

Underlying Event measurement in pp collisions with the ALICE experiment at LHC

In a pp collision the jet signature has to be decoupled from the soft or semi-hard bulk of particles originating from beam-remnant fragmentation, initial and final state radiation and multi-partonic interactions: the so-called Underlying Event. Besides being a baseline for jet studies, its characterization provides insight into the non-perturbative phenomenology in high energy collisions and, in particular, it is a powerful tool to tune Monte Carlo event generators. We studied the underlying activity in two transverse regions azimuthally perpendicular to the leading track in the event. The relevant observables for this analysis are the multiplicity and sum pT densities of charged particles. We present these Underlying Event distributions as measured by the ALICE collaboration at collision energies of 0.9 and 7 TeV. Three different values of track pT cut-off are considered: 1.0, 0.5 and 0.15 GeV/c. Data are fully corrected to the particle level and compared to a selection of Monte Carlo models.

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Track Classification: Global and collective dynamics