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Azimuthal dependence in unpolarized proton-induced Drell-Yan process LINGYAN ZHU, JEN-CHIEH PENG, UIUC, PAUL REIMER, Argonne National Lab, FERMILAB E866 COLLABORATION — For unpolarized Drell-Yan process, a $\cos(2\phi)$ azimuthal distribution could arise from the presence of a chiral-odd, transverse-momentum dependent quark distribution function, h_1^\perp . In quark-diquark model, h_1^\perp is equal to the Sivers function. Both the Sivers function and the h_1^\perp are predicted to undergo a sign-change in the Drell-Yan process as compared to the Semi-Inclusive Deep-Inelastic scattering. A significant $\cos(2\phi)$ distribution has been observed in pion-induced Drell-Yan process and has been interpreted in terms of the h_1^\perp distribution function. Additional information on the origin of the $\cos(2\phi)$ dependence could be obtained from an analysis of the unpolarized proton-induced Drell-Yan data. Preliminary results from an analysis of the Fermilab E866 800 GeV p+p and p+d Drell-Yan data for the $\cos(2\phi)$ azimuthal distribution will be presented.

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