

Virtual TEP Seminar

UCLA

Tuesday, February 16th @ 4:00PM

Via Zoom

“The IR structure of QCD in the near forward limit. A fresh look at an old problem”

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Abstract: Quantum field theory in the near forward region ($s \gg t$) is not nearly as well understood as its' complement. Our inability to calculate in this region limits our predictive power. For hard scattering processes ($s \sim t$) this is irrelevant, at least at the partonic level. However, at the hadronic level, spectator partons inevitably undergo glancing collisions. To retain predictive power we must choose our observables such that these spectator effects cancel. That this occurs in Drell-Yan type processes was proven nearly 40 years ago by Collins, Soper and Sterman. Here I will revisit this proof in the context of an effective field theory approach. In so doing we hope to systematize and generalize these proofs, and to find observables where the effects of spectator interactions DON'T cancel but can be measured in a clean fashion.