DPF-PHENO 2024

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Pion-Argon Cross Section Measurement Using ProtoDUNE-SP

Tuesday 14 May 2024 14:00 (15 minutes)

ProtoDUNE-SP was a large-scale prototype of the single phase DUNE far detector which took test beam data in Fall 2018. The beam consisted of positive pions, kaons, muons, and protons, and this data is being used to measure the various hadron-Ar interaction cross sections. These measurements will provide important constraints for the nuclear ground state, final state interaction, and secondary interaction models of argon-based neutrino-oscillation and proton-decay experiments such as DUNE. This talk will focus on the measurement of the pion-argon inelastic interaction cross sections.

Mini Symposia (Invited Talks Only)

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