

$$\frac{D\mathcal{I}_m}{\mathcal{I}} = \frac{1}{4} b^a{}_m \mathcal{I}^{\parallel}_a + \frac{1}{4} b^{aa1} \hat{\gamma}_{ma1} \mathcal{I}^{\parallel}_a -$$

$$b^{aa1} Dn_{ma} \hat{\gamma}_{a1b1} h^{bb1} n_b -$$

$$\frac{1}{4} b^a{}_m b^{a1b} \hat{\gamma}_{bc} h^{b1c} \mathcal{I}^{\parallel}_{a1} n_a n_{b1} +$$

$$\mathcal{A}_{acm} b^{aa1} \hat{\gamma}_{a1b1} h^{bb1} n_b n^c -$$

$$Dn_m{}^a \chi_a - \mathcal{A}_{aa1m} n^a \chi^{a1}$$