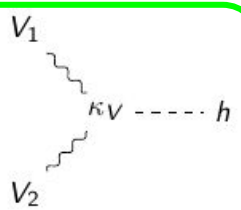
$$\mathscr{L}_h = \frac{1}{2}\left(\partial^2 - m_h^2\right) h^2 + \kappa_V g_{HVV} V^2 h + \kappa_{2V} \frac{g_{HHVV}}{2} V^2 h^2 + \kappa_\lambda \frac{g_{HHH}}{3!} h^3 + \kappa_{2\lambda} \frac{g_{HHHH}}{4!} h^4$$

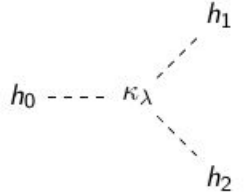
Kinetic energy term: Does the Higgs exist as a scalar particle with mass?

Kappa coupling scale-factors: Do we actually know what we're doing?

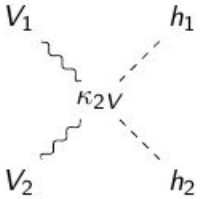
W,Z / Higgs interaction:



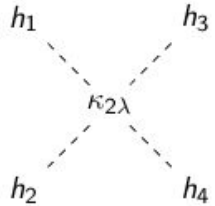
Higgs self-interaction:



W,Z / di-Higgs interaction:



Higgs four-point self-interaction:



$$g_{HVV} \equiv 2\sqrt{2\lambda}\frac{m_V^2}{m_h}, \quad g_{HHVV} \equiv 4\lambda\frac{m_V^2}{m_h^2}, \quad g_{HHH} \equiv 3\sqrt{2\lambda}m_h, \quad g_{HHHH} \equiv 6\lambda$$