

# Multiplicity dependence of jet-like two-particle correlations in pp collisions at $\sqrt{s} = 7$ and 13 TeV with ALICE

*Tuesday, February 7, 2017 9:10 AM (20 minutes)*

Two-particle correlations in relative azimuthal angle ( $\Delta\phi$ ) and pseudorapidity ( $\Delta\eta$ ) have been used to study heavy-ion collision dynamics, including medium-induced jet modification. These correlations have been extensively studied in small collision systems by all the four main LHC experiments. Further investigations showed also the importance of Multiple Parton Interactions (MPI). The latter are employed by pQCD-inspired models which provide a consistent way to describe high-multiplicity pp collisions, where the probability of several parton scatterings per nucleon-nucleon collision is high. In this talk we present the latest ALICE measurements using the data from Run I and Run II at the LHC. The MPI results in pp collisions at an energy of  $\sqrt{s} = 13$  TeV will be presented as a function of multiplicity and compared to those in pp collisions at lower energies and in p-Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV. Additionally, detailed studies of two-particle azimuthal correlations in pp collisions at  $\sqrt{s} = 7$  TeV will be shown as a function of multiplicity including the studies of the near-side jet peak evolution. These measurements complement the recent ALICE results on the anomalous evolution of the near-side jet peak shape in Pb-Pb collisions and serve as a baseline for studies of long-range correlations in pp collisions.

## Preferred Track

QCD in small systems

## Collaboration

ALICE

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