

# Subtracting the Underlying-Event Energy in Reconstructed Jets in $\sqrt{s_{NN}} = 200$ GeV Proton+Proton Collisions at STAR

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Jets resulting from hard scatterings (i.e. scatterings with large momentum transfer) provide insight into parton energy loss in the hot, dense medium produced by ultra-relativistic heavy-ion collisions. Complementary measurements in the medium-free proton-proton environment establish a vacuum fragmentation reference. In a collision, energy that goes into the production of particles not originating from the hard scattering is background (referred to as the *underlying event*) that must be subtracted from the measured jet-energy. We present a study of different methods to subtract the underlying-event energy in 200 GeV proton-proton collisions recorded at the STAR experiment at RHIC.