BRAHMS is the only RHIC experiment that can make high rapidity measurements on fully identified particles. This translates into the ability to probe small x values of partons in the nuclei, where gluon densities are expected to reach high values [1]. Transverse momentum distributions of identified charged particles with up to 4 units of rapidity will be measured during the upcoming d-A RHIC run. And together with already measured distributions from pp collisions collected during the 2001 run, and distributions extracted from d-A event samples with different centralities a detailed study of high P_t distributions will be performed to shed some light on mechanisms of quark energy loss in the condensate [2]. Estimates of rates at the highest P_t values and the sensitivity of our apparatus to perform this measurement will be discussed.

References

[1] Larry McLerran 40'th Schladming Winter School: Dense Matter Hep-ph/0104285 v2.

[2] Private communication.