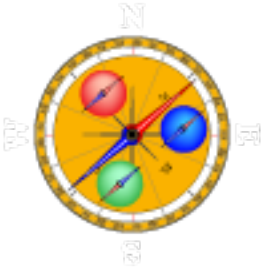

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The SIDIS program at Jefferson Lab

Monday, 11 December 2017 15:25 (25 minutes)

It goes without saying that transverse momentum dependent distribution functions (TMDs) have emerged as a new and unique window into the dynamics of the nucleons's constituents confined motion as well as offer a platform for continued tests of our understanding of QCD. In this presentation I shall describe a coherent semi-inclusive deep inelastic (SIDIS) experimental program in the valence quark region tailored to support key scientific questions discussed in this workshop. This program was designed and optimized with the use of a variety of polarized and unpolarized targets (protons, deuterons and helium-3s) in tandem with specialized detectors across Halls A, B and C at Jefferson Lab. Today, we are at the dawn of this SIDIS program which promises to provide precision measurements of many important observables relevant to the extraction of the nucleon TMDs as well as advance our understanding of QCD by also investigating the hadronization of struck quarks into mesons, a property close to confinement.

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