

Longitudinal Spin Transfer to Λ^0 Hyperons in CLAS12

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Abstract

Using the self analyzing decay of the Λ^0 , the longitudinal spin transfer D_{LL} from a polarized electron beam scattering an unpolarized proton target to the hyperon can be measured. This quantity is proportional to the helicity dependent fragmentation function G_1^Λ and can provide insight into the spin structure of the Λ^0 . Currently, experimental data on D_{LL} is limited and is not able to discriminate between different models of the Λ^0 spin structure. This contribution will report the status of the ongoing analysis of the longitudinal spin transfer using data taken by the CLAS12 experiment at Jefferson Lab.