

| Fields in the vertex | Variational derivative of Lagrangian by fields |
|---|---|
| $G_{\mu p} \quad G_{\nu q} \quad G_{\rho r}$ | $ggf_{pqr}(p_3^\nu g^{\mu\rho} - p_3^\mu g^{\nu\rho} + p_1^\rho g^{\mu\nu} - p_1^\nu g^{\mu\rho} - p_2^\rho g^{\mu\nu} + p_2^\mu g^{\nu\rho})$ |
| $G.C_p \quad G.c_q \quad G_{\mu r}$ | $-gg \cdot p_2^\mu f_{pqr}$ |
| $Q_{ap} \quad q_{bq} \quad G_{\mu r}$ | $gg \cdot \lambda_{pq}^r \gamma_{ab}^\mu$ |
| $G_{\mu p} \quad G_{\nu q} \quad G_{\rho r} \quad G_{\sigma s}$ | $gg^2(g^{\mu\rho} g^{\nu\sigma} f_{pqt} f_{rst} - g^{\mu\sigma} g^{\nu\rho} f_{pqt} f_{rst} + g^{\mu\nu} g^{\rho\sigma} f_{prt} f_{qst} - g^{\mu\sigma} g^{\nu\rho} f_{prt} f_{qst} + g^{\mu\nu} g^{\rho\sigma} f_{pst} f_{qrt} - g^{\mu\rho} g^{\nu\sigma} f_{pst} f_{qrt})$ |