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Studying Neutral Current Elastic Scattering and the Strange Axial Form Factor in MicroBooNE LU REN, New Mexico State University, MICROBOONE COLLABORATION — Neutrino neutral-current elastic scattering is sensitive to the axial form factor of the proton and affords a unique method to access the strangeness contribution to the axial form factor $G_A^s(Q^2)$ and to the proton spin Δs. The MicroBooNE experiment is an 85-ton active mass liquid argon time projection chamber located at the Fermilab Booster Neutrino Beamline. MicroBooNE is able to detect protons with kinetic energy as low as 50 MeV. We present an inclusive differential cross section measurement of a signal with one proton and no other particles (NC1p) in the final state. We report the progress toward the measurement of exclusive neutral-current elastic scattering cross section and Δs extraction using a subset of MicroBooNEs data.

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