## Cherenkov PDFs (I)

A.A Weekly DIRC Meeting

25.01.2018

## steps

- Creation of Cherenkov PDFs for proton-tagged and pion-tagged beam data for each prototype polar angle. The Cherenkov PDF Histograms were normalized based on number of photons
- Options:
- With ambiguities
- By selecting the Cherenkov angle solutions which have a closest approach to  $\Delta$  t between calculated time and measured time = 0

## steps

2) Perform Proton-pion log-likelihood difference distributions for proton-tagged and pion-tagged beam events as result of the geometrical reconstruction.

Selected the Cherenkov angle solutions which have a closest approach to  $\Delta$  t between calculated time and measured time = o

The distributions are for the narrow bar with the 3-layer spherical lens and a beam with 7 GeV/c momentum.

## log-likelihood difference distributions



-30

<u>–</u>40

-20

-10

0

10

20

30

 $\ln L(p) - \ln L(\pi)$ 

40

Ambiguities in PDFs

