**Applying Machine Learning to GlueX Data Analysis** THOMAS
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GlueX is a high energy physics experiment with the goal of collecting data necessary
for understanding confinement in quantum chromodynamics. Beginning in 2015,
GlueX will collect huge amounts of data describing billions of particle collisions. In
preparation for data collection, efforts are underway to develop a methodology for
analyzing these large data sets. One of the primary challenges in GlueX data anal-
ysis is isolating events of interest from a proportionally large background. GlueX
has recently begun approaching this selection problem using machine learning algo-
rithms, specifically boosted decision trees. Preliminary studies indicate that these
algorithms have the potential to offer vast improvements in both signal selection
efficiency and purity over more traditional techniques.

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