Beitrag ID: **37** Typ: **Talk**

Observation of medium-induced yield enhancement and acoplanarity broadening of low-p_{T} jets in pp and Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV with ALICE

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The measurement of jets recoiling from a trigger hadron provides unique probes of medium-induced modification of jet production. Jet deflection via multiple soft scatterings with the medium constituents or single-hard Molière scatterings off quasi-particles in the medium are expected to modify the azimuthal correlation between the trigger hadron and recoiling jet. The R-dependence of recoil jet yield also probes jet energy loss and intra-jet broadening. In this talk we present measurements of the semi-inclusive distribution of charged-particle jets recoiling from a trigger hadron in pp and Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV. We employ precise, data-driven subtraction of the large uncorrelated background contaminating the measurement in Pb-Pb collisions, enabling the exploration of medium-induced modification of jet production and acoplanarity over a wide phase space, including the low jet p_{T} region for large jet resolution parameter R. Hadron-jet acoplanarity in pp collisions will be also presented, which provides a sensitive test of pQCD calculations, as well as a crucial data reference for in-medium jet deflection studies in Pb-Pb collisions. We observe that the jet yield at low p_{T} and at large azimuthal angle between the trigger hadron and jet is significantly enhanced in Pb-Pb collisions with respect to pp collisions. Comparison to theoretical calculations incorporating jet quenching will also be discussed.

Experiment/Theory

ALICE

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Track Klassifizierung: Jets and their modification in QCD matter