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SLIOTHEC

A STUDY OF $\ln s$ PHYSICS IN $\bar{p}p$ INTERACTIONS AT THE SPLIT FIELD MAGNET

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This experiment uses the Split Field Magnet Detector to investigate the low p_t , " $\ln s$ ", type of interactions that dominate the $\bar{p}p$ cross section. Systematic comparisons will be made to pp interactions.

Specific areas to be studied include elastic scattering in the regions $0.05 < |t| < 0.5 \text{ GeV}^2$ and $0.5 < |t| < 3.0 \text{ GeV}^2$, total cross sections, and the use of a minimum bias trigger to study topological cross sections, inclusive spectra, and two body correlations. Some specialized triggers, to be run simultaneously with the high t elastic scattering trigger, are being studied. Examples are a trigger requiring Cerenkov identification in a limited region of phase space, and a trigger to select diffractively produced events.

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