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The MIPP experiment and its application to neutrino beam simulations ANDREW GODLEY, University of South Carolina, MIPP COLLABORATION — The Main Injector Particle Production experiment (E907) at Fermilab measures particle production from nuclear targets using a tagged secondary beam of p, K and π with momenta 5 to 80 GeV/c and a primary proton beam of 120 GeV/c. The experiment comprises a large acceptance spectrometer for tracking and a combination of dE/dx, ToF, threshold and ring-imaging Cerenkov techniques for particle identification over the full range of the final state parameters. The MIPP data has applications in Nuclear Physics, meson spectroscopy, and neutrino beam calculations for K2K, MINOS, miniBooNE, T2K and NOvA. This talk will describe MIPP, its dataset, which has just finished collection, and highlight its application to reducing the main source of neutrino beam systematic error: hadron production. A possible upgrade to MIPP by speeding up its electronics will be mentioned.

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