High Transverse Momentum Physics at STAR

Gerd J. Kunde [a] for the STAR Collaboration

[a] *Yale University*

The STAR experiment at RHIC is a large acceptance, multi-purpose collider detector with excellent capabilities to study hard processes in nuclear collisions. High pT hadrons are important probes of the state of matter generated in these collisions, since suppression of hadron yield can be directly related to the energy loss of jets through gluon bremsstrahlung. We will discuss recent measurements of high pT hadrons produced in nuclear collisions, addressing the suppression of the inclusive hadron yield, azimuthal correlations with respect to the reaction plane, and two-particle correlations. The observations indicate that high pT hadrons result from the fragmentation of jets which have undergone significant interactions in the nuclear medium. We will also address the capabilities of a new Electromagnetic Calorimeter in STAR, which measures pi0 and provides a trigger at high pT.