

Multiplicity Dependent Di-Hadron Correlations Measured with ALICE at the LHC

A Large Ion Collider Experiment (ALICE) is the experiment at the Large Hadron Collider (LHC) optimized for heavy-ion collisions. However, ALICE is also studying pp collisions which not only provides important reference measurements but is also part of a stand-alone pp physics program. In particular, high multiplicity pp collisions are an interesting field of study of particle production mechanisms.

Here we present the results of a di-hadron angular correlation analysis which has the aim to measure the number of multi-parton interactions and mini-jet fragmentation properties as a function of multiplicity. We discuss the problems encountered with standard correlation measurements at high multiplicities and present solutions to cope with these. Results are compared between different center of mass energies. Also, comparisons between different Monte Carlo generators are discussed.

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