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# Lorentz invariance relation anomalies and intrinsic parton transverse momentum

*Thursday, April 15, 2021 11:12 AM (18 minutes)*

We investigate the so-called Lorentz invariance relations from the standpoint of the proper definitions of partonic correlations functions resulting from factorization; that is
in light the proper treatment of ultraviolet divergences. We show that there are corrections to the naive Lorentz invariance relations are nontrivial even in very simple renormalizable quantum field theories. We also discuss the implications for phenomenological applications.

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