4th International Conference on the Initial Stages in High-Energy Nuclear Collisions



Contribution ID: 57 Type: not specified

Azimuthally-dependent femtoscopy in central p+Pb collisions at 5 TeV with ATLAS

Tuesday, 19 September 2017 15:10 (20 minutes)

Hanbury Brown and Twiss (HBT) radii with respect to the 2nd-order event plane are measured in central p+Pb collisions at $\sqrt{s_N}N = 5.02$ TeV with the ATLAS detector at the LHC. A total integrated luminosity of 28 nb^-1 is sampled. The radii and their relative modulation are presented as a function of the magnitude of the flow vector $|q_2|$ measured at the side of the calorimeters that the Pb beam faces with pseudorapidity $\eta < -2.5$. Modulations of the transverse HBT radii are observed with the same orientation as in ion-ion collisions, in which they are attributed to hydrodynamic evolution from an elliptic initial geometry. This modulation is consistent with a hydrodynamic evolution of a short-lived medium.

Primary author: BALEK, Petr (Weizmann Institute of Science (IL))

Presenter: BALEK, Petr (Weizmann Institute of Science (IL))

Session Classification: Small systems