QCD AND YANG MILLS LAGRANGIAN

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\begin{aligned}
1\cdot\ L_{qcd} = &-\frac{1}{2}\partial_\nu g^a_\mu \partial_\nu g^a_\mu - g_s f^{abc}\partial_\mu g^a_\nu g^b_\mu g^c_\nu - \frac{1}{4}g_s^2 f^{abs} f^{adc} g^b_\mu g^c_\nu g^d_\mu g^e_\nu - \partial_\mu W^+_\mu \\
&-\frac{1}{4}g_s^2 f^{abs} f^{adc} g^b_\mu g^c_\nu g^d_\mu g^e_\nu - \partial_\mu W^+_\mu - M^2 W^+_\mu W^-_\mu - \frac{1}{2}\partial_\mu Z^0_\mu \partial_\mu Z^0_\mu - M^2 W^+_\mu W^-_\mu - \frac{1}{2}\partial_\mu Z^0_\mu \partial_\mu Z^0_\mu \\
&- M^2 W^+_\mu W^-_\mu - \frac{1}{2}\partial_\mu Z^0_\mu \partial_\mu Z^0_\mu - \frac{1}{2c^2}M^2 Z^0_\mu Z^0_\nu - \frac{1}{2}\partial_\mu Z^0_\mu \partial_\mu Z^0_\mu - \frac{1}{2c^2}M^2 Z^0_\mu Z^0_\nu - \\
&- \frac{1}{2c^2}M^2 Z^0_\mu Z^0_\nu - \frac{1}{2}\partial_\mu A_\nu \partial_\mu A_\nu - igC_w \partial_\nu Z^0_\mu (W^+_\mu W^-_\nu - W^+_\nu W^-_\mu) \\
&- 2M^2 \alpha_\hbar H^2 - \partial_\mu \phi^+ \partial_\mu \phi^- - \frac{1}{2}\partial_\nu \phi^0 \partial_\mu \phi^0 - \beta_+ (\frac{2M^2}{g^2} + \frac{2M}{g}H + \frac{1}{2}(H^2 + \phi^0\phi^\theta + 2\phi^+\phi^-)) \\
&- \frac{ig}{2M\sqrt{2}}W^-_\mu ((e^- \lambda U^{iep\dagger}_{k\lambda}\gamma^\mu (1+\gamma^\mu) v^\lambda + (\lambda^k_j e^\dagger_+ \gamma^\mu)) + \frac{g}{2}\frac{m^e_\lambda}{M}[-\phi^+ (v^\lambda (1-\gamma^5)] \\
&- X^+ (\partial^2 - M^2) X^+ + X^0 (\partial^2 - \frac{M^2}{c_w^2}) X^0 + Y\partial^2 Y + igc_w W^+_\mu (\partial_\mu X^0 X^- - \partial_\mu X^0 X^+) \\
&+ igs_w W^+_\mu (\partial_\mu Y X^- - \partial_\mu Y X^+) + igs_w W^-_\mu (\partial_\mu X^- Y^- - \partial_\mu X^+ X^-) \\
&+ \frac{1}{2}gM[X^+X^+H + X^-X^-H + \frac{1}{c^2}X^0X^0H] + \frac{1-2c_w^2}{2c_w}igM[X + X^0\phi^+ - X^-X^0\phi^-] \\
&+ igMS_w[X^0X^-\phi^+ - X^0X^+\phi^-] + \frac{1}{2}igM[X^+X^+\phi^0 - X^-X^-\phi^0]
\end{aligned}
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2\cdot\ Z[[j,\epsilon]] = e^{-ig\int d^4x \frac{\delta}{ig\epsilon^a(x)} f^a bc\partial_\mu \frac{i\delta}{\delta j^b_\mu(x)} \frac{i\delta}{\delta\epsilon^c(x)}} \cdot e^{-ig\int d^4x f^a bc\partial_\mu \frac{i\delta}{\delta j^a_\nu(x)} \frac{i\delta}{\delta j^c v(x)}} \cdot e^{-i\frac{g^2}{4}\int d^4x f^{abc} f^{ars} \frac{i\delta}{\delta j^b_\mu} \frac{i\delta}{\delta j^c_\nu(x)} \frac{i\delta}{\delta j^{\nu\mu}} \frac{i}{\delta j^{\nu}}}
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\Gamma^\lambda_{\mu\nu} = \frac{\partial x^\lambda}{\partial x^\alpha}\cdot\frac{\partial^2 x^\lambda}{\partial x^\mu \partial x^\nu}
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