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Dihadron Electroproduction in DIS with Transversely Polarized ^3He Target at 12 GeV Jefferson Lab JIXIE ZHANG, University of Virginia, THE SOLID COLLABORATION — The transversity distribution function is one of the important and least known parton distribution functions (PDFs) of the nucleon. It can be studied via both single-hadron and double-hadron electro-production from a transversely polarized target in the deep inelastic scattering (DIS) region. Due to the low cross section, the data for the transversity distribution functions are very scarce. After 12 GeV upgrade, the high intensity 12 GeV electron accelerator at Jefferson Lab (JLab), together with the large acceptance of the proposed Solenoidal Large Intensity Device (SoLID) in Hall A, will provide very good opportunities to study the transversity distribution functions in high precision. In this talk, we will present the dihadron program with SoLID. We plan to measure the single target spin asymmetries (SSA) of dihadron production in DIS region using 11 and 8.8 GeV electron beam on a transversely polarized ^3He target. We will map the SSA in a 4-D space of x , Q^2 , z_h and M_h . Assuming leading twist dominance, the transversity distribution, h_1 , can be extracted by combine with the world data on dihadron fragmentation functions (DiFF). These data will provide crucial inputs to the flavor separation of the transversity, especially the d quark distribution.

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