



Contribution ID: 34

Type: **Experimental**

Transverse momentum distributions of identified particles in p-Pb collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ measured with ALICE

Monday 22 September 2014 09:35 (20 minutes)

Transverse momentum distributions of identified particles have been measured in several multiplicity classes in p-Pb collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$. This can improve the understanding of possible collective effects in high multiplicity events. Furthermore the production mechanism of deuterons can be studied, since p-Pb collisions bridge the charged multiplicity gap between pp and low multiplicity Pb-Pb collisions.

Particles are reconstructed with the central barrel detectors over a wide transverse momentum range (0 GeV/c up to 15 GeV/c), exploiting different identification techniques. Primary charged particles ($\pi^\pm$, $K^\pm$, p, p, d and d) are identified by their specific energy loss (dE/dx) and time-of-flight. Weakly decaying particles (K_s^0 , and) are identified by their characteristic decay topology.

Particle-production yields, spectral shapes and particle ratios have been measured in several multiplicity classes. Comparisons with models and results obtained in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76 \text{ TeV}$ and pp collisions at $\sqrt{s_{NN}} = 7 \text{ TeV}$ at the LHC will be shown.

Author: ANIELSKI, Jonas (Westfaelische Wilhelms-Universitaet Muenster (DE))

Presenter: ANIELSKI, Jonas (Westfaelische Wilhelms-Universitaet Muenster (DE))

Session Classification: Session 1

Track Classification: Correlations and fluctuations