Abstract Submitted
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MicroBooNE: Proton Decay Background Studies[1] JESSICA ESQUIVEL, RICHARD CARDENAS, St. Mary's University — MicroBooNE is a Liquid Argon Time Projection Chamber detector(LArTPC) that detects and analyzes neutrino interactions using the FermiLab booster neutrino beam as well as the Neutrinos from the Main Injector beam(NuMi).[4] This experiment was proposed to look into the excess of low energy neutrino events observed by the Mini-BooNE experiment. Unlike MiniBooNE, MicroBooNE has the capability to distinguish between electrons and photons. MicroBooNE is also able to see proton decay modes that Water Cherenkov detectors like Super K aren't able to see. MicroBooNE is a benchmark for all future massive Liquid Argon(LAr) detectors and because of this, MicroBooNE will also be used to study Proton Decay background rejection, Particle Detection, and Readout procedures.

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Jessica Esquivel
SPS

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