

Measuring parton energy loss at RHIC

The method of measuring \hat{x}_h , the ratio of \hat{p}_{T_a} , the away-parton p_T , to \hat{p}_{T_t} , the trigger-parton p_T , using two-particle correlations at RHIC, which is sensitive to the away parton energy loss due to the surface bias, will be reviewed. This measurement is simply related to the new variable introduced at LHC for the di-jet transverse momentum imbalance, $A_J = (\hat{p}_{T_t} - \hat{p}_{T_a})/(\hat{p}_{T_t} + \hat{p}_{T_a}) = (1 - \hat{x}_h)/(1 + \hat{x}_h)$. Results from two-particle correlations at RHIC for $\hat{x}_h = (1 - A_J)/(1 + A_J)$ will be reviewed and new results will be presented and compared to LHC measurements using jets.

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