

Abstract Submitted
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Measurement of Quark Energy Loss at Fermilab E906/Seaquest

P.-J. LIN, University of Colorado, E906/SEAQUEST COLLABORATION — The measurement of initial state parton energy loss serves as one of the important tools to provide a thorough understanding of the properties of the quark-gluon plasma (QGP). Quantifying the energy loss in cold nuclear matter will help to set the baseline for the energy-loss effect relative to energy loss in the QGP. With the Drell-Yan process, the energy loss of incoming quarks in cold nuclear matter can be ideally investigated since the final state interaction is expected to be minimal. E906/SeaQuest is an on-going fixed-target experiment using the 120 GeV proton beam from the main injector and has been collecting data from p+p, p+d, p+C, p+Fe, and p+W collisions. Within the E906 kinematic coverage of Drell-Yan production via the dimuon channel, the quark energy loss can be studied in the regime where other nuclear effects are expected to be small. In this talk, the current analysis progress and preliminary results of the quark energy loss study will be presented.

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