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Measurement of muon plus proton final states in muon neutrinos interactions on CH at 4.2GeV LAZA RAKOTONDRAVOHITRA, Fermilab/University of Antananarivo, MINERVA COLLABORATION — MINERvA (Main INjector Experiment for v-A) is a neutrino scattering experiment in Fermilab's NuMI high-intensity neutrino beam. MINERvA was designed to make precision measurements of neutrino and antineutrino cross sections on a variety of materials including plastic scintillator(CH), C, Fe, Pb, He and water. We present a result of charged-current muon neutrino scattering on hydrocarbon (CH) at an average neutrino energy of 4.2 GeV in which the final state includes a muon, at least one proton, and no pions exiting the nucleus . Although this signature has the topology of neutrino quasielastic scattering from neutrons, the event sample contains contributions from both quasielastic and inelastic processes where pions are absorbed in the nucleus.

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