

$$\left\{ \mathcal{R}_{ka}^i h_j^a - \mathcal{R}_{ja}^i h_k^a + h_j^a h_k^{a1} \partial_{ab}^i \right.$$

$$h_j^a h_k^{a1} \partial_{a1b}^i \pi_{ba}^b \wedge \gamma_{a1b},$$

$$\left. - \frac{1}{2} \pi_{\mathcal{R}ja1}^b b_i^a \wedge \gamma_{ab} n^{a1} - \frac{1}{2} \pi_{\mathcal{R}ia1}^b b_j^a \wedge \gamma_{ab} n^{a1} \right\}$$