Status of K^+/π^+

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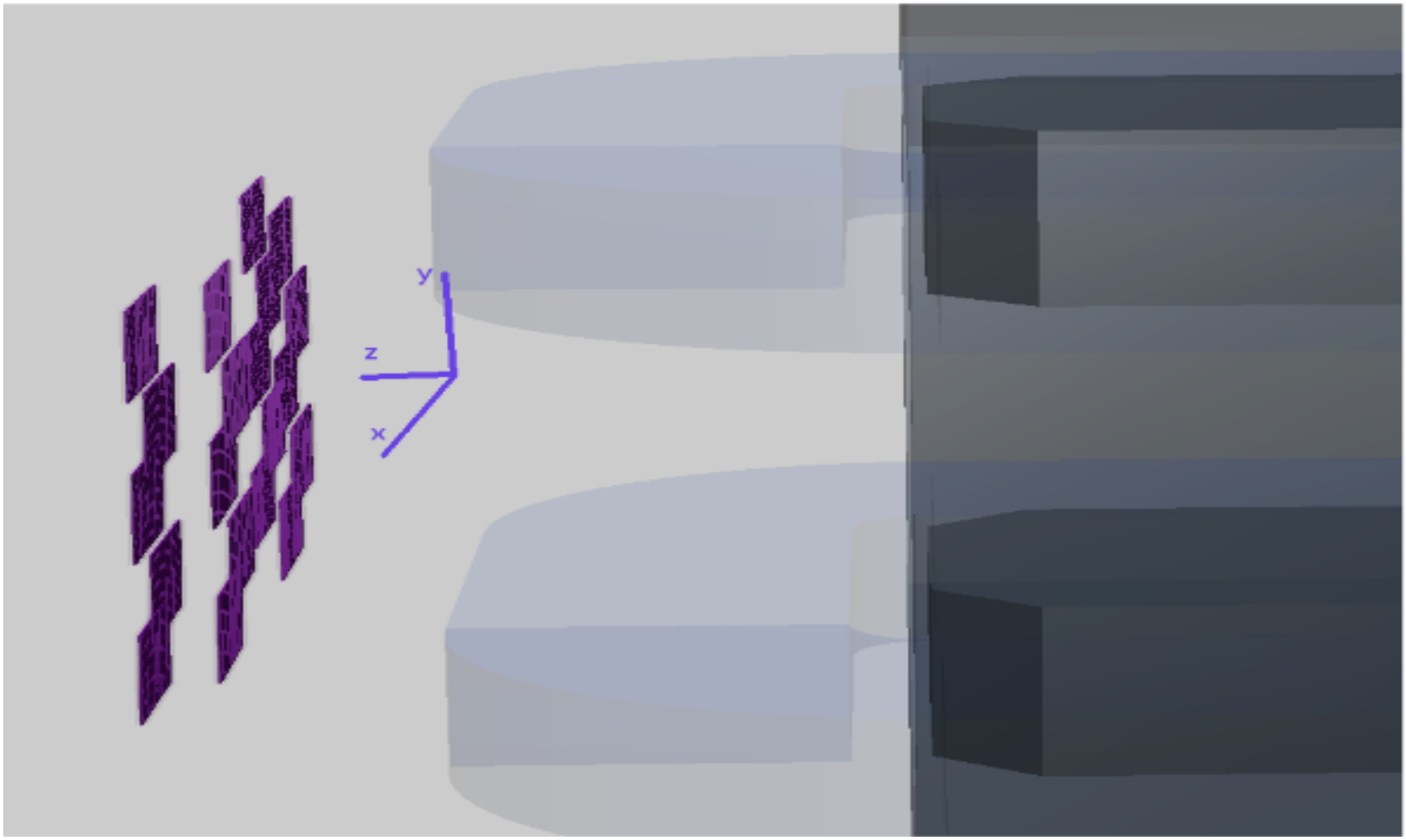
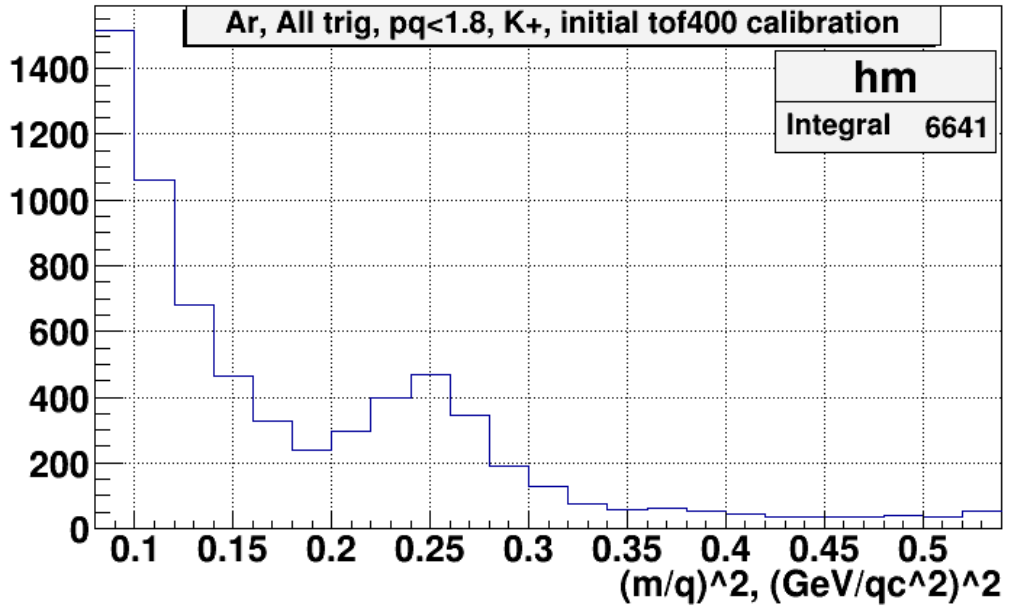
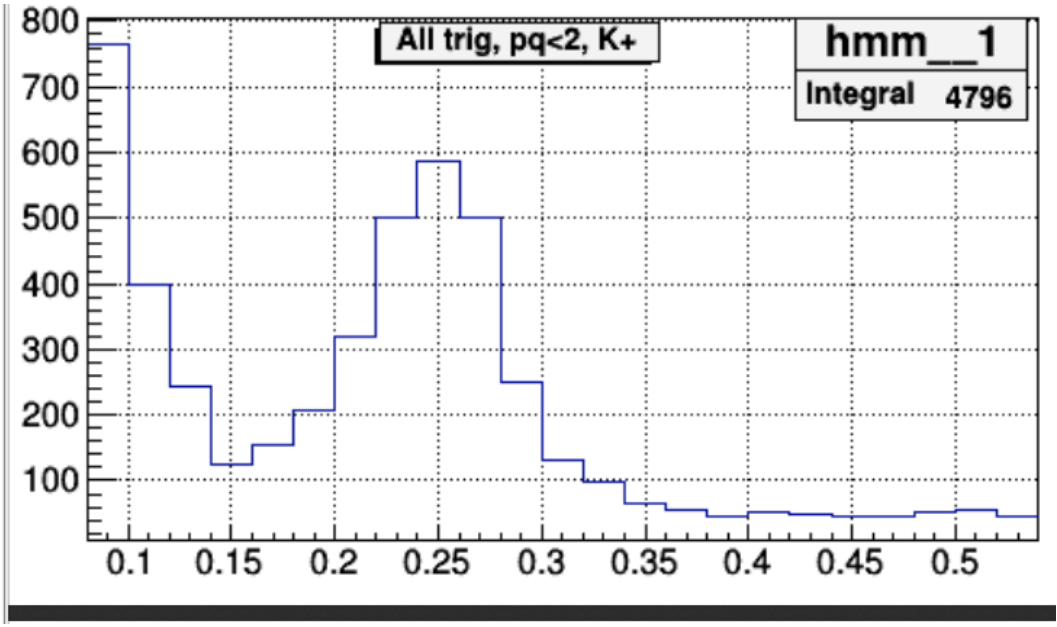
TOF400 calibration improvement



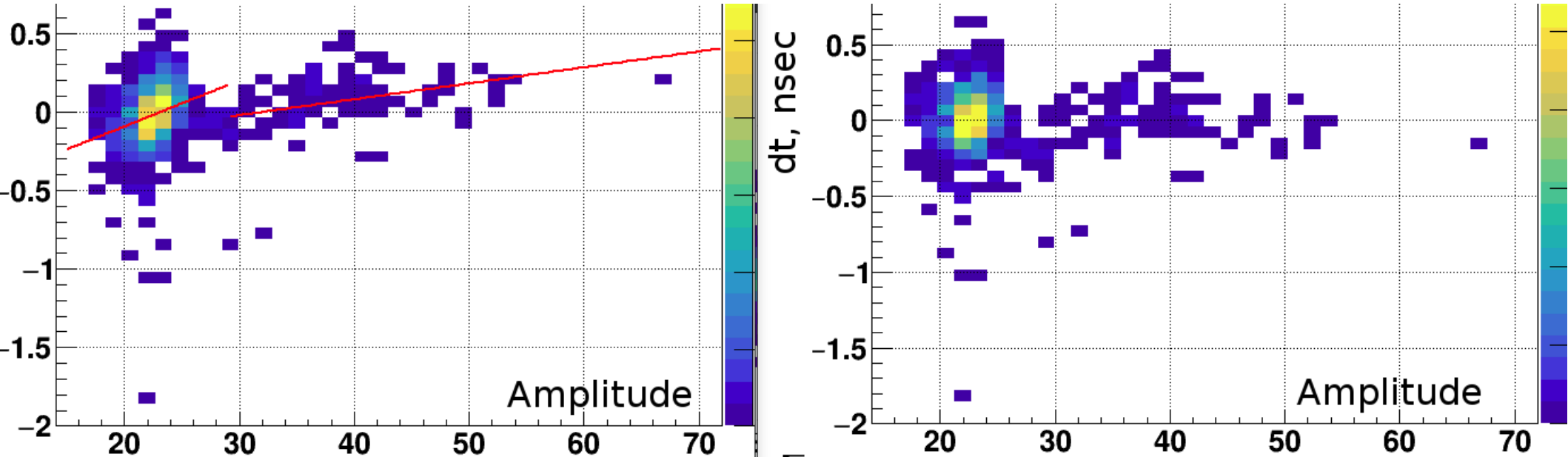
TOF400 calibration improvement





- Data from Ar run
- Signal/background much better
- Now can identify K^+ to 2 GeV/c or even higher

TOF400 calibration improvement



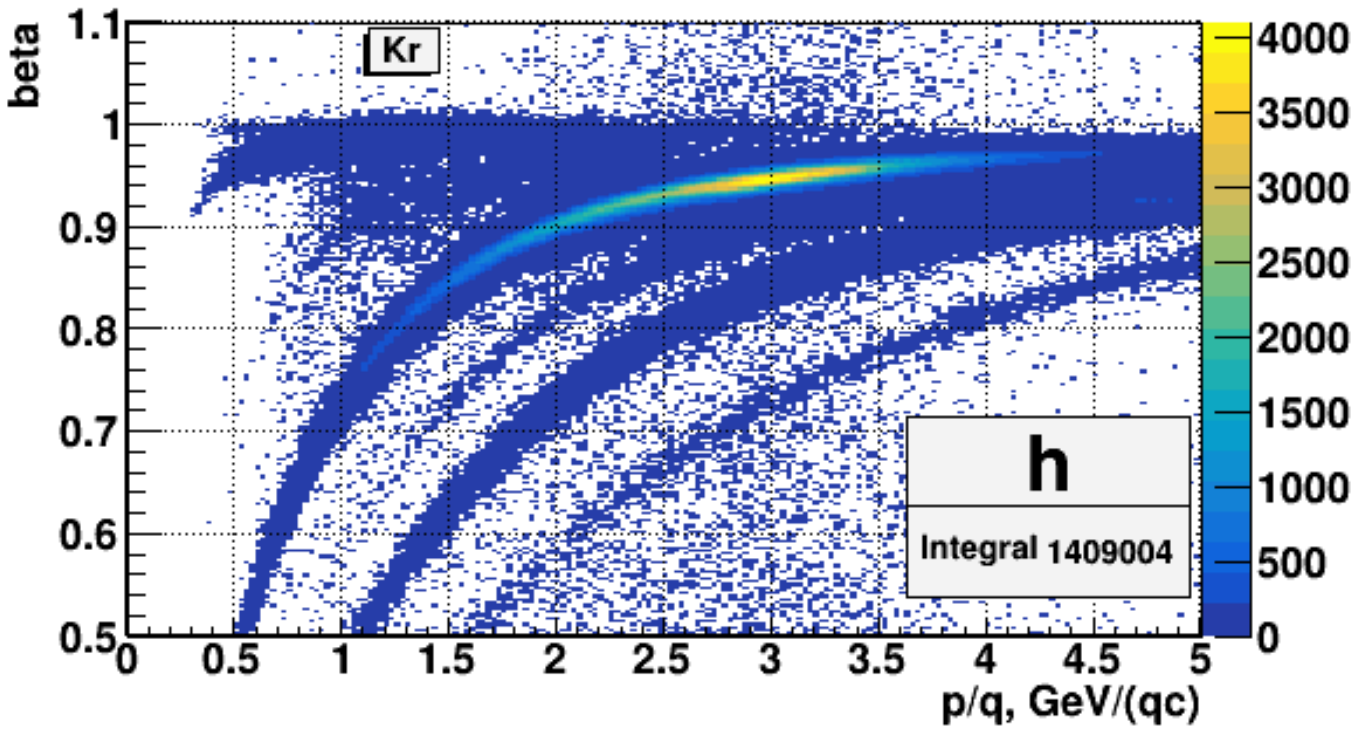
- Left – before two line fit calibration, right - after
- pol1(main peak)+pol1(higher amplitudes)
- 288 strips
- Ready to calculate K^+/π^+ for Ar

Systematics assessment and corrections plan

- $(K^+/\pi^+(pq_{Calibr}<2)-K^+/\pi^+(pq_{Calibr}>2))/2$
- $(K^+/\pi^+(pq)-K^+/\pi^+(0.96*pq))/2$
- Misidentified particle background fit pol0 and pol1
- Monte Carlo: acceptance and K^+ decay

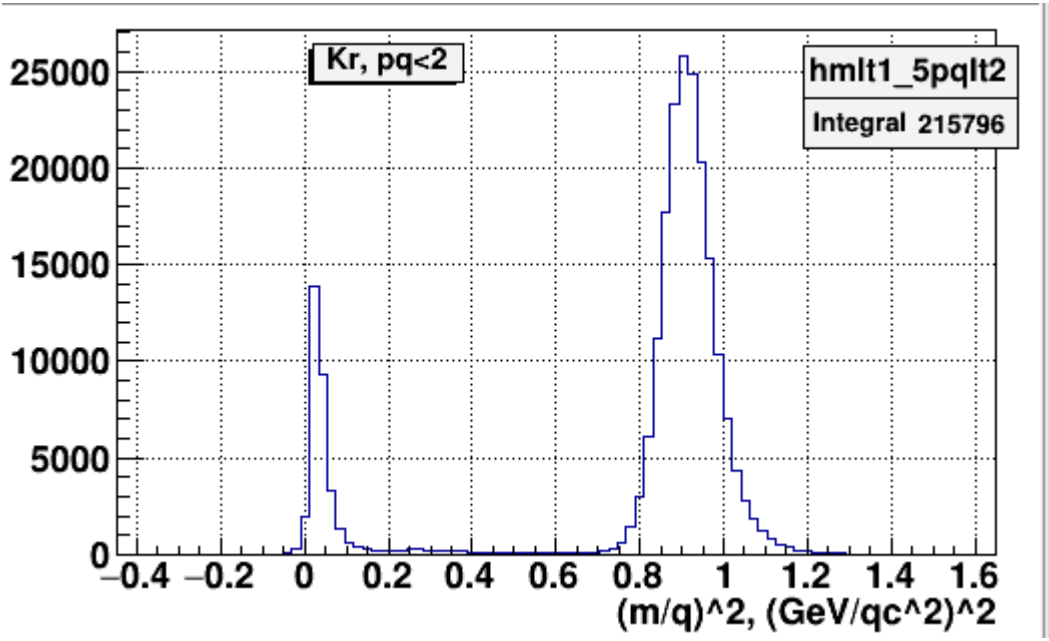
- Tree indexing in root!?

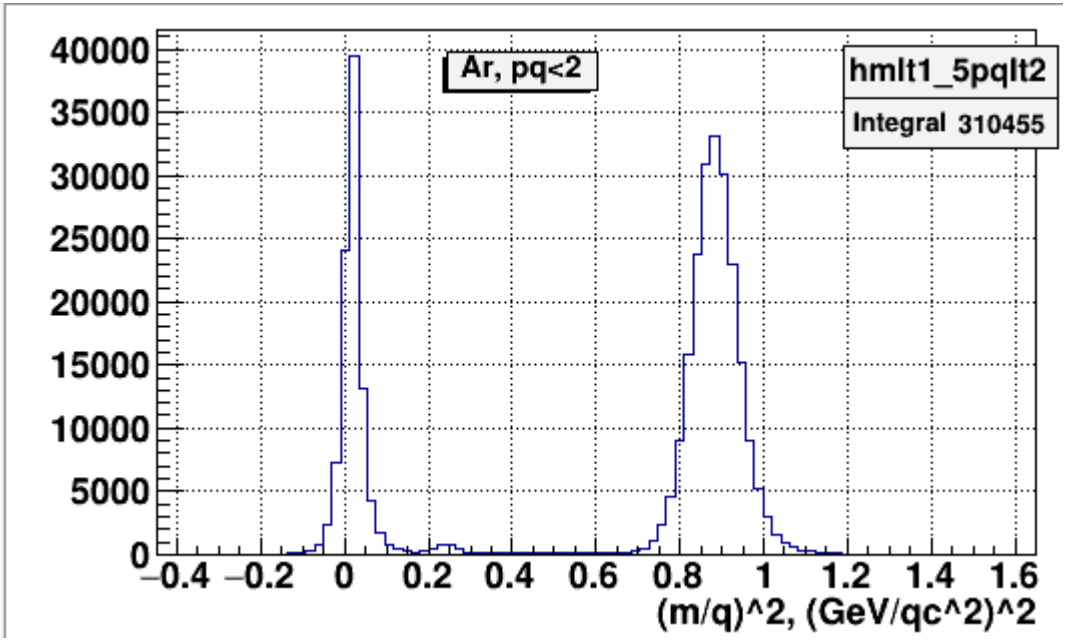
Identification in Kr run



- All bands as for Ar well visible except K^+
- High background under K^+

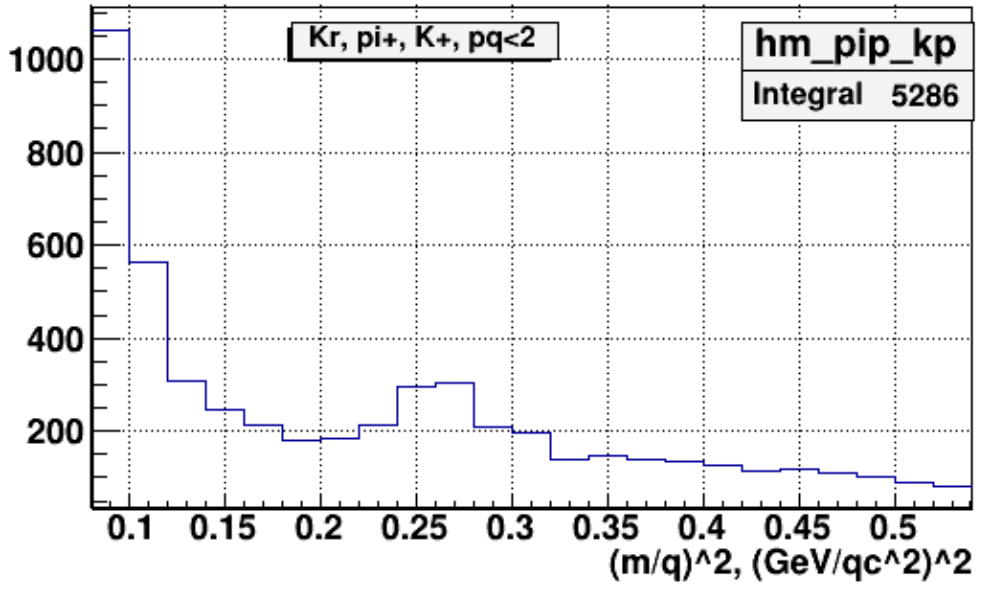
Identification in Kr run

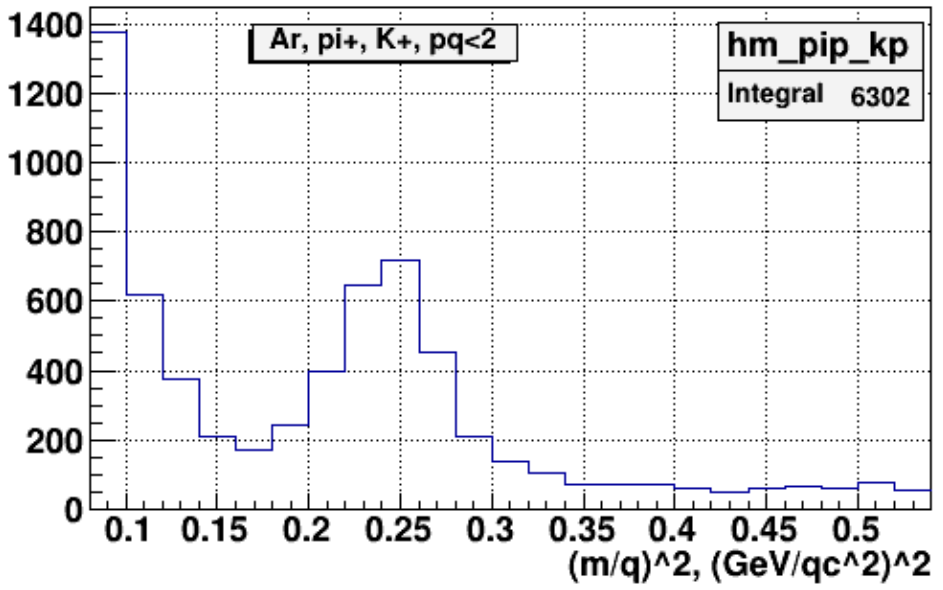




- $\pi^+/p(Kr) < \pi^+/p(Ar)$
- Kaon's peak stands out poorly

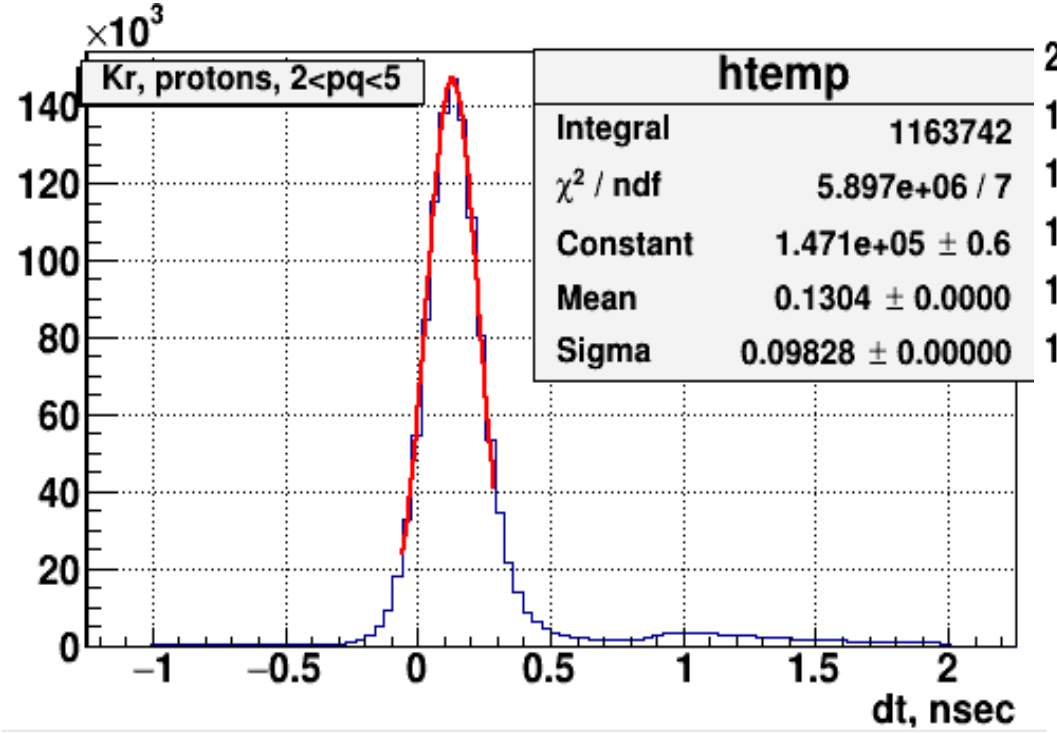
K^+ in Kr run

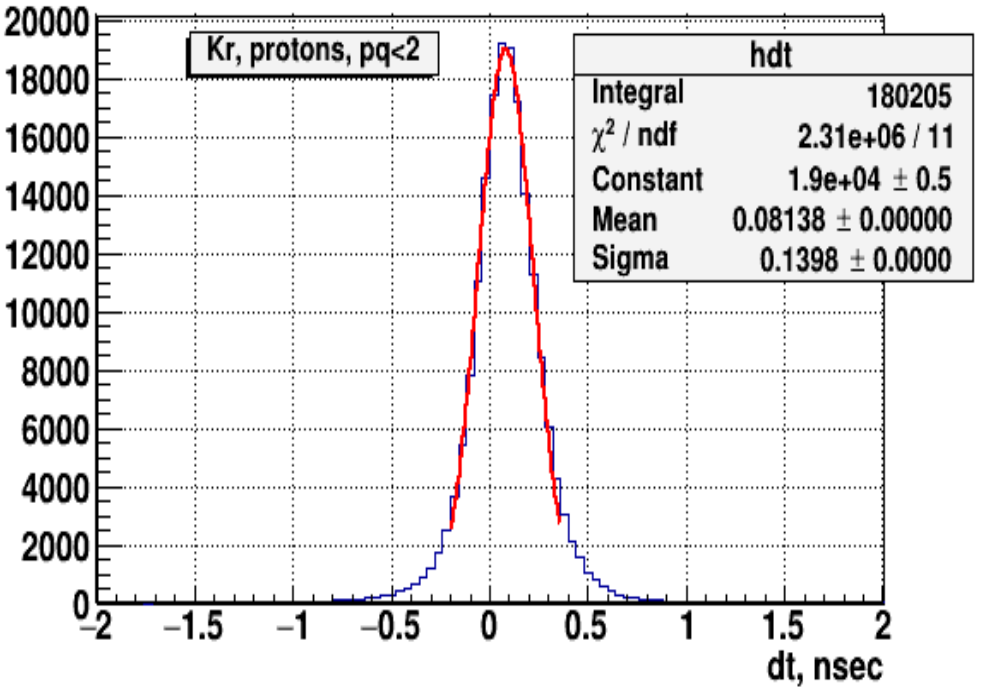




- Left – Kr, right – Ar
- Long background tail from π^+ for Kr

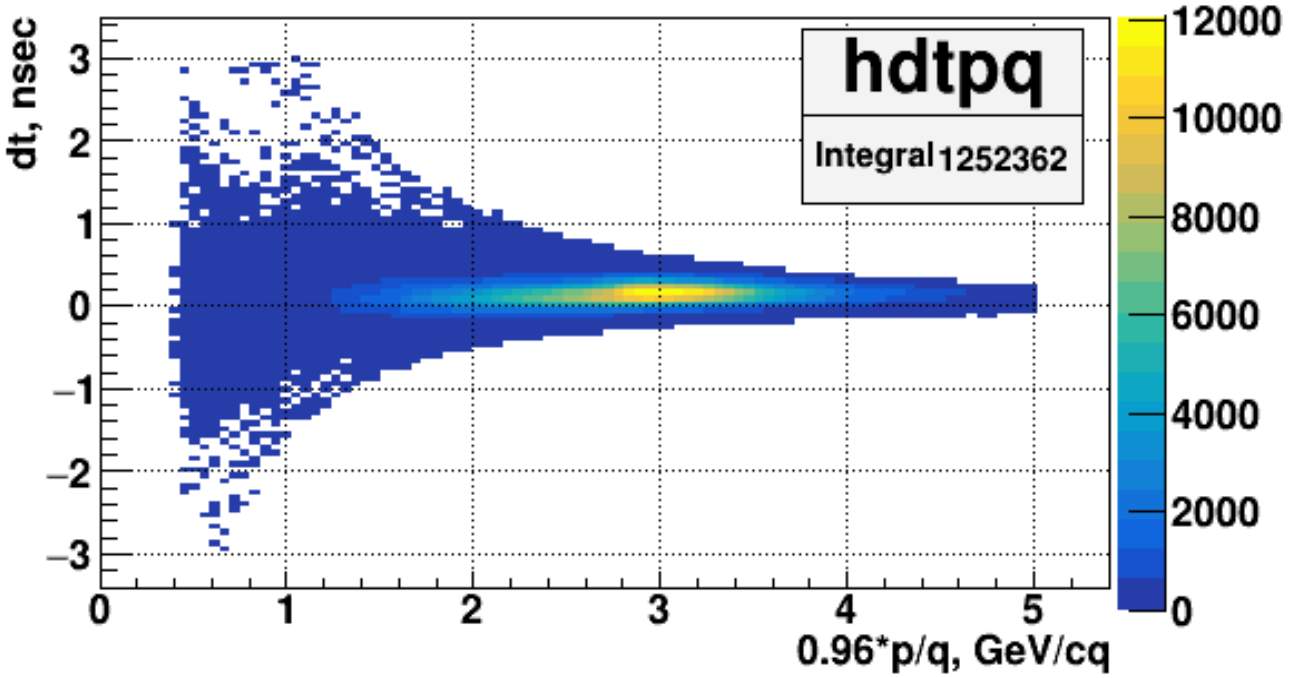
Time resolution in Kr run





- Left – 2<p/q<5, right – p/q<2
- Here per strip corrections from Ar (Kr corrections will be used!)
- Time resolutions for Kr and Ar are comparable

dt vs p/q in Kr run



- Distribution seems to be horizontal enough

Problem with K^+ identification for Kr

- Data from different TOF400 planes and strips will be checked