


Turkish Journal of Physics

Turkish Journal

of
Physics

 [Keywords](#)
 [Authors](#)



phys@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)

"Silver" Mode for Heavy Higgs Search in the Presence of a Fourth SM Family

Saleh SULTANSOY¹, Gökhan UNEL²

¹Institute of Physics, Academy of Sciences, Baku-AZERBAIJAN
and

TOBB University of Economics and Technology, Ankara-TURKEY

²CERN, Physics Department, Geneva-SWITZERLAND

and

University of California Irvine, Physics Department, Irvine-U.S.A.

e-mail: gokhan.unel@cern.ch

Abstract: We investigate the possible enhancement to the discovery of the heavy Higgs boson through the possible fourth standard model family heavy neutrino. Using the channel $h \rightarrow \bar{\nu}_4 \nu_4 \rightarrow \mu W_\mu W_\mu \rightarrow \mu j j \mu j j$ it is found that for certain ranges of the Higgs boson and ν_4 masses, LHC could discover both of them simultaneously with 1fb^{-1} integrated luminosity.

Key Words: heavy Higgs, LHC, fourth family

Turk. J. Phys., **31**, (2007), 295-298.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Phys., vol.31, iss.6.](#)