

## Quantifying Cold Nuclear Matter Effects on Jet Observables in p-Pb Collisions

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Jet quenching is a signature of the Quark Gluon Plasma (QGP) produced in heavy ion collisions. As a result of partonic energy loss in the medium, the jet spectrum in Pb-Pb collisions is suppressed compared to the same spectrum measured in pp collisions scaled by the number of binary collisions. However, the jets can be influenced by all stages of the collision. To disentangle the final state QGP effects from the initial state, the jet spectrum in p-Pb collisions is measured. In addition, the substructure and fragmentation behavior of jets are also explored in p-Pb collisions for modifications due to cold nuclear matter effects. Jets are reconstructed from charged tracks in the ALICE central tracking system combined with clusters in the electromagnetic calorimeter. To quantify the cold nuclear matter effects, observables in p-Pb are compared to MC simulations at the same center of mass energy, 5.02 TeV.

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