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Measurement of the long-range azimuthal correlations in pp collisions at sqrt(s)=13TeV with the ATLAS detector at the LHC

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The ATLAS measurement of azimuthal correlations between particle pairs at large pseudorapidity separation in pp collisions at sqrt(s)=13 TeV are presented. The data were collected using a combination of the minimumbias and high track-multiplicity triggers. A detailed study of the dependence of two-particle correlations on the charged particle multiplicity, transverse momentum of the pair constituents and the pseudorapidity separation between particles forming a pair is shown. Measurements of multi-particle cumulants in the azimuthal angles of produced particles in wide pseudorapidity ($|\eta|$ <2.5) and multiplicity ranges, with the aim to extract a single particle anisotropy coefficient, v2, are also presented. These measurements can help to understand the origin of the long-range correlations seen in high-multiplicity pp and p+Pb collisions.

On behalf of collaboration:

ATLAS

Primary author: ZHOU, Mingliang (State University of New York (US))

Presenter: ZHOU, Mingliang (State University of New York (US))

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