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Angular Distributions of Drell-Yan Dimuons at Fermilab E-906/SeaQuest BRYAN RAMSON, Univ of Michigan - Ann Arbor, FERMILAB E-906/SEAQUEST COLLABORATION — Transverse momentum dependent (TMD) parton distribution functions (PDF), fragmentation functions, and their necessary theoretical framework provide a rich foundation from which to build a more descriptive, quantitative understanding of QCD and hadron structure. Fortuitously, TMD sensitive analyses of leptonic angular distributions have been a fixture in Drell-Yan experiments since the π+W CERN NA-10 of the 1980's, with particular focus on the violation of the Lam-Tung relation through a non-zero $\cos(2\phi)$ modulation in the angular distributions of the final-state leptons. The $\cos(2\phi)$ modulation is sensitive to the correlation between the motion and spin of transversely polarized (anti)quarks within their encompassing unpolarized hadron, described by the Boer-Mulders TMD PDF. In the mid-1990's, Fermilab E-866/NuSea investigated angular distributions of p+p and p+d Drell-Yan and found that the relative strength of the $\cos(2\phi)$ modulation, as compared to pion-induced Drell-Yan, is reduced. Fermilab E-906/SeaQuest provides an ideal laboratory in which to measure the $\cos(2\phi)$ modulation at a higher target x_{Bj} than possible with E-866. Recent progress in the analysis of the angular distributions from SeaQuest Drell-Yan dimuons will be shown.

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