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Elastic Scattering of Muon Neutrinos from Electrons in MINERvA at NuMI Beam Line

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nu_mu + e elastic scattering process is theoretically well understood in ~1% accuracy. This pure leptonic process has a distinct final state of a single, very forward electron. Measurement of the rate of such events provides a useful constraint on the muon neutrino flux incident on the MINERvA detector. Distinguishing electron from gamma background is important on the analysis. e/gamma separation based on dE/dx will be described. nu_mu + e is studied using partial data set. I present the status of single electron reconstruction and comparison of data and simulation.

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