

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Di-hadron correlations in p+p, p+Au and p+Al collisions at STAR

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Two-particle azimuthal correlation has been proposed to be one of the most direct and sensitive channels to access the nonlinear gluon dynamics in nuclei. In hadron collisions at RHIC, forward particle production probes gluons at small momentum fraction where the gluon density rises sharply. During the 2015 RHIC run, STAR collected data for measuring azimuthal correlations of neutral pions detected with the Forward Meson Spectrometer (FMS, $2.6 \leq \eta \leq 4.0$) in p+p, p+Au and p+Al collisions at $\sqrt{s_{NN}} = 200$ GeV. In this talk, we will present the measurement of di-hadron correlations as a function of mass number A and transverse momenta (p_T) of both the trigger π^0 ($1.4 \text{ GeV}/c < p_T < 5 \text{ GeV}/c$) and the associated back-to-back π^0 ($1 \text{ GeV}/c < p_T < 2.8 \text{ GeV}/c$).

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