



Poster session 1 - Monday 4 July

P1.087 Signal processing in the MicroBooNE LAr TPC

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The MicroBooNE experiment is a Liquid Argon Time Projection Chamber (LAr TPC) detector located in the Booster Neutrino Beamline (BNB) at Fermilab at a baseline of 470 m and contains an active mass of 89 tons. The detector consists of a 2.5m x 2.3m x 10.4m TPC and includes an array of 32 PMTs used for triggering purposes. When primary electrons from an ionizing track drift to the detection wire planes along the electric field lines, small bipolar signals are induced on the U and V induction planes, and a large unipolar signal is induced on the collection Y plane. All current signals are processed and read out by the front end readout electronics. We present the process of converting the input raw digitized waveforms which are a convolution of detector field response, electronics response, and noise, to the deconvoluted signal (in charge and time). These ingredients are critical for the correct event reconstruction in the TPCs.