

Two particle correlations in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ALICE detector

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A measurement of the correlations in the particle production as a function of the azimuthal angle and rapidity is very useful for investigating particle production in high-energy nucleus-nucleus collisions. Possible explanations of the long range correlations in high multiplicity pp and p-Pb collisions are the collective behavior of the created medium and/or the remnants of the strong color fields created by the dense gluonic field (gluon saturation). Long range, near side angular correlations have been observed in high multiplicity pp and p-Pb collisions at the LHC energy. The azimuthal anisotropy parameter, v_2 , of K , π and p shows mass ordering at low p_T and the trend similar to Pb-Pb collisions. The saturation effects are expected to be enhanced at forward rapidity region and the measurements of the particle productions with large rapidity gaps and the centrality dependence are important to quantify saturation and hydrodynamical final state effects. I will review ALICE results of correlations between charged and identified hadrons in p-Pb collisions at mid-rapidity ($-0.8 < \eta < 0.8$) and the correlations between muons at forward rapidity ($2.5 < \eta < 4$) and charged hadrons at mid-rapidity ($-0.8 < \eta < 0.8$).

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