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Data-Driven Modeling of Charged-Current Electron-Neutrino Interactions in MicroBooNE[1] MATTHEW ROSENBERG, University of Pittsburgh, MICROBOONE COLLABORATION — MicroBooNE, a Liquid Argon Time Projection Chamber (LArTPC) situated in the muon-neutrino-dominated Booster Neutrino Beam at Fermilab, is studying ν_e charged-current (CC) interaction rates to shed light on the measured MiniBooNE low energy excess. A sample of CC electron neutrino events can be produced by replacing the primary muon track candidates from CC muon neutrino events with simulated electrons. This sample uses hadron showers from data to replace those from neutrino generators which typically have large uncertainties. This can be used to cross check selection efficiencies which otherwise must also rely on models. We discuss the development of this technique in MicroBooNE, its first application in a LArTPC, and present preliminary comparisons with simulated ν_e-CC event samples.

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