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ν_μ-Low recoil analysis in medium energy era of MINERνA Experiment[1] MARVIN ASCENCIO[2], Univ Catolica del Peru, MINERVA COLLABORATION COLLABORATION[3] — The charged-current process(ν_μA$\rightarrow$ μX) is analyzed using the MINERνA detector in the medium energy(ME) NuMI beam. ν_μ inclusive interactions in the hydrocarbon scintillator tracker are used to study the nuclear effects at low three-momentum transfer, q3, focusing mainly on Meson Exchange Current(MEC) and resonant(RES) interactions. For the RES events we studied the effects of Pauli Blocking, Removal Energy, effects of quasi-elastic(QE) Random Phase Approximation on RES, single pion production models such as the Kabirnezhad Model and others. The MEC part is studied using the SuSA model for MEC and QE with the Bodek-Ritchie tail correction. We compare the MINERνA reconstructed distribution with the GENIE simulation with the goal of measuring the flux integrated differential 2D cross section in an extended q_3 range with the ME beam.

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[3]Analysis made as part of MINERvA experiment/Fermilab

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