

Contribution ID: 63

Type: not specified

Coulomb corrections for charged current events

Wednesday, March 17, 2021 8:25 AM (10 minutes)

The Coulomb field of a nucleus exerts a force on charged leptons produced in charged-current neutrino nucleus interactions. Quantum mechanically this results in a distorted lepton wavefunction which can modify cross sections and have other phenomenological implications. In this talk we discuss recent progress on a analytic theory of Coulomb corrections for high energy charged current scattering events. We highlight how an Eikonal expansion can be used to recover, and systematically improve, certain phenomenological ansatzes used in the literature.

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Session Classification: Flash Talks