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Study of two particle correlations with photon and pion triggers in pp collisions at 13 TeV with ALICE

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Two-particle correlations with high-pT triggers allow the study of the hard scat- tering phenomena like soft QCD radiation, angular ordering and jet fragmentation in the low and intermediate pT regions where full jet reconstruction is challenging. An analysis of data taken during LHC Run II by ALICE will be presented for using $\pi 0$ and isolated photon triggers. The data used is collected by the ALICE detectors using a trigger based on calorimeter information. Trigger performance using EMCal and DCal will be discussed. A selection based on shower shape and isolation methods is used to identify $\pi 0$ and direct photon triggers, with the latter ones originating from hard parton scatterings in the nucleus-nucleus. In leading order these are annihilation from Comp- ton scattering and Annihilation in the hard processes happened in the nucleus-nucleus collisions. The selected isolated photons satisfying the criteria will reduce background photons from meson decays and fragmentations and therefore enhance the direct pho- ton triggers. In this contribution, azimuthal correlations between trigger and charged particles will be studied and per-trigger yield will be extracted from these correlations.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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