

$$\begin{aligned}
\mathcal{I}_{g,n} = & \int d^4x \mathcal{F}_{g,n}(X, X^\dagger) \left[ \left( R_{(-)\mu\nu\rho\tau} R_{(-)}^{\mu\nu\rho\tau} \right) \left( F_{(-)\lambda\sigma}^G F_{(-)}^{G\lambda\sigma} \right) + \left( B_{(-)\mu\nu}^{i\alpha} B_{(-)i\alpha}^{\mu\nu} \right)^2 \right] \\
& \times \left[ F_{(-)\lambda\sigma}^G F_{(-)}^{G\lambda\sigma} \right]^{g-2} \left[ F_{(+)\rho\sigma} F_{(+)}^{\rho\sigma} \right]^n
\end{aligned}$$