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Jet Physics in Heavy Ion Collisions with ALICE

Abstract content

In central Pb–Pb collisions at the LHC at $\sqrt{s_{\rm NN}} = 5.5$

tev, high rates are expected at energies at which jets can be reconstructed against the large background of the nucleus–nucleus underlying event. This will open the pos sibility to quantify the effect of partonic energy loss through medium induced gluon radiation (jet quenching) by detailed measurements of the modification of the longitudinal and transverse structure of identified jets. ALICE will use a combination of its central tracking system and the electromagnetic calorimeter (EMcal) to measure and trigger on jets.

The projected performance of ALICE to perform theses jet measurements will be presented. Some ideas for novel jet structure observables will be discussed.

Summary

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