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Constraining MiniBooNE Neutrino Flux Predictions with the HARP Experiment DAVID SCHMITZ, Columbia University — An accurate prediction of the muon neutrino flux and intrinsic electron neutrino background rates is important to the oscillation measurement to be made by MiniBooNE. A good understanding of secondary hadron production from the MiniBooNE target is directly linked to predicting these fluxes. Data were taken in August, 2002, at the Hadron Production Experiment (HARP PS-214) at CERN using an 8.9 GeV/c proton beam and a beryllium MiniBooNE replica target. These data are presently being analysed to measure secondary hadron production cross sections directly from the MiniBooNE target, and will provide MiniBooNE with its best constraints on absolute neutrino fluxes.

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