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Semi-inclusive recoil jet measurements via hadron-jet correlations in pp collisions at $\sqrt{s} = 5.02$ TeV with ALICE

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In heavy-ion collisions, large transverse momentum partons traverse the colored medium and lose energy via induced gluon radiation and elastic scattering, which modify jet structure relative to jets produced in vacuum. The semi-inclusive recoil jet measurement provides precise, data-driven suppression of the large uncorrelated background and uniquely enables the exploration of medium-induced modification of jet production over wide phase space, including low p_T for large jet resolution parameter R . Such measurement in pp and p-Pb collisions provides a good test for pQCD calculations, and sets as a reference for jet quenching and acoplanarity study in nucleus-nucleus collisions.

In this contribution, we report the semi-inclusive distribution of charged jets recoiling from a high- p_T charged hadron trigger in pp collisions at 5.02 TeV, with emphasis on the region of low recoil jet p_T and large R . The semi-inclusive recoil jet distribution as a function of p_T and $\Delta\varphi$ will be presented, where $\Delta\varphi$ is the relative azimuthal angle between trigger track and recoil jets. The results, including the R -dependence, will be compared to models.

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