

# Energy Energy correlators in DIS

*Thursday 18 July 2024 10:45 (15 minutes)*

The Energy-Energy Correlator is an observable that explores the angular correlations of energy depositions in detectors at high-energy collider facilities. It has been extensively studied in the context of precision QCD. In this presentation, I will discuss our recent work on the energy-energy correlator in the context of Deep Inelastic Scattering. In the limit where the energy emissions are back-to-back, the proposed observable is sensitive to the universal transverse momentum-dependent parton distribution functions and fragmentation functions. In the collinear limit, a definition of the nuclear energy-energy correlator was introduced. We would revisit the NEEC definition, which involves weighting the EEC by Bjorken  $x$ , and conducting the study across the entire phase space region.

## Alternate track

1. Heavy Ions

## I read the instructions above

Yes

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