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Classical and quantum gravitational scattering with Generalized Wilson Lines

Thursday, 7 July 2022 09:30 (15 minutes)

The all-order structure of scattering amplitudes is greatly simplified by the use of (generalized) Wilson line operators, describing (subleading) soft emissions from straight lines extending to infinity. In this talk I will review how these techniques (originally developed for QCD phenomenology) can be naturally applied to gravitational scattering. At the quantum level, we find a convenient way to derive the exponentiation of the (subleading) graviton Reggeization. At the classical level, the formalism provides a powerful tool for the computation of observables relevant in the gravitational wave program.

In-person participation

Yes

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