

Jet energy loss in Boson-jet events in PbPb collisions at 5.02 TeV with CMS

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A typical approach to study the medium produced in heavy ion collisions is to understand the passage of elementary particles through it. As Z bosons and photons do not participate in the strong interaction, their correlation with jets within the same event is a clean probe of the medium-induced energy loss of (predominantly) quark jets. In this analysis, Z+jet and photon+jet correlations are studied using the high statistics PbPb and pp data taken at a center-of-mass energy of $\sqrt{s_{NN}} = 5.02$ TeV with the CMS detector. The evolution of azimuthal angular distributions and average momentum imbalance between the jet and Z or photon as a function of transverse momentum of the color neutral probe will be presented. In addition the jet I_{AA} , as a function of photon p_T and collision centrality is studied.

Preferred Track

Jets and High pT Hadrons

Collaboration

CMS

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