SMQCD

$\boxed{\text{[FFV]}}$ **2 Quarks – Gluon**

$$\underset{5}{C}\left(\overline{u}_{g1}, u_{g2}, g\right) = -ig_s \delta_{g1,g2} T^{g3}_{c1,c2} \begin{bmatrix} 1 \\ \rule{1.5em}{0.4pt} \\ 1 \end{bmatrix}$$

$$\underset{6}{C}\left(\overline{d}_{g1}, d_{g2}, g\right) = -ig_s \delta_{g1,g2} T^{g3}_{c1,c2} \begin{bmatrix} 1 \\ \rule{1.5em}{0.4pt} \\ 1 \end{bmatrix}$$

$\boxed{\text{[UUV]}}$ **2 Ghosts – Gluon**

$$\underset{4}{C}\left(\overline{u}_g, u_g, g\right) = g_s f^{g1,g2,g3} \begin{bmatrix} 1 \\ \rule{1.5em}{0.4pt} \\ 0 \end{bmatrix}$$

$\boxed{\text{[VVV]}}$ **3 Gluons**

$$\underset{3}{C}(g, g, g) = \begin{bmatrix} g_s f^{g1,g2,g3} \end{bmatrix}$$

$\boxed{\text{[VVVV]}}$ **4 Gluons**

$$\underset{2}{C}(g, g, g, g) = -ig_s^2 \begin{bmatrix} f^{g1,g3,x} f^{x,g2,g4} - f^{g1,g4,x} f^{x,g3,g2} \\ \rule{8em}{0.4pt} \\ f^{g1,g2,x} f^{x,g3,g4} + f^{g1,g4,x} f^{x,g3,g2} \\ \rule{8em}{0.4pt} \\ -\left(f^{g1,g2,x} f^{x,g3,g4}\right) - f^{g1,g3,x} f^{x,g2,g4} \end{bmatrix}$$

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