

Nucleon Energy Correlators for the Color Glass Condensate

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We demonstrate the recently proposed nucleon energy-energy correlator (NEEC) $f_{EEC}(x, \theta)$ can unveil the gluon saturation in the small- x regime in eA collisions. The novelty of this probe is that it is fully inclusive just like the deep-inelastic scattering (DIS), with no requirements of jets or hadrons but still provides an evident portal to the small- x dynamics through the shape of the θ -distribution. We find that the saturation prediction is significantly different from the expectation of the collinear factorization.

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