Abstract Submitted
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Measuring the number of protons per pulse using an in beam Cherenkov counter for the trigger inhibit at SeaQuest[1] ANTHONY BROWN, Abilene Christian University, SEAQUEST/E906 COLLABORATION — FNAL E906, also known as SeaQuest, is a fixed target Drell-Yan experiment using the Fermilab 120 GeV Main Injector. It is designed to determine the ratio of anti-down to anti-up quarks within the nucleon. In order to more effectively take data it was necessary to inhibit the trigger when pulses have too many protons. This was achieved using a Cherenkov counter to identify the number of protons in each 1 nanosecond beam pulse during each spill. This information was also graphed for display in real time to monitor of the performance of the trigger inhibit. The display shows the frequency of protons per pulse around the trigger inhibit, which is adjusted to block spills before and after large pulses. This allows visual information of the beam intensity near the inhibit to see if the large pulses also have larger numbers of protons. The display also shows the time before and after these large pulses occur since the effects will extend past the time of a large pulse due to the slower response of drift chambers that will have had a large number of particles traversing them.

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Anthony Brown
Abilene Christian University

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