

E-198A Proton Nucleon Scattering

During the past year the E-198 spectrometer was completed. This involved the construction and implementation of 15 MWPC planes, a remotely operated liquid helium transport system for the LBL superconducting magnets and a room temperature gas jet target. The experimental setup is indicated in the first attached figure.

During May 1976 we took preliminary data at 50 GeV incident energy with all systems operating except the quads. Although this reduced our acceptance by a factor of 40, it allowed us to fit straight line tracks to the target. This simplified the momentum and missing mass analysis which are shown in the second attached figure. The mass resolution at the elastic peak is about what we expect without the quads and is improving daily as we learn more about the dipole field and the geometry of our spectrometer.

Fig. 1 - E-198A



