

Abstract Submitted  
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**Drell-Yan Physics at Fermilab: Past and Future** L. DONALD ISENHOWER, Abilene Christian University, E866(NUSEA)/E906 COLLABORATION — The study of the Drell-Yan process has yielded a number of important results that have improved our understanding of the light quark sea of the proton. Fermilab E866/NuSea performed the first measurements of the absolute Drell-Yan cross section in proton-proton collisions over a broad kinematic region, and the most extensive study to date of the Drell-Yan cross section in proton-deuterium collisions. It also made the first measurement of this cross section ratio of proton-proton to proton-deuterium collisions over a large kinematic range, allowing the extraction of the ratio of anti-down to anti-up quark in the proton. After reviewing E866 results and their contributions to various areas, such as structure function calculations, the plans for E906, which will utilize the Fermilab Main Injector will be discussed. The lower energy of the Main Injector provides a higher Drell-Yan cross section, allowing the extension of to higher Bjorken-x where E866 hints of possible continued departure from unity of the d/u anti-quark ratio. Other important physics questions that E906 will pursue will also be discussed.

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