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Pi+ Cross Section Analysis in LArIAT¹ GREGORY PULLIAM, Syracuse University — The Liquid Argon Time Projection Chamber in a Test Beam (LArIAT) experiment at Fermilabs Test Beam Facility exposes a liquid argon time projection chamber (LArTPC) to a test beam to study LArTPC responses to a variety of charged particles. Event identification and reconstruction techniques as well as cross section measurements from LArIAT will provide critical input to existing liquid argon neutrino experiments such as MicroBooNE, SBND and ICARUS as well as help to improve future precision neutrino oscillation measurements in the Deep Underground Neutrino Experiment (DUNE). The work presented here includes an overview of the physics program of the LArIAT experiment as well as the status of the pi+ on argon cross section.

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