

Abstract Submitted
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Multivariate Techniques and b -tagging Optimization in Standard Model WH Searches at DO SAVANNA SHAW, Michigan State University, D0 COLLABORATION — We search for the standard model Higgs boson produced in association with a W boson using data collected with the D0 detector corresponding to 9.7 fb^{-1} of integrated luminosity of $p\bar{p}$ collisions at $\sqrt{s} = 1.96 \text{ TeV}$ at the Fermilab Tevatron collider. We select events with a lepton (e or μ), missing E_T , and two or three reconstructed jets. We split the candidate events based on the number and quality of jets that are tagged as originating from a b -quark, and apply multivariate techniques to further separate signal from background. This talk will focus on the optimization of b -tagging and the choice of variables used in the multivariate analysis.

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