

Abstract Submitted
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Search for the SM $ZH \rightarrow \mu\mu b\bar{b}$ production at D0 JIAMING YU,
University of Michigan, D0 COLLABORATION — We present a search for the low
mass standard model Higgs boson produced in association with a Z boson, using
 9.7 fb^{-1} of data collected by the D0 detector at $\sqrt{s} = 1.96 \text{ TeV}$. Events are selected
to have a Z candidate reconstructed either with two muons or one muon plus an
isolated track, and at least two reconstructed jets with one or two jets satisfying
the b-tagging requirements. A discriminant variable based on multivariate analysis
technique is used to separate the Higgs signal and backgrounds. Upper limits on
the ZH production cross section times branching ratio are set at 95% C.L. for the
Higgs mass from 90 GeV to 150 GeV.

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