

Abstract Submitted
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A Search for $\nu_\mu \rightarrow \nu_e$ with the MiniBooNE Experiment REX TAYLOE, Indiana University, MINIBOONE COLLABORATION — The MiniBooNE experiment, located at Fermilab, is designed to test, with high sensitivity, the LSND result which indicates $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ oscillations with a probability of $0.264 \pm 0.067 \pm 0.045\%$. MiniBooNE searches for $\nu_\mu \rightarrow \nu_e$ oscillations in a high-purity, narrow-band ν_μ beam of average energy 800 MeV. The detector is located 550 m from the neutrino source, consists of 800 tons of mineral oil, and records Cerenkov light produced in the signal reaction, $\nu_e n \rightarrow e^- p$. The experiment and analysis methods will be discussed and results from the neutrino oscillation search will be presented.

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