

XX International Workshop on Deep-Inelastic Scattering and Related Subjects



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The E-906/SeaQuest experiment at Fermilab

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The E-906/SeaQuest experiment at Fermilab will continue a series of Drell-Yan measurements to explore the antiquark structure of the nucleon and nuclei. To extend existing measurements to larger values of Bjorken- x , a 120 GeV proton beam extracted from Fermilab's main injector is used, resulting in a factor of 50 more luminosity than previous experiments and enabling access to values of x up to 0.9. An overview will be presented of the key physics goals of the E-906/SeaQuest collaboration. These include investigation of the dramatic $d\bar{b}ar/u\bar{b}ar$ flavor asymmetry in the nucleon sea and its behavior at high x ; study of the EMC effect in Drell-Yan scattering and the unexpected absence of any antiquark excess in existing data; and measurements of the angular dependence of the Drell-Yan process, sensitive to spin-orbit correlations within the nucleon. The talk will conclude with a status report on the ongoing commissioning of this new experiment.

Author: Dr DIEFENTHALER, Markus (University of Illinois at Urbana-Champaign)

Presenter: Dr DIEFENTHALER, Markus (University of Illinois at Urbana-Champaign)

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