

Abstract Submitted
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Machine Learning Analysis of PROSPECT Data BLAINE HEFFRON, University of Tennessee, PROSPECT COLLABORATION — PROSPECT is a segmented liquid scintillator detector that has successfully measured the antineutrino spectrum at a highly enriched uranium reactor. A number of efforts are underway in order to apply machine learning (ML) techniques to improve existing cut-based data analysis. ML applications include inverse beta decay event selection, particle identification, and single PMT event reconstruction. A description of the techniques being developed is presented along with comparisons to existing analysis methods. Uncertainty estimations of the applied techniques are detailed.

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