

STATUS OF THE HARP HADROPRODUCTION MEASUREMENTS

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The atmospheric neutrino flux as measured deep underground is predicted by combining the measured primary cosmic ray fluxes with the geomagnetic field and simulating the interactions in the upper atmosphere. The lack of detailed measurements of the hadron interactions on nuclear targets is the major source of uncertainty in the neutrino fluxes. The HARP experiment at CERN is making extensive measurements of the cross sections and secondary particle distributions to address this problem. Carbon, aluminium, liquid nitrogen and liquid oxygen targets will be exposed to both positive and negative particle beams with energies between 2 and 15 GeV at the CERN PS during 2001. The detector consists of a TPC surrounding the target and a spectrometer with Cherenkov and time of flight particle identification covering the forward region.