

Measurement of inclusive and recoil jets in Pb–Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV with ALICE at the LHC

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The hot and dense medium created in heavy-ion collisions is expected to modify the fragmentation of high energy partonic projectiles leading to changes in the energy and structure of the reconstructed jets with respect to vacuum jets. The study of modified jets aims at the understanding of the detailed mechanisms of in medium energy loss and their relation to transport properties of the medium itself.

Here, we present recent ALICE results on jet measurements in Pb–Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV. The observables under study are the inclusive jet spectrum and the spectrum of jets recoiling from a high- p_{T} ('trigger') hadron back-to-back in azimuth, the latter being a subsample of the first with maximal in medium path length. We study the dependence of these two observables with jet p_{T} , minimum constituent p_{T} cut-off and jet resolution R to explore changes in the jet radiation pattern with respect to baseline pp or PYTHIA jets.