

59 = a small number...

Theory

Experiments

~~$$\mathcal{O}_{LL,RR,LR}^{ff'} = \frac{J_f^\mu J_{f',\mu}}{m_W^2}$$~~

~~$$\mathcal{O}_{L,R}^{f(3)} = \frac{J_h^\mu J_{f,\mu}}{m_W^2}$$~~

~~$$\mathcal{O}_{W,B} = \frac{J_{h,\mu} J_{W,B}^\mu}{m_W^2}$$~~


~~$$\mathcal{O}_T = \frac{J_h^\mu J_{h,\mu}}{m_W^2}$$~~


$$\mathcal{O}_{HB,HW} = \frac{ig'}{m_W^2} (D_\mu H)^\dagger (D_\nu H) V_{V=W,B}^{\mu\nu} \quad \mathbf{2}$$

$$\mathcal{O}_{\gamma,g} = \frac{g_{\gamma,g}^2 |H|^2}{m_W^2} (F_{\gamma,g}^{\mu\nu})^2, \quad \mathbf{2}$$


$$\mathcal{O}_y^f = \frac{y_f}{v^2} |H|^2 \bar{f}_L H f_R \quad \mathbf{3}$$


$$\mathcal{O}_H = \frac{(\partial^\mu (H^\dagger H))^2}{2v^2} \quad \mathbf{1}$$

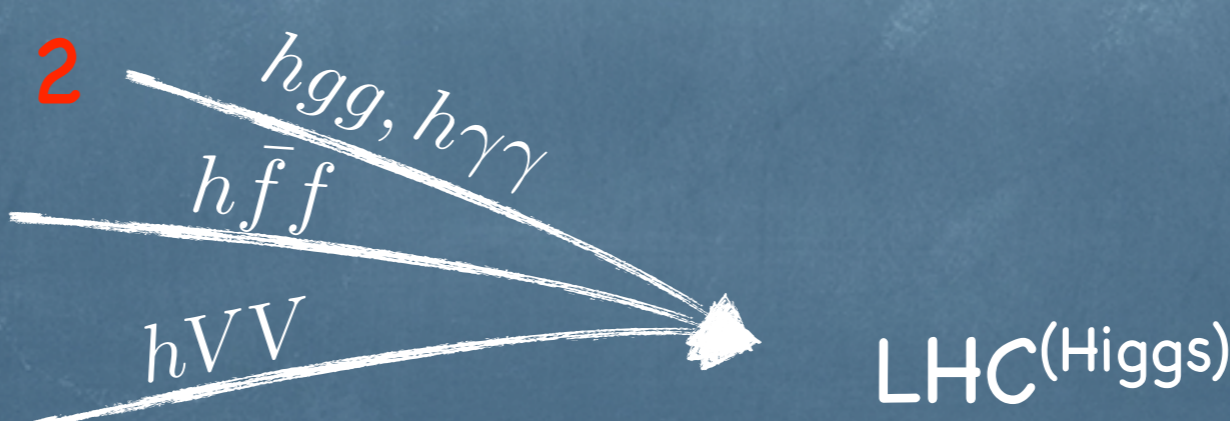
(LEP-II + LHC)^{High-E}  $\sim \frac{E^2}{m_W^2}$

$\mathbf{4}$ LEP-I (leptons) + LHC (Mw) 

$\mathbf{3}$ LEP-I (hadrons)

$\mathbf{1}$ KLOE (beta-decay) 

LEP-II (ee → WW) 



LHC (Higgs)

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4⁹+1¹

2

1

2

4

3

1

2

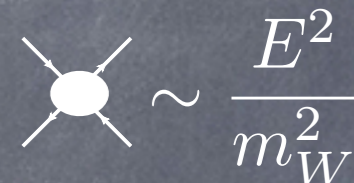
(LEP-II + LHC)^{High-E}

LEP-I (leptons) + LHC (Mw)

LEP-I (hadrons)

KLOE (beta-decay)

LEP-II (ee → WW)



$$\mathcal{O}_{\gamma,g} = \frac{g_{\gamma,g}^2 |H|^2}{m_W^2} (F_{\gamma,g}^{\mu\nu})^2, \quad 2$$

$$\mathcal{O}_y^f = \frac{y_f}{v^2} |H|^2 \bar{f}_L H f_R \quad 3$$

$$\mathcal{O}_H = \frac{(\partial^\mu (H^\dagger H))^2}{2v^2} \quad 1$$

hgg, hγγ

hff

hVV

LHC (Higgs)