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Abstract

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POLARIZATION IN p-p SCATTERING FROM 1.7 GeV TO 6.2 GeV *

H. Steiner, F. Betz, O. Chamberlain,
B. Dieterle, P. Grannis, C. Schultz,
G. Shapiro, L. Van Rossum, and D. Weldon

University of California
Lawrence Radiation Laboratory
Berkeley, California

ABSTRACT

Using a polarized proton target, we have measured the polarization in p-p scattering at beam energies of 1.7, 2.85, 4.0, 5.1, and 6.2 Gev for momentum transfer in the range of 350 to 1100 MeV/c.

Quasielastic events arising from scattering on heavy nuclei in the target and other background were kinematically separated from elasti events by counting both protons in coincidence. The background counting rate was measured continuously and could be accurately subtracted from the data. At all energies considered the polarization shows a broad maximum for momentum transfer between 400 and 800 MeV/c. The maximum polarization shows a smooth decrease as the energy is increased.

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