

$$\mathcal{L}_\chi = \frac{f^2}{8} \langle \partial_\mu \Sigma \partial_\mu \Sigma^\dagger \rangle - \frac{f^2 B}{4} \langle \Sigma M^\dagger + M \Sigma^\dagger \rangle + \frac{m_0^2}{6} \langle \Phi \rangle^2 + a^2 \mathcal{V}.$$