



Contribution ID: 478

Type: **Contributed talk**

Forward-central two-particle correlations in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV

Tuesday, 29 September 2015 15:40 (20 minutes)

A double-ridge structure has been observed in two-particle correlations in p-Pb collisions at midrapidity and its origin is actively debated. Measurements at larger relative pseudorapidity can further improve our understanding of this phenomenon. The results on two-particle angular correlations between trigger particles in the forward pseudorapidity range ($2.5 < |\eta| < 4.0$) and associated particles at mid-rapidity ($|\eta| < 1.0$) in p-Pb collisions at a nucleon-nucleon center-of-mass energy of 5.02 TeV are reported in the talk. The trigger particles are detected by the ALICE muon spectrometer, and the associated particles by the ALICE central barrel tracking detectors. The reconstructed trigger particles mainly originate from weak decays of primary pions and kaons at low transverse momentum (p_T), and heavy-flavor particles at high p_T . The ridge is found to persist to the pseudorapidity ranges studied here, and the second-order Fourier coefficients for these measured trigger particles are extracted after subtracting the correlations obtained in low-multiplicity events from those in high-multiplicity events. The Fourier coefficients have a similar p_T dependence in the p-going and Pb-going directions, and the ratio of Fourier coefficients in the two directions is calculated as a function of p_T . The results are compared with calculations from a parton-cascade model.

On behalf of collaboration:

ALICE

Primary author: KRYSHEN, Evgeny (CERN)

Presenter: KRYSHEN, Evgeny (CERN)

Session Classification: Correlations and Fluctuations IV

Track Classification: Correlations and Fluctuations