## Abstract Submitted for the APR05 Meeting of The American Physical Society

Weak Boson Fusion Studies with  $H \diamondsuit ZZ \diamondsuit ll\nu\nu$  and  $H \diamondsuit \tau\tau \diamondsuit l\nu\nu$  for CMS Experiment UGUR AKGUN, FIRDEVS DURU, YASAR ONEL, The University of Iowa — We report the studies done, by the University of Iowa CMS group, on the sensitivity of the CMS detector for the discovery of the Standard Model Higgs Boson. Signal and background rates as well as the final signal significances are evaluated for  $H \diamondsuit ZZ \diamondsuit ll\nu\nu$  and  $H \diamondsuit \tau\tau \diamondsuit l\nu\nu$  channels via vector boson fusion, in the mass range between 120GeV and 1TeV.

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