"A PROPOSAL TO STUDY PARTICLE PRODUCTION AT HIGH TRANSVERSE MOMENTA"

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ABSTRACT

We propose to study the particle constituents of a beam produced at 80 mrad lab angle (≈ 90° in the p-p c.m. system) by 200-500 GeV protons striking a target. Such an exploratory investigation would provide information on

1) hadron production at high transverse momentum.
2) the possible existence of the weak intermediate boson, heavy photons, and heavy leptons by searching for leptons with high transverse momentum.
3) the possible existence of long-lived particles (with or without fractional charge). In addition, with slight modifications of the apparatus, we could search for short-lived particles and also direct photon production.

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