Updates to CMS Note AN-2006/100

Ferenc Siklér sikler@rmki.kfki.hu

KFKI Research Institute for Particle and Nuclear Physics Budapest, Hungary

CMS Physics Meeting January 16, 2007

Introduction

The note

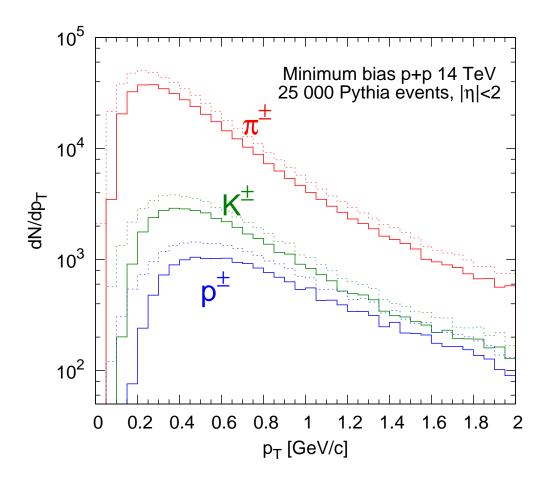
- Title: Reconstruction of low p_T charged particles with the pixel detector
- Defended on 22 Sep 2006, approved in autumn

The updates

- To have two merit plots for the PTDR Addendum on Heavy Ion Physics
- What can we expect for particle spectra in p+p and Pb+Pb collisions?
- It is not a re-analysis, just re-plotting spectra instead of ratios (such as acceptance and efficiency)

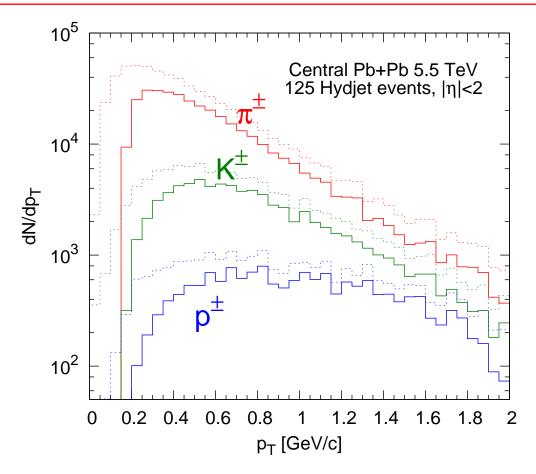
Plots and captions

New figure (1) – p+p p_T spectra



Caption: Reconstructed raw p_T distribution of produced particles in 25 000 minimum bias p+p events at 14 TeV energy from Pythia generator. Pions, kaons and protons are shown separately. Simulated spectra are given with dotted lines.

New figure (2) – Pb+Pb p_T spectra



Caption: Reconstructed raw p_T distribution of produced particles in 25 central Pb+Pb events at 5.5 TeV/nucleon energy from Hydjet generator. (In order to roughly match the amount of produced particles in the p+p plot, the spectra have been scaled up from 25 events with a straightforward procedure.) Pions, kaons and protons are shown separately. Simulated spectra are given with dotted lines.