



Contribution ID: 35

Type: **Oral Presentation**

Probing transversity spin structure of a nucleon in neutrino-production of a charmed meson

Tuesday 8 September 2015 16:50 (20 minutes)

We study the scattering amplitude for exclusive neutrino production of a charmed meson on an unpolarized target. The analysis is performed within the collinear QCD approach, where generalized parton distributions (GPDs) factorize from perturbatively calculable coefficient functions. We demonstrate that the transversity chiral odd GPDs contribute to the transverse cross section if the hard amplitude is calculated up to order m_c/Q . We show how to access these GPDs through analysis of the azimuthal dependence of the neutrino $N \rightarrow \mu^- D^+ N$ differential cross section.

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Session Classification: Spin-3D Parallel

Track Classification: Spin and 3-d structure