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E1039 Luminosity Monitor Testing and Installation[1] EMILY BRANSON, Abilene Christian University, SPINQUEST COLLABORATION — E1039 will collide a 120 GeV unpolarized proton beam from Fermi National Accelerator Laboratory with hydrogen and deuterium targets polarized transversely to the beam. Then, asymmetries of dimuon pairs produced in the Drell-Yan process will be measured to find the Sivers Function, a transverse momentum dependent parton distribution function. A non-zero measurement of the Sivers Function implies orbital angular momentum of the quark sea. In measuring these asymmetries, variances in beam luminosity must be accounted for, as changes in the beam could skew our data. For this reason, E1039 is outfitted with a luminosity monitor for measuring beam intensity and accuracy. The monitor is composed of four hodoscopes on an aluminum rail and is installed in the target cave at 90 degrees relative to the beam line. The testing and installation of this beam will be presented.

[1]Fermi National Accelerator Laboratory

Emily Branson
Abilene Christian University

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