HARP “8 GeV” Data taken & published

HARP data taken

- Momentum 3 – 5 – 8 – 12 GeV/c. Corresponds to protons of KE 2.20 – 4.15 – 7.12 – 11.1 GeV. Momentum known with precision to 1%.
- Positive beam (35-92% protons, π^+).
- Negative beam (π^-,e^-).
- Solid targets Ca-Al-Cu-Ta-Pb (2-5-100%λ_I) – Be-Sn (2-5% λ_I) - MiniBooNE Be target 8.9 GeV/c - K2K Al 12.9 GeV/c target .
- Cryo targets H_2- D_2 – N_2 - O_2.
- Large Angle ($100 < p < 800$ MeV/c – $0.35 < \theta < 2.15$ rad) and Forward Angle data ($0.5 < p < 8$ GeV/c – $0.025 < \theta < 0.25$ rad).

HARP Data published

- LA 12.9 GeV/c protons on Al 5%.
- LA 3-5-8-12 GeV/c protons on Ta 5%.
- LA 8.9 GeV/c protons on Be 5%.
- LA 3-5-8-12 GeV/c protons on C, Cu, Sn 5%.
- LA 3-5-8-12 GeV/c protons on Be, Al, Pb 5%.
- FA 12.9 GeV/c protons/pions on C 5%.
- FA 12 GeV/c protons on O_2, N_2.
- FA 3-5-8-12 GeV/c protons on Be, C, Al, Cu, Sn, Ta, Pb 5%.

Neutrino Factory

- 5-15 GeV KE proton beam (HARP has ~7 &11 GeV KE proton beam data).
- Hg jet target length crossed by the beam ~ 35 (?) cm (100% λ_I HARP data not published yet).
- ~1/3*of the pions produced in the LA and ~1/3* of the pions produced in the FA area covered by HARP are accepted by the front-end.

* (re-checking these numbers)