

$$\begin{aligned}
& \frac{2 \kappa^2 \pi^{bc} f s^a (\mathcal{D}_a \pi_{bc})}{\sqrt{\gamma}} - \frac{\kappa^2 \pi^b_b f s^a (\mathcal{D}_a \pi^c_c)}{\sqrt{\gamma}} + \frac{\kappa^2 \pi_{bc} \pi^{bc} f (\mathcal{D}_a s^a)}{\sqrt{\gamma}} - \frac{\kappa^2 \pi^b_b \pi^c_c f (\mathcal{D}_a s^a)}{2 \sqrt{\gamma}} - \\
& \frac{\sqrt{\gamma} R[\mathcal{D}] f (\mathcal{D}_a s^a)}{\kappa^2} + \frac{2 \sqrt{\gamma} (\mathcal{D}_a s^a) (\mathcal{D}_b \mathcal{D}^b f)}{\kappa^2} + \frac{2 \sqrt{\gamma} R[\mathcal{D}]_{ab} f (\mathcal{D}^b s^a)}{\kappa^2} - \frac{\sqrt{\gamma} (\mathcal{D}_a \mathcal{D}_b f) (\mathcal{D}^b s^a)}{\kappa^2} - \frac{\sqrt{\gamma} (\mathcal{D}_b \mathcal{D}_a f) (\mathcal{D}^b s^a)}{\kappa^2}
\end{aligned}$$