Neutral Higgs Bosons, Searches for

Searches for a Higgs Boson with Standard Model Couplings

Mass $m > 122$ and none 128–710 GeV, CL $= 95\%$

The limits for H_1^0 and A^0 in supersymmetric models refer to the m_h^{max} benchmark scenario for the supersymmetric parameters.

H_1^0 in Supersymmetric Models ($m_{H_1^0} < m_{H_2^0}$)

Mass $m > 92.8$ GeV, CL $= 95\%$

A^0 Pseudoscalar Higgs Boson in Supersymmetric Models [n]

Mass $m > 93.4$ GeV, CL $= 95\%$ $\quad \tan\beta > 0.4$

Charged Higgs Bosons ($H^\pm$ and $H^{\pm\pm}$), Searches for

$H^\pm$ Mass $m > 80$ GeV, CL $= 95\%$

New Heavy Bosons (W', Z', leptoquarks, etc.), Searches for

Additional W Bosons

W' with standard couplings
Mass $m > 2.900 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (pp direct search)
W_R (Right-handed W Boson)
Mass $m > 715$ GeV, CL $= 90\%$ $\quad$ (electroweak fit)

Additional Z Bosons

Z'_{SM} with standard couplings
Mass $m > 2.590 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (pp direct search)
Mass $m > 1.500 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (electroweak fit)
Z_{LR} of SU(2)$_L \times$SU(2)$_R \times$U(1) $\quad$ (with $g_L = g_R$)
Mass $m > 630$ GeV, CL $= 95\%$ $\quad$ ($p\overline{p}$ direct search)
Mass $m > 1162$ GeV, CL $= 95\%$ $\quad$ (electroweak fit)
Z_χ of SO(10) $\to$ SU(5)$\times$U(1)$_\chi$ (with $g_\chi = e/\cos\theta_W$)
Mass $m > 1.970 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (pp direct search)
Mass $m > 1.141 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (electroweak fit)
Z_ψ of $E_6 \to$ SO(10)$\times$U(1)$_\psi$ (with $g_\psi = e/\cos\theta_W$)
Mass $m > 2.260 \times 10^3$ GeV, CL $= 95\%$ $\quad$ (pp direct search)