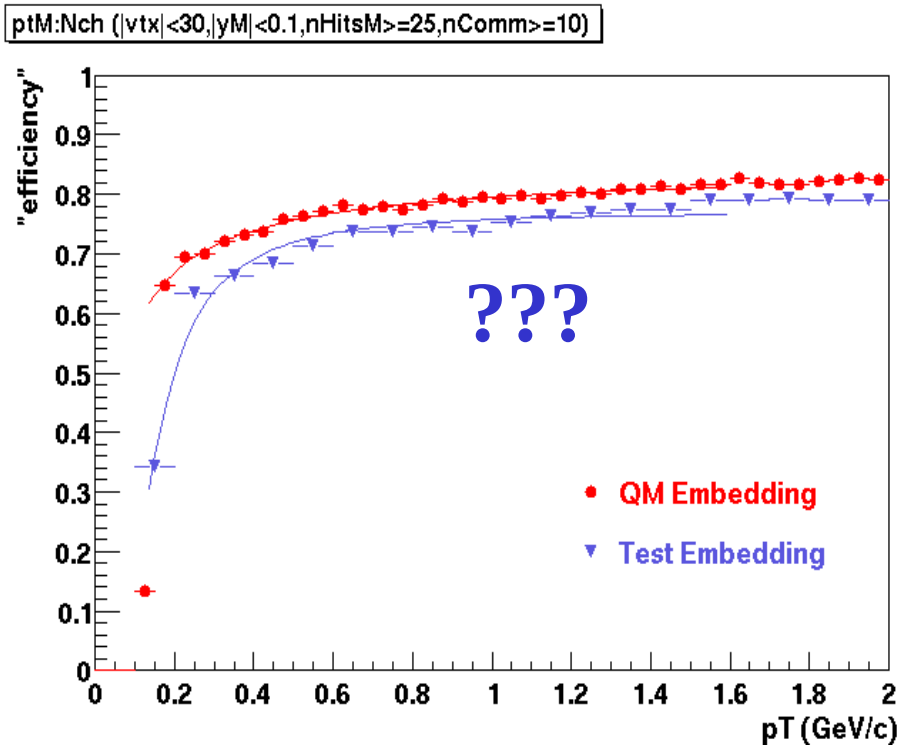




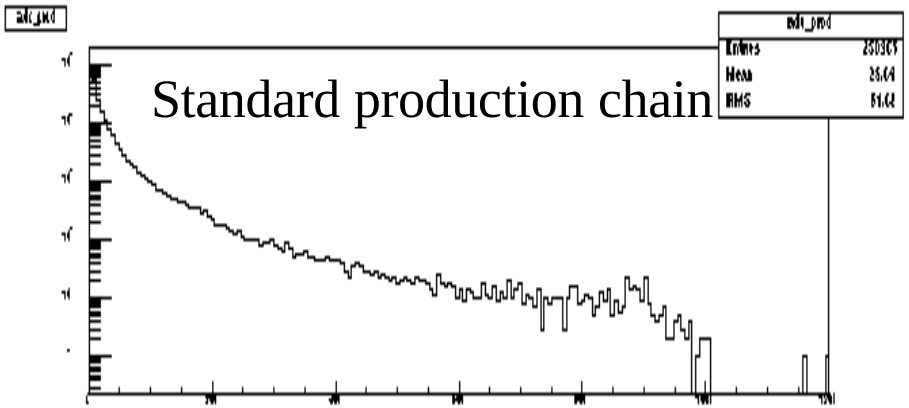
dE/dx calibration

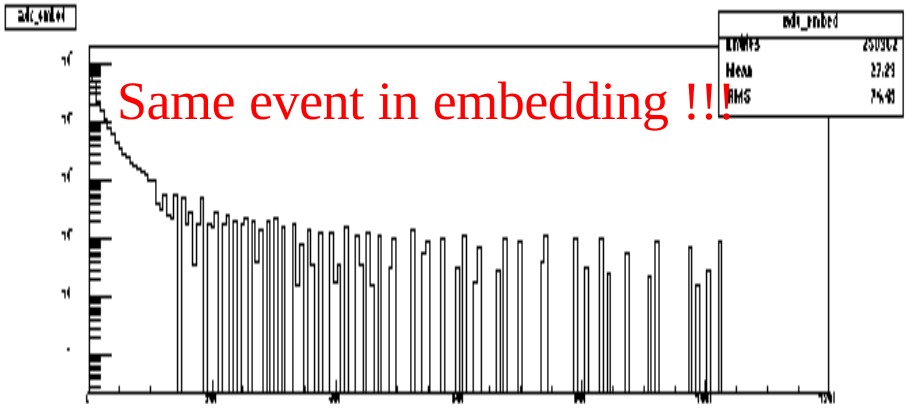


Problems



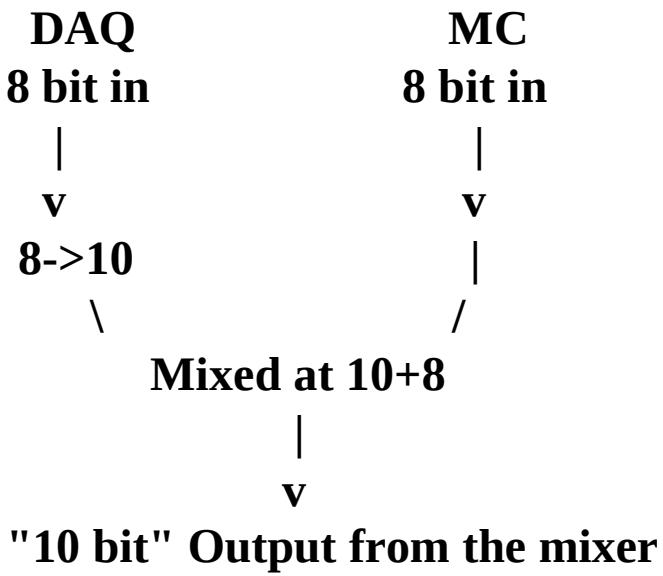
ADC values



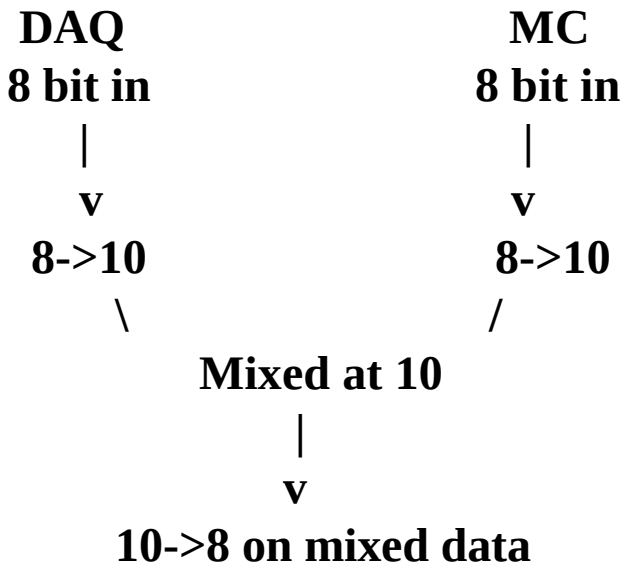


Mixer Problem Found:

old



new



Fudge Factor

P00hm: ff set to 1.4,

CVS trs documentation says "to match real data“

P01hj: ff set to 1.0

Recalibration shows that ff ~ 1.5

P02gd: done with ff = 1.0

Recalibration results in ff ~ 1.23

P03ix: Calibration yields ff ~ 1.23

Summary

Library Version	FF Before	FF After	Effect Summary (selective)	Affected papers	Fixed
P02ge	**1.0**	**1.23**	**Effect magnitude (central):** **~2% for high pt Full Field data,** **~6% for high pt Half Field;** **~7% low pt pions,** **~ 5% low pt kaons,** **~ 4% low pt protons, ~1% nCh**	**HighPt** **200 GeV spectra**	**
P01hj	**1.0**	**1.5**	**Effect magnitude (central): ~ 6% low pt protons**	**130 p, pbar** **Strangeness**	*
P00hm	1.4 ?	??	*- Sector alignment* *- New gain and local t0 corrections* *- New TPC drift velocities calibrations* *- Padrow 13 removed* *- ExB shape correction* *- Vertex offset has been taken out*	**130 pbar** **130 kaon** **130 pi, h-**	* *

Reproduction Summary

- **P01hj:**
  - High pt pi+ and pi-
  - p and pbar
  - K- and K+, minbias and central
  - Xi and antiXi, Omega and antiOmega
- **P02gd:**
  - Lambdas
  - K+ and K- kinks
  - K0s
- **P03ix:**
  - pions for highpt resolution study
  - hijing into zerobias (TPC + FTPC)

Hard work by Eric Hjort, David Hardtke, Yuri Fisyak, Patricia Fachini, Jerome Lauret, James Dunlop, Fabrice Retiere, et al.