Part I
LeptoQuark Mediated Neutrino Mass:

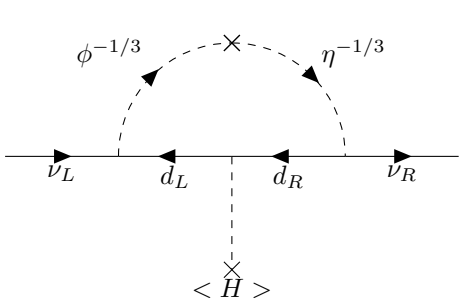
1 2×LQ

2 options:

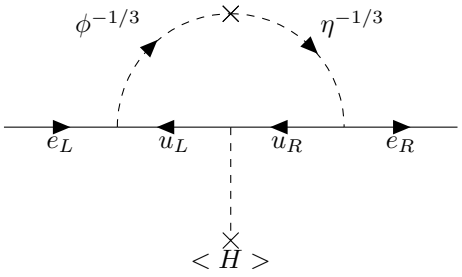
1. $e_R = +(S) \implies$ tree level
2. $e_R = -(S) \implies$ 1 loop level

$$m_\nu \propto x\left(M_d\right) x\prime \quad m_e \propto x\left(M_u\right) x\prime\prime \quad h \implies e^- e^+ \left(1{+}?\right) \text{ where } \mathcal{A} \sim m_e$$

- Phenomenology of the LQ→? and h→? decays?!
- Rare processes!

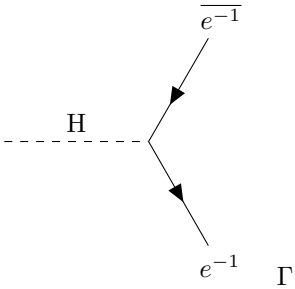


(a) Diagram contributing to Direac Neutrino Mass.

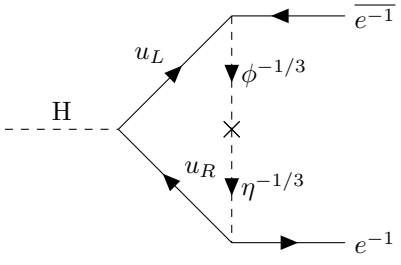


(b) Diagram contributing to Dirac Charged Lepton Mass.

Figure 1: LeptoQuark mediated 1 loop Lepton Mass Diagrams.

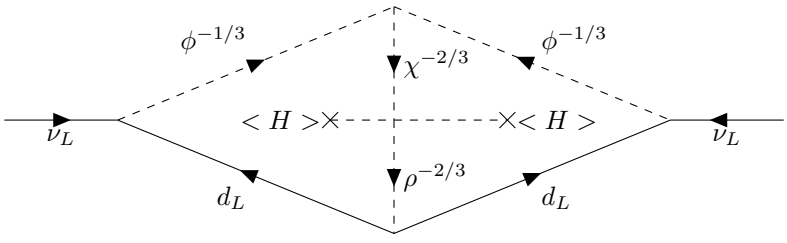


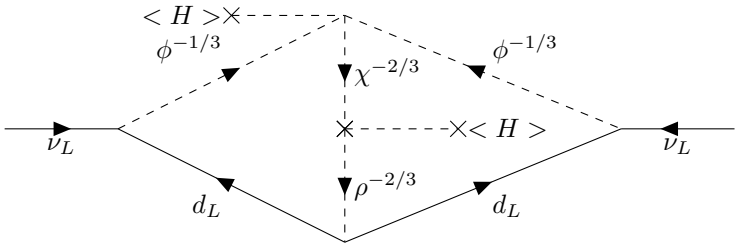
$\Gamma \sim m_e?$



$\Gamma \sim m_e f\left(1{+}?\right)?$

2 Other tries





3 1 loop, 1 LQ, d_R mixing model