

Abstract Submitted
for the APR06 Meeting of
The American Physical Society

Search for Associated Production of Z and Higgs Bosons in $e^+e^-b\bar{b}$ final states JAMES HEINMILLER, University of Illinois, Chicago, D0 COLLABORATION — Studies are presented of the search for a light Standard Model Higgs boson produced in association with a Z boson in the $Z \rightarrow e^+e^-$ and $h \rightarrow b\bar{b}$ decay channel using Run II data collected by the DØ detector at the Fermilab $p\bar{p}$ collider at $\sqrt{s} = 1.96$ TeV. We also present our current understanding of the most significant background to this process, namely the QCD production of $b\bar{b}$ associated with the Z boson.

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Date submitted: 12 Jan 2006

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