

Abstract Submitted
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Azimuthally-dependent femtoscopy in central p+Pb collisions at 5 TeV with ATLAS MICHAEL CLARK, Columbia University, ATLAS COLLABORATION — Hanbury Brown and Twiss (HBT) radii with respect to the 2nd-order event plane are measured in central p+Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ 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.

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