Poster session 2 – Tuesday 5 July

P2.078 **Measurements of muon neutrino charged-current interactions by the MicroBooNE experiment**

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on behalf of MicroBooNE collaboration

MicroBooNE is a 170 ton Liquid Argon Time Projection Chamber (LAr-TPC) located at Fermi National Accelerator Laboratory. It has been operating in the Booster neutrino beam since October 2015 and is already demonstrating the superb imaging capabilities of LAr-TPC detectors. MicroBooNE is the first large LAr-TPC detector to be exposed to a high-intensity neutrino beam. Among its primary physics goals are precise measurements of muon neutrino charged-current (CC) interactions on Argon. In order to analyse its high-statistics data, a suite of fully automated techniques have been developed that reconstruct the LAr-TPC images and separate muon neutrino CC interactions from their cosmic-ray and neutralcurrent backgrounds. This poster will describe the reconstruction and selection of muon neutrino CC event candidates, and will present measured distributions of the observed events based on the first MicroBooNE data-taking period.