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# Pseudorapidity dependence of near-side and away-side long-range correlations in pPb collisions with CMS

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Two-particle long-range pseudorapidity ($\Delta\eta$) correlations are observed in pPb collisions at the LHC. Previous correlation measurements have been averaged over both the trigger and associated particle $\eta$. In order to explore the possible pseudorapidity dependence of the long-range correlations in asymmetric pPb collisions, a new analysis of two-particle correlations with trigger particles at various fixed eta locations is presented. The data were collected during the 2013 LHC pPb run at a nucleon-nucleon center-of-mass energy of 5.02 TeV by the CMS experiment, with a wide eta coverage of -2.4<$\eta$<2.4. The near-side $\Delta\eta$ correlations are decomposed into short-range (jet) and long-range components. The away-side long-range correlations in central collisions are also studied by subtracting back-to-back jet contributions, modeled by the away-side correlations from peripheral collisions after accounting for the biases introduced by the multiplicity classification. The long-range correlations are found to be dependent on pseudorapidity. The observed pseudo-rapidity dependence may potentially discriminate theoretical models for long-range two-particle correlations observed in pPb collisions.

## On behalf of collaboration:

CMS

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