MIPP-NOTE-ANA-

Beam Cherenkov Trigger Purity Measured with RICH Rings

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Abstract

The goal of this note is to summarize trigger purities and calculate central momentum for a set of production runs. No offline reconstruction of beam cherenkov information is done: this analysis only looks at trigger bit that fired a given event.

1 Introduction

In order for the experiment to be successful, we need to have high trigger purities. The obvious factors that affect trigger purity are beam line settings and chosen settings of beam cherenkov gas densities.

2 Results

Table 1: Summary of trigger purity and fit momenta

MC6D	**Runs**	**Fit momentum (GeV/c)**	**Purity (%) Proton**	**Kaon**	**Pion**
510.7	13510	82.96 ± 0.16	99.9	78.6	98.2
-510.5	13701–13704	81.71 ± 0.24	99.9	26.2	98.4

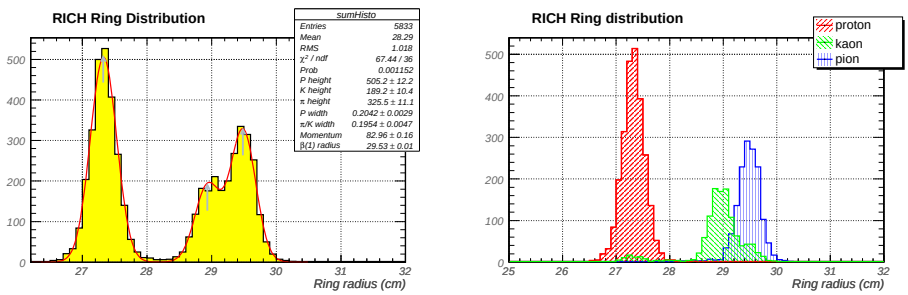

Figure 1: Results with 84 GeV/c positives

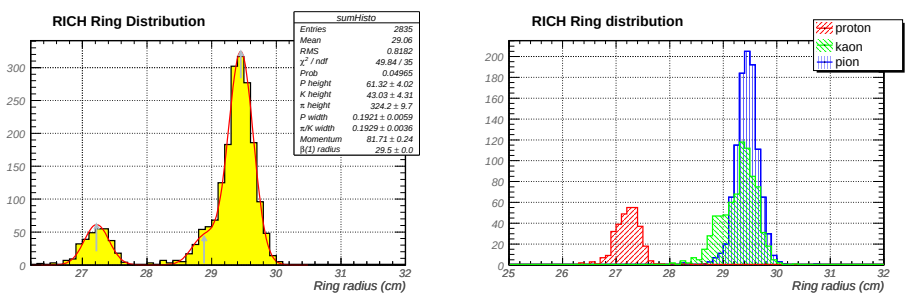

Figure 2: Results with 84 GeV/c negatives