

X^3

$$Q_W = \varepsilon^{ijk} W_\mu^{iv} W_\nu^{j\rho} W_\rho^{k\mu} \quad c_W$$

$$Q_{\widetilde{W}} = \varepsilon^{ijk} \widetilde{W}_\mu^{iv} W_\nu^{j\rho} W_\rho^{k\mu} \quad c_{\widetilde{W}}$$

 $X^2 H^2$

$$Q_{\text{HWB}} = H^\dagger H \sigma^i W_{\mu\nu}^i B^{\mu\nu} \quad c_{\text{HWB}}$$

$$Q_{\text{H}\widetilde{\text{W}}\text{B}} = H^\dagger \sigma^i H \widetilde{W}_{\mu\nu}^i B^{\mu\nu} \quad c_{\text{H}\widetilde{\text{W}}\text{B}}$$

 $\psi^2 H^2 D$

$$Q_{\text{Hd}} = (H^\dagger i \overleftrightarrow{D}_\mu H) (\bar{d} \gamma^\mu d) \quad c_{\text{Hd}}$$

$$Q_{\text{Hu}} = (H^\dagger i \overleftrightarrow{D}_\mu H) (\bar{u} \gamma^\mu u) \quad c_{\text{Hu}}$$

$$Q_{\text{Hq}}^{(1)} = (H^\dagger i \overleftrightarrow{D}_\mu H) (\bar{q} \gamma^\mu q) \quad c_{\text{Hq}}^{(1)}$$

$$Q_{\text{Hq}}^{(3)} = (H^\dagger i \overleftrightarrow{D}_\mu^i H) (\bar{q} \sigma^i \gamma^\mu q) \quad c_{\text{Hq}}^{(3)}$$

 $\psi^4, (\bar{L}L)(\bar{L}L)$

$$Q_{\text{qq}}^{(1,1)} = (\bar{q} \gamma_\mu q) (\bar{q} \gamma^\mu q) \quad c_{\text{qq}}^{(1,1)}$$

$$Q_{\text{qd}}^{(1)} = (\bar{q} \gamma_\mu q) (\bar{d} \gamma^\mu d) \quad c_{\text{qd}}^{(1)}$$

$$Q_{\text{lq}}^{(1)} = (\bar{l}_p \gamma_\mu l_r) (\bar{q} \gamma^\mu q) \quad c_{\text{lq}}^{(1)}$$

$$Q_{\text{lq}}^{(3)} = (\bar{l}_p \sigma^i \gamma_\mu l_r) (\bar{q} \sigma^i \gamma^\mu q) \quad c_{\text{lq}}^{(3)}$$

$$Q_{\text{qq}}^{(1,8)} = (\bar{q} T^a \gamma_\mu q) (\bar{q} T^a \gamma^\mu q) \quad c_{\text{qq}}^{(1,8)}$$

$$Q_{\text{qq}}^{(3,1)} = (\bar{q} \sigma^i \gamma_\mu q) (\bar{q} \sigma^i \gamma^\mu q) \quad c_{\text{qq}}^{(3,1)}$$

$$Q_{\text{qq}}^{(3,8)} = (\bar{q} \sigma^i T^a \gamma_\mu q) (\bar{q} \sigma^i T^a \gamma^\mu q) \quad c_{\text{Qq}}^{(3,8)}$$

 $\psi^4, (\bar{L}L)(\bar{R}R)$

$$Q_{\text{lu}} = (\bar{l}_p \gamma_\mu l_r) (\bar{u} \gamma^\mu u) \quad c_{\text{lu}}$$

$$Q_{\text{ld}} = (\bar{l}_p \gamma_\mu l_r) (\bar{d} \gamma^\mu d) \quad c_{\text{ld}}$$

$$Q_{\text{qu}}^{(1)} = (\bar{q} \gamma_\mu q) (\bar{u} \gamma^\mu u) \quad c_{\text{qu}}^{(1)}$$