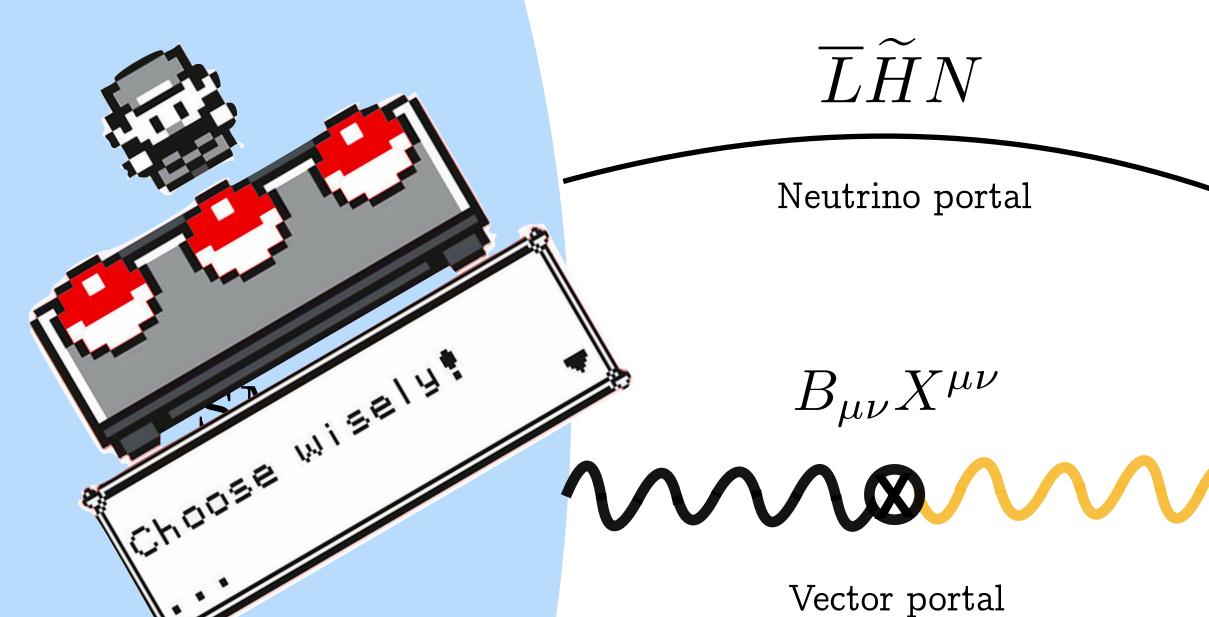
## Renormalizable Portals:

(SM SINGLET) X (DS SINGLET)

To Catch'em all



 $S^{\dagger}S\left(H^{\dagger}H\right)$ 

Scalar portal

## DARK SECTOR (DS)



Heavy neutrinos

 $\frac{M_N}{2}\overline{N^c}N$ 

Neutrino masses?



Dark photons



New fundamental forces?



Dark scalars

V(H,S)

Scalar degrees of freedom

Dim-5 axion "portal"  $\frac{a}{\Lambda}G_{\mu\nu}\tilde{G}_{\mu\nu}$  special, see other talks

$$\frac{a}{\Lambda}G_{\mu\nu}\tilde{G}_{\mu\nu}$$

