

Abstract Submitted
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Target/Dump Identification for Dimuon Vertices at Fermilab E906/SeaQuest CATHERINE CULKIN, JOSHUA RUBIN, CHRISTINE AIDALA, University of Michigan, E-906/SEAQUEST COLLABORATION — The SeaQuest collaboration at Fermilab measures the Drell-Yan process in order to determine the light flavor asymmetry of antiquarks in the nucleon sea. SeaQuest uses the 120 GeV proton beam from the Fermilab Main Injector on targets of liquid hydrogen and deuterium. The Drell-Yan process produces muon pairs in the target as well as in the solid iron beam dump. Using the SeaQuest reconstruction program, tracks are traced upstream through the dump iron and paired to form dimuons, but the multiple scattering of muons in the dump limits the spatial and mass resolution of the reconstructed muon pairs. Cuts need to be optimized on the Monte-Carlo data to best resolve the origins of the muon pairs. This allows target events to be separated from dump events. These cuts have been applied to actual data from the commissioning run (2012) and will be applied to the two-year production run, scheduled to begin in late October of this year. The current status for the simulations and analysis will be presented.

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